



HISTORY
OF
MILWAUKEE,
WISCONSIN,

FROM

PRE-HISTORIC TIMES TO THE PRESENT DATE, EMBRACING A SUMMARY SKETCH OF THE NATIVE TRIBES, AND AN EXHAUSTIVE RECORD OF MEN AND EVENTS FOR THE PAST CENTURY; DESCRIBING IN ELABORATE DETAIL THE CITY AS IT NOW IS; ITS COMMERCIAL, RELIGIOUS, EDUCATIONAL AND BENEVOLENT INSTITUTIONS, ITS GOVERNMENT, COURTS, PRESS, AND PUBLIC AFFAIRS;

ITS MUSICAL, DRAMATIC, LITERARY, SCIENTIFIC AND SOCIAL SOCIETIES; ITS PATRIOTISM DURING THE LATE WAR; ITS DEVELOPMENT AND FUTURE POSSIBILITIES; AND INCLUDING

NEARLY FOUR THOUSAND BIOGRAPHICAL SKETCHES OF PIONEERS AND CITIZENS.

ILLUSTRATED.

CHICAGO:
THE WESTERN HISTORICAL COMPANY.

A. T. ANDREAS, PROPRIETOR.

1881.

was merely a feature in the general system of abating the river nuisance, so that the sewage would not corrupt the drinking supply of the city. The tunnel and flushing plan of the Board of Public Works, and Dr. Wight's dry-removal system, were finally rejected, and the intercepting sewer plan of the Board of Public Works was adopted by the Common Council in September, 1880. It had previously received the approval of Health Commissioner Wight. "The general plan," as set forth in the report of City Engineer Hilbert, just issued, "contemplates the interception and removal by gravitation to one or more pumping stations of the sewer proper and liquid refuse from an area of 8,700 acres included within the limits of the city, together with one-fourth of an inch of rain fall in twenty-four hours from the same area. The capacity of the works embraced in this plan is calculated for a prospective population of 280,000 inhabitants, within the present area of the city, 150 gallons of sewage daily for each inhabitant was safely to be regarded as a maximum estimate. That would amount to 42,000,000 gallons of sewage every twenty-four hours, and added to this, one-fourth of an inch of rainfall—59,000,000 gallons—making in all 101,000,000. It is designed that the conduits shall flow only three-quarters full and at the velocity of two and three-quarter feet per second. The works in the Menomonee Valley are designed to prevent the pollution of the Menomonee River and its canals, by affording an outlet to the lake for the liquid refuse of manufacturing establishments there located, and by intercepting sewage from the South Side as far as Mineral, Elizabeth and Virginia streets. Their capacity is 25,000,000 gallons daily, but the amount of sewage tributary thereto, at the present time, does not exceed 4,000,000 gallons daily. This excess of capacity may be employed in removing impure water from the west end of Burnham's canal and the Menomonee at Muskego road, or from any other points that may be deemed advisable until other connections are made."

The contract for the execution of the work was let to M. Rice, as principal, and S. Bryant and Geo. Burnham as securities, it having been decided to relieve the Menomonee district first. This section begins at the west bank of Milwaukee River, on Park street, extending along South Water to Oregon, and on Oregon to First avenue, a distance of 4,500 feet. The city has the privilege of an extension of five hundred feet further. Workingmen are now engaged in constructing the South Side system. It is estimated that \$200,000 will be expended within the next year and a half, before the system, with a portion of that of the East Side, is in operation. The total cost of completing the system upon the future estimate of a population of 280,000 inhabitants is \$600,000—\$200,000 for the South Side, \$150,000 for the East Side and \$250,000 for the West Side. An expenditure of two-thirds of that amount is all that will probably be necessary for the next ten years.

THE WATER WORKS.

The progress of any public improvement of a large city is an interesting study, and the commencement the most interesting period. The excitement which attended the introduction of gas, the first sewer pipes, the laying of the modest tamarack water pipes, the prelude to a complete and comprehensive system, take one back almost into another age, although not so many years ago.

The origin of Milwaukee's water works goes back to the unfortunate United

States Hotel, as is evident from the following extract: "When the late James H. Rogers built the United States Hotel at the corner of Huron and East Water streets, about thirty years ago, the question of an abundant supply of pure, wholesome water presented itself to the enterprising pioneer. Finding a copious spring on Wisconsin street, on the south front, midway between Jackson and Van Buren streets, he secured the privilege of a supply from that point. Engaging the services of James Brooks, he placed a tamarack main down the alley to Michigan street, thence along the south side of that thoroughfare to the alley between the Chamber of Commerce building and the Mitchell Block, and from that point to the hotel. Mr. Brooks procured tamarack timber of suitable diameter, cut it into ten or twelve feet lengths, bored each piece by hand, and laid the main, the late Henry Bleyer, the first wood turner in the place, furnishing the connecting pieces and side taps. The enterprise was a successful one, and the hotel was supplied from the spring for years, the tamarack mains keeping the waters sweet and cool."

Attention is called to Chapter V. of this work, which contains the speech of William P. Merrill before the Pioneer Association, on the occasion of the presentation to him of a cane, made from a section of the original water pipes laid in this city. Mr. Merrill cut the tamarack timber from which the pipes were made, in 1840, from the southwest quarter of section 6, town 6, range 22, and delivered it on the ground. The inaccuracies of the foregoing extract are designed to be here corrected. The timber was delivered to William Paine, not to Brooks, and was cut from where the city now stands.

Residents along Michigan street were also served by these old-time water works. When the hotel was destroyed by fire the water still poured into its basement, and in July, 1879, when the excavation was made for the new Chamber of Commerce, a section of the old tamarack logs was exposed in sound condition, and pieces of the wood are now treasured by several old settlers.

EARLY AGITATION.

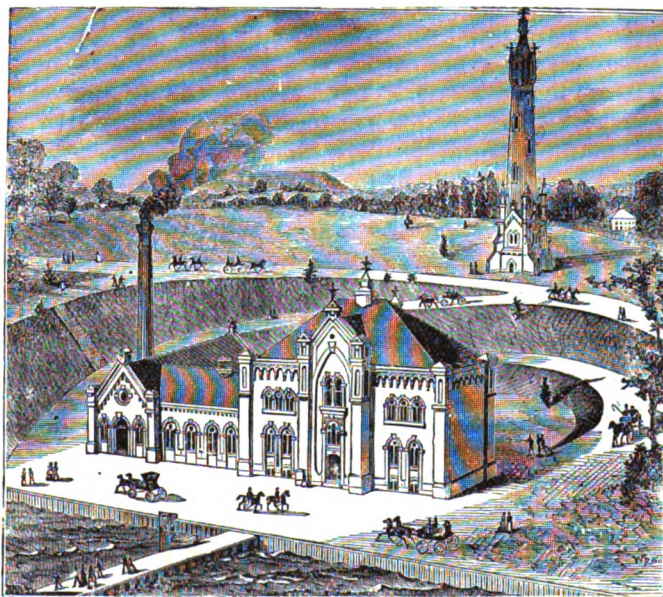
For a few years after the United States Hotel burned down, the agitation of the necessity of water works for the whole city so increased among Milwaukeeans that the war for improvement was carried into the ranks of the Common Council, which, in June, 1857, passed an ordinance authorizing the issue of city bonds to the Milwaukee Hydraulic Company; also, a resolution giving seven acres of city property to the company. The Hydraulic Company, through its President, John Van Dyke, made a favorable report of the scheme, and F. R. Snowden, an expert engineer, constructing water works at Louisville, offered terms for supplying the city, through the agency of the former organization. Nothing definite grew out of this action by the Council, but the company retained its organization, and the agitation continued. Finally, in March, 1859, Hubbard & Converse, of Boston, proposed to erect engine and boiler house, reservoir, and twenty-five miles of pipe before January 1, 1861, at a cost of \$450,000.

But just as it seemed a certainty that the water works were about to be a realized public improvement, the war broke out, the readjustment act was passed, prohibiting the city from running into debt to aid even such an enterprise, the wealth of the city all went to sustain the Union, and for almost seven years the matter dropped out of sight. In November, 1867, Messrs. John Lockwood & Co., of Mil-

waukee, and John B. Ernschaw & Co., of Cincinnati, presented their propositions. It is unnecessary to enter into detail, as neither of the plans were carried out.

THE PRESENT SYSTEM.

In 1868 the subject was again agitated in the Common Council, and an expenditure made to secure the services of E. S. Chesbrough, an engineer, of Chicago, to make examination of the locality and report upon the best plan for securing water supply to the city, as well as upon the system of sewers. His examination was made and reported to the Common Council in 1869, and by that body referred to a special committee. Although the committee held several meetings, the bar to action, imposed by the refunding act of 1860, was still up. By its provisions the



WATER WORKS AND RESERVOIR.

city could not incur further liability until its indebtedness, for strictly municipal purposes, had been reduced below \$500,000. In 1870 the conditions were such that the project was revived, and Mayor Phillips appointed the following committee to consider the subject: Councillors—John Black, Chairman; Casper Sanger, H. J. Hilbert; Aldermen—T. P. Collingbourne and Emil Durr. In August, of this year, a favorable report was made to the Common Council, and the joint Committee on Water Works and Judiciary, with City Attorney Ryan, prepared a bill for the Legislative session of 1871, empowering the city to issue water bonds, and appointing Edward O'Neill, President, Matt. Keenan, Secretary, David Ferguson, Treasurer, and Edward H. Brodhead, George Burnham, Alexander Mitchell, John Plankinton, Fred. Pabst and Guido Pfister, members of the Board of Water Commis-

sioners. Before finally deciding upon any plan, Moses Lane and Matt. Keenan visited many Eastern cities for the purpose of examining their systems. In April, 1871, the Board met and organized, making their first report in December. City Engineer Lane had commenced work in September, having the reports and estimates of Mr. Chesbrough. Of the plans proposed, the Lake Shore plan was adopted.

The Pumping Works are located on the line of North street, extended to the lake shore. A cast-iron pipe, three feet interior diameter, is laid to a distance of two thousand feet from the engine house. Its lake end is protected by the usual crib, the mouth being covered by copper-wire screens, so that a pure supply can be drawn from a depth of four to twelve feet below the surface.

The buildings of the Pumping Works consist of an engine house, eighty-four feet by seventy; a boiler house forty-two by forty feet; and a coal shed, forty by one hundred feet. These buildings are all of brick, with iron roofs covered with slate. The chimney stands apart from the main buildings and is one hundred and fifty feet high. The engine house is large enough to accommodate four engines, though now occupied by but two. The grounds comprise twelve acres with a water front on the lake shore of one thousand feet. Five hundred and seventy-five feet have been protected by a very substantial wharf, and prepared for the engine house yard. The shore of the lake rises rapidly at this point and within one or two hundred feet reaches an elevation varying from seventy to eighty feet, which is near the general level of this part of the city.

The location of the Pumping Works at this point, renders necessary forty-five thousand cubic yards of excavation and the building of an expensive wharf to protect the engine house yard from the effects of lake storms. There are two pumping engines, coupled to one fly wheel, and so arranged that they can be run together or separately. The capacity of each of these engines is the power to raise eight million gallons of water in twenty-four hours into the reservoir, the length of the force-main being six thousand feet. The stand-pipe is enclosed by the Water Works tower, built of stone masonry, its size at the base being twenty-four feet. It is circular in shape. There is within the tower a circular iron stairway leading to the top. The whole height of the tower is one hundred and seventy-five feet, its top is two hundred and fifty-five feet above the lake. From its conspicuous location, the beauty of its design, and the magnificent view which is commanded from the top, it forms by far the most attractive feature of the whole Water Works. The design of the tower and also the plans of the engine house buildings, were made by C. A. Gombert, Architect. The water is forced by the pumps through a cast iron pipe of thirty-six inches diameter, and five hundred and twenty-five feet long to the stand-pipe, and thence flows through a cast iron pipe, thirty inches in diameter, to the reservoir, which is fifty-seven hundred feet west from the stand-pipe. The main pipe from the stand-pipe to the reservoir is laid in North street and crosses the Milwaukee River on an aqueduct bridge built for this purpose, and also to accommodate the public travel. The water pipe across the bridge is of wrought iron, placed beneath the roadway, and supported by iron girders from the upper chords of the bridge. This pipe is enclosed in a box made of two thicknesses to protect it from the frost; it is also provided at each end, where it connects with the cast iron mains, with expansion joints.

The reservoir has a capacity of 21,500,000 gallons. Its top water line is one hundred and fifty feet above the lake. The depth of the full reservoir is twenty-one feet. The embankments are of earth, carried up four feet above the top water line, and are sixteen feet wide at the summit. The water flows into the reservoir on the east side, and flows out on the west side, where is built an effluent chamber, fitted with stop valves, water, and overflow pipes. The influent pipe is connected directly with the effluent pipe by a main pipe laid across the bottom of the reservoir, so that the water can, if necessary, be drawn off from that source, and the supply to the city kept up through this pipe directly from the stand-pipe. The whole area of the reservoir grounds, is thirty acres; the area of the water surface being three and one-half acres. The reservoir is called Kilbourn Park Reservoir, from the late Hon. Byron Kilbourn, who gave to the city for the purpose of a park or reservoir a portion of these grounds. It being evident, early in September, 1873, that the large Pumping Works at the lake could not be completed in season to supply the city with water that year, temporary Pumping Works were erected on the west side of the Milwaukee River above the present North street bridge. A pump of capacity to raise one and a half million gallons of water into the reservoir in twenty-four hours was bought and set in place. The water was first pumped into the reservoir October 24, 1873, the length of pipe laid at this time being about fifty-five miles. The supply of water to the city by the temporary works was constant and uninterrupted from its commencement until September 14, 1874, when the large Pumping Works erected at North Point, were started, and have since been in operation. The whole city was supplied with water for all purposes in one year and seven months from the time that ground was first broken for the works. The water was first pumped directly into the reservoir through the force main across the aqueduct bridge, December 23, 1874.

The reservoir was built by Messrs. Gilbert and Charles Peterson, contractors of Lockport, N. Y.; the North street bridge was built by Messrs. Soulerin, James & Co., of this city, from designs made by L. Soulerin, C.E. of that firm. The large pumping engines were built by Messrs. E. P. Allis & Co. at the Reliance Works in this city, and designed by R. W. Hamilton, M.E. and superintendent of the Reliance Works; the boilers and also the wrought iron pipe across the North street bridge, were built by John W. Eviston, of this city; the stand-pipe was built by Richard Davis, of this city; the iron roofs of the buildings at the pumping station were built by Messrs. Bayley & Greenslade, from plans made by Wm. Melms, M.E.; the gallery and stairs in the engine house, and also the iron floors and stairs in the water tower, were built by Messrs. Hornbach & Wagner, of this city.

The Board of Water Commissioners, under whose direction the Water Works were built, transferred them to the city June 1, 1875, at which time, in accordance with the provisions of the city charter, they took control of them.

It became evident, early in the working of the present system, that the pressure would not be sufficient to force the water to the high ground of the West Side. Ex-City Engineer Lane in his report for 1873, from which, with the reports of the Board of Water Commissioners, the mass of facts presented are drawn, gives the following relative position of different localities: "There is no point on the east side of the river and south of North street where the head will be less than forty feet

above the level of the street. The head on East and West Water streets will be about one hundred and thirty-five feet. At the junction of Jackson and Biddle streets, in front of the Cathedral, it will be eighty feet. The highest established grade on the west side of the river, except that on the site of the reservoir itself, is on Spring street, near Twenty-fourth street, which is 130½ feet. This, it will be seen, is 19½ feet below the flow-line of the reservoir. The head, at the junction of Fifteenth and Spring streets, will be seventy-five feet, and at Fifteenth and Vliet, fifty feet."

Therefore, it was that in 1878, after prolonged discussion, the West Side Pumping Works were constructed at a cost of \$165,000. These works are located on Eighteenth street. The water is pumped from the Chestnut street main. The buildings here consist of an engine house, containing a compound pumping engine with a capacity of 1,000,000 gallons, manufactured by the Cope & Maxwell Manufacturing Company, of Hamilton, Ohio; and a water tower one hundred and thirty feet high.

Up to January 1, 1880, eighty-three miles of water mains have been laid in the city; the number of ferrules inserted up to November, 1880, was 7,380; the number of fire hydrants located, 671. The works are under the control of the Board of Public Works, consisting of H. J. Hilbert, City Engineer; F. S. Blodgett, W. T. Casgrain, and Geo. A. Abert, Commissioners.

The water office is in charge of G. B. Seaman, Collector of Water Rates.

The Water Works are not yet self-sustaining, but are nearly so, the maintenance account now being about \$167,000 per annum. The receipts for 1880 aggregate \$138,500. The total income from the Water Works for the seven years ending January 1, 1880, amount to \$753,225.

The total cost of the Milwaukee Water Works, including the maintenance of the same up to January 1, 1880, amounts to \$2,293,897.12.

Owing to the increased demand upon the Water Works the past two years, a contract for a 12,000,000-gallon capacity engine has been entered into by the city with E. P. Allis & Co., of this city, to be erected and in working order in June, 1881.

City Engineer Hilbert makes the following itemized maintenance account of the Water Department for 1880: Cost of running Pumping Engines at North Point, \$34,200.68; repair and care of buildings, \$1,642.03; West Side pumping engines, \$4,312.03; repair of West Side buildings, \$154.86; pipe distribution, \$15,075.37; North street bridge, \$1,034.50; telephone rent, \$100; reservoir expenses, \$1,671.67; office expenses, \$109; printing and stationery, \$659.18; salaries, \$6,206.12; and construction account, \$22,446.91; making a total of \$87,612.63. To this must be added \$12,547.40, stock on hand January 1, 1880, and then deduct the value of the stock on hand December 31, about \$15,000, leaving a total expenditure of \$87,612.63. The city consumed 4,485,550,488 gallons of reservoir water, costing something over \$50,000. Four and a half miles of water pipe were laid, making a total of ninety-one miles laid to date. Thirty-four water gates were set, making a total of 570 now in use in the city.

Up to July 1, 1875, the date when the Water Works were turned over from the Commissioners to the Board of Public Works the receipts from the sale of bonds, water-pipe assessments and all other causes had been \$1,954,693.69; disbursements \$1,948,009.60, leaving a balance in the hands of the City Treasurer and the Secre-

tary of \$6,684.09—the balance in the possession of the Board being \$136.58. To December 1, 1875, the collections amounted to \$31,907.70; during 1876, \$69,651.36; 1877, \$81,667.85; 1878, \$91,867.59; 1879, \$105,822. Total to January 1, 1880, \$381,053.08. Of this sum \$380,474.10 was deposited with the City Treasurer leaving a balance of cash on hand, January 1, 1880, of \$578.98. The former amount added to the \$6,547.51 paid over by the Water Works Commissioner in 1875, makes the total amount deposited with the City Treasurer up to January 1, 1880, \$387,021.61. The total amount of water-pipe assessments collected by the Treasurer was \$485,329.73, and of delinquent rates \$75,875.13, making a grand total to the credit of the water fund on that day of \$948,226.47. A trial balance, December 1, 1880, gives the following chief items :

ITEMS.	DISBURSEMENTS.	RECEIPTS.
Water Rates, cash account.....		\$ 502,921 45
City of Milwaukee.....		1,895,397 62
Water Fund.....		107,964 46
Ferrules.....		26,521 32
Miscellaneous.....		3,138 16
City Treasurer.....	\$504,316 38	
Reservoir.....	117,920 00	
Water pipe and castings.....	859,673 11	
Pipe laying, etc.....	223,872 18	
Engine house.....	237,648 13	
Pumping engines.....	169,326 50	
Water tower.....	50,891 82	
North street bridge.....	75,175 04	
Land account.....	41,709 87	
Engineering.....	42,768 58	
Pumping Works, North Point.....	34,808 16	
Pipe Distribution.....	27,690 31	
Salaries.....	26,799 16	
Miscellaneous.....	123,343 77	
Total.....	\$2,535,943 01	\$2,535,943 01

The following table gives a good general idea of the operations of the Water Department for the four past years:

Year.	Average Daily Consumption.	Gross Receipts.	Cost of Maintenance.	Construction.	Excess of Receipts.
1877.....	6,944,174	\$132,281 27	\$58,977 66	\$45,906 64	\$27,397 07
1878.....	8,880,536	144,048 21	58,549 63	53,598 64	31,899 94
1879.....	10,603,867	146,536 21	59,272 16	31,558 32	55 755 73
1880.....	12,269,000	176,423 13	62,510 30	21,258 09	92,654 74

GALEN B. SEAMAN, Collector of Water Rates, is a native of Chemung County, New York, and was born in 1837; attended the Academy, at Alfred, New York, and graduated from Dartmouth College in the class of 1861. He came to Milwaukee the following year, and after completing his law studies with Hon. F. W. Pitkin, now Governor of Colorado, was admitted to the Bar in 1863. He took charge of the Fifth District Public School, as Principal, serving for a period of three years. He then entered the United States Revenue service as Assessor of the South Division of the city and county, continuing in that position until the Winter of 1873, when he resigned to take his seat in the Legislature as member of the Assembly from the Eighth District, to which he was elected in the Fall of 1872. In the Spring of 1873 he resumed legal practice, making real estate, law and abstracts of title a specialty, having secured by purchase the well-known abstracts of Wilson Graham, Esq. In 1863 he married Miss Hattie C. Martin, daughter of the late Hon. Stoddard H. Martin, one of the early and well-known citizens of Milwaukee. She died in 1880, leaving him three children, Harry, Lottie and Sally.

SANFORD J. WILLIAMS, was born in Tully, Onondaga County, New York, in May, 1834; came to Milwaukee in the Spring of 1836. He passed his boyhood on a farm, and attended school at the Milwau-

kee Academy, which, in early times, stood on the ground at present occupied by the Seventh Ward engine-house. He completed his education at the Wisconsin State University, and on returning from there chose farming as an occupation, upon a farm just south of the city. After the beginning of the War of the Rebellion, he enlisted in Company B Twenty-fourth Wisconsin Vol. Inf., which left the State for the front on the 5th of September, 1862. He participated in several battles and skirmishes with the regiment, and at the battle of Stone River, Tenn., he was wounded, losing his right leg. Upon his return home, Mr. Williams was employed in the office of the Provost Marshal of the First District of Wisconsin. Soon after the close of the war, he received the government appointment of United States Inspector of Internal Revenue for the First District of Wisconsin, and served in this office for seven years. He has been six years in the Milwaukee Board of Education, as School Commissioner, and is at present connected with the City Water Department, as Assessor of city water rates.

GUSTAV SCHARFF, Deputy Collector of Water Rates, is a native of Germany, born in Rhenish Prussia, February 22, 1832. He emigrated to America in 1854, and lived in New York until 1857. He then came to Milwaukee and engaged in mercantile business. In 1878 he became connected with the Water Department, and holds the office of Deputy Collector. In 1863 Mr. Scharff was united in marriage to Miss Agnes Simon, a native of Hesse Darmstadt, Germany. They have three children, Nicholas, Gustav and Clara.

JOHN HOLBROOK, Machinist of the Water Department, was born in the Town of Seymour, New Haven County, Connecticut, March 9, 1829; learned his trade in Bridgeport, Connecticut. Coming to Chicago in 1852, he became connected with the Chicago & Rock Island Railway Company two years, as engineer. In the Spring of 1855 he came to Milwaukee, and engaged with the Milwaukee & La Crosse Company, as engineer. The company, at that time, had only nine engines, and fifty-four miles of track. Continuing with the road under its different managements until 1866, he then went East to his old home, but after a year's absence he returned to Milwaukee and resumed work with the railroad company. Thus he continued until 1869, when he engaged with the Milwaukee & Northern. He remained with this company up to November, 1878, when he assumed his present position as Engineer of the Water Department. His residence is No. 788 Second street.

CHAS. J. TRAPSCUHL, Superintendent of Distribution, came with his parents to this city in 1848, when he was only two years of age. He grew up and attended school in Milwaukee. During the war he enlisted in the Twenty-sixth Reg. Wis. Vol. Inf., and served until the close of hostilities. He was taken prisoner at the battle of Gettysburg, and was confined at "Belle Island." After the war he returned to Milwaukee, and for two years held the office of Deputy Sheriff. In May, 1878, he was appointed Superintendent of Distribution in the Water Department and since then has held that position.

OSCAR A. BROWN, was born in the Town of Pine Grove, Warren County, Pa., July 18, 1841. He came to Milwaukee in 1854, and was Inspector of the first water pipes ever laid in the city. He has been connected with the Water Department of the city for a number of years, and holds the position of Inspector and Assessor. He has also been inspector of the manufacture of water pipes, with which he is thoroughly acquainted.

THOS. McMILLAN, Chief Engineer of the Water Works, is a native of Scotland; was born April 20, 1847; learned his trade of mechanic's engineer in Glasgow, on the Clyde. He held the position of assistant chief engineer on the Royal Mail steamers between Liverpool and Canada for four years; came to Milwaukee in 1872, and the following year became connected with manufacturing the machinery for the Water Works. In 1874 was appointed Chief Engineer of the Works, and since then has occupied that position.

WORK OF THE BOARD IN 1880.

An idea of the extent of the work which is thrown into the Board of Public Works for disposal may be obtained by a glance at the figures representing its costs for the year 1880: Opening, widening and extending streets and alleys, \$2,013.95; condemnation of Second Ward Square, \$24,464; street and alley improvements, \$103,911.59; sprinkling, \$19,505.89; work on sewers, \$29,171.56; cleaning snow from sidewalks, \$358.87; house drains and water service pipes, \$3,030.92; repairing sidewalks, \$5,829.72. Total, \$188,286.50.

Having thus brought out the prominent features of the two great systems of public works, and shown the safety thrown around the city's health, and the natural advantages of Milwaukee, it is in order to indicate more in detail the points possessed by the Cream City which peculiarly fit it as a home for poor and rich.