

"FIRE AND WATER" A HISTORY OF MADISON'S EARLY WATERWORKS

By Dale Nighbert

One fateful night on August 4, 1894, Madison's fire alarm rang at 12:40 A.M. summoning the local firefighters and residents to a fire at C.M. Klotzbach's livery barn. The firefighters responded quickly, but the city's new waterworks system was not working properly. There was not enough water pressure to fight the growing inferno.

By daylight, amid the ashes and burning embers, officials estimated the destruction to be in the thousands of dollars and called it the worst disaster in the city's 14-year history. The 120 by 80 foot, three story building and other nearby structures—a barn, a blacksmith shop, a cottage, and a number of outhouses in the neighborhood—lay in ruins. Other buildings were also damaged.

However, the "saddest and most horrible feature of the whole catastrophe," as described by the *Madison Daily Leader*, was the loss of two human lives—those of James Darby and Isaac Bitworth, both of whom were stablemen employed at the livery barn. Also consumed in the blaze were 28 horses, 13 buggies, 2 road carts, 12 cutters, numerous sets of harnesses, and other equipment that could only be found in a first-class livery stable of the time.

The disaster could have been worse. Burning cinders that were carried high in the air landed on the roof of the new Central School building. Small fires started on the east and south sides of the high structure. Again, the water in the mains could not reach the growing flames, but men with water buckets and a stream from the chemical engine below quickly doused them, thus saving the building.

Fortunately, the city's businesses located on nearby Main Street — buildings that were constructed mainly with wood, were spared. A continuous pour of water on a store building to the east of the livery barn prevented the spread of the fire.

The following day, Madison's City Council strongly expressed their dissatisfaction with the operation of the waterworks plant. They declared the city's water service as unsatisfactory either through "incapacity of those in charge or the inefficiency of the service." They blasted Water Superintendent Rafferty and ordered a replacement of a Fairbanks, Morse, and Co. employee who had been placed in charge of installing the city's new waterworks. They also criticized local citizens for their careless use of the water service and ordered the local marshal to prosecute all viola-

tors of the city's new water ordinance.

Once upon a time, as settlers moved westward and settled the Great Plains, the first land to be claimed and settled was the land along the rivers and streams. The availability of a good supply of water for drinking, cooking, washing, bathing, and fighting fires had always been on the minds of people — including the first pioneers. Shallow wells that provided easier access to this necessary commodity were also dug. As settlements were built and their populations grew, the residents saw the need for a good, public waterworks system. Madison was no exception.

"Proceed China-ward as long as the drill will work."

The history of Madison's waterworks goes back to the 1880's. In 1889, the city had budgeted \$10,000 to drill for an artesian well — the "mother-lode" of all water sources. The city's plan seemed simple and easy — secure an artesian water source with a force that would supply the city with good quality water, and deliver it to the local businesses and its 1736 residents through a series of pipelines.

Drilling for the desired artesian well began in June 1890. In early September, after reaching a depth of 570 feet, it was reported "water had commenced gushing

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with tremendous force, rose to within 120 feet of the surface, and became calm.” The City Council instructed the contractor, Mr. Karr, to continue drilling and “proceed China-ward as long as the drill will work.”

Work continued, but not for long. At a depth of 610 feet, Karr informed the city that he had struck granite, an impregnable rock, thus fulfilling his contract. The council ordered additional tests to be done. The conclusions were that it was not granite but probably sandstone, and Karr was ordered to resume his work.

Contractor issues and equipment failures became regular problems. Eighteen months and several delays later, an artesian water source still had

not been located. In late 1891, the *Madison Daily Leader* reported that the artesian well enterprise had developed into something of a “chestnut” – an old joke or story repeated to the point of staleness. However, the newspaper ended the year with a more encouraging note stating “Work at the artesian well is progressing finely. The drill is working in soft sand rock at a depth of 1010 feet with every prospect of a gusher at hand.”

But, once again optimism led to disappointment as it did throughout 1892 and into 1893. Different contractors were hired to secure an artesian flow at different sites, but these attempts also led to failure. One contractor said he

could “insure a hole, but not a flow.” Another agreed to “sink a hole at 1500 feet, or no pay – provided granite is not struck.” He was hired, granite was not struck, but neither was a flow of artesian water.

In 1893, the City Council began to rethink its position in securing an artesian well and weighed the advantages and disadvantages of others methods to obtain a good water supply. At one point, rumors began circulating throughout the city that insurance companies were withdrawing or about to withdraw their risks for fire coverage because Madison did not have a satisfactory waterworks.

On October 10, 1893, a special election was held and voters approved bonds for the construction of a \$25,000 waterworks system. The cost would include the digging of a well, building a pump house and a standpipe, and laying the water mains, hydrants, etc. The city also approved the hiring of a civil engineer from Chicago to draw up the plans and specifications. They requested that another engineer be sent to oversee the project.

In early February 1894, contracts were issued to Fairbanks, Morse, and Co., headquartered in Chicago. Two months later, once the bonds had been finally approved by



Workers dig trenches and lay pipes for Madison’s new water system in this 1894 photo. Surviving Egan Avenue buildings are visible in this example of the photos in the Museum’s collection.

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MADISON WATERWORKS, CONTINUED

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a New York bank, the construction of Madison's waterworks system began and proceeded quickly.

It was decided that the best site of the city's water well would be located on Union Ave. — south of the railroad tracks. The specifications called for the sinking of a 20-foot deep hole with a diameter of 20 feet and 12 inch walls. The pump house, measuring 26 by 50 feet, had a stone foundation and a 51-foot high brick chimney. Two boilers and two pumps, capable of pumping 500 gallons of water a minute, were installed.

The standpipe was constructed at the corner of Union Ave. and Lake St. (N.W. 4th St.). This "superstructure," as it was called, was built on a concrete foundation with rings, or bands, measuring 14 feet in diameter. It had the capacity to hold about 30,000 gallons of water and towered over the city's west side at a height of 100 feet.

Throughout the spring and summer, a crew of up to 36 men dug trenches and laid the necessary cast-iron piping. Ten-inch piping extended from the well and pump house site northward to the standpipe. An 8-inch "feeder" pipe was buried on Madison St. (N.W./N.E. 1st St.) and extended from Union Ave. to

Washington Ave. A 6-inch pipe was laid on Egan Avenue's business district, and 4-inch pipes were laid throughout the city's neighborhoods. All piping was laid on the north or west sides of the streets. A total of 41 hydrants were placed at street corners.

Citizens were charged up to \$19.50 to have the pipeline extend to their curb line, and an additional \$35 to have 50 feet of pipe extend onto their grounds. The annual cost for residential water service was set at \$5 for a 6-room house and up to \$20 for businesses.

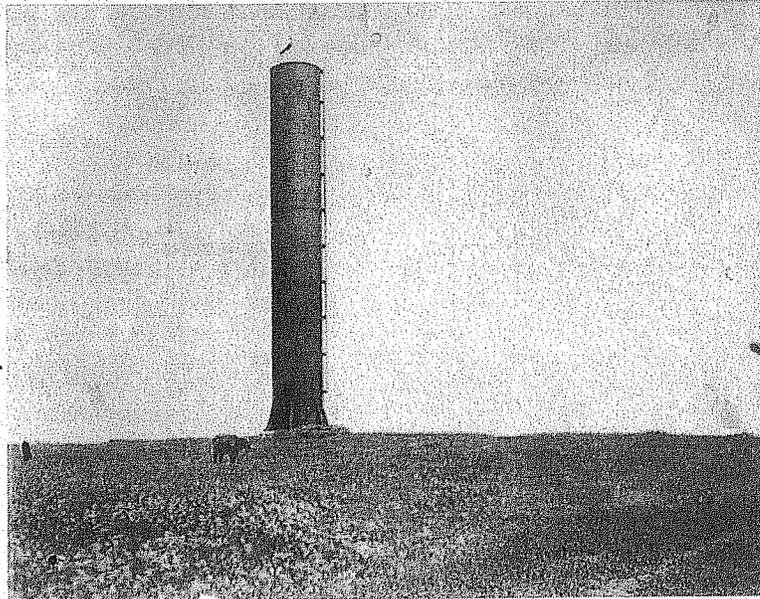
The nearly completed waterworks system was tested in July. It was reported that the machinery was in excellent

shape — no leaks were found in the mains, the water pressure from the hydrants was more than enough, and the test was satisfactory in "every particular." The engineer felt that the well was "capable of supplying an ample quantity of water for all purposes." One month after the tests were completed, the city suffered its "great fire."

During the days and weeks after the Klatzbach's livery barn fire, employees worked to make changes and adjustments to the waterworks system. Citizens were only allowed water service from 5-8 P.M. daily as work was completed to refine the system. Water Superintendent Rafferty blew the town's whistle that announced the opening and closing of the water service.

The local fire department enlisted the services of more volunteers, and it was announced that the operation of the waterworks system would be placed in the hands of the fire officials during times of fires. Firefighters were also given instructions and held practices on the use of the new system.

Another test to the system was conducted a week



Madison's standpipe, similar to a modern-day water tower, constructed in 1894 where the current tower stands at Union Avenue and N.W. 4th St. Those traveling to Madison knew they were near when the tower came into view.

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AN AMERICAN DREAM: A TRIBUTE TO SANDY DAVIDSON

By D.J. Bilka

With \$18 and a cardboard suitcase, Alexander "Sandy" Davidson came to America after World War II to start a new and better life. Through hard work and perseverance, he became a respected college professor in Madison.

Alexander Davidson was born and raised in Elgin, Scotland. He was one of eight children and became the first to go to college.

Some Mischief

Young Davidson got into some mishaps when he was younger, but only mischief that wouldn't hurt anyone. At night, he and his friends used to steal apples and



Alexander "Sandy" Davidson as a British sailor.

pears from other people's gardens. The gang had a saying, "A B C R L!" which meant "A bobby's (policeman's) coming; run, lads!" When a look-out yelled, "A B C R L!" everyone scattered. One time when Davidson was the watchman, he yelled, "A B C R L!" and then, going the wrong way, ran right into the bobby's arms.

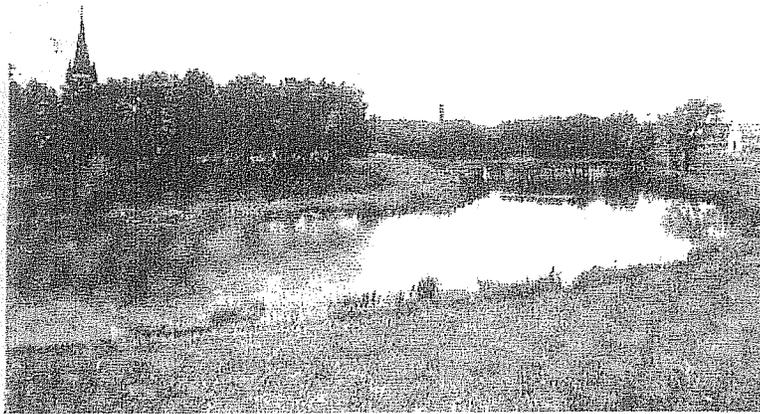
As a young lad, Davidson went to a private school. When he visited his old school two and a half years ago, the school was exactly the same as when he went there. The classrooms were just the same and the headmaster's office was in

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Madison Waterworks, Cont.

following the August fire, and again the results proved "favorable." Two days later, the city officially accepted the now-completed water works plant from Fairbanks, Morse, and Co. with the condition that representatives continue to stay an additional 90 days to help with any repairs.

In late November, Madison was faced once again with another major fire when J.C. Mitchell's icehouse caught on fire. The nearby elevators were also in danger from burning cinders. The newspaper reported that the "fire laddies and water supply did an excellent service, and with the help of the chemical engine and 2 lines of hose attached to a nearby hydrant, the fire was soon brought under control."



Park Lake, now Memorial Park, in a photo from the era of the new waterworks.

A week later, in early December, another fire summoned local firefighters to the McDonald Bros. Hardware Store on Main Street. It was reported that because of the prompt work of the firemen and the efficient service of the water supply, the business portion of the

city was well protected from a "great conflagration."

As local residents witnessed the success of Madison's waterworks, many wasted no time to sign up for service. It became a busy yet prosperous time for local plumbers.

However, when the waterworks system was completed in 1894, the community was once again faced with a new challenge. Residents in the area of Park Lake (Memorial Park) began complaining of a nearby sewage stench.

And so, the story goes.