

# THE WATER QUESTION.

## REPORT OF THE CITY WATER COMMITTEE.

### The Holly System Best and Cheapest.

The joint special committee to whom was referred so much of the mayor's address as relates to supplying the city with water for fire and domestic purposes; and all unfinished business of the city council for the year 1871, relating to that subject, have considered the same and report:—

We entered upon the discharge of the duty assigned us immediately after our appointment. We felt the full force of the words of the mayor's address—"Water—good in quality and abundant in supply—is our great and sorest need;" and determined to solve, to our own satisfaction, at least, the problem which has agitated this community for ten years past, to-wit: *where and how can we get a supply of pure water for our city?* The first step taken was to ascertain what had been done by the city council of 1871. We found under date of December 20 a "Report of the committee of the city council appointed in August previous, with accompanying reports of Clemens Herschel, hydraulic engineer, and E. Dana Hayes, state assayer." These reports are quite elaborate, showing all the sources of supply within ten miles of the city, the quantity and quality of water each source will furnish, and giving detailed estimates of the cost of the works necessary for the purposes required. The committee submitted the reports with the simple recommendation that 4000 copies be printed for the information of the people. An order was passed to that effect, which has been complied with, and nearly all the copies are now piled in the office of the city clerk, where it is presumed they will remain till sold as waste paper, unless active measures shall be taken for their distribution. These documents constitute the unfinished business of last year. It is not necessary to repeat here the facts and data contained therein, nor need we discuss the merits of the several sources of water-supply examined. Any one desiring information on these topics will find it fully set forth in these reports. Some pertinent suggestions will also be found therein, respecting the wisdom of placing the business of supplying towns and cities with water in the hands of individuals or incorporated companies. We commend them to the particular attention of our citizens.

Evidently the primary steps toward the introduction of water to the city is to ascertain whence a quantity adequate to the necessities of the people can be procured. Your committee found in these reports, results which relieved them of much labor. Owing to some misunderstanding relative to the amount of drainage area included in the report upon Ashley's pond as a source of supply, we made another examination with the assistance of the city engineer. We found no occasion to doubt the correctness of Mr Herschel's report, and, after careful investigation of several localities in search of some elevated place from which the city could be supplied by gravitation, we reluctantly abandoned the idea, fully convinced that it is impracticable, and that our only alternative is to pump, either by steam or water power.

### SOURCE OF SUPPLY.

While these investigations were being made, Mr J. W. Phelps, a member of the Legislature from this city, introduced into the House a bill to enable the city to procure water from certain designated places. The bill was referred to the proper committee, who gave parties interested a hearing. Mr Ray, a member of your committee, appeared in its behalf, and favored the passage of the bill. Objection was made to it, however, because it embraced too much territory, and it was finally modified and passed, giving the city power to take water from the Chicopee or the Connecticut river only. This act has just been accepted by a vote of the city, and thus the question as to the source of supply is limited to a choice between the two rivers named.

Which shall be selected? We are well aware that the authority to select, and the means to be employed in delivering water into the city have been taken from the city council, and placed in the hands of the commissioners provided for in the water bill, and recently elected by the people. But our investigations had led us to certain results before the election was held, and we feel it our duty to give to the city council our conclusions and then leave the matter with the board of commissioners, having the fullest confidence that the best interests of the city will be protected and advanced by the able and excellent gentlemen composing the board.

### QUALITY OF WATER.

So far as the quality of the water is concerned, there is really but little choice between the Connecticut and the Chicopee rivers. The chemical tests applied by Mr Hayes show not only the weight of the organic impurities in the waters of these rivers, but also the kind and condition of the same. This method is deemed the most thorough and effectual in estimating the nature of different waters for city supply, and, as our sources furnish a water nearly equal in purity to the best, and far superior to that of many of the larger cities of this country and of Europe, we may safely consider it unobjectionable. The analyses of these waters compared with that of the aqueduct water give the following results, showing the amount of impurities in grains in one United States gallon:—

|                                     | Mineral matter. | Organic matter. | Total impurities. |
|-------------------------------------|-----------------|-----------------|-------------------|
| Connecticut river above Town brook, | 2.42            | 1.40            | 3.82              |
| Chicopee river at Barcham's bend,   | 1.80            | 0.93            | 2.73              |
| Chicopee river at Collins's depot,  | 1.56            | 1.42            | 2.98              |
| Springfield aqueduct,               | 1.64            | 1.22            | 2.86              |

It appears from the above that there are more grains weight of impurities in the Connecticut river water than in that of the Chicopee. Yet Mr Hayes tells us that both are good, while he pronounces the "aqueduct water," containing 2.86 grains of impurities, objectionable, because the organic matter (though less in weight) is in a state of decay. Let those persons who are satisfied with the present source of supply remember that many forms of disease are born of the poisons and impurities taken into the system in the fluids which we drink, and consider whether it is advisable to postpone definite action on this subject to some time in the distant future.

In comparison with the foregoing analysis, the sources of supply of New Haven show a total of impurities of 5.60; New York, Croton river, from service pipes, 4.78; Brooklyn, N. Y., 8.92; Albany, hydrant, 10.78, Hudson river, 7.24; Philadelphia, Schuylkill, 3.50; Chicago, lake Michigan, 6.68; London, England, Thames river, 16.88; and of Paris, France, Seine river, 8.88.

We have copied these figures from the report of Mr Hayes to show, in the language of Mr Herschel, that it is "a matter of congratulation to the inhabitants of Springfield that the sources at their command furnish a water of so remarkable purity and softness."

### QUANTITY.

Applying the test of quantity to these sources we find that the Connecticut river has every advantage over the Chicopee. It is practically inexhaustible, and the most enthusiastic believers in the rapid future growth of the city can have no apprehension that the Connecticut would ever fail as a source of supply for domestic, fire, and all mechanical and ornamental purposes. It is broad, deep and at our very doors. No corporation owns it and no individual will be harmed by our taking it. It is free to us, and we have but to lift it from its bed to make it our most valuable servant in encouraging old industries and creating new ones. It will fulfill all requirements for household purposes, for the cleansing of streets from the accumulation of offensive matters, for the purifying and cooling of the atmosphere in the summer months by its free use in sprinkling sidewalks and lawns, and in supplying fountains; and in many other ways it will contribute to the beauty and attractiveness of our rapidly growing city.

The Chicopee, on the other hand, is a much smaller stream, from five to eight miles away.

