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The position of Chief Engineer is plainly one of great labor, and requiring the closest and most careful application. We regard it as evident that the Department, is conducted by Mr. OGDEN with great ability and success. He has, too, evidently been very judicious and fortunate in the selection of men of acknowledged ability as Assistants and other officers, and assuredly this most important Department never was in more efficient condition, nor under better management. 90-3

Philadelphia, Thursday, January 29.

Mr. H. Miller—I am opposed to any banquetting. Mr. Hassinger—I would say that there is no money expended for banquetting. It is simply for carrying the Committee around to the works. Mr. Mascher—I am satisfied with the explanation. 90-4

Mr. Gordon moved to strike out \$6000 for office rent, stationery, printing and expenses of the Committee, and insert \$4000.

Mr. Henry said the expenses last year, according to the Controller's Report, was about \$4200.

The amendment was agreed to by a vote of 29 to 21, viz:—

Ayes.—Messrs. Barton, Berry, Binder, Bilyeu, Broomall, Brouse, Bumm, Dougherty, Duane, Dunk, Dyer, Freeman, Fuller, Gibson, Gordon, Green, Henry, Houseman, King, Manuel, Martin, Mascher, Hiram Miller, J. Washington Miller, Parker, Ridgway, Spencer, Roberts, Steelling and Vanhorn—29.

Nays.—Messrs. Baird, A. J. Baker, Abraham Baker, Bidd, Bockius, Butler, Craven, Enoch Gay, Hancock, Hand, Hassinger, Knorr, Andrew Miller, Patterson, Pe. II, Penrose, C. B. Roberts, Taylor, Vaux and Welsh—21.

Mr. Steelling moved to strike out \$7000 and insert \$5000, for payment of State Taxes, and repairing grounds. Agreed to.

Mr. Gordon moved to strike out \$52,500 for iron pipes, plugs, &c., and fix the amount at \$48,000.

Mr. Hassinger said this was only a temporary loan, as the money would be again paid into the Treasury.

Mr. H. Miller said this was poor economy, as it cost the city about \$1 per foot to put them down, and they received back \$1.50.

The bill then passed a final reading as follows:—

\$53,505 00 the expense of running all the works in charge of the department, and for fuel, tallow, oil, repairs to engines, boilers, pumps and fixtures, and the wages of engineers and watchmen.

\$52,500 00 the cost of iron pipes, fire-plugs, stop-cocks and other fixtures, and the cost of laying and placing the same.

\$12,400 00 the cost of keeping in order the plugs, pipes and other fixtures, and of making new attachments.

\$7,000 00 the payment of State taxes on the works, for repairs to buildings, and for cost of keeping the grounds attached to the works and reservoirs in good order.

\$13,375 00 the salaries of officers in the department, except engineers and watchmen.

\$4,000 00 the rent of offices, and office expenses, for books, stationery, printing, advertising and expenses of the committee on the department in visiting the works.

\$16,000 00 to pay Berkinbine & Trotter, in August, 1856, for amount retained as security for the proper working of the water works in the Twenty-fourth Ward.

\$13,000 00 to pay to the President, Managers and Company, of the Schuylkill Navigation Company, the proportion due by the City Corporation on the judgment obtained by Jonathan Robeson and Andrew Robeson, against the said Company.

\$338 75 to the said department, for the purpose of paying the Germantown Water Company the water rent for eighteen hundred and fifty-six, due by the City for fire-plugs and Town Hall, in the late Borough of Germantown, and to pay the claim of the said Company for oiling and strawing said plugs in the years eighteen hundred and fifty-four and eighteen hundred and fifty-five, and for water rent for the said Hall, for the year eighteen hundred and fifty-five.

The ordinance making an appropriation to the Receiver of Taxes was next taken up, and passed after some amendments, as follows:—

\$2500 salary of the Receiver of Taxes.

Want of Water.—The property owners and residents of the Twentieth ward, north of Master street and west of Eighth street, complain strongly of the want of a supply of hydrant water. For the larger portion of the day, they are without enough for their most ordinary and economical uses, and many days the supply is entirely off. To show how deficient the water is, a few days ago an attachment was made for a dwelling to the main, without stopping off as the necessary precaution always is in such cases. The people of this section have long complained, and have as long been promised that means would be adopted to give them a full supply of water. It is extremely hard and unjust that property owners and tenants should be annually taxed for water and not get it more than one-half of the time. A large main from the reservoir to Columbia Avenue would remedy the evil so seriously felt and so justly complained of. 90-5

five millions gallons per twenty-four hours. The water is elevated one hundred and fifteen feet to a reservoir five-eighths of a mile distant from the Works. 90-2

The storage capacity of these Works is insufficient, though consisting of a reservoir capable of containing about eleven millions of gallons.

The Delaware Works, formerly erected for the supply of the district of Kensington, the Chief Engineer thinks it advisable to abandon, and instead of them, erect new and powerful works on the Schuylkill near the eastern side of the Lemon Hill property, which, it is stated, is decidedly the best site for Water Works in this city. From them the ascending mains could be carried to the Spring Garden Basin at a much less distance than from any other point, being a shorter distance than from the Spring Garden Works—raise the Kensington Basin to the level of the Spring Garden Basin, and connect them by mains of sufficient capacity to keep the water in them at the same level, and they give to the citizens of Kensington a much better supply, and much purer water than they have at present. From the disadvantages connected with the working of the Delaware establishment, the inferior quality of the water, and for various reasons set forth by the Chief Engineer, the necessity and wisdom of this suggestion strike us as evident.

The Twenty-fourth Ward Works have been much improved since the last report, but are still very inefficient, owing, principally, to having no adequate reservoir. The storage capacity at present, consists only of a small stand pipe, sixty inches diameter and one hundred and thirty feet high, and by some unexplained deficiencies in the arrangement of it, only thirty feet of this pipe are available. The engines have to be started and stopped every few minutes throughout the twenty-four hours, during which time a constant pressure of steam must be kept up, and consequently, a constant consumption of coal; while if a proper reservoir had been provided, only a few hours running of the engines, in every twenty-four, would suffice to meet the demand. Should the machinery become disabled, the supply would at once be cut off, and in case of a serious conflagration, the consequences would be highly disastrous. The erection of a reservoir is recommended.

The machinery at these works consists of two Cornish engines of fifty inch cylinder, eight feet stroke, each having a pump of seventeen inches diameter of plunger and eight feet stroke; each engine is capable of pumping one million sixty-two thousand eight hundred and eighty gallons per twenty-four hours.

It is proposed for the purpose of ensuring a full supply of water in all, and especially those parts of the city most distant from the reservoirs, to erect stand pipes of a suitable and ornamental character in all the public squares, which would not in the least detract from their beauty, and at the same time bring a head of water into the immediate vicinity of demand.

Water, by being conducted through a great length of pipe, loses by friction, much of its head or force, and the supply from this cause is considerably diminished. The erection of stand pipes appears to be a novel and very effectual method of overcoming this difficulty.

To show how nearly the demand already approaches the utmost capacity of the Fairmount Water Works, it is stated that their maximum capacity, working 18 hours per day, is 12,727,708 gallons, while the average daily consumption, in July last, was 11,445,891 gallons.

In connection with the same consideration, the fact is very suggestive that the increased demand on all the works, in July, 1856, over July, 1855, daily, was 4,671,197 gallons. At this rate of going, Fairmount alone cannot long supply its district, and in fact, the Chief Engineer intimates, may be overtaxed during the present year, if the increased demand continues in the same ratio of the last year. And so with other works.

There is a thoroughly practical character in Mr. OGDEN's exposition of this highly important point, and we ask for it especial attention on the part of our legislative authorities. The whole subject is brought down to figures in the most conclusive manner.

The aggregate of iron pipes laid in 1856 is nearly ten and a half miles, though much more has been ordered by Councils than yet completed.

Since the first of July, a complete examination of the distributing pipes throughout the city has been in progress, and many defects detected and remedied. The causes of leaks have received especial attention, and a vast saving has evidently been made, resulting from this examination.

The Water Department.

There is no department of Municipal affairs, nor no trust in the hands of Executive affairs, more important than that which has for its object the supplying of the city with water. This duty must be performed constantly and promptly, and tolerates not the slightest delay nor diminution. The wants, comfort, and, in fact, absolute necessities of every individual in the community are at stake, and must be provided for instantly. Hence the indispensable and paramount importance of active and competent engineers, and of a practical, skillful and vigilant chief officer of this department. Such, we have every reason to conclude, has charge of it. 90-1

Mr. OGDEN, Chief Engineer of the Department, presented his first annual report to Councils at their last meeting. This document is perhaps the ablest and certainly the most satisfactory of any ever given to the public from this department, showing the operations of the last year, and the wants of the future. The recommendations and suggestions, intended to supply future demands, are highly creditable and original, and leave no doubt that future wants can be promptly provided for. The Works have been conducted most economically, and although the demand for water has been greater since Mr. OGDEN has had charge than ever before, the Works have been conducted with less expense. In the item of coal alone, we notice that at the Schuylkill works there has been a saving of one ton per day, amounting to over fourteen hundred dollars per year, and in the item of repairs, the saving far exceeds this sum, and in the other items the same strict economy is visible. Mr. OGDEN gives his personal attention to all matters connected with the Department.

A much greater amount of pipes have been laid at less expense than ever before.

The Fairmount Water Works, with which we are all familiar, are so simple in their construction, and so economical in their operations, that they need very little explanation. It is known to all our readers, that the power at these Works is obtained from the Schuylkill river. The machinery consists of eight breast-wheels and one turbine water-wheel, to each of which is attached a double acting forcing pump, which elevates the water into the reservoir, near the Works. It is a significant fact that as no more power can be derived from the Schuylkill than is at present employed, and as these Works are taxed almost to their full capacity during the summer months, there is a prospect that at an early period they will either have to be enlarged by the introduction of steam-power, or depend upon the other Works to assist them in supplying their district. It is proposed to bring to their aid the new Works suggested to be constructed above Fairmount. There is also another excellent proposition, which is to change the course of sewers, so they empty below instead of above the dam.

The Schuylkill Works, (better known as the Spring Garden Works,) situated on the Schuylkill, above Fairmount, are the most extensive and complete works of the kind in the country. The machinery is of the most powerful and effective character, and consists of two low pressure beam engines of 36 inch cylinder, 6 feet stroke, one low pressure square or bell crank engine of 36 inch cylinder, 6 feet stroke, and one cornish beam engine of 60 inch cylinder, 10 feet stroke. The first three engines combined are capable of pumping about eight millions nine hundred thousand (8,900,000) wine gallons per twenty-four hours, but in consequence of the incapacity of the ascending mains, only three engines can be used at once, which makes the ordinary capacity of the whole of these Works about twelve millions gallons per day.

The cornish engine, erected by Messrs. I. P. MORRIS & Co., gives entire satisfaction, and during Mr. OGDEN's charge of the Works, has exceeded the duty guaranteed by its builders, and has not cost the city one cent. This engine is in constant use, and although laboring under the great disadvantage of having no ascending main of its own, it discharging its water into the mains of the other three engines, performs a duty equal to some of the most famous engines of Cornwall. If there was a suitable main attached to this engine, its duty would exceed that of any engine in this country, and would undoubtedly stand amongst the best pumping engines in the world. A fair account of its work for the last year cannot be presented, for the reason that much coal has been charged to it at frequent trials in the early part of the year, when first commencing its operations, and no duty registered. The engine is capable of pumping about