

1913

City of Bangor Mayor's Address the Annual Reports of the Several Departments and the Receipts and Expenditures for the Year 1912-'13

Bangor (Me.)

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CITY OF BANGOR

MAYOR'S ADDRESS

THE ANNUAL REPORTS

OF THE SEVERAL DEPARTMENTS

AND THE

RECEIPTS AND EXPENDITURES

FOR THE MUNICIPAL YEAR

1912-'13

Compliments of

Charles W. Mullen

Mayor

CITY OF BANGOR

MAYOR'S ADDRESS

THE ANNUAL REPORTS

OF THE SEVERAL DEPARTMENTS

AND THE

RECEIPTS AND EXPENDITURES

FOR THE MUNICIPAL YEAR

1912-'13



BANGOR, MAINE
BANGOR CO-OPERATIVE PRINTING CO.
1913

Bangor City Government

1912-1913

Mayor, CHARLES W. MULLEN

ALDERMEN

Ward 1. John F. Fleming Ward 4. Alden L. Chase
Ward 2. George H. Kratzenberg Ward 5. William D. Matheson
Ward 3. Charles M. Brown Ward 6. Benj. W. Blanchard
Ward 7. David J. McGrath

City Clerk and Clerk of Board, VICTOR BRETT

COMMON COUNCIL MEN

President, George D. Harden

WARD 1

J. Edward Canning Hugh T. Gallagher Edward R. Hickson

WARD 2

John E. Kelley Edmund A. Doran John G. Utterback

WARD 3

Charles H. Hubbard J. Herbert Boyd George Smith

WARD 4

Fred A. Jordan Henry A. Kelley George D. Harden

WARD 5

Joseph E. Friend Irving M. Page Eben W. Blunt

WARD 6

William H. Holman George E. Weiler George P. Gould

WARD 7

Charles G. O'Connor Thomas F. Gallagher James E. Collins

Clerk of Board, Thomas G. Donovan

Mayor's Address

GENTLEMEN:

The voters of Bangor have selected us to look after their corporate interests in the city. We have each of us taken an oath or affirmed to do so, to the best of our ability as we see it. This does not mean that we should be miserly in any respect that would not be for their interests, but it does mean that we should be economical and prudent at all times. We should treat all questions that may come before us as if it were our own private business.

The finances of the city is the one thing nearest the heart of our citizens. for the reason that all the money the city has to pay its bills with has to be taken from the pockets of the citizens under the form of taxation, which is becoming quite burdensome. I may find that the money the city raises has been economically spent, but it does seem as though we ought to get more benefit from it. I have had occasion to do a little investigation for my own benefit for last month, and I find the appearance strongly indicates that the city has been largely in charge of the heads of the different departments. The committees and heads of departments have their functions to perform, but this year I propose to have a supervising care over each department. I shall not sign a warrant to pay any bill

of over \$100 that does not bear my approval, and I shall certainly try to satisfy myself that the smaller ones are all right.

Twenty-one years ago, when I was first mayor, the valuation of the city was \$11,762,461; the income was \$252,893. Then the city was in debt about 17 per cent. of its valuation. When I was last mayor, the debt had been reduced to less than 5 per cent. of the valuation and many permanent improvements were made.

Last year, 1911, the valuation was \$23,496,928, and the income tax \$518,680, or nearly $2\frac{1}{4}$ times more than when I first served; and yet out of these receipts, no permanent improvements seemed to have been made. It may be that the cost of labor and material may account for the difference, but I hardly think so.

About the first thing the strangers observe, when entering a city, is its class of buildings and the condition of its streets and sidewalks. The large number of new buildings which we can now boast of, will help them to form a good impression, but the streets and sidewalks through the principal avenues of the city are not what they should be and it is up to us to see if any improvements can be made this year. The larger part of Exchange street, together with the sidewalk, is in a wretched condition, and that is the main street over which strangers come and go.

The school department, when our high school is well settled in its new quarters, will have, without doubt, the largest and best school buildings in the State; in fact, we shall have ten first-class brick and stone, sanitary school buildings, filled

with, I trust I may be pardoned if I say, the brightest lot of boys and girls to be found in any school buildings in the country. We have the high school building, the Palm street, the new St. John's Parochial school, the Center street, the Pine and the Elm street in the East Side. The Grammar school building, the Longfellow school building, the Larkin street and the St. Mary's Parochial school on the West Side, in addition to several wooden ones, which some day will be replaced with good substantial brick ones. In fact, I think we have a school department second to none.

We have a very proficient fire department, well equipped and well handled and housed in good, substantial, brick houses.

Our Board of Assessors have lately been deprived of one of its important members, a member who has always been found in the office, a member who was familiar with all the details of the office. You will be called upon to fill his place; you can not expect to find a person who will be so familiar as was Mr. Hubbard. We shall miss him much. In filling his place, I would advise you to take into consideration the advisability of re-organizing the department. As you know, we have had in that office three men, one known as the chairman, another as second man, who kept the books, the other as third man, who is not expected to do much work except for a couple of months in the Spring. The growth of the city, or in other words in that department, is about three times what it was a few years ago. It is now an opportune time to reorganize it. I should advise you to elect three men to the office, who shall all stand equal and who shall spend their entire time in the

business of the office. There is no such distinction as chairman in the law. If in organizing they should see fit to elect one of their board chairman, that would be up to them.

The other departments, I am going to assume, are all right, but if I should find anything that you should be appraised of, I will inform you later.

The electric cars to Brewer has agitated the public mind for the last several years, and it is unfortunate when every one would be glad to see the cars go across the bridge, that some way could not have been found to accomplish the object.

A bridge across Kenduskeag stream, at the foot of Exchange street, is very much needed. State street across the bridge is badly congested the most of the day, as is also West Market square, caused by the heavy trucking which has to be all transported by the way of State street. When this bridge is built some way should be found to construct a small dam across the stream, some two or three feet high, for the purpose of holding water enough to form a basin sufficient to cover the sewerage at low water during warm weather, but not high enough to interfere with shipping or rafting of logs.

There is the old Customs House; something should be done with that. The material should be utilized for the best advantage of the city.

Central street, as soon as it is advisable to do so, should be widened through to Hammond street.

The hose house should be built on Harlow street, near the foot of Cumberland street, for the better protection of property in that vicinity. Morse's mill is at present very poorly pro-

tected, and there is an industry worth a great deal to the city of Bangor. There are also our new school and library buildings, worth at least one-half a million dollars to the city of Bangor.

It would be wise to build up the wall of the old Norumbega site soon, then we could probably get it filled without expense.

There should at no distant day be built some sort of a retaining wall on the west bank of Kenduskeag stream in front of the city stables. It presents now a very unsightly appearance from Harlow street and vicinity and is continually washing the dirt into the stream.

There is a great demand for some place where people driving into the city with their teams and who wish to remain one hour or more, could hitch their horses. I shall advise you further on the subject.

In conclusion, I wish to say to you, gentlemen, who will be placed upon the several committees that I shall expect the heads of all departments before there shall be any expense of any consequence contracted for in their department, that they shall obtain my consent to have them made or refer them to the city council.

One week from today you will meet in this hall to elect the subordinate officers. It is important this year that you select men for their qualifications and not for their good fellowship.

F. O. BEAL, *Mayor*.

TREASURER'S REPORT

Dr. HENRY O. PIERCE, City Treasurer

March 1, To cash on hand.....	\$118,587 91	
To cash rec'd of Collector of taxes for years 1901-1912 inclusive.....	\$549,769 74	
To cash rec'd of U. S. Govt., for land in Center Park for P. O. site.....	114,000 00	
To cash rec'd for Treasurer's notes discounted.....	150,000 00	
To cash rec'd for redemption of estates sold for taxes.....	6,025 39	
To cash rec'd of State of Me., for pensions dis- bursed.....	4,137 00	
To cash rec'd of City Clerk, for dog licenses....	965 00	
To cash rec'd from sale of bonds refunding loan of 1892, 4%.....	50,000 00	
	\$874,897 13	
To cash rec'd for contribution to Firemen's relief fund from Chas. Dolan, unexpended balance of contribution for relief of fire sufferers.....	\$ 10 00	
To cash rec'd of Mrs. Elizabeth C. Dow, same	20 00	
To cash rec'd of fire relief committee, for use of City Missionary.....	101 00	
To cash rec'd of City Missionary, proceeds of Charity ball.....	166 00	
	\$ 297 00	
To cash received for credits to the several de- partments exclusive of appropriation:		
Bridge.....	\$ 545 74	
Buildings.....	18 97	
Electrical.....	2,429 25	
Fire.....	665 00	
Highway.....	6,037 92	
Incidental.....	75,579 83	
Interest.....	3,039 91	
Parks.....	482 89	
Pauper.....	4,909 44	
Police.....	6,715 00	
	\$100,423 95	
Amounts carried forward to page 12.....	\$100,423 95	\$993,782 04

In account with the CITY OF BANGOR**Cr.**

1913

Feb. 28, By cash disbursed in the several departments and funds for year 1912, per Mayor's orders:

Bridges.....	\$ 6,705 69	
Buildings.....	17,005 38	
Electrical.....	31,546 94	
Fire.....	57,870 73	
Highway.....	76,794 81	
Incidental.....	128,740 74	
Interest.....	32,733 71	
Overlayings.....	22,564 63	
Parks.....	6,800 96	
Pauper.....	23,822 47	
Police.....	34,156 31	
Library.....	4,200 00	
Salary.....	16,277 33	
Schools.....	112,221 64	
High School construction.....	129,686 10	
Sprinkling.....	8,714 07	
Sewers.....	17,345 06	
Water.....	92,227 21	
Water, transferred to Sinking Fund....	7,243 26	
Street Openings.....	700 63	
	<hr/>	\$827,357 67
By cash paid Treasurer's notes.....	\$150,000 00	
By cash paid bonds due Nov., 1912.....	50,000 00	
By cash paid purchasers of estates at tax sale amount deposited for redemption.....	6,025 39	
By cash paid State Pensions.....	4,173 00	
By cash paid dog licenses to State Treasurer..	965 00	
By cash paid City Missionary.....	216 00	
	<hr/>	\$211,379 39
By cash paid County Tax.....	\$ 23,998 05	
By cash paid State Tax.....	92,368 51	
	<hr/>	\$116,366 56
Amount carried forward to page 13.....		\$1,155,103 62

Dr. HENRY O. PIERCE, City Treasurer

Amounts brought forward from page 10. . . .	\$100,423 95	\$993,782 04
Public Library	700 00	
Schools	55,819 44	
Sewers	2,668 02	
Sprinkling	5,700 93	
Street Openings	869 32	
Water	87,470 47	
	<hr/>	\$253,652 13
		<hr/>
		\$1,247,434 17

1913]

CITY OF BANGOR

13

In account with the CITY OF BANGOR**Cr.**

Amount brought forward from page 11.....		\$1,155,103 62
Cash on hand:		
Merchants Bank, Boston.....	\$ 12,890 54	
Merchants Bank, Bangor.....	45,845 36	
Eastern Trust & B. Co.....	1,688 47	
Second National Bank.....	3,165 25	
Merrill Trust Co.....	2,469 39	
Kenduskeag Trust Co.....	4,567 46	
Cash Memoranda and pay rolls.....	21,704 08	
	<hr/>	\$ 92,330 55
		<hr/>
		\$1,247,434 17

SINKING FUND

1912		
Mch. 1st. Balance on hand.....	\$ 19,779 68	
1913		
Feby. 28. Amount of unexpended balance of water account.....	7,243 26	
	<hr/>	\$ 27,022 94
Feby. 28. Interest on same.....		\$471 63
		<hr/>
		\$ 27,494 57

Respectfully submitted,
HENRY O. PIERCE, City Treasurer.

COLLECTOR'S REPORT

Dr. **HENRY O. PIERCE, Collector of Taxes**

1912

March 1. To balances of unpaid taxes for the following years, viz.:

1901	\$2,118 88	
1902	2,537 73	
1903	3,437 14	
1904	4,190 09	
1905	2,905 01	
1906	3,402 95	
1907	4,030 20	
1908	5,218 52	
1909	7,592 72	
1910	9,452 07	
1911	17,496 61	
	<hr/>	\$ 62,281 92

Sept. 14. To commitment of tax for 1912, viz.:

Bridges	\$7,750 00	
Buildings	12,000 00	
Electrical	25,000 00	
Fire	57,000 00	
Highway	70,000 00	
Incidental	38,000 00	
Interest	35,000 00	
Parks	5,000 00	
Library	3,500 00	
Pauper	18,000 00	
Police	28,000 00	
Salaries	15,500 00	
Schools	62,800 00	
Sewers	15,000 00	
Sprinkling	4,500 00	
Water	12,000 00	
County Tax	23,998 05	
State Tax	92,368 51	
Overlayings	23,871 32	
	<hr/>	\$549,287 88

1913

Feby. 28. To supplementary taxes for years 1901-1912 inclusive

1,136 15

\$612,705 95

1913]

CITY OF BANGOR

15

In account with the CITY OF BANGOR

Cr.

1913

Feby. 28. By cash paid City Treasurer, for
tax collections for year ending Feby.
28th, viz.:

1901.....	\$ 55 05
1902.....	77 86
1903.....	129 40
1904.....	137 04
1905.....	134 20
1906.....	131 50
1907.....	263 00
1908.....	468 00
1909.....	727 30
1910.....	1,619 21
1911.....	4,406 28
1912.....	519,662 46

\$527,811 30

By abatements allowed by the Assessors for
years 1901-1912 inclusive..... \$ 22,564 63

Less repaid to tax payers..... 606 19

\$ 21,958 44

By balances carried forward to new account,
viz:

1903.....	\$2,955 20
1904.....	3,567 96
1905.....	2,469 65
1906.....	2,869 75
1907.....	3,350 40
1908.....	4,432 02
1909.....	6,141 92
1910.....	7,205 39
1911.....	12,087 14
1912.....	17,856 78

\$ 62,936 21

\$612,705 95

Respectfully submitted,

HENRY O. PIERCE, Collector.

Statement of the Standing of Funds for the year 1912

Departments	Appropriations and Credits	Amount Expended	Amount Overdrawn	Amount Unexpended
Bridge	\$ 8,295 74	\$ 6,705 69		\$ 1,590 05
Buildings	12,018 97	17,005 38	4,986 41	
Electric	27,429 25	31,546 94	4,117 69	
Fire	57,665 00	57,870 73	205 73	
Highway	76,037 92	76,794 81	756 89	
Incidental	227,579 83	128,740 74		98,839 09
Interest	38,039 91	32,733 71		5,306 20
Library	4,200 00	4,200 00		
Parks	5,482 89	6,800 96	1,318 07	
Pauper	22,909 44	23,822 47	913 03	
Police	34,715 00	34,156 31		558 69
Salary	15,500 00	16,277 33	777 33	
Schools	118,619 44	112,221 64		6,397 80
Sewers	17,668 02	17,345 06		322 96
Incidental High School Bldg.		129,686 10	129,686 10	
Sprinkling	10,200 93	8,714 07		1,486 86
Water	99,470 47	92,227 21		*7,243 26
Overlays	25,007 47	22,564 63		2,442 84
Street Openings	869 32	700 63		168 69
	\$801,709 60	\$820,114 41	\$142,761 25	\$124,356 44

*Transferred to sinking fund \$ 7,243 26

Statement of Bonded Indebtedness

For Purpose Issued	Date Issued	Date Due	Nos. of Bonds	Denominations	Amount	Rate
Municipal	Nov. 2, 1912	Serial 1913-1922	1-50	\$1,000	\$50,000	4%
"	May 1, 1893	Nov. 1, 1914	1-100	\$1,000	100,000	4%
"	Aug. 1, 1908	Aug. 1, 1928	1-125	\$1,000	125,000	4%
"	Aug. 1, 1911	Aug. 1, 1931	1-250	\$1,000	250,000	4%
Water . . .	July 1, 1905	July 1, 1935	1-450	\$1,000	450,000	4%
"	Serial Aug. 1, 1910	1912-1917	451-550	500	50,000	4%
			21-70	1,000	50,000	4%
					\$1,075,000	

Assessed Valuation of Estates in the City of Bangor for 1912

Real estate of resident owners.....	\$15,676,356 00	
Real estate of non-resident owners.....	1,501,904 00	
		<u>\$17,178,260 00</u>
Personal estate of resident owners.....	5,931,633 00	
Personal estate of non-resident owners....	387,035 00	
		<u>\$6,318,668 00</u>
Total		<u>\$23,496,928 00</u>
Increase over 1911, \$406,923.00		
No. of Polls, 6,869		

Statement of Dues to the City March 1st, 1913

Cash on hand.....	\$92,330 55	
Uncollected taxes.....	62,936 21	
Uncollected Sewer assessments.....	8,401 74	
Sinking Fund.....	27,494 57	
		<u>\$191,163 07</u>

Trust Funds

Bangor Fuel Society.....	4 and 6 %	\$4,500 00
Home for Aged Women.....	6 %	25,000 00
Bangor Children's Home.....	6 %	40,000 00
Bangor Mechanic's Association.....	6 %	12,000 00
Wakefield Fund.....	4½%	10,000 00
Fireman's Relief Fund.....	6 %	5,534 15
Holton Medal Fund.....	5 %	2,000 00
French Medal Fund.....	5 %	4,750 00
Hersey Fund.....	4%	100,000 00
Stetson Fund.....	5 %	12,000 00
		<u>\$215,784 15</u>
Fogg Fund, B. & A. R. R., 5% bond, interest for use of City Missionary.....		\$1,000 00

Statement of Interest on Bonds and Trust Funds

Municipal loan due May and November, 1913.....	\$6,000 00
Municipal loan due Aug., 1913 and Feby., 1914.....	5,000 00
Municipal loan due Aug., 1913 and Feby., 1914.....	10,000 00
Water loan due July, 1913 and Jany., 1914.....	20,000 00
Water loan due Aug., 1913 and Feby., 1914.....	2,000 00
Bangor Fuel Society, due Jany., 1914.....	200 00
Home for Aged Women, due Apr. and Oct., 1913.....	1,500 00
Bangor Children's Home, due July, 1913 and Jany., 1914...	2,400 00
Bangor Mechanic Asso., due Mch. and Sept., 1913.....	720 00
Wakefield Fund, due July, 1913 and Jany., 1914.....	450 00
Arrears on same.....	100 00
Holton Medal Fund, due June, 1913.....	100 00
French Medal Fund, due June, 1913.....	237 50
Stetson Fund, due 1913, for use of City Missionary.....	600 00
Hersey Fund, due quarterly, for Public Library.....	4,000 00
Fireman's Relief Fund as called for to Mch. 1st, 1914.....	332 04
Arrears on same.....	528 22
	<hr/>
	\$ 54,167 76

Recapitulation of Liabilities and Assets

Bonded indebtedness.....	\$1,075,000 00
Trust Funds.....	215,784 15
	<hr/>
	\$1,290,784 15
Less cash and accounts due the city.....	163,668 50
	<hr/>
	\$1,127,115 65

Valuation of City Property, Real and Personal

REAL ESTATE

Water Works, Stand Pipe, Dam, Mains, etc.....	\$1,550,000 00
Hersey Memorial Building and Lot	200,000 00
Schoolhouses and Lots	400,000 00
City Stable and Land	15,000 00
Electric Station and Lot, York St.....	15,000 00
City Parks.....	150,000 00
Almshouse and Farm.....	60,000 00
Hose Houses and Lots.....	85,000 00
Old Post Office Lot.....	15,000 00
Old Norombega Lot.....	10,000 00
	<hr/>
	\$2,500,000 00

PERSONAL ESTATE

Steam Fire Engines, Hose and Ladder Trucks, Horses, Hose, etc., (Fire Department).....	\$30,000 00
Horses, Harnesses, Steam Roller, Stone Crusher, etc., (Highway Department).....	25,000 00
	<hr/>
	\$55,000 00

Real Estate Purchased in 1912

FOR PROPOSED NEW STREET, CENTER TO CUMBERLAND

Baptist Church Lot.....	\$ 23,000 00
F. E. Maxfield Lot ..	7,000 00
Elvira K. Hunt.....	625 00
Horace M. Dwelley.....	100 00
Mary A. Carpenter.....	1,000 00
John and Annie P. Evans.....	2,000 00
George W. Haynes.....	775 00
Margaret E. Cushing.....	1,250 00
Stewart Heirs.....	100 00
Chas. S. Gibbs.....	1,850 00
Ellen W. French.....	1,100 00
Eliza M. Lawson and Als.....	1,800 00
	<hr/>
	\$ 40,600 00

Report of the Commissioners of the Sinking Fund

To the City Council:

In accordance with Section 4 of the City Ordinance creating a sinking fund the commissioners herewith respectfully submit their twenty-second annual report.

The present Board received from their predecessors one European & North American R. R. Co. bond of \$1,000. due Jany. 1st, 1894, and unpaid coupons attached due prior to Jany., 1883, amounting to \$420. as described in the annual report of March 1st, 1912.

In accordance with Section 8, Chapter 56, of the City Ordinances the Commissioners have set aside the unexpended balance of the Water Department for 1912 amounting to \$7,243.26 and added to the sinking fund.

CHARLES W. MULLEN,
GEORGE D. HARDEN,
JOHN F. FLEMING
HENRY O. PIERCE

Commissioners of the Sinking Fund.

Receipts and Expenditures

OF THE

CITY OF BANGOR

For the Municipal Year Ending March 1, 1913

Compiled Under Directions of the Mayor, Agreeably
to an Order of the City Council

BRIDGES

RECEIPTS

Amount of appropriation	\$ 7,750 00	
Amount received from City of Brewer	162 38	
Amount received from refunds	44 10	
Amount received from lumber and iron sold	195 05	
Amount received from other departments	144 21	
	<hr/>	\$ 8,295 74

EXPENDITURES

City Treasurer, paid sundry men for labor	\$ 613 25	
James P. Beck, watchman at Bangor and Brewer bridge	873 00	
D. F. McCarthy, contract for repairs to Central St. bridge	2,502 08	
Morse & Co., lumber	725 21	
J. C. Wilson, same	130 22	
	<hr/>	
Amount carried forward	\$4,843 76	

Amount brought forward	\$4,843 76	
Smith Planing Mill Co., same	1 50	
Haynes & Chalmers Co., hardware	26 45	
Rice & Miller Co., same	6 50	
W. P. Dickey & Co., same	2 00	
M. Schwartz Sons, same	60	
N. H. Bragg & Son, same	2 13	
Highway Dept., labor and material	42 25	
Electrical Dept., same	306 75	
E. L. Gatchell, carpentry	299 13	
J. T. Carter, same	116 87	
Cowan & McCarthy, same	48 26	
E. F. Kelley & Sons, plumbing	98 96	
C. H. Babb & Co., same	1 55	
Union Iron Works, iron work	70 00	
Kelley Carriage Co., same	1 00	
Penobscot Mach. Co., same	4 00	
C. M. Bragdon, same	6 40	
Fred Cort, labor	5 00	
Queen City Granite Co., same	30 11	
P. H. Coombs, engineering services	200 00	
E. E. Greenwood, same	275 00	
R. B. Dunning & Co., sewer pipe	1 80	
Connor Coal & Wood Co., coal	7 10	
Bangor Gas Light Co., gas	50	
W. H. Gorham & Co., painting	178 80	
McDonald & Peavey, same	20 22	
Bangor Publishing Co., advertising	11 87	
Pearl & Dennett Co., insurance	29 00	
M. Hughes, teaming	64 50	
J. F. McCarthy, same	1 00	
D. J. Nason, use of boat	50	
J. L. Cosmey, repairs	2 18	
	<hr/>	
	\$ 6,705 69	
Unexpended balance	1,590 05	
	<hr/>	
		\$ 8,295 74

BUILDINGS

RECEIPTS

Amount of appropriation	\$12,000 00	
Amount received for junk sold	18 97	
	\$ 12,018 97	
Amount overdrawn	4,986 41	
	\$ 17,005 38	

EXPENDITURES

Morse & Co., lumber	\$2,243 14	
C. Woodman Co., same	1,498 74	
A. D. Emerson, same	84 00	
H. F. Andrews, same	88 83	
J. F. Gerrity, same	10 50	
Bridge Dept., same	82 38	
C. Durgain, same	21 60	
H. L. Day & Son, same	5 40	
J. C. Wilson, same	3 60	
	\$ 4,038 19	
Haynes & Chalmers Co., hardware	\$ 205 07	
Rice & Miller Co., same	359 25	
Snow & Nealley Co., same	2 28	
W. P. Dickey & Co., same	1 23	
C. M. Conant Co., pulleys, etc	15 75	
R. B. Dunning & Co., cement	5 77	
A. R. Hopkins Co., same	15 45	
L. Sonneborn & Sons, paint	96 25	
The Dole Co., lighting fixtures	27 12	
M. Lynch & Co., keys and locks	78 65	
R. H. Holyoke, flag pole	27 05	
J. E. Largay, gravel	37 20	
M. Hughes, gravel	20 00	
	\$ 891 07	
Amount carried forward		\$4,929 26

Amount brought forward		\$4,929 26
Cowan & McCarthy, carpentry	\$ 4,209 48	
G. B. Foster, same	487 37	
F. S. Morse, same	562 92	
M. H. Lancaster, same	67 27	
J. T. Carter, same	9 94	
E. B. Eastman, same	6 95	
C. F. Foster, same	5 15	
L. P. Patten, same	18 41	
G. W. Reed, same	5 44	
W. E. Fish, masonry	4 54	
C. S. Maxfield, same	37 75	
A. M. Townsend, same	160 65	
Ward & Clough, same	75 03	
L. H. Bunker, same	2 00	
Hazleton Bros, same	42 60	
D. F. McCarthy, cement tank	202 10	
Reilly Co., roofing	688 28	
Thos. Loftus, grading	17 25	
C. H. Babb & Co., plumbing	265 19	
E. F. Kelley & Sons, same	2,296 57	
Maine Plumbing Co., same	18 07	
Fairbanks Bros., same	6 96	
J. H. McAuley, same	39 29	
T. Canning & Son, painting	171 68	
W. H. Gorham & Co., same	52 59	
F. E. Eldridge Co., same	8 41	
Atkins Bros., same	10 44	
C. H. Morrison, repairs	73 00	
	<hr/>	\$ 9,545 33
J. Mason & Son, iron work	\$ 17 00	
Penobscot Machinery Co., same	93 28	
Queen City Granite Co., labor	22 07	
Bangor Granite Co., labor and material	119 25	
D. D. O'Connell, labor on buildings at City stables	171 40	
M. F. Hines, labor	600 00	
	<hr/>	
Amounts carried forward	\$1,023 00	\$14,474 59

1913]

CITY OF BANGOR

25

Amounts brought forward	\$1,023 00	\$14,474 59
Electrical Dept., labor and material	1,386 76	
James McCarthy, trucking	45 00	
G. B. Derby Co., same	3 50	
M. C. R. R. Co., freight	1 79	
L. Kirstein & Sons, insurance	70 74	
	<hr/>	\$ 2,530 79
		<hr/>
		\$ 17,005 38

ELECTRICAL

RECEIPTS

Amount of appropriation	\$ 25,000 00	
Amount received for work done for other departments	2,286 53	
Amount received for insurance on account of fire	59 20	
Amount received from sale of junk	45 62	
Amount received from Murray Bros., for street lamp	37 80	
	\$ 27,429 15	
Amount overdrawn	4,117 79	
	\$ 31,546 94	

EXPENDITURES

R. N. Bicknell, city electrician, salary	\$ 1,200 00	
City Treasurer, paid sundry men for labor	12,020 56	
	\$ 13,220 56	
General Electric Co., supplies	\$ 675 50	
Johns Manville Co., same	628 69	
Pettingill-Andrews Co., same	527 32	
M. Schwartz Sons, same	258 73	
Wetmore Savage Co., same	1,127 61	
The Dole Co., same	592 20	
Western Electric Co., same	2,797 35	
Bryan-Marsh Co., same	110 12	
Gamewell F. A. Tel. Co., same	531 64	
Holzer Cabot Co., same	113 60	
Ward, Drouett & Foster, same	197 16	
National Carbon Co., same	244 56	
Westinghouse Lamp Co., same	538 30	
Star Electric Co., same	138 55	
	\$8,481 33	\$13,220 56
Amounts carried forward	\$8,481 33	\$13,220 56

Amounts brought forward	\$8,481 33	\$13,220 56
Lombard Governor Co., same	39 33	
J. N. V. Lane, same	1 32	
A. J. Robinson Co., same	6 03	
Smith & West, same	85 88	
Bangor Elec. Cons. & Supply Co., same	155 51	
Platt Iron Works, same	35 00	
Westinghouse Mfg. Co., same	39 22	
Holmes Metal Packing Co., same	11 81	
Adams Bagnall Co., same	5 54	
Bangor Ry. & Elec. Co., same	61 20	
Burt Mfg. Co., same	26 55	
S. L. Crosby Co., same	14 50	
Lukenheimer Co., same	32 68	
Sprague Electric Works, same	1 20	
C. C. Wing Co., same	1 09	
Duplex Metals Co., same	61 99	
Durable Wire Rope Co., same	10 69	
J. DeEste Co., same	1 56	
A. A. Robinson, same	52 95	
E. C. Lewis, same	58 44	
U. S. Graphite Co., same	12 00	
Beckley-Ralston Co., same	6 40	
Bangor Motor Co., same	14 45	
L. P. Swett, same	9 31	
	<hr/>	\$ 9,225 98
N. H. Bragg & Sons, hardware, etc	\$ 364 13	
R. B. Dunning & Co., same	397 37	
Rice & Miller Co., same	50 14	
Haynes & Chalmers Co., same	100 61	
W. P. Dickey & Co., same	31 69	
Snow & Nealley Co., rope, etc	28 41	
J. Mason & Son, iron work	137 37	
Union Iron Works, same	403 67	
T. F. Cassidy & Son, same	4 80	
Penobscot Machine Co., labor and material	1,433 24	
C. H. Babb & Co., steam fitting	192 12	
Maine Plumbing Co., same	119 16	
	<hr/>	
Amounts carried forward	\$3,262 71	\$22,446 54

Amounts brought forward	\$3,262 71	\$22,446 54
Ward & Clough, masonry	155 64	
Morse & Co., lumber	6 49	
L. W. Cutter, carpentry	354 30	
	<hr/>	\$ 3,779 14
Vacuum Oil Co., lubricating oil	307 76	
Economy Lubricating Co., same	1 20	
Standard Oil Co., same	12 38	
McLean, Jones Co., same	205 73	
A. Pfaff, same	75	
J. F. Woodman & Co., coal	1,420 24	
Stickney & Babcock Coal Co., same	1,437 13	
Connor Coal and Wood Co., wood	22 00	
	<hr/>	\$ 3,407 19
G. L. Moor & Son, hay and straw	114 16	
F. A. Pinkham, same	18 40	
H. A. Brickett, same	26 53	
J. C. Doherty, same	12 00	
J. N. Towle & Co., grain	149 49	
N. Drew, horseshoeing	2 00	
C. E. Welch, same	20 25	
Madden Harness Co., harness supplies	89 87	
M. D. Gallupe, harness	8 00	
Parkhurst & Son Co., whip	1 25	
M. Shannon, repairing pung	27 00	
	<hr/>	\$ 468 95
G. B. Derby Co., trucking	104 35	
P. J. McNamara, use of wagon	12 00	
A. R. Staples, same	3 00	
T. J. Murphy, use of auto truck	5 00	
R. N. Bicknell, same	153 30	
Am. Express Co., express	48 48	
Hoyt's Express, same	11 75	
Atlantic Express, same	3 95	
Eastern S S. Co., freight	69 21	
M. C. R. R. Co., same	137 40	
M. Kane, team hire	40 50	
	<hr/>	\$ 588 94
Amount carried forward		\$30,690 76

Amount brought forward.....		\$30,690 76
Chandler & Co., cork carpet.....	\$ 19 00	
M. Lynch & Co., office safe, etc.....	46 10	
E. F. Dillingham, office supplies.....	14 73	
L. C. Smith Bros., typewriter.....	56 00	
C. A. Spratt, typewriter stand.....	3 50	
May C. O'Leary, typewriting.....	8 00	
Columbia Towel Supply Co., use of towels...	12 00	
P. H. Vose Co., cuspidors.....	79	
Sweet & Co., drugs.....	7 98	
Buckley Drug Co., same.....	50	
W. H. Earle, stencils and badges.....	6 55	
Bangor Gas Light Co., gas.....	5 89	
Bass Publishing Co., advertising.....	3 75	
N. E. Tel. & Tel. Co., service.....	158 95	
Bangor W. & S. Clg. Co., cleaning.....	5 25	
Cannon & Co., directory.....	2 50	
L. Whipple, photo.....	5 00	
		<hr/>
		\$356 49
J. H. Boyd, insurance.....	79 12	
L. Kirstein & Sons, same.....	12 56	
J. M. Bright, same.....	47 50	
Baker & Hodge, same.....	7 00	
Pember & Carter, same.....	14 00	
W. W. Palmer, same.....	36 00	
Pearl & Dennett Co., same.....	7 00	
C. M. Stewart, same.....	14 50	
J. F. Singleton, same.....	29 00	
J. C. Wilson, same.....	22 95	
		<hr/>
		\$269 63
Dr. G. B. Caulfield, professional services.....	3 60	
Moon & Cratty, board of C. Munroe.....	17 75	
Bangor Co-Op. Printing Co., printing.....	22 50	
W. U. Tel. Co., telegrams.....	3 84	
W. C. Bryant, repairing clocks.....	5 25	
Essex Pharmacy, iodine.....	80	
J. F. Fleming, brooms.....	11 60	
Gage Publishing Co., subscription to Journal..	2 00	
		<hr/>
Amounts carried forward.....	\$67 34	\$31,316 88

Amounts brought forward	\$67 34	\$31,316 88
Fowler Drug Co., film packs	3 20	
Hight & Carle, chalk	09	
F. L. Frank & Co., oil	55	
Bridgeport Chain Co., lamp chain	7 50	
A. D. Little, cable	25 00	
A. R. Hopkins Co., cement	14 24	
Wood & Bishop Co., galvanized tank, etc	17 34	
Utterback Bros., swiss bell	1 20	
T. White, soap	50	
J. I. Barnes, sharpening saws	90	
Kimball & Nickerson, boots	9 00	
Safety Appliance Co., clutch	2 42	
Chicago Steel Tape Co., tape	5 00	
H. W. Bickford, polish	8 50	
W. H. Gorham & Co., brushes	78	
Pyrene Co., fire extinguishers	25 20	
Thurston & Kingsbury, soap powder	2 25	
Goode & Driscoll, lunches	36 05	
J. H. Russell, lunches	3 00	
		230 06
		<u>\$ 31,546 94</u>

FIRE

RECEIPTS

Amount of appropriation	\$ 57,000 00	
Amount received for horses sold	665 00	
Amount overdrawn	205 73	
		\$ 57,870 73

EXPENDITURES

W. S. Mason, chief engineer, salary	\$1,200 00	
P. J. Kelley, district chief, same	857 75	
J. F. Granville, district chief, same	857 75	
E. S. Fogg, district chief, same	841 90	
		\$ 3,757 40
City Treasurer, paid engineers, permanent men, drivers and night men	\$ 24,644 72	
Same, paid call men, Hose 1	1,257 98	
Same, paid call men, Hose 2	954 66	
Same, paid call men, Hose 3	1,127 66	
Same, paid call men, Hose 4	842 33	
Same, paid call men, Hose 5	1,080 83	
Same, paid call men, Hose 6	831 74	
Same, paid call men, Hook and Ladder	1,318 82	
		\$ 32,058 74
American LaFrance Engine Co., supplies	\$ 327 72	
Eastman Co., same	35 00	
J. M. Hardy, same	253 50	
Gutta Percha Mfg. Co., same	54 00	
Archbald Wheel Co., same	40 00	
Combination Ladder Co., same	30 00	
G. C. Hanley, same	30 00	
M. Schwartz Sons, same	26 81	
C. Callahan Co., same	153 34	
Carleton Coupling Co., same	35 75	
Amounts carried forward	\$986 12	\$35,816 14

Amounts brought forward	\$986 12	\$35,816 14
Flash Chemical Co., same	15 00	
Vulcan Mfg. Co., same	2 50	
Smith Mfg. Co., same	40 82	
J. S. Smith, same	45 00	
C. E. Berry, same	4 42	
Eureka Fire Hose Co., same	2,205 00	
	<hr/>	\$ 3,298 86
C. W. Morse, horses	3,200 00	
M. Willey & Son, same	1,125 00	
J. F. Green, hay and straw	1,744 37	
H. Mudgett, same	124 98	
C. W. Morse, same	95 20	
L. M. Hopkins, same	223 96	
G. W. Worster, same	18 66	
A. M. Bean, same	52 29	
J. F. Spellman, same	42 90	
J. L. Ellingwood, same	212 95	
Frank Deering, same	62 45	
B. W. Mayo, same	15 85	
C. L. Richardson, same	19 50	
F. W. Boynton, same	55 79	
L. D. Nowell, same	13 05	
M. L. Pinkham, same	14 50	
C. F. Rich, same	19 22	
H. A. Brickett, same	41 00	
F. H. Barwise, same	15 75	
Pauper Dept., same	131 47	
V. D. Robinson, same	53 98	
Eastern Grain Co., grain	837 06	
J. Milliken, same	203 02	
A. R. Hopkins, same	325 12	
J. N. Towle, same	557 68	
W. A. Jennison, same	20 70	
N. Drew, horseshoeing	97 25	
F. A. Lanpher & Co., same	94 26	
Leighton, Leland & Grant, same	344 00	
E. McKenney, same	203 80	
	<hr/>	
Amounts carried forward	\$9,965 76	\$39,115 00

Amounts brought forward	\$9,965 76	\$39,115 00
White and Winchester, same	133 10	
J. H. Nevins, same	23 60	
H. F. Williams, same	7 00	
H. S. Goodwin, same	8 00	
Madden Harness Co., harness supplies	220 75	
Brown & White Co., same	77 40	
E. W. Gerry, same	3 00	
P. T. Dugan & Co., same	1 50	
Utterback Bros. Co., same	10 96	
Edward Jordan, same	75	
C. F. Dwinal, veterinary	5 50	
A. L. Murch, same	111 10	
R. E. Freeman, same	69 50	
A. C. Daniels, horse medicine	20 00	
W. L. Graffam, ointment	35 00	
J. P. McCosker, same	35 00	
H. K. Priest, same	37 25	
	<hr/>	\$10,765 17
J. B. Atkinson, iron work	68 45	
Penobscot Mach. Co., same	75 50	
T. F. Cassidy & Son, same	4 35	
Peavey Mfg. Co., same	5 95	
Union Iron Works, same	25 73	
Shannon & Murphy, same	91 50	
Lewis & Murphy, same	7 00	
J. Mason & Sons, painting and iron work	1,548 74	
N. H. Bragg & Son, hardware	54 20	
W. P. Dickey & Co., same	61 55	
R. B. Dunning & Co., same	58 66	
Haynes & Chalmers Co., same	94 81	
Rice & Miller Co., same	69 08	
Eastern Auto Co., lathe and tools	275 00	
D. F. McCarthy, repairing reservoir	248 88	
A. W. Bean, test pump	20 00	
Simplex Glass Cleaner Co., cleaners	10 00	
	<hr/>	\$2,719 40
Amount carried forward		\$52,599 57

Amount brought forward		\$52,599 57
Adams Dry Goods Co., rubber coats, etc	128 15	
J. Waterman, coats and caps	205 05	
Miller & Webster Co., buttons	11 00	
Braxmar Co., badges	11 75	
W. H. Earle, same	2 45	
Connors Shoe Co., rubber boots	16 00	
C. B. Hale & Co., gloves	6 70	
A. J. Infiorati, lettering coats	1 75	
Modern Shoe Regg. Co., repairing coats	35 50	
Columbia Towel Co., use of towels	63 00	
Porter-Parsons Co., laundry	115 41	
Bangor Laundry Co., same	47 77	
Bangor W. & S. Cleaning Co., cleaning	5 26	
Wood & Ewer, Co., dry goods	4 20	
Severance, Bunker Co., same	16 16	
P. H. Vose Co., crockery	40	
S. L. Crosby Co., battery	25	
Wood & Bishop Co., water coolers, etc	14 62	
Mulvaney Bros., canvas covers	21 25	
Berry & Smith, same	7 25	
T. R. Savage Co., soap, etc	44 98	
Somerville Brush Co., brushes	38 00	
L. Sonneborn Sons, paint	92 00	
N. Whitman & Sons, flags	1 00	
		<hr/>
		\$889 90
Hodgkins & Fiske Co., furniture and cork car- pets	505 52	
Farrar Furniture Co., mattresses	17 00	
The Dole Co., lighting fixtures	37 68	
A. P. Trask, clocks	12 00	
Bangor Broom Co., brooms	50	
G. I. Wescott & Son, soda	5 96	
Barrett Mfg. Co., disinfectant	33 25	
Sanitas Co., same	14 50	
H. W. Bickford, same	12 55	
Chemo Co., same	57 75	
Curtis & Tupper, drugs	66 26	
		<hr/>
Amounts carried forward	\$762 97	\$53,489 47

Amounts brought forward.....	\$762 97	\$53,489 47
C. Sweet Co., same.....	2 60	
C. A. Fowler, same.....	3 10	
Preble's Pharmacy, same.....	5 40	
Houlihan's Pharmacy, same.....	7 95	
C. M. Brown, same.....	10 60	
Mainson & Levy, chamois.....	19 50	
		<u>\$812 12</u>
L. C. Smith, Bros. typewriter.....	81 50	
C. A. Spratt, typewriter stand.....	4 00	
W. H. Gorham Co., signs.....	77 25	
Bangor Co-Op. Printing Co., printing.....	61 75	
N. E. Bunker, rubber stamp.....	75	
Bangor Publishing Co., advertising.....	11 00	
Bass Publishing Co., same.....	4 00	
E. F. Dillingham, stationery.....	95	
J. F. Gerrity & Co., picture frames.....	8 50	
Baker & Hodge, insurance.....	8 73	
W. F. Curran, same.....	40 09	
L. Kistein & Sons, same.....	103 38	
J. W. McClure, & Son, same.....	47 64	
Pember & Carter, same.....	40 72	
J. H. Boyd, same.....	33 75	
J. M. Bright, same.....	41 04	
W. W. Palmer, same.....	38 69	
C. M. Stewart, same.....	28 32	
Cannon & Co., directory.....	2 50	
Bangor Ice Co., ice.....	58 19	
Citizens Ice Co., same.....	24 00	
Getchell Bros., same.....	23 00	
N. E. Tel. & Tel. Co., service.....	89 38	
Bangor Gas Lt. Co., water heater and gas....	201 65	
E. M. G. Hospital, care of G. A. Rimback....	31 50	
		<u>\$1,062 28</u>
J. F. Woodman & Co., coal.....	424 40	
Stickney & Babcock, Co, same.....	1,016 93	
Connor Coal & Wood Co., wood.....	22 25	
Bacon & Robinson Co., same.....	30 25	
		<u>\$1,493 83</u>
Amounts carried forward.....	\$1,493 83	\$55,363 87

Amounts brought forward	\$1,493 83	\$55,363 87
Standard Oil Co., oil	48 43	
McLean, Jones Co., same	27 50	
C. M. Conant Co., clippers	10 95	
J. S. O'Leary, axe handles	10 80	
Dunn Edge Tool Co., axes	28 50	
Boston Spring Co., springs	12 75	
Edgar Gerry, bevel	3 00	
E. B. Patten, fire extinguishers	5 40	
J. F. Fleming, oil, etc	27 85	
Snow & Nealley Co., pulley, hose, etc	77 10	
H. E. McDonald, oil, etc	13 75	
A. F. Anderson, same	4 65	
T. F. Gallagher, same	1 00	
Brewer & Co., soap	8 10	
A. Chapin & Co., soap powder	2 00	
Morse & Co., sawdust	1 50	
J. E. Largay, gravel	34 50	
D. Matheson & Son, matches	2 50	
	<hr/>	\$1,814 11
W. S. Mason, board of horse	186 00	
Bangor Motor Co., use of truck	29 00	
J. J. Coulter, use of horse	40 00	
C. L. Griffin, same	6 00	
Am. Express Co., express	27 65	
Hoyts Express same	1 45	
J. McCarthy, trucking	8 00	
F. H. Grant, same	50	
J. Speers, same	1 00	
G. B. Derby Co., same	2 00	
J. O'Connell, same	25	
Eastern S. S. Co., freight	24 07	
M. C. R. R. Co., same	8 02	
	<hr/>	\$333 94
G. M. Darling, carpentry	17 00	
Cowan & McCarthy, same	235 87	
E. L. Gatchell, same	1 91	
M. H. Lancaster, same	2 51	
	<hr/>	
Amounts carried forward	\$257 29	\$57,511 92

1913]

CITY OF BANGOR

37

Amounts brought forward	\$257 29	\$57,511 92
Ward & Clough, masonry	63 16	
Holt & Kendall, repairs	2 60	
J. L. Cosmey, same	3 25	
L. M. Ames, same	7 50	
Noyes & Nutter Mfg. Co., same	1 56	
C. H. Warren, same	22 25	
G. McKenney, filing saws	1 00	
J. I. Barnes, same	20	
	<hr/>	\$358 81
		<hr/>
		\$57,870 73

HIGHWAY

RECEIPTS

Amount of appropriation.....	\$70,000	00
Amount received for concrete and granolithic..	1,350	22
Amount received for crushed rock and curbing.	161	25
Amount received from J. P. Finnigan, one-half cost or retaining wall.....	87	50
Amount received from State for State road...	2,048	74
Amount received from the following depart- ments, viz.:		
Street Sprinkling.....	1,498	51
Water.....	150	00
Pauper.....	125	00
Street Openings.....	408	95
Bridges.....	42	25
Sewers.....	26	00
School.....	9	00
Amount received from sale of horse.....	50	00
Amount received for use of horses.....	25	00
Amount received for carting.....	35	50
Amount received from Rice & Miller, refund..	20	00
	\$76,037	92
Amount overdrawn.....		756 89
		\$76,794 81

EXPENDITURES

A. T. Campbell, street commissioner, salary...	\$1,200	00
C. M. Brown, street engineer, salary.....	100	00
H. A. Kelly, same, salary.....	50	00
	\$1,350	00
Amount carried forward.....		\$1,350 00

Amount brought forward		\$1,350 00
City Treasurer, paid Melvin Ellis, foreman, \$2.50 per day	830 00	
City Treasurer, paid J. W. Mason, clerk, \$2.50 per day	897 00	
City Treasurer, paid sundry men for labor, \$1.75 and \$2.00 per day	29,122 38	
City Treasurer, paid sundry teamsters, \$52.00 per month	6,435 00	
City Treasurer, paid crusher crew, \$2.00 and \$2.50 per day	3,403 25	
City Treasurer, paid concrete crew, \$2.00 per day	2,412 25	
	<hr/>	\$43,099 88
Fred Cort, labor of men and teams	\$353 64	
R. C. Eveleth, same	443 11	
H. I. Frost, same	428 67	
G. E. Hathorn, same	4 06	
E. H. Lewis, same	383 05	
J. E. Largay, same	300 00	
C. H. Morrison, same	174 04	
H. O. Wilson, same	304 43	
C. A. York, same	27 25	
F. R. Fuller, same	252 72	
M. Hughes, same	368 00	
P. J. Nelligan, same	213 25	
W. F. Richards, same	189 00	
J. Frank Green, same	813 75	
A. H. Robinson, same	25 70	
F. D. Richardson, same	80 25	
C. A. York, and Sons, same	35 90	
Mrs. M. Hughes, same	81 00	
G. B. Derby Co., same	13 50	
C. C. Sanford, same	76 50	
E. C. Smith, same	10 00	
	<hr/>	\$4,577 82
Sterns Lumber Co. gravel	81 40	
L. D. Hall, same	15 75	
	<hr/>	
Amounts carried forward	\$97 15	\$49,027 70

Amounts brought forward	\$97 15	\$49,027 70
A. H. Thaxter Co., gravel	4 50	
D. C. Farrington, same	109 50	
A. H. Towle, same	84 75	
Queen City Granite Co., labor	9 09	
J. P. Bass, rock and gravel	1,077 50	
B. R. & E. Co., sand	27 60	
Penobscot Machinery Co., stone	147 60	
F. M. Blaisdell, paving blocks	245 29	
Bangor Granite Co. curbing	856 80	
Barrett Mfg. Co., tar	1,729 19	
Reilley Roofing Co., pitch	42 64	
S. P. Strickland, lumber	4 32	
Morse & Co., same	1,217 10	
Bridge Dept., same	61 83	
	<hr/>	\$5,714 77
J. Milliken, grain	574 15	
Swett & Co., same	632 16	
W. A. Jennison, same	626 20	
Eastern Grain Co., same	560 68	
J. N. Towle & Co., same	520 34	
The A. R. Hopkins Co., same	626 63	
G. F. Cameron, hay	39 44	
G. A. Hill, same	241 89	
G. W. Weiler, same	539 23	
H. M. Mudgett, same	231 20	
C. L. Richardson, same	17 60	
B. A. Burpee, same	5 26	
Pauper Dept., same	221 73	
J. P. Prescott, same	12 70	
W. C. Stover, same	23 13	
M. P. Blaisdell, same	99 76	
G. A. Hersey, same	160 19	
Harry F. Davis, straw	32 51	
J. R. Scripture, same	9 30	
F. W. Boynton, same	39 53	
W. Richardson, same	40 53	
	<hr/>	\$5,254 16
Amount carried forward		\$59,996 63

Amount brought forward		\$59,996 63
J. E. Largay, horse	275 00	
M. Hughes, difference in horses	350 00	
C. W. Morse, same	175 00	
M. Willey & Sons, same	485 00	
N. Drew, horseshoeing	521 50	
Leighton, Leland & Co., same	378 36	
L. G. Heal, same	4 10	
H. S. Goodwin, same	27 00	
E. McKenney, same	33 75	
White & Winchester, same	7 00	
A. L. Murch, veterinary	52 05	
R. E. Freeman, same	3 50	
C. F. Dwinal, same	2 50	
J. G. Lessure, horse medicine	28 00	
H. K. Priest, same	6 00	
W. L. Graffam, hoof ointment	25 00	
Madden Harness Co., harness supplies	90 90	
Utterback Bros., same	178 31	
Ed. Jordan, same	18 90	
Frank Ryan, same	217 05	
S. D. Ames, team collars	72 00	
		<hr/>
		\$62,947 55
J. B. Atkinson, iron work and repairs	63 75	
Penobscot Machinery Co., same	382 25	
T. F. Cassidy & Son, same	367 15	
J. Mason & Son, same	1,419 85	
Shannon & Murphy, same	21 50	
Peavey Mfg. Co., same	63 40	
Union Iron Works, same	2 60	
C. E. Welch, same	162 01	
R. D. McNeil, same	162 45	
H. B. Thoms, same	35 50	
J. H. Nevins, same	2 50	
C. P. Fessenden, same	5 10	
Murphy and Lewis, same	1 95	
Kelley Carriage Co.	44 00	
A. R. Staples, same	1 50	
		<hr/>
		\$2,735 51
Amount carried forward		\$65,683 06

Amount brought forward		\$65,683 06
N. H. Bragg & Sons, hardware	142 29	
Brooks Brick Co., brick	18 00	
Hugh O'Brien, same	130 00	
Bangor Brick & Cons. Co., same	6 00	
Bacon & Robinson Wood Co., wood	3 25	
J. F. Angley & Co., same	13 50	
Bacon & Robinson Co. same	3 25	
J. F. Woodman & Co., coal	246 31	
Stickney & Babcock Coal Co., same	484 93	
Bangor Ice Co., ice	41 22	
M. H. Lancaster, carpentry	8 22	
E. F. Kelley & Son, plumbing	44 85	
Adams Dry Goods Co., rubber coats etc.	118 61	
Sawyer Boot and Shoe Co. same	71 07	
G. McKenney, filing saws	1 80	
J. I. Barnes, same	3 20	
R. B. Dunning & Co., supplies	220 19	
Haynes & Chalmers Co., same	101 47	
Rice & Miller Co., same	406 32	
W. P. Dickey & Co., same	40 59	
Acme Road Machine Co., same	362 46	
C. M. Conant Co., same	82 45	
H. L. Bond Co., same	7 00	
Buffalo Steam Roller Co., same	13 00	
Boston Spring Co., same	5 10	
Valentine & Co., bed	3 50	
Black Road Machine Co., sweeper and grader	485 92	
Berger Mfg. Co., culverts	144 00	
	<hr/>	\$3,208 50
Bangor R. and E. Co., use of car	100 00	
Roland Hall, broom stock	12 00	
Bangor Broom Co., brooms	6 87	
C. M. Brown, drugs	52 60	
Curtis & Tupper, same	2 15	
C. Sweet Co., same	1 70	
Standard Oil Co., oil	50 60	
Snow & Nealley Co., oil and grease	117 70	
	<hr/>	
Amounts carried forward	\$343 62	\$68,891 56

Amounts brought forward	\$343 62	\$68,891 56
J. L. Cosmey, repairs	26 65	
Holt & Kendall, same	1 70	
Noyes & Nutter Mfg. Co., same	15	
Susan W. Dixon, repairing blankets	4 00	
Columbia Towel Supply Co., towels	12 00	
N. E. Tel. & Tel. Co., service	40 29	
Hodgkins & Fiske Co., office chair	4 50	
Young Bros., ink well	1 50	
Cannon & Co., directory	2 50	
E. F. Dillingham, office supplies	14 09	
M. Lynch & Co., keys	1 45	
S. L. Rogers, clocks	5 00	
Bass Publishing Co., advertising	2 00	
Bangor Co-Operative Ptg. Co., printing	38 50	
Bangor Publishing Co., advertising	12 00	
B. R. & E. Co., light of glass	5 94	
Atkins Bros., glazing	2 50	
H. Lord & Co., insurance	27 40	
W. F. Curran, same	160 04	
Hoyt Tarbox Express Co., express	50	
American Express Co., same	4 27	
M. C. R. R. Co., freight on paving, etc	409 90	
Eastern S. S. Co., same	60	
Postal Telegraph Co., telegram	52	
D. F. McCarthy, fence, Central St.	28 75	
A. Chapin Co., empty hogshead	1 25	
W. H. Earle, brand	1 00	
	<hr/>	\$1,152 62
F. T. Casey, concrete	449 68	
John Grady & Son, granolithic	252 26	
John Grady & Son, paving State St., (state road)	6,048 74	
	<hr/>	\$6,750 68
		<hr/>
		\$76,794 86

INCIDENTAL

RECEIPTS

Amount of appropriation	\$38,000 00
Amount received for railroad and telegraph tax	54,642 56
Amount received from sale of Center Park lot	114,000 00
Amount received for redemption of estates sold for taxes	5,510 84
Amount received from State, on account of dog licenses	722 73
Amount received for rent of hall	867 25
Amount received from County, for use of Muni- cipal Court room	1,000 00
Amount received from State, for use of armory	200 00
Amount received from M. H. Lancaster, for rent in Court street building	100 00
Amount received from J. T. Kelliher, for same	75 00
Amount received for rent of armory	25 00
Amount received from Martin & Cook, office rent	183 26
Amount received from C. T. Hawes, same	208 30
Amount received from Appleton & Sewall, same	360 00
Amount received from W. W. Palmer, same	400 00
Amount received from W. B. Crossman, rent Harlow street	14 19
Amount received from F. C. Ward, same	11 82
Amount received for fumigating	102 71
Amount received for taxes, accounts closed	118 56
Amount received for telephone booth	55 20
Amount received for insurance for fire at Court street building	100 00
Amount received for insurance, refund	14 62
Amount received for lots, Pine Grove Cemetery	53 00
Amount received for lots, Oak Grove Cemetery	50 00
Amount carried forward	
	\$216,815 04

Amount brought forward	\$216,815 04	
Amount received for lots, Maple Grove Cemetery	10 00	
Amount received for lots, Mt. Hope Cemetery	120 00	
Amount received from S. R. Prentiss, earth from High school lot	225 40	
Amount received for junk sold	11 57	
Amount received from N. E. Telephone & Telegraph Co., for permission to run wires across Bangor and Brewer bridge	80 00	
Amount received from Bangor Railway & Electric Co., for same	80 00	
	<hr/>	\$217,342 01
Amount received for licenses, as follows, viz.:		
Opera House	50 00	
Graphic Theatre	50 00	
Nickle Theatre	70 75	
Bijou Theatre	50 00	
Palace Theatre	58 30	
Employment agencies	175 00	
Circus	50 00	
Billiards	82 00	
Peddlers	79 00	
Dogs	84 00	
Auctioneers	14 00	
	<hr/>	\$763 00
Amount received for betterments on account of widening Central street, as follows, viz.:		
F. W. Hill	\$1,329 87	
Charles H. Frey	431 62	
P. T. Dugan	466 62	
Louis Kirstein	1,761 49	
Same	210 00	
C. W. Morse	294 00	
John R. Graham	4,981 17	
	<hr/>	\$9,474 77
		<hr/>
		\$227,579 83

EXPENDITURES

ASSISTANT ASSESSORS

N. E. Brennan, Ward I.....	\$103 50	
L. D. Sanborn, Ward II.....	130 50	
C. A. York, Ward III.....	126 00	
A. Palmer, Ward IV.....	101 25	
J. H. Stone, Ward V.....	103 50	
L. H. Dudley, Ward VI.....	96 75	
J. P. McGrath, Ward VII.....	137 25	
		<hr/>
		\$798 75
Wardens.....	\$210 00	
Ward Clerks.....	210 00	
Ballot Clerks.....	210 00	
Election Clerks.....	210 00	
		<hr/>
		\$840 00
M. J. Brennan, chairman Registration Board..	\$1,240 00	
A. C. Morton, member Registration Board....	992 00	
D. F. McCarthy, same.....	992 00	
Victor Brett, Clerk of Board.....	174 00	
Same, making check lists.....	154 00	
		<hr/>
		\$3,552 00
H. L. Archer, janitor City Hall.....	840 00	
J. F. Cook, night janitor.....	720 00	
T. F. Gillespie, engineer part of year.....	150 00	
E. W. Gray, same balance of year.....	570 00	
Thomas Tabor, elevator man.....	314 00	
		<hr/>
		\$2,594 00
Victor Brett, auditing monthly bills.....	200 00	
Same recording vital statistics.....	201 15	
Same, making State pension applications.....	165 00	
Same, administering oaths to subordinate officers, (2 years).....	12 80	
Same, paid for postage.....	36 68	
Same, paid for express.....	3 30	
Same, paid for sundry office expenses.....	8 30	
Etta P. Haynes, deputy City Clerk.....	780 00	
		<hr/>
		\$1,407 23
Amount carried forward.....		<hr/>
		\$9,191 98

Amount brought forward		\$9,191 98
City Treas., paid City Engineer's assistants for street numbering, etc.....	653 15	
Same, paid same for copying records.....	253 98	
Same, paid same for making wall maps.....	158 11	
Same, paid for work on Assessors' maps.....	870 91	
Same, paid postage for City Engineers' office.	12 00	
P. H. Coombs, for work on assessors' maps...	715 00	
Same, for extra service, as City Engineer.....	150 00	
City Treas., paid sundry women for cleaning	344 48	
Same, paid sundry men for moving seats. . . .	137 75	
Same, paid sundry men for labor at boiler house, Abbott Square.....	74 00	
Same, paid for recording deeds.....	15 30	
Same, paid for making and mailing tax notices	100 00	
Same, paid for P. O. Box rent and stamps....	5 00	
Same, paid for sundry office expenses.	15 98	
Same, paid express for City Engineers' office...	20 20	
Same, paid deputy collector.....	700 61	
Same, paid for clerk hire.....	142 00	
	<hr/>	\$4,368 47
F. M. Douglas, destroying dogs.....	22 00	
W. H. Reed, same.....	249 70	
H. W. Griffin, sheep killed by dogs.	30 00	
Perley Hewes, same.....	150 00	
	<hr/>	\$451 70
E. S. Blake, cleaning ward room.....	5 00	
M. F. Hines, same.....	10 00	
J. H. Kerr, same.....	5 00	
Thos. Mooney, same.....	5 00	
J. E. Rogers, same.....	5 00	
Lord Bros., soap, etc.....	13 05	
Egyptian Spray Co., disinfectant.....	5 00	
West Disinfectent Co., same.....	17 50	
M. Lynch & Co., locks and keys....	7 87	
C. H. Warren, chair castors.....	10 20	
Chalmers Studio, photo.....	1 05	
	<hr/>	
Amounts carried forward.....	\$84 67	\$14,012 15

Amounts brought forward	\$84 67	\$14,012 15
Martins Bros., window shades	5 20	
Wood & Bishop Co., repairs	1 10	
Holt & Kendall, same	5 15	
Bangor Elec. Cons. & Supply Co., wiring elec- tion booths	22 25	
W. H. Gorham & Co., street signs, etc.	71 25	
Snow & Nealley Co., sweepers	10 44	
P. H. Vose Co., crockery	7 42	
H. M. Pullen, floor wax	9 00	
W. H. Bowdlear Co., same	11 52	
Bangor Ice Co., ice	55 56	
J. N. Towle & Co., salt	7 20	
Noyes & Nutter Mfg. Co., ash bbls., etc.	9 25	
Wood & Bishop Co., stove, etc., for armory	94 50	
	<hr/>	\$394 51
H. McCarthy, trucking	6 50	
M. Hughes, same	23 25	
J. Furey, same	75	
J. F. O'Connell, same	1 35	
G. B. Derby Co., same	60	
J. McCarthy, same	19 25	
M. Kane, use of team for Bldg. Inspector	120 00	
M. D. Abbott, use of auto for Milk Inspector	16 00	
Bangor Motor Co., use of autos at laying corner stone of High School bldg.	46 50	
	<hr/>	\$234 20
Queen City Granite Co., labor	73 00	
Highway Dept., removing ashes	6 00	
Pomeroy Co., decorating City Hall	25 00	
O. C. Richards, repairing tower City Hall	30 00	
Berry & Smith, repairs	60	
J. L. Cosmey, same	36 50	
C. H. Burpee, repairing clocks	13 78	
A. Pfaff, same	3 60	
Chicago Steel Tape Co., tape	5 00	
L. W. Cutter, surveyor's rods	2 00	
	<hr/>	
Amounts carried forward	\$195 48	\$14,640 86

1913]

CITY OF BANGOR

49

Amounts brought forward	\$195 48	\$14,640 86
F. E. Mace, field notes	1 00	
Schwartz Sons, rubber hose	9 57	
Chamber of Commerce, band stand	25 92	
Porter-Parsons Co., laundry	1 00	
Bangor Band, carting chairs	4 35	
H. Jameson, maintenance of watering trough	3 00	
C. Sweet Co., drugs	3 55	
Bangor Broom Co., brooms	6 78	
		\$250 65
City of Brewer, taxes	27 00	
Same, for services of its firemen at fire of April 30, 1911	216 00	
Second Regiment Band, 2½ years rent allowed by state for headquarters	250 00	
Hogan & Callan, furniture and rugs for muni- cipal court room	244 00	
Bennett & Co., subscription U. S. Investor	5 00	
Boston News Bureau, subscription	12 00	
Appleton & Sewall, report on reforestration of burned district	185 00	
E. C. Ryder, legal opinion on bond issue	25 00	
First Nat'l Bank, Boston, printing bonds	46 75	
Freeland Jones, abstract of title	35 00	
		\$1,045 75
Paid for land taken for proposed street from Center to Cumberland St. as follows, viz.:		
First Baptist Society	\$23,000 00	
Fred E. Maxfield	7,000 00	
Mary A. Carpenter	1,000 00	
John and Annie P. Evans	2,000 00	
Geo. W. Haynes	775 00	
Margaret Ella Fickett	1,250 00	
Elvira K. Hunt	625 00	
H. M. Dwelley	100 00	
Amanda J. Seavey	100 00	
C. S. Gibbs & als	1,850 00	
Amounts carried forward	\$37,700 00	\$15,937 26

Amounts brought forward.....	\$37,700 00	\$15,937 26
Ellen W. French.....	1,100 00	
Eliza M. Lawson & als.....	1,800 00	
	<hr/>	
	\$40,600 00	
Fred E. Maxfield, interest on amount paid for his lot.....	420 00	
	<hr/>	\$41,020 00
J. and J. T. Mullen & Cyr Bros., on account of construction of foundation for high school building.....	\$13,673 54	
American Express Co., lot of land Franklin St.	8,224 50	
Graham Realty Co., same.....	628 00	
Justus L. Hersey, lot of land and buildings ad- joining Poor Farm.....	3,300 00	
Smart Heirs, balance due on lot, Harlow St. . .	500 00	
Henry Verplast, lot corner Hammond and Allen Sts.....	600 00	
	<hr/>	\$26,926 04
Boston Bridge Works, balance due on contract for steel spans Bangor and Brewer bridge	9,966 40	
Don C. Clark, Truseee, $\frac{1}{2}$ cost of retaining wall, State St.....	604 10	
Eastern Trust & Bk'g. Co., $\frac{1}{2}$ cost of retaining wall, State St.....	995 19	
L. Kirstein & Sons, $\frac{1}{2}$ cost of retaining wall, Central St.....	672 50	
W. J. Clisham, part cost retaining wall, York and Hazel St.....	185 00	
F. W. Durgin, $\frac{1}{3}$ cost retaining wall, Harlow and Franklin Sts.....	360 00	
A. B. Haskell, $\frac{1}{2}$ cost construction of sidewalk, Park St.....	54 13	
B. F. Adams, $\frac{1}{2}$ cost construction of sidewalk. Harlow St.....	30 00	
Louise Adams, $\frac{1}{2}$ cost construction of sidewalk, State St.....	25 67	
	<hr/>	\$12,892 99
Amount carried forward.....		\$96,776 29

Amount brought forward		\$96,776 29
Westinghouse, Church, Kerr & Co., report on physical value of equipment of Bangor Ry. & Elec. Co.	1,500 00	
City Treasurer, paid expenses of Mayor Mullen & als, to Washington in matter of sale of Center Park lot to U. S. Gov.	741 89	
Warren H. Manning, expenses to Washington. as above.	127 15	
City Treasurer paid Chamber of Commerce appropriation for Merchants' Week	300 00	
Same, paid Grand Army, Memorial Day ap- propriation	300 00	
Same, paid Spanish War Veterans for same...	50 00	
Bangor Band for open air concerts	400 00	
Same, 4th of July concerts	100 00	
W. S. Mason, for entertainment of Fire Chiefs	199 75	
Cent. Labor Union, for observance of Labor Day	200 00	
B. W. Blanchard, chairman, expenses investigat- ing gas explosion in Mercantile Sq.	150 00	
A. L. Thayer, & als expenses of investigating and reporting on new form of City Charters	300 00	
City Treas., paid for expenses laying corner stone, High School building	41 50	
C. and J. Eslin, settlement of claim for damage from flowage of water	125 00	
Laura Hayford, Estate settlement of suit	4000 00	
J. P. Bass, costs in equity	57 82	
David Brady, same	5 16	
W. H. Russell, for damage to wagon	3 50	
		\$8,601 77
Electrical Dept., labor and material	567 86	
Atkins Bros., painting	15 35	
T. Canning & Son, same	195 63	
C. W. Libbey, same	25 88	
F. E. Eldridge Co., same	25 39	
W. P. Wiley, same	133 92	
Amounts carried forward	\$964 03	\$105,378 06

Amounts brought forward	\$964 03	\$105,378 06
H. A. Furbish, lettering	2 60	
Penobscot Mach. Co., iron work, police station	267 00	
Smith & West, lighting supplies	114 01	
Elwell & Cram, same	323 92	
The Dole Co., same	37 92	
L. P. Patten, carpentry	354 24	
Cowan & McCarthy, same	680 66	
F. S. Morse, same	130 54	
Geo. B. Foster, same	279 12	
M. H. Lancaster, same	87 77	
J. Mason & Son, iron work	160 40	
T. F. Cassidy & Son, same	1 00	
Otis Elevator Co., repairs	10 70	
Sonneborn & Sons, paint for police station . . .	105 00	
Hazelton Bros., masonry	13 50	
Ward & Clough, same	17 65	
Fairbanks Bros., plumbing	62 65	
E. F. Kelley & Sons, same	655 98	
Leighton Plumbing & Htg. Co., same	198 95	
J. H. McAuley, same	18 00	
Maine Plumbing Co., same	170 71	
C. M. Conant Co., repairs for pumps	43 38	
R. B. Dunning & Co., same	89 05	
Knowles, Dow & Co., same	6 50	
Reilly Roofing Co., roof work	97 53	
F. T. Casey, grading	145 94	
	<hr/>	\$ 5,038 75
Morse & Co., lumber	257 59	
C. Woodman Co., same	364 77	
Rice & Miller Co., hardware	111 50	
Haynes & Chalmers Co., same	51 81	
W. P. Dickey, & Co., same	16 22	
Brooks Brick Co., brick	2 25	
A. R. Hopkins Co., cement	45	
Connor Coal & Wood Co., wood	176 00	
Bacon & Robinson Co., same	16 75	
	<hr/>	
Amounts carried forward	\$997 34	\$110,416 81

Amounts brought forward.....	\$997 34	\$110,416 81
G. A. Daley, same.....	53 63	
Stickeny & Babcock Coal Co., coal.....	1,258 10	
Louden Machine Co., 24 stalls for city farm...	138 00	
	<hr/>	\$ 2,447 07
J. F. Cox, M. D., vital statistics.....	4 50	
J. A. Hayward, M. D., same.....	1 75	
Daniel McCann, M. D., same.....	6 75	
W. P. McNally, M. D., same.....	16 00	
L. H. Wheeler, M. D., same.....	1 50	
C. D. Edmunds, M. D., same.....	25 00	
F. H. Freeman, M. D., same.....	8 00	
O. I. Bemis, M. D., same.....	6 00	
G. B. Caulfield, M. D., same.....	36 75	
Chas. Nason, M. D., same.....	18 50	
J. E. Brooks, M. D., same.....	3 50	
G. E. Dore, M. D., same.....	1 00	
C. T. Robbins, M. D., same.....	2 50	
E. T. Nealley, M. D., same.....	1 50	
J. F. Starrett, M. D., same.....	28 00	
B. L. Bryant, M. D., professional services....	15 00	
Rev. A. B. Lorimer, report of marriages.....	7 25	
Rev. A. B. Hyde, same.....	9 00	
Rev. G. A. Martin, same.....	10 00	
East Side Pharmacy, supplies for Board of Health.....	227 45	
Staples & Griffin, groceries ordered by same...	25 05	
D. J. McGrath, groceries ordered by same....	28 15	
Charles DeRoche, nursing quarantined case...	28 00	
	<hr/>	\$ 511 15
N. E. Tel. & Tel. Co., service.....	169 41	
Bangor Gas Lt. Co., gas.....	202 76	
Col. Towel Supply Co., use of towels.....	27 00	
Chandler & Co., office furniture and repairs...	49 62	
Valentine & Co., same.....	37 50	
W. U. Tel. Co., telegrams and regulating clock.	24 69	
Hugo Clark, telephone tolls.....	8 15	
Postal Tel. Co., telegrams.....	4 72	
	<hr/>	\$ 523 85
Amount carried forward.....		\$113,898 88

Amount brought forward		\$113,898 88
Sampson & Murdock Co., New England direct- ory	6 00	
Cannon & Co., directories	37 50	
G. M. Donham, Maine Registers	12 00	
J. A. Murphy, typewriting	1 75	
L. B. Raynes, same	101 70	
F. H. Clifford, same	4 50	
Eva B. Sterns, same	2 25	
Elizabeth I. Firth, same	35 02	
May C. O'Leary, same	2 00	
Maude A. Pennell, same	18 00	
J. M. Bright, insurance	41 10	
P. J. Byrnes, same	62 54	
W. W. Palmer, same	132 20	
J. C. Wilson, same	59 81	
L. C. Tyler & Sons, same	37 68	
J. H. Boyd, same	50 00	
L. Kirstein & Sons, same	50 00	
C. M. Stewart, same	25 00	
A. J. Whitmore, same	25 00	
Blake, Barrows & Brown, same	200 00	
Pember & Carter, same	153 00	
Union Safe Deposit Co., bonds of City Treas- urer and assistant treasurer	62 50	
J. M. Oak, P. M., stamped envelopes and stamps	268 30	
Same, same brown tail moth account	80 00	
W. P. Hubbard, auditor	40 00	
F. W. Perkins, reporting real estate transfers . .	34 70	
W. L. Hubbard, same	68 56	
J. T. Bowler, abstracts of title	82 00	
F. W. Eastman, inventories of estates	6 00	
C. C. Stevens, copies of court records	3 00	
C. F. Sweet, same	10 00	
J. E. Hewey, serving writs	2 50	
M. P. Oakes, same	1 86	
Amounts carried forward	\$1,716 47	\$113,898 88

Amounts brought forward	\$1,716 47	\$113,898 88
R. P. Garland, witness fees and serving writs . .	81 96	
B. E. Whitney, serving writs	2 24	
J. C. Bowen, same	2 12	
B. L. Fletcher, legal services	5 00	
C. H. Lanning, same	25 00	
	<hr/>	\$ 1,832 79
T. W. Burr Printing Co., printing	119 11	
C. H. Glass & Co., same	82 25	
J. H. Bacon, same	40 75	
J. F. Connelly, same	19 75	
Bangor Co-Op. Printing Co., printing annual reports, etc.	1,001 50	
Bass Publishing Co., advertising	895 27	
Bangor Publishing Co., same	351 48	
E. F. Dillingham, office supplies	284 49	
D. T. Sullivan, same	161 15	
Hight & Carle, same	49 78	
W. H. Earle, same	5 40	
Elliott-Fisher Co., same	8 24	
N. E. Bunker, same	7 45	
Kee Lox Mfg. Co., same	7 00	
Francis Pratt, Jr., same	4 50	
H. Dougel & Co., same	9 25	
McKeen, Jellison Co., same	3 80	
Underwood Typewriter Co., same	20 50	
Spaulding Paper Co., same	2 77	
Coleman & Dennison, same	11 00	
Herbert Marr, same	13 88	
Birmingham Pen Co., same	6 90	
Maverick & Wessinger, same	12 00	
Rough Notes Co., same	7 18	
McGraw, Hill Co., same	3 00	
Adder Machine Co., adding machine	339 50	
B. L. Makepeace, supplies for City Engineer's office	172 47	
Keuffel & Esser Co., same	2 33	
	<hr/>	<hr/>
Amounts carried forward	\$3,642 70	\$115,731 67

Amounts brought forward.....	\$3,642 70	\$115,731 67
Wadsworth, Howland Co., same.....	5 20	
E. Dietzgen Co., same.....	9 56	
W. & L. E. Gurley, same.....	3 14	
Frost & Adams Co., same.....	5 25	
Engineering Record, subscription.....	7 00	
Municipal Engineer, same.....	3 00	
F. L. Holmes, rent of transit instrument.....	10 00	
L. A. Nason, same.....	35 00	
	<hr/>	\$ 3,720 85
J. F. Cox, M. D., expenses to Washington, as delegate to Health Congress.....	105 00	
H. H. Dillingham, copying ward books.....	70 00	
T. G. Donovan, making itemized account of receipts and expenditures.....	175 00	
H. O. Pierce, taxes bid off to city at tax sales... ..	6,419 39	
Water Dept., water furnished charitable in- stitutions, etc.....	2,196 00	
	<hr/>	\$ 8,965 39
R. C. Eveleth, work at Oak Grove cemetery..	\$ 33 00	
E. H. Allen, same, Pine Grove cemetery.....	28 33	
H. M. Vague, same, Maple Grove cemetery...	39 00	
R. E. Hathorn, same, Mt. Hope cemetery ...	172 50	
H. B. Thoms, painting Mt. Pleasant hearse...	50 00	
	<hr/>	\$ 322 83
		<hr/>
		\$128,740 74
Unexpended balance.....		98,839 09
		<hr/>
		\$227,579 83

INTEREST

RECEIPTS

Amount of appropriation	\$	35,000 00
Amount received for interest on taxes		790 42
Amount received for interest on bonds		120 00
Amount received for interest on balances, Eastern Trust & Banking Co.....		649 63
Amount received for same, Kenduskeag Trust Co.....		340 04
Amount received for same, Merrill Trust Co. . .		287 62
Amount received for same, Merchts. Natl. Bank		560 66
Amount received for same, Second Natl. Bank.		291 54
		\$ 38,039 91

EXPENDITURES

Bangor Public Library, interest on Hersey Fund.....	\$	4,000 00
Bangor Mechanic Assn.....		360 00
Home for Aged Women.....		1,500 00
Children's Home.....		2,400 00
Wakefield Fund.....		225 00
Bangor Fuel Society.....		200 00
Charles E. French Medal Fund.....		142 50
Firemen Relief Fund.....		264 00
City Missionary, interest on Stetson Fund. . . .		629 00
City Treasurer, paid interest on municipal bonds.....		20,980 00
Same, interest on call loans.....		300 73
Eastern Trust & Bkg. Co., discount on tempo- rary loans.....		1,732 48
		\$ 32,733 71
Unexpended balance.....		5,306 20
		\$ 38,039 91

OVERLAYINGS

RECEIPTS

Amount of appropriation	\$ 23,871 32	
Amount of supplementary commitment	1,136 15	
		\$ 25,007 47

EXPENDITURES

Amount of abatements allowed by Assessors on years 1901 to 1912 inclusive	\$ 22,564 63	
Unexpended balance	2,442 84	
		\$ 25,007 47

PARKS

RECEIPTS

Amount of appropriation	\$5,000 00	
Amount received for destroying brown tail moths	482 89	
Amount overdrawn	1,318 07	
		\$ 6,800 96

EXPENDITURES

F. T. Casey, care of parks	\$2,206 36	
J. G. Hathorn, same	247 96	
Thomas Loftus, same	523 28	
City Treasurer, paid sundry men for labor	2,910 34	
W. L. Graffam, labor	6 00	
D. T. Sexton, same	10 00	
M. Hughes, teaming	133 20	
G. B. Derby Co., same	67 50	
Adam Sekenger, seeds and plants	161 08	
Amount carried forward	\$6,265 72	

Amount brought forward	\$6,265 72
Mrs. T. Allen, same	33 94
Peavey Mfg. Co., sharpening tools	12 70
G. McKenney, same	13 60
Holt & Kendall, same	1 20
Penobscot Machinery Co., same	9 25
R. B. Dunning & Co., mowers and supplies . . .	131 45
W. P. Dickey & Co., same	137 16
L. W. Cutter, carpentry	46 93
Cowan & McCarthy, same	62 34
E. F. Kelley & Son, plumbing	29 40
J. E. Kennedy, same	27 23
C. H. Babb & Co., same	3 85
Eastern Cement Co., cement	8 50
Morse & Co., lumber	16 59
E. F. Dillingham, stationery	1 10
	<hr/>
	\$ 6,800 96

PAUPER

RECEIPTS

Amount of appropriation	\$ 18,000 00	
Amount received from Overseers of Poor	3,271 64	
Amount received from State of Maine	1,283 88	
Amount received from other departments	353 92	
	\$ 22,909 44	
Amount overdrawn	913 03	
	\$ 23,822 47	

EXPENDITURES

James Gibbons, Overseer of Poor	\$ 400 00	
John T. Kelleher, same	400 00	
W. H. Bradford, Secy., same, part of year	50 00	
L. A. B. Brown, same	338 15	
Mrs. L. A. B. Brown, services as clerk	75 00	
	\$1,263 15	

EXPENSES AT ALMSHOUSE

C. L. Garland, Supt.	\$ 1,000 00	
Same, paid for labor	3,257 99	
Same, expenses of trip for purchase of stock	30 00	
J. N. Towle & Co., grain	585 63	
James Milliken, same	626 98	
Eastern Grain Co., same	444 71	
W. A. Jennison, same	488 09	
Brown & White Co., dairy feed	80 00	
A. H. Bell & Co., tea and coffee	86 92	
J. Cassidy Co., groceries	197 33	
A. Chapin Co., same	177 77	
Thurston & Kingsbury, same	155 66	
C. Hayward & Co., same	163 04	
T. F. Gallagher, same	475 67	
G. I. Wescott & Son, same	139 41	
	\$7,909 20	
Amounts carried forward	\$7,909 20	\$1,263 15

Amounts brought forward.....	\$7,909 20	\$1,263 15
C. P. Gallagher, same.....	100 46	
Eureka Market, same.....	21 10	
T. R. Savage Co., same.....	116 21	
Armour & Co., beef, etc.....	484 08	
Swift & Co., same.....	109 84	
W. A. Bean, same.....	57 28	
Cudahy Packing Co., same.....	87 87	
A. W. Joy Co., same.....	17 40	
W. M. Arey, same.....	19 35	
S. & S. Co., same.....	211 72	
A. Jones Sons, fish.....	162 65	
F. F. Foster, same.....	19 10	
Adams Dry Goods Co., bedding, etc.....	525 49	
A. L. Freese, dry goods.....	64 78	
Severance-Bunker Co., same.....	1 50	
E. C. Nichols Co., same.....	7 96	
C. B. Hale & Co., same.....	1 00	
Sawyer Boot & Shoe Co., boots and shoes....	220 62	
J. Waterman Co., clothing.....	107 03	
New York Syndicate, same.....	6 98	
J. T. Clark, same.....	24 76	
Fred Crowell, produce.....	15 29	
Horlick Co., malted milk.....	4 00	
Portland Rendering Co., bone meal.....	4 20	
	<hr/>	\$ 10,299 87
Sterns Lumber Co., wood.....	\$ 430 00	
Perkins & Danforth, same.....	75 00	
W. P. Lowell, same.....	150 00	
G. F. Cameron, shavings.....	31 12	
J. F. Woodman & Co., coal.....	73 98	
Stickney & Babcock Coal Co., same.....	22 60	
P. H. Vose Co., crockery, etc.....	93 59	
Hodgkins & Fiske Co., furniture.....	7 75	
Stanley Co., liquid soap.....	20 50	
National Biscuit Co., crackers.....	44 73	
Fleischman Co., yeast.....	2 88	
Revere Distilling Co., liquor.....	99 50	
	<hr/>	
Amounts carried forward.....	\$1,051 65	\$11,563 02

Amounts brought forward	\$1,051 65	\$11,563 02
C. Sweet Co., drugs	394 05	
C. H. Davis, same	54 31	
Cook, Everett & Pennell, same	16 87	
West Co., disinfectant	49 00	
Morrell Mfg. Co., same	55 00	
Flash Chemical Co., same	1 00	
E. F. Mahady Co., medical supplies	80 25	
P. R. Zeigler & Co., same	4 65	
Erickson Artificial Limb Co., supplies	1 40	
	<hr/>	\$ 1,708 18
T. H. Coffey, cow	\$ 75 00	
H. G. Beyer, Jr., 2 cows	350 00	
Earle Weiler, difference in cows	16 00	
R. B. Weir, boar	32 50	
Pittsfield Poultry Co., poultry	20 00	
C. A. Dillingham, same	28 00	
W. F. Chick, seed	90 61	
Morison Bros., fertilizer	198 65	
Swifts Lowell Co., same	60 00	
E. C. Gibson, dressing	15 00	
Highway Dept., same	125 00	
C. L. Garland, cream separator	65 00	
W. L. Hersey, hay tedder	20 00	
Unadilla Co., silo	153 10	
R. B. Dunning & Co., farming supplies	306 23	
C. M. Conant Co., same	88 45	
Knowles, Dow & Co., same	54 30	
Close to Nature Co., same	17 00	
M. Hughes, teaming	47 50	
	<hr/>	\$ 1,762 34
Hodge Boiler Works, steam boiler	\$ 473 00	
G. B. Derby Co., moving boiler	15 00	
Bangor Brick Co., brick	81 00	
Ward & Clough, masonry	94 02	
D. D. O'Connell, labor	30 00	
E. F. Kelley & Sons, plumbing, etc.	551 87	
	<hr/>	
Amounts carried forward	\$1,244 89	\$15,033 54

Amounts brought forward.....	\$1,244 89	\$15,033 54
Morse & Co., lumber.....	25 60	
Haynes & Chalmers Co., hardware.....	24 90	
Rice & Miller Co., same.....	114 87	
M. Schwartz Sons, same.....	6 80	
N. H. Bragg & Sons, same.....	7 40	
W. P. Dickey & Co., same.....	86 43	
The Dole Co., lighting supplies.....	6 57	
Atkins Bros., painting.....	8 94	
Snow & Nealley Co., rope, etc.....	19 99	
	<hr/>	\$1,546 39
N. Drew, horse shoeing.....	\$13 75	
C. E. Welch, same.....	93 44	
F. L. Heal, same.....	5 00	
P. T. Dugan & Co., harness supplies.....	9 59	
Utterback Bros., same.....	38 70	
A. C. Daniels, horse medicine.....	6 50	
A. L. Murch, veterinary.....	49 50	
C. F. Dwinal, same.....	4 50	
Kelley Carriage Co., wagon repairs.....	30 25	
Louden Co., repairs.....	1 70	
Penobscot Mach. Co., same.....	90	
Union Iron Works, same.....	6 17	
Berry & Smith, same.....	50	
Wood & Bishop Co., same.....	5 57	
J. L. Cosmey, same.....	19 15	
Holt & Kendall, same.....	7 26	
N. E. Tel. & Tel. Co., service.....	18 00	
M. C. R. R. Co., freight.....	81 77	
Eastern S. S. Co., same.....	4 53	
Hogan & Callan, glass slides.....	2 00	
	<hr/>	\$398 78
Amount carried forward.....		\$16,978 71

Amount brought forward \$16,978 71

EXPENSES OUTSIDE ALMSHOUSE

City Treasurer, paid for support of paupers on orders of overseers of poor	\$ 959 09	
Town of Mt. Desert, care of paupers	3 95	
Town of Hermon, same	55 00	
Town of Manchester, same	266 26	
Town of Unity, same	22 00	
Mrs. M. E. Beal, same	8 00	
City of Gardiner, same	74 25	
R. C. Eveleth, burial of paupers	4 00	
W. H. McCart, same	8 00	
R. E. Hathorn, same	20 00	
J. T. Kelliher, funeral supplies	139 50	
		\$ 1,560 05
A. F. Anderson, groceries	\$ 30 00	
J. F. Fleming, same	520 23	
J. E. Foley, same	45 00	
E. R. Fox, same	40 00	
R. Hickson's Sons, same	151 00	
W. D. Matheson, same	660 43	
E. F. Piper, same	128 00	
C. H. Peterson, same	119 00	
S. H. Robinson & Son, same	254 00	
Staples & Griffin, same	135 00	
E. F. Spencer, same	294 00	
C. F. Willis, same	175 00	
N. W. Whitman, same	53 00	
W. F. White, same	145 00	
G. A. Chapman, same	42 00	
F. H. Drummond, same	80 00	
Lord Bros., same	47 00	
G. Ray, same	49 00	
C. F. Winchester, same	7 00	
F. L. Frank & Co., same	105 00	
H. E. McDonald, same	15 00	
H. E. Jellison, same	75 00	
D. J. McGrath, same	95 00	
W. H. Blake, same	5 00	
		\$ 3,269 66
Amount carried forward		\$21,808 42

Amount brought forward		\$21,808 42
C. H. Burgess, M. D., professional service . . .	\$ 21 00	
H. J. Milliken, M. D., same	32 00	
J. B. Woods, M. D., same	5 00	
J. B. Thompson, M. D., same	3 00	
E. E. Brown, M. D., same	3 00	
W. P. McNally, M. D., same	6 00	
C. J. Nason, M. D., same	3 00	
Daniel McCann, M. D., same	8 00	
W. S. Purington, M. D., same	2 00	
C. W. Robbins, M. D., same	3 00	
H. H. Crane, M. D., same	3 00	
W. H. Simmons, M. D., same	6 00	
F. H. Gordon, D. D. S., same	10 00	
E. M. General Hospital, use of ambulance . . .	12 00	
M. Kane, carriage hire	2 00	
		\$ 119 00
J. H. Boyd, insurance	\$ 101 00	
P. J. Byrnes, same	89 44	
Blake, Barrows & Brown, same	88 00	
J. P. Finnegan & Son, same	22 75	
H. T. Gallagher, same	79 61	
L. Kirstein & Sons, same	70 20	
H. Lord & Co., same	57 10	
J. W. McClure & Son, same	152 73	
W. W. Palmer, same	5 76	
Pember & Carter, same	58 50	
Pearl & Dennett Co., same	131 12	
J. C. Wilson, same	70 20	
C. M. Stewart, same	58 50	
		\$ 987 91
Sterns Lumber Co., wood	\$ 425 75	
Bacon & Robinson Co., same	1 00	
J. A. Robinson & Co., clothing	31 70	
Besse-Ashworth Co., same	61 70	
J. Conners Shoe Co., boots and shoes	3 00	
Sawyer Boot & Shoe Co., same	266 70	
		\$ 789 85
Amounts carried forward	\$789 85	\$22,915 33

Amounts brought forward	\$789 85	\$22,915 33
Kimball & Nickerson, same	2 75	
Arnold Shoe Co., same	1 15	
N. E. Tel. & Tel. Co., service	39 11	
Bangor Publishing Co., advertising and sub- scription	10 75	
Bass Publishing Co., same	15 33	
Burr Printing Co., printing	3 50	
Bangor Co-Op. Printing Co., same	29 75	
Cannon & Co., directory	2 50	
E. F. Dillingham, office supplies	2 30	
Remington T. W. Co., same	1 05	
D. T. Sullivan, same	9 10	
	<hr/>	\$ 907 14
		<hr/>
		\$ 23,822 47

POLICE

RECEIPTS

Amount of appropriation	\$ 28,000 00	
Amount received from County treasurer, for fees	5,152 84	
Amount received for municipal court fees	1,562 16	
		\$ 34,715 00

EXPENDITURES

Frank H. Davis, chief of police, salary	\$1,350 00	
City Traasurer, paid patrolmen, at \$2.40, deputy and captains, at \$2.50 per day.	28,171 55	
Same, paid special police, at \$2.00 per day.	2,760 00	
		\$ 32,281 55

GENERAL EXPENSES

Mrs. F. C. Jordan, pension, husband killed in service	262 00	
C. H. Burgess, M. D., professional services	12 00	
C. D. Edmunds, M. D., same	6 00	
H. J. Milliken, M. D., same	42 00	
J. F. Cox, M. D., same	4 00	
T. J. Murphy, M. D., same	3 00	
M. Kane, carriage hire	9 00	
F. D. Alexander, same	2 00	
John McTigue, same	1 50	
M. J. Hennessy, same	2 00	
Silk & Dunn, same	1 00	
H. A. Jefferds, same	50	
Timothy Murphy, same	2 00	
Fred H. Bean, use of auto	388 25	
J. H. Nash, same	3 00	
M. Gray, use of horse	5 00	
F. L. Peavey, board of horse	440 00	
Amount carried forward	\$1,183 25	\$32,281 55

Amount brought forward	\$1,183 25	\$32,281 55
White & Winchester, horseshoeing	41 05	
A. L. Murch, veterinary	1 50	
J. Mason & Sons, repairing pung	4 85	
Brown & White Co., rubber tires, etc	53 35	
H. B. Thoms, repairing wagon	3 50	
Rice & Miller Co., police clubs, etc	37 60	
S. L. Crosby Co., holsters and belts	6 00	
J. A. McKay, gloves	2 50	
Curran & Griffin, same	7 00	
J. A. Robinson & Co., same	2 25	
W. H. Earle, badges	9 00	
D. Evans Co., buttons	25 00	
Buckley Drug Co., drugs	1 00	
Curtis & Tupper, same	1 45	
E. K. Baker, laundry	28 24	
Dole Co., lighting supplies	10 12	
C. E. Pendleton, batteries	10 40	
Haynes & Chalmers Co., galvanized pails	2 25	
Noyes & Nutter Mfg. Co., same	4 40	
M. Schwartz Sons, cotton waste	5 38	
M. Lynch & Co., keys and locks	11 45	
Valentine & Co., office furniture	28 50	
D. T. Sullivan, office supplies	75	
E. F. Dillingham, same	8 75	
Hight & Carle, same	10 39	
Bangor Rubber Stamp Co., rubber stamps	2 40	
Cannon & Co., directories	5 00	
Burr Ptg. & Adv. Co., printing	13 10	
M. C. R. R. Co., freight	3 32	
Postal Tel. Co., telegrams	1 52	
N. E. T. & T. Co., service	154 33	
Gamewell F. A. Tel. Co., supplies	34 17	
A. P. Trask, repairs	60	
I. M. Hutchings, rep. badges	2 15	
Holt & Kendall, repairing bicycles	15 35	
Utterback Bros., repairs	2 25	
Amounts carried forward	\$1,734 12	\$32,281 55

1913]

CITY OF BANGOR

69

Amounts brought forward	\$1,734 12	\$32,281 55
F. H. Davis, expense conveying prisoners	58 89	
Calvin Knaide, same	4 70	
T. E. O'Donohue, same	30 15	
N. A. Smith, same	22 50	
C. F. Carey, same	7 50	
F. J. Rogan, same	15 30	
J. L. Fahey, car fare for prisoners	1 60	
	<hr/>	\$1,874 76
		<hr/>
		\$ 34,156 31
Unexpended balance		558 69
		<hr/>
		\$ 34,715 00

PUBLIC LIBRARY

RECEIPTS

Amount of appropriation	\$ 3,500 00	
Amount received from State	700 00	
	<hr/>	\$ 4,200 00

EXPENDITURES

Paid Everett F. Rich, treasurer		\$ 4,200 00
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SALARY

RECEIPTS

Amount of appropriation	\$ 15,500 00	
Amount overdrawn	777 33	
		\$ 16,277 33

EXPENDITURES

Charles W. Mullen, mayor	800 00	
Victor Brett, city clerk	1,000 00	
H. O. Pierce, city treasurer	2,200 00	
T. G. Donovan, treasurer's assistant	1,100 00	
Same, clerk of Common Council	125 00	
Hugo Clark, city solicitor	1,200 00	
P. H. Coombs, city engineer	1,350 00	
C. H. Burgess, city physician	400 00	
L. S. Mason, secretary Board of Health, part of year	56 03	
J. F. Cox, same	277 27	
C. H. Cullinan, same	66 66	
Same, member Board of Health	33 36	
J. F. Cox, same	18 83	
R. H. Downing, same	41 70	
C. H. Cullinan, plumbing inspector	113 00	
G. W. Cluff, school agent	700 00	
Same, truant officer	250 00	
H. J. McCarthy, building inspector	300 00	
W. P. Hubbard, assessor	1,418 88	
F. A. Garnsey, same	1,200 00	
C. H. Adams, same	500 00	
W. H. Baker, supt. of clocks	150 00	
R. E. Hathorn, undertaker	300 00	
Patrick Quine, same	200 00	
Frank Dwinal, milk inspector	300 00	
J. C. Wilson, harbor master	400 00	
City Treasurer, paid city engineer's assistants	1,776 60	
		\$ 16,277 33

SCHOOLS

RECEIPTS

Amount of appropriation		\$ 62,800 00
Amount received from State as follows, viz:		
for common school fund	\$ 31,494 01	
for school and mill fund	21,435 21	
for Domestic Science and Man'l Training	1,266 67	
for Mechan. Arts	500 00	
for Industrial Education	500 00	
for Free High School	500 00	
		\$ 55,695 89
Amount received for tuition	76 00	
Amount received for books and supplies	47 55	
		\$213 15
		\$118,619 44

EXPENDITURES

Chas. E. Tilton, supt., part of year, salary	\$ 720 00	
D. Lyman Wormwood, supt., same	1,252 73	
Daniel A. Robinson, member School Board	60 00	
Daniel McCann, same	60 00	
Prescott H. Vose, same	60 00	
Abram L. Kirstein, same	60 00	
C. Parker Crowell, same	60 00	
H. H. Crane, M. D., medical inspector	250 00	
Blanche M. Mansfield, M. D., same	250 00	
L. S. Mason, M. D., same	250 00	
H. J. Milliken, M. D., same	250 00	
Edna M. Lord, clerk in supt's office	604 33	
		\$ 3,877 06
City Treasurer paid teachers' salaries as follows, viz.:		
High School	\$ 19,997 30	
Common Schools	44,178 00	
Amounts carried forward	\$64,175 30	\$3,877 06

Amounts brought forward.....	\$64,175 30	\$3,877 06
Kindergartens.....	8,161 51	
Suburban.....	4,949 60	
Special supervisors.....	4,462 39	
Assistants and substitutes.....	2,231 73	
	<hr/>	\$ 83,980 53
City Treasurer, paid for janitors' services.....	\$ 6,227 57	
Same, paid sundry persons for labor.....	570 54	
	<hr/>	\$ 6,798 11

BOOKS AND SUPPLIES

American Book Co.....	\$ 658 58	
Atkinson-Mentzer Co.....	41 83	
Burr Ptg. & Adv. Co.....	196 33	
E. E. Babb & Co.....	414 48	
Ginn & Co.....	768 11	
Houghton & Mifflin Co.....	150 02	
Hinds, Noble & Eldridge.....	1 00	
C. M. Parker.....	2 40	
Remington Typewriter Co.....	14 10	
Silver, Burdette & Co.....	112 89	
D. T. Sullivan.....	353 82	
Andrews Paper Co.....	13 50	
J. L. Hammett Co.....	231 01	
Knott Apparatus Co.....	156 14	
Library Bureau.....	43 23	
Little, Brown & Co.....	89 13	
C. E. Merrill Co.....	41 06	
H. Marr.....	2 40	
McKeen, Jellison Co.....	12 85	
Neostyle Co.....	27 29	
I. Pitman & Son.....	4 53	
M. Bradley Co.....	144 40	
O. Ditson Co.....	11 37	
The Schoenhof Book Co.....	50 18	
D. Appleton & Co.....	3 50	
E. J. Clode.....	3 00	
	<hr/>	
Amounts carried forward.....	\$3,547 15	\$94,655 70

Amounts brought forward	\$3,547 15	\$94,655 70
E. F. Dillingham	115 55	
Holden Pat. Book Cover Co.	16 20	
Perfection Specialty Co.	1 92	
C. Scribner Sons	283 10	
Bangor Co-Operative Ptg. Co.	66 50	
Furbush Printing Co.	15 00	
Skillings Bros.	4 75	
Allyn & Bacon	17 52	
D. C. Heath & Co.	69 69	
Public Library	1 35	
Parker Supply Co.	10 80	
Practical Text Book Co.	20 00	
B. H. Sanborn & Co.	13 50	
Scott-Foersman & Co.	18 40	
Taylor-Holden Co.	18 50	
H. I. Dallman Co.	26 00	
A. L. Kirstein	5 03	
L. C. Smith Bros.	155 90	
H. V. Starrett	1 15	
Gregg Publishing Co.	4 45	
Kee-Lox Mfg. Co.	19 50	
W. Sutherland	6 00	
Hight & Carle	25	
	<hr/>	\$ 4,438 21

FUEL

Conner Coal & Wood Co., wood	\$ 1,078 75	
C. H. Morrison, same	423 75	
C. E. Adams, same	2 25	
P. J. Nelligan, same	47 00	
C. W. Wilson, same	40 00	
J. F. Woodman & Co., coal	824 49	
Stickney & Babcock Coal Co., same	4,363 46	
	<hr/>	\$ 6,779 70
Amount carried forward		\$105,873 61

Amount brought forward \$105,873 61

MATERIALS, IMPROVEMENTS AND REPAIRS

Rice & Miller Co., hardware	\$ 168 23	
Chandler & Co., repairing furniture	15 50	
Valentine & Co., same	37 17	
B. Pol, repairing clocks	6 50	
A. Pfaff, same	3 00	
E. F. Shaw same	7 50	
A. P. Trask, same	8 50	
S. L. Rogers, same	4 75	
I. M. Hutchins, same	8 25	
Wood & Bishop Co., stove repairs	86 71	
W. H. Pritchard, same	49 78	
Noyes & Nutter Mfg. Co., repairing furnace . .	21 58	
A. W. Bean, repairing hose	3 50	
Penobscot Machinery Co., repairs	22 72	
Holt & Kendall, same	3 35	
J. L. Cosmey, same	1 00	
Hogan & Callan, same	3 00	
Willey & Calhoun, same	58 70	
L. P. Patten, carpentry	130 25	
L. W. Cutter, same	26 92	
Hodgkins & Fiske Co., chairs	30 60	
Kenney Bros. & Wolfkins, desks and chairs . . .	93 95	
Bangor Window Shade Co., window shades . . .	1 00	
Martins Bros., same	4 90	
		\$ 797 36

MISCELLANEOUS

Baker & Hodge, insurance	\$ 136 97	
J. H. Boyd, same	84 78	
W. F. Curran, same	28 09	
H. T. Gallagher, same	153 57	
H. Lord & Co., same	96 03	
J. W. McClure & Son, same	119 11	
Pember & Carter, same	120 09	
		\$738 64
Amounts carried forward		\$106,670 97

Amounts brought forward.....	\$738 64	\$106,670 97
Pearl & Dennett Co., same.....	159 07	
J. F. Singleton & Co., same.....	34 43	
L. C. Tyler & Sons, same.....	29 17	
J. C. Wilson, same.....	77 71	
W. H. Bradford, same.....	59 22	
J. P. Finnegan & Son, same.....	42 39	
W. W. Palmer, same.....	141 42	
C. M. Stewart, same.....	110 81	
L. Kirstein & Sons, same.....	42 39	
Blake, Barrows & Brown, same.....	11 50	
		\$ 1,446 75
Hoyt-Tarbox Exp. Co., express.....	\$ 55 64	
American Express Co., same.....	8 98	
Atlantic Express Co., same.....	21 15	
M. C. R. R. Co., freight.....	9 83	
Eastern S. S. Co., same.....	11 75	
G. B. Derby Co., carting.....	50	
F. C. Ridley & Co., same.....	23 65	
J. G. Hathorn, same.....	18 13	
C. E. Bradbury, same.....	19 75	
Furey's Transfer, same.....	27 00	
E. J. Colburn, conveying pupils.....	168 00	
F. L. Peavey, same.....	170 00	
R. K. Stevens, same.....	119 00	
F. H. C. Smith, same.....	98 00	
M. Kane, carriage hire.....	44 50	
H. L. Mayo, same.....	20 00	
		\$ 815 88
Bass Pub. Co., advertising.....	\$ 33 25	
Bangor Pub. Co., same.....	15 25	
C. H. Burgess, M. D., vaccinating.....	36 00	
Bangor Window & Sign Cleaning Co., services.....	82 26	
Galesburg Piano Co., music.....	5 00	
J. Church Co., same.....	1 62	
White-Smith Music Co., same.....	65	
Andrews Music House, same.....	10 27	
Amounts carried forward.....	\$184 30	\$108,933 60

Amounts brought forward	\$184 30	\$108,933 60
H. M. Pullen, music for graduation	54 00	
W. I. Brown, tickets	5 00	
N. E. Tel. & Tel. Co., services	113 83	
Bangor Gas Co., gas	208 15	
J. M. Oak, postage stamps	28 00	
N. E. Brennan et als, school census	189 98	
Cannon & Co., directories	5 00	
D. V. & C. G. O'Leary, rent for kindergarten	325 00	
C. P. Fessenden, Tr., same	105 00	
D. L. Wormwood, lecture expenses	15 00	
Am. School Board Journal, subscription	1 00	
N. E. Bunker, rubber stamps	60	
W. H. Earle, stencils	1 90	
C. E. Tilton, photo	1 50	
		\$ 1,238 26
Barrett Mfg. Co., disinfectant	\$ 6 25	
C. A. Fowler, same	2 30	
Orient Spray Co., same	57 00	
West Disinfecting Co., same	40 50	
Snow & Nealley Co., flags	16 17	
W. D. Matheson, groceries for domestic science department	91 99	
Haynes & Chalmers Co., supplies for domestic science department	127 19	
W. P. Dickey & Co., supplies for manual training department	794 28	
Morse & Co., lumber for manual training department	198 42	
Smith Planing Mill Co., same	35 74	
Penob. Lumber & Box Co., same	71 43	
G. McKenney, filing saws	3 80	
Barnes & Williams, same	4 30	
J. I. Barnes, same	40	
Dole Co., lighting fixtures	10 91	
Smith & West, same	1 70	
Adams Dry Goods Co., dry goods	55 96	
Amounts carried forward	\$1,518 34	\$110,171 86

Amounts brought forward.....	\$1,518 34	\$110,171 86
Nichols Dry Goods Co., same.....	2 54	
A. L. Freese, same.....	6 51	
T. R. Savage & Co., brooms, etc.....	46 80	
Bangor Broom Co., same.....	8 00	
O. C. Bean, twine.....	40	
Bacon & Robinson, excelsior.....	3 34	
Somerville Brush Co., brushes.....	16 50	
C. Sweet Co., chemicals.....	7 20	
Highway Dept., removing ashes.....	9 00	
S. A. White, same.....	43 75	
R. B. Dunning & Co., ash barrels.....	15 14	
Bangor Stoneware Co., clay.....	6 00	
F. T. Casey, grading.....	54 71	
C. A. Lyon & Co., pole ends.....	53	
Bown & White Co., lawn mowers, etc.....	6 95	
Cudahy Packing Co., soap powder.....	4 25	
G. I. Wescott & Son, same.....	21 50	
F. H. Drummond, soap.....	1 50	
N. Whitman Sons, wax paper.....	55	
Masury-Young Co., floor sweep.....	24 00	
Dustbane Mfg. Co., same.....	20 62	
Bangor Steam Laundry, washing.....	5 30	
Standard Oil Co., gloss.....	3 55	
M. Schwartz Sons, fire hose.....	67 95	
H. A. M. Trickey, athletic supplies.....	5 63	
C. A. York & Sons, christmas trees.....	8 00	
E. P. Garland, expenses to Bar Harbor.....	4 25	
F. W. Lorimer, same.....	4 25	
C. H. Piston, same.....	4 25	
I. Rudman, same.....	4 25	
G. H. Larrabee, expenses to Castine.....	10 50	
A. L. Thayer, baseball coach.....	40 00	
Water Dept., labor.....	73 72	
		\$ 2,049 78
		\$112,221 64
Unexpended balance.....		6,397 80
		\$118,619 44

HIGH SCHOOL CONSTRUCTION

EXPENDITURES

Geo. H. Wilbur & Son.....	\$100,287 25	
Wiley & Calhoun.....	15,683 97	
Peabody & Stearns.....	8,500 00	
E. C. Lewis, Inc.....	1,402 50	
C. H. Babb & Co.....	1,600 00	
E. C. Hodgkins & Son.....	937 80	
R. D. Kimball & Co.....	392 55	
Victor Hodgins.....	50 00	
Sewer Dept.....	316 03	
W. E. Givren.....	516 00	
	<hr/>	\$129,686 10

SEWERS

RECEIPTS

Amount of appropriation	\$ 15,000 00	
Amount received for assessments and entrance fees	2,351 99	
Amount received from other departments	316 03	
		\$ 17,668 02

EXPENDITURES

William E. Southard, supt., salary	\$ 950 00	
C. M. Brown, member Sewer Board, salary ...	50 00	
Wm. Conners, same	50 00	
I. P. Watson, same	50 00	
		\$ 1,100 00
City Treasurer, paid sundry men for labor ...	\$8,173 65	
R. B. Dunning & Co., cement	302 86	
Eastern Cement Co., same	330 00	
Bangor Brick Co., brick	48 00	
Hugh O'Brien, same	310 75	
Bangor Brick & Cons. Co., same	44 50	
Brooks Brick Co., same	90 00	
Portland Stoneware Co., sewer pipe	1,915 98	
C. H. Babb & Co., same	15 40	
Water Dept., same	100 75	
C. M. Conant Co., same	18 00	
J. F. Green, sand and gravel	176 75	
G. B. Derby Co., same	151 00	
Highway Dept., same	26 00	
M. Hughes, same	20 25	
Penobscot Mach. Co., cesspools, etc	385 19	
Union Iron Works, same	70 78	
J. B. Atkinson, iron work	2 15	
Shannon & Murphy, same	101 35	
C. M. Bragdon, same	3 50	
R. D. McNeil, same	53 98	
Amounts carried forward	\$12,340 84	\$1,100 00

Amounts brought forward.....	\$12,340 84	\$1,100 00
C. P. Fessenden, same.....	5 85	
C. E. Welch, same.....	12 35	
Rice & Miller Co., supplies.....	33 71	
T. F. Cassidy & Son, same.....	14 20	
N. H. Bragg & Sons, same.....	73 20	
Haynes & Chalmers Co., same.....	25 85	
G. H. Sampson & Co., supplies.....	3 30	
H. L. Bond & Co., same.....	57 80	
Bacon & Robinson Co., wood.....	16 80	
J. Milliken, salt.....	4 20	
J. N. Towle & Co., same.....	45 25	
Morse & Co., lumber.....	61 50	
Snow & Nealley Co., rope.....	10 17	
H. E. Jellison, oil.....	55	
Staples & Griffin, same.....	21 05	
Berry & Smith, canvas covers.....	6 90	
Mulvaney Bros., same.....	2 25	
Yates Shoe Co., rubber boots.....	32 50	
Stover & Prilay Co., same.....	29 50	
Adams Dry Goods Co., rubber coats.....	8 74	
E. F. Dillingham, office supplies.....	6 50	
J. Mason & Son, repairing carts.....	271 26	
H. B. Thoms, same.....	155 29	
J. Cassidy Co., empty hogshead.....	1 25	
Queen City Granite Co., labor.....	4 60	
M. C. R. R. Co., freight.....	212 04	
Eastern S. S. Co., same.....	55	
E. Russell, trucking.....	50	
F. L. Small, same.....	1 50	
Sanford Seavey, same.....	28 00	
A. Staples, same.....	25	
Isaac Smith, same.....	17 50	
J. Phillips, same.....	25	
Am. Express Co., express.....	1 10	
Bangor Publishing Co., advertising.....	2 63	
J. P. Bass Publishing Co., same.....	2 92	
Amounts carried forward.....	<u>\$13,512 65</u>	<u>\$1,100 00</u>

1913]

CITY OF BANGOR

81

Amounts brought forward	\$13,512 65	\$1,100 00
Etta P. Haynes, typewriting	5 00	
Henry Lord & Co., insurance	14 18	
M. H. Lancaster, carpentry	10 13	
J. I. Barnes, filing saws	1 60	
W. E. Southard, use of auto	150 00	
M. Hughes, contract for cleaning cesspools....	2,434 00	
Annie R. Elliott, for right of way	100 00	
Michael Coyne, settlement of damages	17 50	
	<hr/>	\$16,245 06
		<hr/>
		\$ 17,345 06
Amount unexpended		322 96
		<hr/>
		\$ 17,668 02

STREET OPENING

RECEIPTS

Amount received for permits.....		\$ 869 32
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EXPENDITURES

City Treasurer, paid City Engineer's assistants for labor.....	\$ 374 91	
Bass Publishing Co., advertising.....	4 67	
Highway Dept., for labor and material.....	321 05	
	\$ 700 63	
Unexpended balance.....	168 69	
		\$ 869 32

STREET SPRINKLING

RECEIPTS

Amount of appropriation	\$ 4,500 00	
Amount received for assessments	5,700 93	
	\$ 10,200 93	

EXPENDITURES

J. Frank Green, contractor, sprinkling	\$6,800 00	
Highway Dept., sprinkling	1,498 51	
City Treasurer, paid D. J. Nason and als. surveying and office work	273 16	
Standard Oil Co., oiling part of Court and Main St	100 00	
J. Frank Green, sprinkling Third and Buck Sts., one day	12 50	
H. B. Thoms, painting wagon, 1911	10 00	
J. F. Hatch, varnishing wagon ..	7 00	
J. N. Towle & Co., salt	8 90	
Bass Publishing Co., advertising	2 00	
Bangor Publishing Co., same	2 00	
	\$ 8,714 07	
Unexpended balance	1,486 86	
	\$ 10,200 93	

WATER

RECEIPTS

Amount received from the City Council, same being appropriated for water used by the various departments	\$ 12,000 00
Amount received from W. I. Brown, Collector, of Water Department	85,100 00
Amount received from Incidental Department, for water furnished Charitable Institutions, et al.	2,196 00
Amount received from Sewer Department, for cast iron pipe	100 75
Amount received from School Department, for material and labor furnished, installing 4" fire line and 2" water service line	73 72
	\$ 99,470 47

EXPENDITURES

STREET MAINTENANCE

City Treasurer, for pay rolls	\$ 8,053 63
City Treasurer, for salaries	3,000 00
Addressograph Co., office supplies	6 32
American Express Co.	6 83
Baker-Vawter Co., office supplies	19 20
C. H. Babb & Co., supplies	17 50
Bangor Co-Operative Ptg. Co., printing	10 50
Bangor Publishing Co., advertising rates	141 04
J. P. Bass Pub. Co., same	183 50
Bangor Ice Co., ice	5 70
J. I. Barnes, filing saws	1 20
Barnes & Williams, same	4 20
Berry & Smith, trench flag signals	2 28
Harold L. Bond Co., supplies	51 45
J. Herbert Boyd, insurance	108 00
C. E. Bradbury, trucking	26 85
Amount carried forward	\$11,638 20

Amount brought forward.....	\$11,638 20
N. H. Bragg & Sons, hardware supplies.....	61 52
W. I. Brown, office assistant, assistant at Superintendent's office and other paid vouchers.....	866 94
T. W. Burr Ptg. & Adv. Co., advertising and printing.....	141 95
T. F. Cassidy & Son, blacksmith work.....	3 55
Arthur Chapin Co., supplies.....	29 35
Cannon & Co., city directories.....	5 00
Chandler & Co., furniture repairs.....	1 35
F. H. Clifford, advertising.....	6 00
Fred Cort, charcoal.....	12 00
Columbia Towel Supply Co., towels.....	4 80
G. B. Derby Co., trucking.....	7 50
Geo. A. Daley, wood.....	3 50
E. F. Dillingham, supplies for Supt. and col- lector's offices.....	27 93
R. B. Dunning & Co., galv. iron pipe and sup- plies.....	1,282 09
Eastern Cement Co., cement.....	3 29
Eddy Valve Co., valves.....	576 64
F. E. Eldridge Co., painting.....	206 46
Electrical Department, labor, etc.....	25 16
R. E. Freeman, veterinary.....	8 00
C. H. Glass Co., printing.....	9 00
Goodall Union Mfg. Co., supplies.....	3 59
Hodgkins & Fiske Co., supplies.....	20 06
Holly Manufacturing Co., same.....	151 46
A. R. Hopkins Co., cement, etc.....	5 55
Edward Jordan, supplies for stable.....	10 80
L. Kirstein & Sons, insurance.....	54 00
M. H. Lancaster, carpentry.....	344 89
Leighton, Leland & Grant, blacksmith work...	30 05
Library Bureau, office supplies.....	50 00
Henry Lord & Co., insurance.....	72 90
Morse & Co., lumber.....	64 53
Amount carried forward.....	\$15,728 06

Amount brought forward	\$15,728 06	
H. Mueller Co., supplies	1 35	
National Lead Co., supplies	261 31	
New England Tel. & Tel. Co.	123 28	
Noyes & Nutter Mfg. Co.	3 25	
Penobscot Machinery Co., special castings, etc.	329 13	
Remington Typewriter Co., supplies	1 80	
Rice & Miller Co., supplies	48 93	
W. H. Rivers, horse	240 00	
Frank Ryan, stable supplies	23 70	
P. J. Byrnes, settlement of claim	25 00	
Sawyer Boot & Shoe Co., supplies	39 41	
M. A. Sinclair, board of horse	216 00	
W. P. Smiley, caretaker of stand-pipe	24 00	
L. C. Smith Bros. Co., office supplies	4 00	
Snow & Nealley Co., same	11 50	
J. F. Staples, service pipe cleaner	29 00	
Stickney & Babcock Coal Co., coal	75 67	
The Ashton Valve Co., gauge	5 92	
The Dole Co., supplies	5 35	
The Haynes & Chalmers Co., same	9 55	
The A. P. Smith Mfg. Co., same	32 00	
Henry B. Thoms, stable supplies	101 65	
Union Iron Works, special castings, etc.	718 86	
Walworth Mfg. Co., supplies	626 21	
Ward & Clough, mason work	10 04	
Water Works Equipment Co., supplies	217 93	
F. S. Webster Co., office supplies	14 25	
John C. Wilson, insurance	54 00	
Wood & Bishop Co., supplies	14 60	
R. D. Wood, & Co., same	1,571 20	
J. F. Woodman & Co., coal	49 55	
	<hr/>	\$ 20,616 50

STREET CONSTRUCTION ACCOUNT

City Treasurer, for pay rolls	\$ 4,294 30	
J. F. Angley & Co., wood	3 25	
	<hr/>	
Amounts carried forward	\$4,297 55	\$20,616 50

Amounts brought forward	\$4,297 55	\$20,616 50
Builders Iron Foundry, supplies	101 15	
Chadwick-Boston Lead Co., same	99 06	
Geo. A. Daley, wood	5 25	
Maine Central Railroad, freight on pipe	1,179 09	
J. W. McClure & Son, insurance	25 00	
Morse & Co., lumber	10 07	
National Lead Co., supplies	174 00	
Penobscot Machinery Co., same	20 10	
Stickney & Babcock Coal Co., coal	11 14	
The Haynes & Chalmers Co., supplies	64 55	
Union Iron Works, special castings, etc	75 97	
Water Works Equipment Co., same	151 80	
R. D. Wood & Co., cast iron pipe	1,500 34	
	<hr/>	\$ 7,715 07

PUMPING STATION MAINTENANCE

City Treasurer, for pay roll	\$4,497 28	
Atkins Bros., painting	241 53	
Bacon & Robinson Wood Co., wood	3 25	
Baker & Hodge, insurance	66 88	
Bangor Broom Co., brooms	2 33	
Bangor Window & Sign Cleaning Co.	15 94	
H. W. B. Bickford, supplies	5 40	
W. H. Bradford, insurance	66 88	
N. H. Bragg & Sons, hardware	17 00	
P. J. Byrnes, insurance	101 36	
J. Herbert Boyd, same	34 50	
T. F. Cassidy & Son, supplies	2 25	
Chandler & Co., same	2 00	
Arthur Chapin Co., same	10 84	
Connor Coal & Wood Co., wood	2 00	
O. C. Davis, wheelpit and gates	44 00	
F. E. Eldridge Co., painting	139 33	
John B. Finn, labor slating	9 14	
Fred M. Foley Co.	28 93	
W. H. Gorham Co., painting, etc	325 20	
	<hr/>	
Amounts carried forward	\$5,616 04	\$28,331 57

Amounts brought forward	\$5,616 04	\$28,331 57
J. Frank Green, sand	1 50	
Highway Department, paving	150 00	
Hodgkins & Fiske Co., rubber floor covering . .	137 32	
R. H. Holyoke, flag pole	21 75	
L. Kirstein & Sons, insurance	66 88	
M. H. Lancaster, carpentry	131 94	
Leighton Plumbing & Heating Co., labor, etc. .	40 84	
R. A. McLeod, ice	22 40	
Morse & Co., lumber	103 02	
W. W. Palmer, insurance	25 00	
Penobscot Machinery Co., material and labor .	355 46	
T. R. Savage Co., supplies	2 40	
M. Schwartz Sons, same	323 24	
J. F. Singleton, insurance	113 20	
Smith & West, supplies	6 24	
Snow & Nealley, Co., same	47	
Stickney & Babcock Coal Co., coal	910 20	
The Bristol Co., charts	3 38	
The Deane Steam Pump Co., supplies	52	
The Garlock Packing Co., same	15 58	
The Haynes & Chalmers Co., same	14 35	
Union Iron Works, stock and labor	591 60	
Vacuum Oil Co., oils	123 04	
Ward & Clough, mason work	132 84	
John C. Wilson, lumber	47 32	
Wood & Bishop Co., supplies	7 34	
J. F. Woodman & Co., supplies	757 43	
	<hr/>	\$ 9,721 30

FILTER PLANT MAINTENANCE

City Treasurer, for pay rolls	\$ 2,880 58	
Baker-Vawter Co., supplies	5 65	
J. P. Bass Pub. Co., advertising	6 67	
W. I. Brown, office disbursements per vouchers	108 42	
Builders Iron Foundry, charts	21 82	
J. M. Caird, paid resident chemist and for pro- fessional services	1,566 78	
	<hr/>	
Amounts carried forward	\$4,589 92	\$38,052 87

Amounts brought forward.....	\$4,589 92	\$38,052 87
Chandler & Co., supplies.....	2 00	
Eimer & Amend, laboratory supplies.....	109 97	
W. H. Gorham Co., supplies.....	70	
Hodgkins & Fiske Co., supplies.....	1 67	
A. R. Hopkins & Co., same.....	143 00	
Maine Central Railroad Co., freight.....	68 68	
G. L. Moor & Son, straw.....	3 94	
R. A. McLeod, ice.....	20 40	
Morse & Co., lumber.....	26 12	
Pennsylvania Salt Mfg. Co., sulphate of alumina.....	4,844 42	
Rennselaer Valve Co., supplies.....	1 34	
Rice & Miller Co., same.....	3 55	
Smith & West, same.....	3 00	
The Dole Co., same.....	80	
The Haynes & Chalmers Co., supplies.....	31 12	
Allan P. Trask, repairing clock.....	2 00	
Union Iron Works, supplies.....	38 40	
Ward & Clough, mason work.....	13 89	
	<hr/>	\$ 9,904 90

FILTER PLANT CONSTRUCTION

Maine Central Railroad Co., freight.....	\$ 419 45	
The New York Continental Jewell Filtration Co., contract equipping two filter units... ..	8,855 55	
New York Continental Jewell Filtration Co., coagulant solution tanks and changes in pipe lines outside the plant.....	1,908 80	
	<hr/>	\$ 11,183 82

DAM AND PIERS ACCOUNT

City Treasurer, for pay rolls.....	\$ 421 87	
T. F. Cassidy & Son, blacksmithing.....	9 32	
Morse & Co., lumber.....	254 19	
O. C. Davis, labor and material.....	35 30	
The Haynes & Chalmers Co., supplies.....	5 00	
	<hr/>	\$ 725 68

Amount carried forward.....		<hr/>	\$59,867 27
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Amount brought forward \$59,867 27

METER ACCOUNT

City Treasurer, for pay rolls	\$ 127 25	
M. Lynch & Co., labor	1 25	
National Meter Co., supplies	199 74	
Thomson Meter Co., same	51 70	
	<u> </u>	\$ 379 94

MISCELLANEOUS ACCOUNT

Thomas E. Sullivan, care of fishway \$ 50 00

INTEREST AND WATER BONDS ACCOUNT

H. O. Pierce, City Treasurer, paid interest on Water Works bonds	\$ 21,930 00	
H. O. Pierce, City Treasurer, paid Water Works Improvement bonds	10,000 00	
	<u> </u>	\$ 31,930 00

SINKING FUND ACCOUNT

Unexpended balance \$ 7,243 26

\$ 99,470 47

RECAPITULATION

Street Maintenance	\$ 20,616 50	
Street Construction	7,715 07	
Pumping Station Maintenance	9,721 30	
Filter Plant Maintenance	9,904 92	
Filter Plant Construction	11,183 80	
Dam and Piers Account	725 68	
Meter Accounts	379 94	
Miscellaneous	50 00	
Interest and Water Bonds	31,930 00	
Sinking Fund	7,243 26	
	<u> </u>	\$ 99,470 47

REPORT OF Superintendent of Sewers

BANGOR, MAINE, March 21st, 1913.

To His Honor the Mayor, and the City Council:

The Superintendent of Sewers herewith submits his report for the year ending March 1st, 1913.

Appropriation for the year.....	\$15,000 00	
Credits from other sources.....	2,668 02	
		\$17,668 02
Expended for new work, repairs and all other expenses.....		17,345 06
		\$ 322 96
Unexpended balance.....		

EXPENDITURES

NEW SEWERS

Thirteenth street sewer	\$ 477 80	
Dexter street sewer.....	471 00	
Union street sewer.....	248 00	
Savage street sewer.....	349 55	
Olive street sewer.....	945 00	
Fountain street sewer.....	349 50	
Kenduskeag Ave. sewer.....	902 30	
Parkview Ave. sewer.....	154 23	
Garland street sewer.....	133 53	
		\$4,030 91

AUXILIARY SEWERS

Auxiliary to Carr Brook sewer.....	\$1,562 27	
Auxiliary to Center street sewer.....	1,228 99	
		\$2,791 26

REPAIR OF SEWERS

Grove street sewer	\$ 153 53
Fern street sewer	163 59
Sewer at City Farm	133 29
City Hall Court sewer	274 20
Union street outlet	153 56
Lowering Prospect street sewer	236 46
Lowering sewer through M. C. R. R. yard	267 00
Blake Place sewer	409 14
Sixteenth street sewer	89 00
Harlow street sewer	54 89
Repairs on sewer in Vallev Ave., Third St., Pearl St., Dutton St., Birch St., and Tin Bridge	138 25
	<hr/>
	\$2,072 91

NEW CESSPOOLS

Two new cesspools in Fern street	\$ 140 00
One new cesspool in Third street	65 00
Two new cesspools in Lincoln street	125 03
On new cesspools in Larkin street	62 95
On new cesspool in French street	91 14
One new cesspool in Broadway dump	79 88
One new cesspool in Elm street	62 80
One new cesspool in Poplar street	61 30
Two new cesspools in Norway Road	132 40
Two new cesspools in Wiley street	132 25
One new cesspool in Stillwater Ave.	55 00
One new cesspool in Otis street	69 43
One new chimney in Poplar street	41 80
Two new chimneys in Main street	72 50
	<hr/>
	\$1,191 48

REPAIR OF CESSPOOLS AND MANHOLES

Cesspool corner of Harlow and State streets	\$43 76
Cesspool corner of Harlow and Central streets	61 75
Cesspool corner of Cedar and Fourth streets	58 55
Two cesspools on Main street	32 00
Cesspool on Front street	23 00
Cesspool on Third street	36 00

Cesspool on State street	24 26	
Cesspool on Garland street	24 00	
Cesspool on Patten street	22 00	
Cesspool on Pine street	34 00	
Twenty other cesspools and manholes repaired	197 02	
		\$ 556 34
Cleaning of cesspools by contract	\$2,239 00	
Work of Dept. during winter	535 00	
Jobbing and flushing	562 50	
Repairs on sewer carts	468 00	
Incidental supplies	593 03	
Salary of Superintendent	950 00	
Salary of Sewer Board	150 00	
Pipe on hand at yard	800 00	
Rent of auto during summer	150 00	
Right of way across lot of A. R. Elliott, Otis St	100 00	
Sewer across lot of E. E. Harvey, Hammond street . .	96 00	
Credit due for cement bags returned	58 63	
		\$6,702 16

NEW SEWERS

Thirteenth street	420 feet 12 inch pipe
Dexter street	580 feet 10 inch pipe
Union street	310 feet 8 inch pipe
Savage street	365 feet 10 inch pipe
Olive street and Court	414 feet 24 inch pipe
Olive street and Court	202 feet 10 inch pipe
Olive street and Court	205 feet 8 inch pipe
Fountain street	433 feet 10 inch pipe
Kenduskeag Ave	550 feet 12 inch pipe
Parkview Ave	194 feet 10 inch pipe
Center St. auxiliary	750 feet 12 inch pipe
Carr Brook auxiliary	800 feet 24 inch pipe
Total	5,223 feet.

NEW CESSPOOLS, CHIMNEYS AND MANHOLES

Dexter street, two cesspools and one manhole; Union street, one manhole; Savage street, one manhole and one cesspool;

Fountain street, one manhole; Kenduskeag Ave., three cesspools and one manhole; Thirteenth street, one cesspool and one manhole; Fern street, two cesspools; Lincoln street, two cesspools; Norway Road, two cesspools; Wiley street, two cesspools; Third street, one cesspool; Larkin street, one cesspool; French street, one cesspool; Broadway dump, one cesspool; Elm street, one cesspool; Poplar Street, one cesspool and one chimney; Stillwater Ave., one cesspool; Otis street, one cesspool; Main street, two chimneys; making a total of twenty-three cesspools, three chimneys, and six manholes.

There has been 5,223 feet of new sewer built during the year, of which 1,550 feet was built as an auxiliary to present sewers. There are now about 44 miles of sewers in the city.

Among the sewers petitioned for during the year are those for sewers in Union street, northerly of Sixteenth street, and in Fifteenth street. These sewers should be built during the coming year. I also recommend the Meadow Brook sewer be extended, and that the Blake Place sewer be completed to Harlow street.

I believe the method of cleaning cesspools by contract as has been done for the past two years is unsatisfactory and is no saving to the City, and recommend the cesspools be cleaned by the department.

Respectfully submitted,

WM. E. SOUTHARD,

Superintendent.

Report of Harbor Master

To the Mayor and the City Council of the City of Bangor:

GENTLEMEN:—The Harbor Master respectfully submits his report for 1912-13.

The ice left the river Tuesday, April 2nd, and the port closed to navigation Monday, December 23rd, 1912; open to navigation 266 days.

During which time 1020 vessels arrived, classified as follows: 443 steamers, 433 schooners, 105 barges, 28 steam and gasolene yachts, 2 dredge, 1 rock drill, 3 sloops, 5 U. S. Torpedo boats, with a total gross tonnage of 731,436 tons.

Foreign vessels arrived 2, arrived from Foreign Ports 3, cleared for Foreign Ports 5.

During the year merchandise as follows arrived by vessels: 342,012 tons of coal, 63,500 barrels kerosene and gasolene, 90 M bricks, 16,242 casks lime, 16 tons white lead, 1,129 tons sand and gravel, 138 tons paper, 61,150 casks cement, 913 M lumber of all kinds, 349 tons pig iron and bar iron, 5,063 tons phosphate, 30,880 bushels salt, 25 cloth dryers, 92 bundles tin cans, 110 barrels lubricating oil, 2 barrels zink, 5 tons sheet lead, 24 bundles sand paper, 5½ tons dry paint, 3 bales coton waste, 16 barrels whiting, 10 barrels turpentine, 88 cases window glass, 3 tons plaster, 5 barrels sulphur, 16 barrels shellac, 15 barrels vitrol, 5 barrels lamp black, 60 ton pitch, 144 boxes axle grease, 229 bundles wagon material, 10½ ton putty, 42 ton poultry feed, 46 doors and sashes, 96 M hoops, 808 cases

ammunition and guns, 2 cases pails, 1,733 tons stone, 166 tons coke, 48 barrels oil, 18 tons charcoal, 20 barrels vinegar, $\frac{1}{2}$ ton steel, 146 cords wood, 5 barrels linseed oil, 36,500 paving, 504 tons oyster shells, and 198,000 lbs. fish and blockings.

Respectfully submitted,

JOHN C. WILSON,
Harbor Master.



Report of the Public Library



BOARD OF MANAGERS

1913

Flavius O. Beal (Mayor), *ex-officio*
Arthur Chapin
Frederic W. Adams
William F. Curran
Henry O. Pierce (City Treasurer), *ex-officio*
Daniel A. Robinson
Charles F. Bragg
Bernhard Pol
Thomas U. Coe

TREASURER

Everett F. Rich

OFFICERS OF THE LIBRARY

LIBRARIAN

Mrs. Mary H. Curran

Assistant Librarians

Miss Carrie C. Mayberry
Miss Annie E. Wayland
Miss Grace Bolton
Miss Eva Rand

Report of the Trustees of Income of the Hersey Fund

Bangor, January 31, 1913.

To the City Council of the City of Bangor:

The trustees of the income of the Hersey Fund submit their annual report. They have received from the City Treasurer the sum of four thousand dollars (\$4,000.) in quarterly payments, which have been paid to the Treasurer of the Board of Directors of the Bangor Public Library.

They also submit, herewith the annual reports of the Treasurer of the Board of Managers of the Bangor Public Library, and the Treasurer of the Board of Trustees of said Library, and of the Librarian, and the Purchasing Committee, together with a copy of the rules of the Library now in force.

CHAS. W. MULLEN
ARTHUR CHAPIN
FREDERIC W. ADAMS
WILLIAM F. CURRAN
HENRY O. PIERCE

Trustees of the Hersey Fund.

Report of the Treasurer

DR.

EVERETT F. RICH, Treasurer,

In Account with Managers Bangor Public Library

1913

Jan. 17.	For receipts for year ending this date.		
	Balance from previous year		\$25,458 38
	State of Maine	\$ 700 00	
	City of Bangor:		
	Annual Appropriation	3,500 00	
	Interest on Hersey Fund	4,000 00	
	Income from Bangor Mechanic Asso.	360 00	
	Fines collected by Librarian	193 91	
	Cards and sundries	17 43	
	Interest on deposit Second Nat'l Bank	146 22	
	Interest on deposit Bangor Savings Bank	376 81	
	Interest on deposit Penobscot Savings Bank	356 14	
			<u>9,650 51</u>
			\$35,108 89

CR.

Jan. 17.	By disbursements for year ending this date:	
	Salaries, Librarian and Assistants	\$2,623 33
	Substitutes and extra work	187 55
	E. F. Rich, Treas.	50 00
	T. E. Hollihan, janitor	120 00
	Books, E. F. Dillingham	724 16
	DeWolfe & Fiske Co.	294 37
	Manual of Conchology	20 00
	A. J. Huston	298 02
	Freud & Co.	38 29

Chas. E. Lauriat Co.....	77 75
J. M. Erickson.....	2 50
International Textbook Co.	134 01
Chas. Scribner's Sons.....	19 95
H. W. Wilson Co.....	13 26
T. S. Rooke.....	1 00
Frederick Loeser & Co.....	4 50
World Book Company.....	90
A. L. A. Publishing Co.....	6 56
Educational Aid Society.....	2 00
Robert Appleton & Co.....	16 20
Marguerite H. Belden.....	10 00
Joseph McDonough.....	2 28
Goodspeed Book Co.....	10 00
William W. Fellows.....	15 00
Martin Harrigan.....	2 60
N. Y. Botanical Garden.....	6 00
Austin Publishing Society.....	25 00
Wm. J. Campbell.....	10 00
Doubleday, Page & Co.....	15 75
Safford Art Studio.....	4 50
The Essex Institute.....	10 00
Daniel K. Pearson Pub. Co.....	1 15
Times Book Club.....	40 76
Craftsman Pub. Co.....	75
C. F. Libbie & Co.....	2 00
H. L. Baldwin Pub. Co.....	4 75
Lexington Book Shop.....	10 00
Scientific American Compiling Dep... ..	70 00
N. J. Bartlett & Co.....	12 00
Himebaugh & Browne.....	17 25
McKinley, Stone & MacKenzie.....	12 35
MacMillan Company.....	4 00
Thomas Baker.....	6 31
Portland Public Library.....	32 75
Lexington Historical Society.....	7 75
Nat'l Society Daughters Amer. Rev... ..	18 00
Boston Book Co.....	50 00
Chas. H. Pope.....	3 00

Arthur H. Clark Co.	150 00
H. E. Holmes.	1 50
Mary H. Curran.	20 36
E. F. Dillingham, magazines.	267 97
E. F. Dillingham, binding.	194 85
F. J. Barnard & Co., binding.	475 67
Blake, Barrows & Brown, insurance.	67 80
Pember & Carter, insurance.	19 88
William F. Curran, insurance.	10 01
Union Safe Deposit & Trust Co., re- newal of Treasurer's bond.	5 00
E. F. Dillingham, supplies.	47 18
Dan T. Sullivan, supplies.	19 55
Gaylord Bros., supplies.	22 45
Library of Congress, supplies.	43 70
Mary H. Curran, supplies.	138 13
Library Bureau, supplies.	27 10
Bangor Gas Light Co., supplies.	7 20
Remington Typewriter Co., supplies.	3 25
F. J. Barnard & Co., supplies.	1 00
Bernard Pol, reading glass.	2 00
Bangor Box Co.	98
Envelopes.	43
Filing case.	23
Stamps.	5 26
Express, telegrams, etc.	3 61
Bangor Co-operative Printing Co.	111 15
Furbush Printing Co.	6 00
F. S. Morse, repairs.	44 78
C. H. Babb & Co., repairs.	4 00
Fred E. Eldridge Co., repairs.	2 62
W. N. Sawyer Cons. Co, repairs.	88
H. P. Gilman, repairs on chair.	3 20
Henry McLaughlin, storage.	33 00
Bangor Gas Light Co.	124 94
N. E. Tel. & Tel. Co.	27 25
Deposit Second National Bank.	6,655 22
Deposit Penobscot Savings Bank.	10,443 64

Deposit Bangor Savings Bank.....	11,049 93
Cash.....	28 87
	<hr/>
Total on deposit and cash on hand....	\$35,108 89

Respectfully submitted,

EVERETT F. RICH,

Treasurer.

January 17, 1913.

Having examined the foregoing report of Everett F. Rich, Treasurer, I find the same correctly stated and properly vouched and deposits and cash as stated, \$28,177.66.

BERNHARD POL, Auditor.

EVERETT F. RICH, Treasurer,
In Account with Trustees of Bangor Public Library
DR.

1912

Jan. 16.	To Balance on hand this date.....	\$32,087 53
	John Wilson, trustee A. D. Manson estate.....	27,071 67
	E. & N. A. R. R. Stock, 61 shares sold T. U. Coe.....	7,625 00
	Interest on bonds:	
	City of New York.....	\$1,525 00
	City of Boston, Mass.....	280 00
	City of Los Angeles, Cal.....	900 00
	Hudson Co., N. J.....	400 00
	Iowa Loan & Trust Company.....	90 00
	First National Bank dividends.....	290 00
	E. & N. A. R. R. Co., dividends.....	305 00
	E. & N. A. R. R. Co., accrued int. on sale.....	88 11
	Merrill Trust Co., int. on Cert. of Deps.....	582 37
	Bangor Savings Bank, dividends.....	498 59
	Penobscot Savings Bank, dividends.....	411 93
		<hr/> 5,371 00
		<hr/> \$72,155 20

CR.

By disbursements:

J. J. Mullen & Cyr Bros., contract.....	\$6,705 01
Geo. H. Wilbur & Son, on ac. contract.....	44,088 65
R. D. Kimball Company, on account contract.....	120 27
John Evans & Co., on account contract.....	1,275 00
Huey Bros. Co., on account contract.....	501 50
Peabody & Stearns, on account.....	4,000 00
Peabody & Stearns, for Mr. Rathbun's services to Jan. 1, 1913.....	683 34
City of Bangor, installing water service.....	20 85
Warren H. Manning, services.....	63 58
Francis T. Casey, removal of trees.....	79 88
G. B. Derby Co., moving stumps.....	25 00
Eastern Argus, adv. for bids.....	4 50

Globe News Co., adv. for bids.....	14 40	
Eastern Argus, adv. for bids.....	6 00	
Lewiston Daily Sun, adv. for bids.....	4 37	
Waterville Sentinel Pub. Co., adv. for bids.....	9 00	
Kennebec Journal, adv. for bids.....	6 30	
Bangor Publishing Co., adv. for bids.....	6 00	
Bangor Commercial, adv. for bids.....	6 00	
E. F. Rich, salary as Secretary and Treas.....	450 00	
Bangor Savings Bank, interest on note.....	37 09	
Union Safe Deposit & Trust Co., renewal of Treas- urer's bond.....	40 00	
		<u>\$58,146 74</u>
Deposit in Bangor Savings Bank.....	\$8,008 46	
Merrill Trust Company, 3½% Cert. of Deposit....	6,000 00	
		<u>14,008 46</u>
		<u>\$72,155 20</u>

Respectfully submitted,

EVERETT F. RICH,
Treasurer.

January 17, 1913.

Having examined the foregoing report of Everett F. Rich, Treasurer, I find the same correctly stated and properly vouched, and deposits as stated, \$14,008.46.

BERNHARD POL, Auditor.

EVERETT F. RICH, Treasurer of the Patten Fund,
In Account with Trustees of Bangor Public Library

DR.

1912			
Jan. 13.	To Balance on hand		\$ 120 53
1913			
Jan. 16.	To receipts to date:		
	Iowa Loan & Trust Company, bonds matured		2,000 00
	Iowa Loan & Trust Company, coupons	\$ 115 00	
	Bangor & Aroostook R. R. coupons . . .	50 00	
	Milwaukee Gas Co., coupons	40 00	
	Bangor Savings Bank, dividends	2 29	
		<hr/>	207 29
			<hr/>
			\$2,327 82

CR.

1913			
Jan. 16.	By disbursements to date:		
	\$2,000 Iowa Loan & Trust Company 5% bonds, Series 114, Nos. 2 and 3 purchased		\$1,980 00
	E. F. Dillingham, books	\$ 6 75	
	Romeyn B. Hough Co., books	59 10	
	DeWolfe & Fiske Co., books	165 35	
		<hr/>	\$ 231 20
	Balance in Bangor Savings Bank		116 62
			<hr/>
			\$2,327 82

Respectfully submitted,

EVERETT F. RICH,
Treasurer.

January 17, 1913.

Having examined the foregoing report of Everett F. Rich, Treasurer, I find the same correctly stated and properly vouched, and deposit as stated, \$116.62.

BERNHARD POL, Auditor.

**Schedule of Securities Held by the Trustees
of Bangor Public Library**

January 17, 1913.

Bonds.

City of Boston, Mass., Reg. 3½%, due July 1, 1943.	\$8,000 00
County of Hudson, N. J., 4%, due May 1, 1949.	10,000 00
Iowa Loan & Trust Co., debentures, 4½%, due July 1, 1919.	1,000 00
City of Los Angeles, Cal., 4½%, W. W., due Dec. 1, 1941	20,000 00
City of New York, N. Y., 3%, Reg. Dock, due May 1, 1921.	10,000 00
City of New York, N. Y., 3%, Reg. Dock, due May 1, 1923.	8,000 00
City of New York, N. Y., 3½%, Reg. Dock, due Nov. 1, 1915.	10,000 00
City of New York, N. Y., 3½% Reg. School, Nov. 1, 1913	6,000 00
City of New York, N. Y., 4¼%, Water, due Sept. 1, 1960	10,000 00

Stocks.

First National Bank, Bangor, 29 shares (cost).	4,168 75
Deposit in Bangor Savings Bank.	8,008 46
Merrill Trust Company, certificate of deposit.	6,000 00

\$101,177 21

INVESTMENT OF THE PATTEN FUND

Bangor & Aroostook R. R. Co., Piscataquis Div. No. 76, 5%, due Jan. 1, 1943.	\$1,000 00
Iowa Loan & Trust Company 5%, Series 114, Nos 2 and 3.	2,000 00
Milwaukee Gas Co., First Mortg. 4%, No. 2739, due May 1, 1927.	1,000 00

\$ 4,000 00

I hereby certify that I have examined the securities in the custody of Everett F. Rich, Treasurer, and find them as stated.

BERNHARD POL, Auditor.

Report of Purchasing Committee

To the Board of Managers of the Bangor Public Library:

The Purchasing Committee submits its annual report of the purchase and repair of books and magazines during the year 1912.

Nineteen hundred and twenty-eight volumes were bought during the year, for which the Library paid \$2,491.04. The necessary repair of worn bindings cost \$671.07 and the usual list of Magazines \$274.47.

Total expenditure for purchase and repair of books and magazines was \$3,436.58. Of this amount \$223.10, expended chiefly for valuable books of reference, was taken from the income of the Patten Fund, a fund which enables the Library, every year, to acquire possession of useful books, the purchase of which might otherwise be delayed.

For the purpose of proper cataloguing, the books for the year were classified as follows:

	Volumes
General Works.....	261
Philosophy.....	36
Religion.....	33
Sociology.....	132
Philology.....	17
Natural Science.....	25
Useful Arts.....	92
Fine Arts.....	65
Fiction (including Juvenile books).....	525
Poetry and Drama.....	87
Miscellaneous Literature.....	181

1913]	CITY OF BANGOR	109
Geography and Travels.....		75
Biography		143
History.....		256
		<hr/>
Total		1928

About eighteen per cent of the money was expended for works of fiction which are largely in demand in all Public Libraries. More than eighty per cent of the outlay for books was for the purchase of works which will be of more permanent educational value.

Lists of books for purchase have been prepared as usual by Mrs. Mary H. Curran, the Librarian, whose careful judgment in regard to the requirements of the Library is well known and appreciated.

Respectfully submitted,
(Signed) THOMAS UPHAM COE,
Purchasing Committee.

BANGOR, January 21st. 1913.

Report of the Librarian

To the Board of Managers of the Bangor Public Library:

Gentlemen: The thirtieth annual report to December 31, 1912, is herewith respectfully submitted to your Board.

REGISTRATION

Four thousand, two hundred and eighty-four cards were issued during 1912. Two cards were issued to non-residents. The sum of \$1.44 was received from the use of temporary cards.

CONDITION OF THE LIBRARY

Number of books in the Library, January 1, 1912, was 7,127. Additions have been made of 6,215 volumes, as follows:

By Purchase.....	1,928	volumes
Gift.....	3,916	"
Binding periodicals and pamphlets.....	353	"
Found.....	1	"
Replaced by loser.....	4	"
Re-entered.....	8	"
Charged before fire, lately returned.....	5	"
<hr/>		
Total.....	6,215	volumes

Besides the above there are many books still unrecorded for lack of shelf room. The whole of the Hamlin library, 3,895 books are still in the storehouse and we have at the court house several packing boxes filled with books which are waiting for the new library to be finished to afford room for shelving them.

134 volumes have been removed:

Worn out.....	108	volumes
Lost or damaged and paid for.....	8	"
Charged 1911, not returned.....	1	"
Charged 1912, not returned, borrowers moved from Bangor.....	3	"
Duplicates.....	2	"
Replaced by bound copy.....	1	"
Imperfect.....	1	"
Re-entered.....	4	
Contagious disease.....	3	
Bound with other books.....	3	"
Total.....	134	volumes
Net increase during 1912.....	6,081	volumes
Number of books in Library, January 1, 1913.....	13,208	volumes

The books added were classified as follows:

CLASSIFIED ACCESSIONS

General Works.....	914	volumes
Philosophy.....	54	"
Religion.....	181	"
Sociology.....	1,398	
Philology.....	61	
Natural Science.....	375	"
Useful Arts.....	424	"
Fine Arts.....	101	
Fiction, <i>including</i> Juvenile.....	976	"
Poetry and Drama.....	324	"
Miscellaneous Literature.....	393	"
Geography and Travels.....	193	"
Biography.....	344	"
History.....	477	"
Total.....	6,215	volumes

GIFTS

The Library has received from the Government of the United States, Maine State Library, and numerous friends,

4,740 bound volumes, and 5,024 periodicals and pamphlets. Among some of the most important books presented are the sets of Official Gazette of the United States Patent Office, vols. 1-169, 1872-1911; Congressional Globe, 1844-1873; Congressional Record, 1873-1911; Medical and surgical history of the Rebellion, 6v., all from the Superintendent of Documents at Washington, D. C.

From interested friends we have received many valuable books, a few of the names can be given in this place, Narrative and critical history of America, (first edition, now out of print) by Justin Winsor, 8 vols. Memorial history of Boston, by Justin Winsor, 4 vols., also out of print. These with other valuable books were given by Mrs. Henry W. Dodd. Genealogies and family history of the State of Maine, 4 vols., presented by Dr. Loomis Pomroy Haskell, of Chicago, formerly of Bangor. Dr. Clement Howard Hallowell, of Norwood, Mass., presented many useful books and also the library of his sister Miss Susan M. Hallowell, once a teacher in the Bangor High School and later of Wellesley College, and still well remembered by many of her former pupils in Bangor. The Massachusetts New Church Union of Boston presented a recently published edition of the works of Emanuel Swedenborg. A highly appreciated gift was a volume of the Bangor Daily Mercury, vol. 1, 1844-1845, the only volume to replace our large collection of Bangor newspapers destroyed in the conflagration. We hope more of our friends will find that they have volumes of old Bangor newspapers which they will present to the Library when in its new quarters. It would take too much room to specify all the very useful and valuable books presented during the year. A glance at the list of Gifts to the Library, following this report will show the names of the givers and the number of books and periodicals presented.

PERIODICALS AND PAMPHLETS

Number of unbound magazines, January 1, 1912	946	
Magazines added	1,623	
		<hr/>
Total	2,569	volumes
Magazines removed:		
Bound	1,102	
Sold	28	
Duplicates	6	
Removed for other reasons	41	
		<hr/>
		1,177
		<hr/>
Total number of magazines, January 1, 1913	1,392	
Number of pamphlets, January 1, 1912	1,867	
Added	3,802	
		<hr/>
		5,669
Removed by binding, etc		7
		<hr/>
Total number of pamphlets, January 1, 1913	5,662	

REPAIRING AND BINDING

Seven hundred and twenty-nine books were repaired at the Library.

Sent to the bindery during the year	1,054	volumes
The volumes sent were:		
Books	806	volumes
Periodicals and pamphlets	248	"
		<hr/>
Total	1,054	volumes

CIRCULATION

The Library has been open every day except Sundays and holidays, 306 days in all.

Number of books issued for home use, 54,259.

Number of unbound magazines issued, 7,657.

CLASSIFIED CIRCULATION

Classes	Books Issued
General Works, <i>including</i> unbound periodicals	8,721
Philosophy	204
Religion	47
Sociology	380
Philology	86
Natural Science	267
Useful Arts	338
Fine Arts	505
Fiction, <i>including</i> Juvenile	40,092
Poetry and Drama	320
Miscellaneous Literature	951
Travels	923
Biography	732
History	693
Total	<hr/> 54,259

FINES AND LOSSES

Two thousand, two hundred and eighty notices have been sent for overdue books and eighty-three second notices. In some cases it has been necessary to send messengers to secure the return of the books. One hundred and thirty-four books have been recorded as removed. The causes are given under Condition of the Library.

The income from fines was \$193.91.

Respectfully submitted,

MARY H. CURRAN,

Librarian.

BANGOR, January 21, 1913.

Gifts to the Library During 1912

Givers	Books	Periodicals and Pamphlets
Adams, Frederick W., <i>Bangor</i>	18	
Adriance Memorial Library, <i>Poughkeepsie, N. Y.</i>		1
Allen, Mrs. C. J., <i>Bangor</i>	15	
American Association for International Conciliation, <i>New York City</i>		37
American Association for Labor Legislation, <i>New York City</i>		1
American Congregational Association, <i>Boston</i>		1
American Irish Historical Society, <i>New York City</i>	2	
American Swedenborg Printing and Publishing Society, <i>New York City</i>	6	
American Telegraph and Telephone Company	1	
Associated Charities, <i>Boston</i>		1
Association Life Insurance Presidents, <i>New York City</i>		6
Athene Club, <i>Bangor</i>	2	
Atlantic Deeper Waterways Commission, <i>New London, Conn.</i>	1	3
Bangor, City of	2	
Bangor & Aroostook Railroad Co.	1	
Bangor Chamber of Commerce		6
Bangor Theological Seminary	22	
Barr, Miss Annie L., <i>Belfast, Me.</i>	1	
Bartlett, Charles H., <i>Bangor</i>	127	39
Beal, Hon. Flavius O., <i>Bangor</i>	40	71
Belfast Free Library, <i>Belfast, Me.</i>	1	
Benziger Brothers, <i>New York City</i>	1	
Boardman, Miss Anna L., <i>Bangor</i>	1	
Boston Museum of Fine Arts, <i>Boston</i>		7
Boston Port and Seamen's Aid Society, <i>Boston</i>		1
Boston Public Library, <i>Boston</i>		1

Givers	Books	Periodicals and Pamphlets
Bowdoin College, <i>Brunswick, Me.</i>	1	4
Bowman, Robert H., <i>Carson City, Col.</i>	2	
Boyd, Mrs. John C., <i>Bangor</i>	1	
Brett, Victor, <i>Bangor</i>	1	
Brewer Public Library, <i>Brewer, Me.</i>	5	
Bright, Joseph M., <i>Bangor</i>	1	
Brooklyn Institute of Arts and Sciences, <i>Brooklyn, N. Y.</i>		8
Brooklyn Public Library, <i>Brooklyn, N. Y.</i>		6
Brown University, <i>Providence, R. I.</i>	1	9
Burlington Free Public Library, <i>Burlington, Iowa</i>		2
Burton, Theodore E., <i>Washington, D. C.</i>		1
Buzzell, Mrs. James C., <i>Bangor</i>	3	
Carnegie Endowment International Peace	1	
Carnegie Free Library, <i>Braddock, Pa.</i>		1
Carnegie Free Library, <i>Carnegie, Pa.</i>		1
Carnegie Free Library, <i>Cork, Ireland</i>		1
Carnegie Hero Fund Commission, <i>Pittsburg, Pa.</i>	2	
Carnegie Technical Schools, <i>Pittsburg, Pa.</i>	1	
Chandler, James A., <i>Bangor</i>	1	
Chapman, Phyllis, <i>Bangor</i>	1	
Chapman, R. A., <i>Bangor</i>	4	
Chelsea Public Library, <i>Chelsea, Mass.</i>		1
Chicago-Department of Public Works, <i>Chicago</i>	1	
Chicago Schools of Civics and Philanthropy, <i>Chicago</i>		2
Chilcott, Dr. Langdon S., <i>Bangor</i>	5	
Chilcott, Miss Rebecca, <i>Bangor</i>		9
Children's Home, <i>Bangor</i>	51	29
Christian, Theodore for Church Unity League, <i>Philadelphia, Pa.</i>	1	
Civil Service Reform Association, <i>New York City</i>		1
Cleveland Public Library, <i>Cleveland, Ohio</i>		1
Coleman, George W., <i>Boston, Mass.</i>		1
Colorado College, <i>Colorado Springs, Col.</i>		1
Connecticut State Library, <i>Hartford, Conn.</i>	1	

Givers	Books	Periodicals and Pamphlets
Crapo, Henry Howland, <i>New Bedford, Mass.</i>	2	
Crosby, James H., <i>Bangor</i>	115	
Crosby, Simon P. and Oliver, <i>St. Paul, Minn.</i>	1	
Deborah Cook Sayles Public Library, <i>Pawtucket, R. I.</i>		1
Delmater, A. G., <i>New York City</i>	1	
Democrat National Committee	1	
Dennett, Charles D., <i>Bangor</i>	1	
Dennett, Dr. William S., <i>New York City</i>	60	
Deutsche Bank, <i>Berlin, Germany</i>		1
Dodd, Mrs. Henry W., <i>Belmont, Mass.</i>	143	53
Dole, Mrs. Emma Drummond, <i>Bangor</i>	20	
Dunbar, Mrs. Wales V. L., <i>Bangor</i>	33	
Eastern Maine General Hospital, <i>Bangor</i>		2
Enoch Pratt Free Library, <i>Baltimore, Md.</i>		1
Fairbanks, Capt. Henry N., <i>Bangor</i>	1	
Fairmount Park Art Association, <i>Philadelphia, Pa.</i>		1
Farnsworth, Edward C., <i>Portland, Me.</i>	1	
Fellows, William W., <i>Bangor</i>	2	
Ferguson, Mrs. Helen, <i>Bangor</i>	4	
Fletcher Free Library, <i>Burlington, Vt.</i>		3
Forbes Public Library, <i>Northampton, Mass.</i>		1
Foster, Henry B., <i>Bangor</i>	298	
Fox, Mrs. Elmer R., <i>Bangor</i>	2	
Fox, Mrs. George H., <i>Bangor</i>	49	
Frances Dighton Williams Chapter, D. A. R., <i>Bangor</i> .	1	
Free Speech League, <i>New York City</i>		4
Freese, Mrs. A. Langdon, <i>Bangor</i>	10	
Friends	197	
Gallupe, Miss Lucy, <i>Bangor</i>	2	
Garrison, Francis J., <i>Boston, Mass.</i>	1	
Gates, Frederick T., <i>New York City</i>		1
Gehring, Albert, <i>New York City</i>	2	
Giddings, Miss Madeline, <i>Bangor</i>	114	59
Godfrey, Mrs. George Frederic, <i>Bangor</i>	1	
Gordon, Nathaniel, <i>New York City</i>	1	

Givers	Books	Periodicals and Pamphlets
Gorham, William H., <i>Bangor</i>	4	
Gospel Trumpet Company, <i>Anderson, Ill.</i>	1	
Grant, Frederick, <i>Bangor</i>	4	
Guernsey, Hon. Frank E., <i>Washington, D. C.</i>	2	
Hallowell, Dr. Clement Howard, <i>Norwood, Mass.</i>	289	15
Hallowell, Miss Susan M., <i>Estate</i>	281	
Hamlin, Charles, <i>Estate, Bangor</i>	32	
Harlow, Miss Mabel, <i>Bangor</i>	13	
Harrigan, Martin, <i>Bangor</i>	1	
Hartford Public Library, <i>Hartford, Conn.</i>		4
Harvard University, <i>Cambridge, Mass.</i>	2	
Haskell, Dr. Loomis Pomroy, <i>Chicago, Ill.</i>	4	
Hills, William S., <i>Boston, Mass.</i>	2	
Hodsdon, George H., <i>Portland, Me.</i>	1	
Holden, Miss Charlotte L., <i>Bangor</i>	155	
Holt, Mrs. William C., <i>Bangor</i>	1	
Hudson Fulton Celebration Committee, <i>New York City</i>	1	
Illuminating Engineering Society, <i>New York City</i>	1	
Indian Rights Association, <i>Philadelphia, Pa.</i>		2
Ingersoll, Miss Fannie C., <i>Washington, D. C.</i>	1	
International Committee Educational Y. M. C. A. . .	1	
Israelite House of David, <i>Benton Harbor, Mich.</i>		7
James Milliken University, <i>Decatur, Ill.</i>		1
Jefferds, Mrs. Caroline E., <i>Bangor</i>	3	
Jersey City Free Public Library, <i>Jersey City, N. J.</i>		4
Johnson, H. Edwin, <i>Portland, Me.</i>	2	
Lake Mohonk Conference, <i>Lake Mohonk, N. Y.</i>	1	2
Lansil, George, <i>Bangor</i>	19	
Library Association, <i>Portland, Oregon</i>		3
Library of Congress, <i>Washington, D. C.</i>	82	13
Lorimer, Rev. Addison B., <i>Bangor</i>	4	
Los Angeles, City of, <i>Los Angeles, Cal.</i>	1	
Los Angeles Public Library, <i>Los Angeles, Cal.</i>		2
Lusk, William, <i>Children of, New York City</i>	1	

Givers	Books	Periodicals and Pamphlets
Lynn Public Library, <i>Lynn, Mass.</i>		2
Lyon, Mrs. John, <i>Bangor</i>	58	
McCumber, Porter J., <i>Washington, D. C.</i>		1
Maine—Board of Assessors	1	
Board of Health		7
Executive Department	1	
State Highway Department	1	
State Library	186	
Maine Agricultural Experiment Station, <i>Orono, Me.</i>	167	14
Maine Central Railroad, <i>Portland, Me.</i>		1
Maine Society Civil Engineers, <i>Augusta, Me.</i>	1	
Maisondeau, N., <i>Ceylon</i>	1	
Malden Public Library, <i>Malden, Mass.</i>		1
Massachusetts—State Board of Health, <i>Boston</i>	1	
Massachusetts General Hospital, <i>Boston, Mass.</i>		1
Massachusetts Institute of Technology, <i>Boston, Mass.</i>	1	
Massachusetts Library Club, <i>Boston, Mass.</i>		2
Massachusetts New Church Union, <i>Boston, Mass.</i>	32	
Milwaukee Public Library, <i>Milwaukee, Wis.</i>		1
Minneapolis Park Commissioners, <i>Minneapolis, Minn.</i>	1	
Minneapolis Public Library, <i>Minneapolis, Minn.</i>		2
Moody, Miss Adele, <i>Bangor</i>	1	
Moore, Hon. J. Hampton, <i>Washington, D. C.</i>		1
Mount Holyoke College, <i>South Hadley, Mass.</i>		1
Murray, Daniel, <i>Chicago, Ill.</i>	1	
Museum of Fine Arts, <i>Boston, Mass.</i>		1
National Association for Advancement of Colored People, <i>Boston</i>	1	
National Business League of America, <i>Chicago</i>	1	
National Child Labor Committee, <i>New York City</i>		1
National Irrigation Congress	1	1
National Religious Training School and Chautauqua, <i>Durham, N. C.</i>		1
National Short Ballot Organization, <i>New York City</i>		3
New Bedford Textile School, <i>New Bedford, Mass.</i>		1

Givers	Books	Periodicals and Pamphlets
New Haven Public Library, <i>New Haven, Conn.</i>		2
New Orleans Public Library, <i>New Orleans, La.</i>		1
New York Farmers, <i>New York City.</i>		1
New York Public Library, <i>New York City.</i>	1	12
New York School of Philanthropy, <i>New York City.</i>		3
New York State Education Department, <i>Albany, N. Y.</i>	1	
New York State Library, <i>Albany, N. Y.</i>	4	1
Newark Free Public Library, <i>Newark, N. J.</i>		1
Norton, John, <i>Estate, Bangor.</i>	2	
Oak, John M., <i>Bangor.</i>	9	4
Oneida Historical Society, <i>Oneida, N. Y.</i>		1
Oriental Esoteric Center, <i>Washington, D. C.</i>		11
Osaka Library, <i>Osaka, Japan.</i>		1
Osterhout Free Library, <i>Wilkes-Barre, Pa.</i>		10
Paine, Selma, <i>and sisters, Bangor.</i>	50	
Panama-Pacific International Exposition, <i>San Francisco, Cal.</i>		1
Patch, Willis Y., <i>Bangor.</i>	3	
Paterson Free Public Library, <i>Paterson, N. J.</i>		1
Peabody Institute Library, <i>Peabody, Mass.</i>		2
Pennsylvania Museum and School of Industrial Art, <i>Philadelphia, Pa.</i>		1
Pennsylvania Prison Society, <i>Philadelphia, Pa.</i>		1
Peoria Public Library, <i>Peoria, Ill.</i>		1
Philadelphia Free Public Library, <i>Philadelphia, Pa.</i>		1
Philippine Islands — Bureau of Education, <i>Manila, P. I.</i>		1
Philippine Islands Government, <i>Manila, P. I.</i>		1
Phillips Exeter Academy, <i>Exeter, N. H.</i>		3
Pierce, Harriet, <i>Bangor.</i>	1	
Pierce, Mellen C., <i>Bangor.</i>		1
Pierce, S. S. Co., <i>Boston, Mass.</i>	1	
Poor, Mrs. H. O. and Swan, Mrs. C. L., <i>Bangor.</i>	83	
Porter, Misses Rhoda and Mary, <i>Bangor.</i>	4	
Portland Public Library, <i>Portland, Me.</i>		1

Givers	Books	Periodicals and Pamphlets
Postal Life Insurance Co., <i>Atlantic City, N. J.</i>		1
Pratt Institute Free Library, <i>Brooklyn, N. Y.</i>		5
Princeton University Library, <i>Princeton, N. J.</i>	1	
Providence Public Library, <i>Providence, R. I.</i>		1
Prudential Insurance Company, <i>New York City</i>	1	1
Rich, Frank, <i>Bangor</i>	1	
Rich, Worcester B., <i>Bangor</i>	3	
Ropes, Hon. Joseph S., <i>Library of</i>	71	
Rosenberg Library, <i>Galveston, Texas</i>		5
Rowe, Miss Mary L., <i>Bangor</i>	128	
St. Louis Mercantile Library, <i>St. Louis, Mo.</i>		1
St. Louis Public Library, <i>St. Louis, Mo.</i>		15
Salem Public Library, <i>Salem, Mass.</i>		1
Savage, Miss Louise H., <i>Bangor</i>	2	
Schaff, Wilfred H., <i>Philadelphia, Pa.</i>		1
Scranton Public Library, <i>Scranton, Pa.</i>		1
Seavey, Miss Harriet E., <i>Bangor</i>	1	
Singer, B., <i>Chicago</i>	1	
Smith, Gen. Joseph S., <i>Bangor</i>	1	
Smithsonian Institution, <i>Washington, D. C.</i>	2	51
Spofford, Mrs. Harriet P., <i>Newburyport, Mass.</i>	1	
Sprague, John F., <i>Dover, Me.</i>	1	1
Springfield City Library Association, <i>Springfield, Mass.</i>		1
Starling, Lyne, <i>Greenville, Miss.</i>	207	545
Stetson, Mrs. Charles P., <i>Bangor</i>	13	345
Swan, Miss Florence I., <i>Bangor</i>	4	
Tacoma Commercial Club and Chamber of Commerce, <i>Tacoma, Wash.</i>	1	
Theological Seminary of Presbyterian Church in America	1	
Thomas, Miss Grace, <i>Bangor</i>	22	
Toledo Public Library, <i>Toledo, O.</i>		1
Trickey, Harold A. M., <i>Bangor</i>	1	
Tucker, Miss Lillie E., <i>Bangor</i>	1	
Union Press, <i>Philadelphia, Pa.</i>	1	

Givers	Books	Periodicals and Pamphlets
United States—Bureau of the Census	28	
Department of Agriculture	1	87
Commerce and Labor	39	58
Interior	3	4
War		1
Interstate Commerce Commission	1	
Patent Office	1	52
Superintendent of Documents	906	3,212
United States Brewers' Association, <i>New York City</i>	1	
University of Illinois, <i>Champagne, Ill.</i>		1
University of Maine, <i>Orono, Me.</i>	46	3
University of Vermont, <i>Burlington, Vt.</i>		1
University of Washington, <i>Seattle, Wash.</i>	1	
Unknown	2	
Utica Public Library, <i>Utica, N. Y.</i>		1
Walz, Dean William E., <i>Bangor</i>	1	
Wardley, Charles J., <i>Bangor</i>	13	
Westminster Public Libraries, <i>England</i>		1
Wheeler, Mrs. William A., <i>Bangor</i>	6	
Wilmington Institute Free Public Library, <i>Wilmington, Del.</i>		1
Woman's Christian Temperance Union, <i>Bangor</i>	11	
Works, John D.		1
Yale University, <i>New Haven, Conn.</i>		2
Zimmerman, Rev. L. M., <i>Baltimore, Md.</i>	1	

MUSEUM

Typographic Library and Museum, *Jersey City, N. J.*

Photograph of the old printing press belonging to Peter Edes, which he brought to Bangor in 1815, and on which the Bangor Register and other early newspapers were printed. It was given to the Bangor Mechanic Association by a number of gentlemen in 1843 and was burned in the great conflagration of April 30, 1911. The Typographic Library had photographs taken of it at the Bangor Public Library a few years ago and kindly sent two to replace some destroyed in the fire.

United States Secretary of the Treasury.

A collection of Confederate notes collected by the War Department.

List of Periodicals Taken at the Library

DAILY

Boston Daily Evening Transcript.

WEEKLY

Bulletin of the Oriental Esoteric Center, (*presented*).

Catholic Opinion, (*presented*).

Christian Science Sentinel, (*presented*).

Littell's Living Age.

Musical Courier, (*presented*).

Nation.

Notes and Queries.

Official Gazette of the United States Patent Office, (*presented*).

Outlook.

Publisher's Weekly.

School, (*presented*.)

Scientific American.

Scientific American Supplement.

Union Signal, (*presented*.)

Woman's Journal, (*presented*).

Youth's Companion.

MONTHLY

Ambition, (*presented*).

American Journal of Science.

Atlantic Monthly.

Banker and Investor Magazine, (*presented*).

Blackwood's Magazine.

Book Review Digest.

Business America, (*presented*).

Catalogue of United States Government Publications, (*presented*).

Century Magazine.

Christian Science Journal, (*presented*).

Club Woman's Magazine, (*presented*).

Contemporary Review.

Cook's Traveller's Gazette, (*presented*).

Craftsman.
Das Wort, (*presented*).
Dumb Animals, (*presented*).
Electric Journal, (*presented*).
Experiment Station Record, (*presented*).
Fortnightly Review.
Forum.
Good Government, (*presented*).
Good Housekeeping.
Harper's Monthly Magazine.
Herald of the Cross, (*presented*).
Index to Dates.
International Studio.
Journal of Political Economy.
Ladies' Review, (*presented*.)
Library Journal.
Lippincott's Magazine.
McClure's Magazine.
National Waterways, (*presented*).
New England Magazine.
Nineteenth Century.
North American Review.
Outing.
Photo-Miniature.
Popular Electricity, (*presented*.)
Popular Science Monthly.
Protectionist, (*presented*).
Public Libraries.
Reader's Guide to Periodical Literature.
Review of Reviews.
Review of Religions, (*presented*).
Saint Nicholas.
Scribner's Magazine.
Securities Review, (*presented*).
Technology Architectural Record, (*presented*).
Theosophical Path, (*presented*).
Western Motor Car, (*presented*).
Western New England, (*presented*).
Westminster Review.
World's Work.

BI-MONTHLY

Home Needlework Magazine.

QUARTERLY

Edinburgh Review.

Essex Institute Historical Collections.

New England Historical and Genealogical Register.

Quarterly Review.

Theosophical Quarterly, (*presented*).

BY-LAWS OF THE BOARD OF MANAGERS OF THE BANGOR PUBLIC LIBRARY

ARTICLE I.

OFFICERS

The officers of the Board shall be a President, Vice President, Secretary and Treasurer.

The Mayor of the City shall be, ex-officio, President of the Board, as provided in the contract between the Trustees of the Hersey Fund and the Mechanic Association.

The President of the Mechanic Association shall be, ex-officio, Vice President of the Board.

The Secretary and Treasurer shall be chosen by the Board, by ballot, at the annual meeting, and shall serve for one year and until others are chosen and qualified in their stead.

ARTICLE II.

PRESIDENT

The President shall preside at all meetings of the Board at which he is present.

ARTICLE III.

VICE-PRESIDENT

The Vice President shall preside in the absence of the President, and if both are absent, a President pro tempore shall be chosen.

ARTICLE IV.

VOTE OF PRESIDING OFFICER

The Presiding Officer shall not be entitled to vote at any meeting, unless a tie occurs, in which case he shall throw the casting vote.

ARTICLE V.

SECRETARY

The Secretary shall keep a faithful record of the doings of the Board and shall have the custody of all documents, except those relating to financial matters, and shall give due notice of all meetings of the Board and perform all other duties properly appertaining to his office.

ARTICLE VI.

TREASURER

The Treasurer shall have the custody of all funds of the Board, and all documents relating thereto. He shall pay all bills approved by the Finance Committee under authorization of the Board. He shall keep an accurate account of receipts and expenditures and make a report to the Board at the annual meeting. He shall give a bond, if required.

ARTICLE VII.

COMMITTEES

The Board shall choose from its own number, by ballot, at the annual meeting, a Library Committee, a Purchasing Committee, a Finance Committee, and an Auditing Committee.

The Library Committee shall consist of three members, and each of the other committees of one member.

All the Committees shall serve for one year and until others are elected in their stead. They shall act under the direction of the Board and shall report to the Board from time to time, and all measures proposed by them shall be submitted to the Board for approval.

ARTICLE VIII.

LIBRARY COMMITTEE

The Library Committee shall have supervision of all business relating to the Library and Reading Room and the keeping, cataloguing and delivery of books, and the work of the Librarian.

ARTICLE IX.

PURCHASING COMMITTEE

The Purchasing Committee shall expend such sums as the Board may from time to time appropriate, in the purchase of such books and periodicals as may be needed for the Library and Reading Room. The Committee shall also make a report to the Board at the annual meeting.

ARTICLE X.

FINANCE COMMITTEE

The Finance Committee shall examine all bills and report a list of the same at each quarterly meeting, and, after the acceptance of the report by the Board, the bills shall be approved by the Finance Committee and paid by the Treasurer.

ARTICLE XI.

AUDITING COMMITTEE

The Auditing Committee shall examine annually the Treasurer's account and certify its correctness.

ARTICLE XII.

LIBRARIAN

At the annual meeting or as soon after as may be convenient, the Board shall elect, by ballot, for a term not to exceed one year, a Librarian and a sufficient number of assistants. The salaries of the Librarian and assistants shall be fixed at the time of their election. Their duties shall be such as the Board may, from time to time, determine.

ARTICLE XIII.

USE OF LIBRARY

All citizens of Bangor shall be entitled to the use of the Library and Reading Room on equal terms, under such rules as the Board may, from time to time, ordain.

ARTICLE XIV.

MEETINGS

The annual meeting of the Board shall be held on the third Tuesday in January, and regular quarterly meetings shall be held on the third Tuesday of April, July and October of each year. Special meetings shall be called by the Secretary, at any time, by direction of the President, or by request of two members of the Board.

ARTICLE XV.

QUORUM

Five members of the Board shall constitute a quorum for the transaction of business.

ARTICLE XVI.

AMENDMENTS

These by-laws may be amended by vote of a majority of those present at any meeting of the Board, written notice of the proposed amendment having been submitted to the Board at the previous meeting.

RULES OF THE LIBRARY

ARTICLE I.

OPENING AND CLOSING

Unless otherwise ordered by the Board of Managers, the Library and Reading Room shall be open every day, except Sundays, and legal holidays observed by the banks, from 9 a. m. to 9 p. m.

ARTICLE II.

USE OF BOOKS IN THE READING ROOM

The use of books in the Reading Room shall be free to all persons of proper behavior and condition. When a book is wanted its name or number, together with the name and residence of the borrower, must be written on a slip furnished for that purpose, and left with the attendant.

The slips shall be arranged in the drawer in numerical order of the shelf numbers, or alphabetical order of the titles and when any book is returned the corresponding slip shall be taken from the drawer and cancelled. Every book issued must be returned by the borrower before leaving the Reading Room.

Conversation, avoidable noise and disorderly conduct are prohibited. The attendant is required to check every irregularity of the kind, and, if necessary, to make report thereof to the Librarian.

ARTICLE III.

USE OF BOOKS AT HOME

Any person of proper behavior and condition, residing in Bangor, shall be entitled to have from the Library one Library card.

Applicants for Library Cards must make application personally at the Library or authorize some person, in writing, to apply as their representative.

Library Cards are not transferable, and a Library Card entitles the registered holder and members of the family of the registered holder, in the same household, to home use of books.

Books may be issued on any card to any applicant having written authority from the registered holder of the card; but books so issued are only for the home use of the registered holder of the card.

Cards will not be issued until at least twenty-four hours after application is made.

Each card shall entitle the holder to home use of one volume at a time, under the Rules of the Library, until the first day of January next ensuing after the date of the card.

Each person to whom a card is issued, shall sign a receipt certifying the number and date of the card received, and the recipient's name and address, and agreement to comply with the Rules of the Library. Immediate notice of any change of residence must be given at the Library. The registered holder of a card is, in all cases, responsible for books taken with it.

Residents of neighboring towns may be allowed home use of books, on approval of the Library Committee, after signing receipt as before provided and making payment of three dollars for each Library Card issued before the first day of July in

any year, and one dollar and fifty cents for each card issued on or after the first day of July.

Payment must be made when cards are delivered.

All cards issued in any year shall continue in force until the first day of January next ensuing.

The Librarian shall have authority to require of any applicant a satisfactory reference, or a deposit of money, when necessary for the protection of the Library.

All cards issued shall be numbered in the order of their issue, and the numbers shall be entered in order, in the Record of Library Cards, and the name and address of the holder and date of issue shall be noted opposite each number.

The Librarian shall have authority, on approval of the Library Committee, to issue special cards for purposes of study, which shall be numbered in the order of their issue and noted in a record kept for that purpose. No book of fiction shall ever be issued on a special card. The list of special cards shall be transferred to the Record of Library Cards at the end of each year. Rules, which apply to issue and return of books shall govern books issued on special cards.

Books taken from the Library must be returned or renewed within fourteen days. Periodicals must be returned or renewed within three days. Books and periodicals must be returned to the Library after one renewal. No book or periodical returned to the Library shall be re-issued the same day. Persons returning books should always deliver them to one of the attendants.

Any person who retains a volume longer than the regulations permit shall be fined two cents for each day of detention. When a book becomes overdue, not being returned within fourteen days from and after the day on which it was taken, a notice shall be sent to the holder, by mail, on the day the book becomes overdue, requesting its return. If it is not

returned within seven days from and after the date of the first notice, a second notice shall be sent, and if the book is not returned within seven days from the date of the second notice, a messenger may be sent for it, the cost of sending being charged to the holder of the book. If, however, a book becomes due on Sunday, it may be returned without fine, on the next day following.

No person shall be allowed to take a book from the Library, who appears by the records to be accountable for a book taken, or for a fine or forfeiture imposed.

Books shall not be issued to members of households in which contagious disease is known to exist.

All persons having books from the Library, will be held responsible for their injury or loss, and when injury or loss to any book occurs, the registered holder of the card, with which the book was taken, shall replace the book or pay the amount determined by the Librarian.

If any holder of a Library Card neglects or violates the rules of the Library, the Librarian shall have authority to cancel the card for the remainder of the year for which it is issued, and when a card is cancelled for this reason, the holder of the card shall not be entitled to further use of the Library until authorized by the Library Committee.

ARTICLE IV.

RECORD OF BOOKS ISSUED

The date of issue and return of each volume taken with a Library Card, shall be stamped thereon, and a corresponding slip, containing the shelf number of the volume and day and month of its issue and the name and address of its borrower shall be preserved.

The slips for each day shall be placed in the numerical order of the shelf numbers in a dated compartment of the

drawer used for their preservation. When a book is returned the corresponding slip shall be taken from the drawer and cancelled.

When all the spaces on a Library Card are stamped, a new card shall be issued, on the surrender of the old one, provided the time for which the card was issued has not expired and the new card shall have the same number as the old one, and the date of the new issue shall be entered in the Record of Library Cards opposite the number of the original card.

When a card is lost, the Librarian may issue a new one seven days after notice of the loss has been given at the Library, but the loss of a card will not remove the owner's responsibility for its subsequent use. If a lost card is recovered after a new one has been issued in its stead, the duplicate must be immediately returned to the Library.

A record shall be kept of the number of books issued daily from each class for the Reading Room and a similar record of those issued for home use.

ARTICLE V.

CLASSIFICATION AND NUMBERING

The books belonging to the Library shall be arranged and numbered in accordance with the system of classification devised by Melvil Dewey and published by the Library Bureau, the general classes being as follows:

0. General Works.
1. Philosophy.
2. Religion.
3. Sociology.
4. Philology.
5. Natural Science.

6. Useful Arts.
7. Fine Arts.
8. Literature.
9. History.

In numbering the books, the numbers of class, division, section and sub-section shall be used, the intention being to make the classification as complete as it can be made without deviating from the authorized system.

In assigning the numbers, the directions given by the author of the system shall be closely followed.

A symbol according to the Cutter system, indicating the name of the author of the book, or the author of the first essay of a collected series, shall follow the sub-section number, except in the following instances. In numbering biographies and town histories, the symbol of the name of the person or town shall be used instead of the symbol of the author's name. In numbering the works of an author, whose name is unknown, the letter X shall be used as a substitute for the symbol until the author's name is disclosed. When a sub-section is devoted entirely to one author, the symbol shall be omitted and the books shall be arranged in chronological order, and consecutive numbers, following the sub-section number, shall be assigned to the works. When several books by the same author, or biographies of the same person, or histories of the same town, are grouped together, they shall be arranged chronologically, and consecutive numbers, following the symbol, shall be assigned to them. In numbering periodicals, the Cutter symbols shall be used for the names of the periodicals.

Works of so general a character, as to make it desirable to have them at the beginning of a section, may be numbered without the author's symbols.

Duplicates shall have the same shelf number.

Successive volumes of the same work shall have the same shelf number, the number of each volume serving as a distinguishing mark.

The shelf number and the accession number of each volume shall be written on a suitable slip and pasted inside the cover. The shelf number shall also be indicated on the back of each book.

At least one copy of every book, of which the Library has more than one copy, shall be appropriated to the Reading Room use and marked with the letter A over the shelf number, and shall remain in the Library Room as a shelf copy for the use of readers. All other books, which, in the judgment of the Library Committee shall be appropriated to Reading Room use, shall be marked with the letter A and no book so marked shall be issued for home use without the consent of the Library Committee. Books marked with the letter R shall not be issued for home or Reading Room use without the consent of the Library Committee.

ARTICLE VI.

CATALOGUES

The records of books added to the Library, and removed from it, shall be preserved in suitable catalogues, as hereinafter provided.

All books added to the Library shall be numbered in the order in which they are received, and shall be so recorded in the Accession Record. In addition to the accession number, the shelf number of each volume shall also be entered therein. Opposite the numbers, the title of the book shall be recorded, and the name of the author, if known, together with notes of the size of the volume and the number of pages, the names of publishers, and place

and date of publication. The books being so entered in the Accession Record, the last entry, at any time, will show the number of volumes added to the Library since its commencement.

When any book is re-bound, worn out, lost, exchanged, or sold, it shall be noted, with the date, in the Accession Record opposite the number of the book.

Every pamphlet shall be recorded in the Record of Pamphlets, the title and date of reception, and other items of interest being noted. The number, opposite which the pamphlet is recorded, shall also be noted on the cover of the pamphlet as a guide to the entry in the record. When a pamphlet is bound, the date of sending to the bindery and the accession number of the bound volume shall be noted opposite the original entry. When a pamphlet is removed from the Library the date and cause of removal shall be noted opposite the original entry.

There shall be a card catalogue for the use of the attendants in which authors, titles and subjects shall be included. There shall also be a card catalogue, supplementary to the printed catalogue, in which shall be included authors and titles, which shall be open to the public.

Every book title shall appear in its proper place in the card catalogue of titles, and shall be preceded by the shelf number and followed by the author's name, with pseudonym, if any, (in parenthesis), or the abbreviation *anon*, in parenthesis, if the author's name is unknown and there is no pseudonym.

In arranging titles in the catalogues, articles or other unimportant words commencing the title, shall be omitted or transposed, each entry being made in such form as may seem likely to be most easily found by readers.

Each author's name and each pseudonym shall appear in the card catalogue of authors, each pseudonym being

followed by the abbreviation *pseud.* in parenthesis, and reference to the author's name. Each author's name shall be followed by the titles of the author's works in alphabetical order, the shelf number preceding each title.

An outline of the contents of any work, or a few words to indicate its character, may be given in subject, author, or title lists when expedient.

There shall be a shelf catalogue in which the books belonging to the Library shall be entered on cards and arranged in order of the shelf numbers, with author's name, title of each work, number of volumes, and accession numbers.

All books sent out for binding shall be recorded by accession number, shelf number and title in the Record of Binding, and the date of sending and date of return shall be noted.

All books permanently removed from the Library shall be entered in the Removal Record in the order of their removal, with statement of the accession number and title of each volume, and date and cause of removal. The list of books, so entered, shall be numbered in order, so that the last entry made in the Removal Record shall show the number of volumes permanently removed from the Library.

ARTICLE VII.

SHELVING

When the numbers have been placed upon the book-plates and the backs of the books, the books shall be shelved in the cases assigned to the classes in the order of their numbers, leaving sufficient spaces for additions.

When, for sufficient reason, a book is not shelved in the place indicated by the shelf number, a numbered dummy

shall be put in the place of the book with a reference showing where the book may be found.

New books shall be examined for faults of printing or binding before they are numbered. All books returned by readers shall be examined before they are shelved. If pencil marks are found, they shall be erased, and if bindings are loosened, they shall be repaired, and any damage, beyond reasonable wear, shall be charged to the last holder of the book.

ARTICLE VIII.

LIBRARIAN AND ASSISTANTS

The Librarian shall have general supervision of all Library work and be responsible for the enforcement of the Library Rules, and shall keep a record of persons holding Library Cards, and a correct account of all sums collected for the Library. Settlements shall be made with the Treasurer, from time to time, as he may direct. The Librarian shall also prepare lists of books for purchase as needed, and make a report of the work of the year to the Board of Managers at the annual meeting.

The assistants shall act, at all times, under the direction of the Librarian, each one attending to such work as the Librarian may, from time to time, appoint.

It shall be the duty of the attendants to answer all applications for books as promptly as possible and to assist applicants in finding such books as they desire.

Conversation with the attendants, on other than Library business, is not allowed in the Library Rooms.

Applicants shall not be allowed to go to the shelves to select books, or to examine books that can be taken to the Reading Room.

Persons wishing to consult more than one book at a time in the Reading Room, may do so, but no person shall have a right to withhold from another applicant any book not actually in use.

No order shall be taken by any attendant for books in advance of delivery, nor shall any books be reserved for any person or charged in advance of delivery. The Library attendants are not allowed to charge books or periodicals to themselves until such books or periodicals have been available to the public for at least one hour, nor may they use their official position to confer upon themselves, or their friends, any advantages in the use of books not available to all users of the Library.

It shall be the duty of the Librarian to suspend the issue of books to any person, who wilfully violates the rules or injures property belonging to the Library, or whose behavior or condition in any respect is such as to justify such suspension. Persons, whose privileges are thus suspended, shall not be again entitled to receive books until the damage to property, if any, is paid, and the Librarian is satisfied that the suspension need no longer be continued.

Books, or other articles, offered to the Library, may be accepted, if of sufficient value, by advice of the Library Committee, and when so accepted, notice shall be given to the donor by the Librarian with a suitable acknowledgment, and the books shall be recorded in the Donation Record.

ARTICLE IX.

HOURS OF ATTENDANCE

When the Library is open, the presence of all the attendants is required from 9 to 11 a. m. and from 3 to 5 p. m.

The Librarian shall arrange the hours of service from 11 a. m. to 3 p. m. and from 5 to 9 p. m., as the Library work may require, apportioning equally among the attendants the time during which one or more may be relieved from duty without detriment to the Library work.

The Librarian shall have authority to excuse from service any attendant wishing for sufficient reason to be excused and furnishing a satisfactory substitute.

The attendants shall have a vacation of eighteen days annually, all absences from the Library during the hours of duty being accounted part of the vacation unless authorized for Library work, or excused by vote of the Board of Managers. The Librarian shall keep a record of all absences during the appointed hours of duty and make a report thereof to the Trustees, when required, and shall allot the days allowed for vacation as the Library work may permit. The Librarian shall have authority to designate one of the attendants who shall be Acting Librarian during her absence.

Report of the City Electrician

To His Honor, the Mayor, and City Council:

I respectfully submit the report of the City Electrician for the year ending Feb. 28th, 1913:

Total expenditures.....		\$31,546 94
Appropriation.....	\$ 25,000 00	
Credits.....	2,429 25	
		\$27,429 25
Overdraw.....		\$ 4,117 69

The cost of maintenance of the different branches of this department has been as follows:

Salaries.....	\$ 13,220 36	
Fire alarm.....	1,963 09	
Police.....	1,329 38	
Team equipment.....	800 03	
Inside wiring.....	1,244 50	
Inspection.....	70 50	
Insurance.....	243 31	
Line maintenance.....	1,334 59	
Meals.....	27 05	
Office supplies.....	24 03	
Station at Water Works.....	4,446 33	
Sub-Station at York and Essex St.....	715 65	
Street lights, including tungstens.....	2,247 11	
Trucking freight.....	104 35	
Telephones.....	158 75	
Telegraph.....	3 84	
Underground.....	465 62	
Coal and wood.....	2,881 30	
Express.....	63 33	
Freight.....	203 68	
Total.....		\$ 31,546 94

The overdraw of \$4,117.69 has all been expended at the Station on State Street; as the following figures will show. We allowed \$2,250 for the work at the station. It has cost \$4,446.33 on repairs and \$2,781.30 for coal and wood that we used in steaming while the repairs were going on, and on the high tides. This makes \$7,227.63. Taking from this the amount allowed for repairs, namely \$2,250 leaves \$4,977.63 which is more than the amount of the overdraw.

Estimating the cost of this work at the station was simply guessing, as it was impossible to stop the wheels and take down the clutches and shafting to see how badly worn they were. After we got started it didn't take long to find that it would have to be all taken down and practically rebuilt.

The hubs of the clutches and the inner friction disks were all worn out and had to be cast new and the shafts end turned down and new keyed. A process which is very slow and which had to be done at the machine shop.

The main shaft had been allowed to get so far out of line that it was sprung quite badly and this had to go to the shop. The main shaft and quill bearings are of babbitt and they were completely gone having let the shaft down onto the iron beneath and badly cutting the same. These bearings had to be turned and new bearings run in the boxes. The babbitt alone for these cost over two hundred dollars. It really seemed as though everything we touched was all ready to fall to pieces.

When one stops to consider the fact that we had to have this plant running every night and most of the day time, it is not to be wondered at, that what we have done has cost a lot of money. The cost of coal together with the extra work that was made necessary to keep going was a large item.

I have a four ton travelling hoist installed over the wheels and running out over the door also, that cost over five hundred dollars. This will do the work of moving the machinery, which

formerly took five men a half day using several cord of timber, in five or ten minutes, using only two men, to handle the heaviest pieces.

There has been very little trouble at the Station. On Dec. 8th the governor arm broke on the engine and caused a little delay of but a few minutes. This was followed later in the night however by anchor ice shutting down both the water works and the electric plant.

On Dec. 9th a piece of board lodged in the gates and we could not shut off the street lights until the water was lowered in the flume and the obstruction removed. This was not accomplished until nine o'clock.

On Jan. 20, 1913, a fuse let go on the street lighting circuit and set fire to the back of the board and also the wall of the building. Thanks to members of the Water Dept. and our man in charge this fire was stopped in time to save the switch board. It didn't last over two minutes but did a damage of seventy-five dollars. The plant was running in fifty minutes.

This work is now all fire proof and placed on a gallery above the switch board.

In order to have steam enough to run the engine under full load I found it necessary to connect the water works boiler with ours. This cost a little over two hundred dollars.

SUB-STATION, YORK STREET

The work at the sub-station is not completed as yet but all material is purchased and paid for. I am changing all the rubber covered wire in the tub room to fire proof, and am going to run the wires through the building and out the York St. side to the pole lines. At present these wires run over the building onto a rack work on the other side, which is rotten and unsafe to hold electric wires. The wires running over the flat

roof are not the required distance, and also prevent any extension of the building, if the same were decided upon.

I have installed a switch board for the new underground cable on the ground floor, where it will be in sight of the station man at all times of the day and night, and any trouble on these circuits can be remedied at once

The old cable came into the cellar and has all the fuses there. If a man wants to make a test either underground or up into the station, it is necessary to have one man upstairs and one down cellar. The new method does away with this.

There has been two Graphic recording watt-meters installed here that indicate at all times just the amount of power in kilo-watts the city is consuming in street lighting and in the buildings. At present we are using three hundred kilo-watt hours, in street lighting. Twenty to sixty kilo-watt hours in incandescents. Ten kilo-watt hours in motors. Fifty kilo-watt in motors at the Filter plant that run about twelve times a day for fifteen minutes. Putting this into figures to determine the cost of lighting would be as follows:—

Our street lights consume 300 kilowatts per hour, times 4,000 hours per year	1,200,000	K.	W.	Hours
Lights on stand pipe, 5 K. W. x 4,000 hours	20,000			“
Lights that burn steady, 5 K. W. x 8,760 hours	43,800			“
Lights that burn 6 hours a day, 20 K. W. x 2,190 hours	43,800			“
Lights that burn two hours a day, 27 K. W. x 730 hours	19,710			“
Motors at Filter plant, running 3 hours a day, 50 K. W. x 1095 hours	54,750			“
Two 5 H. P. motors running 1,000 hours x 10 K. W	10,000			“
	1,392,060			
Total per year				1,392,060 K. W. Hours

Assuming that we were to sell this at two cents a kilo-watt, which is a lower rate than power is sold at, we would receive the neat sum of \$27,841.20.

The average appropriation is \$22,000 dollars or \$5,841.20 less than what it would cost us if we were buying power at two cents.

Figure the above on the basis that the Bangor Railway & Electric Co. sell power at, namely 10 cents for the first twenty K. W. per horse power installed and two cents per K. W. thereafter.

478 HORSE POWER INSTALLED

478 H. P. times 20 K. W. per h. p. equals...		9,560 K. W.	
Fixed charge of ten cents.....		.10	
			<hr/>
			\$956 00
Monthly load K. W.....	116,005		
Kilowatt at 10 cts.....	9,560		
			<hr/>
Kilowatt left at two cents.....	106,445		
		.02	
			<hr/>
	\$2,128 90	\$2,128 90	
			<hr/>
Cost of the above load per month.....		\$3,084 90	
Twelve months.....		12	
			<hr/>
Cost per year at B. R. & E. lowest rate....		\$37,018 80	

In addition to what the above figures reveal in power output, this department maintains all electrical apparatus belonging to the City both inside and outside. Police system and fire alarm and tapper circuits, also inspection of wires.

This is all taken care of in the appropriation, what ever it may be each year. I am writing this to show that the electrical department is a paying proposition, and not an expense to the city.

Could we only have permit to sell, say three hundred horse power in a day load it could be made to yield an income back to the city.

As it is by installing a motor on the rock crusher and one in the City hall on the ventilating fan we can save the City two hundred dollars per month.

STREET LIGHTS

The present system of street lighting in the business district should be replaced by something more modern, in my opinion by the Magnatite Arc.

There could be an arrangement made with the business men whereby this would not cost the city but a little and it would transform the business section into a crowded thoroughfare by night instead of a deserted street.

Plans of this system are compiled and on file at the Engineers office.

We have installed during the year 1912, Tungstens at the following places:—

Forest Avenue opposite Park.....	1
On Fourteenth Street.....	9
Franklin Street.....	2
Kenduskeag Ave. beyond Griffin Road.....	7
Main and Parker Sts.....	1
Park View Ave.....	5
Haymarket Square, Pickering Square and Main St.....	30
Brown Street.....	1
Boyd St.....	1
York St.....	1
Hancock above Boyd.....	1
Spring and Harlow.....	1
Kenduskeag Ave. near Valley Ave.....	2
Morses Bridge.....	3
Maxfields Bridge.....	2
Essex and Hancock.....	1
City Farm yard.....	2
Newbury St. between State and York.....	1

Lincoln St., near Third.....	1
Holland St., near Ohio.....	1
Main St., near Dillingham.....	1
Webster Ave., North.....	2
Wing Street near Webster Ave.....	1
Hammond, near Union.....	1
Ohio St., Red bridge to Grange hall.....	5
Broadway beyond Congress.....	2
Ohio near Hammond.....	1
French St., at Church.....	1
Park St., Tarratine Club.....	1
Bowdoin St.....	1
Patten and Hellier.....	1
Fremont street.....	3
Rear of Post Office site.....	1
Essex St., near Staples.....	1
Rear of Library.....	1
Rollins Court.....	1
Harlow St., at Morses board pile.....	1
Lane Street.....	1
Spring St.....	1
Outer Broadway.....	4
Leighton St., at Whites Crossing.....	1
Upper Lincoln Street.....	1
Jackson and Highland Ave.....	2
Patrick Street.....	1
Pine St. School.....	1
Poll's corner Main and Hammond St.....	1
Hammond St. above Union.....	1
West Park St.....	1
Hammond Street beyond car line.....	12
Vernon and Savage Sts.....	1
North and West Sts.....	1
Sixteenth and Ohio.....	1
Fourteenth and Ohio.....	1
Holland Street.....	1
Kossuth Street.....	1
Total number of Tungstens.....	131

Five light cluster posts, furnished by merchants and installed by us at the following places:

Bryants Jewelry store.....	lights	5
Kirstein Block Central St.....	"	10
Lynch's on State St.....	"	5
Graphic Theatre.....	"	5
		<hr/>
		25
Total number tungstens installed in one or more units....		156

We have taken down thirteen arc lamps leaving the number in use, 287.

There are about eighty miles of arc light wire in the city.

699 street series tungstens.

One 110 volt arc light at water works.

One 32 C. P. at Hospital entrance.

FIRE ALARM

The department has been quite busy this year on the underground system putting in new pipes where needed to accommodate the new cable.

We have installed at present about one mile of this cable on the fire alarm underground.

On account of the Telephone Company operating so many men in the man holes I thought it best not to install the remaining cable until they had completed their work, as it is difficult for two men to work in a man hole at the same time.

The number of new boxes installed, one. Box 711 at Forest Ave. and Mt. Hope Ave.

Boxes replaced. Number 43, Court Street.

There are twenty-six miles of fire alarm wire, and thirty miles of tapper circuits. Nine miles of twisted loop wire running into houses.

Have made about the same headway with the cable as on the fire alarm.

POLICE SYSTEM

We have had no real trouble in this department, with the exception of the replacements of parts that are subject to wear.

INSPECTION DEPARTMENT

This department shows a slight decrease in inspections, which is due to the fact that a large number of the buildings burned have been completed.

Number permits, 506. Total number lights inspected, 5542.

Number of motors, 40, H. P. 141. Number defects, 194. New installations 308. Flat irons installed, 8. Tailor's irons.

There are 2200 lights in the City buildings and three hundred on the Stand Pipe, making twenty-five hundred lights in all.

To this will be added sixteen hundred lamps when the new High school and library are completed.

In motors we have one 5 H. P. at the City Farm, one 5 H. P. at the Central Fire Station, one 2 H. P. in machine shop at Sub-Station. Two $\frac{1}{2}$ H. P. and one H. P. motor running the apparatus to charge storage batteries and tapper lines. There will be one hundred twenty-three horse power in motors in the new buildings.

On the tide we will not be able to carry this extra load even with the engine on in connection with the water wheels, and I sincerely hope that there will be something done to relieve this condition before the time arrives to furnish power to these new buildings. We have but six months to get ready for this and it will take from nine months to a year. It looks as though we would have to purchase a little from the B. R. & E. Co.

In closing I wish to thank his Honor, the Mayor, the members of the City Council, the heads of the different departments, the officials of the Telephone and Telegraph companies, the Bangor Railway & Electric Co., and especially the members of my crew and my committee.

Respectfully submitted,

R. N. BICKNELL, City Electrician.

March 17, 1913.

Schedule of Property Belonging to Electrical Department

LIST OF TOOLS AT SUB-STATION

1 Fay & Scott lathe,	4 trimmers baskets,
1 forge and anvil,	1 bit brace,
1 grindstone,	6 bits,
2 vises,	3 rising pikes,
2 pipe cutters,	1 2-H. P. motor,
1 bolt cutter,	1 plane,
1 duplex die stock,	12 extension bits,
1 bull dog die stock,	2 pipe taps,
1 little giant die set,	3 lanterns,
3 torches,	8 brooms,
5 stone drills,	2 hammers,
4 brick drills,	3 manhole gates,
1 pipe vise,	1-400-ft. running line,
400 feet duck rods,	6 hand lines,
1 25-foot extension ladder,	1 horse, (work),
1 35-ft. extension ladder,	1 heavy harness,
2 20-ft. ladders,	2 light harness,
1 15-ft. ladder,	1 old express wagon,
3 12-ft. ladders,	2 light wagons,
1 6-ft. step-ladder,	1 sled,
1 3-ft. step-ladder,	1 pung,
1 8-ft. step-ladder,	2 horse blankets,
2 shovels,	1 plush robe,
1 scoop,	1 whip,
1 tamp mall,	1 halter,
2 snow shovels,	1 two-wheel pole wagon,
1 garden rake,	1 tree trimmer,
2 sets blocks,	3 ammeter,
2 tin pails,	2 voltmeters,
1 hay fork,	1 digging bar,
1 barn shovel,	1 Polyphase wattmeter,
2 pickaxes,	2 Graphic recording wattmeter,
1 currycomb,	1 wattmeter,
1 horse brush,	3 magnetos,
2 chamois,	2 roll top desks,
2 sponges,	1 L. C. Smith typewriter,
1 barn fork,	4 chairs,

2 tables,	50 feet garden hose,
1 drafting table,	100 ft. $\frac{3}{4}$ in. rope,
6 stilson wrenches,	2 chisels,
3 hatchets,	1 couch,
3 screw-drivers,	2 saws,
3 sets come alongs,	1 draw shave.
1 breast drill,	

ACCOUNT OF STOCK AT THE POWER STATION

100 gals. machine oil,	2 12-inch jackscrews,
165 gals. cylinder oil,	2 4-ton hydraulic jackscrews,
50 gals. kerosene oil,	2 6-inch jackscrews,
50 lbs. gear grease,	1 24-inch stilson wrench,
250 lbs. waste,	1 20-inch monkey wrench,
5 lbs. belt dressing,	2 24-inch chain tongs,
4 gal. brass polish,	1 12-inch ratchet drill,
2 sets of cogs and kegs for 59-inch wheel,	1 5-inch vise,
1 set of cogs for 36-inch wheel,	1 breast drill,
4 rack rakes,	1 12-inch hack saw frame and 10 blades,
3 ice chisels,	125 lbs. babbitt,
1 set of blocks-tackle,	100 feet 6 ply steam hose,
1 field coil,	50 feet cotton lined hose,
1 armature coil for generator,	1 steam tube blower,
1 grate,	1 Weinland turbine cleaner,
1 side piece,	2 5-inch steel bars,
2 caps,	1 3-ft. pinch bar,
1 5-inch 4-ft. boiler tube,	1 lawn mower,
3 cap wrenches,	1 iron rake,
1 10-inch 4 ft. boiler tube,	1 spade,
2 sets of 3000 lb. chain falls,	1 wooden rake,
1 set of 4000 lb. chain falls.	1 sickle,
50 lbs. cup grease,	2 snow shovels,
1 rope fall,	5 lanterns,
1 8-inch Stilson wrench,	2 $\frac{3}{4}$ -inch cold chisels,
1 14-inch Stilson wrench,	3 machine hammers,
1 24-inch Stilson wrench,	1 8-inch Wescott wrench,
1 36-inch Stilson wrench,	1 14-inch Wescott wrench,

1 14-inch Trimo wrench,	1 boiler ratchet drill,
1 12-inch Coe Monkey wrench,	1 set bits for wood,
1 21-inch Coe Monkey wrench,	1 bit brace,
2 $\frac{1}{2}$ -inch cold chisels,	1 expansion bit,
2 $\frac{5}{8}$ -inch cold chisels,	1 8-foot step-ladder,

STOCK AT SUB-STATION

2 lbs. leather nail heads	\$	50
7 Ford auger bits		2 80
100 wire connectors, No. 8		4 20
75 wire connectors, No. 4		7 50
250 wire connectors, No. 6		15 25
950 porcelain cleats		12 00
37 attachment plugs		5 18
12 Arrow E push button flush switches		5 28
14 hubbell shad holders		84
9 H. & M moulding branch blocks		1 80
4 H & M moulding branch blocks		56
41 keyless sockets		8 61
3 key sockets		69
6 $\frac{3}{8}$ sockets		1 63
13 chain pull sockets		5 46
3 porcelain key sockets		63
20 Junior rosettes		2 10
82 Weber rosettes		8 20
5 moulding rosettes		50
26 Edison plug cut-outs, No. 1935		4 94
21 Edison plug cut-outs, No. 2587		7 77
11 Edison plug cut-outs, No. 8020		2 42
10 Edison plug cut-outs, No. 2965		1 80
1 spool fuse wire, 3 amp		50
1 spool fuse wire, 5 amp		50
1 spool fuse wire, 10 amp		40
1 spool fuse wire, 15 amp		38
1 spool fuse wire, 20 amp		38
1 spool fuse wire, 25 amp		38
1 spool fuse wire, 30 amp		38
35 cartridge fuses, 15 amp		5 25
10 cartridge fuses, 20 amp		1 50

28 cartridge fuses, 25 amp.	4 20
20 cartridge fuses, 30 amp.	3 00
27 fuse plug casings.	2 97
15 plug fuses, assorted.	62
2 300 amp. cartridge fuses.	4 32
2 150 amp. cartridge fuses.	2 40
1 100 amp. cartridge fuses.	54
2 75 amp. cartridge fuses.	1 08
23 $\frac{1}{2}$ amp. sneak fuses.	2 30
84 2 amp. 2000 volt fuses.	14 40
2 Diamond H rotary flush switches.	86
3 Perkins snap switches.	60
12 nickel switch plates.	4 44
3 $\frac{1}{2}$ gals. Neco fire-alarm paint.	12 00
10 lbs. insulating compound.	1 00
$\frac{1}{2}$ gal. asphaltum.	25
4 tapper bells.	9 00
33 insulating rings, 4 inch.	3 96
1 insulating ring, 8 inch.	20
8 inner globe cleaners.	2 00
2 extension gongs.	10 00
9 old bells.	2 75
22 ounces No. 36 magnet wire.	1 50
2 lbs. No. 30 magnet wire.	2 00
3 porcelain protector blocks.	1 50
6 4 inch tubes.	06
4 6 inch tubes.	04
11 caps for inner globes.	5 50
3 Hullophone glass shades.	2 25
6 Alba shades.	2 70
5 $\frac{1}{2}$ lbs. insulating tape.	2 20
100 lbs. friction tape.	25 25
10 adapters.	20
7 lightning arrester blocks, old.	1 75
15 carbons.	1 50
3 combination entrance switches.	1 62
3 combination three pole.	84
54 Pierce brackets for arc light use.	19 25
4 carbon brushes.	1 00

70 bars soap	2 80
1 box toilet paper	6 00
26 $\frac{3}{4}$ inch conduit outlet boxes	4 68
18 blank covers	90
13 iron switch boxes	1 95
10 $\frac{3}{4}$ conduit bushings	30
6 $\frac{1}{2}$ -inch Type C condulets	1 32
2 $\frac{1}{2}$ -inch Type T condulets	58
1 $\frac{1}{2}$ -inch Type E condulet	17
3 $\frac{1}{2}$ -inch Type D condulets	60
4 $\frac{1}{2}$ -inch Type F condulets	1 20
1 $\frac{3}{4}$ -inch Type A condulet	19
1 1-inch Type A condulet	26
1 $\frac{1}{2}$ -inch Type H condulet	27
41 blank condulet covers	2 05
2 Renim outlet plates	15
1 1-inch entrance cap	31
9 $\frac{3}{4}$ -inch caps for service pipes	1 35
72 W. P. entrance bushings	10 80
22 $\frac{1}{2}$ -inch 2 hole porcelain condulet covers	1 32
1 $\frac{3}{4}$ -inch 2 hole porcelain condulet cover	09
6 street series receptacles	3 00
6 street series sockets	3 00
19 street series insulating joints	19 00
19 guy wire clamps	3 04
25 galvanized thimbles	64
4 arc lamp cut-outs	16 00
25 lbs. solder	7 50
200 carriage bolts	4 00
75 lag screws	1 50
400 No. 5, $\frac{1}{2}$ split knobs	4 00
75 G. E. split knobs	1 25
12 wire guard for portables	1 20
350 feet No. 12 S. B. R. C. wire	3 50
4 lbs. No. 12 slow burning wire	80
77 lbs. No. 2 slow burning wire	13 01
500 feet No. 14 3-16 inch insulation	10 00
737 lbs. No. 4 weatherproof line wire	110 55
15840 No. 6 weatherproof line wire	316 80

110 crow feet for fixtures	5 00
2 cable boxes	10 00
144 outer globes	63 00
4 porcelain shades for arc lamps	4 00
2 three pole double throw oil switches	63 00
1 double pole oil switch	30 00
288 inner globes	57 60
1 switch board	8 00
20 gals. gasoline	2 20
250 40-watt carbon lamps	37 50
200 60-watt carbon lamps	30 24
500 25-watt carbon lamps	75 00
72 50-watt carbon lamps	10 80
100 28-watt carbon lamps	10 00
20 feet $\frac{1}{2}$ conduit	90
20 feet 2 conduit	1 40
8 stable brooms	3 20
5 common brooms	1 55
100 C. P. street series	73 00
48 80-C. P. street series	43 20
24 200-C. P. street series	51 84
193 through bolts, assorted sizes	16 26
197 space bolts, assorted sizes	16 49
76 pole caps	76 00
51 windlasses	102 00
137 6-pin cross arms	90 42
200 galass No. 16	31 04
65 outrigging braces	18 85
600 wood brackets	9 00
300 locust pins	5 00
27 back braces for mast arms	27 00
19 mast arms	190 00
300 feet No. 6 iron wire	1 00
556 lbs. No. 6 weatherproof wire	83 40
350 feet lamp lead wire	70 00
25 Tungsten street fixtures	100 00
600 ft. $\frac{1}{2}$ mile three wire lead cable for police with reels	54 00
13 series sockets and receptacles	13 00
63 arc lamp shades	32 00

63 street series arc lamps	630 00
5 110-volt arc lamps	50 00
4000 carbons for arc lamps	60 00
70 eye bolts	4 90
7 condensers for police boxes	24 50
5 induction coils for police	12 50
2 sets repeater magnets	24 00
4 set police polar relay magnets	20 00
250 fire-alarm box glasses	5 00
1 safe	40 00
8 miles No. 14 Lead cable	1,478 40
20 reels at 10	200 00
	<hr/>
Total	\$4,883 51



Report of the Water Board



BANGOR WATER BOARD

1913

THE MAYOR, President, *ex-officio*

WILLIAM S. HIGGINS Term expires March, 1916
BERNHARD M. KIRSTEIN Term expires March, 1916
MILTON S. CLIFFORD Term expires March, 1915
ALBERT L. BLANCHARD Term expires March, 1915
JOHN F. WOODMAN Term expires March, 1914
JOHN H. RICE. Term expires March, 1914

WALTER I. BROWN, Clerk

STANDING COMMITTEES

ADVISORY COMMITTEE

W. S. Higgins A. L. Blanchard John H. Rice

AUDITING COMMITTEE

J. F. Woodman M. S. Clifford B. M. Kirstein

DAM AND WATER WORKS

W. S. Higgins M. S. Clifford B. M. Kirstein

LAND DAMAGES COMMITTEE

J. F. Woodman A. L. Blanchard John H. Rice

OFFICERS

Melville A. Sinclair Superintendent
John W. Dougherty Chief Engineer Pumping Station
Walter I. Brown Clerk and Collector
Cornelius O'Brien Inspector
Prof. Jas. M. Caird, Troy, N. Y. Chief Chemist
A. C. Powell Resident Chemist

BANGOR WATER BOARD

Date of Election and Length of Service of Members, 1875-1913

*Geo. Stetson	1875-1887
*W. T. Pearson, resigned, and *G. L. Boynton, elected	1875-1877
*L. H. Eaton	1875-1877
*A. G. Wakefield	1877-1879
*J. S. Ricker	1877-1879
*M. S. Drummond	1877-1880
*Sprague Adams	1877-1879
*Hiram B. Williams	1877-1887
*Geo. Savage	1877-1878
*Hiram H. Fogg	1878-1893
*Thomas W. Vose	1879-1901
Wm. Conners	1879-1883
*Silas D. Jones	1879-1885
*John L. Cutler	1880-1891
T. U. Coe	1883-1886
Charles I. Collamore	1885-1900
*James Adams	1886-1903
Thomas White	1887-1896
Hugh R. Chaplin	1891-1894
Chas. S. Pearl	1893-1896
*James H. Snow	1894-1897
T. U. Coe	1896-1905
W. W. Fellows	1896-1899
Warren A. Bragg	1897-1906
Charles F. Bragg	1899-1905
Milton S. Clifford	1900-1906
William Z. Clayton	1901-1904
William W. Fellows	1904-1907
George E. Wharff	1904-1907
Freeland Jones	1905-1908
*Jas. B. Mullen	1905-1911
Jas. F. Singleton	1906-1909
Edward S. Perry	1906-1909
Charles F. Bragg	1907-1910
Arthur Chapin	1907-1910

Milton S. Clifford	1908-1911	
F. Parker Denaco	1909-1912	
William H. Gorham	1909-1912	
William S. Higgins	1910	Now in Office
Patrick J. Feeney	1910-1912	
Flavius O. Beal	1911-1913	
John F. Woodman	1911	Now in Office
Milton S. Clifford	1912	Now in Office
Albert L. Blanchard	1912	Now in Office
Bernhard M. Kirstein	1912	Now in Office
John H. Rice	1913	Now in Office

*Deceased

PRESIDENTS OF THE BOARD, *ex-Officiis*

Mayor, *Augustus C. Hamlin	1877-1879
“ *William H. Brown	1879-1881
“ *Lysander Strickland	1881-1883
“ *Frederick A. Cummings	1883-1884
“ *Samuel F. Humphrey	1884-1885
“ *Edward B. Nealley	1885-1887
“ Charles F. Bragg	1887-1890
“ Edward H. Blake	1890-1891
“ *Joseph F. Snow	1891-1892
“ Flavius O. Beal	1892-1895
“ *Charles L. Snow	1895-1896
“ Flavius O. Beal	1896-1899
“ Arthur Chapin	1899-1902
“ *William Engel	1902-1903
“ Flavius O. Beal	1903-1905
“ William B. Pierce	1905-1907
“ John F. Woodman	1907-1911
“ Charles W. Mullen	1911-1913
“ Flavius O. Beal	1913-

*Deceased

Report of Water Board

To the City Council of Bangor:

The Water Board herewith submits its thirty-eighth annual report together with the reports of its superintendent, chief engineer and clerk and collector.

While the department has had no unusually important work or improvements to occupy its attention it has nevertheless devoted itself to increasing the general efficiency of the plant. The completion of two additional units at the filter house adds two million to the daily filtering capacity. This would seem to be ample for any emergency at the present rate of consumption.

The results which have been obtained since this new plant has been in operation have surely justified the board in recommending the changes and the city in authorizing the construction of the plant. The reports of our own chemist and of the state chemist have uniformly recommended the water as safe and sanitary for all purposes.

The present plant will from time to time naturally need improvements and enlargements. An additional sedimentation basin would be a decided safeguard against accidents, allow much more time for sedimentation before filtration and considerably increase the plant's general efficiency.

Additional storage by the erection of another stand pipe on Thomas Hill should be considered before many years. This would make possible a more uniform rate of pumpage

and provide a much more adequate supply in case of temporary breakdown at the works.

The extensions of mains for the year to the amount of 6,292 feet has brought the total mileage of street mains to about $53\frac{3}{4}$ miles. Plans have been made for a 12-inch force main to be laid the coming season on French street from Cumberland northerly to Broadway. This part of the city has grown so rapidly that this main is deemed necessary for fire protection and adequate domestic service.

The total number of fire hydrants is 309, an increase of nine during the year.

A new boiler to heat the plant at the pumping station and to supply power for the filter centrifugal pump is recommended by the superintendent and engineer.

The amount of water pumped for the year totals 1,390,712,800 gallons, a daily average of 3,810,172 gallons, a decrease of 88,295,805 gallons in total and of 241,906 daily average, due doubtless to the mild winter and wet summer.

On the other hand 84 new water services were installed with revenue amounting to \$3,899.50. The total revenue and credits to this department for the year is \$98,895, an increase of \$3,315.06. Another year will doubtless see the department's receipts and credits reach the hundred thousand mark.

The collector reports that for the 16th consecutive year all water rates have been collected, and is justly proud of a record that shows such painstaking and efficient attention to his duties.

The collector reports a most thorough and systematic year's work on the part of the inspector with a total of 7,166 houses and places of business visited, unreported fixtures being found to the amount of \$285.50.

After many years of the most satisfactory service J. F. Weber tendered his resignation as chief engineer last spring, owing to ill health, which, during the year resulted in his death.

The vacancy was filled by the election of J. W. Dougherty, assistant engineer at the works for 14 years, who since taking charge of the pumping station has shown a capacity for keeping the plant up to its highest efficiency.

CHAS. W. MULLEN, Mayor

WM S. HIGGINS

F. O. BEAL

J. F. WOODMAN

M. S. CLIFFORD

B. M. KIRSTEIN

A. L. BLANCHARD

Members of the Water Board

Report of the Superintendent

To the Bangor Water Board:

GENTLEMEN:—In accordance with the rules of the City Ordinance I respectfully submit the thirty-eighth annual report of the Superintendent for the Municipal year ending February 28, 1913.

STREET MAINS

The street mains are in good condition. None have been relaid, but some have been replaced with larger sizes to increase the supply in certain districts. The following list gives the extensions for the year:

Location	Size in Inches	No. of Ft.
Park St., from Harlow St., north.....	6	221
Montgomery, from Leighton to Kenduskeag Ave.....	6	758
Montgomery, from Leighton, east.....	6	194
Emerson, from Main St., south.....	6	475
Webster Ave., north of Hammond.....	6	562
Hayward, from Pond, north.....	6	405
Hudson, from Ohio to Union.....	6	420
Second, from Union to Cedar.....	6	694
Otis, from hydrant at Otis and State, to end of pipe laid before (near Garland St.).....	6	845
Hammond, east of West St.....	8	121
Hogan Road, from State, north.....	8	1,597
		<hr/>
No. of ft. laid in 1912.....		6,292

Valley Ave., from S. A. Maxfield's plant to J. F. Woodman's ice houses,
2" wrought iron surface pipe, for summer use only, *3,800.

*Not included in total mileage.

Total No. of 6" laid.....	4,574
Total No. of 8" laid.....	1,718
Total mileage of street mains, 53 3652-5280.	

I wish to take this opportunity to recommend for your careful consideration the following additions: that the 12 inch force main on French St. be completed from Cumberland to the junction of Broadway and Centre St., this extension will increase greatly the fire service in the district thru which it passes and be a valuable addition to the portion of the city known as the "Little City;" also that the fire protection be strengthened and the "dead end" pipe lines discontinued by extending the mains on Boutelle Road and Royal Road thru to Webster Ave.

The department has had about the average number of leaks the past year; twenty-two (22) having occurred.

VALVES

The street valves in the larger sizes have received as usual their careful periodical inspection; those in the smaller at present are receiving attention; all seem to be in fine working order. The following list gives the settings for the year:

Location	Size in Inches
Kenduskeag Ave. and Madison.....	4
Second and Cedar.....	4
Union and Broad.....	4
South and Summer.....	4
Haynes Court and Harlow St.....	4
Harlow St., on Park St. line (A. P. Smith valve).....	6
Park, 200 ft. from State, on Park St. line.....	6
Park, hydrant line.....	6
Montgomery and Kenduskeag Ave.....	6
Montgomery and Leighton (east).....	6
Montgomery and Leighton (west).....	6
Emerson and Main.....	6

Location	Size in Inches
Emerson, blow-off to sewer	6
Webster Ave. and Hammond	6
Hayward and Pond	6
Hudson and Union	6
Second and Union	6
Hogan Road, on hydrant line, 800 ft. from State St.	6
Hogan Road and E. M. I. Hospital Road, on hydrant line, (road in rear of hospital buildings)	6
Harlow and Spring, new high school fire line (A. P. Smith valve)	6
Union and Short, on hydrant line	6
Broad and Union	6
Columbia St., Sawyer Boot & Shoe Co's fire line (A. P. Smith's valve)	6
Hogan Road and State	8
Independent and Broad	8
Total settings	<hr/> 25

VALVE DATA

Size	2 inch	4 inch	6 inch	8 inch	12 inch	16 inch	20 inch	24 inch
No.	29	138	284	39	9	8	13	1

Total number set to data, 521

FIRE HYDRANTS

"M" —Mathews

The fire hydrants as usual receive their careful inspection, and at present are in fine working condition. During the winter months much extra attention is given to prevent the frost from lifting the outside cases and causing serious damage. The following have been added during the year making a total of 309 connected with the system.

Location	Pattern	Pressure per Sq. in.
Park, near State	M	105
Montgomery, oppo. Fountain	M	45
Buck and Main	M	90
Emerson, 475 ft. from Main St.	M	95
Webster Ave., North	M	45
Second, 300 ft. from Union	M	80
Hogan Road & E. M. I. Hospital Road	M	75
Hogan Road, 800 ft. from State	M	85
Union and Short	M	100
Total number added, 9		

SERVICE PIPES

The service department has installed 84 new services, renewed 94, and discontinued 28 during the year. We find a marked decreasing in the number of renewals which shows that our filter plant is doing its work well by keeping the hydrate from the distribution system. The total number of services connected with the system at present is 5,068.

METERS

Although our proportion of metered services is very small, the past year may be considered to be quite active for our practice; 13 have been set and sealed. The following table gives full data of the number of meters, makes, and sizes owned by the department:

Size.....	$\frac{5}{8}$ in.	$\frac{3}{4}$ in.	1 in.	1 $\frac{1}{2}$ in.	2 in.	3 in.	4 in.	6 in.
Make								
Crown... ..	16	2	6	7	9	0	0	1 41
Empire	0	20	0	2	3	0	0	0 25
Nash.....	0	5	0	0	0	0	0	0 5
Gem.....	0	0	0	0	4	20	2	0 26
Lambert....	0	1	6	3	3	0	0	0 13

Hersey	0	0	3	0	0	0	0	0	3
Disk	0	4	0	0	0	0	0	0	4
Trident	1	0	0	0	0	0	0	0	1
	<hr/>								
	17	32	15	12	19	20	2	1	
Total									118

STANDPIPE

The standpipe and super-structure are in good condition. The inside of the iron pipe portion has been scraped, and painted with two coats; no signs of pitting was discovered. I recommend that the superstructure be painted during the season.

STREET-WATERING STANDPIPES

No street-watering standpipes have been added during the year; the total number still remains 37.

DAM AND PIERS

The flume leading to the five 60 inch McCormick water wheels has been strengthened by more iron rods; this wooden structure with these repairs, that are necessarily of a temporary nature, will last for a few years but eventually it will be necessary to construct the entire structure of concrete. The top of the jam pier, which is located at the head of the fore bay, has been replanked and is now in very good condition. Aside from these minor repairs that are mentioned no work has been needed on the dam or piers.

FILTER PLANT

The filter plant still continues to perform creditable service; since the battery has been increased from six to eight filters

the rate of filtration per filter may be decreased and have the combined forces of the filters supply the city. The changes that were proposed in the report of 1911-12 for the by-passing of the sedimentation basin and pumping directly to the filters, which would be in case of accident to the sedimentation basin only; and the renewing of the alum solution tanks, have been accomplished and are giving entire satisfaction.

BOILER, PUMPING STATION

The horizontal tubular boiler at the pumping station that is used to heat the entire plant and also to run the filter plant centrifugal pump in case the water power is discontinued was rated at its installation to run under one hundred pounds of steam; to run the filter plant satisfactorily about eighty are necessary. A few months ago an examination was performed by Insurance Underwriters and their report pronounced the boiler unsafe to run over a maximum of sixty pounds; this setting is not high enough to get our required results; and since nothing higher can be obtained with safety, also that the boiler is very old, I recommend that a new one be installed the coming season in its place.

In closing I wish to thank His Honor, the Mayor, the Water Board, and all those connected with department in any way for their many courtesies shown during the year.

Respectfully submitted,

M. A. SINCLAIR,

Superintendent.

Report of the Water Collector

Water Collector's Office.
Bangor, March 1, 1913.

To the Bangor Water Board:

GENTLEMEN:—In compliance with the requirements of the city ordinance, I herewith present the thirty-eighth annual report of this department, showing the receipts, expenditures and refunds for the year ending Feb. 28, 1913.

CASH STATEMENT

On hand February 29th, 1912.....	\$ 535 12
From general water service, from March 1, 1912, to March 1, 1913.....	84,453 22
Fines, delinquent water customers.....	77 23
Sundry parties for water used for mixing lime and cement for building purposes.....	459 79
Water from circus.....	10 00
	<hr/>
	\$85,535 36
From sale of cast iron pipe, scrap, etc.....	\$ 82 59
sale of grass.....	20 00
labor and material trenching for water service..	130 31
sale of rock.....	25 00
sale of horse.....	100 00
use of thawing machine.....	20 00
	<hr/>
	\$85,913 26

CREDIT

By paid H. O. Pierce, City Treasurer, per receipts..	\$85,100 00
paid water customers for vacancies and non- use of fixtures.....	224 01
cash on hand February 28, 1913.....	589 25
	<hr/>
	\$85,913 26

For the sixteenth consecutive year, all water rates charged for the year ending Feb. 28, 1913, have been paid in full.

The Water Board have every reason to be congratulated for the excellent results obtained during so many years in succession.

The Collector takes this opportunity to express his appreciation to all water customers for making this record possible.

CHARGES ON WATER LEDGERS

Amount per schedule ledger, from March 1, 1912, to March 1, 1913.....	\$68,206 57	
Amount per meter ledger.....	15,753 44	
Amount per petty ledger.....	469 79	
Amount to Charitable Institutions, at als, abated per order of City Council.....	2,196 00	
	<hr/>	\$86,625 80

REFUNDS

Water rates to the amount of.....	\$ 224 01	
Which deducted from the receipts for water.....	84,923 01	
	<hr/>	
Leaves net receipts for water.....	\$84,699 00	
Add the amount credited the department for water furnished the Charitable Institutions.....	2,196 00	
Add the amount appropriated by the City Council, and credited the department for water fur- nished the various departments.....	12,000 00	
	<hr/>	
Making the yearly revenue for water.....		\$98,895 00

TURN ON AND SHUT OFF RECORD

Eight hundred and eighty-six (886) orders have been issued for turning on water and removing seals from fixtures.

Twelve hundred and forty-five (1245) orders have been issued for shutting off water on account of vacancies and seals applied to fixtures at the request of owners.

NON-PAYMENT OF WATER RATES

It has been necessary to shut off but one service for the non-payment of water rates.

Water rates to the amount of \$2,789.28 have been paid in advance of April, 1913.

The following amounts represent the valuation of water furnished the city departments:

Incidental Account.....	\$ 921 00
School Department.....	1,156 50
Highway Department.....	1,312 50
Fire Department.....	7,651 50
Pauper Department.....	204 50
Sewer Department.....	400 90
Water Department.....	117 00
Electric Department.....	62 00
Police Department.....	111 00
Park Department.....	350 00

There were 84 new water services installed during the past year, and the fixtures connected therewith amount to \$3,899.50. classed as follows:

219 sinks	18 urinals
362 water closets	152 sill faucets
182 baths	23 steam boilers
292 wash bowls	4 slop hoppers
111 set wash trays	3 chair bowls
30 cellars faucets	5 plain faucets
11 barber chairs	1 steam presser, for tailor
9 air pumps	1 bottle washer
23 counter faucets	4 shower baths
13 stable faucets for	1 foot tub
19 horses and 1 cow	4 glass washers

The inspector, Mr. Cornelius O'Brien, has made without exception the largest, most thorough and systematic inspection ever made by this department.

In the performance of his duties he has inspected the fixtures at 7166 houses and places of business.

He was unable to gain admittance at 249 dwellings.

As usual from this inspection, we have found many fixtures which have not been reported by the plumbers, this year the amount is \$285.50.

One of the benefits to the customers from this annual inspection is the number of fixtures which have been removed for various causes but were not reported to this office.

Another noticeable feature of the inspection is the improved condition of the water fixtures, only 37 defective ones were found. The regular notice pertaining to same was sent to the respective owners, and said fixtures were at once repaired.

We again urge the sending of bills to all water customers, as is done by most public utility companies.

The enforcement of the Ordinance wherein the Water Board ordered the collecting department to collect all water rates from the owners of property has proven a direct benefit to the water takers, as is shown by the small amount of fines collected during the past year.

YEARLY REVENUE

Statement of the yearly revenue received from water service since the introduction of the Water Works in 1875:

From introduction to March 14, 1877	\$ 7,198 55
From March 14, 1877, to March 14, 1878.....	11,835 75
From March 14, 1878, to March 14, 1879.....	20,269 50
From March 14, 1879, to March 1, 1880.....	20,970 50
From March 1, 1880, to March 8, 1881.....	23,133 00
From March 8, 1881, to March 15, 1882.....	26,014 00
From March 15, 1882, to March 14, 1883.....	26,408 00
From March 14, 1883, to March 14, 1884.....	26,947 61
From March 14, 1884, to March 14, 1885.....	28,052 00
From March 14, 1885, to March 16, 1886.....	35,875 75
From March 16, 1886, to March 16, 1887.....	33,465 75
From March 16, 1887, to March 13, 1888.....	35,118 97
From March 13, 1888, to March 12, 1889.....	37,316 61

From March 12, 1889, to March 13, 1890.....	40,552 12
From March 13, 1890, to March 10, 1891.....	44,668 30
From March 10, 1891, to March 10, 1892.....	46,864 09
From March 10, 1892, to March 10, 1893.....	47,763 19
From March 10, 1893, to March 10, 1894.....	49,878 83
From March 10, 1894, to March 1, 1895.....	53,405 30
From March 1, 1895, to March 1, 1896.....	56,005 43
From March 1, 1896, to March 1, 1897.....	59,173 21
From March 1, 1897, to March 1, 1898.....	63,447 10
From March 1, 1898, to March 1, 1899.....	66,766 72
From March 1, 1899, to March 1, 1900.....	66,610 91
From March 1, 1900, to March 1, 1901.....	60,300 68
From March 1, 1901, to March 1, 1902.....	61,673 52
From March 1, 1902, to March 1, 1903.....	64,362 83
From March 1, 1903, to March 1, 1904.....	66,559 27
From March 1, 1904, to March 1, 1905.....	66,829 59
From March 1, 1905, to March 1, 1906.....	71,222 24
From March 1, 1906, to March 1, 1907.....	75,001 98
From March 1, 1907, to March 1, 1908.....	76,875 63
From March 1, 1908, to March 1, 1909.....	78,738 09
From March 1, 1909, to March 1, 1910.....	81,812 92
From March 1, 1910, to March 1, 1911.....	81,615 38
From March 1, 1911, to March 1, 1912.....	95,579 94
From March 1, 1912, to March 1, 1913.....	98,895 00

\$1,907,208 26

Respectfully submitted,
WALTER I. BROWN,
Clerk and Collector.

Itemized Account of Receipts and Expenditures

RECEIPTS

Amount received from the City Council, same being appropriated for water used by the various departments	\$ 12,000 00	
Amount received from W. I. Brown, Collector, of Water Department	85,100 00	
Amount received from Incidental Department, for water furnished Charitable Institutions, et al.	2,196 00	
Amount received from Sewer Department, for cast iron pipe	100 75	
Amount received from School Department, for material and labor furnished, installing 4" fire line and 2" water service line.	73 72	
	\$ 99,470 47	

EXPENDITURES

STREET MAINTENANCE

City Treasurer, for pay rolls	\$ 8,053 63
City Treasurer, for salaries	3,000 00
Addressograph Co., office supplies	6 32
American Express Co.	6 83
Baker-Vawter Co., office supplies	19 20
C. H. Babb & Co., supplies	17 50
Bangor Co-Operative Ptg. Co., printing.	10 50
Bangor Publishing Co., advertising rates.	141 04
J. P. Bass Pub. Co., same	183 50
Bangor Ice Co., ice	5 70
J. I. Barnes, filing saws	1 20
Barnes & Williams, same	4 20
Berry & Smith, trench flag signals	2 28
Harold L. Bond Co., supplies	51 45
J. Herbert Boyd, insurance	108 00
C. E. Bradbury, trucking	26 85
Amount carried forward	\$11,638 20

Amount brought forward.....	\$11,638 20
N. H. Bragg & Sons, hardware supplies.....	61 52
W. I. Brown, office assistant, assistant at Superintendent's office and other paid vouchers.....	866 94
T. W. Burr Ptg. & Adv. Co., advertising and printing.....	141 95
T. F. Cassidy & Son, blacksmith work.....	3 55
Arthur Chapin Co., supplies.....	29 35
Cannon & Co., city directories.....	5 00
Chandler & Co., furniture repairs.....	1 35
F. H. Clifford, advertising.....	6 00
Fred Cort, charcoal.....	12 00
Columbia Towel Supply Co., towels.....	4 80
G. B. Derby Co., trucking.....	7 50
Geo. A. Daley, wood.....	3 50
E. F. Dillingham, supplies for Supt. and col- lectors offices.....	27 93
R. B. Dunning & Co., galv. iron pipe and sup- plies.....	1,282 09
Eastern Cement Co., cement.....	3 29
Eddy Valve Co., valves.....	576 64
F. E. Eldridge Co., painting.....	206 46
Electrical Department, labor, etc.....	25 16
R. E. Freeman, veterinary.....	8 00
C. H. Glass Co., printing.....	9 00
Goodall Union Mfg. Co., supplies.....	3 59
Hodgkins & Fiske Co., supplies.....	20 06
Holly Manufacturing Co., same.....	151 46
A. R. Hopkins Co., cement, etc.....	5 55
Edward Jordan, supplies for stable.....	10 80
L. Kirstein & Sons, insurance.....	54 00
M. H. Lancaster, carpentry.....	344 89
Leighton, Leland & Grant, blacksmith work...	30 05
Library Bureau, office supplies.....	50 00
Henry Lord & Co., insurance.....	72 90
Morse & Co., lumber.....	64 53
Amount carried forward.....	<u>\$15,728 06</u>

Amount brought forward.....	\$15,728 06	
H. Mueller Co., supplies.....	1 35	
National Lead Co., supplies.....	261 31	
New England Tel. & Tel. Co.....	123 28	
Noyes & Nutter Mfg. Co.....	3 25	
Penobscot Machinery Co., special castings, etc.	329 13	
Remington Typewriter Co., supplies.....	1 80	
Rice & Miller Co., supplies.....	48 93	
W. H. Rivers, horse.....	240 00	
Frank Ryan, stable supplies.....	23 70	
P. J. Byrnes, settlement of claim.....	25 00	
Sawyer Boot & Shoe Co., supplies.....	39 41	
M. A. Sinclair, board of horse.....	216 00	
W. P. Smiley, caretaker of stand-pipe.....	24 00	
L. C. Smith Bros. Co., office supplies.....	4 00	
Snow & Nealley Co., same.....	11 50	
J. F. Staples, service pipe cleaner.....	29 00	
Stickney & Babcock Coal Co., coal.....	75 67	
The Ashton Valve Co., gauge.....	5 92	
The Dole Co., supplies.....	5 35	
The Haynes & Chalmers Co., same.....	9 55	
The A. P. Smith Mfg. Co., same.....	32 00	
Henry B. Thoms, stable supplies.....	101 65	
Union Iron Works, special castings, etc.....	718 86	
Walworth Mfg. Co., supplies.....	626 21	
Ward & Clough, mason work.....	10 04	
Water Works Equipment Co., supplies.....	217 93	
F. S. Webster Co., office supplies.....	14 25	
John C. Wilson, insurance.....	54 00	
Wood & Bishop Co., supplies.....	14 60	
R. D. Wood, & Co., same.....	1,571 20	
J. F. Woodman & Co., coal.....	49 55	
	<hr/>	\$ 20,616 50

STREET CONSTRUCTION ACCOUNT

City Treasurer, for pay rolls.....	\$ 4,294 30	
J. F. Angley & Co., wood.....	3 25	
	<hr/>	
Amounts carried forward.....	\$4,297 55	\$20,616 50

Amounts brought forward	\$4,297 55	\$20,616 50
Builders Iron Foundry, supplies	101 15	
Chadwick-Boston Lead Co., same	99 06	
Geo. A. Daley, wood	5 25	
Maine Central Railroad, freight on pipe	1,179 09	
J. W. McClure & Son, insurance	25 00	
Morse & Co., lumber	10 07	
National Lead Co., supplies	174 00	
Penobscot Machinery Co., same	20 10	
Stickney & Babcock Coal Co., coal	11 14	
The Haynes & Chalmers Co., supplies	64 55	
Union Iron Works, special castings, etc	75 97	
Water Works Equipment Co., same	151 80	
R. D. Wood & Co., cast iron pipe	1,500 34	
	<hr/>	\$ 7,715 07

PUMPING STATION MAINTENANCE

City Treasurer, for pay roll	\$4,497 28	
Atkins Bros., painting	241 53	
Bacon & Robinson Wood Co., wood	3 25	
Baker & Hodge, insurance	66 88	
Bangor Broom Co., brooms	2 33	
Bangor Window & Sign Cleaning Co.	15 94	
H. W. B. Bickford, supplies	5 40	
W. H. Bradford, insurance	66 88	
N. H. Bragg & Sons, hardware	17 00	
P. J. Byrnes, insurance	101 36	
J. Herbert Boyd, same	34 50	
T. F. Cassidy & Son, supplies	2 25	
Chandler & Co., same	2 00	
Arthur Chapin Co., same	10 84	
Connor Coal & Wood Co., wood	2 00	
O. C. Davis, wheelpit and gates	44 00	
F. E. Eldridge Co., painting	139 33	
John B. Finn, labor slating	9 14	
Fred M. Foley Co.	28 93	
W. H. Gorham Co., painting, etc	325 20	
	<hr/>	
Amounts carried forward	\$5,616 04	\$28,331 57

Amounts brought forward	\$5,616 04	\$28,331 57
J. Frank Green, sand	1 50	
Highway Department, paving	150 00	
Hodgkins & Fiske Co., rubber floor covering ..	137 32	
R. H. Holyoke, flag pole	21 75	
L. Kirstein & Sons, insurance	66 88	
M. H. Lancaster, carpentry	131 94	
Leighton Plumbing & Heating Co., labor, etc ..	40 84	
R. A. McLeod, ice	22 40	
Morse & Co., lumber	103 02	
W. W. Palmer, insurance	25 00	
Penobscot Machinery Co., material and labor ..	355 46	
T. R. Savage Co., supplies	2 40	
M. Schwartz Sons, same	323 24	
J. F. Singleton, insurance	113 20	
Smith & West, supplies	6 24	
Snow & Nealley, Co., same	47	
Stickney & Babcock Coal Co., coal	910 20	
The Bristol Co., charts	3 38	
The Deane Steam Pump Co., supplies	52	
The Garlock Packing Co., same	15 58	
The Haynes & Chalmers Co., same	14 35	
Union Iron Works, stock and labor	591 60	
Vacuum Oil Co., oils	123 04	
Ward & Clough, mason work	132 84	
John C. Wilson, lumber	47 32	
Wood & Bishop Co., supplies	7 34	
J. F. Woodman & Co., supplies	757 43	
	<hr/>	\$ 9,721 30

FILTER PLANT MAINTENANCE

City Treasurer, for pay rolls	\$ 2,880 58	
Baker-Vawter Co., supplies	5 65	
J. P. Bass Pub. Co., advertising	6 67	
W. I. Brown, office disbursements per vouchers	108 42	
Builders Iron Foundry, charts	21 82	
J. M. Caird, paid resident chemist and for pro- fessional services	1,566 78	
	<hr/>	<hr/>
Amounts carried forward	\$4,589 92	\$38,052 87

Amounts brought forward	\$4,589 92	\$38,052 87
Chandler & Co., supplies	2 00	
Eimer & Amend, laboratory supplies	109 97	
W. H. Gorham Co., supplies	70	
Hodgkins & Fiske Co., supplies	1 67	
A. R. Hopkins & Co., same	143 00	
Maine Central Railroad Co., freight	68 68	
G. L. Moor & Son, straw	3 94	
R. A. McLeod, ice	20 40	
Morse & Co., lumber	26 12	
Pennsylvania Salt Mfg. Co., sulphate of alumina	4,844 42	
Rennselaer Valve Co., supplies	1 34	
Rice & Miller Co., same	3 55	
Smith & West, same	3 00	
The Dole Co., same	80	
The Haynes & Chalmers Co., supplies	31 12	
Allan P. Trask, repairing clock	2 00	
Union Iron Works, supplies	38 40	
Ward & Clough, mason work	13 89	
	<hr/>	\$ 9,904 92

FILTER PLANT CONSTRUCTION

Maine Central Railroad Co., freight	\$ 419 45	
The New York Continental Jewell Filtration Co., contract equipping two filter units	8,855 55	
New York Continental Jewell Filtration Co., coagulant solution tanks and changes in pipe lines outside the plant	1,908 80	
	<hr/>	\$ 11,183 80

DAM AND PIERS ACCOUNT

City Treasurer, for pay rolls	\$ 421 87	
T. F. Cassidy & Son, blacksmithing	9 32	
Morse & Co., lumber	254 19	
O. C. Davis, labor and material	35 30	
The Haynes & Chalmers Co., supplies	5 00	
	<hr/>	\$ 725 68
Amount carried forward		<hr/> \$59,867 27

1913]

CITY OF BANGOR

185

Amount brought forward..... \$59,867 27

METER ACCOUNT

City Treasurer, for pay rolls.....	\$ 127 25	
M. Lynch & Co., labor.....	1 25	
National Meter Co., supplies.....	199 74	
Thomson Meter Co., same.....	51 70	
	<hr/>	\$ 379 94

MISCELLANEOUS ACCOUNT

Thomas E. Sullivan, care of fishway..... \$ 50 00

INTEREST AND WATER BONDS ACCOUNT

H. O. Pierce, City Treasurer, paid interest on Water Works bonds.....	\$ 21,930 00	
H. O. Pierce, City Treasurer, paid Water Works Improvement bonds.....	10,000 00	
	<hr/>	\$ 31,930 00

SINKING FUND ACCOUNT

Unexpended balance..... \$ 7,243 26

\$ 99,470 47

RECAPITULATION

Street Maintenance.....	\$ 20,616 50	
Street Construction.....	7,715 07	
Pumping Station Maintenance.....	9,721 30	
Filter Plant Maintenance.....	9,904 92	
Filter Plant Construction.....	11,183 80	
Dam and Piers Account.....	725 68	
Meter Accounts.....	379 94	
Miscellaneous.....	50 00	
Interest and Water Bonds.....	31,930 00	
Sinking Fund.....	7,243 26	
	<hr/>	\$ 99,470 47

Report of the Chief Engineer

Bangor, Maine, March 1, 1913.

To the Bangor Water Board:

GENTLEMEN:—I beg to submit the following report:

The amount of water which has been pumped during the past year has been as follows:

1912	Gallons
March	125,829,630
April	104,427,550
May	114,072,200
June	112,767,715
July	132,812,450
August	112,590,600
September	112,034,285
October	114,460,710
November	107,301,100
December	115,770,600
1913	
January	116,896,400
February	121,749,560
	1,390,712,800

This is a daily average of 3,810,172 gallons.

The steam pump was run May 25th, and June 27th and 28th, while the Electric Department were repairing their water wheels. It was again necessary to make use of the steam pump from Sept. 3rd to 6th, inclusive, due to repairs being made in the flume which supplies the water to the wheels that run the Deane power pump. Only once was this pump in commission from anchor ice, this being on Dec. 9th.

It was necessary in July to renew the cogs in the mortised gear that transmits the power to the centrifugal pump which supplies the filters. The cogs in the mortised gear on water wheel shaft number one were renewed in February of this year.

In October the Deane power pump was thoroughly overhauled, the valves were all taken out, examined, and replaced with new ones where it was deemed necessary. Other repairs have been only such as are chargeable to ordinary wear and tear of machinery in constant use.

The Gaskill pump is worn so it leaks by the plungers quite badly. I would recommend having the plungers turned and new bushings put in the cylinders. I would also recommend a new boiler to replace the tubular boiler which has been in use over twenty years. This boiler is used to heat the buildings and to furnish steam to pump to filters when necessary. When last inspected this was reduced to sixty pounds pressure which is scarcely sufficient to furnish power to run the centrifugal pump at the filter plant.

In closing I wish to thank his Honor, the Mayor, the Water Board, and the Superintendent for their courteous treatment during the past year.

Respectfully submitted,

J. W. DOUGHERTY,

Chief Engineer.

REPORT OF
The Chemist and Bacteriologist

TROY, N. Y., March 14th, 1913.

The Honorable, The Bangor Water Board, Bangor, Me.:

GENTLEMEN:—Permit me to submit a review of the operation of the Filter Plant for the year ending February 28th, 1913.

The new filter plant was placed in operation Feb. 6th, 1911, and consisted of six filter units having a total sand area of 2,602.8 sq. ft. During the year 1912 two additional filters were equipped increasing the capacity of the plant 33%, making the total sand area 3,407.4 sq. ft.

The sand in the original six filters has an effective size of .59 mm. and a uniformity coefficient of 1.25 while the sand in the two filters recently equipped has an effective size of .55 mm. and a uniformity coefficient of 1.74.

Under normal conditions this plant has a capacity of 8,000,000 gallons per day which is sufficient for several years to come.

The plant has been in continuous operation since Feb. 6th, 1911, and has given no trouble from mechanical causes.

The water supply has been obtained from the same source, the Penobscot River. This river has a drainage area of about 7,700 sq. mi. above the water works intake, and is somewhat polluted.

The pollution consists of sewage from several localities, waste from the pulp mills, and drainage from numerous farms.

The general operating results of the plant will be found, by months, in the following table.

Daily Report of Operation, Year 1912-1913

Date	PUMPED TO BASIN		PUMPED TO CITY		WASTE		COAGULANTS		BACTERIA PER C. C.			EFFICIENCY			B. COLI		CITY TAP				TURBIDITY			COLOR			ALKALINITY		
	Gallons	Gallons	Gallons	Per Cent	Alum	Lime	Number of Filters Washed	Raw	Basin	Filtered	Basin	Filtered	Total	Raw	Filt.	Bacteria Per C. C.	B. Coli	Turbidity	Color	Raw	Filt.	Per Cent Removed	Raw	Filt.	Per Cent Removed	Raw	Filt.	Parts Used	
					per Gal.	per Gal.																							
1912-13																													
March	130324000	124561895	5934081	4.55	2.00	.10	423	3806	784	58	79.41	92.61	98.48	80-93	0-93	41	0-93	0	7.5	1.8	0	100.00	52.0	6.7	87.10	12.8	4.0	8.8	
April	114218000	105276335	9046055	7.92	2.00	.10	348	2830	511	20	81.95	96.09	99.29	66-90	0-90	14	0-90	0	6.0	4.2	0	100.00	52.3	6.0	88.53	9.4	3.4	6.0	
May	117599000	110718335	6981440	5.93	2.00	.13	241	2613	377	22	85.58	94.17	99.16	64-93	0-93	16	0-93	0	5.0	.9	0	100.00	53.4	5.2	90.23	9.0	3.0	6.0	
June	114852000	112812765	2039235	1.77	2.00	.15	186	2493	362	31	85.48	91.44	98.76	74-90	0-90	27	0-90	0	6.9	1.3	0	100.00	62.5	6.7	89.28	9.9	3.3	6.6	
July	135315000	133148335	2166665	1.60	2.00	.15	179	2977	380	36	87.24	90.53	98.80	64-66	0-69	31	0-69	0	6.0	.2	0	100.00	57.4	5.8	89.90	12.2	3.7	8.5	
August	111208000	112740715	.....	.....	2.06	.15	132	2069	231	23	88.84	90.05	98.89	89-93	0-93	21	0-93	0	9.8	.0	0	100.00	86.9	9.7	88.84	12.6	3.9	8.7
Sept.	113959000	112166210	1792790	1.57	2.05	.15	137	1802	224	24	87.57	89.29	98.67	57-63	1-63	20	0-63	0	7.4	.0	0	100.00	70.4	7.2	89.78	12.8	3.5	9.3	
Oct.	114733000	114285430	447570	.39	2.11	.15	194	2090	218	24	89.57	89.00	98.86	84-93	2-93	20	0-93	0	9.7	.9	0	100.00	86.7	9.1	89.51	12.0	3.4	8.6	
Nov.	110760000	107298876	8254610	7.45	2.29	.15	256	2627	309	35	88.24	88.68	98.67	79-90	1-90	33	0-90	0	12.1	.4	0	100.00	91.8	11.3	87.70	9.7	3.0	6.7	
Dec.	123000000	115865885	9050585	7.35	2.08	.15	293	2245	260	30	88.42	88.46	98.67	61-69	2-69	24	1-69	0	6.7	.06	0	100.00	62.4	6.5	89.59	10.7	3.5	7.2	
Jan.	127610000	116791240	10818760	8.47	2.09	.16	325	3585	459	51	87.37	88.64	98.57	74-87	2-87	39	0-87	0	6.6	1.00	0	100.00	58.9	6.3	89.22	11.2	3.9	7.9	
Feb.	130200000	122063910	9189660	7.05	1.92	.17	410	2349	267	35	88.64	87.27	98.51	70-75	1-75	31	0-75	0	6.1	.0	0	100.00	57.7	5.7	90.13	13.2	3.8	9.4	
Total	1443578000	1387729931	65721451											862-1002	9-1005		1-1005												
Avg.				4.55	2.05	.142	3142	2624	365	32	86.09	91.24	98.79			26	0	0	7.5	.89	0	100.00	66.0	7.2	89.10	11.3	3.5	7.8	

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	T _{em} pe	Sediment (quickly (falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	Cold		Free	Total Albuminoid	Nitrites	Nitrates	Total	Mineral	Volatile						per c. c.	Coli Communis
1912																						
March	Filtered	0	7.0	0	0	0	0	1.3	.0235	.0500	.0250	None	64.0	32.7	31.3	6.6	38.2	4.0	14.7	.11	66	0-12
April	"	0	6.0	0	0	0	0	1.2	.0195	.0415	.0162	Trace	60.5	30.7	29.8	3.4	36.6	3.2	15.5	.10	22	0-12
May	"	0	5.2	0	0	0	0	1.1	.0232	.0484	.0180	Trace	53.6	29.4	24.2	3.8	34.4	3.0	15.2	.10	20	0-15
June	"	0	7.0	0	0	0	0	1.2	.0212	.0592	.0160	Trace	58.2	33.0	25.2	3.9	35.8	3.2	15.6	.09	37	0-15
July	"	0	5.5	0	0	0	0	1.5	.0200	.0555	.0175	Trace	62.7	31.0	31.7	4.7	35.8	4.2	8.5	.09	42	0-12
August.	"	0	9.7	0	0	0	0	1.6	.0190	.0670	.0162	Trace	64.2	33.0	31.2	5.0	36.1	3.7	8.2	.07	25	0-12
Sept.	"	0	6.6	0	0	0	0	1.2	.0226	.0873	.0150	Trace	68.0	34.7	33.5	5.9	37.4	3.3	10.6	.10	24	0-9
Oct.	"	0	9.4	0	0	0	0	1.9	.0272	.0772	.0220	None	70.4	34.6	35.8	7.8	37.5	3.2	11.2	.10	21	0-12
Nov.	"	0	12.2	0	0	0	0	1.6	.0205	.0455	.0212	Trace	62.5	31.7	30.8	5.6	41.5	3.0	13.2	.08	41	0-12
Dec.	"	0	6.5	0	0	0	0	1.7	.0210	.0635	.0212	Trace	62.7	35.5	27.2	5.8	37.4	3.5	13.0	.10	28	1-12
1913																						
Jan.	"	0	6.4	0	0	0	0	1.9	.0248	.0596	.0220	Trace	61.0	33.0	28.0	5.0	39.5	4.0	12.6	.09	48	0-15
Feb.	"	0	5.7	0	0	0	0	1.6	.0360	.0775	.0225	Trace	67.2	38.0	29.2	6.9	36.1	3.7	12.2	.08	35	0-12
Avg.	Filtered	0	7.3	0	0	0	0	1.5	.0232	.0610	.0177	Trace	62.9	33.0	29.9	5.4	35.5	3.5	12.5	.09	34	1-150

These results are of more than passing interest as they show the peculiar character of the water which has to be treated.

During the year 1,443,578,000 gallons of water were treated being 64,194,000 gallons less than in the previous year or a decrease of 4.3%.

The City consumed 1,387,729,900, gallons a decrease of 104,832,700 gallons or 7.1%.

The filters required 65,721,451 gallons for washing, equal to 4.55% of the water filtered.

As the color of the unfiltered water was 17.8% higher than in the previous year the filters required washing more frequently.

In all 3,142 filters were washed, an average of 8.6 per day an increase of 4.07%.

The bacterial efficiency of the plant for the past four years is shown in the following table, these results cover a period of two years with the old filters and two years of the new filters. The increase in efficiency has been very marked.

	Year 1919-10	Year 1910-11*	Year 1911-12	Year 1912-13
Bacteria removed by Basins.	66.21%	79.00%	82.66%	86.09%
Bacteria removed by Filters.	57.47%	53.40%	88.25%	91.24%
Bacteria removed by Plant	85.63%	90.28%	97.97%	98.79%
Bacteria removed in Mains.	29.50%	00.84%	19.41%	18.75%
Total bacteria removed				
River to City Tap.....	89.86%	90.71%	98.67%	99.01%

*Calcium hypochlorite used three months during the year 1910-11.

This is the only period that calcium hypochlorite has been used in the operation of this plant.

The unfiltered water always contains a high color, very little turbidity, and a low alkalinity. The bacterial content varies considerably, and the "intestinal bacillus" B. Coli-communis is always present.

Table showing range in COLOR, in parts per million, unfiltered water, Bangor, Me.

Color in pars per million	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-20	0.	0.	0.	0.	0.
21-30	0.	0.	0.	0.	0.
31-40	0.	0.	0.	0.	0.
41-50	27	127.	140.	95.	97.
51-60	43.	180.	148.	130.	125.
61-70	150.	57.	63.	41.	78.
71-80	72.	0.	14.	52.	35.
Over 80	71.	0.	1.	48.	30.

The color of the unfiltered water was 80 parts per million on 48 days or 13.3% of the time.

Table showing COLOR, in parts per million, unfiltered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	145.0	45.0	71.0
1910-11.....	80.0	45.0	55.7
1911-12.....	88.0	45.0	56.0
1912-13.....	135.0	45.0	66.0
Avg. 4 yrs.....	112.0	45.0	62.2

The average color was 17.8% higher than during the previous year.

The minimum color of the unfiltered water has never been below 45 parts per million during the past four years.

Table showing range in TURBIDITY, in parts per million, unfiltered water, Bangor, Me.

Turbidity parts per million	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-0	129.	329.	296.	290.	261.
1-5	203.	33.	63.	58.	89.
6-10	17.	1.	6.	11.	9.
11-15	6.	0.	0.	1.	2.

16-20	1.	0.	1.	1.	1.
21-25	2.	1.	0.	0.	1.
26-30	3.	0.	0.	0.	1.
31-40	0.	1.	0.	0.	0.
41-50	2.	0.	0.	0.	1.
Over 50	0.	0.	0.	0.	0.

During the past year the unfiltered water was free from turbidity on 290 days or 79.4% of the time. The turbidity has never been above 50 parts per million.

Table showing TURBIDITY, in parts per million, unfiltered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	50.0	0.0	2.39
1910-11.....	40.0	0.0	.37
1911-12.....	19.0	0.0	.68
1912-13.....	20.0	0.0	.89
Avg. 4 yrs.....	32.2	0.0	1.08

The turbidity of the unfiltered water during the past year averaged less than one part per million.

Table showing range in ALKALINITY, in parts per million, unfiltered water, Bangor, Me.

Alkalinity parts per million	Year	Year	Year	Year	Avg. 4 yrs. Days
	1909-10 Days	1910-11 Days	1911-12 Days	1. 12-13 Days	
0-5	5.	0.	0.	0.	1.
6-10	305.	195.	82.	117.	175.
11-15	54.	162.	250.	247.	178.
16-20	0.	8.	32.	0.	10.
Over 20	0.	0.	1.	0.	1.

The alkalinity of the unfiltered water was 10 or less on 117 days or 32.0% of the time. The alkalinity was below 16 parts per million during the entire year.

Table showing ALKALINITY, in parts per million, unfiltered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	14.0	4.0	8.8
1910-11.....	17.0	8.0	11.4
1911-12.....	21.0	6.0	12.5
1912-13.....	15.0	7.0	11.3
Avg. 4 yrs.....	16.8	6.2	11.0

Owing to the low alkalinity it was necessary to use lime during the entire year in order to properly coagulate the water.

Table showing range of BACTERIA per c. c. unfiltered water, Bangor, Me.

Bacteria per c. c.	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-25	0.	0.	0.	0.	0.
26-50	0.	0.	0.	0.	0.
51-75	0.	0.	0.	0.	0.
76-100	2.	0.	0.	0.	1.
101-250	29.	1.	0.	0.	7.
251-500	106.	1.	0.	0.	27.
501-1000	60.	17.	0.	0.	19.
1001-2500	64.	193.	149.	209.	154.
2501-5000	50.	150.	184.	143.	132.
5001-10000	18.	3.	27.	11.	15.
10001-15000	6.	0.	4.	0.	3.
Over-15000	1.	0.	0.	0.	1.

The bacteria per c. c. in the unfiltered water were above 1000 during the entire year and above 10,000 per c. c. on 11 days or 3.1% of the time.

Table showing BACTERIA, per c. c. unfiltered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	15,750.	86.	1,725.
1910-11.....	6,050.	150.	2,452.
1911-12.....	11,600.	1,400.	3,286.
1912-13.....	7,800.	1,000.	2,349.
Avg. 4 yrs.....	10,300.	659.	2,453.

Mineral Analysis of Raw Water, Bangor, Maine

Date	Total Solids	Loss on Ignition	Mineral Residue	Silicon	Aluminum	Calcium	Magnesium	Sulphates	Iron
1912									
March 5	69	38	31	2.11	.95	5.93	4.28	18.99	.15
April 9	60	36	24	1.83	1.00	8.14	2.83	12.51	.15
May 2	58	41	17	1.80	.86	3.44	1.48	6.92	.15
June 3	70	45	25	2.98	1.45	3.30	2.45	6.03	.20
July 15	59	41	18	1.23	.80	4.73	3.90	7.10	.15
Aug. 5	55	41	14	1.19	1.05	6.02	1.43	10.14	.10
Sept. 13	73	51	22	1.37	1.01	6.44	2.20	8.09	.15
Oct. 3	69	55	14	1.75	1.29	6.09	2.62	9.24	.20
Nov. 6	58	45	13	1.66	1.35	5.23	2.32	14.09	.20
Dec. 3	65	45	20	2.13	1.06	5.52	2.73	8.34	.15
1913									
Jan.	52	31	21	1.61	.80	4.80	2.28	5.53	.15
Feb.	62	39	23	1.56	1.17	5.80	3.31	4.22	.15
Avg.	62.50	42.33	20.17	1.77	1.07	5.45	2.65	9.26	.16
1909-10	52.91	30.25	22.66	2.11	.71	4.61	1.72	3.41	.53
1910-11	65.66	41.25	24.33	2.17	1.32	5.49	2.80	6.61	.21
1911-12	68.33	45.08	23.25	1.89	.96	6.37	2.56	8.44	.17
1912-13	62.50	42.33	20.17	1.77	1.07	5.45	2.65	9.26	.16

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iro	BACTERIA	
						Hot	Cold		Free	Total Albuminoid	Nitrites	Nitrates	Total	Mineral	Volatile						per c.	Coli Commiss
1912																						
March 5	Raw	Slight	50	None	Slight	0	0	1.0	.0440	.1080	.0250	None	69	31	38	19.1	32.9	13	6	.15	3500	3-3
March 14	"	5.0	48	None	Slight	0	0	1.5	.0360	.1480	.0250	None	65	17	48	16.9	29.4	15	7	.15	3800	3-3
March 19	"	5.0	48	None	Considerable	0	0	1.5	.0260	.1360	.0250	None	62	24	38	12.8	32.9	12	7	.15	4800	2-3
March 25	"	None	58	None	Considerable	0	0	1.2	.0380	.1200	.0200	None	54	25	29	13.5	29.4	11	7	.20	4800	3-3
Avg.	"	2.5	51	None	.....	0	0	1.3	.0360	.1280	.0237	None	62.5	24.2	38.3	15.6	31.1	12.7	6.8	.16	4225	11-12
April 5	Raw	None	48	None	Considerable	0	0	1.5	.0360	.0960	.0150	None	61	26	35	11.8	29.4	11	5	.15	3000	3-3
April 9	"	5.0	50	None	Considerable	0	0	1.0	.0320	.1080	.0150	None	60	24	36	11.3	27.8	10	6	.15	2400	3-3
April 18	"	5.0	53	None	Considerable	0	0	1.3	.0320	.1100	.0250	None	61	28	33	10.6	31.1	10	5	.15	2800	1-3
April 24	"	7.0	58	None	Considerable	0	0	1.0	.0380	.1440	.0300	Trace	62	18	44	10.7	24.4	8	8	.20	4400	2-3
Avg.	"	4.2	52.2	None	.....	0	0	1.2	.0345	.1145	.0212	Trace	61	24	37	11.1	28.1	9.7	6	.16	3150	9-12
May 2	Raw	1.0	48	None	Slight	0	0	1.3	.0260	.1240	.0200	None	58	17	41	10.6	22.2	8	7	.15	3000	1-3
May 6	"	None	48	None	Slight	0	0	1.0	.0340	.1460	.0200	Trace	58	21	37	10.9	24.4	9	6	.15	3000	3-3
May 16	"	None	55	None	Considerable	0	0	1.0	.0400	.1260	.0150	Trace	48	15	33	13.1	27.5	9	5	.15	3100	2-3
May 21	"	None	58	None	Slight	0	0	1.0	.0400	.1100	.0150	Trace	47	15	32	12.4	23.1	9	6	.15	2200	2-3
May 28	"	None	58	None	Considerable	0	0	1.2	.0320	.1400	.0150	Trace	53	19	34	12.5	23.1	10	6	.15	2100	2-3
Avg.	"	.2	53.4	None	.....	0	0	1.1	.0344	.1292	.0170	Trace	52.8	17.4	35.4	11.9	24.0	9	6	.15	2680	10-15
June 3	Raw	5.0	76	None	Considerable	0	0	1.5	.0400	.1560	.0150	Trace	70	25	45	13.9	25.3	8	7	.20	4000	3-3
June 10	"	None	68	None	Slight	0	0	1.3	.0280	.1700	.0200	None	58	22	36	12.8	29.8	9	7	.10	2000	2-3
June 19	"	None	58	None	Slight	0	0	1.0	.0320	.1220	.0150	None	50	15	35	13.3	29.8	10	6	.15	2500	2-3
June 26	"	None	58	None	Slight	0	0	1.2	.0320	.1280	.0200	None	62	27	35	13.5	27.4	11	7	.15	3000	3-3
June 30	"	None	58	None	Slight	0	0	1.0	.0280	.1340	.0250	Trace	55	18	37	14.8	27.8	12	6	.15	1800	3-3
Avg.	"	1.0	63.6	None	.....	0	0	1.2	.0320	.1420	.0190	Trace	59.0	21.4	37.6	13.6	28.0	10	6.6	.15	2660	13-15
July 12	Raw	None	58	None	Slight	0	0	1.2	.0340	.1260	.0200	None	70	25	45	14.7	24.4	13	4	.15	3200	3-3
July 15	"	None	56	None	Slight	0	0	2.0	.0400	.1560	.0200	Trace	59	18	41	13.0	27.8	13	4	.15	2700	2-3
July 23	"	None	58	None	Considerable	0	0	1.2	.0300	.1420	.0200	Trace	63	17	46	14.4	28.9	12	3	.15	3500	3-3
July 29	"	None	58	None	Slight	0	0	1.5	.0320	.1260	.0250	None	60	18	42	13.1	28.9	12	4	.15	6000	3-3
Avg.	"	None	57.5	None	.....	0	0	1.4	.0340	.1375	.0212	Trace	63.0	19.5	43.5	13.8	27.5	12.5	3.7	.15	3850	11-12
Aug. 5	Raw	None	63	None	Slight	0	0	1.5	.0340	.1380	.0200	Trace	55	14	41	13.4	27.8	12	4	.10	2500	3-3
Aug. 13	"	None	75	None	Considerable	0	0	1.3	.0340	.1840	.0250	Trace	73	34	39	17.2	27.8	14	4	.15	2200	3-3
Aug. 19	"	None	116	None	Slight	0	0	2.0	.0380	.2240	.0200	Trace	72	23	49	19.8	33.3	11	4	.15	1800	3-3
Aug. 26	"	None	90	None	Considerable	0	0	1.5	.0240	.1540	.0200	Trace	68	26	42	16.2	27.8	13	4	.15	1500	3-3
Avg.	"	None	86	None	.....	0	0	1.6	.0325	.1750	.0212	Trace	67.0	24.2	42.8	16.6	29.2	12.5	4	.14	2000	12-12

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly (filling))	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Peque Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	Cold		Free	Total Albuminoid	Nitrites	Nitrates	Total	Mineral	Volatile						per c.	Coli Communis
1912																						
Sept. 13	Raw	None	65	None	Slight	0	0	1.0	.0400	.1380	.0200	Trace	73	22	51	17.4	28.9	13	5	.15	1400	2-3
Sept. 16	"	None	60	None	Slight	0	0	1.2	.0380	.1960	.0250	Trace	66	21	45	14.7	27.8	13	5	.15	1800	3-3
Sept. 23	"	None	75	None	Considerable	0	0	1.5	.0360	.1640	.0200	None	63	13	50	15.9	25.6	13	5	.15	1900	3-3
Avg.	"	None	66.6	None	.....	0	0	1.2	.0380	.1660	.0216	Trace	67.3	18.6	48.7	15.6	27.4	13	5	.15	1700	8-9
Oct. 3	Raw	None	75	None	Slight	0	0	2.0	.0300	.1700	.0300	None	69	14	55	16.0	28.9	13	5	.20	2400	3-3
Oct. 7	"	None	85	None	Slight	0	0	1.5	.0320	.1920	.0300	None	65	18	47	16.9	30.2	12	5	.20	1800	3-3
Oct. 16	"	None	80	None	Slight	0	0	2.0	.0320	.1680	.0250	None	72	20	52	19.0	31.3	13	5	.25	1200	3-3
Oct. 21	"	None	75	None	Slight	0	0	1.5	.0440	.1580	.0250	None	66	25	41	16.7	30.2	13	5	.20	1200	3-3
Oct. 28	"	None	120	None	Considerable	0	0	2.0	.0440	.1940	.0250	None	77	33	44	18.8	26.7	9	5	.20	3000	3-3
Avg.	"	None	87	None	.....	0	0	1.8	.0384	.1764	.0270	None	69.8	22.0	47.8	17.5	29.4	12	5	.21	1920	15-15
Nov. 6	Raw	None	95	None	None	0	0	2.0	.0560	.1380	.0200	None	58	13	45	17.0	29.4	10	6	.20	2200	2-3
Nov. 12	"	None	140	None	None	0	0	1.3	.0280	.1500	.0150	None	66	23	43	14.3	25.9	10	5	.20	5000	2-3
Nov. 18	"	None	75	None	Slight	0	0	1.5	.0260	.1680	.0200	None	58	13	45	15.6	29.4	9	4	.20	2000	3-3
Nov. 25	"	None	75	None	Slight	0	0	1.5	.0380	.1640	.0250	None	50	17	33	13.6	29.8	9	5	.15	1900	3-3
Avg.	"	None	96.2	None	.....	0	0	1.5	.0370	.1550	.0200	None	58	16.5	41.5	15.1	28.6	9.5	5	.18	2775	10-12
Dec. 3	Raw	2	65	None	None	0	0	1.5	.0260	.1620	.0200	None	65	20	45	15.2	29.8	10	5	.15	3000	3-3
Dec. 16	"	None	68	None	None	0	0	2.0	.0300	.1480	.0200	Trace	61	24	37	14.3	27.8	11	5	.15	1600	3-3
Dec. 11	"	None	65	None	Considerable	0	0	2.0	.0440	.1620	.0200	None	67	28	39	16.2	27.4	10	5	.15	1800	3-3
Dec. 22	"	None	60	None	None	0	0	1.5	.0340	.1160	.0250	Trace	54	23	31	14.9	27.8	12	4	.20	2500	2-3
Avg.	"	.5	64.5	None	.....	0	0	1.7	.0360	.1470	.0212	Trace	61.7	23.7	38.0	15.1	28.2	10.7	3.8	.13	2225	11-12
1913																						
Jan. 3	Raw	None	58	None	Slight	0	0	2.0	.0320	.1540	.0250	None	58	21	37	16.6	27.8	12	5	.15	3300	2-3
Jan. 9	"	None	60	None	None	0	0	2.0	.0480	.0980	.0250	None	52	21	31	19.1	27.0	11	4	.15	5900	3-3
Jan. 13	"	None	60	None	None	0	0	1.5	.0360	.1560	.0150	None	55	25	30	15.7	25.9	12	4	.15	4000	2-3
Jan. 20	"	None	58	None	Slight	0	0	2.0	.0400	.1460	.0200	Trace	57	19	38	14.3	27.0	12	5	.15	4600	2-3
Jan. 27	"	None	58	None	Considerable	0	0	2.0	.0460	.1100	.0150	Trace	49	20	29	10.6	25.9	11	5	.15	2000	3-3
Avg.	"	None	58.8	None	.....	0	0	1.9	.0404	.1323	.0200	Trace	54.2	21.2	33.0	15.2	26.7	11.6	4.6	.15	3960	12-15
Feb. 7	Raw	None	58	None	Considerable	0	0	1.5	.0520	.1600	.0200	Trace	62	23	39	13.9	27.8	12	5	.15	2000	1-3
Feb. 12	"	None	58	None	None	0	0	1.5	.0440	.1360	.0200	Trace	63	23	40	16.7	27.8	13	5	.15	2200	2-3
Feb. 19	"	None	58	None	None	0	0	2.0	.0420	.1400	.0200	Trace	60	25	35	20.9	28.9	14	5	.15	2400	3-3
Feb. 25	"	None	56	None	None	0	0	1.5	.0420	.1240	.0200	Trace	64	24	40	17.9	25.6	14	6	.15	3500	2-3
Avg.	"	None	57.5	None	.....	0	0	1.6	.0450	.1400	.0200	Trace	62.2	23.7	38.5	17.3	22.0	13.2	5.2	.15	2525	8-12

The average number of bacteria per c. c. in the unfiltered water was 20.2% less than during the previous year.

The maximum number of bacteria per c. c. in the unfiltered water was 32.8% less than during the previous year.

Table showing tests for B. COLI-COMMUNIS, in 1 c. c. samples, unfiltered water, Bangor, Me.

Year	Samples examined	Positive	Per cent positive
1909-10	1042.	644.	61.9%
1910-11	1041.	795.	76.4%
1911-12	1045.	921.	88.1%
1912-13	1002.	862.	86.0%
Avg. 4 yrs.....	1035.	806.	77.8%

The results indicate that B. Coli-communis in the unfiltered water was 2.39% less than in the previous year.

A mineral analysis of the unfiltered water is made once a month, the results show an increase in the sulphate content of the water.

A complete sanitary examination of the unfiltered water is made every week, the results averaged by months, will be found in the following table.

There is a coagulation basin having two compartments, the combined capacity being 1,500,000 gallons. The coagulants are added to the water before it enters the basins.

Sulphate of alumina is used as a coagulant and because of the low alkalinity of the unfiltered water it is necessary to add an alkali, lime water being used.

The sulphate of alumina is purchased on specifications, the requirements being as follows:

Alumina (Al ₂ O ₃) not less than	17.50%
Acid (SO ₃) not more than	37.50%
Iron (Fe ₂ O ₃) not more than .....	.40%
Water (H ₂ O) not more than	47.00%
Insoluble matter, not more than .....	.25%

It is understood that if the Alumina (Al_2O_3) is over 17.50% the Sulphates (SO_3) and Iron (Fe_2O_3) may be increased in proportion.

If the results of the analyses show the Alumina (Al_2O_3) to be below 17.5% and over 17.0% a deduction of eight cents per hundred pounds shall be made. If the Alumina (Al_2O_3) is below 17.0% and above 16.5% a deduction of fifteen cents per hundred pounds shall be made.

For each .25% or fraction thereof of Iron (Fe_2O_3) above .40% a reduction of five cents per hundred pounds shall be made.

Table showing the percentage composition of the various shipments of Sulphate Alumina used during the year, Bangor, Me.

Date 1912	Alumina (Al_2O_3)	Iron (Fe_2O_3)	Acid (SO_3)	Water (H_2O)	Insoluble
March.	17.50	.24	40.68	41.38	.11
April.	18.01	.39	40.56	41.30	.14
May	18.49	.46	40.13	41.89	.13
June	18.41	.28	41.44	41.52	.08
July.	18.75	.25	40.55	41.92	.11
August.	19.40	.46	40.71	40.96	.07
Sept.	18.70	.39	40.61	40.84	.11
Oct.	19.09	.35	41.01	40.21	.05
Nov.	18.31	.28	41.19	40.17	.05
Dec.	18.61	.39	40.46	40.71	.09
Jan., 1913.	19.05	.39	42.03	40.20	.13
Feb.	17.62	.42	40.57	40.62	.10
Avg.	18.49	.37	40.83	40.97	.10

The above sulphate of alumina was furnished by the Pennsylvania Salt Mfg. Co., Philadelphia, Penna.

Table showing the average composition of Sulphate of Alumina used Bangor, Me.

Year	Alumina	Iron	Acid	Water	Insoluble
1909-10	16.96	1.98	39.50	41.18	.10
1910-11	18.18	.82	39.30	41.06	.09
1911-12	17.75	.32	40.19	41.36	.16
1912-13	18.49	.37	40.83	40.97	.10

The purchasing of the sulphate of alumina on specifications has resulted in securing a more uniform composition, and an alumina containing a small amount of iron and high alumina oxide.

Table showing average amount of Sulphate of Alumina and lime used, grains per gallon, Bangor, Me.

Year	Alumina	Lime
1909-10	1.57	.31
1910-11	1.43	.23
1911-12	2.03	.17
1912-13	2.05	.14

The average amount of sulphate of alumina used increased .02 grains per gallon equal to 2.83 pounds per million gallons.

The average amount of lime used decreased .03 grs. per gallon or 4.29 pounds per million gallons.

The coagulation basins remove a large percentage of the bacteria.

Bacteria removed by coagulation basins, Bangor, Me.

Year	Removed
1909-10	66.21%
1910-11	79.04%
1911-12	82.66%
1912-13	88.64%

In 1911 some baffles were placed in the coagulation basins and since that time it is noted that they removed a larger percentage of the bacteria.

Table showing range of BACTERIA per c. c., coagulated water, Bangor, Me.

Bacteria per c. c.	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-25	33.	0.	0.	0.	8.
26-50	26.	0.	0.	0.	7.
51-75	22.	1.	0.	0.	6.
76-100	17.	24.	0.	2.	11.
101-250	62.	78.	20.	129.	72.
251-500	69.	114.	186.	168.	134.
501-1000	51.	118.	111.	54.	84.
1001-2500	47.	25.	17.	9.	25.
2501-5000	10.	2.	2.	0.	3.
5001-10000	3.	0.	0.	0.	1.
Over 10000	0.	0.	0.	0.	0.

The water passing the coagulation basins contained less than 1000 bacteria per c. c. on 353 days or 96.7% of the time.

No calcium hypochlorite or other sterilizing agent was used in the operation of the plant during the year.

Table showing the BACTERIA, per c. c. in the water after passing the coagulation basins, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10	5,700.	4.	583.
1910-11	3,100.	75.	515.
1911-12	5,000.	185.	570.
1912-13	1,300.	100.	365.
Avg. 4 yrs	3,525.	91.	483.

The average number of bacteria per c. c. passing the basins was 36.0% less than in the previous year.

The results show that the coagulation basins are a very important part of the system.

The new filter plant has continued to be a success. The results obtained are even better than during the previous year.

Weekly sanitary analysis of the filtered water are made, and once a month a mineral analysis is made. The results of the mineral analysis and also the results of the monthly

average of the sanitary analysis will be found in the following tables.

The results of the sanitary analysis of the filtered water show that during the year the free ammonia has been 2.3% less; albuminoid ammonia 2.7% less; required oxygen 17.4% less; color 1.4% less than in the previous year. The chlorine content has remained the same, as in the previous year.

A detail comparative study of the quality of the filtered water is very interesting and shows that its quality has been satisfactory during the year and that the water is well suited for domestic use, including drinking purposes.

Table showing range in ALKALINITY, in parts per million, filtered water, Bangor, Me.

Alkalinity parts per million	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-5	358.	291.	331.	365.	336.
6-10	6.	73.	34.	0.	28.
11-15	0.	1.	0.	0.	1.
Over 15	0.	0.	0.	0.	0.

The filtered water always has some alkalinity, the amount always being about 3 parts per million.

Table showing ALKALINITY, in parts per million, filtered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10	7.0	1.0	3.1
1910-11	12.0	3.0	4.6
1911-12	9.0	3.0	4.1
1912-13	5.0	3.0	3.5
Avg. 4 yrs	8.2	2.5	3.8

In order to maintain the alkalinity in the filtered water it was necessary to add lime water to the raw supply during the entire year.

Table showing range in TURBIDITY, in parts per million, filtered water, Bangor, Me.

Turbidity parts per million	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-0	163.	259.	351.	365.	285.
1-5	200.	106.	15.	0.	80.
6-10	2.	0.	0.	0.	1.
Over 10	0.	0.	0.	0.	0.

The filtered water has been free from turbidity during the entire year.

Table showing TURBIDITY, in parts per million, filtered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	6.00	0.00	1.01
1910-11.....	1.00	0.00	.29
1911-12.....	1.00	0.00	.03
1912-13.....	0.00	0.00	.00
Avg. 4 yrs.....	2.00	0.00	.33

The turbidity of the filtered water, when operating the old filter plant was due to alumina hydrate. During the past year there has been no turbidity in the filtered water and the log-wood and boiling tests show the water to be free from alumina.

The color of the unfiltered water was 17.8% higher than during the previous year, but the color of the filtered water was 1.4% less than in the previous year.

Table showing range in COLOR, in parts per million, filtered water, Bangor, Me.

Color parts per million	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-20	46.	259.	364.	365.	258.
21-30	175.	34.	1.	0.	53.
31-40	66.	43.	1.	0.	27.
41-50	41.	28.	0.	0.	29.
51-60	26.	1.	0.	0.	7.
Over 60	9.	0.	0.	0.	1.

Mineral Analysis of Tap Water, Bangor, Maine

Date	Total Solids	Loss on Ignition	Mineral Residue	Silicon	Aluminum	Calcium	Magnesium	Sulphates	Iron
1912									
March 5	68	29	39	2.21	1.20	6.86	3.86	27.91	.10
April 9	61	34	27	2.68	1.25	9.86	3.86	25.10	.10
May 2	58	31	27	1.09	1.31	4.31	2.23	21.99	.10
June 3	66	32	34	1.09	1.91	4.30	2.06	29.20	.15
July 15	67	34	33	.90	1.37	6.44	1.39	30.39	.10
Aug. 5	57	28	29	.95	.66	6.09	1.12	26.85	.05
Sept. 13	79	43	36	1.00	1.21	6.87	1.98	24.71	.10
Oct. 3	73	41	32	1.18	1.58	6.94	2.42	23.64	.10
Nov. 6	71	39	32	1.42	1.96	6.59	2.54	32.53	.10
Dec. 3	58	25	33	1.61	1.37	5.73	2.26	21.66	.10
1913									
Jan.	56	28	28	1.51	1.05	6.45	1.89	35.74	.10
Feb.	60	27	33	1.37	1.36	7.87	3.01	28.08	.10
AVG.	64.50	32.58	31.92	1.42	1.35	6.53	2.39	27.32	.10
1909-10	60.58	25.08	34.66	1.74	1.81	6.43	1.72	19.14	.18
1910-11	56.00	39.50	27.91	1.77	2.48	6.03	2.13	19.20	.16
1911-12	68.00	35.42	32.58	1.55	1.27	8.14	2.56	26.56	.10
1912-13	64.50	32.58	31.92	1.42	1.35	6.53	2.39	27.32	.10

The color of the filtered water was below 20 parts per million during the entire year.

Table showing COLOR, in parts per million, filtered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	70.0	4.0	32.0
1910-11.....	53.0	5.0	20.0
1911-12.....	31.0	1.0	7.3
1912-13.....	15.0	4.0	7.2
	—	—	—
Avg. 4 yrs.....	39.7	3.5	16.6

The maximum color of the filtered water was 51.8% less than in the previous year. The average color was 1.4% less.

The bacterial content of the filtered water also shows improvement.

Table showing range in BACTERIA, per c. c. filtered water, Bangor, Me.

Bacteria per c. c.	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-25	101.	26.	28.	164.	80.
26-50	30.	33.	171.	157.	98.
51-75	21.	11.	89.	26.	36.
76-100	20.	5.	28.	15.	17.
101-250	70.	144.	41.	1.	64.
251-500	55.	105.	10.	0.	42.
501-1000	31.	24.	0.	0.	14.
Over 1000	18.	7	0.	0.	6.

The bacteria in the filtered water were less than 101 per c. c. on 362 days or 99.2% of the time; below 26 per c. c. on 164 days or 45% of the time.

The bacterial efficiency of the plant was 98.79%.

Table showing BACTERIA, per c. c. filtered water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10	3,060.	2.	248.
1910-11	1,500.	10.	240.
1911-12	390.	18.	67.
1912-13	120.	10.	32.
Avg. 4 yrs.	1,242	10.	147.

The maximum number of bacteria per c. c. in the filtered water was 69.23% less than in the previous year; the minimum was 44.45% less, while the average was 52.5% less.

Table showing tests for B. COLI-COMMUNIS, in 1 c. c. samples, filtered water, Bangor, Me.

Year	Samples examined	Positive	Per-cent positive
1909-10	1042.	76.	7.29%
1910-11	1050.	85.	8.09%
1911-12	1051.	22.	2.09%
1912-13	1005.	9.	.89%
Avg. 4 yrs.	1037.	48.	4.62%

B. Coli-communis was present in the filtered water in less than 1% of the samples examined, the reduction from the previous year being 57.42%. These results show the excellent quality of the filtered water.

Samples of water are collected from a city tap for examination every day. Once a week a complete sanitary examination is made, and once a month a mineral analysis is made.

The results of these examinations also show an improvement in the quality of the water.

The following tables give the results of the mineral analysis and the monthly average of the sanitary examinations.

Table showing range in TURBIDITY, in parts per million, tap water, Bangor, Me.

Turbidity	Year	Year	Year	Year	Avg.
parts per million	1909-10	1910-11	1911-12	1912-13	4 yrs.
	Days	Days	Days	Days	Days
0-0	243.	364.	366.	365.	334.
1-5	111.	1.	0.	0.	28.

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly) (falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	Cold		Free	Total Albuminoid	Nitrates	Nitrites	Total	Mineral	Volatile						per c. c.	Coli Communis
1912																						
March	Tap	0	7.7	0	0	0	0	1.3	.0235	.0540	.0250	None	65.2	33.2	32.0	6.8	38.2	4.0	14.5	.11	54	0-12
April	"	0	6.0	0	0	0	0	1.2	.0170	.0355	.0162	Trace	59.5	29.0	30.5	3.5	38.5	3.5	16.5	.10	13	0-12
May	"	0	5.4	0	0	0	0	1.1	.0240	.0700	.0180	Trace	57.8	28.0	29.8	3.8	33.7	3.2	15.6	.10	16	0-15
June	"	0	7.2	0	0	0	0	1.2	.0204	.0632	.0160	Trace	60.6	32.4	28.2	4.0	35.1	4.0	15.8	.09	29	0-15
July	"	0	5.7	0	0	0	0	1.3	.0180	.0490	.0175	Trace	64.7	31.7	33.0	4.8	36.7	5.2	8.7	.08	36	0-12
Aug.	"	0	9.7	0	0	0	0	1.5	.0200	.0830	.0162	Trace	64.0	33.0	31.0	5.6	35.8	4.0	8.5	.07	19	0-12
Sept.	"	0	7.3	0	0	0	0	1.2	.0233	.0893	.0150	Trace	72.6	35.3	37.3	6.6	36.6	4.0	10.0	.10	20	0-9
Oct.	"	0	10.2	0	0	0	0	1.9	.0260	.0772	.0210	None	71.6	36.4	35.2	7.4	38.9	3.6	10.0	.10	17	0-15
Nov.	"	0	14.2	0	0	0	0	1.6	.0225	.0755	.0212	Trace	62.0	31.2	30.8	5.7	40.7	3.5	13.2	.08	36	0-12
Dec.	"	0	7.0	0	0	0	0	1.7	.0300	.0785	.0212	Trace	62.2	35.2	27.0	5.6	37.4	4.0	13.2	.10	19	0-12
1913																						
Jan.	"	0	7.0	0	0	0	0	1.9	.0228	.0712	.0220	Trace	61.2	31.4	29.8	5.1	39.1	4.2	13.0	.09	34	0-15
Feb.	"	0	6.2	0	0	0	0	1.6	.0375	.0630	.0225	Trace	66.5	37.2	29.3	6.8	36.4	4.2	12.5	.08	30	0-12
Avg.	Tap	0	7.7	0	0	0	0	1.5	.0237	.0616	.0193	Trace	64.0	32.8	31.2	5.5	37.3	4.4	12.6	.09	27	0-153

The turbidity in the city tap water, up to 1912, was due to aluminum hydrate which had passed the old filters.

Table showing TURBIDITY, in parts per million, tap water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	5.0	0.0	0.15
1910-11.....	1.0	0.0	0.00
1911-12.....	0.0	0.0	0.00
1912-13.....	0.0	0.0	0.00
Avg. 4 yrs.....	1.5	0.0	0.04

During the past two years the turbidity of the city tap water had been zero.

Table showing range in COLOR, in parts per million, tap water, Bangor, Me.

Color parts per million	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-20	33.	247.	364.	363.	252.
21-30	145.	52.	2.	1.	50.
31-40	94.	42.	0.	0.	34.
Over 40	31.	0.	0.	0.	8.

The color was below 20 parts per million on 363 days or 99.5% of the time.

Table showing COLOR, in parts per million, tap water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	100. *	4.	35.0
1910-11.....	50.	9.	21.0
1911-12.....	22.	3.	7.3
1912-13.....	22.	4.2	7.5
Avg. 4 yrs.....	49.	5.	17.7

*High color due to flushing mains.

The color of the city tap water has remained about the same as the previous year.

Table showing range in BACTERIA per c. c. tap water, Bangor, Me.

Bacteria per c. c.	Year 1909-10 Days	Year 1910-11 Days	Year 1911-12 Days	Year 1912-13 Days	Avg. 4 yrs. Days
0-25	128.	30.	79.	213.	112.
26-50	32.	41.	174.	128.	94.
51-75	21.	4.	62.	13.	25.
76-100	17.	54.	16.	7.	23.
101-250	74.	104.	18.	0.	49.
251-500	39.	98.	11.	0.	35.
501-1000	19.	24.	0.	0.	11.
Over 1000	10.	8.	0.	0.	5.

The bacteria in the tap water were less than 101 per c. c. on 365 days or 100% of the time; and less than 51 per c. c. on 341 days or 93.4% of the time.

Table showing BACTERIA, per c. c. tap water, Bangor, Me.

Year	Maximum	Minimum	Average
1909-10.....	1,970.	1.	175.
1910-11.....	1,400.	10.	238.
1911-12.....	500.	10.	54.
1912-13.....	100.	6.	26.
Avg. 4 yrs.....	993.	7.	123.

The maximum number of bacteria per c. c. in the tap water was 80.0% less; while the average was 51.9% less than during the previous year.

The bacteria decreased 18.75% in passing through the mains from the filter plant to the city tap.

Table showing tests for B. COLI-COMMUNIS, in 1 c. c. samples, tap water, Bangor, Me.

Year	Samples examined	Positive	Per-cent positive
1909-10.....	1040.	16.	1.53%
1910-11.....	1047.	37.	3.53%
1911-12.....	1048.	5.	.47%
1912-13.....	1005.	1.	.09%
Avg. 4 yrs.....	1035.	15.	1.44%

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Co'or	Taste	Sediment (quickly) (falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardn ss	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	C'ld		Free	Total Albuminoid	Nitrites	Nitrates	Total	Mineral	Volatile						pe' c. c.	Coli Communis
1912																						
March	Raw	2.5	51.0	None	.....	0	0	1.3	.0360	.1280	.0237	None	62.5	24.2	38.3	15.6	31.1	12.7	6.8	.16	4225	11-12
April	"	4.2	52.2	None	.....	0	0	1.2	.0345	.1145	.0212	Trace	61.0	24.0	37.0	11.1	28.1	9.7	6.0	.16	3150	9-12
May	"	0.2	53.4	None	.....	0	0	1.1	.0344	.1292	.0170	Trace	52.8	17.4	35.4	11.9	24.0	9.0	6.0	.15	2680	10-15
June	"	1.0	63.6	None	.....	0	0	1.2	.0320	.1420	.0190	Trace	59.0	21.4	37.6	13.6	28.0	10.0	6.6	.15	2660	13-15
July	"	0.0	57.5	None	.....	0	0	1.4	.0340	.1375	.0212	Trace	63.0	19.5	43.5	13.8	27.5	12.5	3.7	.15	3850	11-12
August	"	0.0	86.0	None	.....	0	0	1.6	.0325	.1750	.0212	Trace	67.0	24.2	42.8	16.6	29.2	12.5	4.0	.14	2000	12-12
Sept.	"	0.0	66.6	None	.....	0	0	1.2	.0380	.1660	.0216	Trace	67.3	18.6	48.7	15.6	27.4	13.0	5.0	.15	1700	8-9
Oct.	"	0.0	87.0	None	.....	0	0	1.8	.0384	.1764	.0270	Trace	69.8	22.0	47.8	17.5	29.4	12.0	5.0	.21	1920	15-15
Nov.	"	0.0	96.2	None	.....	0	0	1.5	.0370	.1550	.0200	None	58.0	16.5	41.5	15.1	28.6	9.5	5.0	.18	2775	10-12
Dec.	"	.5	64.5	None	.....	0	0	1.7	.0360	.1470	.0212	Trace	61.7	23.7	38.0	15.1	28.2	10.7	3.8	.13	2225	11-12
1913																						
Jan.	"	0.0	58.8	None	.....	0	0	1.9	.0404	.1328	.0200	Trace	54.2	21.2	33.0	15.2	26.7	11.6	4.6	.15	3960	12-15
Feb.	"	0.0	57.5	None	.....	0	0	1.6	.0450	.1400	.0200	Trace	62.2	23.7	38.5	17.3	22.0	13.2	5.2	.15	2525	8-12
Avg.	Raw	.7	66.2	None	.....	0	0	1.5	.0374	.1453	.0211		61.5	21.4	40.1	14.9	27.5	11.4	5.2	.16	2804	131-153

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly falling)	ODOR			AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	Cold	Chlorine	Free	Total Albuminoid	Nitrites	Nitrates	Total	Mineral	Volatile						per c.	Coli Communis
1912																						
Sept. 13	Tap	0	7	0	0	0	0	1.0	.0220	.0860	.0150	Trace	79	36	43	6.3	36.7	4.0	10	.10	14	0-3
Sept. 16	"	0	8	0	0	0	0	1.2	.0240	.0900	.0150	Trace	69	35	39	6.6	40.0	4.0	10	.10	24	0-3
Sept. 23	"	0	7	0	0	0	0	1.5	.0240	.0920	.0150	None	70	35	35	6.9	33.3	4.0	10	.10	22	0-3
Avg.	Tap	0	7.3	0	0	0	0	1.2	.0233	.0893	.0150	Trace	72.6	35.3	37.3	6.6	36.6	4.0	10	.10	20	0-9
Oct. 3	Tap	0	9	0	0	0	0	2.0	.0300	.0740	.0250	None	73	32	41	8.4	36.7	4.0	12	.10	14	0-3
Oct. 7	"	0	9	0	0	0	0	2.0	.0200	.0820	.0200	None	68	38	30	6.9	37.2	4.0	11	.10	20	0-3
Oct. 16	"	4	9	0	0	0	0	2.0	.0160	.0780	.0200	None	80	35	45	7.6	38.4	4.0	11	.10	10	0-3
Oct. 20	"	0	9	0	0	0	0	1.5	.0400	.0760	.0200	None	72	38	34	7.3	41.9	4.0	10	.10	14	0-3
Oct. 28	"	0	15	0	0	0	0	2.0	.0240	.0760	.0200	None	65	39	26	7.0	40.7	3.0	10	.10	28	0-3
Avg,	Tap	0	10.2	0	0	0	0	1.9	.0260	.0772	.0210	None	71.6	36.4	35.2	7.4	38.9	3.6	10.8	.10	17	0-15
Nov. 6	Tap	0	15	0	0	0	0	2.0	.0320	.0560	.0250	None	71	32	39	5.6	41.2	4.0	13	.10	24	0-3
Nov. 12	"	0	22	0	0	0	0	1.3	.0200	.0960	.0200	None	66	32	34	6.7	41.2	4.0	14	.10	66	0-3
Nov. 18	"	0	10	0	0	0	0	1.8	.0180	.0800	.0200	None	59	29	30	5.3	41.2	3.0	12	.10	24	0-3
Nov. 25	"	0	10	0	0	0	0	1.5	.0200	.0700	.0200	Trace	52	32	20	5.2	39.3	3.0	14	.05	30	0-3
Avg.	Tap	0	14.2	0	0	0	0	1.65	.0225	.0755	.0212	Trace	62.0	31.2	30.8	5.7	40.7	3.5	13.2	.08	36	0-12
Dec. 3	Tap	0	6	0	0	0	0	1.5	.0440	.0700	.0200	None	58	33	25	6.2	35.7	4.0	14	.10	20	0-3
Dec. 11	"	0	8	0	0	0	0	2.0	.0180	.0720	.0200	None	66	38	28	5.0	41.7	4.0	14	.10	20	0-3
Dec. 16	"	0	8	0	0	0	0	2.0	.0280	.0860	.0200	Trace	60	35	25	6.0	35.6	4.0	13	.10	18	0-3
Dec. 22	"	0	6	0	0	0	0	1.5	.0300	.0860	.0250	Trace	65	35	30	5.2	36.7	4.0	12	.10	18	0-3
Avg.	Tap	0	7	0	0	0	0	1.75	.0300	.0785	.0212	Trace	62.2	35.2	27.0	5.6	37.4	4.0	13.2	.10	19	0-12
1913																						
Jan. 3	Tap	0	7	0	0	0	0	2.0	.0260	.0580	.0250	None	63	30	33	6.5	36.7	5.0	12	.10	30	0-3
Jan. 9	"	0	7	0	0	0	0	2.0	.0240	.0640	.0250	None	56	28	28	5.7	38.8	4.0	12	.10	60	0-3
Jan. 13	"	0	8	0	0	0	0	1.5	.0140	.0920	.0200	None	69	35	34	4.8	37.6	4.0	15	.10	38	0-3
Jan. 20	"	0	6	0	0	0	0	2.0	.0240	.0660	.0250	Trace	62	33	29	4.9	41.1	4.0	13	.05	30	0-3
Jan. 27	"	0	7	0	0	0	0	2.0	.0260	.0760	.0150	Trace	56	31	25	3.6	41.2	4.0	13	.10	14	0-3
Avg.	Tap	0	7	0	0	0	0	1.9	.0228	.0712	.0220	Trace	61.2	31.4	29.8	5.1	39.1	4.2	13	.09	34	0-15
Feb. 7	Tap	0	7	0	0	0	0	1.5	.0360	.0660	.0200	Trace	60	33	27	4.9	36.7	4.0	12	.10	18	0-3
Feb. 12	"	0	6	0	0	0	0	1.5	.0340	.0700	.0200	Trace	66	37	29	5.6	38.9	4.0	12	.10	18	0-3
Feb. 19	"	0	6	0	0	0	0	2.0	.0420	.0760	.0250	Trace	72	37	35	8.4	35.6	4.0	13	.05	36	0-3
Feb. 25	"	0	6	0	0	0	0	1.5	.0380	.0400	.0250	Trace	68	42	26	8.3	34.4	5.0	13	.10	48	0-3
Avg.	Tap	0	6.2	0	0	0	0	1.6	.0375	.0630	.0225	Trace	66.5	37.2	29.3	6.8	36.4	4.2	12.5	.08	30	0-12

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	Cold		Free	Total Albuminoid	Nitrates	Nitrites	Total	Mineral	Volatile						per c.	Coli Communis
1912																						
Mar. 5	Tap	0	9	0	0	0	0	1.0	.0240	.0540	.0300	None	68	39	29	9.0	41.2	4	13	.10	60	0-3
Mar. 14	"	0	7	0	0	0	0	1.5	.0260	.0580	.0250	None	67	29	38	8.9	33.1	4	13	.10	40	0-3
Mar. 19	"	0	6	0	0	0	0	1.5	.0240	.0640	.0250	None	67	31	36	5.2	41.2	4	15	.10	40	0-3
Mar. 25	"	0	8	0	0	0	0	1.2	.0200	.0400	.0200	None	59	34	25	4.3	37.6	4	17	.15	74	0-3
Avg.	"	0	7.7	0	0	0	0	1.3	.0235	.0540	.0250	None	65.2	33.2	32.0	6.8	38.2	4	14.5	.11	54	0-12
April 5	Tap	0	5	0	0	0	0	1.5	.0160	.0380	.0150	None	61	34	27	4.4	37.6	4	16	.10	14	0-3
April 9	"	0	6	0	0	0	0	1.0	.0140	.0400	.0150	None	61	27	34	3.8	38.9	3	16	.10	10	0-3
April 18	"	0	6	0	0	0	0	1.3	.0160	.0380	.0200	None	55	28	27	3.5	38.9	4	16	.10	10	0-3
April 24	"	0	7	0	0	0	0	1.0	.0220	.0360	.0150	Trace	61	27	34	3.5	38.9	3	18	.10	18	0-3
Avg.	"	0	6	0	0	0	0	1.2	.0170	.0355	.0162	Trace	59.5	29.0	30.5	3.5	38.5	3.5	16.5	.10	13	0-12
May 2	Tap	0	5	0	0	0	0	1.3	.0220	.0760	.0200	None	58	27	31	4.4	33.3	3	17	.10	10	0-3
May 6	"	0	5	0	0	0	0	1.0	.0280	.0480	.0200	Trace	62	29	33	3.5	35.6	4	16	.10	20	0-3
May 16	"	0	6	0	0	0	0	1.2	.0300	.0860	.0150	Trace	60	30	30	3.6	32.9	3	16	.10	10	0-3
May 21	"	0	6	0	0	0	0	1.0	.0220	.0520	.0150	Trace	57	23	34	3.8	34.1	3	15	.10	12	0-3
May 28	"	0	5	0	0	0	0	1.2	.0180	.0880	.0200	Trace	52	31	21	3.9	32.9	3	14	.10	26	0-3
Avg.	"	0	5.4	0	0	0	0	1.1	.0240	.0700	.0180	Trace	57.8	28.0	29.8	3.8	33.7	3.2	15.6	.10	16	0-15
June 3	Tap	0	10	0	0	0	0	1.5	.0260	.0780	.0200	Trace	66	34	32	4.4	32.9	4	17	.15	50	0-3
June 10	"	0	7	0	0	0	0	1.3	.0290	.1020	.0200	None	64	34	30	3.2	39.3	4	16	.05	20	0-3
June 19	"	0	6	0	0	0	0	1.0	.0290	.0360	.0100	None	54	27	27	4.7	35.7	4	15	.10	20	0-3
June 26	"	0	7	0	0	0	0	1.2	.0160	.0560	.0150	None	61	36	25	3.3	33.3	4	16	.05	42	0-3
June 30	"	0	6	0	0	0	0	1.0	.0120	.0540	.0150	None	58	31	27	4.4	34.4	4	15	.10	14	0-3
Avg.	"	0	7.2	0	0	0	0	1.2	.0204	.0632	.0160	Trace	60.6	32.4	28.2	4.0	35.1	4	15.8	.09	29	0-15
July 12	Tap	0	6	0	0	0	0	1.5	.0180	.0520	.0200	None	70	38	32	6.3	33.3	5	9	.10	42	0-3
July 15	"	0	5	0	0	0	0	2.0	.0220	.0560	.0150	Trace	67	33	34	4.2	35.6	4	8	.10	38	0-3
July 23	"	0	6	0	0	0	0	1.2	.0160	.0420	.0150	Trace	59	24	35	4.4	38.9	4	7	.10	20	0-3
July 29	"	0	6	0	0	0	0	1.5	.0160	.0460	.0200	None	63	32	31	4.4	38.9	4	9	.05	42	0-3
Avg.	"	0	5.7	0	0	0	0	1.3	.0180	.0490	.0175	Trace	64.7	31.7	33.0	4.8	36.7	5.2	8.7	.08	36	0-12
August 5	Tap	0	6	0	0	0	0	1.5	.0200	.0720	.0150	Trace	57	29	28	4.6	34.4	4	7	.05	16	0-3
August 13	"	0	8	0	0	0	0	1.3	.0260	.1020	.0200	Trace	67	35	32	5.1	33.3	4	8	.10	22	0-3
August 19	"	0	15	0	0	0	0	2.0	.0200	.1100	.0150	Trace	66	32	34	7.6	38.9	4	10	.10	24	0-3
August 26	"	0	10	0	0	0	0	1.5	.0140	.0480	.0150	Trace	66	36	30	5.1	36.7	4	9	.05	14	0-3
Avg.	"	0	9.7	0	0	0	0	1.5	.0200	.0830	.0162	Trace	64	33	31	5.6	35.8	4	8.5	.07	19	0-12

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Ho.	Co.I		Free	Total Albuminoid	Nitrates	Nitrites	Total	Mineral	Volatile						per c. c.	Coli Communis
1912																						
Mar. 5	Filtered	0	8	0	0	0	0	1.0	.0280	.0380	.0300	None	64	34	30	8.4	41.2	4	13	.10	60	0-3
Mar. 14	"	0	6	0	0	0	0	1.5	.0280	.0620	.0250	None	68	30	38	8.4	35.3	4	15	.10	40	0-3
Mar. 19	"	0	6	0	0	0	0	1.5	.0200	.0500	.0250	None	64	30	34	4.9	38.8	4	15	.10	64	0-3
Mar. 25	"	0	8	0	0	0	0	1.2	.0180	.0500	.0200	None	60	37	23	4.9	37.6	4	16	.15	100	0-3
Avg.	"	0	7	0	0	0	0	1.3	.0235	.0500	.0250	None	64.0	32.7	31.3	6.6	38.2	4	14.7	.11	66	0-12
April 5	Filtered	0	5	0	0	0	0	1.5	.0180	.0500	.0150	None	62	33	29	4.1	37.6	4	15	.10	24	0-3
April 9	"	0	6	0	0	0	0	1.0	.0160	.0340	.0150	None	65	32	33	3.8	36.7	3	15	.10	14	0-3
April 18	"	0	6	0	0	0	0	1.3	.0180	.0380	.0200	None	58	34	24	3.1	35.6	4	15	.10	20	0-3
April 24	"	0	7	0	0	0	0	1.0	.0260	.0440	.0150	Trace	57	24	33	2.9	36.7	2	17	.10	30	0-3
Avg.	"	0	6	0	0	0	0	1.2	.0195	.0415	.0162	Trace	60.5	30.7	29.8	3.4	36.6	3.2	15.5	.10	22	0-12
May 2	Filtered	0	5	0	0	0	0	1.3	.0200	.0480	.0200	None	56	27	29	4.1	35.6	3	17	.10	16	0-3
May 6	"	0	5	0	0	0	0	1.0	.0220	.0400	.0200	Trace	53	26	27	3.9	33.3	3	15	.10	20	0-3
May 16	"	0	5	0	0	0	0	1.2	.0280	.0700	.0150	Trace	57	32	25	3.7	34.0	3	15	.10	20	0-3
May 21	"	0	6	0	0	0	0	1.0	.0240	.0400	.0150	Trace	48	28	20	3.9	36.3	3	14	.10	16	0-3
May 28	"	0	5	0	0	0	0	1.2	.0220	.0440	.0200	Trace	54	34	20	3.5	32.9	3	15	.10	30	0-3
Avg.	"	0	5.2	0	0	0	0	1.1	.0232	.0484	.0180	Trace	53.6	29.4	24.2	3.8	34.4	3	15.2	.10	20	0-15
June 3	Filtered	0	10	0	0	0	0	1.5	.0320	.0700	.0200	Trace	61	34	27	4.5	32.9	3	16	.15	72	0-3
June 10	"	0	7	0	0	0	0	1.3	.0200	.0780	.0200	None	62	31	31	3.4	39.3	3	15	.05	20	0-3
June 19	"	0	6	0	0	0	0	1.0	.0220	.0560	.0100	None	52	27	25	3.9	35.7	3	14	.10	22	0-3
June 26	"	0	6	0	0	0	0	1.2	.0160	.0480	.0150	None	60	39	21	4.0	35.7	3	17	.05	50	0-3
June 30	"	0	6	0	0	0	0	1.0	.0160	.0440	.0150	Trace	56	34	22	4.1	35.6	4	16	.10	20	0-3
Avg.	"	0	7	0	0	0	0	1.2	.0212	.0592	.0160	Trace	58.2	33.0	25.2	3.9	35.8	3.2	15.6	.09	36.8	0-15
July 12	Filtered	0	6	0	0	0	0	1.5	.0220	.0660	.0200	None	65	37	28	5.9	33.3	5	10	.10	60	0-3
July 15	"	0	4	0	0	0	0	2.0	.0260	.0580	.0150	Trace	63	30	33	4.3	33.3	4	7	.10	36	0-3
July 23	"	0	6	0	0	0	0	1.2	.0160	.0420	.0150	Trace	59	25	34	4.8	36.7	4	7	.10	24	0-3
July 29	"	0	6	0	0	0	0	1.5	.0160	.0560	.0200	None	64	32	32	4.0	39.9	4	10	.05	46	0-3
Avg.	"	0	5.5	0	0	0	0	1.5	.0200	.0555	.0175	Trace	62.7	31.0	31.7	4.7	35.8	4.2	8.5	.09	42	0-12
August 5	Filtered	0	6	0	0	0	0	1.5	.0160	.0740	.0150	Trace	58	27	31	4.3	35.6	4	8	.05	20	0-3
August 13	"	0	8	0	0	0	0	1.3	.0200	.0620	.0200	Trace	69	34	35	4.9	33.3	4	7	.10	34	0-3
August 19	"	0	15	0	0	0	0	2.0	.0220	.0840	.0150	Trace	67	35	32	6.9	42.2	3	10	.10	28	0-3
August 26	"	0	10	0	0	0	0	1.5	.0180	.0480	.0150	Trace	63	36	27	4.0	33.3	4	8	.05	16	0-3
Avg.	"	0	9.7	0	0	0	0	1.6	.0190	.0670	.0162	Trace	64.2	33.0	31.2	5.0	36.1	3.7	8.2	.07	25	0-12

Analysis of Water (Sanitary)—Results in Parts Per Million

Date	From	Turbidity	Color	Taste	Sediment (quickly) (falling)	ODOR		Chlorine	AMMONIA		NITROGEN		SOLIDS			Required Oxygen	Hardness	Alkalinity	Carbon Dioxide	Iron	BACTERIA	
						Hot	Cold		Free	Total Albuminoid	Nitrates	Nitrites	Total	Mineral	Volatile						per c. c.	Coli Communis
1912																						
Sept. 13	Filtered	0	6	0	0	0	0	1.0	.0240	.0600	.0150	Trace	67	37	30	6.0	40.0	4	10	.10	18	0-3
Sept. 16	"	0	7	0	0	0	0	1.2	.0220	.1320	.0150	Trace	65	35	30	5.9	38.9	3	11	.10	36	0-3
Sept. 23	"	0	7	0	0	0	0	1.5	.0220	.0700	.0150	None	72	32	40	5.8	33.3	3	11	.10	28	0-3
Avg.	Filtered	0	6.6	0	0	0	0	1.25	.0226	.0873	.0150	Trace	68.0	34.7	33.3	5.9	37.4	3.3	10.6	.10	24	0-9
Oct. 3	Filtered	0	8	0	0	0	0	2.0	.0260	.0820	.0250	None	68	31	37	7.3	34.4	3	12	.10	18	0-3
Oct. 7	"	0	8	0	0	0	0	2.0	.0220	.0980	.0250	None	65	30	35	6.7	36.0	3	12	.10	22	0-3
Oct. 16	"	0	8	0	0	0	0	2.0	.0180	.0980	.0200	None	78	33	45	10.0	38.4	3	11	.10	12	0-3
Oct. 21	"	0	8	0	0	0	0	1.5	.0320	.0480	.0200	None	68	35	33	7.5	40.7	4	11	.10	20	0-3
Oct. 28	"	0	15	0	0	0	0	2.0	.0380	.0600	.0200	None	73	44	29	7.5	38.4	3	10	.10	34	0-3
Avg.	Filtered	0	9.4	0	0	0	0	1.9	.0272	.0772	.0220	None	70.4	34.6	35.8	7.8	37.5	3.2	11.2	.10	21	0-15
Nov. 6	Filtered	0	12	0	0	0	0	2.0	.0200	.0700	.0250	None	72	31	41	6.3	41.2	3	14	.10	32	0-3
Nov. 12	"	0	20	0	0	0	0	1.3	.0200	.0720	.0200	None	66	33	33	6.3	41.2	3	14	.10	80	0-3
Nov. 18	"	0	9	0	0	0	0	1.8	.0180	.0700	.0200	None	54	30	24	5.0	38.8	3	11	.10	24	0-3
Nov. 25	"	0	8	0	0	0	0	1.5	.0240	.0500	.0200	Trace	58	33	25	4.8	41.7	3	14	.05	26	0-3
Avg.	"	0	12.2	0	0	0	0	1.6	.0205	.0455	.0212	Trace	62.5	31.7	30.8	5.6	41.5	3	13.2	.08	41	0-12
Dec. 3	Filtered	0	6	0	0	0	0	1.5	.0220	.0480	.0200	None	61	34	27	5.8	35.7	3	13	.10	24	0-3
Dec. 11	"	0	7	0	0	0	0	2.0	.0180	.0580	.0200	None	65	38	27	5.5	39.3	3	13	.10	30	0-3
Dec. 16	"	0	7	0	0	0	0	2.0	.0220	.0960	.0200	Trace	63	34	29	6.2	36.7	4	14	.10	28	1-3
Dec. 22	"	0	6	0	0	0	0	1.5	.0220	.0520	.0250	Trace	62	36	26	5.9	37.8	4	12	.10	28	0-3
Avg.	"	0	6.5	0	0	0	0	1.7	.0210	.0635	.0212	Trace	62.7	35.5	27.2	5.8	37.4	3.5	13	.10	28	0-12
Jan. 3	Filtered	0	6	0	0	0	0	2.0	.0240	.0500	.0250	None	66	33	33	6.2	38.9	4	13	.10	36	0-3
Jan. 9	"	0	7	0	0	0	0	2.0	.0260	.0500	.0250	None	62	32	30	5.0	38.8	4	12	.10	100	0-3
Jan. 13	"	0	7	0	0	0	0	1.5	.0180	.0500	.0200	None	68	33	35	5.3	36.5	4	14	.10	40	0-3
Jan. 20	"	0	6	0	0	0	0	2.0	.0260	.0580	.0250	Trace	57	34	23	5.3	40.0	4	12	.05	48	0-3
Jan. 27	"	0	6	0	0	0	0	2.0	.0300	.0900	.0150	Trace	52	33	19	3.5	43.5	4	12	.10	16	0-3
Avg.	"	0	6.4	0	0	0	0	1.9	.0248	.0598	.0220	Trace	61.0	33.0	28.0	5.0	39.5	4	12.6	.09	48	0-15
Feb. 7	Filtered	0	6	0	0	0	0	1.5	.0360	.1000	.0200	Trace	62	35	27	4.8	35.6	3	11	.10	20	0-3
Feb. 12	"	0	6	0	0	0	0	1.5	.0320	.0520	.0200	Trace	68	39	29	6.5	38.9	4	12	.10	24	0-3
Feb. 19	"	0	6	0	0	0	0	2.0	.0380	.0920	.0250	Trace	69	38	31	8.6	36.7	4	12	.05	40	0-3
Feb. 25	"	0	5	0	0	0	0	1.5	.0380	.0660	.0250	Trace	70	40	30	8.0	33.3	4	14	.10	54	0-3
Avg.	"	0	5.7	0	0	0	0	1.6	.0360	.0775	.0225	Trace	67.2	38.0	29.2	6.9	36.1	3.7	12.2	.08	35	0-12

B. Coli-communis was present in the tap water in only .09% of the samples examined. This is 80.86% less than in the previous year, which was a low record.

B. Coli-communis was reduced 89.89% in passing through the mains from the filter plant to the city tap.

The operation of the plant is in charge of Mr. A. C. Powell, resident chemist and bacteriologist.

The results, in detail, of the weekly sanitary examinations of the unfiltered, filtered and tap waters are annexed to this report.

During the past year the mains leading from the low lift pump to the coagulation basins were changed so that it is now possible to pump direct upon the filters in case of accident to the basins.

New sulphate of alumina tanks were installed to take the place of the old concrete ones which were badly weakened by the action of the chemical.

The two filters which were not equipped when the plant was constructed were equipped so that the plant is complete in every respect.

An attempt should be made to sell the old filters, as they are not now connected with the mains and are of no use to the department. If these are removed there will be a valuable room available for use at a later time.

The plant is in first class condition in every respect and I have no recommendations to make.

The hearty support given me by the members of the Water Board has been greatly appreciated.

I also wish to express my appreciation for the courtesies extended by all employees of the department.

Respectfully submitted,

JAMES M. CAIRD.