WHEN DETROIT HAD A TOWN PUMP.

HOW THE CITY GOT ITS WATER SUPPLY BEFORE THE PRESENT FINE SYSTEM WAS ESTABLISHED.

ANY people now living in Detroit can remember when all the people were supplied with water through tamarack logs, bored out to make pipes. It was not long before that when there was a town pump at the foot of Randolph Street, free for the use of all citizens.

The development of the water system included the discarding of plants that in their day were supposed to be large enough to take care of Detroit for years to come. At times people in some sections of the city found that they could get no water during the day, and some member of the family had to get busy at midnight, when the demand fell off in other sections of the city, in order to draw water to supply his family through the next day.

The issue of the *Detroit Gazette* July 20, 1820, contains this notice:

"Resolved, That the board of trustees of the city of Detroit will meet on Thursday, the 10th of August next, for the purpose of receiving proposals to furnish the city with water for a certain number of years.

"Geo. McDougall.

Attest. "Sec'y pro tem."

But it does not appear that any further action was taken until the 4th of June, 1822, at a meeting of the citizens convened at Bronson's Hotel, situated on the south side of Woodward Avenue, midway between Jefferson Avenue and Woodbridge Street. The *Detroit Gasette*, in 1822, had this item:

STEAM COMPANY.

"At a meeting of a number of the citizens of Detroit, convened at Bronson's Hotel on the evening of the 4th of June, 1822, A. B. Woodward was elected chairman and Geo. A. O'Keefe, secretary.

"Certain proposals for supplying the city with water were exhibited to the meeting by George Deming and his associates, and were read and considered by the meeting, whereupon,

"Resolved, Unanimously, as the opinion of the meeting, that it is expedient to promote the enterprise of George Deming and his associates to supply the city of Detroit with water, and it will be agreeable to us that the legislative authority should give him an exclusive privilege for a certain number of years, under equitable conditions.

"Ordered, that the secretary transmit a copy of these proceedings to the *Detroit Gazette* for publication."

And then the meeting adjourned. But it does not appear that any further progress was made until the legislature, August 5, 1824, passed the act in relation thereto, mentioned in the "History of the Detroit Water Works," by Jacob Houghton, superintendent, in his report December 31, 1853. But this was only an act empowering Mr. Peter Berthelet to construct a wharf at the foot of Randolph Street and on it erect a pump, for the purpose of pumping water from the river, to which all citizens should have free access.

Previous to this meeting, however, the Gazette of April 12, 1822, in an editorial, had this to say: "A respectable fellow-citizen has received a letter from a gentleman in Ohio, in which inquiries are made as to the encouragement which a person would receive from the citizens of Detroit in undertaking to supply them with water from the river by means of hydraulic machinery. That water can be carried from the river to the door of every inhabitant by means of hydraulics is evident to every person least acquainted with the subject—and it is equally certain that were it once effected, a vast number of our citizens would be saved an expense of from \$15 to \$25 per year. It is perhaps out of the power of our corporation to erect the necessary works, but it is not out of the power of the citizens of Detroit to grant certain privileges to individuals who would undertake and properly accomplish the business. It is to be hoped that the trustees of the city of Detroit generally will turn their attention to this important object; and as its great utility cannot for a moment be questioned, let foreign enterprise derive a portion of the benefit of its accomplishment, if a company of our own citizens cannot be formed to secure the whole to ourselves"

THE FIRST STEP.

The efforts of the citizens of Detroit to devise some plan or means through which they could be supplied with water became—as Jacob Houghton says in his report—noised abroad, until it reached the ears of Bethuel Farrand and Rufus Wells, residents of Aurelius, Cayuga County, New York, who came on and submitted to the common council, February 17, 1825, their proposition for supplying the city with water, a full detail of which is given in Mr. Houghton's report.

I witnessed the erection of the pump house on the Berthelet wharf, foot of Randolph Street, and saw it in operation, in free use by the citizens. I also saw it pumping water into the reservoir erected on the rear of the lot now occupied by the water board (formerly Firemen's Hall), and witnessed the boring for water on the site designated for that purpose by Mayor Jonathan Kearsley and Alderman Thomas Palmer, on the south side of Fort, between Shelby and Wayne streets, and the building of the reservoir at that point. I also gathered at the boring works quite a quantity of water-worn pebbles that the borer brought to the surface from a depth of between two and three hundred feet.

I was also quite familiar with the pumping works erected by the Detroit Hydraulic Co. on the north side of Woodbridge Street, between Cass and Wayne. I was well acquainted with Uncle Chas. Howard, who ran the engine, and was around there often when Captain John Burtis was building his steamboat Argo, close by. I think it will be interesting to many of the old settlers, as well as to many of the new, of our goodly Detroit. To the latter it will, no doubt, be fresh news

I give herewith facts from the History of the Detroit Water Works, up to the time (February 14, 1853,) the state legislature passed the act creating the board of water commissioners and for which history I am under obligations to my good friend of these many, many years' standing, Jacob Houghton, Esq., superintendent, who, I am happy to say, is with us yet.

The history is quite lengthy, I know, but I give from it facts as they appear in his report of the condition of the department under his charge for the year 1853. The report was presented to the common council.

THE TOWN PUMP.

On account of the stiff and impermiable clay upon which the city was located the old residents did not find wells satisfactory, for the water in them drained into them only from the surface. As a result the river was the unfailing source of supply.

The water was at first furnished to the people by men who hauled in carts, casks and barrels of it. Buckets were suspended at the ends of wooden yokes, borne on the shoulders of worthy pioneers. The ordinance of the trustees compelled each citizen to keep on his premises a cask containing a certain amount of water, for use in case of fire.

A free pump was arranged for at the foot of Randolph Street in 1824, and it was erected by Peter Berthelet, by permission of the governor and legislative council. All citizens had free access to the wharf on which the pump was located. It continued in use until 1835, when it was taken down, by order of the common council.

Bethuel Farrand, father of the late Jacob S. Farrand, and a pump maker, Rufus Wells, both of Aurelius, Cayuga County, New York, learned that Detroit wished an up-to-date water system and came to this city on foot in 1825 and submitted a proposition to the council which was accepted, and Mr. Farrand was given the "sole and exclusive right of watering the city of Detroit." Mr. Farrand later withdrew from the enterprise and the plant was established by Mr. Wells.

The pump house was located on Berthelet's wharf at the foot of Randolph Street. This was in 1827. The house was a frame building 20 feet square, with a cupola 40 feet high. The pumps were driven by horse power, and the water was pumped into a 40-gallon cask at the top of the cupola.

The water passed through tamarack logs from this cask to the reservoir which was located on the rear of the lot later occupied by the Firemen's Hall at the corner of Randolph Street and Jefferson Avenue. This reservoir was 16 feet square and 6 feet deep, and held 9,580 imperial gallons.

From the reservoir a line of logs was laid down Jefferson Avenue as far as Schwartz's Tavern, between Cass and First Streets, through parts of Larned and Congress Streets and east on Jefferson as far as Brush Street.

FIRST WATER FAMINE.

The city had a water famine one day, because a man in a residence on Larned Street left a plug open, and the water ran until it filled his cellar. At this time the city had about 1,500 inhabitants. Families were uniformly charged \$10 per annum, quarterly in advance. Mr. Wells remained sole proprietor until 1829.

In that year the right to supply the city until 1850 was given Mr. Wells, Phineas Davis, Jr., Lucius Lyon and A. E. Hathon. They formed the Detroit Hydraulic Company and bored on the south side of Fort Street, between Shelby and Wayne, going down 260 feet, getting no water, but running into a bed of salt that gave an indication of the future wealth to be obtained in this state from this source.

The company secured an extension of the life of its charter in 1865, and prepared to build a pumping station and reservoir. They were placed on the same lot where the boring took place. The power was furnished by the second stationary engine brought into this state, and water was supplied in the fall of 1830. The reservoir was constructed of brick, was 18 feet square and 9 feet deep, housed in a wooden building. The engine also furnished power for the Detroit Iron Works, at the corner of Jefferson and Cass.

The city was supplied through two lines of wooden logs, of three-inch bore. During the winter of 1830-'31 all but four of the hydrants were rendered useless by freezing and remained in that condition until spring. Many of the logs, which had not been laid at sufficient depth, also were frozen. The reservoir was extremely defective and in 1831 the company constructed another, 40 feet square and 10 feet deep, made of oak planks.

THERE WERE KICKERS THEN.

The Detroit Hydraulic Company soon after erected an engine house on the north side of Woodbridge Street, between Cass and Wayne streets. Instead of a rotary pump a double action force pump was used. The water was declared not to be clear, pure and wholesome, and not furnished continuously, and the company was losing money, but it continued to extend its system.

Frequently the common council discussed the proposition to buy the works, and a committee reported to that body that the company had forfeited its charter by the character of service rendered. It was recommended that the works be located on land up-river from the city.

A committee conferred with the company to learn on what terms it would give up its interest, the committee consisting of Aldermen Julius Eldred and Thomas Palmer. The price fixed was \$20,500. This report was accepted and the plant was purchased in 1836. Noah Sutton, as agent for the city, visited eastern water works and soon a site was purchased at the foot of Orleans Street.

The plan of piping water from springs near Farmington was considered and forgotten. During 1837 the foundation of a new reservoir was laid, nearly a duplicate of the old Manhattan works in New York. The next year the reservoir was completed.

The construction of the new plant included the laying of nine miles of hollow tamarack logs and four and a half miles of iron pipe. Water was pumped into an iron reservoir at the foot of Orleans Street and from there it ran by gravitation to the old reservoir on Fort Street, and from this point it was distributed through the old system of logs.

BIG LEAKS.

A report made to the council in 1841 said that there was leakage through the old logs at the rate of 116,000 gallons in twenty-four hours. It was recommended that the new system be used entirely, and provision was made for keeping a map of all connections. Digging at random was found expensive, even in those days. In 1838 six hundred and thirteen persons were assessed for water, and in 1841 only 335. The deficiency was probably occasioned more by the defects in the old works than the absence of persons wishing a supply of water.

Soon after this report was made the engine and pump on Woodbridge Street were abandoned and the new Orleans Street pump was brought into use to supply water to the Fort Street reservoir for distribution. December 14, 1841, the works was accepted by the council. Early in 1842 the Fort Street reservoir was abandoned.

When the plans for the new system were decided upon in 1836 the city contained 8,000 inhabitants. In 1849 the number was more than 20,000, and nearly twice the contents of the reser-

voir was required each twenty-four hours. It was difficult to find time to make the necessary repairs. Contracts were made for a larger engine and new engine house. The new engine was put in use in November, 1850.

Early in 1851 four acres of land on the Mullet farm, between Russell and Prospect Streets, opposite the city cemetery, were purchased by the council as a site for a new reservoir.

GOT WATER ONLY AT NIGHT.

For several years there had been many complaints of insufficient supply, as the population increased. People had to draw water at night for use the following day, and there were large districts in which a supply could not be secured before midnight. There was plenty of power to raise water to the reservoir, but inadequate means for distributing it. Joined to the four and a half miles of iron pipes, the largest having an interior diameter of ten inches, were about thirty-five miles of logs, principally of two-inch bore, and those were in many cases connected with a five-eighths inch lead pipe. These were laid regardless of any system. and the common council was besieged by complainants. More than \$181,000 had been spent on construction, and there had been a deficit in fifteen years of more than \$85,000.

In 1852 the control of the water works was placed in the hands of five trustees, Shubael Conant, Henry Ledyard, Edmund A. Brush, James A. Van Dyke and William R. Noyes. Jacob Houghton was appointed commissioner. Iron pipes were laid to those sections of the city from which the most complaints had come.

The trustees were made a board of water commissioners February 14, 1853, by an amendment of the city charter, on application by the common council, and special powers and authority were given to them. Shubael Conant was the first president of the board. He later resigned and E. A. Brush was appointed.

The city had grown from 1,500 to 35,000 people. Water-works constructions, supposed to be large enough to care for increased population, were repeatedly found inadequate after a few years. This lesson was learned.

Be sure to build large enough; you will find it difficult to overestimate.