

# HISTORY

OF

# NASHVILLE, TENN.,

WITH FULL OUTLINE OF THE

NATURAL ADVANTAGES, ACCOUNTS OF THE MOUND BUILDERS, INDIAN TRIBES, EARLY SETTLEMENT, ORGANIZATION OF THE MERO DISTRICT, AND GENERAL AND PARTICULAR HISTORY OF THE CITY DOWN TO THE PRESENT TIME.

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ILLUSTRATED.  
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1890.

was soon re-established as a Confederate post-office, with Mr. McNish as postmaster, but was abandoned in February, 1862, when the city was evacuated. It was re-established as a Government post-office March 20, 1862, with John Lellyett as postmaster. He was removed by Andrew Johnson, military governor of Tennessee, and Adrian V. S. Lindsley appointed June 12, 1862. Judge Bowling Embry was appointed April 20, 1867; Major Enos Hopkins, May 5, 1869; Colonel William F. Prosser, March 31, 1871; Herman W. Hasslock, February 12, 1874; Dr. William Jones, May 22, 1877; General Benjamin F. Cheatham, October 19, 1885; Mrs. Anna B. Cheatham, September 25, 1886; John H. Currey, January 30, 1888; and the present incumbent, Andrew W. Wills, September 6, 1889.

One of the present carriers, Jerry Buckley, has been connected with the office twenty-six years, and Captain L. L. Terry twenty-four years, with the exception of fourteen months.

The post-office was located on the public square from the time of its establishment until 1834, when it was removed to the Colonnade building, at the corner of Cherry and Deaderick Streets. It was afterward removed to the corner of Cherry and Union Streets; then to the south-east corner of Cherry and Cedar Streets; then to the corner of Cherry and Church Streets; then to Concordia Hall, at the north-west corner of Cherry and Cedar Streets; and finally to its present location in the United States custom-house building, on Broad Street between Spruce and Vine Streets, in 1881.

In 1877 the number of registered letters delivered was 11,194; letters delivered, 1,060,059; postal-cards delivered, 207,011; local letters delivered, 81,843; local postal-cards delivered, 56,689; newspapers delivered, 674,313; letters collected, 551,561; postal-cards collected, 164,733.

For the year ending June 30, 1889, the statistics for the Nashville post-office were: Registered letters delivered, 38,706; mail letters delivered, 3,469,358; postal-cards delivered, 675,915; newspapers delivered, 1,687,758; local letters collected, 247,171; mail letters collected, 2,166,425; local postal-cards collected, 157,950; mail postal-cards collected, 359,014; newspapers collected, 309,633; aggregate number of pieces handled, 9,111,921; number of carriers, 25; average pieces per carrier, 364,477; cost of service, \$19,822.77; cost per carrier, \$782,81; postage on local matter, \$12,089.99.

For the sake of comparison it may be noted that the aggregate number of pieces handled at the Memphis post-office was 7,385,777; at Chicago, 329,466.635, and at New York, 399,601,575.

One of the most important problems the corporation of Nashville has

had to deal with has been that of securing an abundance of pure, wholesome water for general purposes. Nashville was located where it is on account of water privileges. These water privileges in the early days of the town's existence consisted almost entirely of springs. Judge McNairy's spring was to the north, Wilson's spring was in Barrow's Grove, and there was a fine spring on the bank of the river at the foot of Spring (Church) Street. As the town increased in population the problem of the water supply became a graver one and more imperative of solution. Temporary and simple water-works were resorted to, but were soon found totally inadequate to the demands made upon them. The Mayor and Aldermen, on January 29, 1823, in order to remedy the evils of carting water for the inhabitants, which was at the best an unsatisfactory and expensive method, appointed a committee to inquire into the expediency of supplying the city with pure and wholesome water, and on May 5 following a contract was made for the accomplishment of this object by a grant of certain privileges to an individual. The works erected under this contract did not, as intimated above, fulfill the expectations of the citizens or of the Mayor and Aldermen. The experiment did, however, accomplish one result—that of satisfying the citizens that their comforts and necessities should never have been placed under the control of an individual, and that they should not be placed in the control of an association which had been or which might be more anxious to secure the greatest possible benefit to themselves, even to the almost, if not entire, disregard of all the beneficial objects which had induced the public to bestow upon them almost exclusive privileges.

On July 7, 1830, the City Council of Nashville, under the authority of the General Assembly, passed an act to borrow \$50,000 for the purpose of erecting water-works, the first debt incurred by the city. Many of the merchants and public men of the city at that time were from Philadelphia, and the credit of Nashville stood high in that city. The City Council had ascertained by correspondence that they could borrow in Philadelphia the amount authorized by the act mentioned above on bonds of the city; and upon the execution of the bonds notified the life insurance company of that city, of whom it was intended to borrow the money, that its bonds were ready, and if the company would forward the \$50,000, they would then send to Philadelphia the bonds for that amount. This proposition did not meet with the approval of the Philadelphia financiers, and they therefore said: "No; but if you will forward the bonds, we will then forward to you the \$50,000." The Council thereupon sent some individual, whose name has not been preserved in the records, to Philadelphia with the bonds, he to return with the money by way of Virginia, in which State

he was instructed to buy about a dozen negroes for the corporation, the design being to use the negroes in constructing the water-works and laying the pipes in the streets. This mission was honestly and successfully performed, the money remaining after the purchase of the negroes was made and the negroes themselves arriving safely in Nashville at the proper time.

On October 1, 1830, the Council appointed a Water Committee; and on January 19, 1831, Albert Stein was appointed Engineer, to direct and superintend the execution and completion of the works. Mr. Stein presented his plan on the 21st of the same month, together with his estimates, which were accepted. His plan was to supply the city with water from the Cumberland River above the city, by means of a reservoir and a steam-engine. Mr. Stein said that by his plan the following results would be accomplished:

1. The water supply would be pure and wholesome.
2. The supply would be sufficient for culinary and other purposes, for cleaning streets, and extinguishing fires.
3. The surface of water in the reservoir must be as high as possible above the city, so as to make the water valuable for the extinguishment of fires.

The cost of water, as the inhabitants were then supplied, was 12½ cents per barrel of twenty-five gallons, and the committee made the estimate that at that rate it would cost to supply five hundred families with water for a year \$22,812.50. When the new water-works should be completed each family would get two hundred gallons of water for the same price it was then paying for eleven gallons; hence it was seen what an immense advantage the citizens would enjoy from the completion of the new water-works, as compared with those they were then enjoying, or, rather, from which they were then suffering.

On January 17, 1831, a contract was made with Joseph Anderson & Co. for the delivery of the necessary pipes and castings; and on February 25, 1831, upward of four acres of ground, bounded on the north by the Cumberland River and on the south by the public road, were purchased of A. P. Maury, for a site for the reservoir, pump, and engine-house. During the same year the Water Committee caused to be excavated the site for the reservoir, built its walls, and excavated a part of the ditches for the pipes. Joseph Anderson & Co. failing to fulfill their contract, the committee made a new contract with Baxter, Hicks & McAuley for the delivery of cast-iron pipes and such other castings as were necessary for the enterprise. Upon the failure of these parties, another contract was made with Yeatman, Woods & Co., and, upon their failure,

still another contract was made with S. & J. Stacker, of Montgomery County, for the delivery of two hundred cast-iron pipes, six inches in diameter in the clear. On November 21, 1832, there had been laid in the streets of the city pipes as follows: Six-inch pipe: At the reservoir, 47 feet 4½ inches; in Market Street, between Broad Street and the public square, 1,882 feet 4 inches; on Spring Street, between Market and College Streets, 276 feet 3½ inches. Total, 2,206 feet. Three-inch pipe: At the public square, 430 feet 10 inches; on College Street, between Spring Street and the public square, 103 feet 2 inches. Total, 534 feet. In the erection of the water-works up to this time the cost to the city had been \$11,188.

The water-works were completed in the fall of 1833, at a total cost for ground, superintendence, engine, etc., of \$55,000. This was \$5,000 in excess of the loan made with which to construct them; but, fortunately for the corporation, the price of slaves had so risen during the two and one-half years that were consumed in the construction of the works that this extra expenditure was covered by the profit derived from the sale of the negroes that had been engaged upon them, all being sold except one or two, who remained the property of the city until the breaking out of the war.

In anticipation of the completion of the works, John M. Bass, one of the Aldermen, introduced the following preamble and resolution:

“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 Water 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 the 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 for so great an occasion.”

In accordance with the above resolution, the inauguration of the water-works occurred on October 1, 1833, and the rejoicing of the people was very great. The cannon was fired, and a procession was formed, composed of hundreds of citizens, a large number of ladies, members of the Legislature, and strangers.

Efforts were made subsequently, as the necessity became more and more evident, to increase the facilities for procuring more and better water for the city. Some account of these efforts is given in connection with the brief sketch of the work of the Board of Health in this chapter.

In 1877 considerable progress was made in the development of the wa-

ter-works system. In June of this year two double engines, built by Dean Brothers, were purchased by a committee appointed for the purpose of making a thorough investigation of the different kinds of pumping machinery in use in different cities of the West. At first the "Dean pumps," as they were called from the manufacturers, were quite severely criticised by many of the inhabitants of the place. The reason for this criticism was the supposed incapacity of the pumps. The special committee which made the investigations defended the action of the city fathers, saying that the Dean pump had, so far as their investigations had been carried, given universal satisfaction, and specified seven cities in Illinois and Indiana where it was in use. Considerable work was done on the engine-house, and in addition a new wrought-iron stand-pipe was erected, inclosed in a brick tower, near the old reservoir, the top of which was two hundred and seventy-six feet above low-water mark in the river. There was also laid a new rising main pipe, three feet in diameter, provided with the necessary check-valves; and also, in the reservoir, with suitable valves, overflow pipes and reducers, connecting with the main pipe leading to the city.

The filtering gallery at the island was constructed that year and placed in its position. This gallery was one hundred and thirty-two feet long, thirteen feet wide, and six feet high. The gallery was entirely of cast and wrought iron, and when settled into its position the top of it was but little above low-water mark. In 1880 the Superintendent of the water-works, Mr. James Wyatt, reported the gallery in good order, free from deposits of sediment or silts of any kind. James Wyatt was appointed Superintendent of the water-works in 1869, by Receiver John M. Bass, and occupied that position until 1881, when he was succeeded by the present Superintendent, George Reyer.

Four new compound, non-condensing Worthington pumps were put in in 1883, each pump having a capacity of two and one-half million gallons each twenty-four hours, which, added to the horizontal high-pressure pumping engine, constituted the pumping machinery of the water-works until 1888.

In 1887 the necessity of a new reservoir became very apparent. The old reservoir was not of such an elevation as to supply the highest points in the city without considerable difficulty. It was only one hundred and seventy-seven feet above low water, and there are several places in the city very nearly as high. The intersection of Vine and Union Streets is one hundred and sixty-five feet above low water, and Belmont and Demonbreun one hundred and seventy-six feet. The stand-pipe was necessary to supply such points as these, and at times when the pumpage was

very large (as in August and September) the demand during the day was beyond the capacity of the pumps, and no stand-pipe pressure could be held.

A new reservoir was therefore a necessity, and one was constructed of stone on Kirkpatrick Hill, the summit of which before being graded down for the reservoir was three hundred and sixteen feet above low-water mark, and after grading three hundred and eight feet. The reservoir built on this hill has a capacity of fifty million gallons, and was completed in August, 1889. It is a magnificent piece of masonry, is a most prominent object, and is visible from all parts of the surrounding country.

A new pumping station was established in 1888, about three and one-half miles above the city. At this station a new Holly engine was set up, which, while it was not in operation during the entire year ending September 30, 1889, yet gave important results. It is a compound condensing duplex machine, guaranteed to pump ten million gallons per day two hundred and eighty feet high, through seven thousand feet of three-foot mains, giving a duty of eighty-two million foot pounds for every eight hundred pounds of steam used. During the year at the old station there were pumped twenty-five hundred million gallons of water, at a cost of \$19,817.30, while at the new station there were pumped thirteen hundred million gallons of water, at a cost of \$6,000.

The line of thirty-six inch main from the new pumping station to the new reservoir was completed in the early fall of 1889, and during the succeeding winter the Spruce Street main, from the new reservoir to Broad Street, was laid. A contract was made in 1889 with H. R. Worthington for new pumping machinery, which is guaranteed to pump ten million gallons in twenty-four hours, which is to be in readiness by August 10, 1890.

The Board of Health early in its history began to agitate the question of a pure and ample supply of water for the city. This was in 1866, and their views urged upon the Council soon attracted wide-spread and eager public attention. Little was done, however, for several years. It was not until after the fearful ravages of the cholera in the summers of 1866 and 1873 had added to the potency of the arguments of the Board of Health that the people insisted upon something being done. James Wyatt, Superintendent of the water-works, in 1876 brought forward his idea of using the corporation island as a filter; but as his petition for an appropriation of \$50 was not likely to be favorably acted upon by the Council, the following resolutions were unanimously adopted by the Board of Health, July 9, 1876:

*“Resolved, That in the opinion of this Board the plan suggested to*

the City Council by Mr. James Wyatt, Superintendent of the water-works, of converting the island above the city into a filtering apparatus for purifying the water supplied to the city is of the greatest importance, and in appearance quite feasible.

“*Resolved*, That we hope the small appropriation asked for to test the matter practically will be allowed.

“*Resolved*, That we assure the City Council that a system of purifying the drinking-water of the city is imperatively demanded on the score of health and decency, and that our people cannot much longer be imposed upon in the quality of water supply.”

In response to this earnest request of the Board of Health the City Council immediately made the appropriation. On the 30th of September, 1876, the question of expending \$110,000 for a new engine was voted upon, and resulted in favor of the expenditure by a vote of 2,380 to one of 474 against it. It then became clear to the Board that while an abundance of water was being secured, an abundance of *good* water should be secured, and in order to carry out this idea it invoked the aid of seven public-spirited citizens to the end that a series of public meetings might be held for the freest possible conference upon the subject. These meetings occurred at the health office during the months of October, November, and December, 1876, and January, 1877. Many prominent citizens took part in the discussions, and the proceedings were fully reported in the daily papers. At one of these meetings an elaborate paper was read by Dr. Thomas L. Maddin, of which the Board had four thousand copies printed and circulated throughout the city. A citizens' committee presented its matured views in a report which was published in the *American* of January 19, 1877. The committee was composed of the following gentlemen: J. M. Hamilton, J. M. Safford, Thomas L. Maddin, John M. Lea, T. A. Atchison, N. E. Alloway, and K. J. Morris. The report of this committee acknowledged the fact that there were increased sickness and mortality in Nashville, and attributed it to impure water and air. Besides being impure, the supply of water was inadequate to the demand. The committee said they were convinced of the value of the island filterage system of Mr. Wyatt. The system was not a novelty. It had been tried successfully in Lyons, France; in Taunton, Mass.; and in Denver, Colo. The building of a new reservoir was recommended, with ample dimensions and elevation. There were plenty of fine sites—Foster's Hill, Rains's Hill, St. Cloud Hill, McCampbell's Hill, and Currey's Hill. Special attention was called to the inadequate sewerage system of the city. The topography of the city was eminently exempt from natural sources of infection; the great



trouble was in the management of the city's affairs. There was a never-ceasing current of poisonous air flowing from every under-ground sewer in the city. The State prison sewer was particularly bad, and the committee suggested that the Legislature be asked to construct a proper sewer from the prison to the river in the bed of Lick Branch. The committee finally recommended that if it were determined to raise money for the increase in the capacity of the water-works by means of a bonded debt, application be made to the Legislature for authority to issue bonds, and that the water-works should be hypothecated for their payment. The water supply and its finances should be separated from the city treasury and placed in the hands of three citizens as commissioners, whose duty it should be to regulate the entire matter of water supply. In order to give the Council confidence in water-works bonds the committee presented quotations of such bonds in over fifty different cities where water-works had been established, mainly in the Eastern and Northern States, showing the estimation in which they were held in those cities. The prices of these bonds in the market varied from 97 at Louisville, the only place where they were quoted at less than par, to 118½ for New York 7 per cent bonds.

On January 22 the Board of Health passed a resolution that the Mayor be requested to lay before the Council the above report of the citizens' committee, and to secure action upon it as early as possible. Accordingly, on the 23d Mayor Thomas A. Kercheval sent to the Council a message upon this subject, urging upon them the necessity of a purer and more abundant supply of water, if the death-rate was to be decreased or even prevented from increasing.

Efforts were then made in accordance with the tenor of the report of the committee of citizens to secure legislation from the General Assembly authorizing the issuance of bonds to a limited amount for the erection of new water-works. The bill passed the Senate, but failed in the House. The advocates of pure water, though thus temporarily defeated, were determined to succeed in some way in supplying the city's great need. They thought that \$110,000 would not only supply new machinery, but would also do something toward meeting the expense of bringing good water from the island filter, or, in case the filter should prove a failure, from the river above the island, where the water was comparatively free from pollution. Committees of the Council, though working slowly, yet worked effectively, one of them especially doing most efficient work in visiting various Western cities for the purpose of examining their water-works machinery. From their report, published in full in the *American* of June 17, 1877, the following items are taken. According

to that report, the committee, which consisted of William H. Perry, James Wyatt, and W. F. Foster, had visited Indianapolis, Chicago, Milwaukee, Rock Island, Davenport, Peoria, Alton, and St. Louis. They submitted a description of the water-works machinery in each of these places, in order that the City Council of Nashville might be thoroughly informed before making a selection. The final result of their labors has heretofore been seen in the brief sketch of the water-works themselves.

In 1866 Asiatic cholera prevailed in many parts of the United States. On this account fear was again felt for the safety of the city, the Nashville Medical Society sounded the alarm, and the result was the establishment of the Board of Health of Nashville. A meeting of the profession, called by Dr. C. K. Winston, was held at the office of Dr. T. L. Maddin June 5, of that year, at which two physicians were selected in each ward for sanitary work. The names of these physicians were as follows: First Ward, W. A. Cheatham and J. R. Buist; Second Ward, J. C. Newnan and H. M. Compton; Third Ward, T. L. Maddin and W. L. Nichol; Fourth Ward, J. W. Morton and W. B. Maney; Fifth Ward, J. D. Winston and J. H. Callender; Sixth Ward, T. B. Buchanan and J. D. Plunket; Seventh Ward, E. F. P. Pool and J. H. Currey; Eighth Ward, C. A. Brodie and J. A. Beauchamp; Ninth Ward, F. M. Hughes and Van S. Lindsley; Tenth Ward, T. A. Atchison and D. Du Pre.

The organization of the Board was effected by the election of Dr. J. C. Newnan, President; and Dr. J. D. Plunket, Secretary and executive officer. During the same month of June three other meetings were held, and the Board was divided into committees on hygiene, nuisances, endemic diseases, epidemic diseases, meteorology and mortuary reports. On the 18th Dr. W. Horton took the place of Dr. J. H. Currey. On the 26th, as a result of a conference on the subject with the city government, a bill was passed establishing the Board of Health. In July and August the Board met five times. The cholera was approaching the city from Louisville, but up to August 11 Secretary Plunket reported but one case, that of a visitor from Cincinnati. Seven deaths occurred by the 31st of the month, and by the 15th of September the epidemic was well under way. The *Nashville Dispatch* of that date estimated that over eight hundred deaths had occurred in the city, and said: "With the single exception of Memphis, the mortality has been greater in Nashville, according to population, than in any other city it has visited in this country." It also said that the cholera raged with greater violence during that time than at any former time. This paper also said:

"Under the smart of this terrible punishment for inattention to the warnings of medical science, the municipal authorities no longer hesi-

tated to make the Board of Health a reality. On the 11th of April, 1867, the ordinance organizing the Board of Health was so amended as to create a Health Officer, with a salary of \$1,800 per annum. During the whole year he was subject to the instructions of the Board, and with the exception of five months his entire time was devoted to the duties of his office. The Health Officer was nominated by the Board of Health, and was elected by the joint vote of both boards of the City Council.

“On April 15, Joseph S. Jones, M.D., Professor of Physiology and Pathology in the Medical Department of the University of Nashville, was nominated as Health Officer, and afterward duly elected. He was the first person who filled that office in Nashville or in Tennessee. An expert scientist, and a physician who had filled a high position in the army of the Confederate States during the four years’ contest, he was thoroughly furnished for the difficult task to which he was summoned. He devoted his entire energies to the work, was cordially sustained by the Board, the city government, and the citizens generally.

“Nashville had in earnest entered upon a career of sanitary reform, which if continued for a few years would have the city as renowned for health as it has always been for intellect.

“All this was frustrated by the strange political anomaly which disfranchised the wealth, intellect, and virtue, while it enfranchised the vice, ignorance, and misery of the city. From the minutes of the Board of Health it appears that on December 11 Professor Jones was unanimously and against his own protest nominated as Health Officer for the year 1868. The city government ignored this nomination, and elected a candidate of their own. The Board of Health did not see proper to contest this illegal step, and virtually came to an end, although a futile attempt was made to revive it in July, 1869, when John M. Bass, as Receiver, replaced the entire city government. Against the respectful remonstrances of the Board, he made the fatal mistake of economizing at the expense of public health.

“In 1873, a year whose fame will long be connected with that of Asiatic cholera, Nashville received another severe and costly lesson on the importance of sanitary common sense, and on May 27, 1874, the ordinance creating the present Board of Health became a law.”

On the 1st of June, 1874, a meeting of those physicians elected by the City Council on May 28 as members of the Board of Health was held in the Mayor’s office at 4 P.M. There were present Mayor Thomas A. Kercheval and Drs. C. K. Winston, J. D. Plunket, H. M. Compton, and J. R. Buist. After a temporary organization of the Board had been effected, the members agreed that the permanent Presidents of the Board

should be chosen in the order of their terms of service, beginning with the one-year term member. Dr. J. D. Plunket was under this rule elected President of the Board of Health, and Dr. J. R. Buist was chosen Secretary. Dr. Winston moved that the Mayor be requested to provide the Board of Health with a digest of the sanitary laws and regulations of past City Councils, and that the Secretary recommend to the Board a list of standard works on public health, and periodicals and reports of other Boards of Health suitable for the Board to purchase. A committee was then appointed to prepare by-laws for the government of the Board.

The second meeting of the Board was held June 3, when Dr. John W. Morton, at that time City Physician, was elected Health Officer. The third meeting was held June 8, when it was decided that the Board should hold its regular meetings on the first Tuesday in each month from the first Tuesday in October to the first Tuesday in April, and bimonthly for the remainder of the year. At the first meeting in June each year the officers should be elected. The Health Officer was required to be a graduate of some regular medical school, and the President, Secretary, and Mayor should constitute the Executive Committee, whose duty it should be to present and advocate before the City Council all matters and questions which the Board might refer to it. On June 13 rooms for the meetings of the Board of Health were secured over Ambrose's restaurant, on the corner of Cherry and Union Streets, at \$240 per annum. At the first called meeting, held June 24, the Health Officer made a report showing that twenty-two nuisances, in the shape of foul privies and back yards, had been abated, and some forty-eight others had been ordered to be cleansed, including cellars. He also reported that a large number of cellars on the north side of Broad Street, between Summer Street and the river, were flooded with foul water, and that they would refill as soon as emptied. It was considered doubtful whether they should be ordered emptied or not. It was, however, evident that a large sewer was needed along the north side of Broad Street in order that the cellars could be drained, and a resolution was adopted urging upon the City Council the construction of a sewer at that place.

In July, 1874, a case of Asiatic cholera occurred at Louisville, Ky., and the Nashville Board of Health, in order to prevent, if possible, that disease from reaching here, made a requisition of the Street Commissioner for twenty carts, to the end that there might be a thorough cleansing of the city. The city was divided into four equal districts, to each of which the Health Officer was required to assign one sanitary inspector with five carts, who was to proceed in an energetic and systematic manner to thoroughly clean each district. On August 4 the Signal Officer

at this point agreed to make his meteorological report end on Friday night at 9 P.M., to cover the same period included in the mortuary report of the Board of Health.

On February 20, 1875, Dr. W. J. McMurray took the place of Dr. Buist, who had resigned, and Dr. H. M. Compton acted as Secretary. Dr. McMurray became Secretary *pro tem.* May 4, 1875, and served a short time. On June 15, 1875, in accordance with the rule adopted at the organization of the Board, Dr. C. K. Winston became President. Dr. McMurray went out in October, having been elected Alderman, and Dr. Buist was chosen to fill the vacancy. During the same month Thomas A. Kercheval again entered the Board as Mayor. December 15, 1875, Dr. Plunket introduced a bill to establish two dispensaries, in which there should be a system of charity examinations and prescriptions by a physician recommended by the Board of Health to take charge of charity patients. This bill was sent to the City Council for their action. The Health Officer was appointed to procure vaccine virus, and on January 4, 1876, was requested to prosecute with vigor the work of vaccinating such as had not been vaccinated. On January 6 the physicians who had volunteered to perform this work were ordered to proceed in squads of two, accompanied by a policeman, through the streets of the city and vaccinate all persons who had not been vaccinated. These volunteer physicians were: J. A. Draughan, W. W. Gray, R. D. Winnett, J. W. McAllister, J. W. Mayfield, B. F. Manlove, J. W. Lightfoot, N. G. Tucker, C. E. Knott, P. R. Bailey, W. F. Glenn, W. D. Haggard, and T. R. Kimbrough.

On June 7, 1878, Dr. J. B. Lindsley was elected Health Officer for two years, to succeed Dr. J. W. Morton. On the 20th of this month the Nashville Board of Health recommended the appointment of a State Board of Health, which recommendation was afterward acted upon. On this day occurred the death of Dr. H. M. Compton, from sun-stroke, while answering a call. The Board of Health passed appropriate resolutions of respect next day.

At their meeting on the 20th Dr. Plunket introduced the following resolutions, which were adopted by the Board:

*“Resolved,* That the meteorological observations made by the United States Signal Service here and at other points are of the greatest value to the physician, as well as to the agriculturist and merchant.

*“Resolved,* That the value of the observations here, in a sanitary point of view, will be greatly increased by proper registration of the variations of ozone in the atmosphere.

*“Resolved,* That the director of the United States Signal Service be

petitioned to supply the Nashville station with the necessary means for such registration."

The Health Officer was directed to transmit these resolutions, and in response received a prompt reply, as follows:

"War Department, Office of the Chief Signal Officer, Division of Telegrams and Reports for the Benefit of Commerce and Agriculture. Washington, D. C., July 10, 1876.

"J. Berrien Lindsley, M.D., Health Officer, Nashville, Tennessee.

"*Sir*: By direction of the Chief Signal Officer of the Army, I have the honor to acknowledge and answer your communication of the 6th inst., communicating resolutions of the Board of Health of Nashville relative to special observations for the benefit of the public health.

"This subject has frequently been considered in this office. What it does in the domain of climatology is in addition to its regularly defined duties. and it is quite certain that to enter upon the kind of observations to which you refer would require a very liberal construction of the laws and orders relating to this service. It would, however, afford this office satisfaction to enter upon the additional field of usefulness, if authorized and provided with facilities; but every new observation would require more money and more force, whereas it seems probable that Congress will diminish both the money and force before allowed, thus rendering necessary an abandonment of work now performed.

"The proper course for the Board of Health would be to address to Congress resolutions showing the importance of increasing the appropriations and force of the Signal Service, and send them to the proper Representatives and Senators; also, one copy to this office, that it may be referred to. The present resolutions, however gratifying as showing appreciation of the work of the service, are not practically useful for the immediate object the Board has in view, as the facilities must be given by Congress before they can be used to comply with the request of the Board. Respectfully yours,

GARRICK MALLERY,

\* Captain and Brevet Lieutenant-colonel U. S. A., Acting Signal Officer and Assistant."

At a meeting of the Board, held July 20, acting upon the suggestion in the above communication, it was unanimously resolved that the following memorial be sent to the Senators and Representatives in Congress from Tennessee:

"The Board of Health of the city of Nashville do hereby respectfully memorialize the Senators and Representatives of the State of Tennessee, in Congress assembled, as follows:

"Whereas by an Act of Congress, approved February 9, 1870, it was made the duty of the War Department to make, register, and publish, by telegraph and otherwise, an extended series of meteorological observa-

tions; and whereas the United States occupy climates and areas peculiarly fitted for solving the great problems connected with epidemics and public health, as well as intricate questions connected with the physical sciences which Franklin and Morse did so much to develop; and whereas this invaluable series of observations is utterly beyond State and individual effort, and yet is alike beneficial to all the individuals and States composing the Union;

“Therefore we do earnestly hope that your influence and votes will be so used as to increase and extend, and not to cripple, the singularly beneficent and peaceful workings of this small portion of the national army.”

Many other Boards of Health took similar action, as did also several commercial, industrial, and scientific bodies; but Congress turned a deaf ear to their petitions, and the great work suggested by the Nashville Board remains as yet untouched.

On August 1, 1875, James Wyatt's plan for converting the island in the Cumberland River into a great filtering apparatus was resolved by the Board to be of the greatest importance and in appearance feasible. On September 5 Mayor Kercheval reported that he had visited the island, and that Mr. Wyatt, Superintendent of the water-works, had commenced the filtering process, and that the outlook was quite encouraging.

The great questions with which the Board had to deal were those of water supply, drainage, sewerage, and night and day scavengering. On January 2, 1877, ten physicians were appointed—one for each ward—to collect facts regarding the prevalence of disease in the wards. The ten physicians were W. J. Sneed, W. F. Glenn, T. L. Maddin, Gustavus Schiff, T. A. Atchison, A. A. East, W. J. McMurray, John B. McConnell, N. G. Tucker, and James B. Stephens, named in the order of the number of the wards.

Dr. J. R. Buist was elected President of the Board June 19, 1877, and Dr. J. B. W. Nowlin Secretary. At this meeting the Meteorological Committee of the Board of Health was made a permanent committee.

On July 12, 1877, a contract was entered into with Hasley & Wyatt, of the Odorless Excavating Company of Baltimore, to do the scavenger work of the city, at 7 cents per cubic foot for all matter contained in boxes, and 9½ cents for all matter contained in vaults, pools, etc.

On July 13, 1877, an ordinance was passed by the City Council, creating an efficient scavenger force for the city. By this ordinance the city was divided into three scavenger districts, District No. 1 comprising all that part of the city south of Broad Street; No. 2, all that part of the city between Broad and Cedar Streets; and No. 3, all that part of the city

north of Cedar Street. The force was divided into two classes: kitchen garbage scavengers and public scavengers.

Dr. J. D. Plunket was elected President of the Board of Health June 4, 1878; Dr. J. B. W. Nowlin, Secretary; and Dr. J. Berrien Lindsley, Health Officer. On August 16 the following resolutions were adopted:

“Whereas the existing prevalence of yellow fever in neighboring cities and towns to the west and south of us, and its tendency to be propagated northward along the routes of travel, give rise to reasonable apprehension that travelers from these infected districts may arrive here while suffering from this disease; and whereas there is a possibility that this disease, imported thus early in the hot season, may find foothold and spread through the community; and whereas the ordinance creating this Board forbids its placing any quarantine restrictions upon travel or merchandise; therefore be it

“*Resolved*, That this Board of Health respectfully asks the honorable Mayor and City Council to invest it with legal power and authority to put in force such restrictions and regulations upon travel by railroad and otherwise as in the judgment of this Board the protection of the citizens and the exigences of the occasion may demand; and, should the Council approve of the above request, that they further indicate what amount of money shall be at the command of the Board for the purpose named.”

The above resolutions were sent to the Council with the following communication:

“To the Honorable Mayor and City Council.

“After much anxious thought and free conference with the medical profession of the city, the Board of Health have reluctantly concluded to apply to you for the enactment of a law authorizing the establishment of an efficient quarantine. While they are impressed that the actual outlook does not warrant radical measures in that direction, yet the stream of travelers which has set in to our city from the infected districts makes it necessary to adopt and put in operation measures to prevent the importation of the disease into Nashville. Therefore your prompt action is respectfully asked upon the following preamble and resolution.”

The Council approved the proposed action of the Board of Health, and appropriated \$2,000 to be used in case the yellow fever appeared in the city.

The Council, however, could not approve of the adoption of a rigid quarantine. They permitted all parties from infected districts who wished to do so to make Nashville their city of refuge. But while they did this they at the same time exercised the most sleepless vigilance and activity in the use of all precautions which experience had shown to be effective



in preventing such an epidemic from gaining a foot-hold. The escape from quarantine was, however, quite narrow, and was mainly owing to the exertions of Dr. Thomas Menees, Professor of Obstetrics in the Nashville and Vanderbilt Universities, who thought that so extreme a measure as rigid quarantine for protection against a problematical danger would savor too much of fear and inhumanity. The course of the Council was determined in part, also, because of the elevation of the city above the ocean, they being governed by the opinion of medical men that yellow fever seldom prevails above an altitude of four hundred feet, and never above an altitude of five hundred feet.

On August 27 the Health Officer and Mayor were appointed a committee to select a suitable place for a yellow fever rendezvous; to ascertain what a physician could be employed for to take charge of the same, etc.; and the Board said that the energy and efficiency of the Health Officer displayed during the few months then past had been superior to that manifested at any previous epoch in the history of the city.

The first case of yellow fever that occurred here that year was that of Mike Cady, and was reported by Dr. Briggs. Cady was a recent importation from Memphis, and the case was reported August 31. The Barrow house, on Barrow Hill, one mile north-west from the corporation limits, was secured for an infirmary, at a rental of \$350 for the first month, and \$100 for each month after the first that it was used as a hospital. Dr. W. G. Ewing was engaged to take charge of it. The first application for admittance into the infirmary came on September 7, the case being that of Mrs. M. P. Martin, of Martin's Station, Weakley County, Tenn. Mrs. Martin died on September 10. Michael Cady was taken to the hospital on September 14, and was afterward removed to the Medical College hospital, convalescent. The total number of cases of yellow fever in Nashville during that year was but twenty-four. None of them originated in Nashville, and the disease did not spread. There were fifteen deaths. The experience of the city during that year proved that there was no danger of the disease spreading, even when taken by a resident of the city.

Dr. R. Cheatham became a member of the Board of Health in June, 1879, and Dr. J. R. Buist was elected President and Dr. Cheatham Secretary. On July 9 the Board expressed its appreciation of the value of the meteorological reports furnished by the Signal Officer by paying him \$2 per month for his monthly table and \$5 for his annual table.

During this month it began to be feared that yellow fever would again visit the city, and rigid measures were taken by the Board of Health to prevent it. They resolved that, with the consent of the City Council, they

would at once prohibit the importation of any goods into this city from any infected district. On July 23 the Council adopted the suggestions of the Board of Health, and appropriated \$5,000 to carry them out.

On July 24 quarantines were established at the following places: On the Nashville and North-western railroad, at Woodward's Spring, twenty miles from Nashville; on the Nashville and Decatur railroad, at Owen's Station, twelve miles from Nashville; on the Louisville and Nashville railroad, near Edgefield Junction, ten miles from Nashville. Mayor Kercheval, Dr. Nowlin, and Health Officer Dr. J. B. Lindsley were appointed a committee on quarantine stations. Dr. E. L. Drake was appointed to the position of Medical Officer on the Nashville and North-western railroad; Dr. M. Campbell, on the Nashville and Decatur railroad; and Dr. D. R. Butterfield, on the Louisville and Nashville railroad. On August 6 the services of the quarantine officers were dispensed with, with the exception of Dr. Drake, who was retained for some time longer.

On January 13, 1880, Dr. J. R. Buist, President of the Board, read a paper making certain recommendations with reference to the sanitation of the city. The prime necessity, he said, was an ample supply of pure water; the second was a well-constructed system of sewers; the third was a better regulation of surface privies; the fourth was a radical change in the system of medical attention to the indigent sick; and the fifth was a change in the system of street pavements. Broken limestone should be no longer used, as in dry weather it filled the air with fine particles of dust, which were very injurious to both the lungs and eyes.

On May 25, 1880, Dr. T. L. Maddin was elected to the Board of Health, in place of Dr. Buist, resigned, and was elected President of the Board. Dr. J. B. W. Nowlin was elected Secretary. Dr. Cheatham succeeded Dr. Lindsley as Health Officer. Dr. Frank Holloway was Secretary a short time, and was succeeded by Dr. Deering J. Roberts.

On September 28, 1880, the Board of Health submitted a communication to the Mayor and Council on the health of the city, in which they took the ground that pure air, pure water, and good food were essential to health, and said that Nashville was sadly deficient in the two former. The air was rendered impure by the imperfect sewerage of the city. This was radically wrong, being violative of all sanitary science bearing upon such subjects. There was not an under-ground sewer in Nashville that was not a shame upon modern civilization, and if the most expert engineering skill were brought to the task, it could not devise a better system for producing pestilence and disease. There was no system about it. The sewers were constructed of rough masonry, and hence there was no protec-

tion from their outpour and the open mouths along the streets. The solid matter of the sewage was delayed and underwent decomposition, thus generating poisonous gases, which escaped everywhere into houses, and were breathed by all the families, who were constantly being poisoned, and that during the hot months constituted the principal cause of infant mortality. The liquid sewage passed through the open masonry of the sewers into the soil, polluting it with decomposing organic matter, and also poisoning the atmosphere. A thorough system of sewerage was therefore a prime necessity, if the people were to enjoy tolerable health, and the Waring system was the one heartily recommended.

Since this time, and in accordance with these suggestions of the Board of Health, the city authorities have begun and completed a most thorough system of sewerage, and now Nashville is as well protected against noxious gases from this source as any city in the Union. The results of this and other improvements are plainly indicated in the table below on death rates.

On June 13, 1882, Dr. Deering J. Roberts was elected Secretary of the Board, and Dr. T. L. Maddin was afterward re-elected President.

On March 15, 1884, Dr. R. Cheatham resigned his position as Health Officer, and the present incumbent, Dr. Charles Mitchell, was elected to fill the vacancy, and he has retained the position ever since.

In 1883 the Board of Health was chartered by the Legislature, and since that time it has been composed of the Health Officer, who is President; the Mayor, who is an *ex officio* member; and R. Ewing. The Secretary, under the new arrangement, has been Mr. F. E. Kuhn.

The following table shows the number of deaths among the whites and colored population of Nashville, from 1875 to 1889, together with the death rate of the two races, by sexes, each year.

YEARS.	WHITE.		COLORED.			DEATH RATE.		
	Male.	Female.	Male.	Female.	Total.	White.	Colored.	Total.
1875.....						25.78	49.69	34.55
1876.....						26.31	45.35	33.25
1877.....						21.82	38.72	27.81
1878.....						17.43	33.50	23.11
1879.....	195	159	162	183	699	20.26	35.92	25.80
1880.....	258	226	205	241	930	19.98	36.47	25.53
1881.....	310	305	274	256	1,145	20.63	32.87	25.27
1882.....	262	245	282	296	1,085	17.82	35.50	24.11
1883.....	312	291	260	312	1,175	18.68	31.29	23.50
1884.....	300	279	260	267	1,106	16.77	26.94	21.94
1885.....	303	262	275	311	1,151	14.69	27.07	19.10
1886.....	267	250	287	330	1,134	13.44	28.50	18.82
1887.....	289	286	280	313	1,168	13.74	25.43	17.92
1888.....	255	263	265	283	1,066	12.38	23.50	16.36
1889.....	292	237	241	253	1,024	12.66	21.18	15.71