

BOX

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FOLDER

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Departmental Reform

1913

BUREAU OF MUNICIPAL RESEARCH

TRUSTEES

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261 BROADWAY, NEW YORK October 6, 1913.

Hon. Ardolph L. Kline,
Mayor,
City of New York.

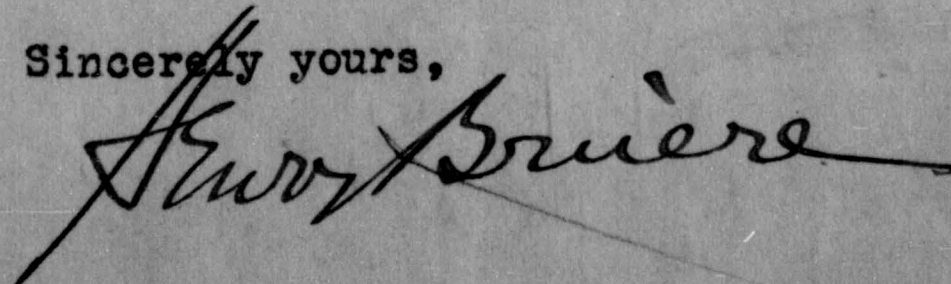
My dear Mayor Kline:-

I am enclosing a statement which we gave out on September 13th in reference to a constructive program that Mayor Gaynor discussed with me before his death. You may care to glance this over.

Do you wish to discuss some time the following suggestions for possible steps for you to take as mayor in reference to departmental administration?

- 1 - Ordering working hours of 9 A. M. to 5 P. M. in departments, and requesting a resolution to that effect in the board of estimate
- 2 - Calling for a summary of work by the commissioners of accounts and publishing reports to date
- 3 - Taking steps to have health records open to public inspection
- 4 - Ordering a detailed study of fixed posts
- 5 - Setting up qualifications for the next appointments to the board of education
- 6 - Ordering that quarterly reports due October 1st receive next attention, and that preparations be made now to issue promptly annual reports for 1913, even if 1912 or 1911 reports are not ready

Sincerely yours,



Director.

B/BS

THE CITY OF NEW YORK,
DEPARTMENT OF
WATER SUPPLY, GAS AND ELECTRICITY.
COMMISSIONER'S OFFICE,
13-21 PARK ROW.

HENRY S. THOMPSON,
COMMISSIONER.
J. W. F. BENNETT,
DEPUTY COMMISSIONER.
J. L. PULTZ,
SECRETARY.

NEW YORK, December 29, 1913.

Hon. Ardolph L. Kline, Mayor,
City of New York.

Dear Sir:-

As requested I send you a statement on the affairs of this Department as they existed on entering on my duties as Commissioner and the methods adopted by me to correct conditions.

Upon assuming office and ascertaining the Department organization and the functional activities of its bureaus and divisions, I immediately became convinced that the organization was not based upon business principles, and that by reason of the divided responsibilities and lack of cooperation among the different bureaus, there was a fruitful field for producing chaotic conditions which, at times, although not serious enough to materially affect the workings of the Department, were annoying, to the extent that there were constant modifications and changes, not based upon definite lines of principle.

CONDITIONS AS THEY EXISTED.

The Water Supply Bureau was comprised of six separate divisions, each acting independently of the other, which caused duplication of work, multiplicity of standards, lack of coordination, and inadequate planning and supervision of same. The Bureaus of Water Register were without a proper system of audit and control. In the Borough of Manhattan, the billing of meter accounts was six months behind. There was a lack of supervision and control of the inspection force, dilapidated and antique furniture and inadequate protection of the records. Each borough had its own established bureau for the purchase of supplies. There was no inventory of materials. Large quantities of certain classes of supplies were on hand in boroughs where there was no actual demand for same, and orders were constantly being issued for the same material required in other boroughs. There was also a separate audit bureau in each borough, causing unnecessary duplication of work. The buildings and the vast stretch of lands under the control of the Department had the appearance of property without an owner or for which no one was responsible. Bills aggregating seven or eight million dollars for gas and electric service rendered during the year 1906 remained unpaid. The electrical equipment in theatres and other public halls of assemblage was not inspected frequently enough to insure absolute safety.

IMPROVEMENTS.

Working Hours: One hour was added to the length of the working day. This affected over 700 employees and increased the number of working days over 16%, equivalent to 35 additional working days for each employee per annum, making a total of nearly 25,000 additional working days.

Reorganization of the Bureau of Water Supply: The plan of reorganization provided for one Chief Engineer, in place of six independent bureau and division heads, and the creation, under the Engineer's direct control and supervision, of separate divisions according to the character and class of work. Comprised within this organization there were approximately 2500 employees, consisting of engineers, assistants and skilled and unskilled laborers. With the responsibility of this important division centered in one, an immediate

study of work which had been planned and approved under previous administrations was made. What was considered unnecessary and wasteful, which subsequent developments and events sustained, was discontinued. By the abandonment of these proposed projects I prevented the expenditure of \$1,500,000. The elimination of unnecessary and useless positions, which showed so clearly in the reorganization of this Bureau, resulted in a saving of \$360,000. in salaries and wages for the year 1910, based on the October payroll for 1909.

Financial: The economies effected in the Bureau of Water Supply which have resulted from the application of business principles are shown in the following comparative tables:

TABLE I.

Borough	Salaries & Wages		Changes in Budget for 1914 on the basis of Budget of 1910.	
	Budget for 1910 (a)	Budget for 1914 (a)	Increase	Decrease
Manh. & Bronx	705,000	734,000	29,000	146,000
Brooklyn	1,136,000	990,000		146,000
Queens	109,000	75,000		34,000
Richmond	216,000	123,000		93,000
Total	2,166,000	1,922,000 *	29,000	273,000
NET DECREASE \$244,000.				
	. Supplies, etc.		Changes in Budget of 1914, on the basis of Budget of 1910.	
	Budget for 1910	Budget for 1914	Increase	Decrease
Manh. & Bronx	399,000	426,000	27,000	506,000
Brooklyn,	1,035,000	529,000		199,000
Queens,	321,000	122,000		31,000
Richmond.	114,000	53,000		
Total,	1,869,000	1,160,000 *	27,000	736,000
NET DECREASE \$709,000.				

The NET DECREASE in the Budget for 1914 is, therefore \$953,000. This, however, does not tell the whole story, because it takes no account of the increase in population during the last four years, which normally would result in a corresponding increase in the cost of maintenance and operation of the water supply system.

TABLE 2

Year	Expendi- tures - Salaries, Wages, Supplies, etc.	Year	Budget Allow- ances, Salaries, Wages, Supplies, etc.	Changes Based on Comparison of Expenditures and Budgets.			
				Increase 1905 to 1910		Decrease 1909 to 1914	
				Actual	Percentage	Actual	Percentage
1905	2,655,000	1910	3,762,000*	1,107,000	42		
1909	3,639,000	1914	3,052,000			557,000	15

Table #2 takes into account, among other factors, the effect of this increase of population, and shows the results obtained by comparing the expenses in 1905 and 1909 with the corresponding expenses for 1910 and 1914, the first and last year in each case limiting the whole administrative period.

If the increase in annual expenditures from 1909 to 1914 had been the same as it was from 1905 to 1910, the increase over the allowed budget for 1914 would have been \$1,664,000. Again, if from 1909 to 1914 there had been the same rate of increase as was shown from 1905 to 1910, the budget for 1914 would have been \$5,167,000. or \$2,055,000. above the actual budget for 1914.

(a) In this Table, and also in Table 2, we have been obliged to use the figures of the Budgets for 1910 and 1914, because, although we have the actual expenses for 1909, we have not yet the actual expenses for 1913. The expenses provided for from corporate stock, which depend on the amount of new work, are not in the above figures.

* In passing upon these figures, it should be borne in mind that the Board of Estimate and Apportionment, in the Budgets for 1910 and 1914, made reductions from the amounts requested by this Department. Therefore, if the departmental requests were used for 1910 and 1914, instead of the Budgets for those years, the results obtained would be similar to those given above, and the reductions for 1914 were only made possible by the work accomplished in the Department during the last four years.

BUREAU OF WATER REGISTER.

The unmetered properties, which comprise the major portion of the buildings, had not been resurveyed in 21 years in the Boroughs of Manhattan and The Bronx. In some of the other boroughs no inspection had ever been made from the time of the entry of the water rate, the water rents charged having been carried forward in each year's register. Each property was inspected and the existing fixtures for which rates had been established were checked against the amounts previously charged. This investigation disclosed thousands of properties which were not charged the full and legal amount. In many instances buildings were discovered, some of which had existed for many years but no record of which could be found upon the books. A careful inspection was made of all properties where water was furnished in large quantities and which premises were within the class of buildings where authority vested in me to meter such supply.

In some boroughs no effort had ever been made to seal the water meters so as to guard against tampering. Where sealing was done, the method employed did not secure the proper protection against interference by those who designed to defraud The City. New seals were adopted and a uniform method of wiring the meter and its connections was established. Practically every meter has been sealed. This insures to The City a guarantee that full

charges are now fixed for all water sold at meter rates. Compromising of water meter bills has been done away with.

In past years inspectors had been furnished with a book in which to record the readings of the meters. No check or verification of their work had ever been attempted. There was no means of knowing whether the reports filed truly represented the actual condition of the meter or the premises, and there was no means of locating an inspector on his work after he had left the office. Supervising inspectors or roundsmen were selected, each having in his possession the route slip of the work to be done each day, making it possible to locate an inspector at any time. Relieving posts or stations were designated, where the inspectors assigned to certain localities reported to the supervisor at the close of the day.

The accuracy of the registration of meters after their installation had never heretofore been known. A corps of specially-trained inspectors were selected and the meters on the properties of large consumers were tested. A great number were found under-registering. To accomplish the testing of these meters on the premises, a test tee was attached to the piping, which obviated the necessity of removing the meter to the Department's testing station. This would have been required had the Department at any previous time desired to test such meters. Some meters were found over-registering. In such instances the owners of the buildings were being charged in excess of the actual amount of water delivered.

I installed an entirely new procedure of bookkeeping and, for the first time in the history of The City, the charges representing water rates are under control and there is now an absolute certainty of the correctness of these records, and any possibility of altering or changing the established amounts has been removed. Legislation was secured, by authority of which a penalty now attaches to meter charges which remain unpaid after a certain period. From delinquent owners the amount of penalties has added approximately \$70,000. to the water rents, and the unpaid amounts heretofore returned for collection to the Receiver of Taxes have been reduced two-thirds. Upon my recommendation a new ordinance has been adopted that embraces all the rates and charges which in prior years no legal authority had existed for their enforcement of collection. The new scale of rates also provides for the establishment of a building upon an annual rate basis where same exceeds fifty feet in frontage and more than five stories in height. The Department had been operating under authority of an ordinance which was practically the same as the original one adopted in 1849.

The collections of 1910 showed an increase of \$2,032,050.65 as compared with the previous year.

The charges for water for shipping were under the control of two boroughs, with very little, if any, supervision. A boat was in service which had been used, I am informed, for patrolling the waters in and around New York and reporting all boats using water from the public hydrants. As a matter of fact, the boat was a mere pleasure craft. On account of its size and rather frail construction, it was entirely useless for the work. I transferred it to the Commissioners of the Sinking Fund and procured a smaller boat and one adapted to the work, constructed somewhat along the lines of the police patrol boat. Through the aid of this boat the Department has been able to secure payment from owners who had not previously paid for the water used in the operation of their boats, having in the past arranged to secure their supply at a time when the inspector was not on duty.

Water Waste Reduction: From July 1910 to July 1911 the rainfall was the lowest recorded in forty-five years. The danger of a shortage in the supply became apparent, and effective measures were immediately taken to conserve the supply and to guard against a water famine. Each house owner in the Boroughs of Manhattan and The Bronx was notified of the imminent danger and their cooperation was solicited. The necessity for prompt repair of all leaking and defective plumbing fixtures and the prevention of unnecessary waste

of water was presented to their attention and they were further advised that an inspection of their properties would immediately follow, and that where leaks and waste existed the owners of such buildings would be required to pay a penalty if the plumbing was not repaired within a stated time and following the receipt of a notice indicating the particular fixtures that were leaking. I am happy to say that the public responded to my solicitations and a reduction in the consumption of water of approximately seventy million gallons per day resulted. This represented over 20% of the supply delivered. The estimated cost of the house-to-house inspection was less than \$2.00 per million gallons. The total expense of this leak and waste campaign was \$118,000. The total amount of water saved, from the beginning of the water waste investigation to date, equals 51,000 million gallons. The value of this water, on the basis of \$133. per million gallons, is \$6,783,000. While this saving in consumption has been made, the population has increased 600,000. The fines imposed by reason of neglect or delay in repairing the plumbing fixtures totalled about \$50,000. This amount was included with the regular water rent and became a lien against the properties affected.

The Borough of Brooklyn was threatened with a shortage of supply in January 1910, and in the First and Third Wards of the Borough of Queens water was not delivered under sufficient pressure to reach the high lands. In the Borough of Richmond, water was being delivered in carts to residences located on high ground. It was necessary to resort to these measures during the extreme cold weather and during the summer. A careful study was immediately undertaken, in order to definitely ascertain the causes which produced these conditions in the Boroughs of Brooklyn, Queens and Richmond. The Department had knowledge that waste existed in many of the properties, and the continuous loss of this water prevented others from obtaining an adequate supply. All of the unmetered buildings were visited and the owners were compelled to repair defective fixtures. Many of the house owners in the Borough of Richmond had made a practice of persistently allowing the water to run during the cold spells so as to prevent freezing.

By improving and increasing the pumping facilities and the replacement of small mains which had come into the possession of the Department on the acquisition of the privately-owned plants in the Borough of Richmond and the extension of the distribution system, it was possible, after several years, to establish conditions which, I believe, removed any immediate fear of danger of a shortage of supply in the Borough of Richmond.

The stoppage of waste and the reduction of unnecessary uses of water throughout the Borough of Brooklyn made it possible to discontinue twelve pumping stations; in fact, the surplus water which had accumulated is now being delivered to the Borough of Queens. As this water was gradually introduced from the Borough of Brooklyn, I reduced the quantity which had been previously purchased from several of the private water companies operating in the Borough of Queens. At the present time two water companies are delivering a small quantity, but at the beginning of 1914 this will also be discontinued. In 1909, \$342,000. was expended in the purchase of water required in the Boroughs of Brooklyn and Queens. This is the first time in twenty years that the Borough of Brooklyn is free from any danger of a shortage in the supply. The quality shows a decided improvement over that previously delivered.

The abandonment of the pumping stations resulted in a considerable saving in salaries and wages. The vast and extensive changes made in the distribution system of the Borough of Brooklyn brought about the elimination of all district charges for fire insurance premiums, with the sole exception of an unimproved and undeveloped section. In certain parts of the Borough the district charges which had prevailed amounted to as high as 50% of the premiums. The owners of property now escape this additional burden.

In 1909 the consumption of water in all Boroughs was 515 million gallons daily, while the per capita consumption was 111 million gallons daily. For the first three quarters of the present year, the consumption has averaged 498 million gallons daily,

add the per capita consumption 96 gallons. Had the consumption increased in four years to an amount equivalent to the estimated increase in population, the present consumption would have been about 560 million gallons daily. The per capita consumption in Brooklyn is now lower than at any time during the past twenty years, while for Manhattan and The Bronx it is lower than it has been since 1894.

Coal- By reason of the purchase of more economical fuel and the installation of the most improved methods and mechanical appliances, the cost of coal for 1910 was \$122,514. less than the preceding year, the amount of water pumped exceeding the previous year by 2.5%. The same proportionate saving was accomplished in other Boroughs. The estimated cost of coal for the operation of the Brooklyn stations for 1914 is about \$330,000. In 1909, when no water from the Brooklyn source was delivered outside of the boundaries of that Borough and where the population was many thousands less than to-day, the expenditure for coal was \$435,000. In addition to the increased pumpage within the limits of the Borough of Brooklyn, the Department will deliver daily to the Borough of Queens approximately seven millions gallons. Not alone will there result an actual saving in the cost of fuel of \$100,000., but there will be entirely eliminated the expense of purchasing water which, in 1909, cost The City \$342,000.

The form of specifications and contract were entirely changed. Where the coal falls below the contract requirements, deductions are made. No premium or bonus is allowed where the grade of coal is higher than the standard set in the specifications. These specifications have been adopted by the Board of Estimate and Apportionment for general use in every Department of The City Government.

High Pressure Fire Service: In the Boroughs of Manhattan and Brooklyn the high pressure fire service has been extended, principally to districts in which large manufacturies and business establishments are located, and also to safeguard tenement sections. Contracts have been awarded for the extension of this service north of 34th Street, between Madison Avenue and the North River.

BUREAU OF GAS AND ELECTRICITY.

I felt that by reason of the vast amount of current furnished for the illumination of public buildings, The City was entitled to a more reasonable rate than was being charged. A number of conferences were held with the lighting companies and I secured a reduction of one cent per kilowatt hour. The saving secured in the past three years amounts to \$210,000 .

In addition to the furnishing of current for the operation of the high pressure fire service stations, which is paid for according to the consumption, the electric light companies maintain another independent service, and are under a heavy penalty should there be any failure or interruption in the furnishing of current. The standby charge established by reason of the maintenance of the independent or emergency connection I have been able to reduce, in the past three years, by \$27,360.

I have been endeavoring to give the City more light than it has had in times past and you have probably noticed that in a great many of the public squares we have been introducing the flaming arc lamps in place of the old-fashioned arc lamps, and I had a meeting of the manufacturers in my office over a year ago with the idea of getting them all to work on a new flaming arc light lamp to the end that the City might use the flaming arc lamps entirely instead of the old-fashioned arc lamps, at the same cost. We have been getting near this point very rapidly and I think in time the desired object will be attained. We have also tried out for the first time in history at 42nd Street and 5th Ave., the new nitrogen lamp which may go very far in solving the question of lighting in the side streets.

The Chief Engineer of Light and Power made a visit to all the principal cities of Europe, to study the methods employed and the class of street lighting, with a view to improving the street lighting in this City. With the exception of a few main streets and several public centers where very high-power lamps are used, this City's street illumination far excels that of the cities of Europe. The interior lighting of our public buildings, hotels and business buildings surpasses, both in design of fixtures and in the class of illumination, any of the buildings in the cities of Europe. There is practically no supervision over the installation and use of electrical apparatus abroad.

Legislation was secured so as to give the Department absolute control and supervision over the employment of those engaged in the operation of moving picture machines. Each applicant, before he received a certificate of competency, is required to pass a very rigid examination.

Unlawful Occupation of the Streets and Department property: In causing the removal of aerial wires and the placing of same in subways, I discovered that many of these wires were owned and operated by companies and a few individuals without the proper municipal consent. Many tunnels and conduits, used as passageways between buildings and for conveying steam, water, electricity, etc., were discovered. These, I believe, had been constructed without the knowledge or consent of the officials. I brought these matters to the attention of the Board of Estimate and Apportionment. Applications were immediately made by the owners of these wires and structures for franchises, and upon ascertaining the period of time that these companies and individuals had occupied space above or below the public streets and places, \$750,000. in back rentals were secured and charges permanently established for future rentals and taxes.

The telegraph and telephone companies, also the electric light companies operating in the different towns and villages, principally in the Croton and Westchester Watersheds, had in past years received permission from subordinate employes to erect their poles on the Department property. Knowing that in the case of private land owners the companies were required to compensate said owners for the privilege of occupying their land, I secured authority, through the Commissioners of the Sinking Fund, to exact a rental fee of \$1.50 for each new pole erected, and an annual rental charge of \$1.00 for each pole maintained by these companies. A number of public service corporations in these localities had also installed water, gas and electric mains upon and across the Aqueduct property. These companies are now required to pay for this use of the City's land.

I would also call attention to the Bureau of Supplies which I established on entering this Department and which now takes care of practically all the purchasing and storing of supplies of the Department. I have just had a small booklet published in which is set forth the methods now employed in the purchase, storage and distribution of supplies. I think you will find the operations of this division are on a par with any of the large industrial organizations of the country. The establishment of a Bureau of Costs and Statistics has made it possible to secure data showing the cost of operating the Department. The cost of each functional activity is readily ascertainable and comparative statements showing these operations are of material assistance in determining the efficiency of each bureau or division. A corp of experts was selected which comprises a Bureau of Economy and Efficiency. Attention was first directed to the cost of operating the pumping stations. By the introduction and application of more approved methods and apparatus the reduction in coal consumption and increased efficiency of stations was immediately accomplished and further progress along these lines will in a short time result in material economies.

I think I may safely say that the City closes the past four years with the Water Department in very good shape considering the many handicaps we have had to work against, and if the work is pushed along the lines in the future, which I have started on, this Department can be used as a model.

Yours sincerely,


Commissioner.