After a few moments spent in witnessing his exhibition, and learning something of heir management, in case of a fire, we re-paired to the Works, at the south end of Burdick street, and about three-fourths of a mile from Main street. Here we found the engines and machinery that had been built by the Holly Manufacturing Company; and so far as we are able to judge of the same, we pronounce them models of mechanical skill. They appeared like a thing of life; and in witnessing their movements and hearing an explanation of the same, it seemed as if the master mind who had so perfectly fashioned the same was still lingering there to guide and control its action.

As we entered the engine house, the hydrants having all been closed, the ponderous but beautiful machinery was slowly and calmly doing its ordinary, customary work of supplying the denizens of that busy town with the necessary water for the ordinary purposes and avocations of life.

Then Dr. Pratt sought an elevated place near the machinery and entered into somewhat of an extended description of the engines, their various parts, the furnaces and their boilers, only one of which is used at a time for ordinary purposes, but the other is kept in readiness, with suitable combustibles, for any emergency, when both are brought into service.

After the explanations, experiments were made, and particularly the one showing the manner in which an alarm of fire is given and its results at the "Works." When one of the hydrants is opened, no matter at how remote a distance from the stationary works, (one near them, for the purpose of the experiment, was opened) in from fifteen to thirty seconds the signal is given by the sounding of an ear-piercing whistle, by an ingenious contrivance in the machinery, which serves to call the attention of the engineer, who at once understands that a fire has broken out; the speed of the machinery is immediately increased, because of the relief of the pressure of the water within the pipes, and the engines appear to awake suddenly from a calm repose, the nicely adjusted machinery is at once quickened into greater activity, and the opening of each additional hydrant still further increases the revolutions, until it appears as if a giant had awoke from his slumbers and sought to free himself from the toils that bound him. Still, all moves on harmoniously, but the mighty power that can throw the water as we had witnessed it is fully aroused and ready to do its work until the necessity ceases, when, on closing the hydrants, the engines return to their accustomed, ordinary daily motion.

The giving of the signal is caused, as explained to us, by the removal of the the pressure of the water in the pipes in which it is carried along silently and out of sight, beneath the surface of the street.

It will be impossible to give in this brief report many of the items of information furnished by the gentlemen of Kalamazoo. A few of the more prominent points will be mentioned. The entire cost of the Works to the Corporation of Kalamazoo, including some five miles of main street pipes, the hydrants and everything complete as it now is, was a trifle over $60,000, less than $61,000. They have been offered by a private company as we were assured, a bonus of $20,000 for the Works. The intelligent gentlemen who so kindly furnished us the opportunity to see these Works and explained their operation, expressed themselves with confidence that the revenue of the Works for ten years, meanwhile furnishing the inhabitants with water at very cheap rates, would pay the entire cost of the Works, and sink the bonds issued for the construction of the same.

The engines in these Works are of one hundred and fifty horse power, and are capable of supplying, at the rate they are ordinarily run, 1,500,000 gallons of water every twenty-four hours, which would furnish 30,000 inhabitants fifty gallons each per day, which is a liberal estimate. In case of necessity, 2,500,000 gallons of water could be furnished in the same time.

The annual expense of running the Works was inquired into, and we were told that it would be about $4,000, made up as follows: Five dollars a day for fuel, but call it $2,000 per annum, which is something over five dollars a day; $1,500 for two engineers (they pay theirs in Kalamazoo, $1,450), and allowing $500 for oil and repairs, would make the total amount $4,000. When we consider the amount it costs us to keep up a large supply of water that is furnished by the Works under consideration, the expense appears very trifling. We certainly could supply the necessary fuel with the facilities we have cheaper than it can be furnished at Kalamazoo. The necessity of keeping or using fire engines is entirely removed within the limits that are reached by the main pipes. If sufficient power is provided, and the pipes extended sufficiently, the whole city can be protected, and much more efficiently and promptly than by steam fire engines. The necessity still remains, however, of a sufficient supply of hose, with men to take care of and manage the same. At Kalamazoo the hose is distributed in various localities of the town, and managed by small companies of voluntary hose-men who reside near the various deposits of the hose. It is manifest to us that the expense of running and managing such a system of water works in our city will be less than to supply ourselves with the necessary fire engines, and keep up a paid fire department, even though we were compelled to pay the hose men, while the vexed question of a supply of water, how it shall be obtained, and where it shall be distributed? is settled forever, or at least for a great length of time.

The hydraulic pressure upon the pipes at Kalamazoo, in the ordinary use of the water, is equal to only thirty pounds to the square inch; while it is warranted that they will bear a pressure of five hundred pounds to the square inch. This renders it next to an impossibility that there should be any serious failure in the pipes, or much if any, occasion for repairs in that respect; in fact, we were assured that the question of repairs was of small importance, and that the allowance of $500 yearly for oil and repairs, was a very liberal one. Another item we deem it highly important to state, and that is the reduced rates at which the insurance of property can be effected after the successful completion and operation of such a system of water supply; we were assured that the reduction was quite large, in some instances as much as fifty per cent., and in others even more. In illustration of this point, it was stated that the reduction of the insurance upon the Burdick House and furniture was equal to the whole of the water tax, the practical operation of which is that the water is supplied without price.

In addition to all these considerations bearing alone upon the means to extinguish fires, is the, perhaps, quite as important subject of supplying our citizens with an abundance of water for all purposes of family use; for cooking, washing, cleaning, and other uses, which are so highly important to the health, comfort and convenience of those who dwell even in small cities. In addition to these ordinary purposes, by a small expense, any one can furnish himself with water to sprinkle his lawn or garden, to wash his house, or even to extinguish a fire in its early beginnings; also to ornament his grounds with a fountain, and use the same in other ways unnecessary to mention.

The subject of a supply of water for the cleansing of sewers and other places where disease is likely to be engendered, is alone one of prime importance.

At Kalamazoo, the Council have adopted a low tariff of prices, as low as from three to five dollars per annum for small families. The supply for steam purposes in manufacturing establishments, to the various railroad companies to fill their water-tanks, are also points worthy of consideration. At Kalamazoo they are as yet furnishing but one railroad company (the Michigan Central) with a supply of water to fill their tanks and for other uses, for which the city receives $1,000 per annum. They expect to supply the other companies running out of the place at remunerative rates. It was also stated that the State Lunatic Asylum would be supplied, for which the city would receive some $1,200 or $1,500 per annum. The wants of railroad companies and other institutions in this respect will probably be as large, if not larger, here than in Kalamazoo.

It may be, indeed we think it probable, that the construction of similar Works in our city may cost something more than has been expended at Kalamazoo. We may need more powerful engines on account of the greater height the water will have to be elevated, and more pipes and hydrants may be wanted because our own town is not so compactly built up as Kalamazoo, but the expenditure of any reasonable amount should not stand in the way of our securing, at the earliest practicable time, the great and indispensible benefits that will be conferred by an abundant supply of good water, and such efficient means for the use of the same.

In taking measures, however, to obtain this we should act intelligently and wisely. The subject should be committed to the care of those who will act with care and prudence, and for the best interests of our people, and we most earnestly recommend that in the building and construction of works of this character, the control thereof should at all times and under all circumstances, be kept within the hands of the people, through their representatives, and with such safeguards as shall most certainly prevent the loss of that control. The works should never pass into the hands of a private company to create a monopoly thereby. Let the city own the works and have its benefits, without furnishing to private individuals the means of speculation, through the daily necessities of the people. It seems that we are now without legal power to build these works independent of a chartered company, but by a general act of the Legislature, passed in 1869, cities are authorized to subscribe for the stock of companies, created for the purpose of furnishing water to their inhabitants. If this course should be adopted and we, see no other present way to accomplish the object, the city should subscribe for and own the very large proportion of the stock, that it may be able to control the works in as full and decided a manner as if built independently of such an organization.

It will, we presume, be feasible, if deemed necessary, to procure such legislation at the next session of the Legislature, as will enable the city to make the water works a purely city institution, and owned by it in name as well as in fact. It will be so practically, if the city now subscribes for nearly the whole amount of the stock of the Company that has been organized for furnishing water to the city. We can safely act in this way for the best interests of the people, therefore it is unwise to wait for further legislation; for our safety from the destroying element, at least, demands speedy action.

The Holly Water Works have been built in the following named places: at Lockport, Auburn, Gouverneur, Binghamton, Ogdensburgh and Batavia, in the State of New York; at Peoria, in the State of Illinois; at Canton, in the State of Ohio; at Minneapolis, in the State of Minnesota, and at Kalamazoo, in our own State.

After the examination of the Works we returned to the Hotel, and on the call of the Chairman, we repaired to the parlor and after the passage of suitable resolutions of thanks to our Mayor, the Michigan Central Railroad Company and our gentlemanly conductor, to the citizens of Kalamazoo, and especially Mr. Phelps and Dr. Pratt, and after an interchange of views among ourselves, it was unanimously resolved by a rising vote that the chairman of the delegation, Mayor Bennett, James C. Wood Esq., and Dr. J. L. Mitchell be appointed a committee to report to our fellow citizens the results of our visit, and in approval of the Holly Water Works for our own city, and that the Committee be authorized to append to the report the name of each and every delegate in approval of the same.

It only remains for us to say in this report that we are of the opinion unanimously that the Holly Water Works at Kalamazoo are a great success; that they are an exceedingly desirable improvement, and that it is indispensible that similar works shall be constructed and put into operation in our own city as soon as it can be done consistently with the magnitude of the enterprise, and we recommend that immediate steps be taken to secure the same protection against fires, for the preservation of health, and the same means of comfort and convenience that are now enjoyed by our fellow citizens of Kalamazoo, to whom much credit is due for the spirit manifested in inaugurating and carrying out to completeness their very fine and valuable Water Works.

It is now nearly seven years since the first were built at Lockport, where Mr. Holly resides; about five years since at Auburn, and a less time at the other places mentioned; but the highest testimonials of the immense value of these works to extinguish fires and also for the other purposes to which the same can be applied.

The company is now constructing works at Marquette, on Lake Superior, in our own State. We are also informed that a contract had been, or was about to be entered into, to build them at Indianapolis.

This is not a new and untried experiment, and we deem it entirely safe to enter upon this work without delay. Indeed we consider it the height of folly and a reckless disregard of our best interests to further prolong the time. Our disastrous experience surely warns us to "move at once upon the Works."

G. T. GRIDLEY, J. C. WOOD,
W. M. BENNETT, J. L. MITCHELL,
Committee to Report.

Fidus Livermore,
W. K. Gibson,
J. B. Eaton,
O. W. Bennett,
W. N. Buck,
L. T. Osborn,
Capt. M. Dorrill,
Major G. C. Hopper,
J. L. Holmes,
Benj. G. Mosher.
George Sherwood.
D. B. Hibbard,
Ezra M. Aldrich.
Chas. E. Beebe
J. W. Bennett,
T. J. Conely,
W. W. Van Antwerp,
D. Seymour Gilbert,
T. A. Wilson,
C. Warriner,
J. F. Coots.
A. J. Hobart.
Alo. Bennett,
C. W. Penny,
S. O. Knapp,
Dr. J. A. Robinson,
Col. A. V. Berry,
H. H. Bingham,
J. E. Beebe,
E. J. Robinson,
H. S. Ismon.
Oliver G. Goldsmith,
A. Patterson,
Benj. Porter,
F. W. Kirtland.
S. E. Rogers,
H. H. Smith,
B. G. Johnson,
B. F. Eggleston,
T. Pangborn,
Geo. M. Crittenden,
James Gould,
Dr. W. H. Palmer.

WATER WORKS.

Report of the Committee of Citizens.

To our Fellow Citizens:—The undersigned, having been kindly invited by our efficient Mayor to visit Kalamazoo, our beautiful sister town, with a view to see and examine the Holly Water Works recently constructed in that thriving and prosperous town, to supply it with water for the extinguishment of fires, and for culinary and other purposes, deem it our duty to present and of our views concerning the advantages of this system of water supply.

It has become exceedingly important to our growth and material interests that some plan should be devised, and that speedily, to enable us to save our property from destruction by that destroying element which has recently recurred with alarming frequency, and which has laid waste so many of our business houses, causing such serious loss to those whose property has been destroyed, and in fact affecting to some extent every property holder in the city.

While our immediate and more pressing necessities in this regard relate to the supply of water for the extinguishment of fires, still the supply of this important element for culinary and other purposes, and which is so necessary for the comfort, convenience and health of all our citizens, and so indispensable to every family in the city, has become of no mean importance, in taking into consideration the prosperity and probable growth of our city.

This necessity is growing rapidly, and it behooves us that we lay wise plans for the future and inaugurate some system that shall not only supply our present wants, but also provide for the years to come.

We set forth on the morning of Thursday, the 27th inst., in a special train furnished by H. E. Sargent, Esq., the gentlemanly and efficient Superintendent of the Michigan Central Railroad, conducted by Major Hopper, in whom we all rejoice, and who is the popular Agent of the company in this city, and whom to know is but to admire.

The day was beautiful, and after a very pleasant ride of some two hours and a half, we arrived at our destination at 11:30 a. m., where we were welcomed in a very cordial manner by Mr. Phelps, Superintendent of the Water Works, and Dr. Foster Pratt, chairman of the Health Committee and the author of the report to the citizens of Kalamazoo on the test of their new water works, and who is very enthusiastic in his approval of the same.

Before leaving the cars, on motion of Mayor Bennett, G. T. Gridley was appointed chairman of our delegation. Upon our arrival we were escorted to the Burdick House, where, soon after, we sat down to a sumptuous dinner prepared on a very short notice by the gentlemanly host of that justly popular Hotel.

After partaking of the very fine repast spread for us, our pleasant ride having given us a keen relish for the same, we were conducted by Mr. Phelps, Dr. Pratt and other gentlemen to Burdick Street, which leads from the Central Depot to the centre of the town, crossing Main Street at right angles, when our eyes were greeted with the magnificent sight of three splendid streams of water rising at least one hundred feet into the air from as many different main hydrants along Burdick Street, one of which is a mile or more from the location of the engine house, and the others from a half to three quarters of a mile therefrom. The water was forced through about fifty feet of hose at each of these hydrants, and we were informed that with a suitable amount of hose each hydrant would serve as a security for a radius of one thousand feet, but the hydrants occur quite frequently, and several can be brought into use at any fire within the district supplied with pipes.

What appeared quite singular to some of us at least, was the fact that the stream of water most remote from the Works was thrown the highest, and we were assured that if there were eight or ten of these hydrants open at once that the streams pouring forth from each of the same would not be sensibly diminished in quantity or height to which thrown.

It was truly a magnificent spectacle—it appeared like magic, for the powerful agent which was producing this result was invisible.

We were informed that the water had been thrown to the height of one hundred and eighty-five feet, at the time of testing the Works. As soon by us, it was thrown far above the tops of their highest business buildings, and we could well imagine that the most destructive fire would soon be conquered when four or five of these powerful streams of water were concentrated upon it. We began to have some idea of the value of these Water Works,