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LOCAL AFFAIRS.

City Water Department.—The annexed consumption of water in the city, shows how rapidly the population is increasing. The following table shows the quantities at the various places of supply from the city water works:

Table with 2 columns: Location and Gallons. Rows include 1556 Fairmount, Spring Garden, Delaware, 1555 Fairmount, Spring Garden, Delaware, 1856 Twenty-fourth Ward works, Delaware, 1855 Twenty-fourth Ward works, Delaware, Total 1856, Total 1855.

Increase, 1856, 759,440,327. Showing an increased consumption the last year of 759,440,327 gallons.

The daily average from the three works first named above is 15,348,066 gallons. The daily average consumption for Twenty-fourth ward, is 143,654 gallons.

The quantity consumed in the month of July was, for the first named three works, 638,552,488 gallons. A daily average of 21,566,209 gallons. In Twenty-fourth Ward the consumption for July was 5,521,560 gallons.

The quantity of main pipes laid during the year was 3 inch 3716 feet, 4 inch 12,935 feet, 6 inch 37,456 feet, 8 inch 630 feet, 10 inch 62 feet—total, 54,579 feet, or nearly eleven miles. In 1855 there were six miles of pipe laid.

The new Cornish Engine, independent of the three other engines at the Spring Garden Works, pumped during the year, three hundred and fifty-one millions twenty-seven thousand one hundred and sixty gallons, with an average daily consumption of coal of 1 ton, 6 cwt., 1 qr. The running time for the whole year was 3142 1/2 hours, not running in the month of July, being an average of 6 hours 23 minutes per day.

The greatest depth of water running over the dam was on Tuesday, Aug. 5th, when it was 2 feet 6 inches, according to the present elevation of the dam.

At the Fairmount Works, the quantity of water pumped by the wheels, was two billions, eight hundred and sixty-seven millions, one hundred and eighty-eight thousand, nine hundred and sixty-five gallons—being an average of seven millions, eight hundred and thirty-three thousand, eight hundred and forty nine gallons.

Emigrant Travel over the Pennsylvania Railroad.—Below will be found some interesting facts in reference to the number of emigrants travelling over the Pennsylvania Railroad from this city during the year 1856, gleaned from the official record kept by the Emigrant Agent, Mr. Francis Funk. The increase in the whole number of passengers during 1856 over that of 1855 is 1337, and of those going west of Pittsburg, 3591, thus showing that the tide of emigration continues to set towards the Far West. The Commissioner of Emigrants in New York reports "that up to December 17th, the increase in the number of emigrants arriving in New York over a corresponding period in 1855, was about 9000; of this increase 2547 came to Philadelphia and passed over the Pennsylvania Railroad."

From the 1st of January to the 31st of December, 1856, the number of emigrant passengers passing over the Pennsylvania Railroad was 21,624; of this number, 11,715 1/2 came from New York; 802 1/2 of the whole number stopped at places east of Pittsburg, having 12,413 pounds of extra baggage; 5,464 stopped at Pittsburg and vicinity, having 160,412 pounds extra baggage. The number west of Pittsburg, was 15,362 1/2, having 287,151 pounds of baggage. The total amount of baggage for the year is 708,428 pounds.

During the same period in 1855, the whole number of passengers was 20,187 1/2, and of this number, 9168 1/2 were from New York, and the balance, 11,019, from Philadelphia. The increase of New York passengers, during '56, over those from Philadelphia, is attributed to the fact that a number of Mormon emigrants arrived at this port in 1855, and that during 1856 there has been no arrivals. The number of passengers going west of Pittsburg in 1855 was 10,771, while in '56 the number was 15,262 1/2—an increase of 447 1/2. The total amount of extra baggage carried in 1855 was 514,680 pounds, being 106,162 pounds more than in 1856.

Annual and Triennial of Vessels during 1856.

May LOCAL AFFAIRS 1857

The Philadelphia Water Works.—The severity of the past winter affected, in a greater or less degree, the basins and embankments of all the water-works. Mr. Ogden, the Chief Engineer, has been busily engaged for several weeks in making repairs, and rendering the works more competent to supply the demand upon them. At the Kensington Works, about 14,000 bricks have been laid in the basin, and the embankment cut from the top, and strengthened at the bottom, the old bank having settled so much in consequence of the weight of earth at the top. The basin has been thoroughly cleaned, and the water now from these works is as pure and clear as from any other in the city.

The basin of the Fairmount Works was also greatly affected by the severe frosts, rendering it necessary to relay nearly all the brick work. Portions of the basin had to be puddled, so as to prevent the water from finding its way through the banks. Two of the large wheels have been entirely rebuilt, and all the others are being repaired, as well as the forcing pumps, and in a few days the works will be able to accomplish more work than for months previously. A coffer dam is now being constructed for the purpose of being placed upon the dam, so as to allow workmen to lay the cap-log on the dam, which was removed by the ice during the past winter.

The works in the late District of Spring Garden and the Twenty-fourth Ward are in excellent order, and performing their usual amount of work. The receipts into the Water Department from all these works has been some \$50,000 greater than any previous year, a fact which is attributable to the system, of making new searches, adopted by the present chief of the Department. An effort is now being made to have a law passed by the Legislature to still further increase the revenue, by authorizing the city to tax all houses for water-rent, whether the owners see fit to have it introduced or not, and thus prevent the practice of getting water from one hydrant to supply a whole neighborhood, without paying more than tax for one house.

Statistics of the Coroner's Office.—The following interesting statistics of the Coroner's office are gleaned from the...

The increase in the daily consumption, from the Schuylkill Works, in July, 1856, over July, 1855, was 1,012,388 gallons.

There is storage in the Reservoirs attached to the Schuylkill Works, equal to 11,963,636 gallons, which, under ordinary circumstances, is not sufficient for two days' supply.

The "Delaware Works" are located at the foot of Wood street, on the Delaware river, and the power is supplied by two steam engines. The reservoir is situated at the corner of Sixth street and Lehigh avenue, about 12,000 feet from the engine house. These Works were projected and constructed by the late District of Kensington. They supply water to the 16th, 17th, 18th, 19th, and part of the 23d Wards of the City.

The consumption of water is annually about 769,566,040; average daily supply and consumption 2,102,639. The reservoirs furnish storage equal to 11,333,747 wine gallons.

The "Twenty-fourth Ward Works" are situated on the west bank of the Schuylkill river above the Fairmount dam, and are designed to supply that part of the city west of the river. The power is supplied by two direct acting Cornish Bull Engines. For storage and head for the works there is a stand pipe one hundred and thirty feet high, and five feet in diameter, situated on an elevation of ground distant from the engines eighteen hundred and twenty feet. The distributing main is extended up the stand pipe one hundred feet, leaving but thirty feet for storage. The supply and consumption of water is per annum 92,577,642, or a daily average of 143,654.

Since the present Engineer has been in office several important improvements have been suggested by him, and made under his direction to the several Works. In one or two instances, a better distribution and greater supply of water in certain sections of the city has been effected.

Some improvements and changes are in contemplation by the Engineer and Water Committee of City Councils.—One is to have the Delaware Engine Works abandoned, and by means of a large main from the Schuylkill works to supply the parts of the city now supplied by the Delaware works. Another is to remove the Delaware Works to some point further north on the river and thereby give the ability to supply the Twenty-third Ward fully and secure to all better water. This last project would cost the city not less than half a million of dollars.

The Water Department is one of the great sources of revenue to the city; for while the total expenditures were a little less than \$139,000 for the year 1856, the receipts were from all sources a little over \$144,000. It is calculated the duplicates for the next year will call for over \$400,000 for water rents alone, to which if added the receipts for pipe and from other sources, the aggregate income will not be less than \$450,000.

New Water Works in the Twenty-third Ward.

The Committee on Water, of Councils, visited the Twenty-third ward yesterday, for the purpose of examining and selecting a proper site for the erection of water-works to supply the inhabitants of Kensington, Frankford, and other portions of the Twenty-third ward. The citizens of the late borough of Frankford are, it is said, in need of a better supply of water, having to rely upon wells, which, in certain portions of the year, are inadequate to the wants of the citizens. This, in addition to the fact that for the last two summers the inhabitants of Kensington were subjected to the inconvenience of using water now supplied by the Kensington works, detrimental to the health, induced the committee to visit the Twenty-third ward, to ascertain if both evils could not be remedied, by getting a supply of water from a point on the Delaware in the vicinity of Tacony. At Green Lane, some 500 feet below Tacony, the city owns a lot having a front of 61 feet on the Delaware, with a depth, including the Port Warden's line, of 360 feet. At this place the Chief Engineer, and the committee, think the engines should be erected, as the shore at this point is hard and gravelly. One mile from this point is the Bristol Turnpike, a place was viewed, which is thought to be adapted for the erection of a basin, or sand pipe, if either should be agreed upon by Councils. The ground at this point is 82 feet above high water mark, and 32 feet below the Kensington basin, and if the proper materials cannot be obtained at this place for the erection of a basin, a stand-pipe of sufficient size could be erected to meet all the demands to be made upon it. From this point to the Kensington basin is five miles, and from the river to Bristol Turnpike one mile, making the entire distance to convey the water six miles. The cost for the erection of these works is estimated as follows:—Two engines, capable of throwing up eight millions of gallons every twenty-four hours, \$60,000; basin, capable of holding 20,000,000 gallons, \$50,000; six miles of thirty-six inch pipe, at \$55,000 per mile \$335,000. Incidentals \$60,000, making a total cost of \$500,000.

Water Department of the City.

Messrs. Editors:—Having seen several communications published relative to the Reform of the present Councils, I have taken the liberty to write these few lines, relative to the Water Department of our City, which is the LARGEST LEAK from the City Treasury.

The present Chief Engineer, since his election, has four persons employed at his office, (Cherry street, below Tenth,) to do the work that our late Engineer, Mr. GRAEFF did, whose salaries amount to \$2500 per annum; he has created numerous offices, as follows:

- Watchman at Spring Garden Reservoir.
Watchman at Shop, Cherry, below Tenth street.
Superintendent of Construction at Fairmount.
Assistant Superintendent, (son-in-law of Engineer.)
An additional Engine man at Schuylkill Works.
Two additional men at Fairmount Works.
Two additional men at Twenty-fourth Ward Works.
One additional Clerk at office, Fifth and Chestnut streets, none of which have been returned or confirmed by Select Council; but all receive their pay.

Mr. Esher, the Purveyor, has a clerk who is called a Time-keeper, who attends to his duty, as he knows nothing about it himself. Also, a man to serve delinquent water-rent bills.

Mr. Ogden and Mr. Esher done a private job from the main at Schuylkill Works to the breweries of Bergdoll, Psotta & Fisher with the tools of the City, last January and February, which they received from two to three thousand dollars for.

All the repairs for the Schuylkill Works are done at the shop of the Engineer (now Henderson & Co.) at their own prices. And sundry members of Councils are furnishing materials to the Department.

- G. W. Schofield, Nineteenth Ward, tallow, some \$600.
B. R. Wright, Twentieth Ward, feed for the horses.
J. R. Brownholtz, Twenty-first Ward, coal for Schuylkill Works.

I consider that there is more money wasted by this Department than all the other Departments of the present City Government.

Tax-PAYER.

May 1st 1857 Daily News.

CITY MATTERS.

Reported for the Daily Pennsylvania.

A Day in the Water Department.—The Water Department of the city, it must be apparent to every one, is among the most important of our institutions, inasmuch as it comes home in its distribution and supply of an essential to human existence, to every man, woman and child. The history of the Fairmount Water Works in its origin and progress, or of the other water works now of the city, but originally of the several districts of the Northern Liberties and Spring Garden, Kensington and West Philadelphia, we do not propose to enter into. Suffice it that the Fairmount Works has a celebrity all over our country, and even in Europe.

We intend to give some of the details of some of the operations, duties of the several officers and employes in the various departments, so as to enable our citizens to know its character, and furnish information that may be of advantage to them in matters of business with the department.

The head of this department is called the Chief Engineer, who is elected annually by the City Councils. He has the charge and care of the Water Works of the City, including mill houses, steam engine houses and their machinery; the reservoirs, pipes, dams, fire plugs, together with the property and fixtures of every kind connected with the same. He has the general control and oversight of all the officers connected therewith, directing and assigning their respective duties, besides which it is his duty to attend to the direction and control of new works, and to carry out repairs. The extensive character of the several works, the importance of them to the well being of our citizens makes his position a very responsible one, and requires, besides a good theoretical knowledge of his profession, a practical acquaintance with and skill in the branches of engineering, hydraulics, machinery, and indeed all the details necessary for maintaining and carrying on the operations of his department, with a confident success. It is his duty likewise to prepare all plans of construction, make estimates connected with works of construction or repairs, certify all accounts, bills and contracts for materials furnished or labor performed under his direction; and supervise and arrange all contracts for labor, material, &c. Besides, he has considerable correspondence by letter, &c.; and with reporting to Councils at stated periods upon special occasions, his time is largely occupied in the varied duties of his position.

There are four Water Surveyors, who are appointed to four several districts of the City by the Chief Engineer. They have immediate charge of all the mains, pipes, stop cocks, fire plugs and other fixtures appertaining to the distribution of the water through the city, and are required to personally attend to the laying of new pipes, as well as repairs of pipes, fire plugs, &c. It is their duty to attend to the drilling of the pipes for making attachments, shut off pipes on account of leaks, shut off also where water rents have not been paid, check all undue waste of water, keep accounts of material delivered and labor performed, attend to repairs, leaks, carelessness, and any infringement of the ordinances in relation to water supplies.

There are four Inspectors, whose duty it is to examine all premises where water is introduced, and render an account to the Register of the various uses of the water, such as the number of hydrants, baths, water closets, urinals, wash-basins, wash paves, bars in taverns and public rooms, dye houses, breweries, distilleries, &c., so as to enable him to make the proper assessments of water. They are required also to report to the Register all cases of fraudulent use of water and abuse of permits, or additions made in fixtures, buildings, or factories; and distribute the bills to water rent delinquents. The officers of the department already enumerated, as will be perceived, have their general business operations outside. We now come to the inside officers, who are posted at the office of the Register at the corner of Fifth and Chestnut streets.

The Register of Water Rents is one of the officers of this Department, is nominated by the Chief Engineer, and appointed by and with the consent of the Select Council.

His duty is to make all assessments of water rents in manufacturing and other establishments, where large quantities of water are used; receive all water rents; superintend the issuing of all permits for water, and register the same by Wards; prepare the water rent duplicates; make out and issue bills for the water tenants; He is required to report the duplicates to the City Controller, on or before the first Monday of January in every year. He has charge of the financial accounts, and his collections are daily paid over to the City Treasurer. The duplicates of water rents are sixteen in number, averaging one hundred and fifty pages. These are always in the office of the Register, where payments of rents are received, daily, from 9 o'clock A. M. to 3 o'clock P. M.

In this connection, it may be proper to state that all water rents are payable in advance on the second Monday of January, upon all rents unpaid upon the first day of April, five per cent. is charged; all unpaid on the first day of July, an additional ten per cent. is charged, making fifteen per cent.; and any rent in arrears on the first day of September subjects the delinquent party to have the supply of water cut off, and to a suit for the recovery of the rent in arrears. The supply to such premises will not be renewed until all arrears are paid, and two dollars for expenses.

Besides the Register there are in the office one general clerk and three permit clerks. The general clerk assists in registering and receiving rents, making out bills, &c. The permit clerks attend to the issuing of permits for the four districts into which the city is divided, and to any other duties assigned them. In the various operations of the Engineer's department there are necessarily a number of men employed about the several engines and works, in the laying of mains, making attachments for supplies, and the manufacture of different articles, repairing, &c.

The works at Fairmount, operated by water power raised by the dam on the Schuylkill, are an attraction to all strangers and visitors to the city. There is something about them, which, considering their power, produces universal surprise, and a grandeur and beauty that excites the admiration of every spectator. The dam, the forebay, the wheel-house and wheels, the reservoir, together with the picturesque scenery of the spot and its surroundings, make Fairmount a daily resort for the inspection of one of the wonders of the age, and for recreation and pleasure. There are eight breast-wheels and one turbine wheel, forcing the water into the basins. These require the attention and care of three men, who in turn are on active duty throughout the day and night.

The Fairmount Works supply water to the first ten Wards of the city, amounting in the aggregate annually to 2,807,188,965 wine gallons, or 7,833,849 wine gallons daily.

The daily capacity of the present wheels and Gallons. pumps, working eighteen hours, is..... 12,127,708 The average consumption per day in July, 1856 was..... 11,445,891

Leaving an excess of capacity beyond the demand, of..... 1,281,817 As the increased daily consumption in July, 1856, over July, 1855, amounted to 2,032,677 gallons, it requires but a short calculation to show that this rate of increase will at no distant period tax the power of the Fairmount Works to the utmost.

The Reservoirs of the Fairmount Works, including the new one on Corinthian Avenue, furnish storage to the amount of 37,642,787 gallons. This is about equal to five days' supply of the city, including Kensington and West Philadelphia.

The "Schuylkill Works" are on the Schuylkill river, above Fairmount, and were constructed jointly by the late Districts of Spring Garden and the Northern Liberties.—The power is supplied by four steam engines, by which the water from the river is forced into the reservoir, near the Girard College grounds. These Works supply with water the Eleventh, Twelfth, Thirteenth, Fourteenth, Fifteenth and Twentieth Wards of the City, amounting annually to 1,950,637,500 wine gallons, or about 5,600,323 wine gallons per day.

The maximum capacity of Schuylkill Works per day, working 24 hours, is..... 12,418,560 The heaviest daily consumption in July, 1856, was..... 7,328,077

Leaving an excess of capacity over the daily demand in July, 1856, of..... 5,090,483