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CITY OF SOMERVILLE

ANNUAL REPORTS

1890



SOMERVILLE JOURNAL PRINT.

1891.

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CITY GOVERNMENT AND OFFICERS FOR 1890.

MAYOR.

CHARLES G. POPE.

BOARD OF ALDERMEN.

CHARLES M. HEMENWAY, *President*.

WARD ONE.

CHARLES M. HEMENWAY . . . 143 Perkins Street.
CHARLES B. SANBORN . . . 4 Austin Street.

WARD TWO.

GEORGE A. KIMBALL . . . 21 Prospect Hill Avenue.
ALLEN F. CARPENTER . . . 10 Park Street.

WARD THREE.

EZRA D. SOUTHER . . . Pembroke Street.
ALVANO T. NICKERSON . . . 334 Broadway.

WARD FOUR.

JOHN W. CONVERSE . . . 7 Clarendon Avenue.
ALBERT W. EDMANDS . . . 155 Summer Street.

CLERK.

GEORGE I. VINCENT.

JUN 15 '31

COMMON COUNCIL.CHARLES B. OSGOOD, *President.*

WARD ONE.

CLARENCE H. WILLEY	11 Flint Street.
EDWIN A. WILCOX (resigned Feb. 12) .	27 Glen Street.
S. WALKER JANES (elected April 1) .	142 Washington Street.
EDRIC ELDRIDGE	88 Pearl Street.
GEORGE W. PRICHARD	Mystic Street.

WARD TWO.

CHARLES S. BUTTERS	19 Church Street.
L. ROGER WENTWORTH	Munroe Street.
WILLIAM J. MCLEAN	32 Concord Avenue.
WILLIAM M. ARMSTRONG	91 Summer Street.

WARD THREE.

CHARLES B. OSGOOD	71 Gilman Street.
WILLIAM E. PULSIFER	262 School Street.
WILLIAM L. BARBER	36 Marshall Street.
FRANK E. DICKERMAN	85 Central Street.

WARD FOUR.

ISAAC R. WEBBER	24 Wallace Street.
WILLIAM A. HUNNEWELL	Mason Avenue.
FRANK E. MERRILL (resigned March 26)	Fairmount Avenue.
SOLOMON S. HIGGINS (elected April 29)	158 Summer Street.
NEWELL F. CASWELL	43 Cedar Street.

CLERK.

CHARLES S. ROBERTSON.

JOINT STANDING COMMITTEES OF THE CITY COUNCIL.

ACCOUNTS. — Aldermen Souther, Edmands; Councilmen Pulsifer, Webber, Armstrong.

CITY ENGINEERING. — Aldermen Kimball, Hemenway; Councilmen Caswell, McLean, Prichard.

CLAIMS.—His Honor the Mayor; Alderman Hemenway; the President of the Common Council; Councilmen Wilcox to February 12, Janes from April 23, Dickerman.

FINANCE.—His Honor the Mayor; Aldermen Hemenway, Edmands; the President of the Common Council; Councilmen Wentworth, Wilcox to February 12, Janes from April 23, Pulsifer, Webber.

FIRE DEPARTMENT.—Aldermen Converse, Sanborn; Councilmen Merrill to March 26, Armstrong from April 1, Willey, Dickerman.

FUEL AND STREET LIGHTS.—Aldermen Sanborn, Carpenter; Councilmen Webber, Butters, Barber.

HIGHWAYS.—Aldermen Kimball, Nickerson; Councilmen Willey, Hunnewell, Barber.

LEGISLATIVE MATTERS.—His Honor the Mayor; Alderman Kimball; the President of the Common Council; Councilmen Wentworth, Dickerman.

ORDINANCES.—Aldermen Converse, Hemenway; Councilmen Wilcox to February 12, Janes from April 23, Hunnewell, McLean.

PRINTING.—Aldermen Souther, Sanborn; Councilmen Pulsifer, Wentworth, Merrill to March 26, Higgins from May 14.

PUBLIC GROUNDS.—Aldermen Carpenter, Kimball; Councilmen Butters, Pulsifer, Dickerman.

PUBLIC PROPERTY.—Aldermen Nickerson, Carpenter; Councilmen Wentworth, Hunnewell, Eldridge.

SOLDIERS' RELIEF.—Aldermen Sanborn, Edmands; Councilmen Eldridge, Caswell, Armstrong.

WATER.—Aldermen Edmands, Souther; the President of the Common Council; Councilmen Willey, McLean.

COMMITTEES OF THE BOARD OF ALDERMEN.

STANDING COMMITTEES.

ELECTIONS.—Aldermen Edmands, Nickerson.

ENROLLED ORDINANCES.—Aldermen Souther, Carpenter.

LICENSES.—Aldermen Nickerson, Sanborn.

POLICE.—His Honor the Mayor; Aldermen Souther, Converse.

SEWERS.—Aldermen Hemenway, Souther, Edmands.

STATE AID. — Aldermen Carpenter, Hemenway, Nickerson, Converse.

SPECIAL COMMITTEE.

BUILDING PERMITS. — Aldermen Kimball, Converse.

STANDING COMMITTEES OF THE COMMON COUNCIL.

ELECTIONS AND RETURNS. — Councilmen Wentworth, Caswell, Eldridge.

ENROLLED ORDINANCES AND RESOLUTIONS. — Councilmen Wilcox to February 12, Janes from April 23, Butters, Prichard.

SCHOOL COMMITTEE.

CHARLES G. POPE, Mayor, Chairman, *ex officio*.

CHARLES B. OSGOOD, President of the Common Council, *ex officio*.

(Term, three years.)

WARD ONE.

S. NEWTON CUTLER (elected 1888).

HORACE C. WHITE, M. D. (elected 1889).

HORACE P. HEMENWAY, M. D. (elected 1887 ; died March 6j).

SANFORD HANSCOM, M. D. (elected April 23).

WARD TWO.

A. H. CARVILL, M. D. (elected 1888).

JAMES F. BEARD (elected 1889).

CHARLES I. SHEPARD (elected 1887).

WARD THREE.

NORMAN W. BINGHAM (elected 1888).

QUINCY E. DICKERMAN (elected 1889).

WILLIAM P. HILL (elected 1887).

WARD FOUR.

GILES W. BRYANT, M. D. (elected 1889).

MARTIN W. CARR (elected 1887).

ADDIE B. UPHAM (elected 1888).

CLARENCE E. MELENEY, *Superintendent and Secretary*.

ASSESSORS.

(Term, three years.)

BENJAMIN F. THOMPSON (elected 1890).
GEORGE W. HADLEY (elected 1888).
HIRAM D. SMITH (elected 1889; died March 3).
SAMUEL T. RICHARDS (elected March 26).

ASSISTANT ASSESSORS.

(Term, one year.)

WARD ONE.

GEORGE W. BARTLETT.

WARD TWO.

DAVID A. SANBORN.

WARD THREE.

EDGAR T. MAYHEW.

WARD FOUR.

SAMUEL T. RICHARDS (resigned March 28).
HARRY A. TRUE (elected April 23).

BOARD OF HEALTH.

(Term: Physician, three years; other members, two years.)

J. FRANK WELLINGTON (appointed 1889), Chairman.
CHARLES H. CRANE (appointed 1890).
ALVAH B. DEARBORN, M. D. (appointed 1889).
Clerk, WILLIAM P. MITCHELL.
Inspector, CALEB A. PAGE.

OVERSEERS OF THE POOR.

CHARLES G. POPE, Mayor, Chairman, *ex officio*.
 CHARLES G. BRETT (elected 1889 for four years).
 NATHAN H. REED (elected 1890 for four years).
 EDWARD B. WEST (elected 1888 for unexpired term).
 DANIEL C. STILLSON (elected 1888 for unexpired term).
Agent, CHARLES C. FOLSOM.
Secretary, FRANK W. KAAH.

SOMERVILLE MYSTIC WATER BOARD.

(Term, one year.)

ADNA C. WINNING.
 WALTER C. MENTZER.
 SAMUEL W. HOLT.
 FRANK G. LOMBARD.
 FRANK A. TITUS.
 NATHANIEL DENNETT, *Supt. Water Works*.
 FREDERIC W. STONE, *Secretary* (to March 17).
 HERBERT E. MERRILL (elected *Clerk* March 17).

REGISTRARS OF VOTERS.

(Term: City Clerk, one year; other members, three years.)

CROMWELL G. ROWELL (appointed 1888), Chairman.
 CHARLES P. LINCOLN (appointed 1889).
 WILLIAM B. HAWES (appointed 1890).
 GEORGE I. VINCENT, *City Clerk*.

TRUSTEES OF THE PUBLIC LIBRARY.

(Term, three years.)

GEORGE A. BRUCE (elected 1889).
 WILLIAM E. WELD (elected 1890).
 JAMES E. WHITAKER (elected 1890).
 JOHN B. VIALI (elected 1890).

CHARLES S. LINCOLN (elected 1888).
J. HENRY FLITNER (elected 1889).
CHRISTOPHER E. RYMES (elected 1888).
ELIJAH C. CLARK (elected 1889).
CHARLES H. BROWN (elected 1889 for unexpired term).
Librarian, HARRIET A. ADAMS.

CITY CLERK AND CLERK OF BOARD OF ALDERMEN.

GEORGE I. VINCENT.

CITY TREASURER AND COLLECTOR OF TAXES.

JOHN F. COLE.

MESSENGER TO CITY COUNCIL.

JAIRUS MANN.

CITY SOLICITOR.

SELWYN Z. BOWMAN.

CITY AUDITOR.

CHARLES S. ROBERTSON.

CITY ENGINEER.

HORACE L. EATON.

SUPERINTENDENT OF STREETS.

THOMAS H. EAMES.

SUPERINTENDENT OF PUBLIC BUILDINGS AND LIGHTS.

THOMAS R. ROULSTONE.

CHIEF OF POLICE.

MELVILLE C. PARKHURST.

CHIEF ENGINEER OF THE FIRE DEPARTMENT.

JAMES R. HOPKINS.

INSPECTOR OF BUILDINGS.

JAMES R. HOPKINS.

**SUPERINTENDENT OF TELEGRAPH AND TELEPHONE
LINES.**

JAMES R. HOPKINS.

CITY PHYSICIAN.

ALVAH B. DEARBORN, M. D.

INSPECTOR OF MILK AND VINEGAR.

THOMAS CUNNINGHAM.

**INSPECTOR OF PROVISIONS AND OF ANIMALS INTENDED
FOR SLAUGHTER.**

D. WARNER DANFORTH.

CLERK OF ASSESSORS AND COMMITTEES.

WILLIAM P. MITCHELL.

ASSISTANT CLERK OF ASSESSORS AND COMMITTEES.

ALBERT B. FALES.

Suitable Person to Cause to be Properly Interred the Bodies of
Honorably Discharged Soldiers, Sailors, and Marines, Under
Chapter 395, Acts of 1889.

JESSE J. UNDERHILL.

CONSTABLES.

JAIRUS MANN.	WILLIAM D. HAYDEN.
ROBERT R. PERRY.	SAMUEL R. DOW.
CHARLES C. FOLSOM.	JOSEPH J. GILES.
EDWARD MCGARR.	GEORGE CULLIS.
CHRISTOPHER C. CAVANAGH.	

FIELD DRIVERS.

GEORGE H. CARLETON.	GEORGE A. BODGE.
JOHN E. FULLER.	CHARLES S. THRASHER.
JACOB W. SKINNER.	GEORGE W. BEAN.
CHARLES L. ELLIS.	JOHN G. KNIGHT.
STEPHEN S. SMITH.	

FENCE VIEWERS.

CHARLES A. PEARSON.	ADONIRAM J. TAYLOR.
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POUND KEEPER.

CHARLES A. SMALL.

SEALER OF WEIGHTS AND MEASURES.

AMMIEL COLMAN, 34 Marshall Street.

MEASURER OF WOOD AND BARK.

SAMUEL T. LITTLEFIELD.

MEASURER OF GRAIN.

JOHN CRAIG.

WEIGHERS OF COAL.

JOHN CRAIG.

THADDEUS HARRINGTON.

ARTHUR N. KEARN.

C. C. WOOLEY.

D. WARNER DANFORTH.

GEORGE K. WALCOTT.

CHARLES H. TUCKER.

G. E. SLACK.

WEIGHERS OF HAY AND STRAW.

JOHN CRAIG.

ARTHUR N. KEARN.

C. C. WOOLEY.

THADDEUS HARRINGTON.

CHARLES H. TUCKER.

G. E. SLACK.

WEIGHERS OF BEEF.

D. WARNER DANFORTH.

ARTHUR N. KEARN.

GEORGE K. WALCOTT.

THADDEUS HARRINGTON.

CHARLES H. TUCKER.

C. C. WOOLEY.

G. E. SLACK.

WEIGHERS OF BOILERS AND HEAVY MACHINERY.

THADDEUS HARRINGTON.

CHARLES H. TUCKER.

C. C. WOOLEY.

ARTHUR N. KEARN.

GEORGE K. WALCOTT.

G. E. SLACK.

UNDERTAKERS.

WILLIAM A. FLAHERTY.	PATRICK H. RAFFERTY.
EDWARD H. MARSH.	THOMAS J. BARKER.
ALFRED E. MANN.	PATRICK RAFFERTY.
HORACE D. RUNEY.	

POLICE DEPARTMENT.

MELVILLE C. PARKHURST, *Chief.*

ROBERT R. PERRY, <i>Captain.</i>	SAMUEL R. DOW, <i>Sergeant.</i>
EDWARD MCGARR, <i>Sergeant.</i>	CHRIS. C. CAVANAGH, <i>Sergeant.</i>
JOHN E. FULLER.	PHINEAS W. SKINNER.
ALBION L. STAPLES.	SAMUEL A. BROWN.
JUDSON W. OLIVER.	JOHN HAFFORD.
GEORGE W. BEAN.	MYRON H. KINSLEY.
GEORGE L. SMITH.	GEORGE A. BODGE.
EDWARD M. CARTER.	DENNIS KELLY.
JOHN F. JOHNSON.	GEORGE H. CARLETON.
EUGENE A. CARTER.	HUBERT H. MILLER.
EDWARD E. HAMBLÉN.	FRANCIS A. PERKINS.
CHARLES L. ELLIS.	CHARLES S. THRASHER.
CHARLES E. WOODMAN.	WILLIAM H. JOHNSON.
ARTHUR E. KEATING.	JOHN G. KNIGHT.
STEPHEN S. SMITH.	JACOB W. SKINNER.
THEODORE E. HERON.	

MELVILLE C. PARKHURST, *Lock-up Keeper.*

MAYOR'S INAUGURAL ADDRESS.

CITY OF SOMERVILLE.

IN BOARD OF MAYOR AND ALDERMEN, {
January 10, 1890. }

ORDERED, That the committee on printing be and is hereby authorized and instructed to have printed, for public use, six hundred copies of the address delivered by his Honor the Mayor at the inauguration of the present City Government, the expense incurred to be charged to Printing and Stationery account.

Read twice and adopted, and sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 10, 1890.

Read twice and adopted in concurrence.

CHARLES S. ROBERTSON, *Clerk.*

Approved:

January 13, 1890.

CHARLES G. POPE, *Mayor.*

INAUGURAL ADDRESS

OF

HON. CHARLES G. POPE,

DELIVERED JAN. 5, 1890.

GENTLEMEN OF THE CITY COUNCIL : —

In response to the call of our fellow-citizens, and in compliance with the provisions of the city charter, we have assembled to assume control of municipal affairs for the ensuing year.

The labors of the Council of the year 1889 are ended, and their deeds are matters of history. True to their oaths and faithful to the trust committed to them, as I believe they have always endeavored to be, they deserve the only reward that can come to them, except the approval of their consciences, the thanks of the public. I commend their example to you, and trust that, at the close of your term of service, some one, honored as I have been, will find reason to speak like words of approval of you.

Adopting the usual course of proceeding on similar occasions, I invite your attention to a brief statement of the condition of the sev-

eral departments of the government, and to such observations as may seem to me worthy of your consideration.

As first in importance, I present a statement of the

FINANCES.

From the last annual report it appears that the funded debt of the city January 1st, 1889, was as follows:—

Funded Debt, City Loan	\$597,000
Funded Debt, Water Loan	263,500
Total Funded Debt	<u>\$860,500</u>

The debt was increased during the year as follows:—

For the cost of a new schoolhouse in Concord square	\$25,000
For the cost of addition to Morse Schoolhouse	25,000
For the cost of extension and improvement of the water works and construction of a high-service system	30,000
Total Increase	<u>\$130,000</u>

The debt was decreased during the year by the payment] from the tax levy of the following:—

City Loan Bonds	\$29,000
Water Loan Bonds	9,000
Total Decrease	<u>\$38,000</u>

Leaving the Funded Debt January 1, 1890, \$952,500, classified as follows, viz.:—

City Loan Bonds bearing interest at 4 per cent.	\$418,000
“ “ “ “ “ “ 5 “	200,000
Water Loan Bonds “ “ “ 4 “	188,000
“ “ “ “ “ “ 5 “	136,500
“ “ “ “ “ “ 5½ “	10,000
Total	<u>\$952,500</u>

The unfunded liabilities, consisting of temporary loans of money borrowed in anticipation of the collection of taxes, amount to \$150,000,

and the assets available for their payment, being uncollected taxes, sewer and sidewalk assessments, etc., amount to about \$155,000.

Not until the year 1876 was there any systematic provision made for the final liquidation of the city's indebtedness. The bonds as they matured were sometimes paid from the tax levy, but the prevailing custom appears to have favored the reissue of new bonds in payment of the old ones as they became due, and, as a natural consequence attending this plan, the funded debt increased in magnitude with alarming rapidity.

In the year 1875 the Legislature passed an act regulating and limiting municipal indebtedness, which went into effect the following year. By the provisions of this law it became necessary to establish a sinking fund, and contribute thereto from year to year an amount raised annually by taxation sufficient, with its accumulations, to extinguish the city debt in twenty years, and the water debt in thirty years, or in 1895 and 1905, respectively.

The assessors' valuation of the taxable property at that time being somewhat inflated, our debt figured less than five per cent. of the valuation. If the reduction in the valuation which was subsequently made had occurred at that time, our debt would have exceeded five per cent. of the valuation, and the city would have been entitled to an additional ten years in which to extinguish its debt; an advantage which other cities enjoyed, and of which we were deprived.

The provisions of this act were faithfully carried out for a period of twelve years. In 1887 the Legislature relieved us of this burden by the passage of an act allowing the city to apply its existing sinking funds to the reduction of the funded debt and giving additional time in which to pay the balance. The provisions of this act were accepted by the city the following year, and have since been in successful operation.

As a convenient reference for those interested in the study of municipal finances, and to give a condensed history of the growth of our funded debt and the manner of its liquidation, the amount of taxable property, the annual levy, and the rate of taxation, the following tables are respectfully presented : —

YEAR.	Amount of Funded Debt.	Increase of Funded Debt.	Reduction of Funded Debt by Contribution to Sinking Funds.	Reduction of Funded Debt by Annual Payments.	Tax Rate per \$1,000 of Valuation.
Town . . .	\$593,349	. . .	. . .	. . .	. . .
1872 . . .	643,354	\$50,005	. . .	. . .	. . .
1873 . . .	809,354	166,000	. . .	. . .	. . .
1874 . . .	1,419,854	610,500	. . .	. . .	. . .
1875 . . .	1,571,854	152,000	. . .	. . .	. . .
1876 . . .	1,606,854	45,000	\$45,130 62	\$10,000	\$2 07
1877 . . .	1,606,854	10,000	48,828 58	10,000	2 30
1878 . . .	1,596,854	. . .	51,004 64	10,000	2 91
1879 . . .	1,585,000	. . .	53,061 76	11,854	3 42
1880 . . .	1,585,000	. . .	55,739 35	. . .	2 72
1881 . . .	1,585,000	. . .	58,498 64	. . .	2 59
1882 . . .	1,585,000	. . .	61,390 59	. . .	2 65
1883 . . .	1,585,000	. . .	64,479 01	. . .	2 70
1884 . . .	1,585,000	. . .	67,719 33	. . .	2 78
1885 . . .	*1,525,000	. . .	71,305 66	. . .	2 87
1886 . . .	1,525,000	. . .	66,894 23	. . .	2 57
1887 . . .	1,525,000	. . .	70,252 88	. . .	2 56
1888 . . .	*860,500	25,000	. . .	37,000	1 28
1889 . . .	952,500	130,000	. . .	38,000	1 27

* Sinking funds applied.

YEAR.	VALUATION.	TAX LEVY.	RATE.
1872 . . .	\$22,755,325	\$274,374 45	\$13 00
1873 . . .	29,643,100	389,214 48	12 80
1874 . . .	30,837,700	473,235 50	15 00
1875 . . .	31,317,000	518,161 40	16 20
1876 . . .	26,573,400	504,745 24	18 60
1877 . . .	25,479,400	471,789 14	18 10
1878 . . .	20,976,900	409,497 10	19 00
1879 . . .	18,950,100	352,553 80	18 00
1880 . . .	20,458,100	402,927 71	19 10
1881 . . .	22,569,100	452,945 45	19 50
1882 . . .	23,162,200	425,721 16	17 80
1883 . . .	23,812,900	411,645 43	16 70
1884 . . .	24,331,100	418,750 26	16 60
1885 . . .	24,878,400	428,605 44	16 60
1886 . . .	26,003,200	416,987 28	15 40
1887 . . .	27,471,800	424,309 14	14 80
1888 . . .	28,765,400	421,458 60	14 00
1889 . . .	30,004,600	440,324 40	14 00

The foregoing tables convey information that should interest every citizen, and especially those who are now or may hereafter become members of the City Government, and in the light of past experience will, I hope, prove valuable lessons for the future.

The funded debt, tax levy, appropriations, and the rate of taxation are questions for your most serious consideration. By a wise and judicious distribution of the cost of our permanent improvements, thereby equalizing the burden among those to be benefited, by availing ourselves of the privileges of the funded debt, by the exercise of such economy in making our annual appropriations as will be consistent with the actual needs of the various departments, and by a watchful prudence in all expenditures, we shall pursue the proper and only course to enable us to maintain our present financial standing. In doing this we shall be able to continue the present low rate of taxation, which is sure to bring wealth and prosperity to our growing city.

To provide for the payment of the current expenses, State and County taxes, and debt requirements for the past year, the annual tax levy was made as follows: —

Real estate, valuation	\$27,830,700 00
Personal property, valuation	2,173,900 00
Total valuation	<u>\$30,004,600 00</u>
A rate of \$14.00 on \$1,000 valuation, with 10,122 polls assessed at \$2.00, and 32 (women) at 50 cents, gives the total amount of the tax levy	
	\$440,324 40
Amount received from the City of Boston for return on water rates (estimated)	52,000 00
Total amount of resources	<u>\$492,324 40</u>

The total expenditures during the year, as near as can be estimated at the present time, will amount to about \$2,000 less than the total resources.

The expenditures for actual current expenses amounted to \$359,300, and were appropriated as follows, viz. : —

For maintenance of the water works, under the control of the Water Board	\$18,000 00
For Public Library, under the control of the Trustees	3,000 00
For Support of Poor, under the control of the Overseers of the Poor	14,000 00
For schools (not including school buildings), under the control of the School Committee . .	130,000 00

For current expenses of the city, under the control of the City Government, as follows, viz.:—

Fire Department	\$32,000 00	
Health	5,500 00	
Highways	42,000 00	
Miscellaneous	4,000 00	
Police	31,200 00	
Police Station Incidentals	2,000 00	
Public Grounds	7,000 00	
Printing and Stationery	4,000 00	
Salaries	25,900 00	
Sewers	11,000 00	
Sidewalks	8,200 00	
Street Lights	18,000 00	
Watering Streets	3,500 00	
	<hr/>	194,300 00

From this statement it is apparent that of the current expenses nearly one-half were controlled by boards other than the City Council, and that the important interests above enumerated as within the control of the City Government have been provided for with an amount only about sixty-five thousand dollars more than the sum expended for schools alone.

FIRE DEPARTMENT.

The fire apparatus was improved during the past year by the purchase of a hose wagon and a ladder truck, to take the places of those much heavier and less modern in structure, and an addition was made to it by the equipment of the new company stationed in the recently-completed hose house at the corner of Somerville avenue and Lowell street. The manual force was increased, also, from sixty-one to seventy-three men, a part of the increase being due

to the organization of the above-named company. The number, however, is largely within the limit allowed by ordinance. Three miles of wire were added to the fire-alarm telegraph and three signal boxes placed in circuit. The buildings and apparatus are in good condition. More signal boxes and a greater number of hydrants should be furnished, in the opinion of the chief engineer.

Since the recent conflagrations in Lynn and Boston, a great deal has been said, publicly and privately, about the inadequacy of the department to cope with a fire of any great magnitude. There is some truth, undoubtedly, in the criticisms made, and it is a subject worthy of your investigation. Perhaps the time has come when some important addition to our apparatus should be made. The city has gained thirty-five per cent. in population since the last steamer was purchased, and there are very few buildings within our limits constructed of other material than wood. If you should come to the conclusion that there is need of another engine, and that the financial condition of the city is such that the expense of the purchase and the consequent increase in the cost of maintaining the department can be borne as well now as at some future time, then I would advise that a steamer similar to the one in active use be bought, and located in the western part of the city at the hose house on Highland avenue. Accommodations for a steamer were provided in this building when it was constructed, it being evident that at some time one would be required in that locality.

POLICE.

The favorable opinion I expressed one year ago with regard to our police force and its management has been confirmed by a closer and more interested observation of the discharge of their duties during the twelve months just passed. Their number was increased at the beginning of the year by the appointment of two patrolmen, to take the places of those detailed to act as drivers of the patrol wagon. This made the number employed for street duty the same as before the introduction of the signal system. The death of Ivan Loughton, on September 4th last, after sixteen years of service, deprived the force of an energetic and faithful officer, one always prompt and courageous in the discharge of his duties, and much respected by his associates, and the citizens who had his acquaintance. One member

of the force is now absent from duty in Florida on account of sickness. During the past year a brick stable has been constructed for the accommodation of the department, in which are rooms provided for the drivers of the patrol wagon. The contract price for building the same was \$3,450, to which should be added for plans, superintendence, and furnishings necessary to its completion for service \$408.35, making the total cost \$3,858.35. The signal system has now been in operation for more than a year, and in the opinion of those best able to judge has proved to be of great value to the police service of the city. You will probably be called upon to increase the number of street signal boxes.

There has been expended for the maintenance of the department during the past year the sum of \$34,854.15.

POOR.

The appropriation made in 1889 for the support of the poor was \$14,000. To this should be added, for sums collected of the Commonwealth, cities, towns, and individuals, \$2,118.30, making a total of \$16,118.30. Of this amount, \$500 was transferred to the control of a committee of the Board of Aldermen, to be expended, if necessary, for the relief and burial of indigent soldiers and sailors, in compliance with a statute recently enacted. The expenditures of the department were \$14,610.92, and there remained unexpended of the appropriation at the close of the year the sum of \$1,007.38.

Temporary aid has been given to 696 persons, and eighty-six persons have been fully supported during the whole or some part of the year. Of this last number, forty-three were insane. The amount paid to public institutions for the care of the insane is \$5,548.65.

Whether or not it is desirable for the city at any time to own and maintain a poor-farm, of which I have more doubt than I had a year ago, it seems reasonable to me that all efforts to that end should be abandoned for the present, until matters that do not admit of postponement have been considered and adjusted.

The urgency for immediate action that has been pressed upon the attention of the retiring Council by the advocates of the project, because, as they asserted, desirable parcels of land for the purpose would be taken up and put to other uses, is but the cry of the party who wishes to sell his land. The danger is hardly real. Certainly

the city owns land once thought to be suited for this purpose, which might be utilized to meet an emergency, should any arise. I think you can decline to consider the subject for the present year, at least, with perfect safety to the interests of all concerned, and with reasonable assurance that those in need will receive the care to which they are entitled.

HIGHWAYS, SIDEWALKS, AND SEWERS.

The appropriation in 1889 for the usual expenditures chargeable to highways was \$42,000, to which was added for the purchase of a steam road-roller the sum of \$5,000. No new public streets were built during the year, but sixteen, classed as private streets in 1888, were accepted and put in proper condition. A little more than one and one-half miles of new private streets were constructed. Thirteen thousand four hundred and forty-three linear feet of edgestones were set.

The sidewalk appropriation was \$8,200, nearly double that of the previous year, and 8,673 linear feet of brick, and 10,417 linear feet of gravel sidewalk were constructed.

Two and thirty-six hundredths miles of public sewers were built during the past year, making the total length of the system forty-three and eight-tenths miles. The expense was \$21,852.86, of which amount the city paid \$4,503.57, and assessed the balance on the abutters. The total cost of the system to date has been about \$782,000.

In some of our sister cities plans have been perfected by which a certain definite sum, arrived at by careful calculations and comparisons, has been decided upon as the cost per linear foot of all sewers laid within their limits, and a certain percentage of that cost, divided between the frontage and area, has been fixed by ordinance as the amount to be assessed on the abutters. By this method petitioners for sewers can determine in advance precisely what their assessments will be, and will better know how to determine their action. It might not be easy to accomplish something of the same kind in our city, but if it could be done, the Board of Aldermen would be relieved from some embarrassments to which it is now subjected. I think the matter is worthy of your investigation.

At the present time three different departments, acting independ-

ently of each other, perform their work in and on the public streets, and it frequently happens that what one does is rendered of no avail, or is very materially interfered with, by the action of the other. If the sewer and water departments should complete their labors before the highway department graded and macadamized a street, then the money expended by the latter would not appear to be wasted, as is now the case. It may be desirable, perhaps, at some time in the future to combine these departments under one management, and to elaborate a plan by which a commissioner of public works, with competent assistants, shall direct and control all street work. It would have its advantages, and experience might show that it would not be any more expensive than the present arrangement.

PUBLIC GROUNDS.

Nearly the entire appropriation for public grounds was expended on the Broadway Park. The portion in the vicinity of the pond, which had been gradually sinking for several years, has been raised, the curbing of the pond reset, and a large part of the paving relaid. About half an acre at the easterly end has been raised nearly a foot, a drain constructed to connect with the Chauncey-avenue sewer, walks gravelled, and the fence painted. It is to be hoped that no further expenditure, except for ordinary maintenance, will be required at the Park for some time.

The plan adopted for the improvement of the Central Hill Park has been pushed towards completion to a certain extent during the year.

SCHOOLS.

The standard heretofore reached by our schools has been maintained, I think, during the past year, notwithstanding the difficulties under which some of them have labored because of the inadequate and unsuitable accommodations furnished while new buildings were in process of erection.

The whole number of pupils registered during the year is 7,757; the number in attendance in December last, 6,236; and the average daily attendance for the year, 5,585, an increase over 1888 of 411.

An eight-room building is being constructed in Concord square, and six rooms are being added to the Morse Schoolhouse. When

the plans for this addition are carried out, and the contemplated changes in the original building made, the city will have a schoolhouse of the first class, and will be able to do away with some of the school accommodations in the Spring Hill District that have furnished cause for criticism. Land has been negotiated for, also, at the corner of Washington and Boston streets, with a view to the erection of a twelve-room building and the establishment of another grammar school centre in Ward Two. This building you will undoubtedly be called upon to provide during the present year. Relief for the High School, and new buildings in other parts of the city, must be furnished in the near future. It should not be expected, however, that more than one building will be constructed each year, and a thorough examination of the whole subject should be made by you, and the deliberate judgment of the entire School Board obtained, before final action is taken.

The appropriation for school purposes last year, exclusive of cost of new buildings, was about \$130,000,—thirty-six per cent. of the current expenses of the city,—and of this sum \$92,000 was expended for school teachers' salaries. The necessarily large and ever-increasing expenditures of the School Board, for which the City Council is in no way responsible, and over which it has no control, call for rigid scrutiny of every item by those having them in charge. The public interest requires it, as much as it demands the same care of you in dealing with the appropriations for which you are responsible.

STREET LIGHTS.

A three-years' contract for lighting the streets was made by your predecessors with the Somerville Electric Light Company. By the terms of it the company were to furnish seventy-four additional arc lights, making the number, with those in use, one hundred and forty-four, and two hundred and seventy-five incandescent. The total cost per year, burning till one o'clock, is \$20,000, being thirty cents for arc, and six cents for incandescent lights each night. The contract provides for an increase in the number of lights whenever the City Council may so desire. This provision is important, and as new streets are laid out and buildings erected the city will probably avail itself of it. Indeed, a demand is already made that it should do so now. If

you should deem it wise to respond in any degree to this call, I would advise that the lights be located according to some well-considered plan, caring first for the principal streets and most populous regions, and acting always for the public interest, without regard to private wishes when they conflict with it.

WATER WORKS.

The City Council appropriated for water maintenance the past year the sum of \$18,000, and borrowed on funded debt account for the extension and enlargement of the works \$80,000.

For the accommodation of new buildings more than two miles of pipe have been laid, four thousand two hundred and sixty-six feet of the old cement pipe have been replaced by new iron pipe, and four hundred and seventy-five new services have been put in, the largest number in any one year.

In addition to the above, the Water Board have contracted for and substantially completed high-service works, for the supply of water to the elevated portions of the city, and have laid nearly two and one-third miles of pipe in connection therewith. The area immediately benefited embraces the higher parts of Spring and Winter Hills. This area is to be extended from year to year until the whole city is included, and with this in view the pumping station has been built to accommodate a second pump and boiler when needed. This structure is situated on Cedar street at the westerly corner of the city farm, near the railroad, and is a substantial brick building, with granite and freestone trimmings, about seventy-five feet in length by about thirty-four feet in width. The chimney erected in connection with it is ninety-six feet high. The Worthington pump, to be soon put in position, is designed to supply two million gallons of water every twenty-four hours.

The reservoir is located on Belmont street, opposite the church on Spring Hill, is thirty feet in diameter and one hundred feet high, made of wrought iron, and estimated to hold about five hundred and thirty thousand gallons. It rests on a foundation of block stone masonry, forty feet in diameter on the bottom course, and thirty-two feet on the upper course, and weighs, when empty, about one hundred and fourteen tons. The pumping station and chimney have cost about \$10,000, the pumping plant about \$9,000, and the reservoir

a little more than \$13,000. The land for the reservoir has cost \$3,988.25, and the pipe laid for the high service \$33,290.86.

I desire to call attention to the forthcoming report of the board, and to the unusual amount of gratuitous service performed by them during the year, a service that deserves more than a passing mention.

The large and important interests intrusted to the Water Board, interests that will grow no less as the years go by, seem to suggest the propriety of giving it a more permanent character than it now has. As you well know, the practice has been continued from the first of electing a new board each year. While some members are usually re-elected, there is always the possibility of a board composed entirely of inexperienced persons. It has even happened that those who have shown their fitness for the position by valuable services have been displaced for questionable reasons, or pushed aside by those eager for municipal honors.

In my opinion, the city will not be benefited by adhering longer to the custom of annual elections. I would therefore advise that you petition the Legislature to so amend our charter that a board of five persons may be appointed by the Mayor, subject to the approval of the aldermen, as in the case of other appointments, who shall serve, one for one year, one for two years, one for three years, one for four years, and one for five years; and at the expiration of one year after such appointment, and annually thereafter, that the Mayor may appoint, subject to said approval, one person, who shall hold his office for the term of five years, and until another shall be appointed and confirmed in his place

By this method a majority of experienced persons will always be in charge, a well-considered plan of management can be adopted and carried out, and a larger number of citizens, I think, induced to perform this honorable service.

GENTLEMEN OF THE CITY COUNCIL:—

In closing this necessarily brief survey of the condition of the several departments of the city, I desire to renew to you the recommendations made to your immediate predecessors with reference to the manner in which their duties should be performed.

To wish to serve in public station is a laudable ambition. To make that service valuable is a task requiring patient study of the problems submitted, and the rigid application of business principles

to their solution. Pet schemes of private parties, however dear as friends the originators may be, can have no place in such deliberations. The public welfare is alone to be considered. In so far as that is promoted by the expenditure or withholding of money, a wise economy should always be practised. It is easy to spend money. Very little ability is needed to furnish the opportunities. But it is not easy to wisely administer the financial affairs of a municipal corporation.

This is the undertaking, however, to which we have been called by the suffrages of our fellow-citizens, and to the successful completion of which we have pledged our most careful thought and earnest endeavor. Somerville has had much to be thankful for in the conduct of her affairs. Let us bend our energies to the work before us with the determination, if possible, to lay her again under a debt of gratitude for services well performed.

REPORT

OF THE

TREASURER AND COLLECTOR OF TAXES.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 28, 1891.

Referred to committee on finance, and sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Jan. 28, 1891.

Referred to committee on finance in concurrence.

WILLIAM P. MITCHELL, *Clerk pro tem.*

IN COMMITTEE ON FINANCE, Feb. 12, 1891.

To the City Council of Somerville: The committee on finance, to which was referred the annual report of the treasurer and collector of taxes for the year 1890, reports that it has, in conjunction with the city auditor, examined the books and vouchers of the treasurer and collector of taxes for the year ending December 31st, 1890, in the manner prescribed by the ordinances, and has compared the same with the auditor's book, and with the statements received from the several committees, boards, and officers of the city, by which examination and comparison it appears that the report of the treasurer and collector of taxes agrees with the books and vouchers, and that the treasurer's accounts are correct.

The cash on hand has been found to agree with the cash balance reported, by actual count and an inquiry at the banks of deposit, and our inspection of the work of the treasurer has proved highly satisfactory. It is, therefore, recommended that his report be accepted and printed in the annual reports.

CHARLES G. POPE,
ALBERT W. EDMANDS,
CHARLES B. OSGOOD,
FRANK E. DICKERMAN,
S. WALKER JANES,
FRANK E. FITTS,
WILLIAM L. BARBER,
FRANKLIN F. PHILLIPS,

} *Committee.*

IN BOARD OF ALDERMEN, Feb. 25, 1891.

Accepted and referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 26, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

TREASURER'S OFFICE, Jan. 18, 1891.

To the Honorable the Mayor and City Council of the City of Somerville :

GENTLEMEN,—The undersigned presents herewith the nineteenth annual report of the financial condition of the city, and a statement showing in detail the receipts and disbursements for the year ending December 31, 1890.

The value of the property of the city December 31, 1889, was \$1,410,660.86. The property acquired during the year was as follows:—

Highland Schoolhouse addition	\$14,176 74
Morse Schoolhouse addition	13,344 25
Schoolhouse in Ward Two (O. S. Knapp.)	26,591 59
Schoolhouse in Ward Two, Prospect Hill District	16,287 68
Schoolhouse in Ward Three	8,180 02
Steam Fire-engine and Equipment	4,515 00
Water-Works extension	53,411 79

making the value of the public property December 31, 1890, as per Table A, \$1,547,167.93.

The funded debt of the city December 31, 1889, as per Table B of the last annual report, was \$952,500 00

Water Loan Bond No. 279	\$1,000 00
“ “ “ No. 55	9,000 00
“ “ “ Nos. 303 to 305	3,000 00
City Loan Bonds Nos. 914 to 918	5,000 00
“ “ “ Nos. 576 to 646	71,000 00
	<hr/>
amounting to	\$89,000 00

became due during the year. Of this amount \$45,000.00 was paid, and \$44,000.00 renewed, making a reduction of 45,000 00

and leaving the total amount of funded debt \$907,500 00

The debt was increased during the year by appropriations as follows: For the purchase of land and erection of a twelve-room schoolhouse on Washington street, Ward Two, \$50,000.00; purchase of land and erection of an eight-room schoolhouse on Jaques street, Ward Three, \$35,000.00; Highland Schoolhouse improvement, \$15,000.00; and for the extension and improvement of the water works, \$50,000.00; making the total appropriation provided for by borrowing on funded debt account 150,000 00

and leaving the net funded debt, December 31, 1890, \$1,057,500 00

The following bonds were authorized to be issued October 1, 1890, but in consequence of the unfavorable condition of the money market have not yet been disposed of:—

City Loan Bonds Nos. 1,003 to 1,092, \$1,000 each, \$10,000 payable annually 1891 to 1899	\$90,000 00
City Loan Bonds Nos. 1,093 to 1,120, \$1,000 each, payable 1900	28,000 00
City Loan Bonds Nos. 1,121 to 1,137, \$1,000 each, payable 1901	17,000 00
	<hr/>
<i>Amount carried forward</i>	\$135,000 00

<i>Amount brought forward</i>	\$135,000 00
City Loan Bonds Nos. 1,138, to 1,141, \$1,000 each, payable 1902	4,000 00
	<hr/>
Total amount of City Loan Bonds bearing in- terest at 4 per cent.	\$139,000 00
Water Loan Bonds Nos. 393 to 408, \$1,000 each, \$2,000 payable annually 1891 to 1898	\$16,000 00
Water Loan Bonds Nos. 409 to 415, \$1,000 each, pay- able 1899	7,000 00
Water Loan Bonds Nos. 416 to 419, \$1,000 each, \$2,000 payable annually 1900, 1901	4,000 00
Water Loan Bonds Nos. 420 to 425, \$1,000 each, \$3,000 payable 1902 and 1909	6,000 00
Water Loan Bonds Nos. 426 to 447, \$1,000 each, \$2,000 payable annually 1910 to 1920	22,000 00
	<hr/>
Total amount of Water Loan Bonds bearing interest at 4 per cent.	\$55,000 00

The current expenses, public improvements, state and county taxes, and debt requirements were provided for by the following

RESOURCES.

Assessors' warrant for the tax levy, assessed upon the polls and estates of the inhabitants as follows, viz. :—

Real estate, valuation	\$29,981,700 00
Personal property, valuation	2,575,800 00
	<hr/>
Total valuation	\$32,557,500 00
At a rate of \$14.00 on \$1,000 valuation. 2,352 property polls. 8,596 single polls.	
<hr/>	
10,948 polls at \$2.00 each, 6 (women) at \$0.50 each, Borrowed on funded debt account to provide for the cost of public improvements, etc.	\$477,704 00
Received of City of Boston for return on water contract	150,000 00
	55,879 72
	<hr/>
<i>Amount carried forward</i>	\$683,583 72

<i>Amount brought forward</i>	\$683,583 72
Received from various sources	49,141 55
Unexpended balances of 1889	33,376 66
Excess and Deficiency account of 1889	4,951 06
<hr/>	
Total amount of resources for the year ending December 31, 1890	\$771,052 99

The appropriations, credits, and balances of the various accounts were as follows:—

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Fire Department:—			
Appropriation	\$32,900 00		
Received for old materials, etc.		\$99 23	
Expenditures			\$32,013 51
Unexpended balance			985 72
Health Department:—			
Appropriation	6,000 00		
Received for permits, licenses, etc.		229 00	
Expenditures			5,971 81
Unexpended balance			257 19
Highland Schoolhouse Addition:—			
Appropriation	15,000 00		
Expenditures			13,790 94
Balance to be expended in 1891			1,209 06
Highways:—			
Appropriation	\$45,000 00		
Transferred from Street			
Lights account	1,000 00		
	<hr/>		
	46,000 00		
Received for labor and materials,		7,160 51	
Expenditures			55,138 50
Deficiency			1,977 99
Indigent Soldiers and Sailors:—			
Appropriation	900 00		
Received from State of Massachusetts		661 00	
Expenditures			1,322 00
Unexpended balance			239 00

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Interest :—			
Appropriation	\$34,000 00		
Transferred to other accounts			3,332 20
	<u>30,667 80</u>		
Received interest, corporation and bank taxes, etc.		\$17,396 31	
Expenditures			\$50,736 50
Deficiency			2,672 39
 Miscellaneous :—			
Appropriation	6,500 00		
Received for costs on taxes, licenses, etc.		2,290 59	
Expenditures			9,941 47
Deficiency			1,150 88
 Morse Schoolhouse Addition :—			
Unexpended balance from 1889, Transferred from Excess and Deficiency account		19,560 12	
Transferred from Interest account		4,951 06	
Expenditures	1,383 89		25,895 07
 Police :—			
Appropriation	32,000 00		
Received for court fees, fines, etc.		5,602 64	
Expenditures			35,900 42
Unexpended balance			1,702 22
 Police Station Incidentals :—			
Appropriation	2,600 00		
Received for rent		500 00	
Expenditures			2,969 27
Unexpended balance			130 73
 Public Library :—			
Appropriation	3,000 00		
Received for dog licenses, etc.		3,002 83	
Expenditures			5,870 92
Unexpended balance to 1891			131 91

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Public Grounds : —			
Appropriation	\$6,000 00		
Transferred from Relief and Burial of Indigent Soldiers and Sailors' account	<u>1,500 00</u>		
	\$7,500 00		
Received for filling, etc.		\$390 38	
Expenditures			\$7,816 61
Unexpended balance			73 77
Printing and Stationery : —			
Appropriation	5,000 00		
Expenditures			5,212 89
Deficiency			212 89
Reduction of Funded Debt : —			
Appropriation	45,000 00		
Expended			45,000 00
Relief and Burial of Indigent Soldiers and Sailors : —			
Appropriation	\$4,000 00		
Transferred to Public Grounds	<u>1,500 00</u>		
	2,500 00		
Received from State of Mass., etc.		103 50	
Expenditures			2,365 00
Unexpended balance			238 50
Salaries : —			
Appropriation	28,000 00		
Expenditures			27,900 52
Unexpended balance			99 48
School Contingent : —			
Appropriation	20,500 00		
Received for tuition of non-resident pupils, etc.		111 66	
Expenditures			22,364 12
Deficiency			1,752 46
School Fuel : —			
Appropriation	7,000 00		
Expenditures			5,586 01
Unexpended balance			1,413 99

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Schoolhouse Incidentals :—			
Appropriation	\$16,000 00		
Received for old materials, etc.		\$46 00	
Expenditures			\$19,172 92
Deficiency			3,126 92
School Teachers' Salaries :—			
Appropriation	43,500 00		
Received of "City of Boston, water rates"		55,879 72	
Expenditures			100,733 72
Deficiency			1,354 00
Sewers :—			
Appropriation	10,000 00		
Received for permits, etc.		785 08	
Expenditures			9,020 26
Unexpended balance			1,764 82
Sidewalks :—			
Appropriation	10,000 00		
Received for labor and materials		718 40	
Expenditures			9,866 78
Unexpended balance			851 62
Street Lights :—			
Appropriation	\$22,000 00		
Transferred to Highways, 1,000 00			
	21,000 00		
Expenditures			20,554 26
Unexpended balance			445 74
Support of Poor :—			
Appropriation	12,000 00		
Received for aid furnished		2,109 89	
Expenditures			15,261 14
Deficiency			1,151 25
Steam Fire-engine and Equipment :—			
Appropriation	4,600 00		
Expenditures			4,515 00
Unexpended balance			85 00

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Schoolhouse in Ward Two :—			
Balance from 1889		\$10,272 86	
Transferred from Interest account .	\$1,948 31		
Expenditures			\$11,621 17
Balance to be expended in 1891 .			600 00
Schoolhouse in Ward Two, Prospect Hill District :—			
Appropriation by borrowing on Funded Debt account	50,000 00		
Expenditures			16,287 68
Balance to be expended in 1891 .			33,712 32
Schoolhouse in Ward Three :—			
Appropriation by borrowing on Funded Debt account	35,000 00		
Expenditures			8,180 02
Balance to be expended in 1891 .			26,819 98
Watering Streets :—			
Appropriation	4,000 00		
Received from abutters		6,024 36	
Expenditures			9,845 16
Unexpended balance			179 20
Water Maintenance :—			
Appropriation	18,000 00		
Received for labor, materials, etc. .		830 63	
" " Water Service acct. .		736 02	
Expenditures			19,264 63
Unexpended balance			302 02
Water Works Extension :—			
Appropriation by borrowing on Funded Debt account	50,000 00		
Balance from 1889		3,543 68	
Received for labor and materials .		343 52	
Expenditures			53,755 31
Unexpended balance to 1891 acct. .			131 89
County of Middlesex, County Tax :—			
Appropriation	22,188 84		
Expended			22,188 84

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
State of Massachusetts, State Tax :—			
Appropriation	\$24,115 00		
Expended			\$24,115 00
Overlay and Abatement :—			
Appropriation	\$12,900 16		
Transferred to Excess and Deficiency account	4,629 78		
	<u>8,270 38</u>		
Applied and to be applied to abatements on taxes			8,270 38
Excess and Deficiency :—			
Transferred from Overlay and Abatement account to provide for accounts overdrawn	4,629 78		
	<u>\$627,704 00</u>	<u>\$143,348 99</u>	<u>\$771,052 99</u>
Credits from various sources	143,348 99		
	<u>\$771,052 99</u>		<u>\$771,052 99</u>

RECAPITULATION.

Appropriations :—			
As per tax levy	\$477,704 00		
Funded Debt account	150,000 00		
Received from City of Boston, water rates	55,879 72		
Received from various sources	49,141 55		
Balances from 1889	33,376 66		
Excess and Deficiency account, 1889,	4,951 06		
Expenditures			\$708,447 83
Balances to be expended in 1891			62,605 16
	<u>\$771,052 99</u>		<u>\$771,052 99</u>

The assets of the city available for the payment of its unfunded liabilities are as follows : —

Taxes	\$164,632 78
Real-estate liens	55 44
State of Massachusetts, State aid	4,919 50
State of Massachusetts, indigent soldiers and sailors, State of Massachusetts, burial of indigent soldiers and sailors	649 00 70 00
Sidewalk assessments	4,548 24
Sewer assessments	6,931 10
Water-service assessments	2,196 45
City and water loan bonds	194,000 00
Cash	20,285 15
	<hr/>
Total amount of available assets	\$398,287 66

The liabilities are : —

Temporary loans	\$323,000 00
Overlay and abatement	12,207 77
Overplus on tax sales	102 13
Sundry persons	372 60
Public Library	131 91
Schoolhouse in Ward Two	600 00
Schoolhouse in Ward Two, Prospect Hill District	33,712 32
Schoolhouse in Ward Three	26,819 98
Highland Schoolhouse addition	1,209 06
Water-works extension	131 89
	<hr/>
Total amount of unfunded liabilities	\$398,287 66

The financial condition of the city, exclusive of its public property, is as follows : —

Funded debt, city loan	\$678,000 00
Funded debt, water loan	379,500 00
	<hr/>
Net indebtedness Dec. 31, 1890	\$1,057,500 00
Total cash receipts for the year, including a balance of \$21,002.02 from the year 1889	\$1,371,523 23
Total cash disbursements	1,351,238 08
	<hr/>
Leaving in the treasury the sum of	\$20,285 15

A detailed statement of the public property, funded debt, and the receipts and disbursements of the various accounts will appear in the appendix.

Respectfully submitted,

JOHN F. COLE,

Treasurer.

APPENDIX TO TREASURER AND COLLECTOR'S REPORT.

TABLE A.

PUBLIC PROPERTY, DEC. 31, 1890.

Central Hill land (12 acres, 27,920 feet)		\$100,000 00
City Hall	\$10,000 00	
Furniture	3,000 00	
		<u>13,000 00</u>
Public Library		8,500 00
Public Library building		28,338 45
Steam fire-engine house	\$10,000 00	
Furniture	500 00	
Steam fire-engine and apparatus	4,000 00	
Steam fire-engine, hose carriage, and apparatus	2,000 00	
		<u>16,500 00</u>
High Schoolhouse	\$40,000 00	
Furniture	3,500 00	
Philosophical apparatus	500 00	
		<u>44,000 00</u>
Prescott Schoolhouse, land (21,444 ft.) and building	\$40,000 00	
Furniture	2,000 00	
		<u>42,000 00</u>
Luther V. Bell Schoolhouse, land (23,396 feet) and building	\$40,000 00	
Furniture	3,000 00	
		<u>43,000 00</u>
<i>Amount carried forward</i>		<u>\$295,338 45</u>

<i>Amount brought forward</i>		\$295,338 45	
Forster Schoolhouse, land (27,499 feet)			
and building	\$37,922 24		
Furniture	1,500 00		
			<u>39,422 24</u>
Morse Schoolhouse, land (29,109 feet)			
and building	\$25,000 00		
Furniture	1,000 00		
			<u>26,000 00</u>
Morse Schoolhouse addition	\$31,334 95		
Furniture	696 52		
			<u>32,031 47</u>
Highland Schoolhouse, land (23,260 feet) and building	\$32,000 00		
Furniture	1,000 00		
			<u>33,000 00</u>
Highland Schoolhouse addition	\$13,790 94		
Furniture	385 80		
			<u>14,176 74</u>
Lincoln Schoolhouse, land (17,662 feet) and building	\$14,742 17		
Furniture	744 93		
			<u>15,487 10</u>
Prospect Hill Schoolhouse, land (25,313 feet) and building	\$20,000 00		
Furniture	600 00		
			<u>20,600 00</u>
Jackson Schoolhouse, land (11,212 feet) and building	\$8,000 00		
Furniture	300 00		
			<u>8,300 00</u>
Bennett Schoolhouse, land (20,560 feet) and building	\$8,000 00		
Furniture	300 00		
			<u>8,300 00</u>
Webster Schoolhouse, land (11,050 feet) and building	\$8,000 00		
Furniture	300 00		
			<u>8,300 00</u>
<i>Amount carried forward</i>		\$500,956 00	

<i>Amount brought forward</i>		\$500,956 00
Union Schoolhouse, land (9,360 feet) and building	\$2,500 00	
Furniture	100 00	
	<u> </u>	2,600 00
Harvard Schoolhouse, land (9,810 feet) and building	\$2,500 00	
Furniture	100 00	
	<u> </u>	2,600 00
Edgerly Schoolhouse, land (26,428 feet) and building	\$25,000 00	
Furniture	500 00	
	<u> </u>	25,500 00
Edgerly Schoolhouse addition	\$17,000 00	
Furniture	600 00	
	<u> </u>	17,600 00
Brastow Schoolhouse, land (10,019 feet) and building	\$6,000 00	
Furniture	250 00	
	<u> </u>	6,250 00
Franklin Schoolhouse, land (33,017 feet) and building	\$14,000 00	
Furniture	300 00	
	<u> </u>	14,300 00
Beach-street Schoolhouse, land (6,000 feet) and building	\$4,500 00	
Furniture	250 00	
	<u> </u>	4,750 00
Spring Hill Schoolhouse, land (4,991 feet) and building	\$1,600 00	
Furniture	100 00	
	<u> </u>	1,700 00
Davis Schoolhouse, Tufts street, land (29,584 feet) and building	\$17,606 22	
Furniture	726 99	
	<u> </u>	18,333 21
<i>Amount carried forward</i>		<u>\$594,589 21</u>

<i>Amount brought forward</i>		\$594,589.21
Cummings Schoolhouse, School street, land (11,300 feet) and building	\$14,643 21	
Furniture	714 16	
	<hr/>	15,357 37
Bingham Schoolhouse, Lowell street, land (21,017 feet) and building,	\$14,553 56	
Furniture	551 33	
	<hr/>	15,104 89
Burns Schoolhouse, Cherry street, land (16,080 feet) and building	\$14,662 40	
Furniture	587 12	
	<hr/>	15,249 52
O. S. Knapp Schoolhouse, Concord square, land (24,517 feet) and building	\$31,851 81	
Furniture	1,123 08	
	<hr/>	32,974 89
City Farm, land (10 acres, 12,523 feet)		30,000 00
Cedar-street Schoolhouse	\$700 00	
Furniture	100 00	
	<hr/>	800 00
City stables and dwelling houses		7,000 00
Equipments for highway repairs		7,750 00
Watering-carts and sheds		2,300 00
No. 1 Hose-house, land (4,312 feet) and building	\$2,300 00	
Furniture	400 00	
John E. Wool hose carriage and apparatus	2,000 00	
	<hr/>	4,700 00
No. 2 Hose-house, land (5,400 feet) and building	\$7,500 00	
Furniture	300 00	
Winter Hill hose carriage and ap- paratus	2,000 00	
	<hr/>	9,800 00
<i>Amount carried forward</i>		<hr/> <hr/> \$735,625 88

<i>Amount brought forward</i>		\$735,625 88
No. 3 Hose-house, land (5,226 feet) and building	\$9,000 00	
Furniture	300 00	
George H. Foster hose carriage and apparatus	2,000 00	
R. A. Vinal hook-and-ladder truck and apparatus	3,400 00	
Prescott hook-and-ladder truck and apparatus	100 00	
	<hr/>	14,800 00
No. 4 Hose-house, land (9,100 feet) and building	\$11,000 00	
Furniture	400 00	
George O. Brastow hose carriage and apparatus	2,000 00	
Relief hose carriage	600 00	
	<hr/>	14,000 00
Steam fire-engine and equipment		4,515 00
No. 5 Hose-house, land (39,456 feet) and building	\$16,113 68	
Furniture and apparatus	2,630 94	
	<hr/>	18,744 62
Fire-alarm telegraph		15,800 00
Police-station, land (15,232 feet) and building (Bow street)	\$40,000 00	
Furniture	3,000 00	
	<hr/>	43,000 00
Police stable		3,858 35
Prospect street, land (7,918 feet) and building		7,000 00
Public Park (cost \$212,993.20)		125,000 00
Joy street, land (2,960 feet)		500 00
Walnut Hill, land (10,980 feet)		1,000 00
Elm street, land (18,000 feet)		3,600 00
Holland street (5 acres, 6,806 feet)		12,000 00
Gravel-land in Waltham (about 35 acres)		15,000 00
Gravel-land in Wakefield (about 1½ acres)		5,000 00
Gravel-land in Winchester (about 2 acres)		500 00
	<hr/>	
<i>Amount carried forward</i>		\$1,019,943 85

<i>Amount brought forward</i>	\$1,019,943 85
Somerville water-works (cost \$496,476.87)	494,868 11
Oliver street, land (63,069 feet)	7,500 00
Whipple street, land, lots Nos. 30 and 31 (15,240 feet)	388 27
Schoolhouse in Ward Two, Washington street, land (27,236 feet)	16,287 68
Schoolhouse in Ward Three, Jaques street, land (28,800 feet)	8,180 02
Total value of public property	<u>\$1,547,167 93</u>

TABLE B.
FUNDED DEBT DEC. 31, 1890.

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
1888. July 1.	Water.	280	4	1891. July 1.	\$1,000	\$1,000
1884. Oct. 1.	City.	647 to 720	4	Oct. 1.	1,000	74,000
1889. Oct. 1.	City.	919 to 923	4	Oct. 1.	1,000	5,000
1890. Oct. 1.	City.	1,003 to 1,012	4	Oct. 1.	1,000	10,000
1889. Oct. 1.	Water.	306 to 308	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	393 to 394	4	Oct. 1.	1,000	2,000
1881. Jan. 1.	Water.	66 to 76	5	1892. Jan. 1.	1,000	11,000
1888. July 1.	Water.	281	4	July 1.	1,000	1,000
1881. Oct. 1.	Water.	78 to 88	5	Oct. 1.	1,000	11,000
1884. Oct. 1.	City.	721 to 798	4	Oct. 1.	1,000	78,000
1889. Oct. 1.	City.	924 to 928	4	Oct. 1.	1,000	5,000
1890. Oct. 1.	City.	1,013 to 1,022	4	Oct. 1.	1,000	10,000
1889. Oct. 1.	Water.	309 to 311	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	395 to 396	4	Oct. 1.	1,000	2,000
1885. July 1.	Water.	856 to 880	4	1893. July 1.	1,000	25,000
1888. July 1.	Water.	282	4	July 1.	1,000	1,000
1885. Oct. 1.	Water.	89 to 99	5	Oct. 1.	1,000	11,000
1884. Oct. 1.	City.	799 to 852	4	Oct. 1.	1,000	54,000
1889. Oct. 1.	City.	929 to 933	4	Oct. 1.	1,000	5,000
1890. Oct. 1.	City.	1,023 to 1,032	4	Oct. 1.	1,000	10,000
1889. Oct. 1.	Water.	312 to 314	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	397 to 398	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	283	4	1894. July 1.	1,000	1,000
July 1.	City.	887 to 909	4	July 1.	1,000	23,000
	<i>Amount</i>	<i>carried forward</i>	. . .	. . .	. . .	<u>\$351,000</u>

TABLE B. — *Continued.*

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
	<i>Amount</i>	<i>brought forward</i>	. . .	. . .	. . .	\$351,000
1881. Oct. 1.	Water.	100 to 111	5	1894. Oct. 1.	\$1,000	12,000
1889. Oct. 1.	Water.	315 to 317	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	399 to 400	4	Oct. 1.	1,000	2,000
1889. Oct. 1.	City.	934 to 938	4	Oct. 1.	1,000	5,000
1890. Oct. 1.	City.	1,033 to 1,042	4	Oct. 1.	1,000	10,000
1888. July 1.	Water.	284	4	1895. July 1.	1,000	1,000
1883. July 1.	Water.	112 to 124	5	July 1.	1,000	13,000
1876. Oct. 1.	City.	190 to 194	5	Oct. 1.	5,000	25,000
Oct. 1.	City.	195 to 334	5	Oct. 1.	1,000	140,000
1889. Oct. 1.	City.	939 to 943	4	Oct. 1.	1,000	5,000
1890. Oct. 1.	City.	1,043 to 1,052	4	Oct. 1.	1,000	10,000
1889. Oct. 1.	Water.	318 to 320	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	401 to 402	4	Oct. 1.	1,000	2,000
1876. July 1.	Sewer.	1 to 7	5	1896. July 1.	5,000	35,000
1882. July 1.	Water.	125 to 136	5	July 1.	1,000	12,000
July 1.	Water.	137	5	July 1.	500	500
1888. July 1.	Water.	285	4	July 1.	1,000	1,000
1889. Oct. 1.	Water.	321 to 323	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	403 to 404	4	Oct. 1.	1,000	2,000
1889. Oct. 1.	City.	944 to 948	4	Oct. 1.	1,000	5,000
1890. Oct. 1.	City.	1,053 to 1,062	4	Oct. 1.	1,000	10,000
1882. July 1.	Water.	138 to 151	5	1897. July 1.	1,000	14,000
1888. July 1.	Water.	286	4	July 1.	1,000	1,000
July 1.	City.	910 to 913	4	July 1.	1,000	4,000
1889. Oct. 1.	City.	949 to 969	4	Oct. 1.	1,000	21,000
	<i>Amount</i>	<i>carried forward</i>	. . .	. . .	. . .	\$690,500

TABLE B. — *Continued.*

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
	<i>Amount</i>	<i>brought forward</i>	. . .	. . .	. . .	\$690,500
1890. Oct. 1.	City.	1,063 to 1,072	4	1897. Oct. 1.	\$1,000	10,000
1889. Oct. 1.	Water.	324 to 326	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	405 to 406	4	Oct. 1.	1,000	2,000
1882. July 1.	Water.	152 to 166	5	1898. July 1.	1,000	15,000
1888. July 1.	Water.	287	4	July 1.	1,000	1,000
1889. Oct. 1.	Water.	327 to 329	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	407 to 408	4	Oct. 1.	1,000	2,000
1889. Oct. 1.	City.	970 to 993	4	Oct. 1.	1,000	24,000
1890. Oct. 1.	City.	1,073 to 1,082	4	Oct. 1.	1,000	10,000
1882. July 1.	Water.	167 to 181	5	1899. July 1.	1,000	15,000
July 1.	Water.	182	5	July 1.	500	500
1888. July 1.	Water.	288	4	July 1.	1,000	1,000
1889. Oct. 1.	Water.	330 to 342	4	Oct. 1.	1,000	13,000
1890. Oct. 1.	Water.	409 to 415	4	Oct. 1.	1,000	7,000
1889. Oct. 1.	City.	994 to 1,002	4	Oct. 1.	1,000	9,000
1890. Oct. 1.	City.	1,083 to 1,092	4	Oct. 1.	1,000	10,000
1882. July 1.	Water.	183 to 194	5	1900. July 1.	1,000	12,000
July 1.	Water.	195	5	July 1.	500	500
1888. July 1.	Water.	289	4	July 1.	1,000	1,000
1884. Oct. 1.	Water.	200 to 202	4	Oct. 1.	1,000	3,000
1889. Oct. 1.	Water.	343 to 344	4	Oct. 1.	1,000	2,000
1890. Oct. 1.	Water.	416 to 417	4	Oct. 1.	1,000	2,000
Oct. 1.	City.	1,093 to 1,120	4	Oct. 1.	1,000	28,000
1888. July 1.	Water.	290	4	1901. July 1.	1,000	1,000
1884. Oct. 1.	Water.	203 to 212	4	Oct. 1.	1,000	10,000
	<i>Amount</i>	<i>carried forward</i>	. . .	. . .	. . .	\$875,500

TABLE B. — *Continued.*

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
	<i>Amount</i>	<i>brought forward</i>	. .	. . . .	. . . .	\$875,500
1885. July 1.	Water.	214 to 219	4	1901. July 1.	\$1,000	6,000
1889. Oct. 1.	Water.	345 to 346	4	Oct. 1.	1,000	2,000
1890. Oct. 1.	Water.	418 to 419	4	Oct. 1.	1,000	2,000
Oct. 1.	City.	1,121 to 1,137	4	Oct. 1.	1,000	17,000
1885. July 1.	Water.	220 to 226	4	1902. July 1.	1,000	7,000
1886. July 1.	Water.	229 to 238	4	July 1.	1,000	10,000
1889. Oct. 1.	Water.	347 to 348	4	Oct. 1.	1,000	2,000
1890. Oct. 1.	Water.	420 to 422	4	Oct. 1.	1,000	3,000
Oct. 1.	City.	1,138 to 1,141	4	Oct. 1.	1,000	4,000
1886. July 1.	Water.	239 to 256	4	1903. July 1.	1,000	18,000
1889. Oct. 1.	Water.	349 to 350	4	Oct. 1.	1,000	2,000
1886. July 1.	Water.	257 to 266	4	1904. July 1.	1,000	10,000
1889. Oct. 1.	Water.	351 to 352	4	Oct. 1.	1,000	2,000
Oct. 1.	Water.	353 to 355	4	1905. Oct. 1.	1,000	3,000
1876. July 1.	Water.	30 and 31	5½	1906. July 1.	5,000	10,000
1889. Oct. 1.	Water.	356 to 358	4	Oct. 1.	1,000	3,000
1886. July 1.	Water.	267 to 276	4	1907. July 1.	1,000	10,000
1889. Oct. 1.	Water.	359 to 361	4	Oct. 1.	1,000	3,000
1888. July 1.	Water.	291	4	July 1.	1,000	1,000
July 1.	Water.	292	4	1908. July 1.	1,000	1,000
1889. Oct. 1.	Water.	362 to 364	4	Oct. 1.	1,000	3,000
1888. July 1.	Water.	293	4	July 1.	1,000	1,000
1890. Oct. 1.	Water.	423 to 425	4	1909. Oct. 1.	1,000	3,000
	<i>Amount</i>	<i>carried forward</i>	. .	. . . .	. . . .	\$998,500

TABLE B.—Continued.

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When Due.	Denomination.	Amount.
	<i>Amount</i>	<i>brought forward</i>	. .	. . . .	. . . .	\$998,500
1889. Oct. 1.	Water.	365 to 367	4	1909. Oct. 1.	\$1,000	3,000
1888. July 1.	Water.	294	4	1910. July 1.	1,000	1,000
1889. Oct. 1.	Water.	368 to 370	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	426 to 427	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	295	4	1911. July 1.	1,000	1,000
1889. Oct. 1.	Water.	371 to 373	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	428 to 429	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	296	4	1912. July 1.	1,000	1,000
1889. Oct. 1.	Water.	374 to 376	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	430 to 431	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	297	4	1913. July 1.	1,000	1,000
1889. Oct. 1.	Water.	377 to 379	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	432 to 433	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	298	4	1914. July 1.	1,000	1,000
1889. Oct. 1.	Water.	380 to 382	4	Oct. 1.	1,000	3,000
1890. Oct. 1.	Water.	434 to 435	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	299	4	1915. July 1.	1,000	1,000
1889. Oct. 1.	Water.	383 to 384	4	Oct. 1.	1,000	2,000
1890. Oct. 1.	Water.	436 to 437	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	300	4	1916. July 1.	1,000	1,000
1889. Oct. 1.	Water.	385 to 386	4	Oct. 1.	1,000	2,000
1890. Oct. 1.	Water.	438 to 439	4	Oct. 1.	1,000	2,000
1888. July 1.	Water.	301	4	1917. July 1.	1,000	1,000
1889. Oct. 1.	Water.	387 to 388	4	Oct. 1.	1,000	2,000
	<i>Amount</i>	<i>carried forward</i>	. .	. . . .	. . . .	\$1,044,500

TABLE B.—*Concluded.*

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When Due.	Denomination.	Amount.
1890.	<i>Amount</i>	<i>brought forward</i>	. .	1917.	. . .	\$1,044,500
Oct. 1.	Water.	440 to 441	4	Oct. 1.	\$1,000	2,000
1888.				1918.		
July 1.	Water.	302	4	July 1.	1,000	1,000
1889.						
Oct. 1.	Water.	389 to 390	4	Oct. 1.	1,000	2,000
1890.						
Oct. 1.	Water.	442 to 443	4	Oct. 1.	1,000	2,000
1889.				1919.		
Oct. 1.	Water.	391 to 392	4	Oct. 1.	1,000	2,000
1890.						
Oct. 1.	Water.	444 to 445	4	Oct. 1.	1,000	2,000
1890.				1920.		
Oct. 1.	Water.	446 to 447	4	Oct. 1.	1,000	2,000
	<i>Total</i>	<i>Funded Debt</i>	. .	. . .	. . .	\$1,057,500

TABLE C.

STATEMENT OF ACCOUNTS SHOWING APPROPRIATIONS, EXPENDITURES, ETC., TO DEC. 31, 1890.

APPROPRIATIONS.

		CREDIT.	
Taxes, amount assessed		\$418,500	00
Property and debt and balance		194,000	00
		<hr/>	
		\$612,500	00
		DEBIT.	
Fire Department	\$32,900	00	
Health Department	6,000	00	
Highland Schoolhouse addition	15,000	00	
Highways	45,000	00	
Indigent Soldiers and Sailors	900	00	
Interest	34,000	00	
Miscellaneous	6,500	00	
Police	32,000	00	
Police Station Incidentals	2,600	00	
Public Library	3,000	00	
Public Grounds	6,000	00	
Printing and Stationery	5,000	00	
Reduction of Funded Debt	45,000	00	
Renewals of Funded Debt	44,000	00	
Relief and Burial of Indigent Soldiers and Sailors	4,000	00	
Salaries	28,000	00	
School Contingent	20,500	00	
School Fuel	7,000	00	
Schoolhouse Incidentals	16,000	00	
School Teachers' Salaries	43,500	00	
Sewers	10,000	00	
Sidewalks	10,000	00	
Street Lights	22,000	00	
	<hr/>		
<i>Amounts carried forward</i>	\$438,900	00	\$612,500 00

<i>Amounts brought forward</i>	\$438,900 00	\$612,500 00
Support of Poor	12,000 00	
Steam Fire-engine and Equipment	4,600 00	
Schoolhouse in Ward Two, Prospect Hill District	50,000 00	
Schoolhouse in Ward Three	35,000 00	
Watering Streets	4,000 00	
Water Maintenance	18,000 00	
Water-works extension	50,000 00	
	<hr/>	\$612,500 00
		<hr/> <hr/>

CASH.

CREDIT.

County of Middlesex	\$22,188 84
Funded Debt	89,000 00
Fire Department	32,013 51
Health Department	5,971 81
Highways	55,138 50
Highland Schoolhouse addition	13,790 94
Indigent Soldiers and Sailors	1,322 00
Interest	50,399 00
Miscellaneous	9,941 47
Morse Schoolhouse addition	25,895 07
Police	35,900 42
Police Station Incidentals	2,969 27
Public Library	5,870 92
Public Grounds	7,816 61
Printing and Stationery	5,212 89
Relief and Burial of Indigent Soldiers and Sailors	2,365 00
Sundry Persons	20 00
State Aid	5,089 50
Salaries	27,900 52
School Contingent	22,364 12
School Fuel	5,586 01
Schoolhouse Incidentals	19,172 92
	<hr/>
<i>Amount carried forward</i>	\$445,929 32

<i>Amount brought forward.</i>	\$445,929	32	
School Teachers' Salaries	100,733	72	
Schoolhouse in Ward Two	11,621	17	
Schoolhouse in Ward Two, Prospect Hill District	16,287	68	
Schoolhouse in Ward Three	8,180	02	
Sewers	17,911	83	
Sidewalks	18,850	34	
Street Lights	20,554	26	
Support of Poor	15,261	14	
State of Massachusetts	24,115	00	
Steam Fire-engine and Equipment	4,515	00	
Temporary Loans	575,000	00	
Watering Streets	9,845	16	
Water Maintenance	19,264	63	
Water Services	9,413	50	
Water-works extension	53,755	31	
Balance to debit in account 1891	20,285	15	
	<hr/>		\$1,371,523 23

DEBIT.

Balance from 1889	\$21,002	02	
Fire Department	99	23	
Health Department	229	00	
Highways	7,160	51	
City of Boston	1,329	08	
City of Boston, water rates	55,879	72	
Interest	17,396	31	
Miscellaneous	2,290	59	
Police	5,602	64	
Police Station Incidentals	500	00	
Public Library	3,002	83	
Public Grounds	390	38	
Relief and Burial of Indigent Soldiers and Sailors	33	50	
State Aid	58	00	
	<hr/>		
<i>Amounts carried forward</i>	\$114,973	81	\$1,371,523 23

<i>Amounts brought forward.</i>	\$114,973 81	\$1,371,523 23
School Contingent	111 66	
Schoolhouse Incidentals	46 00	
Sewers	785 08	
Sidewalks	718 40	
Sewer Assessments	17,857 65	
Sidewalk Assessments	11,321 27	
Support of Poor	2,109 89	
State of Massachusetts, State Aid	4,492 00	
State of Massachusetts, Indigent Soldiers and Sailors	614 50	
Taxes	453,238 60	
Temporary Loans	748,000 00	
Watering Streets	6,024 36	
Water Maintenance	830 63	
Water Services	458 23	
Water Service Assessments	9,597 63	
Water-works extension	343 52	
	<u> </u>	<u>\$1,371,523 23</u>

COUNTY OF MIDDLESEX.

CREDIT.

Taxes, amount assessed	\$22,188 84
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DEBIT.

Cash, paid county tax	<u>\$22,188 84</u>
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CITY OF BOSTON, WATER RATES.

CREDIT.

Cash, received of City of Boston return on water rates, 50 per cent. of \$111,759.44	\$55,879 72
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DEBIT.

School Teachers' Salaries, transferred	<u>\$55,879 72</u>
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CITY OF BOSTON.

DEBIT.

Balance of account 1889	\$1,329 08
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CREDIT.

Cash, received of City of Boston return on water rates, 50 per cent of \$2,658.16	<u>\$1,329 08</u>
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CITY AND WATER LOAN BONDS.

CREDIT.

Balance to debit in account 1891	\$194,000 00
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DEBIT.

Funded Debt, bonds not sold	<u>\$194,000 00</u>
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EXCESS AND DEFICIENCY.

CREDIT.

Balance from 1889	\$4,951 06
Fire Department, credit balance of ac- count	985 72
Health Department, credit balance of account	257 19
Indigent Soldiers and Sailors, credit balance of account	239 00
Public Grounds, credit balance of ac- count	73 77
Police, credit balance of account	1,702 22
Police Station Incidentals, credit bal- ance of account	130 73
Relief and Burial of Indigent Soldiers and Sailors, credit balance of account	238 50
Sidewalks, credit balance of account	851 62
Sewers, credit balance of account	1,764 82
<i>Amount carried forward</i>	<u>\$11,194 63</u>

<i>Amount brought forward</i> . . .	\$11,194 63	
Salaries, credit balance of account . . .	99 48	
School Fuel, credit balance of account, . . .	1,413 99	
Street Lights, credit balance of account, . . .	445 74	
Steam Fire-engine and Equipment, credit balance of account . . .	85 00	
Watering Streets, credit balance of account	179 20	
Water Maintenance, credit balance of account	302 02	
Overlay and Abatement, transferred . . .	4,629 78	
	<hr/>	\$18,349 84

DEBIT.

Morse Schoolhouse addition, balance of 1889 transferred	\$4,951 06	
Highways, debit balance of account . . .	1,977 99	
Interest, debit balance of account . . .	2,672 39	
Miscellaneous, debit balance of account, . . .	1,150 88	
Printing and Stationery, debit balance of account	212 89	
Support of Poor, debit balance of ac- count	1,151 25	
School Teachers' Salaries, debit balance of account	1,354 00	
School Contingent, debit balance of account	1,752 46	
Schoolhouse Incidentals, debit balance of account	3,126 92	
	<hr/>	<u>\$18,349 84</u>

FUNDED DEBT.

CREDIT.

Balance from 1890		\$952,500 00
City and Water Loan Bonds:—		
City Loan Bonds not sold	\$139,000 00	
	<hr/>	<hr/>
<i>Amounts carried forward</i>	\$139,000 00	\$952,500 00

<i>Amounts brought forward</i>	\$139,000 00	\$952,500 00
Water Loan Bonds not sold	55,000 00	
	<u> </u>	194,000 00
		<u>\$1,146,500 00</u>

DEBIT.

Cash, paid sundry persons :—		
Water Loan Bonds Nos. 55 to 279,	\$10,000 00	
Water Loan Bonds Nos. 303 to 305,	3,000 00	
City Loan Bonds Nos. 576 to 646,	71,000 00	
City Loan Bonds Nos. 914 to 918,	5,000 00	
	<u> </u>	\$89,000 00
Balance to debit in account 1891		1,057,500 00
		<u>\$1,146,500 00</u>

FIRE DEPARTMENT.

CREDIT.

Appropriations, amount assessed		\$32,900 00
Cash, received of Lorenzo W. Dow, manure,	\$45 00	
E. I. Braddock, old copper, etc.	54 23	99 23
	<u> </u>	<u>\$32,999 23</u>

DEBIT.

Cash, paid James R. Hopkins, chief en- gineer	\$1,400 00	
Nathaniel C. Barker, assistant en- gineer	300 00	
One steamer engineer, ten months	900 00	
Two steamer engineers, two months	360 00	
Steamer fireman	900 00	
Eight drivers, ten months	6,000 00	
Nine drivers, two months	1,350 00	
Edward F. Backus, lineman	936 29	
	<u> </u>	<u>\$32,999 23</u>
<i>Amounts carried forward</i>	\$12,146 29	\$32,999 23

<i>Amounts brought forward.</i>	\$12,146 29	\$32,999 23
William A. Perry, substitute driver	295 16	
John Gillooly, substitute driver	75 00	
William H. Dennis, substitute driver	36 29	
Charles H. Timson, substitute driver	33 87	
Ira E. Mix, substitute driver	112 02	
Charles H. Stevens, substitute driver	75 00	
Steamer Co. No. 1	785 00	
Steamer Co. No. 4	218 95	
R. A. Vinal Hook and Ladder Co.	1,331 76	
John E. Wool Hose Co., No. 1	786 00	
Winter Hill Hose Co., No. 2	786 00	
George H. Foster Hose Co., No. 3	714 75	
George O. Brastow Hose Co., No. 4	644 92	
Hose Co. No. 5	667 25	
City of Boston, water for hydrants	2,239 44	
City of Boston, water for houses,	120 90	
Cambridge Gas Light Co., gas	440 93	
Charlestown Gas Co., gas	147 88	
Nathan Tufts & Sons, grain	660 86	
Fulton O'Brion, hay and grain	263 76	
A. M. Prescott, hay and grain	245 18	
Hewey, Skillings, & Co., hay and grain	35 05	
Hosmer, Crampton, & Hammond, hay	198 13	
Plummer & Co., hay	183 02	
Seward Dodge, blacksmithing	238 68	
W. H. Richardson, horseshoeing,	44 00	
<i>Amounts carried forward</i>	\$23,526 09	\$32,999 23

<i>Amounts brought forward</i>	\$23,526 09	\$32,999 23
M. Lynch, horseshoeing	21 75	
C. F. Scott, horseshoeing	20 78	
Charles Maguire, horseshoeing	43 05	
Edward O'Brien, horseshoeing	45 58	
Charles W. Ingalls, horseshoeing,	44 65	
W. E. Plumer & Co., hardware	33 78	
J. A. Durell, hardware	14 25	
Charles A. Holmes & Co., hard- ware	8 75	
W. I. Heald, hardware	25 44	
Enoch Robinson, hardware	23 62	
Howe & Flint, hardware	2 52	
W. Hall & Co., hardware	10 50	
H. W. Raymond, hardware	10 45	
Whitney & Snow, hardware	1 05	
W. L. Snow, plumbing	12 86	
H. W. Covell, plumbing	31 31	
James F. Davlin, plumbing	2 60	
Elijah Walker, carpentering	324 23	
Horace P. Ewell, carpentering	4 75	
M. K. Norwood, carpentering	17 10	
George North, carpentering	33 22	
Young & Maynard, plumbing	29 31	
S. D. Hicks & Co., copper work,	40 50	
Oscar F. Howe, brooms	22 75	
S. B. Ward, brushes	10 50	
Murphy, Leavens, & Co., dusters,	16 11	
Thomas Hollis, vitriol	212 66	
Cochran Chemical Co., vitriol	2 70	
E. F. Chaffee, drugs	1 55	
H. D. Padelford, drugs	2 70	
New England Telephone and Telegraph Co., rentals and tolls,	119 15	
Edwin Rogers and W. E. Decrow, fire-alarm apparatus	1,213 56	
A. L. Russell, electric supplies	5 75	
<i>Amounts carried forward</i>	\$25,935 57	\$32,999 23

<i>Amounts brought forward</i>	\$25,935 57	\$32,999 23
J. M. Burckes, mason work	32 92	
A. M. Sibley, mason work	11 40	
Alfred H. Hines, mason work	12 75	
J. K. Ricker, carpentering	29 75	
John S. Rice, faucet	2 30	
W. F. Blanchard, repairing wagon,	48 00	
Brown & Call, repairing wagon	20 00	
Union Square Carriage Co., re- pairing wagon	10 50	
Wm. T. Henderson, fuel wagon, etc.	73 75	
E. Teel & Co., hose wagon and repairs	489 75	
John S. Nason, horses	950 00	
E. W. Carlin, harness work	7 95	
D. J. Bennett, harness work	92 00	
Charles E. Berry, harness work	58 00	
Hill & Langtry, harness work	15 13	
F. Ivers & Son, harness work	7 00	
L. H. Brown & Co., carriage hire, H. M. Chase, carriage hire	2 00	
H. M. Weld & Co., carriage hire, George T. Day, expressing	5 00	
Charles E. Farnham, expressing, Gilman's Express, expressing	8 18	
Thorpe's Express, expressing	21 17	
Glines & Co., expressing	70	
E. R. Perham, expressing	1 15	
John P. Squire & Co., oil	2 60	
James Bartley, oil	3 50	
H. W. Burgess, oil	23 00	
George P. Palmer, oil	5 32	
W. F. Nye, oil	55	
R. S. Jackson, waste	1 25	
Fox, McDormand, & Co., shav- ings	8 00	
	8 25	
	3 00	
<i>Amounts carried forward</i>	\$27,895 44	\$32,999 23

<i>Amounts brought forward</i>	\$27,895 44	\$32,999 23
Daley & Co., fire hats	40 50	
M. Rich & Co., soap	2 12	
H. A. Winship, bag	6 50	
A. W. Mitchell, badges	37 50	
W. E. Salis, repairing clock	2 00	
Boston Ice Co., ice	17 25	
H. D. & W. S. Durgin, ice	96 00	
S. L. Chandler, bed clothing	13 22	
Jordan, Marsh, & Co., bed clothing	46 34	
F. A. Rolfe, flannel	90	
J. H. Brooks, flannel	67	
J. L. Crafts, rope, etc.	31 08	
F. G. Ray & Son, laundry	5 82	
A. S. Jackson, hardware	310 82	
Harry Hunt, hardware	39 00	
Boston Woven Hose Co., hose	342 27	
Edward Kendall & Son, repairing boiler	13 75	
Andrew J. Morse & Son, repairing hydrant	10 75	
Winter Hill Ice Co., ice	17 75	
T. Spellman, soap	6 00	
W. J. Logan, glazing	2 25	
Engine Co. No. 5, Cambridge, refreshments	20 00	
Silas Carter, refreshments	65 00	
C. L. Davenport, salt	2 25	
George W. Dryden, horse food	22 50	
D. W. Crocker, wheelwright work,	15 10	
E. W. Ring, washing, etc.	39 02	
J. A. Buxton, washing	28 63	
I. C. Jackson, washing	23 72	
Mrs. Calvert, washing	37 31	
Thomas H. Daley, washing	26 00	
S. H. Stevens, washing	25 82	
<i>Amounts carried forward</i>	<u>\$29,243 28</u>	<u>\$32,999 23</u>

<i>Amounts brought forward</i>	\$29,243 28	\$32,999 23
J. F. Burton, hanging door	2 00	
C. A. Southwick, watching	2 50	
Benjamin W. Loomer, watching,	2 50	
John A. Hill, watching	2 50	
James H. Banks, watching	2 50	
Patrick J. Fallon, watching	2 50	
James D. Perkins, telegraph work,	54 50	
S. J. Woods, telegraph work	1 00	
G. D. B. Robinson, carpentering,	31 37	
George W. Trefren, Jr., carpen- tering	1 44	
J. Q. Twombly, painting	30 94	
J. H. Hollis, painting	38 80	
E. G. Dean, painting	32 00	
Frye, Phipps, & Co., hardware	40 87	
John Demarest, hardware	9 60	
Ingalls & Kendricken, grates	9 25	
Braman, Dow, & Co., pipe	65	
King & Goddard, pipe	75	
J. B. Prescott & Co., zincs	31 00	
George L. Baxter, lighters	5 00	
Charles A. Mongan, labor on drain	20 00	
F. H. Flagg, wheelwright work	10 00	
Union Glass Co., battery jars	4 35	
J. Hinman, hardware	119 39	
H. B. Willis, services as veter- inary	32 00	
Charles R. Simpson, services as veterinary	30 00	
Thomas Groom & Co., stationery,	9 75	
J. O. Hayden & Co., printing	4 25	
Somerville Journal Co., printing,	26 00	
Citizen Publishing Co., printing,	3 00	
A. F. Chappell, cleaning carpet,	3 15	
Horatio Wellington & Co., fuel	570 56	
<i>Amounts carried forward</i>	<u>\$30,377 40</u>	<u>\$32,999 23</u>

<i>Amounts brought forward</i> . . .	\$30,377 40	\$32,999 23
B. F. Wild & Co., fuel . . .	266 60	
Cornelius Callahan & Co., hose, etc.	666 02	
Bay State Belting Co., hose, etc.,	180 00	
American Fire Hose Co., hose . .	1 25	
H. C. Folger, repairing hose . .	15 15	
E. Spalding, harness work . . .	67 03	
Joseph Cogan, harness work . . .	33 60	
F. F. Gearty, harness work . . .	3 00	
Star Brass Manfg. Co., gauge . . .	8 63	
Silsby Manfg. Co., flues	82 71	
American Tube Works, tube	14 26	
Franklin Electric Works, repairs,	17 55	
Snowflake Axle Grease Co., grease	2 80	
George G. Page Box Co., boxes,	13 50	
Webster & Dustin, house track . .	44 38	
Paine's Furniture Co., iron bed- steads	33 30	
Jackson Caldwell & Co., bedding,	117 85	
Wm. F. Eccles, repairing bedding,	27 48	
George F. Roach, chairs	41 00	
	<hr/>	
	\$32,013 51	
Excess and Deficiency, balance to credit of account	985 72	
	<hr/>	
		<u>\$32,999 23</u>

HEALTH DEPARTMENT.

CREDIT.

Appropriations, amount assessed		\$6,000 00
Cash, received of William P. Mitchell, permits to keep swine and goats and collect grease	\$221 00	
	<hr/>	
<i>Amounts carried forward</i>	\$221 00	\$6,000 00

<i>Amounts brought forward</i>	\$221 00	\$6,000 00
Sundry persons, money not called for	8 00	
	<hr/>	229 00
		<hr/>
		\$6,229 00

DEBIT.

Cash, paid Caleb A. Page, salary as in- specter	\$1,000 00	
Jeremiah McCarthy, collecting ashes	1,264 26	
Owen Cunningham, collecting ashes	1,559 52	
Henry Gray, collecting offal	1,647 20	
Robert H. Chew, labor	109 32	
Sewers account, labor	29 50	
M. C. Parkhurst, paid for labor	5 00	
Codman & Shurtleff, vaccine virus	7 00	
Thomas Waterman, vaccine virus, New England Vaccine Co., vac- cine virus	1 00	
West & Jenney, sulphur	8 01	
West & Jenney, sulphur	6 88	
J. M. Corse, rent of P. O. box	4 00	
Heliotype Printing Co., maps	37 50	
J. O. Hayden & Co., printing	32 63	
Somerville Journal Co., printing, McDonnell Bros., printing	7 00	
Thomas Groom & Co., stationery, John R. Fairbairn, officers' fees	18 00	
Thomas Groom & Co., stationery, John R. Fairbairn, officers' fees	15 25	
John R. Fairbairn, officers' fees	1 24	
Jackson Caldwell & Co., storage, M. G. Staples, teaming	12 00	
M. G. Staples, teaming	2 00	
H. M. Weld, carriage hire	5 00	
L. H. Brown, carriage hire	11 00	
Charles E. Farnham, expressing, <i>Amounts carried forward</i>	50	
	<hr/>	<hr/>
	\$5,783 81	\$6,229 00

<i>Amounts brought forward</i>	\$5,783 81	\$6,229 00
Seward Dodge, iron rod	25	
Sundry persons, burying dead animals	187 75	
	<hr/>	
	\$5,971 81	
Excess and Deficiency, balance to credit of account	257 19	
	<hr/>	
		<u>\$6,229 00</u>

HIGHWAYS.

CREDIT.

Appropriations, amount assessed		\$45,000 00
Street Lights, transferred		1,000 00
Cash, received of A. M. Hills, sidewalk	\$34 20	
Martha M. Sturtevant, sidewalk	40 31	
R. H. Sturtevant, sidewalk	85 76	
R. B. Stickney, sidewalk	145 67	
First M. E. Church, sidewalk	51 30	
S. R. Briggs, sidewalk	18 56	
Adelia A. Wheelock, sidewalk	50 14	
Charles A. Philbrick, sidewalk	55 00	
J. J. Giles, sidewalk	30 38	
Estate, M. T. Hollander, sidewalk	19 57	
Charles H. Ramsdell, sidewalk	67 49	
C. F. Hastings, sidewalk	18 90	
George H. Hills, sidewalk	73 36	
R. H. Sturtevant, sidewalk	95 57	
M. C. Wright, sidewalk	26 22	
S. Spencer, sidewalk	58 55	
S. A. Harding, sidewalk	5 72	
William M. Armstrong, sidewalk	82 31	
William H. Preston, sidewalk	43 88	
	<hr/>	
<i>Amounts carried forward</i>	\$1,002 89	<u>\$46,000 00</u>

<i>Amounts brought forward</i>	\$1,002 89	\$46,000 00
Maria P. Anderson, sidewalk	43 50	
George W. Shaw, sidewalk	22 95	
Patrick Campbell, sidewalk	4 62	
Daniel Buckley, sidewalk	4 96	
Julia M. Murphy, sidewalk	8 98	
Michael Beirne, sidewalk	14 31	
J. McCarthy, sidewalk	12 19	
Timothy Reardon, sidewalk	3 95	
J. B. Humphrey, sidewalk	70 20	
Annie E. Milner, sidewalk	29 36	
George McLaughlin, sidewalk	3 14	
Samuel Walker, sidewalk	32 55	
John C. Pushee, edgestones	47 25	
W. H. Berry, edgestones	11 88	
West Somerville Baptist Society, edgestones	140 08	
M. J. McDonald, edgestones	3 37	
N. A. Taylor, edgestones	6 90	
George D. Goodrich, edgestones, W. L. Barber, driveway	76 60	
W. L. Clark, driveway	8 13	
William T. Wade, driveway	3 00	
James H. Woods, driveway	20 24	
J. W. Roberts, driveway	13 38	
J. W. Roberts, driveway	12 79	
Q. A. Vinal et al., driveway	30 65	
John J. Dorey, driveway	9 57	
B. F. Wild, driveway	7 33	
George S. Paine, driveway	2 00	
Edward Cox, driveway	10 65	
Sprague & Hathaway, driveway	9 30	
Alvah M. Thompson, driveway	14 47	
T. F. Scannell, driveway	9 20	
E. T. Baker, driveway	2 00	
T. F. Cummings & Co., driveway, Public Grounds account, drive- way	9 67	
	449 13	
<i>Amounts carried forward</i>	<u>\$2,151 19</u>	<u>\$46,000 00</u>

<i>Amounts brought forward</i>	\$2,151 19	\$46,000 00
Thomas Ormand, rent	72 00	
Arthur Murley, rent	64 00	
Cambridge Gas Light Co., labor,	4 00	
North Packing and Provision Co.,		
hogs	8 30	
Frank Timney, junk	22 40	
Jeremiah O'Brien, stone	46 80	
Town of Wakefield, gravel	100 00	
H. G. Bean, rent of Waltham		
pasture	120 00	
Lemuel Millett, street sweepings,	2 20	
John Stackpole, street sweepings,	18 40	
Boston & Maine Railroad, labor		
and materials	321 15	
O. S. Knapp, opening for new		
street	10 74	
Daniel Hoar, grass	75 00	
West End Street Ry. Co., crushed		
stone	1,051 27	
Watering Streets account, paving,	120 75	
Public Grounds account, use of		
horse	31 55	
Sidewalks account, use of teams,		
etc.	2,938 76	
Sundry persons, money not called		
for	2 00	
	<hr/>	7,160 51
Excess and Deficiency balance to		
debit of account		1,977 99
		<hr/>
		\$55,138 50

DEBIT.

Cash, paid Frank G. Williams, salary		
as superintendent	\$187 50	
Board of horses	51 43	
	<hr/>	
<i>Amounts carried forward</i>	\$238 93	\$55,138 50

<i>Amounts brought forward</i>	\$238 93	55,138 50
Thomas H. Eames, salary as superintendent	1,312 50	
Board of horses	308 02	
Laborers	25,926 30	
A. M. Prescott, grain	404 29	
A. D. Hoitt, grain	150 56	
Fulton O'Brion, grain	257 87	
Fitch & Ladd, hay and grain	2,280 34	
Hosmer, Crampton, & Ham- mond, hay and grain	238 10	
J. A. Litchfield, grain	5 40	
Sanborn & Hatch, bricks	943 88	
John Thresher, bricks	548 55	
Parry Bros. & Co., bricks	448 88	
N. M. Cofran & Co., bricks	15 00	
John Turner & Co., stone	147 10	
Dennis Shea, stone	571 95	
M. P. Canfield, stone	128 25	
Mass. Broken Stone Co., stone	122 30	
Frank W. Mead, stone	2,560 80	
Jeremiah McCarthy, stone, etc.	3,167 52	
Christopher Burke, stone, etc.	730 28	
West End Street Ry. Co., stone,	897 13	
B. E. Higgins, gravel	60 25	
Fitchburg R. R. Co., freight on gravel	4,365 90	
F. Dooris, blacksmithing	276 46	
Seward Dodge, blacksmithing	331 04	
Charles L. Underhill, black- smithing	8 15	
Edward O'Brien, horseshoeing	280 07	
A. Clement, horseshoeing	218 66	
George C. Foss, horseshoeing	2 25	
C. F. Scott, horseshoeing	3 00	
C. W. Ingalls, horseshoeing	13 66	
M. Lynch, horseshoeing	3 00	
<i>Amounts carried forward</i>	\$46,966 39	\$55,138 50

<i>Amounts brought forward</i>	\$46,966 39	\$55,138 50
Farrell Foundry & Machine Co., repairing crusher	11 59	
Miller & Shaw, repairing crusher,	108 84	
George Tyler & Co., repairing scraper	1 75	
Howe & Flint, hardware	49 97	
W. E. Plumer & Co., hardware	38 93	
Whitney & Snow, hardware	320 39	
W. I. Heald, hardware	41 79	
J. A. Durrell, hardware	4 72	
Perrin, Seamans, & Co., hardware,	8 61	
Parker & Woods, hardware	10 00	
Dupont & Coté, hardware	1 50	
E. Spalding, harness work	148 63	
D. J. Bennett, harness work	228 85	
James Forgie & Son, harness work	45 00	
Henry F. Woods, trustee, stone,	113 30	
City of Boston, water rates	158 30	
Charles R. Simpson, veterinary services	17 00	
N. E. Fitz & Co., wharfage	48 90	
F. A. Chandler, carpentering	150 50	
George E. Ricker, carpentering	110 27	
N. C. Barker, carpentering	17 88	
Francis H. Flagg, wheelwright work	115 30	
David W. Crocker, wheelwright work	90 50	
Fox & McDormand, ladder	11 60	
E. G. Knight & Co., horse feed	15 00	
James Miller, jigger	200 00	
F. Ivers & Son, buggy	125 00	
James F. Davlin, plumbing	67 83	
S. W. Mann, plumbing	23 89	
W. J. Blaisdell, glazing	2 00	
<i>Amounts carried forward</i>	\$49,254 23	\$55,138 50

<i>Amounts brought forward.</i>	\$49,254 23	\$55,138 50
George H. Sampson, powder	150 00	
Emery & Blaisdell, painting	21 00	
B. F. Wild & Co., fuel	15 90	
H. Wellington & Co., fuel	433 13	
Dunning & Underhill, fuel	89 24	
F. W. Gregory, oil	46 95	
J. F. Jones & Co., oil	2 60	
Samuel Walker & Co., oil	36 97	
Olney Bros., oil	24 00	
H. Stahl, oil and waste	14 26	
S. J. Wood, filing saws, etc.	8 75	
George S. Cheney, drugs	10 76	
W. A. Whitney, drugs	8 25	
Charles H. Crane, drugs	8 20	
Thomas Groom & Co., stationery,	84 75	
Citizen Publishing Co., printing,	66 50	
McDonnell Bros., printing	7 50	
Somerville Journal Co., printing,	77 25	
New England Telephone and Telegraph Co., rentals and tolls	78 30	
Barker & Tibbetts, expressing	60	
E. R. Perham, expressing	4 76	
Dolhenty's Express, expressing	1 30	
Heerter's Express, expressing	50	
Sewers account, catch basin, etc.,	191 83	
Sidewalks account, labor, mate- rials, etc.	716 40	
Sidewalk Assessments account, sidewalk on Sargent avenue	13 97	
Town of Medford, half cost of maintaining Middlesex-avenue bridge	629 12	
A. J. Herrick, veterinary services,	117 00	
Middlesex Registry of Deeds, re- cording	9 25	
<i>Amounts carried forward</i>	<u>\$52,123 27</u>	<u>\$55,138 50</u>

<i>Amounts brought forward</i>	\$52,123 27	\$55,138 50
City of Waltham, tax for 1890	119 00	
Town of Wakefield, tax for 1890,	26 88	
Town of Winchester, tax for 1890,	11 33	
J. F. Ayer & Co., lumber	374 04	
S. W. Fuller, lumber	200 39	
Bay State Boiler Compound Co., packing	47 01	
J. H. Houghton, inspirator	18 00	
John Stutson, street signs	309 50	
Fred N. Leman, street signs	102 50	
Henry S. Harris & Co., horse	167 00	
Sturtevant Bros., horses	402 00	
Sartwell, Heinold, & Humphrey, harness	33 00	
L. M. Ham & Co., awning frame,	70 50	
Ingalls & Kendrick, glass	1 00	
George Tyler & Co., cutter	12 50	
Fred A. Ladd, photograph	12 00	
George McKenna, teaming	222 50	
Jeremiah O'Brine, teaming	210 00	
T. F. Crimmings, teaming	125 00	
Martin Gill, teaming	110 00	
D. E. Watson, globes	35	
Walworth Manfg. Co., asbestos paper	48	
Snowflake Axle Grease Co., grease	14 72	
F. C. Ayer, weighing stone	1 10	
Abbott Downing Co., sweeper	325 00	
A. C. Winning, mason work	24 43	
Dennis Kelley, compensation for damages	75 00	
	<hr/>	\$55,138 50

HIGHLAND SCHOOLHOUSE ADDITION.

CREDIT.

Appropriations, amount assessed	\$15,000 00
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DEBIT.

Cash, paid George M. Starbird on account of contract	\$9,000 00
Smead Warming & Ventilating Co., heating apparatus	4,280 00
J. E. Bell, blackboards	210 94
Samuel D. Kelley, services as architect	300 00
	<hr/>
	\$13,790 94
Balance to credit of account 1891,	1,209 06
	<hr/>
	<u>\$15,000 00</u>

INDIGENT SOLDIERS AND SAILORS.

CREDIT.

Appropriations, amount assessed	\$900 00
State of Massachusetts, indigent sol- diers and sailors, one-half of amount paid in 1890	661 00
	<hr/>
	\$1,561 00

DEBIT.

Cash, paid sundry persons	\$1,322 00
Excess and Deficiency, balance to credit of account	239 00
	<hr/>
	<u>\$1,561 00</u>

INTEREST.

CREDIT.

Appropriations, amount assessed		\$34,000 00
Cash, received on deposits in banks	\$664 72	
Of State Treasurer, national bank		
tax	4,482 76	
Corporation tax	6,814 16	
Sundry persons on taxes and		
assessments	5,434 67	
	<u>\$17,396 31</u>	
Excess and Deficiency, balance		
to debit of account	2,672 39	
	<u>20,068 70</u>	
		<u>\$54,068 70</u>

DEBIT.

Cash, paid on Funded Debt:—		
\$605,000 one year at 4 per cent.,	\$24,200 00	
\$1,000 six months at 4 per cent.,	20 00	
\$336,500 one year at 5 per cent.,	16,825 00	
\$10,000 one year at 5½ per cent.,	550 00	
	<u>\$41,595 00</u>	
Less coupons unpaid	337 50	
	<u>\$41,257 50</u>	
Sundry persons, coupons unpaid,	337 50	
	<u>\$41,595 00</u>	
On temporary loans:—		
Commonwealth of Massachusetts,		
on note of \$50,000 six months		
at 3½ per cent.	\$875 00	
Commonwealth of Massachusetts,		
on note of \$100,000 four		
months at 4 per cent.	1,333 33	
	<u>\$2,208 33</u>	
<i>Amounts carried forward</i>	\$2,208 33	<u>\$54,068 70</u>

<i>Amounts brought forward</i>	\$2,208 33	\$54,068 70
Potter, Lovell, & Co., on notes of \$100,000, discounted at $3\frac{3}{4}$ per cent., payable in four months,	1,250 00	
Potter, Lovell, & Co., on notes of \$75,000 five months, discounted at $3\frac{7}{8}$ per cent.	1,210 94	
Potter, Lovell, & Co., on notes of \$50,000 four months, dis- counted at 4 per cent.	666 67	
Boston Five Cents Savings Bank, on note of \$100,000 four months at $4\frac{1}{4}$ per cent.	1,416 67	
Commonwealth of Massachusetts, on note of \$100,000 seven months five days at 4 per cent.,	2,388 89	
	<hr/>	
	\$9,141 50	
On funded debt	\$41,595 00	
On temporary loans	9,141 50	
	<hr/>	
	\$50,736 50	
Morse Schoolhouse addition, transferred	1,383 89	
Schoolhouse in Ward Two, trans- ferred	1,948 31	
	<hr/>	
		<u>\$54,068 70</u>

MISCELLANEOUS.

CREDIT.

Appropriations, amount assessed		\$6,500 00
Cash, received of sundry persons, costs on property sold and prepared for sale for non-payment of taxes and assessments	\$890 84	
	<hr/>	
<i>Amounts carried forward</i>	\$890 84	\$6,500 00

<i>Amounts brought forward</i>	\$890 84	\$6,500 00
Sundry persons, liquor licenses	13 00	
Sundry persons, licenses to peddle	25 00	
Thomas Cunningham, milk inspector's fees	151 50	
Mather E. Hawes, iron fence	5 00	
George I. Vincent, city clerk:—		
Recording mortgages, \$324 75		
Marriage certificates	217 50	
Licensing dogs	268 00	
Junk licenses	74 00	
Liquor licenses	13 00	
Auctioneer's licenses,	26 00	
Amusements	179 00	
Fire-works	47 00	
Billiards and pool	22 00	
Intelligence offices	10 00	
Copy of records	3 50	
Naturalization fees	50	
Interest on deposits	20 00	
	<hr/>	
	1,205 25	
	<hr/>	
Excess and Deficiency, balance to debit of account		2,290 59
		<hr/>
		1,150 88
		<hr/>
		\$9,941 47

DEBIT.

Cash, paid James B. Eastman, compensation for damages	\$75 00	
Ellen Shea, compensation for damages	50 00	
Bridget Condon, compensation for damages	450 00	
Ellen E. McCarthy, compensation for damages	75 00	
P. Allen Lindsey, compensation for damages	337 15	
	<hr/>	
<i>Amounts carried forward</i>	\$987 15	\$9,941 47

<i>Amounts brought forward</i>	\$987 15	\$9,941 47
B. P. Lovejoy, compensation for damages	6 20	
F. A. Chandler, carpentering	137 49	
Fred C. Fuller, carpentering	16 50	
L. Arnold, carpentering	2 75	
H. S. Brackett, carpentering	3 00	
S. T. Kirk, carpentering	20 08	
S. D. Carter, horse keeping	406 36	
S. D. Carter, refreshments	25 00	
Seward Dodge, horseshoeing	51 00	
F. Ivers & Son, buggy, etc.	325 00	
Edgar Snow & Co., horse	222 50	
Sartwell, Heinold, & Humphrey, harness	45 00	
E. Spalding, repairing harness	11 20	
D. J. Bennett, repairing harness, George W. York & Co., repairing buggy	50 6 75	
Post 139, G. A. R., contribution for observance of Memorial Day	300 00	
J. A. Litchfield, treasurer, expense of entertaining Geo. C. Strong Post	500 00	
E. M. Richardson, firing salute	50 00	
Joseph S. Brown, decorations	30 00	
Charles E. Hall & Co., tablets	415 00	
T. F. McGann, tablets	75 00	
Monumental Bronze Co., tablets, Commonwealth of Massachusetts, one-fourth of amount received for liquor licenses	20 00 3 25	
Ward officers	1,344 00	
Charles G. Brett, clerical services, Charles S. Robertson, clerical services	27 00 33 00	
<i>Amounts carried forward</i>	\$5,063 73	\$9,941 47

<i>Amounts brought forward</i>	\$5,063 73	\$9,941 47
Frank E. Merrill, clerical services,	21 00	
Wm. T. Mitchell, clerical services,	3 00	
Alice T. Sleeper, clerical services,	143 70	
Kate W. Wood, clerical services,	89 50	
Minnie A. Perry, clerical services,	48 00	
Viola B. Miles, clerical services,	34 00	
Edith L. Macy, clerical services,	6 50	
John Battles, labor	11 50	
M. Hersey, labor	1 50	
Wm. H. Dennis, labor	4 00	
George O. Blake, labor	5 50	
N. L. Pennock, labor	6 00	
F. A. Hersey, labor	7 00	
James Benson, labor	5 00	
C. H. Rinn, labor	4 00	
John O'Brien, labor	8 00	
Patrick O'Brien, labor	4 00	
Stephen A. Howe, labor	2 50	
Patrick O'Connell, labor	4 00	
William H. Kelley, labor	8 00	
John Trahey, labor	1 50	
W. D. Hayden, labor	4 00	
Jacob Woodbury, labor	4 82	
W. H. Denton, labor	8 00	
Arthur Burckes, labor	4 00	
C. A. Southwick, labor	44 00	
C. A. Southwick, numbering streets	67 00	
Daniel W. Merrill, numbering streets	17 55	
Arley P. Griffin, numbering streets	42 30	
Henry J. Morrison, numbering streets	12 35	
C. R. Hulsman, numbering streets	14 00	
<i>Amounts carried forward</i>	<u>\$5,699 95</u>	<u>\$9,941 47</u>

<i>Amounts brought forward</i>	\$5,699 95	\$9,941 47
C. R. Hulsman, car fares, etc.,	10 90	
E. W. Bailey, car fares, etc.,	5 45	
B. M. Peirce, car fares, etc.	2 10	
A. T. Nickerson, travelling ex- penses	50 35	
Whitney & Snow, hardware, etc.,	431 64	
J. A. Durell, hardware, etc.	9 01	
Howe & Flint, hardware, etc.	2 10	
H. W. Raymond, hardware, etc.,	48	
W. E. Plumer & Co., hardware, etc.	37	
Bigelow & Dowse, engineer's sup- plies	276 34	
Frost & Adams, engineer's sup- plies	67 18	
John P. Lovell Arms Co., en- gineer's supplies	1 00	
Buff & Bergen, repairing transit,	7 20	
Tobias & Wall, bag	6 50	
W. W. Winship, bag	3 50	
S. Thaxter & Son, rods	30 00	
Wemyss Bros. & Co., bookcases,	260 00	
C. W. Lyman & Co., furniture	64 75	
Smith & Co., furniture	4 00	
Jackson Caldwell & Co., mats, etc.	28 50	
Thomas O'Callaghan, mats, etc.,	4 35	
E. R. Williamson, carpet	20 00	
A. F. Chappell, cleaning carpet	15 31	
W. H. Brine, cabinet work	1 50	
H. A. Chick & Co., repairing chairs	2 50	
A. L. Russell, repairing lighter	3 75	
Wm. H. Poole, gas fixtures.	13 56	
S. J. Wood, repairing lock, etc.,	2 75	
Daniel Crocker, repairing clocks	5 00	
<i>Amounts carried forward</i>	<u>\$7,030 04</u>	<u>\$9,941 47</u>

<i>Amounts brought forward</i>	\$7,030 04	\$9,941 47
William B. Holmes, tin box	2 70	
J. E. Parsons, tin box	1 25	
James Bartley, soap, etc.	8 53	
George T. Unwin, drugs	1 50	
Thomas Hollis, drugs	2 75	
C. M. Blake, newspapers	6 00	
Belknap & Co., type	3 50	
Frank E. Fitts, hose	7 50	
J. C. Dyer & Co., painting	7 00	
J. Q. Twombly, painting	44 45	
Walburg & Woehrn, painting	66 82	
E. H. Buxton, painting	3 00	
Young & Maynard, plumbing	4 30	
S. W. Mann & Son, plumbing	25 61	
A. C. Winning, mason work	31 00	
I. H. Brown, lumber	4 00	
Jairus Mann, watching, etc.	118 55	
M. A. Mann, laundrying	20 00	
W. Schuebeler, towels	2 50	
R. W. Karnan, towels	1 70	
J. H. Brooks, towels	2 03	
Ingalls & Kendrick, steam fitting	6 30	
Union Square Carriage Co., repairs	2 70	
Kendall & Slade, electrical work,	170 00	
H. D. & W. S. Durgin, ice	47 00	
J. M. Corse, rent of P. O. box	5 00	
William Canavan, carriage hire	10 00	
S. M. Moody, carriage hire	5 00	
H. M. Weld & Co., carriage hire,	4 00	
L. H. Brown, carriage hire	5 00	
I. W. Wheeler & Co., flag	14 00	
J. A. Chabot, repairing safe	5 00	
Federal Ballot Box Co., repairs	5 68	
Odd Fellows' Building Asso., rent,	15 00	
<i>Amounts carried forward</i>	\$7,689 41	\$9,941 47

<i>Amounts brought forward</i>	\$7,689 41	\$9,941 47
Philip Eberle, rent	25 00	
City of Lowell, board of truants,	11 18	
City of Boston, water rates, etc.,	88 29	
Cambridge Gas Light Co., gas . . .	12 18	
Somerville Electric Light Co., lighting	366 30	
F. O. Reed et al., rent of rifle range	150 00	
F. D. Lapham, premium of in- surance	6 00	
New England Telephone and Telegraph Co., rentals and tolls,	140 80	
B. F. Wild & Co., fuel	177 51	
H. Wellington & Co., fuel	11 00	
L. B. Angier, fuel	50	
Mrs. Moore, washing	3 00	
Julia Nagle, washing	1 20	
Mary Higgins, washing	1 00	
Boston Herald Co., advertising . .	10 12	
Journal Newspaper Co., adver- tising	7 00	
Globe Newspaper Co., advertis- ing	6 48	
J. A. McLane, bill posting	92 24	
George Cullis, affidavit of post- ing	59 00	
S. H. Libby, services as auc- tioneer	13 20	
W. H. Way, veterinary services . .	10 00	
M. Gott, veterinary services . . .	5 00	
Thomas M. Durell, professional services	25 00	
E. R. Perham, expressing	17 80	
Charles E. Farnham, expressing,	8 75	
Stilphen & Co., expressing	2 00	
Heerter's Express, expressing . . .	1 15	
<i>Amounts carried forward</i>	<u>\$8,941 11</u>	<u>\$9,941 47</u>

<i>Amounts brought forward</i>	\$8,941 11	\$9,941 47
Thorpe's Express, expressing	75	
Barker & Tibbetts, expressing	65	
Gilman & Co., expressing	25	
A. M. Prescott, teaming	20 00	
J. H. Colbath, ringing bell	9 00	
Wm. S. Gray, ringing bell	9 00	
Geo. W. Jacobs, ringing bell	3 00	
G. W. Littlefield, ringing bell	3 00	
A. M. Landers, ringing bell	6 00	
T. G. Poland, ringing bell	3 00	
A. M. Sibley, ringing bell	3 00	
Fred S. Young, ringing bell, etc.,	15 00	
A. C. Aldrich, return of births	5 25	
John F. Couch, return of births,	45 00	
A. B. Dearborn, return of births,	14 50	
J. A. Gregg, return of births	11 00	
W. W. Dow, return of births	13 25	
R. L. Lane, return of births	5 75	
A. E. Merrill, return of births	2 75	
H. B. McIntire, return of births,	1 25	
E. A. Sanborn, return of births	5 25	
T. W. Taylor, return of births	1 50	
John M. Schroeder, return of births	109 50	
Walter H. Hooper, return of births	91 25	
John W. Coveney, return of deaths,	8 00	
William A. Flaherty, return of deaths	33 00	
C. H. Lockhart, return of deaths,	15 00	
Alfred E. Mann, return of deaths,	8 25	
E. H. Marsh, return of deaths	20 50	
P. H. Rafferty, return of deaths,	18 50	
Horace B. Runey, return of deaths,	23 50	
Ammiel Colman, sealer of weights and measures	100 00	
<i>Amounts carried forward</i>	\$9,546 76	\$9,941 47

<i>Amounts brought forward</i>	\$9,546 76	\$9,941 47
Charles A. Small, pound keeper	50 00	
Sewers account, setting tablets	87 41	
F. E. Cheeney & Co., turkeys	9 80	
George M. D. Legg, turkeys	54 00	
William M. McDonald, turkeys	21 84	
N. H. Reed, turkeys	2 20	
Sturtevant Bros., turkeys	15 72	
George S. Winslow, turkeys	52 67	
Young Bros., turkeys	101 07	
	<hr/>	<u>\$9,941 47</u>

MORSE SCHOOLHOUSE ADDITION.

CREDIT.

Balance from 1889	\$19,560 12
Interest, transferred	1,383 89
Excess and Deficiency, transferred	4,951 06
	<hr/>
	\$25,895 07

DEBIT.

Cash, paid Dearborn Brothers & Co., on account of contract	\$20,283 00
Extras	1,167 12
Fuller-Warren Company, heating and ventilating apparatus	2,975 00
S. Edwin Tobey, services as architect	471 45
J. B. Hunter & Co., hardware	285 00
R. J. Nourse & Son, gas piping	140 00
S. T. Brown & Co., plastering	300 00
H. Wellington & Co., fuel	197 90
Patrick O'Connell, labor	53 60
C. A. Southwick, labor	22 00
	<hr/>
	<u>\$25,895 07</u>

OVERLAY AND ABATEMENT.

CREDIT.

Balance from 1889		\$4,662 13
Taxes, amount added to the amount of taxes assessed as fractional divisions for convenience in apportionment to be applied to abatement on taxes		20,338 96
		<u>\$25,001 09</u>

DEBIT.

Taxes, for amount of abatements on taxes	\$8,163 54	
Excess and Deficiency, transferred	4,629 78	
Balance to credit in account 1890.	12,207 77	
	<u> </u>	<u>\$25,001 09</u>

OVERPLUS ON TAX SALES.

CREDIT.

Balance from 1889		\$102 13
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DEBIT.

Balance to 1891		<u>\$102 13</u>
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PROPERTY AND DEBT BALANCE.

CREDIT.

Balance from 1889	\$458,160 86	
Public property acquired during the year 1890	136,507 07	
Reduction of funded debt	45,000 00	
Renewals of funded debt	44,000 00	
	<u> </u>	\$683,667 93

DEBIT.

Appropriations	\$194,000 00	
Balance to credit in account 1891	489,667 93	
	<u> </u>	<u>\$683,667 93</u>

PUBLIC PROPERTY.

CREDIT.

Balance to 1891		\$1,547,167 93
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DEBIT.

Balance from 1889	\$1,410,660 86	
Property and debt balance, prop- erty acquired during the year 1890	136,507 07	
	<hr/>	<u>\$1,547,167 93</u>

PUBLIC LIBRARY.

CREDIT.

Appropriations, amount assessed		\$3,000 00
Cash, received of county treasurer re- turn on the amount received of the city for dog licenses in the year 1890	\$2,631 12	
H. A. Adams, librarian, fines	327 91	
Catalogues	42 30	
J. O. Paul, money not called for,	1 50	
	<hr/>	\$3,002 83
		<hr/>
		\$6,002 83

DEBIT.

Cash, paid Estes & Lauriat, books	\$1,405 93	
Little, Brown, & Co., books	766 93	
George E. Littlefield, books	162 10	
William B. Clark & Co., books	14 85	
D. S. McCabe, books	79 73	
George A. Bruce, books	33 60	
Balch Brothers, books	40 00	
Houghton, Mifflin, & Co., books,	7 50	
E. Whitefield, books	10 00	
Alex. P. Hicks, books	5 40	
	<hr/>	<hr/>
<i>Amounts carried forward</i>	\$2,526 04	\$6,002 83

<i>Amounts brought forward</i>	\$2,526 04	\$6,002 83
J. H. Earle, books	4 00	
Universalist Publishing House, book	9 00	
Henry C. Nash, books	6 00	
Charles S. McNair Publishing Company, book	2 50	
J. Q. Adams & Co., books	60 00	
New England Magazine Co., books	3 00	
J. O. Hayden & Co., newspapers, C. M. Blake, newspapers	20 55 9 00	
Bradley & Woodruff, binding books	7 25	
J. G. Roberts & Co., binding books	223 23	
Babb & Stephens, printing	231 50	
G. Kennedy Creighton, care of branch office	25 00	
Charles S. Robertson, premium of insurance	75 00	
Smith & Robertson, premium of insurance	27 00	
Crane & Woods, premium of in- surance	150 00	
Cambridge Gas Light Co., gas	174 19	
City of Boston, water	26 97	
B. F. Wild & Co., fuel	169 15	
Thomas Groom & Co., stationery, N. S. Chamberlain, stamp ribbon, Kilborn Whitman & Co., furni- ture	13 60 50 54 00	
T. F. McGann, repairing gate	4 50	
A. C. Winning, hitching-post	7 25	
S. B. Ward, brush	1 50	
James Bartley, brush	55	
Whitney & Snow, hardware	6 59	
<i>Amounts carried forward</i>	<u>\$3,837 87</u>	<u>\$6,002 83</u>

<i>Amounts brought forward</i>	\$3,837 87	\$6,002 83
Howe & Flint, globes	1 50	
J. Q. Twombly, glazing	75	
F. A. Chandler, carpentering	4 65	
S. J. Wood, locks and keys	2 75	
Oscar F. Howe, baskets	13 50	
Stoughton Rubber Co., covers	10 00	
Wassenius & Dusseault, table	65 00	
Gilman's Express, expressing	42 15	
E. R. Perham, expressing	41 45	
Charles E. Farnham, expressing	38 85	
J. O. Paul, expressing	1 50	
Glines & Co., expressing	1 50	
Young & Maynard, plumbing	75	
H. A. Adams, librarian	800 00	
A. L. Stone, assistant	400 00	
M. J. Warren, assistant	350 00	
Edith Woodman, assistant	119 20	
M. G. Knapp, assistant	44 70	
Washington Cook, assistant	70 20	
Edgar H. Hunter, assistant	24 60	
	<hr/>	
	\$5,870 92	
Balance to credit of account 1891	131 91	
	<hr/>	
		<u>\$6,002 83</u>

PUBLIC GROUNDS.

CREDIT.

Appropriations, amount assessed		\$6,000 00
Relief and Burial of Indigent Soldiers and Sailors, transferred		1,500 00
Cash, received of Henry Dainty, filling,	\$375 80	
John C. Snow, filling	6 00	
Richard Falvey, filling	2 35	
John Stackpole, filling	5 35	
	<hr/>	
<i>Amounts carried forward</i>	\$389 50	\$7,500 00

<i>Amounts brought forward</i>	\$389 50	\$7,500 00
James Murphy, money not called for	88	
	<hr/>	390 38
		<hr/>
		\$7,890 38

DEBIT.

Cash, paid laborers	\$4,025 69	
John Turner & Co., paving	222 27	
Sanborn & Hatch, bricks	34 18	
J. F. Ayer & Co., lumber	24 48	
A. E. Johnson, plants	50 00	
Hugh Carney, plants	25 00	
Joseph Breck & Sons, seed	76 39	
M. D. Jones & Co., hardware	98 25	
Osgood & Hart, hardware	10 50	
George D. Goodrich, drain pipe, Somerville Electric Light Com- pany, lighting	274 20	
F. O. Reed, sods	28 16	
Chetham Parks, sods	171 68	
John L. Ambrose, loam	20 30	
Charles Robinson, loam	135 00	
New England Mutual Life Insur- ance Company, loam	240 00	
S. & C. H. Williams, loam	40 25	
H. W. P. Colson, loam	4 75	
John T. Molloy, manure	69 63	
E. A. Foster, manure	4 24	
L. A. Wright, blacksmithing	3 50	
John Kellogg, blacksmithing	1 20	
Seward Dodge, blacksmithing	4 80	
Charles L. Underhill, blacksmith- ing	4 65	
L. M. Maynard, manure	10 80	
J. A. Durell, hardware	7 17	
Whitney & Snow, hardware	55 87	
	<hr/>	
<i>Amounts carried forward</i>	\$5,650 55	\$7,890 38

<i>Amounts brought forward</i>	\$5,650 55	\$7,890 38
W. E. Plumer & Co., hardware	8 39	
S. J. Wood, keys	25	
Joseph Young, repairing tools	34 40	
Christopher Burke, teaming	60 13	
Jeremiah McCarthy, teaming	135 00	
Dennis Collins, teaming	136 25	
A. M. Prescott, teaming	518 02	
T. F. Crimmings, teaming	84 22	
George F. McKenna, teaming	256 25	
H. Wellington & Co., fuel	12 15	
Boston Bolt Co., bolts	1 00	
G. W. Manning, labor	20 00	
Osgood Dane, labor	12 00	
H. F. Scott, labor	7 20	
Charles E. Farnham, expressing,	6 00	
Gilman's Express, expressing	1 00	
Seba F. Coffin, police duty	50 00	
B. F. Thomas, use of horse	3 00	
Sewer account, catch-basins	194 52	
Sewer Assessments account, sewer in Chauncey avenue	145 60	
Highways account, driveway, etc.,	480 68	
	<hr/>	
	\$7,816 61	
Excess and Deficiency, balance to credit of account	73 77	
	<hr/>	
		<u>\$7,890 38</u>

PRINTING AND STATIONERY.

CREDIT.

Appropriations, amount assessed	\$5,000 00
Excess and Deficiency, balance to debit of account	212 89
	<hr/>
<i>Amount carried forward</i>	\$5,212 89

Amount brought forward \$5,212 89

DEBIT.

Cash, paid J. O. Hayden & Co., printing and advertising	\$631 17	
Somerville Journal Co., printing and advertising	2,133 96	
Citizen Publishing Co., printing and advertising	367 00	
Somerville Sentinel, printing and advertising	119 00	
Thomas Groom & Co., stationery,	1,687 46	
Babb & Stephens, printing	58 50	
Bufford Sons' Lithograph Co., printing bonds	150 00	
Robert Burlen, binding plans	54 00	
W. W. White & Co., maps	6 25	
H. L. Eaton, maps	1 25	
Fred E. Jones, lettering	1 80	
M. L. Tobin, stationery	2 50	
		\$5,212 89

POLICE.

CREDIT.

Appropriations, amount assessed		\$32,000 00
Cash, received of H. A. Chapin, clerk of court, officers' fees, fines, etc.,	\$5,491 04	
J. O. Hayden, county treasurer, court fees	100 00	
Michael Collins, old junk	11 60	
		5,602 64
<i>Amount carried forward</i>		\$37,602 64

Amount brought forward \$37,602 64

DEBIT.

Cash, paid M. C. Parkhurst, chief	\$1,700 00	
R. R. Perry, captain	1,400 00	
Samuel R. Dow, sergeant	1,100 00	
Edward McGarr, sergeant	1,100 00	
C. C. Cavanagh, sergeant	1,100 00	
John S. Johnson, patrolman	1,003 75	
Eugene A. Carter, patrolman	1,003 75	
George L. Smith, patrolman	1,003 75	
Edward M. Carter, patrolman	1,003 75	
Samuel A. Brown, patrolman	1,003 75	
John E. Fuller, patrolman	1,003 75	
George W. Bean, patrolman	1,003 75	
George A. Bodge, patrolman	1,003 75	
Phineas W. Skinner, patrolman,	992 75	
Hubert H. Miller, patrolman	1,003 75	
Edward E. Hamblen, patrolman,	1,003 75	
John Hafford, patrolman	965 25	
Albion L. Staples, patrolman	1,003 75	
Myron H. Kinsley, patrolman	1,003 75	
Dennis Kelley, patrolman	1,003 75	
George H. Carleton, patrolman	1,003 75	
Judson W. Oliver, patrolman	1,003 75	
Francis A. Perkins, patrolman	1,003 75	
Charles S. Thrasher, patrolman,	1,003 75	
William H. Johnston, patrolman,	1,003 75	
Charles L. Ellis, patrolman	1,003 75	
Charles E. Woodman, patrolman,	1,003 75	
Arthur E. Keating, patrolman	998 00	
John G. Knight, patrolman	969 75	
Stephen S. Smith, patrolman	966 75	
Jacob W. Skinner, patrolman	927 75	
James F. Foley, patrolman	90 75	
Theodore E. Heron, patrolman	687 50	
Jeremiah J. Meaney, patrolman,		
special	74 00	
<i>Amounts carried forward</i>	\$33,147 50	\$37,602 64

<i>Amounts brought forward</i> . . .	\$33,147 50	\$37,602 64
D.P. Bucknam, patrolman, special,	13 00	
Michael Buckley, patrolman, special	13 00	
William H. Kelley, patrolman, special	10 00	
N. L. Pennock, patrolman, special	10 00	
Joseph Young, patrolman, special,	18 00	
Peter J. Savage, patrolman, special	6 50	
John J. Kelley, patrolman, special	78 75	
William H. Whitcomb, patrolman, special	8 00	
Daniel H. Rinn, patrolman, special	7 00	
Joseph Hurley, patrolman, special	7 00	
William R. Cann, patrolman, special	7 00	
John McLeod, patrolman, special,	7 00	
Andrew S. Arnold, patrolman, special	7 00	
Daniel R. Spike, patrolman, special	7 00	
L. M. Maynard, patrolman, special	7 00	
Peter Savage, patrolman, special,	7 00	
George W. Holden, patrolman, special	3 50	
Clarence P. Needham, patrolman, special	3 50	
Edward F. Reed, patrolman, special	3 50	
B. F. Sheridan, patrolman, special	3 50	
<i>Amounts carried forward</i> . . .	<u>\$33,374 75</u>	<u>\$37,602 64</u>

<i>Amounts brought forward</i>	\$33,374 75	\$37,602 ⁷ / ₁₀₀ 64
Augustus A. Lewis, patrolman, special	3 50	
M. C. Parkhurst, lock-up keeper,	100 00	
M. C. Parkhurst, disbursements,	30 00	
Samuel R. Dow, car fares, etc.,	39 36	
Dennis Kelley, car fares, etc.,	25 05	
Eugene A. Carter, car fares, etc.,	5 06	
Edward M. Carter, car fares, etc.,	2 57	
Charles S. Thrasher, car fares, etc.	3 46	
Lemuel H. Snow, car fares, etc.,	3 70	
New England Telephone and Telegraph Co., rentals and tolls	359 65	
Municipal Signal Co., alarm boxes,	450 00	
Pettingell, Andrews, & Co., signal supplies	82 42	
A. L. Russell, electrical supplies,	205 84	
Charles Waugh & Co., police van	412 50	
Union Square Carriage Co., re- pairing wagon	47 45	
Jackson Caldwell & Co., repair- ing wagon	7 00	
Charles E. Berry, harness	36 50	
E. Spalding, repairing harness, etc.	34 15	
Sturtevant Brothers, horse keep- ing	47 63	
Edward O'Brien, horseshoeing	23 25	
E. B. Vreeland, grain, etc.	237 67	
A. M. Prescott, grain, etc.	10 00	
W. H. Way, veterinary services	20 00	
Howe & Flint, hardware	19 04	
W. E. Plumer & Co., hardware	16 86	
Whitney & Snow, hardware	1 95	
<i>Amounts carried forward</i>	\$35,599 36	\$37,602 64

<i>Amounts brought forward</i>	\$35,599 36	\$37,602 64
Gillis Bros., carpentering	5 75	
I. H. Brown & Co., carpentering,	59	
L. M. Ham & Co., iron work	4 35	
J. M. Porter, meals for prisoners,	13 25	
C. B. Cheney, photographs	3 00	
H. A. Winship, belts	37 50	
George W. Simmons & Co., wreaths	4 50	
Scoville Manfg. Co., buttons	16 88	
John P. Lovell Arms Co., hand- cuffs	22 00	
Lizzie Avery, washing	24 84	
Union Glass Co., globes	5 50	
Arthur C. Gordon, painting	11 00	
William H. Brine, ventilator	2 25	
Franklin Electric Works, labor	2 50	
Thomas Groom & Co., stationery,	7 20	
M. R. Warren, stationery	5 50	
Little, Brown, & Co., law books,	5 00	
C. B. Clark, dictionary	5 50	
M. L. Tobin, directory	2 00	
C. M. Blake, newspapers	29 60	
James T. Fitzgerald, carriage hire,	8 00	
L. H. Brown, carriage hire	32 50	
H. Wellington & Co., fuel	5 85	
H. D. & W. S. Durgin, ice	40 00	
Thorpe's Express, expressing	2 80	
Charles E. Farnham, expressing,	2 65	
Bancroft's Express, expressing	40	
Heerter's Express, expressing	15	
	<hr/>	
	\$35,900 42	
Excess and Deficiency, balance to credit of account	1,702 22	
	<hr/>	
		<u>\$37,602 64</u>

POLICE STATION INCIDENTALS.

CREDIT.

Appropriations, amount assessed		\$2,600 00
Cash, received of Commonwealth of Massachusetts, rent of armory,	\$400 00	
Somerville Co-operative Bank, use of court room	60 00	
Police Relief Association, use of hall	25 00	
Somerville Charitable Firemen's Association, use of court room,	3 00	
John L. Nichols, use of hall	12 00	
	<hr/>	500 00
		<hr/>
		\$3,100 00

DEBIT.

Cash, paid William D. Hayden, janitor,	\$850 00	
William D. Hayden, disburse- ments	20 00	
Cambridge Gas Light Co., gas	807 19	
City of Boston, water	66 24	
H. Wellington & Co., fuel	297 99	
Page & Littlefield, carpentering,	30 00	
H. S. Brackett, carpentering	30 15	
L. Arnold, carpentering	14 88	
S. T. Kirk, carpentering	65 44	
O. F. Green, carpentering	7 84	
C. A. Legallee, plumbing	226 94	
S. W. Mann & Son, plumbing	2 90	
L. C. Seavey, slating	55 42	
J. Q. Twombly, glazing	13 70	
W. E. Plumer & Co., hardware,	33 87	
J. A. Durell, paint	12 84	
Charles A. Holmes, gas fixture,	4 00	
Union Glass Co., globes	7 05	
Jackson Caldwell & Co., cushion,	2 75	
	<hr/>	
<i>Amounts carried forward</i>	\$2,549 20	\$3,100 00

<i>Amounts brought forward</i>	\$2,549 20	\$3,100 00
P. Derby & Co., chairs	24 00	
M. C. Huchins, mops	4 00	
W. L. Fox & Co., Star Compound, Sturtevant Bros., soap, etc.	5 00	
Seward Dodge, blacksmithing	7 14	
Jacob Woodberry, blacksmithing,	38 16	
A. L. Russell, electrical work	24 00	
D. P. Bucknam, mason work	1 25	
Patrick O'Connell, labor	233 63	
Frank W. Baxter, labor	71 64	
	11 25	
	<hr/>	
	\$2,969 27	
Excess and Deficiency, balance to credit of account	130 73	
	<hr/>	
		<u>\$3,100 00</u>

REAL-ESTATE LIENS.

	CREDIT.	
Balance to 1891		\$55 44
	DEBIT.	
Balance from 1889		<u>\$55 44</u>

REDUCTION OF FUNDED DEBT.

	CREDIT.	
Appropriations, amount assessed.		\$45,000 00
	DEBIT.	
Property and debt balance, amount of reduction of funded debt in 1890		<u>\$45,000 00</u>

RENEWALS OF FUNDED DEBT.

CREDIT.

Appropriations, amount authorized by loans . . . \$44,000 00

DEBIT.

Property and debt balance, amount of funded debt renewed in 1890 \$44,000 00

RELIEF AND BURIAL OF INDIGENT SOLDIERS AND SAILORS.

CREDIT.

Appropriations, amount assessed	\$4,000 00	
State of Massachusetts, one half of amount paid for burials in 1890,	\$70 00	
Cash, received of State of Massachusetts, one-half of amount paid for burials in 1889	17 50	
Sundry persons, money not called for	16 00	
	<hr/>	103 50
		<hr/>
		\$4,103 50

DEBIT.

Cash, paid monthly pay rolls	\$2,225 00	
A. E. Mann, services as undertaker	35 00	
P. H. Rafferty & Co., services as undertakers	35 00	
John Bryant, services as undertaker	35 00	
H. D. Runey, services as undertaker	35 00	
	<hr/>	\$2,365 00
Public Grounds, transferred	1,500 00	
Excess and Deficiency, balance to credit of account	238 50	
	<hr/>	<u>\$4,103 50</u>

STATE AID.

CREDIT.

State of Massachusetts, amount paid in 1890 charged to State	\$5,031 50
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DEBIT.

Cash, paid monthly pay rolls	<u>\$5,031 50</u>
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STATE OF MASSACHUSETTS.

CREDIT.

Taxes, amount assessed	\$24,115 00
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DEBIT.

Cash, paid State Treasurer, State Tax	<u>\$24,115 00</u>
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STATE OF MASSACHUSETTS, STATE AID.

CREDIT.

Cash, received of State Treasurer	\$4,492 00
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Balance, Dec. 31, 1890, due from State Dec. 10, 1891, to debit in account	4,919 50
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	<u>\$9,411 50</u>
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DEBIT.

Balance from 1889	\$4,380 00
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State Aid, amount paid in 1890	5,031 50
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	<u>\$9,411 50</u>
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STATE OF MASSACHUSETTS, INDIGENT SOLDIERS AND SAILORS.

CREDIT.

Cash, received of State Treasurer	\$614 50
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Balance, Dec. 31, 1890, due from State Dec. 10, 1891, to debit in account	649 00
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<i>Amount carried forward</i>	<u>\$1,263 50</u>
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Amount brought forward \$1,263 50

DEBIT.

Balance from 1889	\$602 50	
Indigent Soldiers and Sailors, one-half of amount paid in 1890	661 00	
	<u> </u>	\$1,263 50

SUNDRY PERSONS.

CREDIT.

Balance from 1889	\$55 10	
Interest, coupons due and unpaid	337 50	
	<u> </u>	\$392 60

DEBIT.

Cash, paid sundry persons amounts due them	\$20 00	
Balance to credit in account 1891	372 60	
	<u> </u>	\$392 60

SALARIES.

CREDIT.

Appropriations, amount assessed \$28,000 00

DEBIT.

Cash, paid Charles G. Pope, mayor,	\$1,000 00	
George I. Vincent, city clerk	2,700 00	
John F. Cole, city treasurer and collector of taxes	3,900 00	
Horace L. Eaton, city engineer,	2,300 00	
Selwyn Z. Bowman, city solicitor,	1,500 00	
Alvah B. Dearborn, city physician,	950 00	
Charles S. Robertson, auditor,	450 00	
Charles S. Robertson, clerk of Common Council	200 00	
	<u> </u>	
<i>Amounts carried forward</i>	\$13,000 00	\$28,000 00

<i>Amounts brought forward</i> . . .	\$13,000 00	\$28,000 00
William P. Mitchell, clerk of assessors and committees . . .	1,500 00	
Albert B. Fales, assistant clerk of assessors and committees, . . .	1,100 00	
Jairus Mann, city messenger . . .	1,300 00	
Thomas R. Roulstone, superintendent of buildings and street lights	1,800 00	
James R. Hopkins, inspector of buildings	250 00	
Thomas Cunningham, inspector of milk	300 00	
George W. Hadley, assessor	700 00	
Benjamin F. Thompson, assessor,	700 00	
Samuel T. Richards, assessor	700 00	
George W. Bartlett, assistant assessor	250 00	
David A. Sanborn, assistant assessor	250 00	
Edgar T. Mayhew, assistant assessor	250 00	
Harry A. True, assistant assessor,	250 00	
William S. Hutchins, street clerk,	66 00	
F. W. Condit, street clerk	66 00	
E. G. Wiswell, street clerk	56 00	
Beulah M. Peirce, department clerk	700 00	
William H. Whitcomb, janitor City Hall and Public Library,	750 00	
Cromwell G. Rowell, registrar of voters	200 00	
William B. Hawes, registrar of voters	200 00	
Charles P. Lincoln, registrar of voters	200 00	
Geo. I. Vincent, registrar of voters,	200 00	
<i>Amounts carried forward</i> . . .	\$24,788 00	\$28,000 00

<i>Amounts brought forward</i>	\$24,788 00	\$28,000 00
Engineer's assistants	3,112 52	
	<hr/>	
	\$27,900 52	
Excess and Deficiency, balance to credit of account	99 48	
	<hr/>	<u>\$28,000 00</u>

STREET LIGHTS.

CREDIT.

Appropriations, amount assessed	\$22,000 00
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DEBIT.

Cash, paid Somerville Electric Light Company, lighting	\$20,210 16
Charlestown Gas Company, light- ing	113 37
Cambridge Gas Light Company, lighting	69 73
Patrick O'Connell, care of lights, etc.	125 25
Wheeler Reflector Company, light- ing and care	11 40
Walworth Manufacturing Com- pany, cups	1 40
William E. Plumer & Co., oil, etc.,	5 91
Frederic A. Chandler, carpenter- ing	2 39
J. A. Durell, piping	50
P. T. O'Brien, labor	2 00
John Connelly, labor	7 75
M. G. Staples, teaming	1 00
E. R. Perham, expressing	3 40
	<hr/>
	\$20,554 26
Highways, transferred	1,000 00
Excess and Deficiency, balance to credit of account	445 74
	<hr/>

\$22,000 00

SIDEWALKS.

CREDIT.

Appropriations, amount assessed		\$10,000 00
Cash, received of Highways account, edgestones, labor, etc.	\$716 40	
John Roach, money not called for, Sidewalk Assessments, assess- ments levied	2 00 9,056 00	9,774 40
	<hr/>	<hr/>
		\$19,774 40

DEBIT.

Cash, paid laborers	\$3,948 89	
Jeremiah McCarthy, edgestones	7,050 95	
Parry Bros. & Co., bricks	2,977 96	
John Thresher, bricks	796 50	
Sanborn & Hatch, bricks	636 23	
N. M. Cofran, bricks	182 84	
Citizen Publishing Co., adver- tising	101 50	
Somerville Journal Co., adver- tising	60 00	
J. O. Hayden & Co., advertising, McDonnell Bros., advertising	51 50 12 50	
Christopher Burke, teaming	20 00	
Jeremiah O'Brien, teaming	10 00	
Highways account, teaming, etc., Sewers account, edgestones, etc., Sidewalk Assessments account, assessments abated	2,792 64 208 83 72 44	
	<hr/>	
	\$18,922 78	
Excess and Deficiency, balance to credit of account	851 62	
	<hr/>	<hr/>
		\$19,774 40

SIDEWALK ASSESSMENTS.

CREDIT.

Cash, received of sundry persons, assessments	\$11,290 36	
Sidewalks, assessments abated	72 44	
Balance to debit in account 1891,	4,548 24	
	<hr/>	\$15,911 04

DEBIT.

Balance from 1889	\$6,855 04	
Sidewalks, assessments levied	9,056 00	
	<hr/>	\$15,911 0

SEWERS.

CREDIT.

Appropriations, amount assessed		\$10,000 00
Cash, received of Massachusetts General Hospital, annual fee for permission to enter Fitchburg street sewer	\$50 00	
West End Street Railway Co., labor and materials	92 44	
Richard Falvey, labor	12 38	
Collins & Terry, puddling	11 82	
Dennis O'Connell puddling	4 25	
Charles A. Mongan, puddling	2 00	
Walter Bates, chip stone	12 22	
James O'Brien, labor	34 00	
Public Grounds account, labor	194 52	
Highways account, catch-basins, Sidewalks account, edgestones	191 83	
Miscellaneous account, setting tablets	62 71	
Health Department, filling	87 41	
	29 50	
	<hr/>	785 08
<i>Amount carried forward</i>		<hr/> \$10,785 08

<i>Amount brought forward</i>		\$10,785 08
Sewer Assessments, assessments levied		8,891 57
		<hr/>
		\$19,676 65

DEBIT.

Cash, paid laborers	\$4,785 32	
George C. Goodrich, drain pipe,	2,088 81	
A. Parker, catch-basin curbs	690 00	
Osgood & Hart, catch-basin covers	228 00	
Sanborn & Hatch, bricks	525 05	
H. Wellington & Co., cement	182 20	
Walworth O. Barbour & Co., traps	110 00	
Miller & Shaw, tools	47 25	
Ira G. Hersey, tools	5 08	
A. J. Wilkinson & Co., tools	10	
S. M. Barrows, tools	26 00	
Whitney & Snow, hardware	71 90	
H. W. Raymond, hardware	2 95	
J. A. Durell, hardware	15	
W. E. Plumer & Co., lantern globes	1 50	
Howe & Flint, repairing scoop,	1 65	
George W. Trefren, Jr., carpentering	15 26	
L. Arnold, carpentering	1 80	
Seward Dodge, blacksmithing	13 28	
F. Dooris, blacksmithing	5 90	
Franklin Electric Works, labor,	75	
F. W. Gilbert, rubber boots	30 75	
John F. Ayer & Co., lumber	19 64	
Thomas Groom & Co., stationery,	58 50	
Citizen's Publishing Co., advertising	87 50	
	<hr/>	<hr/>
<i>Amounts carried forward</i>	\$8,999 34	\$19,676 65

<i>Amounts brought forward</i>	\$8,999 34	\$19,676 65
J. O. Hayden & Co., advertising,	14 00	
Somerville Journal Co., advertising	53 00	
McDonnell Bros., advertising	22 50	
A. M. Prescott, teaming	1,128 64	
T. F. Crimmings, teaming	1 50	
West End Street Railway Co., labor	12 38	
City of Boston, water	37 20	
Alfred Pitts, car fares	8 45	
City of Cambridge, five-ninths of expense of cleaning outlet of Bridge-street sewer	1,304 24	
Andrew W. Bryne, constructing sewer in Highland avenue	497 30	
Andrew W. Bryne, constructing sewer in Lincoln avenue	148 50	
Andrew W. Bryne, constructing sewer in Russell street	150 48	
Andrew W. Bryne, constructing sewer in Sycamore street	219 01	
Andrew W. Bryne, repairing drain	4 50	
Maurice Buttimer, constructing sewer in Lowell and Hudson streets	1,061 43	
Maurice Buttimer, constructing sewer in Hudson street	791 40	
Christopher Burke, constructing sewer in Brooks street	714 50	
Christopher Burke, constructing sewer in Cedar and Hudson streets	298 64	
Christopher Burke, constructing sewer in Hudson street	258 00	
Christopher Burke, laying drain,	4 00	
<i>Amounts carried forward</i>	\$15,729 01	\$19,676 65

<i>Amounts brought forward</i>	\$15,729 01	\$19,676 65
Richard Falvey, constructing sewer in Broadway	582 16	
Edward Fitzgerald, constructing sewer in street A	93 37	
Edward Fitzgerald, constructing sewer in Meacham street	253 59	
Edward Fitzgerald, sand	25 50	
Charles A. Mongan, constructing sewer in Brooks and Main streets	746 58	
Charles A. Mongan, constructing sewer in Evergreen avenue,	185 42	
Charles A. Mongan, constructing sewer in Hunting street	71 90	
Charles A. Mongan, constructing sewer in Kent court	138 47	
Water Maintenance account, pipe,	54 42	
Sewer assessments, assessments abated	31 41	
	<hr/>	
	\$17,911 83	
Excess and Deficiency, balance to credit of account	1,764 82	
	<hr/>	
		<u>\$19,676 65</u>

SEWER ASSESSMENTS.

CREDIT.

Cash, received of sundry persons	\$17,888 56	
Balance to debit in account 1890	6,931 10	
	<hr/>	
		\$24,819 66

DEBIT.

Balance from 1889	\$15,928 09	
Sewers, assessments levied	8,891 57	
	<hr/>	
		<u>\$24,819 66</u>

SUPPORT OF POOR.

CREDIT.

Appropriations, amount assessed \$12,000 00

Cash, received for support of paupers:—

Of City of Boston	\$560 40
Of City of Cambridge	97 20
Of City of Chelsea	19 60
Of City of Gloucester	10 00
Of City of Lowell	33 85
Of City of Salem	2 50
Of Town of Arlington	36 15
Of Town of Beverly	20 45
Of Town of Methuen	9 35
Of Town of Milford	5 00
Of Town of Northfield	15 75
Of Town of Sandwich	11 00
Of Town of Stoneham	47 02

State of Massachusetts, support of state paupers 583 39

Burial of state paupers 25 00

Received for aid furnished:—

Sarah E. Drake	4 05
John J. Gallagher	51 45
John C. Harris	169 46
Oren S. Knapp, guardian	169 45
Horatio N. Peasley	34 36
L. R. Wentworth, guardian	169 46

Sundry persons, money not called for 35 00

2,109 89

Excess and Deficiency, balance to debit of account

1,151 25

\$15,261 14

DEBIT.

Cash, paid for support of paupers:—

Commonwealth of Massachusetts, \$704 81

Amounts carried forward \$704 81

\$15,261 14

<i>Amounts brought forward</i>	\$704 81	\$15,261 14
Carney Hospital	46 28	
Danvers Lunatic Hospital	1,047 87	
House of Angel Guardian	36 00	
Massachusetts School for the Feeble-minded	212 14	
Taunton Lunatic Hospital	169 46	
Worcester Insane Hospital	550 64	
Worcester Lunatic Hospital	1,740 02	
Westboro Insane Hospital	1,304 93	
City of Boston	914 17	
City of Cambridge	37 03	
City of Chelsea	16 00	
City of Lowell	205 48	
City of Malden	328 50	
City of Newton	21 00	
City of Woburn	21 67	
Town of Abington	100 63	
Town of Medford	115 73	
Town of Peabody	305 60	
Town of Raynham	52 00	
Mary Burke, rent	72 00	
Timothy F. Crimmings, rent	4 00	
Delia Conlon, rent	19 07	
Michael Conlon, rent	48 00	
Antoi A. Costa, rent	20 00	
Julia Casey, rent	48 00	
Ellen Downey, rent	25 00	
Ellen Driscoll, rent	48 00	
Hannah Durgin, rent	4 93	
E. H. Elliot, rent	72 00	
Edward Foster, rent	48 00	
Thomas Flemming, rent	48 00	
Lydia H. Fisher, rent	58 29	
Sarah Gill, rent	72 00	
Ann Gallagher, rent	25 00	
William E. Knight, rent	28 00	
<i>Amounts carried forward</i>	<u>\$8,570 25</u>	<u>\$15,261 14</u>

<i>Amounts brought forward</i>	\$8,570 25	\$15,261 14
John McGonagle, rent	60 00	
Mary O'Hare, rent	48 00	
Charles H. O'Neil, rent	20 00	
Bridget Reynolds, rent	56 00	
Jose M. Soaves, rent	4 00	
Emily E. Rice, rent	71 00	
Mary Schultz, rent	30 00	
George H. Simonds, rent	20 00	
Maurice Terry, rent	20 00	
Margaret Thompson, rent	5 25	
A. E. Viles, executor, rent	40 00	
Chester Williams, rent	22 00	
Mary Ash, board	90 00	
Emma L. Brigham, board	6 00	
George Clapp, board	48 75	
Preston Cheney, board	169 46	
C. H. Dunbar, board	156 43	
Ellen C. Eagan, board	84 00	
Catherine Earle, board	104 00	
Sarah J. Hill, board	43 00	
Charles Hutchinson, board	65 28	
Ann Kelley, board	104 30	
Frederick J. Miller, board	60 00	
Hannah M. Mayo, board	169 45	
Ellen M. O'Donnell, board	104 30	
Datie G. Sawin, board	52 17	
Eugene Shea, board	130 33	
John Sutherburg, board	29 96	
Martin Toyne, board	52 14	
George H. Hills & Co., groceries and provisions	740 31	
William S. Ward, groceries and provisions	496 30	
Sturtevant Bros., groceries and provisions	247 00	
<i>Amounts carried forward</i>	<u>\$11,119 68</u>	<u>\$15,261 14</u>

<i>Amounts brought forward</i>	\$11,119 68	\$15,261 14
Charles A. Small, groceries and provisions	128 25	
A. Munroe, groceries and provisions	84 00	
Knowles Bros., groceries and provisions	56 75	
Christopher Bros., groceries and provisions	42 50	
J. D. Collins, groceries and provisions	44 50	
F. H. Turner & Co., groceries and provisions	42 27	
P. T. O'Brien, groceries and provisions	22 00	
M. L. King, groceries and provisions	16 70	
J. B. Eastman, groceries and provisions	8 00	
H. Lattimer & Co., groceries and provisions	3 00	
Lowell Bros., groceries and provisions	2 00	
Henry Gray, milk	14 91	
A. Fiske, crackers	30 55	
H. Wellington & Co., fuel	383 65	
Dunning & Underhill, fuel	304 40	
S. M. Fuller, fuel	3 25	
Philip Eberle, boots and shoes	128 25	
Philip Eberle, board	20 00	
F. W. Gilbert, boots and shoes	21 85	
J. H. Mongan, boots and shoes	11 75	
Ernest Paon, boots and shoes,	2 50	
J. H. Brooks, dry goods	43 65	
Charles S. Brine, dry goods	6 50	
G. W. Simonds, dry goods	10 00	
Charles A. Holmes, hardware,	8 40	
<i>Amounts carried forward</i>	<hr/> \$13,359 31	<hr/> \$15,261 14

<i>Amounts brought forward</i>	\$13,359 31	\$15,261 14
L. M. Oldmixon, repairing chairs,	2 25	
Aaron R. Gay & Co., stationery,	5 28	
J. O. Hayden & Co., printing,	19 35	
J. A. Cummings, binding book,	4 00	
T. O. H. P. Burnham, directories,	9 50	
M. L. Tobin, directories	2 00	
L. H. Brown, carriage hire	13 00	
A. M. Prescott, teaming	5 00	
Dolhenty's Express, expressing,	75	
William A. Flaherty, services as undertaker	115 00	
P. H. Rafferty & Co., services as undertakers	73 00	
N. K. Bishop, paid for burial	20 00	
Charles C. Folsom, salary as agent, Disbursements	1,200 00 113 70	
Frank W. Kaan, salary as secre- tary	250 00	
Frank W. Kaan, extra services,	50 00	
W. D. Hayden, services	14 00	
City of Cambridge, water	5 00	
	<hr/>	<hr/>
		\$15,261 14

STEAM FIRE-ENGINE AND EQUIPMENT.

CREDIT.

Appropriation, amount assessed	\$4,600 00
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DEBIT.

Cash, paid Silsby Manufacturing Co., steamer	\$3,850 00	
John S. Nason, horses	625 00	
Boston & Maine Railroad, freight,	40 00	
	<hr/>	
	\$4,515 00	
Excess and Deficiency, balance to credit of account	85 00	
	<hr/>	<hr/>
		\$4,600 00

SCHOOL FUEL.

CREDIT.

Appropriations, amount assessed		\$7,000 00
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DEBIT.

Cash, paid Horatio Wellington & Co., fuel	\$3,190 21	
B. F. Wild & Co., fuel	2,305 45	
Dunning & Underhill, fuel	46 60	
Ammiel Colman, weighing	43 75	
	<hr/>	
	\$5,586 01	
Excess and Deficiency, balance to credit of account	1,413 99	
	<hr/>	
		<u>\$7,000 00</u>

SCHOOL TEACHERS' SALARIES.

CREDIT.

Appropriations, amount assessed	\$43,500 00	
City of Boston, water rates, transferred,	55,879 72	
Excess and Deficiency, balance to debit of account	1,354 00	
	<hr/>	
		\$100,733 72

DEBIT.

Cash, paid salaries		<u>\$100,733 72</u>
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SCHOOL CONTINGENT.

CREDIT.

Appropriations, amount assessed		\$20,500 00
Cash, received of John G. W. Nichols, tuition of non-resident pupils	\$48 50	
Francis Hollis, tuition of non- resident pupils	27 50	
	<hr/>	
<i>Amounts carried forward</i>	\$76 00	<u>\$20,500 00</u>

<i>Amounts brought forward.</i>	\$76 00	\$20,500 00
Albert F. Teel, tuition of non-resident pupils	16 00	
Cambridge Gas Light Co., discount	5 00	
Carl Schoenhof, discount	9 66	
Unknown person, books	5 00	
	<hr/>	
	\$111 66	
Excess and Deficiency, balance to debit of account	1,752 46	
	<hr/>	
		1,864 12
		<hr/>
		\$22,364 12

DEBIT.

Cash, paid Clarence E. Meleney, salary as superintendent of schools,	\$2,500 00	
Disbursements	41 81	
Janitors	7,539 17	
L. H. Snow, truant officer	900 00	
Disbursements.	3 00	
Jairus Mann, truant officer	50 00	
American Book Co., books	964 60	
Allyn & Bacon, books	26 15	
D. Appleton & Co., books	75 09	
Warren P. Adams, books	50 15	
Boston School Supply Co., books,	317 01	
E. H. Butler & Co., books	33 84	
A. S. Barnes & Co., books	54 25	
Bay State Publishing Co., books,	1 78	
Effingham, Maynard, & Co., books,	55 32	
Ginn & Co., books	613 34	
D. C. Heath & Co., books	12 24	
Harper Bros., books	74 14	
Harrison Hume, books	27 85	
Houghton, Mifflin, & Co., books,	76 34	
Charles H. Kilborn, books	5 60	
	<hr/>	
<i>Amounts carried forward</i>	\$13,421 68	\$22,364 12

<i>Amounts brought forward</i>	\$13,421 68	\$22,364 12
J. P. Lippincott & Co., books	169 80	
Lee & Shepard, books	228 42	
Leach, Shewell, & Sanborn, books	1,098 01	
Massachusetts Bible Society, books	7 05	
Prang Educational Society, books	575 90	
Silver, Burdette, & Co., books	33 50	
Thompson, Brown, & Co., books,	201 16	
William Ware & Co., books	120 82	
Carl Schoenhof, books	151 31	
Charles W. Seaver, books	4 80	
Willard Small, books	5 94	
George F. King & Merrill, sup- plies	1,846 55	
George S. Perry, supplies	790 22	
Frost & Adams, supplies	118 14	
Eastern Educational Bureau, sup- plies	162 68	
W. E. Plumer & Co., supplies	379 48	
Educational Supply Co., supplies,	16 14	
Whitall, Tatum, & Co., supplies,	23 17	
F. L. Fisher, supplies	28 80	
J. L. Hammett, supplies	46 31	
Winkley, Dresser, & Co., supplies,	19 89	
C. E. Brainard, supplies	10 17	
D. T. Ames & Son, supplies	70 13	
William S. Carter, supplies	10 00	
Weeks & Potter, supplies	12 30	
Carter, Rice, & Co., supplies	3 02	
L. D. Miller, supplies	8 00	
J. S. Soper, supplies	1 22	
Stewart & Co., supplies	8 50	
Richard Thompson, supplies	3 37	
A. N. Merrill, supplies	4 50	
<i>Amounts carried forward</i>	<u>\$19,580 97</u>	<u>\$22,364 12</u>

<i>Amounts brought forward</i> . . .	\$19,580 97	\$22,364 12
E. L. Kellogg & Co., supplies . . .	3 75	
Oscar F. Howe, supplies . . .	4 02	
E. S. Davis, supplies . . .	2 20	
H. C. Dimond, supplies . . .	1 45	
Wadsworth, Howland, & Co., supplies	11 07	
C. M. Coffin, supplies . . .	5 58	
S. A. Riken, supplies . . .	2 43	
Educational Publishing Co., sup- plies	50	
Pulsifer, Jordan, & Pfaff, supplies,	23 50	
M. R. Warren, supplies . . .	2 60	
Whitney & Snow, supplies . . .	7 95	
H. W. Raymond, supplies . . .	25 08	
W. I. Heald, supplies . . .	1 42	
Thorpe & Adams Manufacturing Co., supplies	78 52	
J. O. Hayden & Co., printing and advertising	186 35	
Somerville Journal Co., printing and advertising	258 40	
Citizen Publishing Co., printing and advertising	92 48	
McDonnell Bros., printing and advertising	5 00	
Holland & Daniels, mounting maps	30 00	
W. W. White & Co., mounting maps	12 65	
Stewart & Co., clay	3 85	
Charles E. Woodhull, tuning pianos	70 00	
E. S. Daniels, tuning pianos,	10 50	
Jackson Caldwell & Co., moving pianos, etc.	41 35	
Henry A. Shepard, hook . . .	2 25	
<i>Amounts carried forward</i> . . .	\$20,463 88	\$22,364 12

<i>Amounts brought forward</i> . . .	\$20,463 88	\$22,364 12
Murphy, Leavens, & Co., brushes,	158 00	
S. G. Ray & Son, dry goods . . .	1 94	
S. J. Wood, keys, etc.	8 50	
W. C. Ireland & Co., safe	55 00	
Sprague & Hathaway, packing cases	75	
Edwin Rodgers & W. E. Decrow, alarm box	40 00	
George Jepson, repairing instru- ments	10 00	
P. Lynam & Son, mats	18 00	
C. C. Whittemore, mats	4 50	
India Alkali Works, savogran,	8 51	
Rand & Byam, soap	1 89	
H. Lattimer & Co., soap	2 35	
S. T. Kirk, carpentering	67 02	
George T. Willoughby, carpenter- ing	8 50	
F. A. Chandler, carpentering,	3 50	
Howe & Flint, labor	25	
A. Clark, labor	5 00	
M. M. Blunt, labor	65	
J. M. Corse, rent of P. O. box,	3 00	
First M. E. Church, use of church	100 00	
. W. Mandell, flowers	3 15	
H. L. White, flowers	1 55	
Boston Bank Note and Litho- graph Co., diplomas	102 20	
C. A. French, filling diplomas,	65 10	
L. H. Brown, carriage hire . . .	20 50	
Boston Cab Co., carriage hire,	5 00	
G. A. Southworth, disburse- ments	4 30	
George E. Nichols, disburse- ments	7 00	
<i>Amounts carried forward</i> . . .	\$21,170 04	\$22,364 12

<i>Amounts brought forward</i>	\$21,170 04	\$22,364 12
H. L. Morse, disbursements	10 40	
George L. Baxter, disbursements,	4 29	
J. S. Hayes, disbursements	4 00	
M. J. Wendell, disbursements,	7 20	
R. H. Stearns, ribbon	4 97	
Somerville Y. M. C. A., services of janitor	5 00	
William H. Kelley, disburse- ments	71	
D. H. Rinn, disbursements	4 25	
J. L. Whitaker, disbursements,	6 00	
M. L. Tobin, directory	2 00	
J. A. McLane, posting	24 75	
Barker & Tibbetts, expressing,	1 80	
Stilphen & Co., expressing	2 65	
A. M. Prescott, expressing	2 00	
Thorpe's Express, expressing	16 77	
Charles E. Farnham, expressing,	17 45	
F. H. Tibbetts, expressing	12 00	
M. G. Staples, expressing	16 50	
E. R. Perham, expressing	5 90	
George T. Day, expressing	50	
Gilman's Express, expressing,	25	
New England Telephone and Telegraph Company, rentals and tolls	41 00	
City of Boston, water	645 29	
City of Cambridge, water	24 00	
Cambridge Gas Light Co., gas,	208 75	
Charlestown Gas Co., gas	118 68	
Somerville Electric Light Co., lighting	6 97	
	<hr/>	<u>\$22,364 12</u>

SCHOOLHOUSE INCIDENTALS.

CREDIT.

Appropriations, amount assessed		\$16,000 00
Cash, received of James M. Burckes, bricks	\$40 00	
Dearborn Brothers & Co., repair- ing bell	5 00	
Everett E. Olney, money not called for	1 00	
	<hr/>	46 00
Excess and Deficiency, balance to debit of account		3,126 92
		<hr/>
		\$19,172 92

DEBIT.

Cash, paid Frederic A. Chandler, car- penter work	\$1,143 77	
George W. Trefren, Jr., carpen- ter work	131 96	
S. T. Kirk, carpenter work	152 57	
H. S. Brackett, carpenter work,	110 70	
J. W. Johnson, carpenter work	134 91	
George T. Willoughby, carpenter work	12 38	
Fred C. Fuller, carpenter work	27 84	
Stephen A. Howe, carpenter work,	20 79	
J. D. Hills, carpenter work	95 00	
L. Arnold, carpenter work	4 95	
A. D. Brackett, carpenter work	1 00	
L. C. Seavey, slating	194 20	
Cotter Brothers, slating	54 76	
William Neal, painting	18 90	
C. A. Pearson, varnishing	95 00	
F. S. Norris, painting, etc.	190 35	
J. Q. Twombly, painting	87 16	
J. H. Hollis, painting	13 00	
	<hr/>	
<i>Amounts carried forward</i>	\$2,489 24	\$19,172 92

<i>Amounts brought forward</i>	\$2,489 24	\$19,172 92
H. M. Taylor, painting	107 54	
Charles Tufts, painting	67 50	
James Benson, painting	12 00	
John A. McDonald, painting	11 00	
J. C. Dyer & Co., painting	2 80	
J. F. Burton, painting	11 80	
E. L. Baker, painting	4 95	
A. C. Winning, mason work	297 81	
J. M. Burckes, mason work	37 72	
J. A. Durell, hardware	341 63	
Whitney & Snow, hardware	72 64	
W. E. Plumer & Co., hardware	137 85	
W. L. Snow, hardware	7 95	
W. I. Heald, hardware	6 46	
Dupont & Coté, hardware	38	
James F. Davlin, plumbing	11 17	
Charles A. Holmes, plumbing	10 35	
Young & Maynard, plumbing	35 44	
William B. Holmes, plumbing	167 03	
C. A. Legallee, plumbing	4 72	
J. E. Parsons, plumbing	6 30	
J. A. Merrifield, stove work	141 76	
Howe & Flint, stove work	65 75	
H. G. Collins, stove work	3 00	
Fuller, Warren, & Co., grate	6 63	
A. A. Sanborn, steam heating apparatus	4,785 00	
S. W. Fuller, lumber	349 33	
Page & Littlefield, lumber	25 18	
Jacob Woodbury, blacksmithing, Seward Dodge, blacksmithing	109 94	
Frederick R. Cutter, clocks	4 00	
H. C. Manning, repairing clocks	134 25	
Daniel Crocker, repairing clocks, Frank W. Baxter, repairing settees	20 13	
	33 00	
	186 46	
<i>Amounts carried forward</i>	<u>\$9,708 71</u>	<u>\$19,172 92</u>

<i>Amounts brought forward</i>	\$9,708 71	\$19,172 92
George W. Bragdon, repairing chairs	3 50	
Ella E. Finan, repairing chairs, P. Derby & Co., chairs	3 25	
C. W. Lyman & Co., tables	117 83	
J. L. Hammett, tables	96 00	
Winchester Furniture Co., school furniture	16 00	
Williams & Co., urinals	2,117 55	
Albany Venetian Blind Co., blinds	160 00	
Holland & Daniels, shades	300 00	
Joel Goldthwait & Co., carpets	119 40	
Jackson Caldwell & Co., carpets	13 87	
William F. Eccles, cleaning carpet	18 07	
J. E. Bell, blackboards	5 88	
James W. Poole, tubes and bells, Electric Gas Lighting Co., electrical work	21 76	
J. A. Corthell, electrical work	31 18	
James A. Ross, repairing tubes, James Wilkinson, bells, etc.	63 99	
A. J. Wilkinson, door checks	88 77	
Oliver Whyte & Co., iron work	5 00	
James P. Moran, brass pipe	50 00	
M. C. Warren & Co., line, etc., L. W. Bowen, papering	7 50	
G. A. Walker, painting	55 18	
Fox, McDormand, & Co., steps, McDormand, Warner, & Co., shavings	45 00	
P. H. Wellcome, soda, etc.	1 31	
J. E. B. Lovering, Ozonos	8 63	
American Sanitary Asso., carbolic liquids	99 00	
	8 80	
	2 50	
	13 15	
	50	
	4 25	
<i>Amounts carried forward</i>	<hr/>	<hr/>
	\$13,186 58	\$19,172 92

<i>Amounts brought forward</i>	\$13,186 58	\$19,172 92
Frank E. Fitts, hose	23 00	
Walter Bates, concreting	466 65	
Thomas Allen, concreting	180 00	
Smead Warming and Ventilating Co., cementing cellar	39 75	
S. W. Mann & Son, steam fitting, Boston Spar Co., flagstuffs	109 73	
D. P. Bucknam, mason work, etc., S. J. Wood, keys, etc.	665 91	
West End Street Railway Co., use of cars	145 25	
R. M. Johnson, removing soil	43 85	
Cambridge Gas Light Co., piping, Calvin J. Sawyer, whitewashing, Hannah Russell, cleaning	500 00	
Patrick O'Connell, labor	104 00	
William H. Laskey, labor	13 86	
W. N. Sheridan, labor	5 00	
James Deacon, labor	1 00	
C. A. Southwick, labor	190 00	
B. F. Sheridan, labor	25 00	
N. L. Pennock, labor	10 00	
William H. Denton, labor	10 00	
William H. Kelly, labor	35 20	
Owen Cunningham, teaming	25 00	
John Connolly, teaming	10 00	
J. J. Underhill, teaming	5 00	
P. Murphy, teaming	4 00	
A. M. Prescott, teaming	3 65	
M. G. Staples, teaming	107 00	
Dennis C. Collins, teaming	18 00	
George McKenna, teaming	21 00	
George W. Munroe, teaming	11 00	
John Turner & Co., edgestones, Crane & Woods, premium of in- surance	3 00	
	2 50	
	2 00	
	1 00	
	14 49	
	459 52	
<i>Amounts carried forward</i>	<hr/>	<hr/>
	\$16,442 94	\$19,172 92

<i>Amounts brought forward</i>	\$16,442 94	\$19,172 92
Charles S. Robertson, premium of insurance	316 50	
Smith & Robertson, premium of insurance	150 00	
I. B. Kendall, premium of insur- ance	83 25	
L. B. Jones, rent	420 00	
First Baptist Church, rent	300 00	
Union-square Baptist Church, rent	200 00	
James A. Whitaker, rent	275 00	
A. Haderbolets, rent	277 00	
H. Libby & Son, rent	110 50	
Philip Eberle, rent	125 00	
James S. Gill, rent	100 00	
Mary A. Brazillian, rent	60 00	
G. B. Haskell, agent, rent	25 00	
E. R. Perham, expressing	117 30	
Gilman's Express, expressing	2 00	
Charles E. Farnham, expressing,	1 00	
Sidewalk Assessments, sidewalks,	81 78	
Sewer Assessments, sewer	85 65	
	<hr/>	<u>\$19,172 92</u>

SCHOOLHOUSE IN WARD TWO.

CREDIT.

Balance from 1889	\$10,272 86	
Interest transferred	1,948 31	
	<hr/>	\$12,221 17

DEBIT.

Cash, paid Dearborn Brothers and Co., on account of contract and extras	\$8,029 67	
	<hr/>	
<i>Amounts carried forward</i>	\$8,029 67	\$12,221 17

<i>Amounts brought forward</i>	\$8,029 67	\$12,221 17
Fuller, Warren, & Co., heating and ventilating	2,755 62	
J. B. Hunter & Co., hardware,	300 00	
Oliver Whyte & Co., wire screens,	81 35	
S. Edwin Tobey, services as architect	239 22	
Horatio Wellington & Co., fuel,	168 00	
Patrick O'Connell, labor	42 50	
Frederick A. Chandler, carpen- tering	4 81	
	<hr/>	
	\$11,621 17	
Balance to credit in account 1891	600 00	
	<hr/>	
		<u>\$12,221 17</u>

SCHOOLHOUSE IN WARD TWO, PROSPECT HILL DISTRICT.

CREDIT.

Appropriations, amount appropriated by borrowing on funded debt account	\$50,000 00
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DEBIT.

Cash, paid H. T. Allen and Joanna R. Davis, land on Washington street	\$14,979 80	
Loring & Phipps, services as architects	1,160 88	
City of Somerville, taxes for 1890,	147 00	
	<hr/>	
	\$16,287 68	
Balance to credit of account 1891,	33,712 32	
	<hr/>	
		<u>\$50,000 00</u>

SCHOOLHOUSE IN WARD THREE.

CREDIT.

Appropriations, amount appropriated by borrowing on funded debt account		\$35,000 00
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DEBIT.

Cash, paid Charles H. Sanborn, land on Jaques street	\$7,200 00	
Loring & Phipps, services as architects	885 37	
City of Somerville, taxes for 1890, Water Service Assessments, pipe, etc.	65 80	
	28 85	
	<hr/>	
	\$8,180 02	
Balance to credit in account 1891,	26,819 98	\$35,000 00
		<hr/> <hr/>

TEMPORARY LOANS.

CREDIT.

Balance from 1889		\$150,000 00
Cash, borrowed by authority of the City Council, on city notes, as follows, viz. :—		
Potter, Lovell, & Co., on four months, at $3\frac{3}{4}$ per cent.	\$100,000 00	
Commonwealth of Massachusetts, on seven months, at 4 per cent.,	100,000 00	
Potter, Lovell, & Co., on five months, at $3\frac{7}{8}$ per cent.	75,000 00	
The Boston Five Cents Savings Bank, on four months, at $4\frac{1}{4}$ per cent.	100,000 00	
Potter, Lovell, & Co., on four months, at 4 per cent.	50,000 00	
F. S. Moseley & Co., on six months, at $5\frac{1}{4}$ per cent.	50,000 00	
	<hr/>	
<i>Amounts carried forward</i>	\$475,000 00	\$150,000 00

<i>Amounts brought forward</i>	\$475,000 00	\$150,000 00
The Boston Five Cents Savings Bank, on six months, at $4\frac{3}{4}$ per cent.	100,000 00	
Commonwealth of Massachusetts, on three months, at $4\frac{1}{2}$ per cent.	75,000 00	
Somerville Hospital, on four months, at 6 per cent.	13,000 00	
N. A. Hutchins, guardian, on four months, at 6 per cent.,	25,000 00	
The Boston Five Cents Savings Bank, on six months, at $5\frac{3}{4}$ per cent.	60,000 00	
	<hr/>	748,000 00
		<hr/>
		\$898,000 00

DEBIT.

Cash, paid as follows :—

Commonwealth of Massachusetts, note dated Sept. 14, 1889	\$50,000 00	
Commonwealth of Massachusetts, note dated Dec. 12, 1889	100,000 00	
Potter, Lovell, & Co., notes dated March 14, 1890.	100,000 00	
Potter, Lovell, & Co., on notes dated June 13, 1890	75,000 00	
Commonwealth of Massachusetts, on note dated April 12, 1890,	100,000 00	
The Boston Five Cents Savings Bank, on note dated July 12, 1890	100,000 00	
Potter, Lovell, & Co., on notes dated July 24, 1890	50,000 00	
	<hr/>	\$575,000 00
Balance to credit in account 1891	323,000 00	
	<hr/>	<hr/>
		\$898,000 00

TAXES.

CREDIT.

Cash, received for taxes in 1884	\$19 62	
“ “ “ “ 1885	42 26	
“ “ “ “ 1886	129 32	
“ “ “ “ 1887	254 60	
“ “ “ “ 1888	24,808 20	
“ “ “ “ 1889	58,082 20	
“ “ “ “ 1890	369,902 40	
	<hr/>	\$453,238 60

Overlay and Abatement:—

Abatements on taxes of 1884	\$3,972 10	
“ “ “ “ 1885	18 94	
“ “ “ “ 1886	148 74	
“ “ “ “ 1887	89 56	
“ “ “ “ 1888	506 20	
“ “ “ “ 1889	349 90	
“ “ “ “ 1890	3,078 10	
	<hr/>	8,163 54

Balance to debit in account 1891 :—

Being uncollected taxes of 1885	\$5,041 62	
“ “ “ “ 1886	4,842 90	
“ “ “ “ 1887	5,101 56	
“ “ “ “ 1888	4,944 10	
“ “ “ “ 1889	32,540 30	
“ “ “ “ 1890	112,162 30	
	<hr/>	164,632 78
		<hr/>
		\$626,034 92

DEBIT.

Balance from 1889	\$140,892 12	
Appropriations, amount assessed for current expenses	418,500 00	
	<hr/>	
<i>Amounts carried forward</i>	\$559,392 12	\$626,034 92

<i>Amounts brought forward</i> . . .	\$559,392 12	\$626,034 92
State of Massachusetts, amount assessed for state tax . . .	24,115 00	
County of Middlesex, amount assessed for county tax . . .	22,188 84	
Overlay and Abatement, amount added by the assessors . . .	20,338 96	
	<hr/>	<u>\$626,034 92</u>

WATER MAINTENANCE.

CREDIT.

Appropriations, amount assessed . . .		\$18,000 00
Cash, received of Arlington Water Works, fittings, etc. . .	\$52 75	
Lexington Water Works, fittings, . . .	2 88	
Melrose Water Works, pipe . . .	25 81	
Town of Melrose, pipe . . .	17 30	
George D. Goodrich, pipe . . .	20 00	
H. G. Lamburn, pipe . . .	6 00	
Tucker & Titus, pipe . . .	4 28	
United States Heating and Plumbing Co., pipe . . .	15 75	
William F. Hall, pipe . . .	23 12	
North Packing & Provision Co., pipe, casting, labor, etc. . .	396 62	
S. A. Underhill, filling and labor, Somerville Iron Foundry Co., old iron . . .	7 85	
F. Herrick, old iron . . .	2 00	
Henry R. Worthington, castings, . . .	3 00	
S. S. Higgins, filling . . .	73 00	
L. W. Dow, manure . . .	12 00	
Watering Streets account, stand-pipes . . .	97 63	
Sewers account, fittings . . .	54 42	
	<hr/>	<hr/>
<i>Amounts carried forward</i> . . .	\$816 81	\$18,000 00

<i>Amounts brought forward</i>	\$816 81	\$18,000 00
Sundry persons, money not called for	13 82	
Water Services, transferred	736 02	
	<hr/>	1,566 65
		<hr/>
		\$19,566 65

DEBIT.

Cash, paid laborers	\$7,624 15	
Nathaniel Dennett, salary as superintendent	1,500 00	
Disbursements	39 14	
Frederic W. Stone, salary as clerk, Disbursements	75 00 1 00	
Frank E. Merrill, salary as clerk, Disbursements	677 89 29 03	
R. D. Wood & Co., iron pipe	2,421 48	
Somerville Iron Foundry Co., castings	34 88	
Boston Bolt Co., bolts, etc.	19 47	
Chadwick Lead Works, lead	316 91	
Chapman Valve Mfg. Co., valves, William T. Wood & Co., tools	68 48 6 40	
Walworth Mfg. Co., tools	10 14	
A. J. Wilkinson, tools	13 01	
H. H. Harvey, tools	35 69	
Andrew J. Morse & Sons, tools	9 00	
Star Brass Mfg. Co., gauge	3 60	
Whittier Machine Co., valves	8 76	
Boston Belting Co., hose	40 00	
Boston Woven Hose Co., hose	96 80	
Jaques Brothers, pattern work	96 80	
Waldo Brothers, cement, etc.	140 85	
Cunningham Iron Works, asphal- tum	47 80	
Walter M. Hadley, lime	19 85	
James Bartley, potash	10 24	
	<hr/>	
<i>Amounts carried forward</i>	\$13,346 37	\$19,566 65

<i>Amounts brought forward</i>	\$13,346 37	\$19,566 65
North Packing & Provision Co., salt	2 62	
Sewall & Day Cordage Co., oakum	3 00	
Perrin, Seamans, & Co., rope, etc.,	31 52	
Hill & Cutler, manilla	9 36	
W. E. Plumer & Co., hardware	88 30	
Whitney & Snow, hardware	17 64	
W. I. Heald, hardware	1 50	
H. W. Raymond, hardware	1 43	
J. A. Durell, hardware	1 75	
Howe & Flint, hardware	83	
Fulton O'Brion, grain	71 10	
Hosmer, Crampton, & Hammond, hay and grain	176 43	
A. D. Hoitt, grain	39 00	
Powers & Co., grain	39 40	
E. B. Vreeland, grain	13 63	
Proctor Bros., hay	39 55	
George H. Hills & Co., oatmeal, Sturtevant Bros., horse	200 00	
Seward Dodge, blacksmithing	256 84	
F. Dooris, blacksmithing	56 17	
John Kellogg, blacksmithing	4 20	
Edward O' Brien, horseshoeing, L. H. Brown, use of carriage	28 38	
Brown & Call, repairing wagon, F. Ivers & Son, repairing wagon, Elias Lathrop, ointment	14 50	
L. F. S. MacLehose, composition, George W. Sampson, powder	31 00	
Samuel Walker & Co., oil	22 00	
Frank L. Young, oil	2 00	
Bay State Boiler Co., oil	30 70	
Globe Gas Light Co., gasoline, W. B. Plympton, polish	16 55	
	25 65	
	12 00	
	8 00	
	1 50	
	2 15	
<i>Amounts carried forward</i>	<hr/> \$14,597 00	<hr/> \$19,566 65

<i>Amounts brought forward</i> . . .	\$14,597 00	\$19,556 65
S. W. Mann & Son, polish . . .	10	
Richard Dowd, tin work, etc. . .	140 80	
E. Spalding, harness work . . .	106 10	
D. J. Bennett, harness work . . .	17 70	
Hill & Langtry, harness work, . . .	5 00	
George W. Trefren, Jr., carpen- ter work	232 55	
E. H. Buxton, painting	35 00	
Richard Walsh, painting	13 50	
J. F. Burton, glazing	1 00	
James F. Davlin, plumbing	32 97	
Abram French & Co., lantern globes	48 75	
W. H. Brine, furniture, etc.	34 40	
J. H. Brooks, netting	2 37	
L. W. Bowen & Co., frame	1 63	
R. M. Yale & Co., awning	1 20	
Joseph Breck & Sons, hay cutter, Fairbanks, Brown, & Co., sup- plies	20 00	
James L. Whitaker, tools	10 45	
James L. Whitaker, tools	15 00	
Holyoke Hydrant & Iron Works, repairing hydrants	181 75	
S. W. Fuller, lumber	118 47	
Jeremiah Keleher, logs	1 50	
Sanborn & Hatch, bricks	18 50	
N. E. Fitz & Co., sand	30	
Scott & Case, stone work	6 20	
H. Wellington & Co., fuel	600 21	
Charles Booth, coal	1 50	
Thomas Groom & Co., stationery, Somerville Journal Co., stationery, J. O. Hayden & Co., printing	125 41	
W. A. Greenough, directory	6 75	
S. J. Wood, filing saws	26 50	
W. A. Greenough, directory	2 00	
S. J. Wood, filing saws	6 50	
Birch Brothers, keys	1 50	
<i>Amounts carried forward</i> . . .	<u>\$16,412 61</u>	<u>\$19,566 65</u>

<i>Amounts brought forward</i>	\$16,412 61	\$19,566 65
Jackson Caldwell & Co., bedding	9 50	
C. R. Simpson, veterinary services	5 00	
W. H. Way, veterinary services,	6 00	
West End Street Railway Co., repairs	9 18	
Sundry persons, reporting leaks, Sidney E. Hayden, salary as engineer	25 00	
Matthew McCormick, watching	825 03	
Frank Carlin, labor	12 00	
H. D. & W. S. Durgin, ice	1 00	
H. D. & W. S. Durgin, ice	7 80	
Charles E. Robinson, manure	8 16	
New England Telephone & Telegraph Co., rentals and tolls	162 25	
Cambridge Gas Light Co., gas	63 54	
Somerville Electric Light Co., lighting	25 60	
Crane & Woods premium of insurance	151 88	
Barker & Tibbetts, expressing	1 70	
Charles E. Farnham, expressing,	4 90	
E. R. Perham, expressing	1 40	
George T. Day, expressing.	25	
Gilman's Express, expressing	50	
Glines' Express, expressing	50	
M. G. Staples, expressing	1 00	
Owen Cunningham, teaming	40 50	
City of Boston, water	20 60	
Charles W. Trainor & Co., packing	3 00	
Hannah K. Stevens et al., compensation for damages	1,200 00	
J. A. Durell, compensation for damages	150 00	
<i>Amounts carried forward</i>	<u>\$19,148 90</u>	<u>\$19,566 65</u>

<i>Amounts brought forward</i>	\$19,148 90	\$19,566 65
N. W. Bingham, compensation for damages	72 48	
Alonzo Bowers, compensation for damages	35 00	
Samuel McKeever, compensation for damages	5 00	
J. H. Mongan, rubber boots	3 25	
	<hr/>	
	\$19,264 63	
Excess and Deficiency, balance to credit of account	302 02	
	<hr/>	
		\$19,566 65

WATER-WORKS EXTENSION.

CREDIT.

Balance from 1889		\$3,543 68
Appropriations, amount appropriated by borrowing on funded debt account		50,000 00
Cash, received of Derby & Kilmer Desk Co., pipe fittings, etc.	\$121 31	
Sprague & Hathaway, fittings	23 56	
Henry R. Worthington, castings,	88 02	
W. F. Green, blasting	60 00	
Sundry persons, money not called for	50 63	
	<hr/>	
		343 52
		<hr/>
		\$53,887 20

DEBIT.

Cash, paid laborers	\$15,019 57	
Cunningham Iron Works, on ac- count of constructing stand- pipe	3,857 65	
Cunningham Iron Works, iron work	1,257 88	
	<hr/>	
<i>Amounts carried forward</i>	\$20,135 10	\$53,887 20

<i>Amounts brought forward</i>	\$20,135 10	\$53,887 20
Coon & Hall, on account of constructing pumping station	1,938 50	
Coon & Hall, mason work	20 51	
Fessenden & Libby, balance on account of contract for constructing chimney	705 62	
H. R. Worthington, pump and boiler	8,700 00	
C. E. Rymes, services superintending construction of stand-pipe and pumping station	500 00	
Samuel D. Kelley, services as architect	140 00	
R. D. Wood & Co., iron pipe	8,293 17	
McNeal Pipe and Foundry Co., iron pipe	2,235 10	
City of Newton, iron pipe	322 16	
Boston & Maine Railroad, freight	475 95	
Somerville Iron Foundry Co., castings	511 21	
Davis & Farnum Manufacturing Co., castings	1,738 74	
Walworth Manufacturing Co., castings	334 44	
Osgood & Hart, castings	100 96	
Chapman Valve Manufacturing Co., hydrants	1,069 10	
Holyoke Hydrant and Iron Works, hydrants	159 70	
Whittier Machine Co., gates	921 18	
Boston Lead Manufacturing Co., lead	1,218 10	
Jaques Brothers, pattern work, Builders Iron Foundry, pattern work	65 15	
	40 00	
<i>Amounts carried forward</i>	\$49,624 69	\$53,887 20

<i>Amounts brought forward</i>	\$49,624 69	\$53,887 20
Star Brass Manufacturing Co., gauge	26 25	
Scrannage Bros. & Cook, coupl- ings.	27 00	
Henry McShane & Co., valve,	5 82	
A. M. Morton & Co., valve	2 11	
Crosby Steam Gage & Valve Co., valve	1 00	
Sumner & Goodwin, fittings	3 11	
Dalton & Ingersoll, fittings	16 20	
Braman, Dow, & Co., fittings	1 31	
Perrin, Seamans, & Co., tools	80 49	
William T. Wood & Co., tools	6 00	
J. Baker & Co., tools	4 74	
Sylvester & Co., spikes	96	
Boston Bolt Co., bolts	9 00	
H. H. Harvey, steel	4 50	
J. F. Hodge, cork scraps	26	
Fairbanks, Brown, & Co., scales,	80 00	
Miller & Shaw, machine work	168 68	
Richard Dowd, iron work	131 81	
Sewall & Day Cordage Co., packing	65 22	
A. W. Russell, packing	7 87	
Waldo Bros., stone	103 60	
John Kennedy, chip stones	20 20	
E. Horn, mason work	147 62	
Wood & Lee, mason work	8 75	
George W. Trefren, Jr., carpen- tering	389 24	
George M. Starbird, carpentering,	143 28	
L. S. Emery, painting	16 65	
J. H. Hollis, glazing	6 00	
W. E. Plumer & Co., hardware,	115 78	
Whitney & Snow, hardware	33 60	
S. W. Mann & Son, plumbing	50 40	
H. C. Folger, plumbing	28 15	
<i>Amounts carried forward</i>	<u>\$51,330 29</u>	<u>\$53,887 20</u>

<i>Amounts brought forward</i>	\$51,330 29	\$53,887 20
William B. Holmes, plumbing	3 56	
S. W. Fuller, lumber	120 41	
H. C. Dodge, wood	10 00	
L. B. Angier, wood	1 25	
H. Wellington & Co., fuel	49 73	
Seward Dodge, blacksmithing	70 20	
F. Dooris, blacksmithing	25 55	
Hosmer, Crampton, & Hammond, hay and grain	143 71	
George H. Sampson, powder	62 75	
Cambridge Gas Light Co., coke, Samuel Walker & Co., oil	12 35	
Gilmore & Eustis, rails	7 84	
W. M. Hadley, lime	19 96	
Andrew J. Morse & Son, hose	2 00	
William H. Brine, furniture	28 10	
Charles E. Hall & Co., marble tablet	118 49	
E. Gibbs, lettering	29 50	
Sanborn & Hatch, bricks	6 00	
Berry & Ferguson, bricks	36 40	
George D. Goodrich, pipe	25 50	
Dodge, Haley, & Co., iron	2 10	
Jeremiah Donovan, sodding	12	
A. M. Prescott, teaming	147 58	
Richard Falvey, teaming	30 00	
James Harvey, teaming	77 50	
George McKenna, teaming	2 00	
James Hoar, teaming	195 50	
Owen Cunningham, teaming	124 12	
Daniel E. Hoar, teaming	446 11	
T. F. Crimmings, teaming	238 50	
Henry Gray, teaming	166 10	
Charles Booth, teaming	21 00	
E. R. Perham, expressing	15 00	
Walter Bates & Son, concreting, <hr/>	30	
<i>Amounts carried forward</i>	100 70	
	<hr/>	<hr/>
	\$53,670 22	\$53,887 20

<i>Amounts brought forward</i>	\$53,670 22	\$53,887 20
West End Street Railway Com- pany, paving	50 09	
Samuel McKeever, compensation for damages	35 00	
	<hr/>	
	\$53,755 31	
Balance to credit in account 1891	131 89	
	<hr/>	<u>\$53,887 20</u>

WATER SERVICES.

CREDIT.

Cash, received of Sarah Gill, fittings, etc.	\$3 50
R. H. Sturtevant, fittings, labor, etc.	7 40
Joseph Miller, fittings, labor, etc., Edward D. Hall, fittings, labor, etc.	1 50
	20 10
Mary R. French, fittings, labor, etc.	16 70
George D. Goodrich, fittings, labor, etc.	7 48
J. B. Humphrey, fittings, labor, etc.	1 50
Richard Dowd, fittings, labor, etc., Sylvanus R. Kneeland, service pipe, etc.	8 84
	9 50
Frederick M. Kilmer, service pipe, etc.	31 30
Levi L. Tower, service pipe, etc., Henry Woehn, service pipe, etc., E. G. Park, service pipe, etc., M. O. Boyce, service pipe, etc., W. L. Snow, service pipe, etc.,	7 75
	14 80
	19 38
	40 40
	13 10
	<hr/>
<i>Amount carried forward</i>	\$203 25

<i>Amount brought forward</i>	\$203 25	
Lodema D. Kimball, service pipe, etc.	12 21	
Charles Robinson, service pipe, etc.	13 67	
R. E. Nickerson, service pipe, etc.	19 50	
North Packing & Provision Co., service pipe, etc.	95 00	
B. O. Wilson, service pipe, etc.,	15 50	
J. H. Steele, service pipe, etc.,	12 70	
A. Sawtell & Co., service pipe, etc.	16 85	
Second Unitarian Society, service pipe, etc.	10 40	
Albert Kennison, service pipe, etc.,	18 76	
William Veazie, gate box and labor	7 60	
Sundry persons, money not called for	3 94	
Schoolhouse Ward Three ac- count, service pipe	28 85	
	<hr/>	
	\$458 23	
Water Service Assessments, cost of services laid	9,691 29	
	<hr/>	\$10,149 52
DEBIT.		
Cash, paid laborers	\$4,289 72	
Boston Lead Manufacturing Co., pipe	367 65	
George K. Paul & Co., pipe	1,363 52	
Whittier Machine Co., pipe	18 43	
Chadwick Lead Works, pipe	24 75	
Grundy Brass Works, pipe	2 00	
Somerville Iron Foundry Co., castings	588 37	
	<hr/>	
<i>Amounts carried forward</i>	\$6,654 44	\$10,149 52

<i>Amounts brought forward</i>	\$6,654 44	\$10,149 52
Osgood & Hart, castings	201 33	
Dalton & Ingersoll, fittings	1,048 14	
Boston Bolt Co., fittings	66 75	
Henry McShane & Co., fittings,	142 11	
A. J. Morse & Son, fittings	1 50	
Sumner & Goodwin, fittings	387 88	
Walworth Manfg. Co., fittings	208 01	
William F. Wood & Co., tools	6 00	
Guptill & Steers, tools	2 00	
Boston Belting Co., washers	22 66	
Chapman Valve Mfg. Co., valves,	21 52	
H. H. Harvey, steel	1 43	
Braman, Dow, & Co., pipe	14 76	
Jaques Brothers, pattern work	42 40	
A. J. Wilkinson & Co., taps	11 43	
Albert Kenneson, old lead	3 78	
J. McCarthy's Sons, charcoal	2 10	
Waldo Brothers, cement	12 50	
E. Van Noorden, solder	7 25	
Henry C. Hunt & Co., leather	12 50	
Globe Gas Light Co., torch	4 25	
W. I. Heald, axe	1 00	
Charles McGuire, blacksmithing,	3 00	
E. Spalding, robes	19 30	
Sturtevant Brothers, horse	150 00	
Philip Eberle, rubber boots	7 50	
Sylvester & Co., keys	12 00	
Abram French & Co., globes	7 75	
James F. Davlin, plumbing	122 54	
William B. Holmes, plumbing	1 96	
Richard Dowd, plumbing	33 28	
J. A. Durell, hardware	10 10	
Howe & Flint, hardware	95	
D. W. Crocker, repairing wagon,	27 25	
Hosmer, Crampton, & Hammond, hay and grain	111 19	
<i>Amounts carried forward</i>	<u>\$9,382 56</u>	<u>\$10,149 52</u>

<i>Amounts brought forward</i>	\$9,382 56	\$10,149 52
Samuel Walker & Co., oil	4 20	
Thomas Hollis, drugs	3 50	
Somerville Journal Co., stationery,	4 00	
Hooper, Lewis, & Co., stationery,	1 00	
Thorpe's Express, expressing	3 00	
H. J. West, overcharge on pipe	1 50	
E. G. Brown, water service	13 74	
	<hr/>	
	\$9,413 50	
Water Maintenance, balance trans- ferred	736 02	
	<hr/>	
		<u>\$10,149 52</u>

WATER SERVICE ASSESSMENTS.

CREDIT.

Cash, received of sundry persons, water services	\$9,597 63	
Balance to debit in account 1891	2,196 45	
	<hr/>	
		\$11,794 08

DEBIT.

Balance from 1889	\$2,102 79	
Water Services, service pipes laid in 1890	9,691 29	
	<hr/>	
		<u>\$11,794 08</u>

WATERING STREETS.

CREDIT.

Appropriations, amount assessed	\$4,000 00	
Cash, received of abutters	6,024 36	
	<hr/>	
<i>Amount carried forward</i>		\$10,024 36

Amount brought forward \$10,024 36

DEBIT.

Cash, paid N. C. Barker, overseeing	\$434 40	
Disbursements	45	
Christopher Burke, watering	400 50	
Frank Buttimer, watering	404 10	
Owen Cunningham, watering	370 35	
J. F. Elkins, watering	260 55	
Richard Falvey, watering	391 05	
Charles Faulkner, watering	416 25	
Martin Gill, watering	424 80	
Henry Gray, watering	412 65	
George McKenna, watering	474 30	
Henry McAvoy, watering	421 20	
Jeremiah McCarthy, watering	184 95	
Daniel O'Brien, watering	119 25	
A. B. Prichard, watering	414 45	
A. M. Prescott, watering	466 65	
John Walsh, watering	463 05	
Studebaker Brothers Manufac- turing Company, watering cart,	465 00	
Old Colony Railroad Company, freight	20 00	
L. S. Emery, painting carts	130 00	
F. H. Flagg, repairing carts	44 40	
P. E. Somers, repairing carts	2 00	
W. H. Richardson, repairing carts	3 25	
Charles W. Ingalls, repairing carts	10 00	
L. A. Wright, repairing carts	22 80	
D. J. Bennett, repairing carts	1 75	
Seward Dodge, blacksmithing	107 66	
Boston Woven Hose Company, hose	12 18	
City of Boston, water	2,725 79	
<i>Amounts carried forward</i>	\$9,603 78	\$10,024 36

<i>Amounts brought forward</i>	\$9,603 78	\$10,024 36
Citizen Publishing Company, advertising	6 00	
J. O. Hayden & Co., advertising,	6 00	
McDonnell Bros., advertising	6 50	
Highways account, paving	120 75	
Water Maintenance account, stand-pipes, etc.	97 63	
Thomas Groom & Co., stationery,	4 50	
	<hr/>	
	\$9,845 16	
Excess and Deficiency, balance to credit of account	179 20	
	<hr/>	
		<u>\$10,024 36</u>

TABLE D.

BALANCES DECEMBER 31, 1890.

Cash	\$20,285 15	
City and Water Loan Bonds	194,000 00	
Public Property	1,547,167 93	
Real-estate Liens	55 44	
State of Massachusetts, State Aid,	4,919 50	
State of Massachusetts, Indigent		
Soldiers and Sailors	649 00	
State of Massachusetts, Burial of		
Indigent Soldiers and Sailors,	70 00	
Sidewalk Assessments	4,548 24	
Sewer Assessments	6,931 10	
Taxes	164,632 78	
Water Service Assessments	2,196 45	
Funded Debt		\$1,057,500 00
Highland Schoolhouse addition,		1,209 06
Overlay and Abatement		12,207 77
Overplus on Tax Sales		102 13
Property and Debt Balance		489,667 93
Public Library		131 91
Sundry Persons		372 60
Schoolhouse in Ward Two		600 00
Schoolhouse in Ward Two, Pros-		
pect Hill District		33,712 32
Schoolhouse in Ward Three		26,819 98
Temporary Loans		323,000 00
Water-works Extension		131 89
	<u>\$1,945,455 59</u>	<u>\$1,945,455 59</u>

REPORT
OF THE
SCHOOL COMMITTEE.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN,
February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports,
in concurrence.

CHAS. S. ROBERTSON, *Clerk.*

SCHOOL COMMITTEE, 1890.

HON. CHARLES G. POPE, Mayor, Chairman, *ex officio*.

CHARLES B. OSGOOD, President of the Common Council, *ex officio*.

MEMBERS.

WARD ONE.

* H. P. HEMENWAY, M. D., 143 Perkins Street . . .	Term expires 1890.
S. NEWTON CUTLER, 28 Flint Street . . .	“ “ 1891.
HORACE C. WHITE, M. D., 149 Perkins Street . . .	“ “ 1892.

WARD TWO.

CHARLES I. SHEPARD, 33 Vinal Avenue . . .	Term expires 1890.
ALPHONZO H. CARVILL, 18 Bow Street . . .	“ “ 1891.
JAMES F. BEARD, 17 Prospect Hill Avenue . . .	“ “ 1892.

WARD THREE.

WILLIAM P. HILL, Sycamore Street . . .	Term expires 1890.
NORMAN W. BINGHAM, 235 School Street . . .	“ “ 1891.
Q. E. DICKERMAN, Highland Avenue . . .	“ “ 1892.

WARD FOUR.

MARTIN W. CARR, Craigie Street . . .	Term expires 1890.
MRS. ADDIE B. UPHAM, 36 Newbury Street . . .	“ “ 1891.
GILES W. BRYANT, M. D., 396 Highland Ave. . .	“ “ 1892.

C. E. MELENEY, Superintendent and Secretary, 40 Greenville Street.

Office, 4 Walnut Street, corner of Bow Street, Union Square. Office hours, from 4 to 5 P. M., each day that the schools are in session.

* Deceased. Vacancy filled by election of Sanford Hanscom, M. D., April 23, 1890.

STANDING COMMITTEES, 1890.

High School. — MESSRS. CARVILL, BINGHAM, DICKERMAN, BEARD, CUTLER, WHITE, CARR, HANSCOM.

On Schools in East Somerville District. — MESSRS. WHITE, CUTLER, HANSCOM.

On Schools in Prospect Hill District. — MESSRS. SHEPARD, BEARD, MAYOR POPE, CARVILL.

On Schools in Winter Hill District. — MESSRS. BINGHAM, DICKERMAN, OSGOOD, HILL.

On Schools in Spring Hill District. — MR. CARR, MRS. UPHAM, DR. BRYANT.

On Schools in West Somerville District. — DR. BRYANT, MRS. UPHAM, MR. CARR.

On Rules and Regulations. — MESSRS. SHEPARD, CUTLER, HILL.

On Examination of Teachers. — MRS. UPHAM, MESSRS. WHITE, DICKERMAN.

On Text-Books. — MESSRS. BEARD, DICKERMAN, HANSCOM, CARR, BINGHAM, WHITE, SHEPARD.

On Music. — MESSRS. BEARD, CUTLER, BINGHAM, BRYANT.

On Evening Schools. — MESSRS. DICKERMAN, CARR, CUTLER, SHEPARD.

On Drawing and Penmanship. — MESSRS. DICKERMAN, CUTLER, SHEPARD, BEARD.

On Industrial Education. — MESSRS. CUTLER, SHEPARD, CARVILL, MRS. UPHAM, MESSRS. HILL, CARR.

On Approval of Private Schools. — MESSRS. OSGOOD, BEARD, MRS. UPHAM.

On School Supplies. — MESSRS. CARR, HANSCOM, CARVILL, WHITE.

On Finance. — MESSRS. WHITE, BEARD, OSGOOD.

On Salaries. — MESSRS. BINGHAM, SHEPARD, BRYANT, CUTLER.

On Repairs and Heating Apparatus. — MESSRS. HANSCOM, CARR, CARVILL, CUTLER.

On Additional School Accommodations. — MAYOR POPE, MESSRS. CARR, BRYANT, CARVILL, WHITE, BINGHAM.

On Fuel. — MESSRS. HILL, CARVILL, OSGOOD.

On Examination of Ninth Class. — MRS. UPHAM, MESSRS. BINGHAM, SHEPARD, HANSCOM.

On Examination of Eighth Class. — MESSRS. CARVILL, BRYANT.

On Examination of Seventh Class. — MESSRS. BEARD, OSGOOD.

On Examination of Sixth Class. — MESSRS. WHITE, CARR.

On Examination of Fifth Class. — MESSRS. CUTLER, HILL.

On Examination of Fourth Class. — MESSRS. DICKERMAN, SHEPARD.

SCHOOL COMMITTEE, 1891.

HON. CHARLES G. POPE, Mayor, Chairman, *ex officio*.

FRANK E. DICKERMAN, President of the Common Council, *ex officio*.

MEMBERS.

WARD ONE.

S. NEWTON CUTLER, 28 Flint Street . . .	Term expires 1891.
HORACE C. WHITE, M. D., 149 Perkins Street . . .	“ “ 1892.
SANFORD HANSCOM, M. D., 1 Webster Street . . .	“ “ 1893.

WARD TWO.

A. H. CARVILL, M. D., 18 Bow Street . . .	Term expires 1891.
JAMES F. BEARD, 17 Prospect Hill Avenue . . .	“ “ 1892.
T. M. DURELL, M. D., 23 Bow Street . . .	“ “ 1893.

WARD THREE.

NORMAN W. BINGHAM, 235 School Street . . .	Term expires 1891.
Q. E. DICKERMAN, Highland Avenue . . .	“ “ 1892.
HELEN J. SANBORN, 383 Broadway . . .	“ “ 1893.

WARD FOUR.

MRS. ADDIE B. UPHAM, 36 Newbury Street . . .	Term expires 1891.
GILES W. BRYANT, M. D., 396 Highland Avenue . . .	“ “ 1892.
MARTIN W. CARR, Craigie Street . . .	“ “ 1893.

C. E. MELENEY, Superintendent and Secretary, 40 Greenville Street.

Office, 4 Walnut Street. Office hours, from 4 to 5 P. M., each day that the schools are in session.

STANDING COMMITTEES, 1891.

High School. — MESSRS. BINGHAM, Q. E. DICKERMAN, CARVILL, DURELL, WHITE, CUTLER, CARR, MRS. UPHAM.

Schools in East Somerville District. — MESSRS. CUTLER, HANSCOM, WHITE.

Schools in Prospect Hill District. — MR. BEARD, MAYOR POPE, MESSRS. CARVILL, DURELL.

Schools in Winter Hill District. — MESSRS. Q. E. DICKERMAN, F. E. DICKERMAN, MISS SANBORN, MR. BINGHAM.

Schools in Spring Hill District. — MR. CARR, MRS. UPHAM, DR. BRYANT.

Schools in West Somerville District. — MRS. UPHAM, MESSRS. CARR, BRYANT.

Rules and Regulations. — MESSRS. CUTLER, BRYANT, Q. E. DICKERMAN.

Examination of Teachers. — MRS. UPHAM, MESSRS. Q. E. DICKERMAN, HANSCOM.

Text-Books. — MESSRS. Q. E. DICKERMAN, HANSCOM, CARR, MISS SANBORN, MESSRS. WHITE, DURELL, BEARD.

Music. — DR. DURELL, MRS. UPHAM, DR. HANSCOM, MISS SANBORN.

Evening Schools. — MESSRS. CARR, Q. E. DICKERMAN, HANSCOM, CARVILL.

Drawing and Penmanship. — MISS SANBORN, MESSRS. BEARD, Q. E. DICKERMAN, DURELL.

Industrial Education. — DR. CARVILL, MRS. UPHAM, MISS SANBORN, MESSRS. CARR, BEARD, CUTLER.

Approval of Private Schools. — MESSRS. F. E. DICKERMAN, BEARD, BRYANT.

School Supplies. — MESSRS. WHITE, BINGHAM, CARVILL, CARR.

Finance. — MESSRS. BEARD, F. E. DICKERMAN, HANSCOM.

Salaries. — MESSRS. BRYANT, CUTLER, BINGHAM, DURELL.

Repairs and Heating Apparatus. — MESSRS. HANSCOM, CARVILL, CUTLER, BRYANT.

Additional School Accommodations. — MAYOR POPE, MESSRS. CUTLER, BEARD, Q. E. DICKERMAN, CARR.

Fuel. — MESSRS. CARVILL, F. E. DICKERMAN, BINGHAM.

Examination of Ninth Class. — MESSRS. BRYANT, CARVILL, HANSCOM.

Examination of Eighth Class. — MESSRS. BEARD, Q. E. DICKERMAN.

Examination of Seventh Class. — MESSRS. CARR, WHITE.

Examination of Sixth Class. — MISS SANBORN, MR. CUTLER.

Examination of Fifth Class. — MESSRS. Q. E. DICKERMAN, DURELL.

Examination of Fourth Class. — MRS. UPHAM, MR. BINGHAM.

REPORT
OF
COMMITTEE ON HIGH SCHOOL.

To the School Committee of the City of Somerville : —

In conformity to the action taken by the committee early in the year, I respectfully submit the following report upon the condition of the High School of this city for the year 1890.

The year has been every way pleasant and prosperous. The great increase in the size of the school has come from the unusually large number that remain in the upper classes. Miss Short returned from her year's vacation and entered upon her work in September. We were obliged to increase the teaching force, which was done by retaining Miss Clarke, who substituted for Miss Short last year. There has been no teacher of physical training or of elocution, because there is no room for them in the present building.

The great and urgent need of the High School is still that to which the attention of the citizens has been called by every school report for the last six years — that of more accommodations. Without this, little can be done to improve the school. Several years ago the hall was divided into school-rooms. This year the increased number of pupils made it necessary to place desks in every available space of every room. This seemed the only possible way of getting through this year. But the rooms are over-crowded, the ventilation is poor, and the air bad in spite of the most vigilant efforts of the teachers. The ventilation could be greatly improved at small expense by connecting the ventilating shaft with a receiving chamber in the

attic, and removing the air from this chamber by an exhaust fan. This, with a slight change in the mode of heating, would make a good system of ventilation.

When this school first occupied the present High School building, March 4, 1872, it contained one hundred and fifty pupils and six teachers, a teacher to every twenty-five pupils. In September of this year it contained four hundred and eighty-seven pupils and ten teachers, a teacher to every forty-nine pupils. In a high school, with this very large number of pupils per teacher, it is impossible to do satisfactory work or justice to the scholars. But even these figures do not represent the full amount of crowding in the lower classes, where the average is nearly sixty to a teacher.

The City Government seems thoroughly convinced of the urgent necessity for more accommodations for the High School, and it is confidently expected that arrangements will be made early in the year for the erection of a new building. This should be for an English high school, so that we may have both an English and a classical high school, in accordance with the recommendations of the annual report of the School Board, adopted by unanimous vote in 1888. It should furnish accommodations for at least four hundred pupils, and should provide all the facilities for teaching mechanical and free-hand drawing, gymnastics, and military drill. It should also provide a complete outfit to supplement the course of manual training and industrial education. It would be economical to locate these rooms thus centrally, so that they could be used by pupils from the various grammar schools of the city.

The only change in the course this year has been the introduction of military drill once a week, under the efficient discipline of Captain Kirk. The battalion was organized in September, and one hundred and ninety-two of the one hundred and ninety-eight boys voluntarily took up the drill. Although they have received no muskets, the exercises have been highly beneficial physically, and the carriage of the students in the school-room and upon the streets already shows what can be done by systematic, well-directed exercise. They should be provided with muskets by the 1st of February, and should have two hours drill per week.

An intimate acquaintance with the school as administered by the principal, under all the disadvantages of crowded rooms and lack of teaching force, convinces your committee that the city is fortunate in

having a man of Mr. Baxter's scholarship and faithfulness at the head of the High School. It is a pleasure to bear testimony to the fact that all the teachers second his efforts loyally. He has seen the school double in the number of pupils to each teacher, and his duties have more than doubled, and yet his students go into college and maintain their rank there with the three best schools in the state.

A. H. CARVILL.

REPORT
OF
COMMITTEE ON INDUSTRIAL EDUCATION.

SOMERVILLE, MASS., December 29, 1890.

To the School Committee:—

In accordance with the vote of the Board, the committee on industrial education have prepared the following report for the year 1890:—

It affords us much pleasure to be able to report substantial progress in our department, the most noteworthy event being the introduction of mechanical drawing.

On the 24th of February your committee, realizing the need of providing something in the way of manual training for the boys, recommended an appropriation of fifteen hundred dollars for the establishment of a school in wood-working. This recommendation was adopted by the Board, and the amount included in the annual budget, but failed to meet the approval of the City Council.

At the same time your committee suggested the advisability of introducing mechanical drawing into the eighth and ninth grades, and subsequently, May 26, reported a course of instruction in this branch for the boys of all the grammar grades, to be given during the hour occupied by the girls in sewing. June 30, the Board adopted

the recommendation, and at the opening of the school year in September the following course was introduced : —

MECHANICAL DRAWING AND CONSTRUCTION.

FOURTH YEAR. — I. DRAWING.

Tools : rule and pencil.

1. *Draw* horizontal, vertical, and oblique parallel lines.
2. *Locating* lines at given distances (arrangement).
3. *Dividing* lines into inches, $\frac{1}{2}$ in., $\frac{1}{4}$ in., $\frac{1}{8}$ in. ; bisecting, etc.
4. *Measuring* books, slates, desks, etc. Laying off lines of exact measurements.
5. Draw squares and oblongs by aid of cards with square corners ; angles ; crosses.
6. Practical *applications* of above at teacher's discretion.
7. *Application* of above to work in arithmetic.

II. CONSTRUCTION.

Material : sticks, tablets, and paper (manila and colored).

1. *Folding* squares ; diameters and diagonals, areas, circles, diameter, and radius.
2. *Cutting* quadrilaterals and triangles, crosses ; developments, patterns of cube, to correspond with the free-hand drawing.
3. *Clay modeling* : tiles, fruit, and leaves.

FIFTH YEAR. — I. DRAWING.

Tools : pencil, rule, angle 45 degrees, compass and pencil.

1. *Review* work of fourth year. Teach $\frac{1}{8}$ inch.
2. *Draw* quadrilaterals (all the parallelograms) and triangles (by taking half the quadrilaterals).
3. *Draw patterns* of cube, square, and triangular prisms, rectangular box. All drawings to *measurement*.
4. *Draw circles* : diameters, semicircle, and quadrant.
5. *Draw fractions of a circle* : $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{3}$, $\frac{1}{6}$.

II. CONSTRUCTION.

Materials : manila paper, card-board, paste.

Tools : scissors, knife, cutting-board.

1. *Continue* and *review* work of fourth year.
2. *Make tablets* of card-board as above ; fractions of circles ; maps of paper and card-board. Cut out all forms drawn, to test accuracy.
3. *Make patterns* as above, and paste.
4. *Clay modeling* as in fourth grade ; make clay maps.

SIXTH YEAR. — I. DRAWING.

Tools: pencil, rules, angle 45 degrees, pencil and compass.

1. *Review* previous work. Begin *drawing to scale*, half size and quarter size.
2. Draw all quadrilaterals. All triangles.
3. Draw *patterns* as before, adding equilateral-triangular prism.
4. Divide circles into thirds and sixths. Draw *hexagon*.
5. *Ellipse* (string and pins), vase forms, shields, etc.
6. *Block letters*.
7. *Simple problems* in plain figures.

II. CONSTRUCTION.

Material: clay, manila paper, card-board, soft wood, paste, glue.

Tools: scissors, knives.

1. *Construct* figures drawn.
2. *Invention*.
3. *Make letters*.
4. *Make fractions*.
5. *Make maps*.
6. *Clay:* tiles, bas reliefs, maps, invention of designs in clay.

SEVENTH YEAR. — I. DRAWING.

Tools: pencils, rules, angles, pencil and compasses, **T** square, and drawing-board.

1. *Review* work of previous grades. Draw to scale, 1 inch equals 1 foot.
2. All *quadrilaterals* and *triangles* to scale and upon given lines ; erect perpendiculars.
3. *Inscribe* triangles, squares, and hexagons in circles.
4. Draw *ellipse* and *oval*.

5. Draw *surface patterns* as in drawing-book and working drawings.
6. *Lettering*. Designs for ornaments.
7. Continue *geometric problems* involving the circle, inscribing and circumscribing.

II. CONSTRUCTION.

Material: clay, card-board, soft wood, paste, glue.

Tools: knives, try square.

1. Construct all forms drawn of paper, card-board, or wood.
2. Continue work of previous grades.
3. Test the accuracy of all forms by cutting out, dissecting, and applying.

EIGHTH YEAR. — I. DRAWING.

Tools: same as for seventh grade.

1. *Review* work of previous grades. Draw to scale, $\frac{1}{2}$ inch and $\frac{1}{4}$ inch equals 1 foot.
2. *Draw* all polygons. Circumscribe and inscribe.
3. *Draw stars* corresponding to polygons drawn.
4. *Draw surface patterns* of *solids*, base corresponding to polygons drawn.
5. *Draw working drawings* of same, including simple sections.
6. *Lettering*. Designs for ornamental work.
7. *Geometric problems* suggested by the intersection of lines, angles about a point, and the angles of triangles.
8. *Working drawings of Sloyd course*.

II. CONSTRUCTION.

Material: clay, card-board, wood, paste, glue.

Tools: of the Sloyd course.

1. *Construct* forms drawn. Test accuracy of all problems by cutting out and comparing.
2. Continue work of previous grades.
3. *Make solids* (plinths, pyramids, prisms).
4. *Industrial designs* in colored paper.
5. *First Sloyd course*.

NINTH YEAR.

Continuation of eighth grade work.

Simple *geometric problems*, including tangents, and the construction, areas, and comparisons of quadrilaterals and triangles.

Draw to scale, $\frac{3}{4}$ inch equal 1 foot. Make simple oblique sections.

Draw and construct *patterns* for solids of given dimensions in connection with problems in arithmetic.

Drawing and construction in clay of forms of historic ornament and architecture.

Industrial designs in colored paper.

Working drawings and tool instruction of Second Sloyd course.

Thus at slight expense the boys receive considerable training of eye and hand, and are taught the use of the **T** square, triangles, and compasses. Although it is yet early for definite results, the interest and zeal shown by the boys seem to warrant great expectations. We are confident that this addition to our curriculum will prove of more than ordinary advantage. The superintendent and the drawing supervisor are certainly to be congratulated.

In this connection we wish to express our thanks to Mrs. Quincy A. Shaw, through whose kindness and liberality some of the privileges of the North Bennett-street Industrial School, Boston, have been extended to about fifty of our pupils and twenty-four teachers. Since September last, a class of twenty girls from the ninth grade has enjoyed a weekly lesson of two hours in cookery, while twenty-eight boys have received instruction in wood-working — twelve from the eighth grade in Sloyd, and sixteen from the ninth grade in joinery. Your committee venture to hope that the near future will enable us to establish schools of our own in both wood-working and cookery.

It may not be out of place to mention the fact that during July and August a summer school in Sloyd, supported by private subscription, was held in the basement of the L. V. Bell Schoolhouse, under the direction of Messrs. Morse and Hathaway, two of our grammar principals. The school was composed of four classes of sixteen pupils each, and proved a decided success. Soon after its close the

equipment of the school was offered to the city, but upon such conditions as thus far to preclude its acceptance.

The sewing department, remaining under the faithful and efficient supervision of Mrs. Coffin and Miss Boyd, is in flourishing condition. The work, characterized in general by increased thoroughness, has gradually been systematized, until our course, if not perfect, has secured the enthusiastic commendation of many authorities from other cities, and has been adopted by Cambridge, Lowell, and Watertown.

In June a public exhibit of the work in sewing and drawing was shown in Bow-street Hall. This attracted much attention, and proved a powerful incentive to the pupils. Too much credit cannot be given superintendent and teachers for their successful management.

The following extracts from the reports of the sewing teachers present a summary of the year's work:—

MRS. COFFIN'S REPORT.

SOMERVILLE, December, 1890.

To MR. S. NEWTON CUTLER,

Chairman of Committee on Industrial Education:—

DEAR SIR,— Eight months of the time devoted to sewing last year were used entirely for practice work, two months of that time being given to patching, fine darning, and stocking darning, great skill in this branch being attained in the higher grades, and *good* work in all. The two months following the May vacation were used in making large articles for the June exhibition. The pupils were not allowed a choice of articles, except in special cases. Each grade was required to make a full-sized duplicate of the small article already made in the practice work. The result proved conclusively that the theory of the system is practical. There were upwards of six hundred articles made, a large proportion showing exquisite work, probably not more than thirty pieces being decidedly poor work.

In September of the present school year, the three lowest grades took up the work assigned them, and are pursuing it with good

results. The highest grades, after a short review, have taken new work not previously taught in our schools. This work is measuring and laying tucks accurately. I have given the work almost entirely for the manual training, but, of course, require neat sewing. The measurements are surprisingly correct, and the interest unbounded. I propose to continue the work through the winter according to the schedule made out for each grade.

The work has progressed steadily from the beginning, and the method has increased in favor with the scholar, parent, and teacher.

I would like to call attention to the fact of the steady increase in the number of children to be taught sewing, while there has been no increase of the time devoted to the subject. This growth of numbers is more rapid in some districts than in others, hence there is great disparity in the amount of teaching given. A class of eighteen in one building receives an hour's instruction, while another class of forty receives only three-quarters of an hour. This cannot be avoided under existing conditions. To insure equal privileges to all, I would suggest that some means be found to equalize the classes, many of which are too large to handle well.

Sincerely yours,

C. M. COFFIN.

LIST OF ARTICLES MADE IN EACH GRADE FOR THE EXHIBITION.

(Mrs. Coffin's Classes.)

GRADE 4. A pillow-slip by the best sewers.

GRADE 5. Either a pillow-slip or plain apron, by each regular attendant.

GRADE 6. One of the following articles by each member of the class: gathered apron, cotton or flannel skirt, plainly made.

GRADES 7, 8, and 9. Gathered apron, cotton or flannel skirt, corset-cover, children's aprons, infants' skirts, etc., all handsomely

trimmed and finished with button-holes and buttons. The trimmings were nearly all made by the pupils, at my suggestion. As a special favor, two pupils made a dress, and four made an infant's dress with yoke, the work on each of these articles being exquisite.

In all, upwards of six hundred articles.

MISS BOYD'S REPORT.

To MR. S. NEWTON CUTLER,

Chairman of Committee on Industrial Education:—

DEAR SIR,— In presenting a report of the work done in my department during the past year, I will first state what the classes have done since the schools opened in September and are now doing.

The *fourth* grade have finished basting and backstitching, and are to start on overcasting for their next lesson.

The *fifth* grade have finished overhanding on folded and selvedge edges, reviewed hemming, basting, and back-stitching, and will soon take up darning.

The *sixth* grade have had running-stitch, gathering, laying, or stroking, gathers, and the setting of gathers into bands. Nearly all the classes in this grade are patching on cotton cloth.

The *seventh* grade commenced their year's work with button-holes, and special attention has been given to them in this branch. At present, they are darning stockings. Button-holes will be introduced all through the year as supplementary work.

The *eighth* and *ninth* grades do about the same work. A review of button-holes was given them with excellent results. This included tailor button-holes made with silk or twist. They have also had stocking darning, patching on calico, tucking, blind-hemming, hem-stitching, feather and herring-bone stitching, cutting and joining bias bands. After a short time spent in general review of their previous work, I hope to introduce a simple system of draughting and cutting of patterns.

The work this year shows a much higher standard than ever before, and the results are more satisfactory to parent and teacher.

The pupils take a great deal of interest in their work, and there are very few absentees on sewing day.

My classes, with the exception of one or two, are easily managed as to number. Each class receives one hour of instruction a week, except three, and they have from forty-five to fifty minutes. I find opportunity in my large classes to see each child's work at least once during the lesson, and sometimes two or three times. The best results, however, are obtained in classes not exceeding thirty pupils.

The exhibition of the work held in June last was a great success, and afforded the parents and friends of the pupils a good opportunity to see the different kinds of work done in the several classes. Each child sent a contribution, either in sample or well-made article. The fourth grade furnished handkerchiefs; the fifth, pillow-slips and plain aprons; the sixth, white aprons with gathers; the seventh, flannel skirts; and the eighth and ninth, child's plain undergarments, cut out and made by themselves, they having first draughted the pattern. A large variety of all kinds of sewing, including button-holes, patching, darning, and fancy stitches, was also exhibited.

I have been asked, "Can we not do without sewing in our two highest grades?" I should say, "Yes, at least in the ninth"; but if time could be found, would continue to have it in the eighth. Four years would be ample time for a pupil to learn all that pertains to plain sewing and mending.

Very respectfully,

MARY L. BOYD,

Teacher of Sewing.

DECEMBER 9, 1890.

Supplementary to the regular course in sewing, there have been two classes of about twenty pupils each connected with the evening schools, one at the Prescott and one at the Bell School. These classes have received two two-hour lessons per week for about twelve weeks. The results, while not entirely satisfactory, have been good.

To the suggestion that the regular teachers be required to give instruction in sewing under the direction of a single supervisor,

your committee have given some consideration, but have as yet failed to satisfy themselves of its wisdom. It seems advisable, however, to reduce the length of the course from six years to four, although a fifth year could probably be used to advantage.

The appended scheme exhibits the proposed four years' course.

COURSE OF INSTRUCTION IN SEWING FOR PUBLIC SCHOOLS.

GRADE IV. — FIRST YEAR OF SEWING.

Folding.

Basting.

Backstitching.

Overcasting.

Hemming.

Overhanding.

Proper wearing and use of thimble in connection with needle.

Right length of thread, threading needle, and making knots.

Holding of work by left hand.

Position of work and needle taught in connection with stitch given ; also beginning, joining, and fastening of thread.

Stitches should first be drawn upon paper, using the ruler to insure accuracy in length of stitch.

Hems, wide and narrow, may first be turned upon paper, using the ruler for a measure.

Each new stitch should be preceded by a drill in the proper position of the hands and fingers while making the stitch ; also a drill for the arms in the motion of drawing the thread and needle through the cloth.

Models : Articles brought from home may be towels, napkins, and handkerchiefs to hem.

GRADE V. — SECOND YEAR.

Review previous year's work.

Overhanding on *folded edges*.

Overhanding on *selvedges*.

Wide hems.

Plain fell.

Running. Especial drill given in the position of the fingers in

making this stitch ; also teaching the pupils to use the side of the thimble.

Darning tear.

Simple drafting.

Models: A pillow-slip, plain apron without gathers, or small sheet, bibs.

GRADE VI. — THIRD YEAR.

Review previous year's work.

Gathering, laying, or stroking, gathers, putting gathers into band by backstitching and hemming.

French fell, straight fell, reversible seam.

Darning tear with silk.

Patching on cotton cloth.

Button-holes, four-holed buttons sewed on.

Feather and *herring-bone stitches*.

The proper way of tearing or cutting cloth for bands or ruffling, viz.: straight or across the grain.

Draughting simple under-garments from measurements.

Models: Apron with band, plain white cotton or flannel skirt with band, button-hole, and button sewed on.

GRADE VII. — FOURTH YEAR.

Review previous work.

Review *button-holes* and sewing on buttons.

Patching on calico and woollen goods.

Stocking Darning.

Darning tear with ravellings.

Putting in *gussets*.

Cutting bias bands and joining same.

Tucking and *ruffling*.

Hemstitching.

Blind-stitching.

Gathering, as done on dress skirts.

Gathers overhanded to band.

Draughting child's dress.

Models: Some garment to be made combining the stitches learned, and teaching the cutting and putting together.

Suggestions: In all grades particular attention should be given

to the position of the pupils while sewing. Accuracy of rule and measure is to be insisted upon.

Soft, half-bleached cotton cloth and colored thread may be used for practice work, the colored thread showing the shape and size of the stitches better than white.

Materials for practice work for one pupil for the first year are as follows: One-half yard of half-bleached cotton cloth ; one spool of red cotton, No. 50 ; one spool of blue cotton, No. 50 ; one spool of yellow cotton, No. 40 ; one thimble, pinball filled with pins, and sewing bag made from one-half yard of calico, with owner's name sewed upon it.

In conclusion, we desire to express our appreciation of the interest and support of the Board, and at the same time earnestly to invite the continued co-operation of every member. The question of manual training is certainly one of the leading educational questions of the day. As such, we bespeak for it your careful consideration.

Respectfully submitted,

S. NEWTON CUTLER,	} <i>Committee</i>	
CHARLES I. SHEPARD,		<i>on</i>
WILLIAM P. HILL,		<i>Industrial</i>
A. H. CARVILL,		<i>Education.</i>
M. W. CARR,		
ADDIE BIXBY UPHAM,		

REPORT
OF
COMMITTEE ON DRAWING AND PENMANSHIP.

To the School Committee:—

The committee on drawing feel that there has been a marked improvement in this important branch since the appointment of a special instructor. Teachers have been working more systematically and practically, pupils have been studying form and its expression more from models and objects, instead of the old method of imitating flat copies. They have become interested in their work, and good results have naturally followed.

This must have been apparent to any who witnessed the excellent exhibit in June of the various specimens of drawing and construction from the grammar and primary schools. The most important change in this department during the year is the teaching of mechanical drawing and construction to the boys in the grammar schools, while the girls are employed in sewing.

A more thorough course is being given by the instructor of drawing in the High School.

The schools are not suitably supplied with models, and the committee recommend that sets be furnished to the High and grammar schools.

PENMANSHIP.

This branch has been taught in the usual manner, and the results have been as satisfactory as in other studies.

The use of pen and ink in the third classes has proved quite successful, and it is thought best to continue it.

In many cities, a special instructor is employed in this depart-

ment. Most of the Board have been interviewed by an expert desirous of teaching this branch in our schools. While a specialist might awaken a new interest in this important subject and produce better results, the committee feel that for the present, at least, it should be taught by the regular teachers.

Respectfully submitted,

Q. E. DICKERMAN,	} <i>Committee</i>	
S. NEWTON CUTLER,		<i>on</i>
CHARLES I. SHEPARD,		<i>Drawing</i>
JAS. F. BEARD,		<i>and</i>
	<i>Penmanship.</i>	

REPORT
OF
COMMITTEE ON MUSIC.

To the School Committee : —

The sub-committee on music present the following as their report : —

Of the studies under special instructors, in the curriculum of the public schools of Somerville, there is none more important than music.

State Agent Geo. H. Martin, in a recent report to the Board of Education, says : “The doctrine that the school is for the child, and for the whole child, calls for instruction in music, not as a ‘fancy branch,’ but as indispensable to a complete development.”

For twenty-two years this important department has been under the personal supervision of Mr. S. Henry Hadley. The successive annual reports of the School Committee have spoken in the highest terms of his success and the progress of the schools under his instruction.

He is employed in our schools four days in the week, and the time is divided as follows : —

In the High School each class has a lesson of forty-five minutes under the special instructor twice in three weeks.

In the grammar schools the time given to music by each class is nominally one hour per week. The instructor meets the classes for a half-hour lesson, and the balance of the time is occupied in

daily exercises under the regular teacher. This is the rule as far as the third and fourth grades, where the increase in the number of schools compels the instructor to omit some of his visits. These grades receive a lesson from him once in two or three weeks, as circumstances will permit.

The primary schools are not visited by the instructor in music, although some excellent work is shown by teachers who are fond of this study.

In the lower grades the work is elementary, and the time is occupied with the rudiments of the science. As soon as practical the class is divided into two parts, so the girls, as a rule, may sing the upper, and the boys the lower, or alto, part.

In more advanced grades the class is divided into three parts, and in the upper classes the boys carry the base and tenor parts so successfully as to excite favorable comment from all.

This preparation and practice well fits the pupils for the more advanced music studied in the High School, where the choruses are so well balanced as to make the rendering of a high order of music both possible and profitable. The singing has brought many compliments to our High School from persons capable of giving an opinion worthy of respect.

The enthusiasm of our instructor and the valuable assistance of the regular teachers have given this study a recognized position in our school work.

The music committee have for some time had under consideration plans that would give more attention to music in the lower grammar grades, and extend systematic instruction into at least one of the primary classes.

The increase in the number of schools ought not to gradually crowd the teaching of music from the lower grades. Some of the neighboring cities do their best work in the lower classes, and have practically demonstrated that music may be profitably taught in the lowest grades.

Our special instructor has also given the matter his consideration, and gives it as his opinion that if he could have an assistant, whose time could be employed for two days in the week, he could cover all the grades, and practically do all that is expected in a complete musical course in the public schools.

We recommend this matter to the Board as something worthy of

consideration, and trust it may find a place in the financial budget of another year.

Respectfully submitted,

JAMES F. BEARD,	} <i>Committee</i> <i>on</i> <i>Music.</i>
N. W. BINGHAM,	
G. W. BRYANT,	
S. NEWTON CUTLER,	

SOMERVILLE, December 29, 1890.

REPORT
OF
COMMITTEE ON EVENING SCHOOLS.

To the School Committee :—

In compliance with the requirements of the public statutes and the regulations of the School Board, evening schools for the instruction in grammar school studies have been held in the Prescott, L. V. Bell, Burns, and Cedar-street schoolhouses. They have been continued for a term of twelve weeks, the sessions being held on Monday, Tuesday, Thursday, and Friday evenings, from half-past seven till half-past nine o'clock. The law has made evening schools obligatory since 1884. They have now become a fixed part of our educational system and highly important, not only to the individual, but to the community.

Each school has been under the special charge of one member of the committee.

The city contains a large number of uneducated persons, who are employed during the day, and must receive instruction in evening school, or not at all. It has been a source of pleasure and encouragement to observe the interest manifested and the rapid progress made by some of the adult pupils. The greatest hindrance to the success of these schools is the lack of punctual and regular attendance. "If anything is going on, they stay away," say the teachers. The committee have endeavored to counteract these influences by placing the schools under the charge of experienced teachers, and furnishing all

the facilities enjoyed by the day schools, with the hope that they would reach and hold a large class of those who would be benefited by the instruction.

They feel that progress has been made, that a better class of pupils have been in attendance, and the results more satisfactory than in previous years.

EVENING DRAWING SCHOOLS.

A course of thirty-two lessons in industrial and free-hand drawing has also been given in the High School building. An exhibition of the work given in March showed very creditable results, both to pupils and teachers. Much more could be accomplished in these classes if proper facilities were afforded them. The conditions have been somewhat improved this year, as the committee on public property have furnished electric lights and portable closets for the safe keeping of material. These classes need rooms for their exclusive use, and we hope to have them when additional accommodations are provided for the High School.

Respectfully submitted,

Q. E. DICKERMAN,	} <i>Committee</i>	
M. W. CARR,		<i>on</i>
CHARLES I. SHEPARD,		<i>Evening</i>
S. NEWTON CUTLER,		<i>Schools.</i>

SUPERINTENDENT'S REPORT.

To the School Committee of the City of Somerville:—

LADIES AND GENTLEMEN,—In accordance with the prescribed duties of the superintendent of schools, I have the honor of submitting my third annual report of the condition of the public schools of this city for the year 1890.

The following is the summary of statistics:—

Population of the city, United States census, 1890,		40,117	
Number of persons in the city between five and fifteen years of age in May last, as ascertained by the truant officer		6,469	
	Increase over last year.		
In East Somerville District	1,213	40	
In Prospect Hill District	2,477	75	
In Winter Hill District	997	49	
In Spring Hill District	976	46	
In West Somerville District	806	124	
Total	6,469	334	
Number between eight and fourteen years of age		3,916	
	High School.	Grammar and Primary Schools.	Total.
Whole number registered during the year,	442	7,436	7,878
Average whole number belonging	423	6,062	6,485
Average attendance	405	5,670	6,075

VALUATION.

Valuation of the city May 1, 1890	\$32,557,500
Real estate	\$29,981,700
Personal estate	2,575,800
Rate of taxation . . . . .	.014
Estimated value of school property	\$508,600 95

DWELLINGS.

Number of dwellings in the city May 1, 1890	6,792
Number of dwellings constructed during the year or in process of construction	426

SECTION I.

REVIEW OF THE PROCEEDINGS.

The School Board of 1890 organized with one new member, from Ward Four, Dr. Giles W. Bryant, who took the seat so long occupied by Dr. H. P. Makechnie, and a president of the Common Council, Mr. Charles B. Osgood, who succeeded Mr. Edmands. The usual resolutions were passed in approval of the services of the retiring members.

In March the community was shocked by the news of the sudden death of Dr. Horace P. Hemenway, of Ward One, who had served many years on the Board in a manner acceptable to his constituents, and very helpful to teachers and the schools. As a member, he was thoughtful, considerate, painstaking, and judicious, always on the side of progress, a powerful supporter of every good measure, and always interested in making the schools of Somerville, as to buildings, appliances, sanitary regulations, teachers, and methods, the best that could be had. He was a friend to the teachers, always ready to

listen and advise; he was a welcome visitor in the schools, and added cheerfulness and encouragement to the work.

A special meeting of the Board was called March 8th, at which suitable action was taken, and a committee appointed, which reported the following resolutions at the next meeting: —

IN MEMORIAM.

It was with profound sorrow that the members of the Somerville School Board learned of the death of their associate, Dr. Horace P. Hemenway, which occurred at his home, March 6, 1890.

His many and varied qualifications by natural endowment, careful observation, and close study, together with his devotion to the best interests of our schools, eminently fitted him to be a valuable member of this Board.

The recollection of his genial nature, his generous consideration for the opinions of others, and all those qualities which go to make up the Christian gentleman will be long cherished by us all, and his example will be an incentive to faithful service.

In his death our city has lost an honored citizen, our schools a faithful servant, and we an honorable associate, a wise counsellor, and a true friend.

To his bereaved family we extend our heartfelt sympathy in this hour of their great sorrow, yet realizing that only a consciousness of Divine sympathy can help them to bear this burden.

At a joint meeting of the City Council and the School Board, April 23, Dr. Sanford Hanscom was unanimously elected to fill the vacancy caused by the death of Dr. Hemenway.

The following important subjects have been considered and acted upon by the School Board, further treatment of which may be found in the body of the report or reports of committees, viz.: Additional School Accommodations; Heating, Repairs, and Ventilation; Training of Teachers; Course of Study; Physical Culture; Military Drill; Text-books; Industrial Education; Resignations and Appointments.

ADDITIONAL SCHOOL ACCOMMODATIONS.

January 11. The Board instructed the committee on this subject to consider the needs of the whole city and report a plan for reliev-

ing the crowded condition of the schools. At a subsequent meeting the committee on additional school accommodations presented a report which set forth the increasing demands for additional room for the High School, the Highland School, the growth of population in the East Somerville District in the neighborhood of the Edgerly School, the unsatisfactory condition of the Prospect Hill District, the rapid growth of Ward Three, and the improved conditions in the Spring Hill District. The following recommendation was adopted:—

That the School Board request the City Government to provide this year as follows:—

1st. An addition of four rooms to the Highland building, if practicable; if not, a four-room building on the city's lot on Elm street.

2d. That the lot at the head of Columbus avenue, known as the Clark lot, be purchased, and a twelve-room building be erected thereon as soon as possible.

3d. That a site be selected for an English High School and plans be procured this year, that its construction may be commenced early in 1891, with a view to its completion during that year.

At the same meeting a proposition to add four rooms to the Bingham School and purchase a site for a new school on Winter Hill was referred to this committee. At the next meeting the Board voted to request the City Government to procure additional school accommodations for the Winter Hill District.

At the April meeting, the Board voted to request the City Government to procure two extra rooms for the Prospect Hill District.

At the June meeting, the committee on High School was instructed to find suitable rooms for the increase of students, as indicated by the numbers graduating from the grammar schools, and in September the committee voted to request the City Council to fit up the basement for class work.

HEATING, REPAIRS, AND VENTILATION.

February 24. It was voted to send a communication to the City Council requesting the committee on public property to investigate the heating apparatus of the Lincoln School. It was also voted that

if the Highland School be altered, it be provided at the same time with the best modern system of heating and ventilating, and that the contractors be bound to have these additions and alterations completed and the building ready for use at the beginning of the next school year.

June 30. The committee reported upon the necessary repairs for all the schools, and the City Council was requested to investigate the heating and ventilating of the L. V. Bell School, and fit up the janitor's apartment in the Edgerly building for school purposes.

TRAINING OF TEACHERS.

January 11. The superintendent reported a plan for training young teachers now employed as substitutes, which was referred to the committee on High School with power.

June 30. Voted to grant the use of the High School building to the secretary of the State Board of Education for the purpose of holding a Teachers' Institute, October 8.

COURSE OF STUDY.

April 28. A committee consisting of one member from each ward was appointed to report such changes as need to be made in the course of study, and to consider the petition of the Woman's Christian Temperance Union.

August 25. The following report of the special committee was adopted: First, that a new time schedule, as appended, be adopted; second, that physiology and hygiene be taught according to a system herewith submitted; third, that language and grammar be taught from outlines to be furnished by the superintendent, based upon the text-books authorized by the Board; fourth, that the superintendent prepare outlines for the study of elementary science for all grades.

I desire to have these courses of study and outlines printed in the appendix of this year's report, or in a separate pamphlet.

PHYSICAL CULTURE.

February 24. The special committee on this subject reported that it would cost at least \$500 per annum for a director who should

train the teachers and supervise the work in the schools five half days each week. The committee was empowered to recommend a teacher for this department.

March 31. The Board authorized the superintendent to engage Miss C. I. Livingstone as director, at a salary of \$500, as specified.

The Board was invited to attend the sessions of the Association for the Advancement of Physical Education in Huntington Hall, and the exhibition of physical exercises to be held in the Mechanics' Building.

MILITARY DRILL.

June 30. The committee on High School reported in favor of introducing military drill as a part of the course of instruction in the High School, and was authorized to look up all the facts in the matter and report plans.

August 25. The Board voted to adopt military drill, and empowered the committee on High School to make all the necessary arrangements.

September 29. Captain S. Thomas Kirk, of the Somerville Light Infantry, was elected instructor of the military department.

TEXT-BOOKS.

April 28. King's Picturesque Geographical Reader was adopted for supplementary reading.

June 30. Southworth and Goddard's Elements of Composition and Grammar was adopted for use in the eighth and ninth grades.

August 25. The following list of readers was adopted as standard reading books for the several grades. It was specified that the books now in use should be used until worn out, and that the new series be purchased only when no other books are available, and at the exchange rates. The supplementary readers were all retained:—

READERS AUTHORIZED FOR THE SCHOOLS OF SOMERVILLE.

	MONROE'S.	FRANKLIN.	SWINTON.	NORMAL.	HOLMES.	DAVIS.	INTERSTATE.
First grade	First.	New First.	-	First.	-	-	First.
Second grade	New First.	New Second.	Second.	Second.	-	-	-
Third grade	New Second.	-	-	-	Second.	Second.	-
Fourth grade	Third.	-	Third.	-	-	-	-
Fifth grade	New Third.	-	-	Third.	-	-	-
Sixth grade	-	New Fourth.	Fourth.	-	-	-	-
Seventh grade	New Fourth.	-	-	Fourth.	-	-	-
Eighth grade	New Fifth.	-	-	-	-	-	-
Ninth grade	-	-	Fifth.	-	-	-	-

The above is a complete list of the regular readers authorized for the several grades by the School Committee. Books now in use, but not on the list, will not be replaced immediately, but are to be used till worn out. No more new copies of readers not on the list will be ordered, but in cases where a class needs a few books to complete a set we will supply them from the depository, if possible, or from some other school. In addition to these books, there will be the list of supplementary reading on Geography, Science, etc., which remains unchanged.

INDUSTRIAL EDUCATION.

The committee on this subject have presented a report covering the various proceedings of the Board.

RESIGNATIONS OF TEACHERS DURING 1890.

- Forster School, Lizzie G. Perry, Jan. 11.
 Annie L. Bennett, Sept. 29.
 Marietta S. Murch, Oct. 27.
 Edgerly School, Mary B. Currier, Sept. 29.
 L. V. Bell School, Joanna A. Barry, Aug. 25.
 Herbert L. Morse, Oct. 27.
 Abby A. Hayward, Nov. 24.
 Prospect Hill School, Clara M. Smith, June 30.
 Sarah A. Tuttle, Dec. 29.
 Bow-street, Mrs. J. S. Soper, Dec. 29.
 Morse School, Horatio D. Newton, Feb. 24.
 Charlotte I. Houghton, May 26.

GRANTED LEAVE OF ABSENCE FOR SCHOOL YEAR 1890-91.

- Forster School, Alice A. Batchelor, Aug. 25.
 Bingham School, Mary A. Osborne, Aug. 25.
 Morse School, Anna E. Sawyer, June 30.
 Lincoln School, Annie C. Thayer, June 30.

TEACHERS APPOINTED DURING YEAR 1890.

- High School, Mabell S. Clarke, June 30.

East Somerville District.

- Prescott School, Emma F. Porter, June 23.
 Edgerly School, Mrs. Addie L. Smith, Sept. 29.
 Alice M. Dearing, Oct. 27.
 Anne A. Lathrop, Aug. 25.

Winter Hill District.

- Forster School, Harriet A. Brown, Jan. 27.
 Lizzie A. Page, June 23.
 Clara B. Cutler, Sept. 29.
 Helen P. Bennett, Sept. 29.
 Emma Burckes, Sept. 29.
 Blanche E. Heard, Dec. 29.
 Bingham School, Mrs. Cora H. Dimpsey, Sept. 29.

Prospect Hill District.

- L. V. Bell School, Fred W. Shattuck, Principal, Dec. 29.
 Anna L. Dickerman, Dec. 29.
 O. S. Knapp School, Harry N. Andrews, Principal, April 28.
 Prospect Hill School, Emily G. Arnold, Aug. 25.
 Mary C. Jones, Dec. 29.

Spring Hill District.

- Morse School, Mina J. Wendell, Principal, June 23.
 Ella G. Worden, June 23.
 Lizzie E. Hill, June 23.
 Hallie M. Hood, Sept.

West Somerville District.

- Lincoln School, Harry F. Hathaway, Principal, June 23.

SPECIAL TEACHERS.

- Physical Training, C. Isabelle Livingstone, March 31.
 Military Drill, Capt. S. T. Kirk, Sept. 29.

SALARIES.

The salaries of all principals of small schools now receiving \$650 were raised to \$675. This included the principals of the Davis, Ben-

nett, Jackson, Webster, Cummings, Franklin, Burns, and Bingham Schools.

SECTION II.

SCHOOL BUILDINGS.

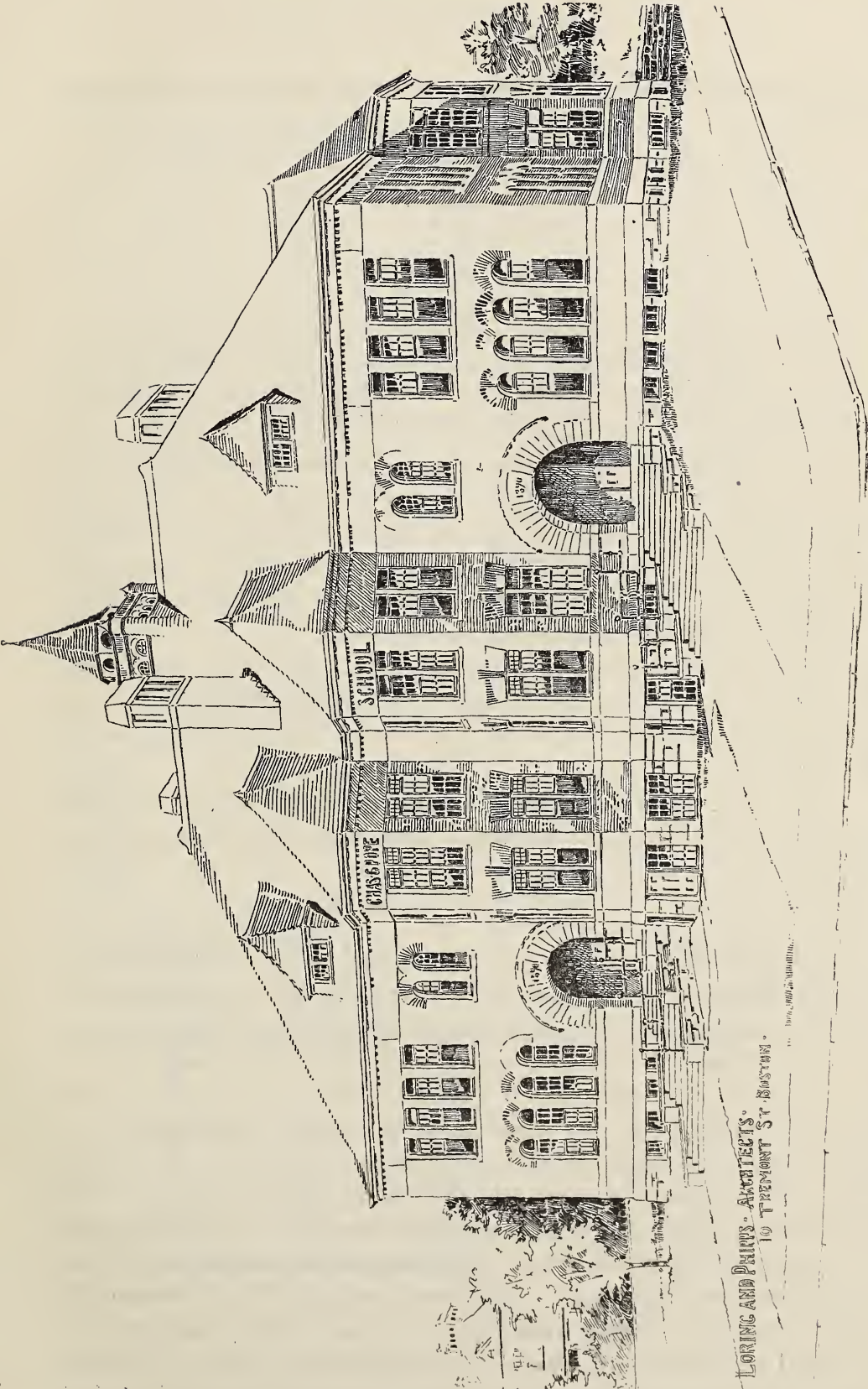
In accordance with the general scheme laid out in the last annual report, a comprehensive plan was voted and sent to the City Government, setting forth the importance of establishing a new grammar school in Ward Two, the advisability of enlarging the Highland School building or erecting a new one to relieve the crowded schools of West Somerville, and the necessity for a new building in Ward Three. Plans were soon adopted for a new twelve-room building on the corner of Washington and Boston streets in Ward Two, a new eight-room building on Jaques street in Ward Three, and for the enlargement of the Highland building to twelve rooms.

To enable the contractor to complete the Highland building by September 1, the school was closed on June 13, but by unaccountable delays the return of the school to the building did not take place till December 15.

The foundations of the other buildings have already been laid, and the School Board is to be congratulated upon the good beginning thus made.

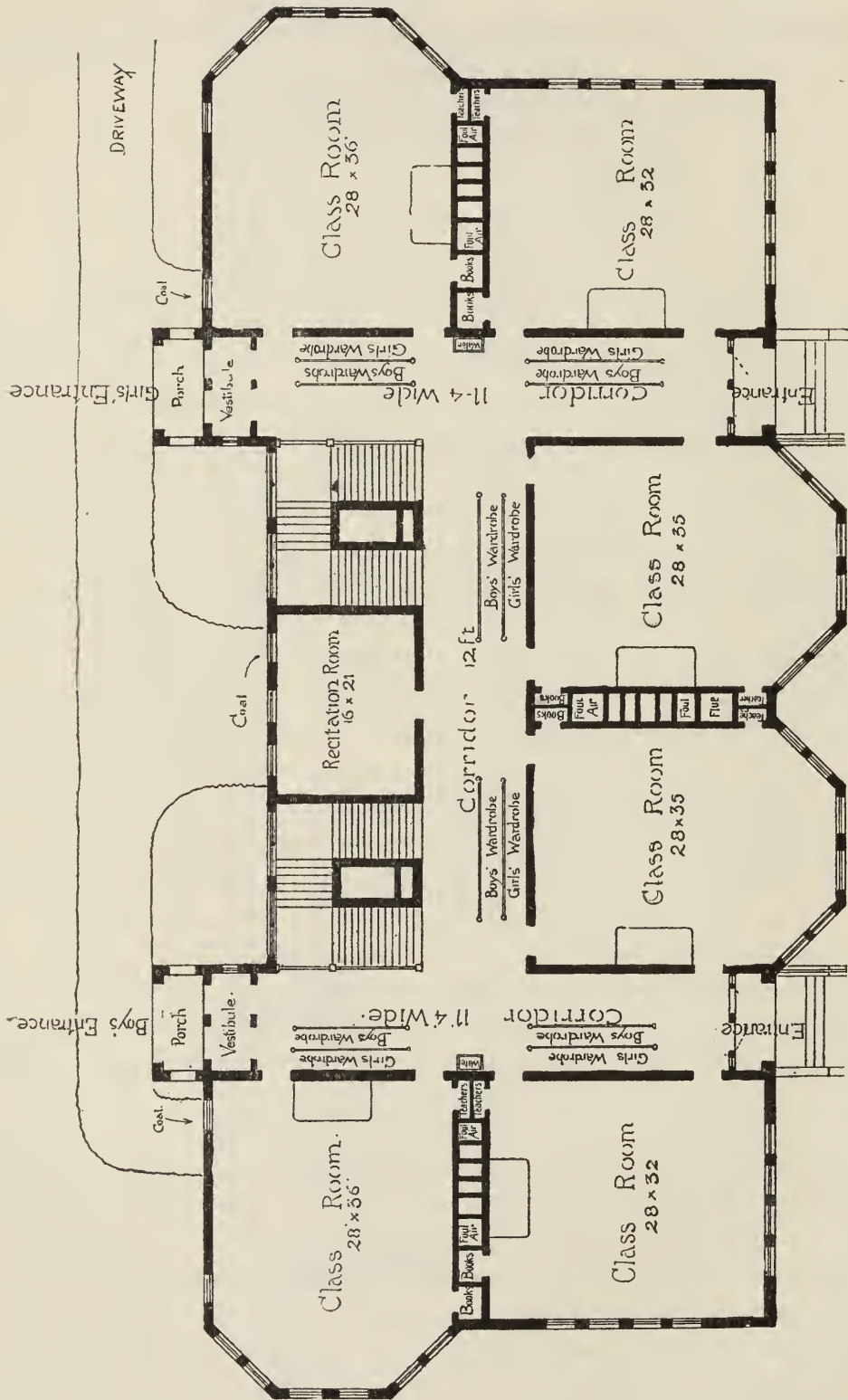
CHARLES G. POPE SCHOOL.

A sketch of the exterior, also a floor plan, of the new schoolhouse to be erected in Ward Two, at the corner of Washington and Boston streets, is here described. The design for this schoolhouse was prepared by Messrs. Loring & Phipps, architects, 10 Tremont street, Boston. The new schoolhouse will be without question the best arranged and finest school building in this city. The exterior presents a very substantial as well as pleasing appearance, the design being unlike any of the other school buildings in the city. It is an adaptation of the Romanesque style of architecture. The building will be constructed of water-struck brick, laid in red mortar, with Nova Scotia freestone trimmings. The underpinning will be of Somerville ledge stone, laid up with white leaded joints. The basement will contain large play-rooms, which are very light and pleasant, with the windows facing the south, with entrances also from the Washington-



LORING AND PHIPPS - ARCHITECTS
10 TREMONT ST. BOSTON.

CHARLES G. POPE SCHOOL, WARD TWO, CORNER WASHINGTON AND BOSTON STREETS.



FIRST FLOOR PLAN FOR SCHOOLHOUSE.

street side. The balance of the basement will be devoted to sanitary arrangements, and for heating apparatus and fuel.

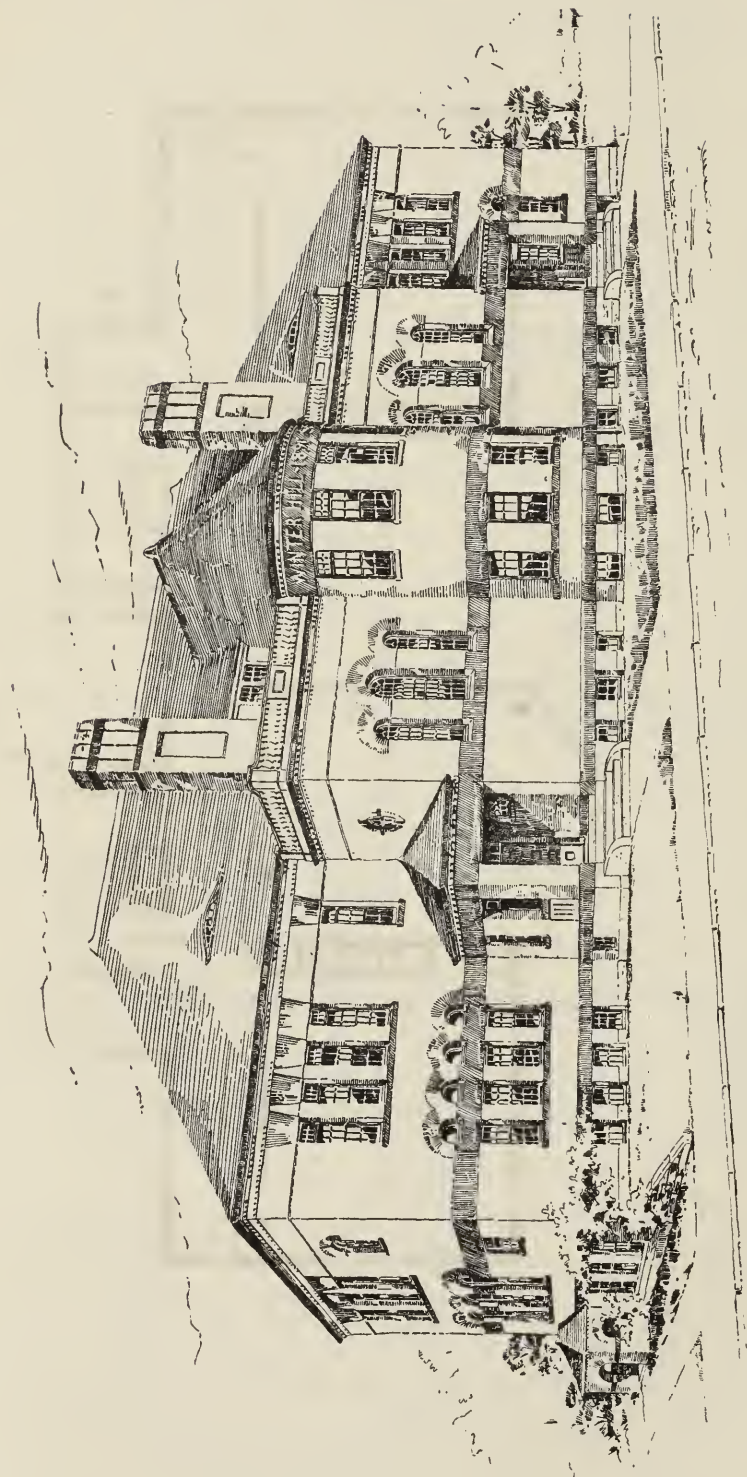
The first floor has two main entrances from Washington street, one for boys, the other for girls, also two corresponding entrances on the opposite side, thus giving four means of exit. There are six school-rooms on the first floor, which are somewhat larger than the average school-rooms, and will seat fifty-four pupils. There is also on the first floor a room which can be used for the kindergarten, or for an overflow from other rooms. The corridor extends across the building shaped like the letter I. It contains the wardrobes for each room, which, instead of being like the clothes closets in most of the schoolhouses, are simply a partition of sheathing five feet high, with an opening at the bottom to admit a current of fresh air. The arrangement of rooms so that each will receive an abundant supply of sunlight is excellent, and none will be without it. Leading from the first floor to the second will be a double set of staircases, very wide, on either side next to the entrance. The well hole, which is usually left open, will be taken up by the two ventilating stacks.

On the second floor the arrangement of the rooms is the same as on the first floor, except the room corresponding to the kindergarten, which will be the principal's office. Each school-room will contain book closets and a teacher's closet.

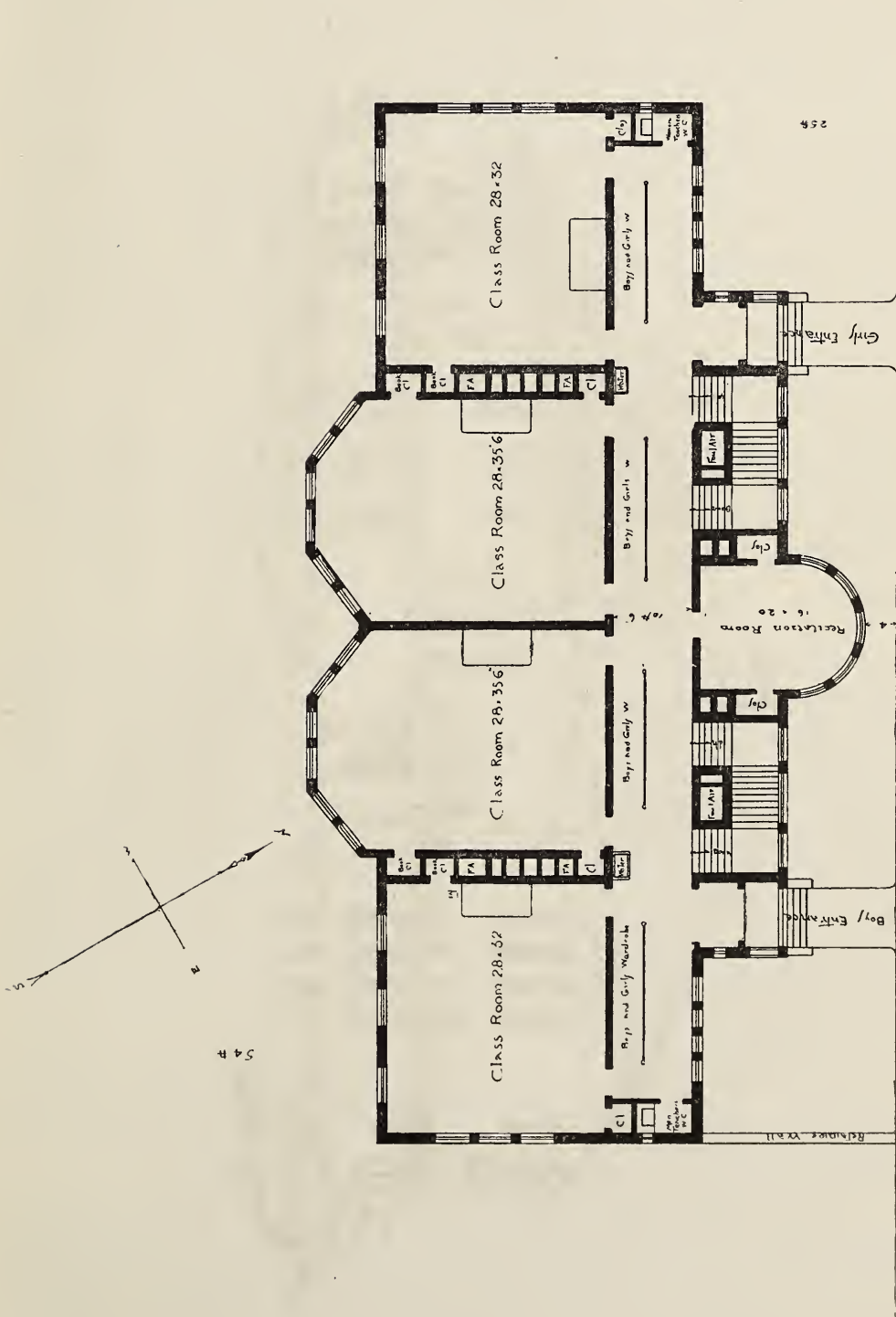
The interior finish throughout the building will be of ash, with cypress doors. The floors will be of maple or birch, and the stairs of hard pine. The plastering will be done with a skim coat of Francetown soapstone finish in French gray, which will give a soft, pleasant finish, and be agreeable to the eye. All the corridors will be wainscotted. The building will be supplied with electric bells and speaking-tubes. The heating and ventilating is by the Smead system.

JACOB T. GLINES SCHOOL.

The new schoolhouse in Ward Three is to stand on the southerly side of Jaques street, near the junction of Temple street, and was planned to fit the lot, being long and narrow, and so as to be equi-distant from surrounding property. Brick, with stone trimmings, is to be used, the front to have two entrances, one for each sex, with a bow front midway. The accompanying cuts give a fair idea of the perspective as well as the floor plan. In the main part of the building, extending its entire length, is a hall ten and a half feet wide, and back of this hall are four school-rooms, arranged



JACOB T. GLINES SCHOOL, JAQUES STREET.



continuously. The side ones are each twenty-eight by thirty-two feet, and windows on two sides furnish the light. The two middle rooms are twenty-eight by thirty-five and a-half feet, large bay windows having a south view supplying light. Each room has two doors opening into the hall. There are no internal dark corridors, the light and air being ample and generous. The wardrobes are specially designed for this building, entirely different from any now in use. The stairs are arranged so as to give two landings. The second floor is like the first, so that further description is unnecessary. There are two play-rooms in the basement. There is to be a ward room in one end of the basement, disconnected from the school proper. The inside finish is to be ash. As to the manner of heating and ventilating the building, the committee on public property has spent a vast amount of time examining into the relative merits of the many good systems which may now be had, and have decided to use the Smith system, O. S. Kendall & Co., of Worcester, contractors.

HEATING AND VENTILATING.

It is also a cause for gratification that heed has been taken to the need of improved systems of heating and ventilation in old as well as new buildings. The committee on public property should be highly commended by all our citizens, and especially those having children in the schools, for the study and attention they have given to this subject, and the untiring energy and determination they have maintained to provide the very best and most perfect school accommodations. Much is also due to the interest and coöperation of the state inspector of buildings, who has spent much time in ascertaining the actual condition of our buildings, and testing the various systems under consideration.

Since the last report, the new O. S. Knapp School has been established in a building heated and ventilated by the Fuller & Warren system, and the Morse School has returned to its new and enlarged building, where the same system has been incorporated.

The Forster building, which was condemned by the state inspector for its total lack of ventilation, has, during the summer, been improved by the introduction of a system designed by A. A. Sanborn.

The Highland School, which has been enlarged by the addition of four rooms, has been rearranged for the Smead system, and of the

new buildings already contracted for, one is to have the Smead and the other the Smith system, O. S. Kendall & Co., contractors.

Frequent tests have been made by the inspectors in the presence of the committee on public property, with gratifying results, and when another report is due very careful data may be furnished, showing results in the several buildings.

The High, the L. V. Bell, and the Edgerly buildings are in equal need of renovation, and will undoubtedly receive attention as early as possible. While the condition of other buildings should also be improved, we are aware that everything is being done that can be done, and we believe the City Government is alive to these necessities.

A NEW HIGH SCHOOL BUILDING.

The general plan by which it was proposed in the last report to provide for the growing needs of our city included better accommodations for the High School.

For many years this question has occupied the serious consideration of the committee. Several plans have been proposed. Three years ago it was thought best to add a wing to the north side, but, instead, the hall was divided into class-rooms, following the fate of the halls in the large grammar school buildings. But the growth of the school has already overflowed the building, and the committee has petitioned the City Government to fit up the room in the basement.

In the mean time, the High School committee has had several meetings, and has held conferences with the Memorial Hall committee. At a meeting in October, 1889, the High School committee reported in favor of establishing an English High School, and was instructed to report the details of a course and plans. Accordingly, a sub-committee was appointed, and their ideas have been incorporated in plans drawn by one of our city architects, who has spent months on the subject without any compensation save the thanks and appreciation of the committee.

These plans show how a memorial and high school building may be erected as one structure in such proportions and style as shall satisfy the needs and ambition of our people, and furnish the desired accommodations for an English High School, where courses may be pursued to equip young people for the activities of life.

The committee on annual report for 1888 presented the needs

of an English High School in a very clear, concise, and comprehensive statement. That report was reinforced last year, and needs no repetition at this time.

In considering the proposed plans, one might ask, "How is such a building to be filled?" It should not be filled at once, else it were still too small. It is expected that the school will grow, and by the time the building is ready a good working school can be established, leaving a classical school of sufficient proportions to fill comfortably the present building, which was designed for between two hundred and three hundred pupils only.

The need of immediate action seems apparent. It is for the Board to decide whether any such plan shall be adopted, and when the city should be asked to execute it.

TEACHERS.

The resignations and appointments of teachers have been reported in the first section, under the Review of the Proceedings.

The present year has witnessed more changes in teachers than any previous year, and the vacancies caused by resignations have been very hard to fill. During the four months just passed the time lost in looking up candidates has greatly interfered with my systematic work in the schools. In fact, it has been impossible to do any practical, professional supervision.

In February Mr. Horatio D. Newton resigned the principalship of the Morse School, and after serving as acting principal during the remainder of the school year, Miss Mina J. Wendell was promoted from the assistant's position to the head of the school. This appointment was earnestly advocated by the citizens, and was cordially recommended by the local committee in recognition of valuable services and successful experience. Mr. Newton has taken a position in one of the Boston schools. During his service here he demonstrated his fine abilities as a teacher and manager of a school, and won the confidence and esteem of all interested in the school. By his retirement the city lost a valuable citizen, and the schools an earnest worker.

In October Mr. Herbert L. Morse resigned the principalship of the L. V. Bell School, to accept a position in Boston. By this vacancy we also sustain a great loss, both to the schools and to the

community. Mr. Morse has shown himself a student of education, a progressive, successful organizer and instructor. He administered the affairs of the school well, had excellent control, gained the love and respect of the pupils and teachers, and comprehended the best methods. The committee have selected as his successor Mr. Fred W. Shattuck, principal of the Winchester Grammar School, a graduate of Dartmouth College, and a teacher who comes heartily endorsed by those who know him.

Boston has also called from the Bell School Miss Abby A. Hayward, and from the Forster School Miss Marietta S. Murch and Miss Annie L. Bennett. These teachers have rendered good service to the city, and we gave them up with much regret. To fill their places, we drew from Waltham, Newton, and Quincy Misses Anna L. Dickerman, Blanche E. Heard, and Helen P. Bennett.

The Edgerly and Prospect Hill Schools have suffered by the resignations of Miss Mary B. Currier and Sarah A. Tuttle, who were counted among our best teachers. Malden and Medford supplied the deficiency in the persons of Miss Alice M. Dearing and Miss Mary C. Jones.

It became necessary this year to raise the Edgerly School to the rank of a full grammar school, which required the appointment of a vice-principal and the fitting up of two class-rooms in the basement for the first grade. After very careful investigation and inquiry, the committee chose Mrs. Addie L. Smith, who was holding a similar position in the Centre Grammar School, Malden, as principal's assistant

In April the O. S. Knapp School was organized with seven grades in eight class-rooms. Mr. Harry N. Andrews, principal of the Grammar School in Hingham, a graduate of the Bridgewater Normal School, was elected to take charge of the school, and the wisdom of the appointment has been demonstrated by the success of the school under his management.

TEACHERS' MEETINGS.

The special instruction and drill in physical culture and extra meetings on drawing have occupied all the time that it seemed proper to require of the teachers for after-school meetings.

The day for the October meeting of the Teachers' Association

was given up to Secretary Dickinson and his agents and instructors for a general teachers' institute, to which the teachers of Melrose were invited. The work was conducted in three sections: Primary, Grammar, and High School, and was thoroughly enjoyed and appreciated. The addresses and demonstrations of methods were well received, and were of great benefit to our teachers. Its influence for good is unquestioned, giving new life and inspiration to our work.

WORK OF THE SCHOOLS.

The work done in the schools has been along the lines pursued in the past. Very little deviation has been made from that marked out in the course of study, and yet the work broadens out each year according as the teachers see the possibilities and the growing powers of the pupils invite. The extent to which a study is pursued depends upon the capacity of the pupil, and the value of the subject as knowledge and as a means of discipline (I use the word in its broad sense). When a study is taught simply for its knowledge value, the teaching is reduced to a quantity. It becomes a question of a time schedule, and how many facts can be taught. The experienced teacher sees beyond the text-book into the child's opening faculties; he measures power and uses his material to develop more power. It matters not whether a child is set to gathering knowledge from observation or by study from books and libraries, if set to work at the right time, in the right way, and with proper material. It is the business of the teacher to cause the child to be a *learner*, and that by his own effort. The appliances, material, and subjects, or studies, will depend upon the age and ability of the pupil. A young child learns by the activity of his perceptive powers, while an older one is capable of reason and judgment. The elements of all subjects must be learned through the senses or by the perceptive faculty. Hence the use of illustrative material (so called) in elementary work. We are realizing, too, the value of better utilizing the child's activity. This element in education is of the highest importance and has too often been lost sight of. All admit it, but fail fully to understand how to take advantage of it; that is, how to direct the child's activity and use it as a force in his education. The modifications of work in our schools grow out of these principles, and are noticeable in the appliances and material for illustration and for expression, and in the

method of work done by the pupils. Whenever the elements of a subject, as in geography, can be learned by bringing the children into contact with forms and features first hand, that is given preference to the representations or descriptions of these forms. With this as a basis, the study of the text later becomes intelligible. For the purpose of training the children in their expressive powers, ample opportunities are given in the use of material. This is true of form study and arithmetic to a certain extent. The value of this work, and its scope and method, we are studiously finding out. Nothing radical has been attempted. Our departures from traditional routine are in lines parallel with those pursued in cities of our own class.

The subjects of geography, history, drawing, sewing, and other manual training features have been discussed in former reports, and nothing more is necessary at the present time.

The committees on drawing, manual training, music, and on high, grammar, and primary schools, have considered these subjects, upon which they are desirous of reporting.

CHANGES IN THE COURSE OF STUDY.

Ever since the introduction of sewing into the grammar schools there has been a strong desire on the part of the boys to have some manual work during the time the girls are occupied in sewing, and it has been our wish to gratify that desire. Accordingly, a course in mechanical drawing and construction has been laid out and adopted by the Board, and is now in operation in all the grammar schools in an elementary way.

A change in text-books in grammar made it necessary to modify the course in language somewhat, and the superintendent was authorized to issue outlines in the subject and in elementary science, including physiology and hygiene. The preliminary steps have been taken in these directions, but a complete introduction of such work necessitates a vast amount of labor and plenty of time.

It was also necessary to devote more time to the physical training exercises, and accordingly, after careful consideration, the time schedule was rearranged, and the programmes have since been made to conform thereto.

It will be necessary to have printed the course of study as at

present arranged, as everything is now in the form of circulars.

ELEMENTARY SCIENCE.

For a number of years the most progressive cities in the country have incorporated into their school curricula studies in elementary science, for the purpose of bringing the children into intimate relations with nature, that they may understand its varied forms, beauties, and wonders, and that it may become an influence in their education while in school and during the remainder of their lives. In some places it has been considered of so much importance that special teachers of the department have been appointed to instruct the regular teachers and supervise the schools, in the same manner as drawing and kindred subjects have been introduced. In most cities the work has been empirical necessarily, and is gradually working to a system. In other places certain features of the sciences have been undertaken as a part of the course in geography. The little we have done in our schools has been of this sort, but the studies have progressed in connection with geography and language, so that it now seems advisable to have more system, to acknowledge science as an integral part of a primary and grammar course, and provide for its proper instruction.

In view of these facts, the committee on course of study recommended that the superintendent prepare outlines in science, including physiology and hygiene, for the guidance of the teachers, which recommendation was adopted by the Board. Preliminary outlines have since been prepared based on the experience of those who have gone before us, and closely related to geography, form, drawing, and language, now in operation in the schools. In the preparation of these outlines I was assisted by a committee, of which I was a member, of the New England Association of School Superintendents, and by specialists who have given much attention to the subject. This course was approved by the New England Superintendents' Association as a valuable guide to those who wish to introduce studies in science into their schools.

I do not pretend that this course is a finality, that the problem of the teaching of science in elementary schools has been solved. It is merely an outline suggestive of subjects and material that teachers may use profitably, and it is hoped that by this aid a good beginning

may be made upon which a permanent course can be laid in the future.

The following principles have been generally agreed upon in selecting the studies that ought to be pursued in school: "(1) The course of study must include the studies and means of training which develop the greatest amount of mental and moral power. (2) Those which throw the greatest amount of light on the environments of life, in order that the education of the school may be continued by these environments in after life."

Superintendent Balliet, who is the author of this part of the report of the committee of the New England Superintendents' Association above referred to, thus treats —

"*The Physical Environments.* These include the mineral, vegetable, and animal kingdoms; the physical features of land and water; the physical heavens, and the forces that underlie the phenomena of nature in general. These must be interpreted to the child by the school, else they will remain a mere enigma to him all through life, and fail of exerting their educating influences upon his mind and character. Hence the necessity of including in a course of study the natural sciences. Their pedagogical value is not to be measured, therefore, by the knowledge acquired; nor so much by the amount of discipline used as by the fact that they reveal and interpret nature in such a way that the process of development, which the teaching of them merely begins in school, will be continued afterwards by nature herself all through life.

"It follows as a necessary corollary that far more depends on how these sciences are taught than on the quantity of knowledge gained. They must be taught in such a way as to train the mind to observe, to develop scientific methods of investigation and scientific habits of thought. A course of study must, therefore, not demand more as regards quantity, in a given time, than can be mastered by proper methods of work; unreasonable demands in this respect have not infrequently vitiated the character of the teaching, making laboratory methods an impossibility, and the unintelligent memorizing of the substance of text-books a necessity."

Closely allied to this study of nature is the study of the beautiful, which, in the same report, is discussed as follows, under the subject of —

"*The Æsthetic Environments.* The child's mind is surrounded by the truths of nature; and, as already seen, it is the function of

the school to open his eyes and his mind to these truths, in order that they may arouse thought and investigation, and thus become a permanent educational power over him all his life. In like manner he is surrounded on all sides by the world of beauty. It is the function of the school to open his eyes and mind also to this element in his environments, so that the beautiful may be to him a constant, uplifting power all through life. Beauty of form and color can be appreciated only by him whose sense of color and form has been trained; beauty and harmony of tone only by him whose sense of tone has been developed.

“Æsthetic training must not be mechanically added to scientific training; but, in as far as possible, all the work of the school must be given a bent in the direction of the beautiful.

“The beautiful in art, historically, grew out of the useful. So in the school the beautiful must be the outgrowth of the useful at all points; and all forms of expression by making, modeling, drawing, language, and tone must aim to reach their æsthetic stages.

“It is the function of science to interpret the truths of nature, and to act the beauty of nature. In order that the mind may be brought into complete sympathy with its environments, it must not only be able to interpret them scientifically in the way of logical thought, but also æsthetically through the imagination. Hence, if the school is to perform its highest function, it must do it in this two-fold way. The æsthetic training is as necessary as the intellectual training. Art is as necessary and as legitimate a part of the higher life of the race as science.”

This department includes observation and study of minerals, plant and animal life, the human body, form, color, and the phenomena of nature, leading up to elementary physics, chemistry, and astronomy. The plan is to have the observation and study begin the first year of school with the simplest and most interesting objects of the child's environment, and that year by year other objects of study be introduced, as the ever-widening horizon and the growing faculties of the child shall warrant. Each year will permit of new phases of the work in the direction of closer observation of detail, finer classification, more comprehensive view, and a higher appreciation of the beauty, grandeur, and sublimity of the universe.

It is hoped that, in this study of nature in its varied forms, and in the expression of the beauty and thought of nature, all teachers

will feel the influence and imbibe the spirit of the æsthetic element. We must not look at nature's forms as specimens whose only interest is their accurate and wonderful structure and the ingenious adjustment of parts, but as creations whose symmetry of form and harmony of color teach the beauty and glory of the universe of God.

Likewise, in the expression of the truth and beauty of form and of nature, we are not to labor only for accuracy of language and dexterity and expertness of manipulation, but for that training which has its outcome in the development of finer sensibilities and the cultivation of a higher spiritual nature.

The subjects of this course are the same throughout the primary and grammar grades, that is, the study of animal and vegetable life, the human body, mineralogy, and the phenomena of nature. The progression is indicated by the method of study, which depends upon the faculties of the child, and the degree of thoroughness to which the study is carried. In all grades, also, the subjects are used as a basis for language and other means of expression: for instance, in the first year the words taught in the reading lesson and the oral language come from the observation lessons, whether of natural objects or of common things. Year after year these subjects are talked about and described, both in oral and written language. The same use is made of these subjects in the drawing lessons and in the work now closely allied to the drawing course. The extent to which it is possible to carry modeling in clay and construction in other materials is limited only by the supply, and not by the practicability of the work or its educational value. But the value of these subjects for composition work suffers no depreciation for any reason. The material furnished by the course of study in geography and history has always been found exceedingly valuable as a basis for composition work, but the subjects afforded by the science course are still more serviceable, because of the greater variety, the richness in qualities, and the convenience and availability of the material. Expression necessitates thought, and thought must be preceded by close observation and inspection of tangible things.

The outlay for such a course would include the manuals for the guidance of the teachers, and the closets, cabinets, or cases for the proper keeping and mounting of the specimens. As for the specimens, we would rely upon those contributed by the pupils for the most part. Experience might show the advisability of supplying others,

and in the case of experiments in the higher grades some cost might be entailed. For the studies in physiology it will be necessary to supply text-books in conformity to the requirements of the State law.

LITERATURE.

From time to time the Board has added to the list of purchasable books certain supplementary readers, designed to be used as collateral aids in teaching the various subjects embraced under the title of elementary science, geography, history, and literature. In consequence of our limited funds for such material, the purchases have been confined for the most part to the first three departments named, while those designed for literary culture have been allowed to wait. While we are opening up new fields of science, and bringing our children into more intimate contact with nature, we should not allow the schools to run into these departments as specialties, and lay our work open to the criticism of some foreign schools that have become mechanical and materialistic in their tendencies. While science is perhaps the best material for cultivating observation and experiment, and consequently thought, there is a danger of losing sight of the ideal. Some children will doubtless become skilled in the various arts and sciences, but others will find pleasure and profit only in literature. As a foundation for an all-round education, we must guard the treasures of the intellect and the imagination, while we at the same time study the realities of creation. I am, therefore, very anxious to enlarge the reading along these lines, and provide ample material for the proper culture of literary taste. It is an astonishing fact that, while the publication of standard works in very convenient forms and of suitable grade for grammar schools has rapidly increased of late years, yet the grammar schools have failed to profit by these treasures. I have had opportunity many times to note the eagerness of children to have access to good reading. Occasionally, teachers loan books that are suitable to children interested in having home reading. I have been impressed both by the desire to borrow books and the disappointment when the supply is exhausted. I believe the schools should be supplied with the choicest reading both for class and home use, and that there should also be graded libraries for each school.

As to the character and scope of this reading, I would include

extended extracts from the best poets and prose writers, taken from works of literary merit. There should also be the literature of the Bible, both in the lines of history and biography. I believe that the stories of the Bible should be read in every school. There has already appeared in the Riverside Literature Series one number such as I have in mind. It is a carefully selected series of stories in Bible language. We should use this history, and many of the parables for their moral worth and for their literary merit. There need be no sectarian teaching in this connection, but there is great danger that the people will grow up wholly unfamiliar with this most wonderful and most interesting history and these marvels of literary genius.

Many of the school readers contain pieces of great merit, but they are very brief and do not furnish enough from one author to convey an adequate idea of his style, nor the substance of the work from which the selection is taken. The school reader serves a purpose, but it does not satisfy the demand for a literature book.

I believe that children should be taught to read in four, or at most five, years; after that, or during the four last years of the grammar school, a good reading book as a drill book fills an important place, but the reading, the literary reading, should be from standard works of the best authors. In addition to this, there will be reading and study in history, geography, etc.

I have been investigating the methods used in several cities for supplying the schools with supplementary reading, and have come to the conclusion that, in addition to our permanent supplementary readers, we should use the circulating plan. This method is practised in Boston and other places with very good results, and has been found economical. I invite your consideration of Supervisor Metcalf's report on this subject, and I hope the incoming Board will, through the committee on text-books, act upon a scheme by which a similar plan can be carried out here.

PHYSICAL TRAINING.

The report of last year contained an extended discussion of this subject. After careful consideration of the best methods of introducing physical training into our schools, the special committee recommended the appointment of Miss C. I. Livingstone as director, with authority to meet the teachers as often as necessary and super-

intend its introduction into all the primary and grammar schools. Since April 1st, Miss Livingstone has met all the teachers in classes each week for instruction in the science of the system and for practical exercise. The teachers of the Prospect Hill District have met one afternoon each week at the Y. M. C. A. Hall; the teachers of the Spring Hill and West Somerville Districts, the next afternoon at the same place, and the teachers of East Somerville and Winter Hill have met once a week, alternating between the Prescott and Forster school buildings. By this means, the teachers have become skilled in the exercises which they daily put into practice in their schools, and have gained a knowledge of the relations of the exercises to health and development, and the physiological effect upon the human body.

At this point I wish to emphasize the value of this system as a feature of the instruction in physiology and hygiene. Every exercise has its special office, and in knowing how the action of the muscles contributes to health and strength the teacher or the child learns the full value of the part as an instrument in executing the behest of the will. I am convinced that by making the physical exercises a part of the instruction in physiology and hygiene, in so far at least as it is an exemplification of the functions of the parts, we will enhance the value of both. We have not yet progressed as far in this direction as may be possible and advisable. We are yet making a beginning, laying a good foundation. The possibility of development in this system is its most encouraging element. We must expect that time alone is the test of the value and permanency of the department, but we see much that is interesting and reassuring. There will be greater proficiency on the part of teachers and pupils, greater interest and fuller appreciation of its value, less stiffness and awkward movement, more flexibility and grace in the execution of commands, more ready and precise response to the will, and greater tension and steadiness of nerve. I expect, also, before another report is due, to see the results of the training in the position and carriage of the pupils and the application of the drill exercises in their unconscious actions. As the years go on, I hope to see the results affecting the tissues and organs of the body, and the activity and operations of the mind; furthermore, may we not expect, as an outgrowth of health and vigor, a brighter cheerfulness, a readier and more willing response, and a more complaisant acquiescence in the performance of tasks, and a

firmer accomplishment of the known duties? Are these unattainable ideals? Or are they higher possibilities suggested by present indications? I have observed very closely the exercises given by the director in the normal classes, and by the teachers in our class-rooms, and have watched the effects upon the body and minds of the children, as indicated by their interest, their response, their vigor, and their buoyancy and spirit. The very nature of the exercises, requiring as they do the closest attention, reflection, thought, and prompt, exact action, is a mental discipline, calling into activity the whole mind, and securing a harmony of body and will which must necessarily result in development and culture. I am more than ever in favor of the system we have adopted, and I anticipate that by intelligent oversight and direction much may be built upon the foundation now being laid.

In justice to our director, Miss Livingstone, I feel that I express the honest sentiment of all who have been under her instruction, both teachers and pupils, when I say that she is admirably adapted to her work, enthusiastic, cheerful, inspiring, and that she possesses a good knowledge of her subject. We have been fortunate in our selection, and I hope she may be retained to continue her valuable instruction.

The Swedish system of gymnastics has been formally adopted by the School Committee of Boston, after experiments with it in several of the schools. The election of Dr. Hartwell as director of physical education in Boston is also an endorsement of the work now so well begun in this vicinity. I feel that the citizens of Somerville may be justly proud of the beginnings here made, with the assurance that we are alive to the importance of this department of education. Occasional editorials in the leading Boston dailies voice the sentiment of the people, who realize more than ever before the necessity of well developed physical organisms.

DRAWING AND INDUSTRIAL EXHIBITION.

On the recommendation of the committees on drawing and industrial education, the Board authorized the superintendent to organize an exhibition to be held in Bow-street Hall, which should represent the work done in all the schools from the kindergarten to the High School. Accordingly, an exhibition was held on June 18 to 21 in the main hall and the armory. The work was arranged by

grades and by schools, and consisted of kindergarten occupations, stick-laying, slat and mat weaving, paper folding and cutting, sewing, clay-modeling, covering three or four grades, drawing, and some wood-work and paper-cutting from the second grade up. The High School contributed drawing, and the Evening Drawing School was represented by work in free-hand outline, and light and shade; the mechanical department showing geometric drawings, projections, and architectural and machine drawings. The armory was devoted to the sewing, in which all the grammar schools were represented. The room also contained a display of maps of paper, sand, clay, putty, and various other materials.

The exhibition was visited by all the pupils of the schools at special times assigned to the several classes, and by many citizens. The purpose was to show the results of two years' work in these lines, and to bring the people nearer to the schools, and enable them to better understand some of the objects now considered essential features of our educational system. The effect was undoubtedly an incentive to the teachers and pupils, and has had a permanent influence upon our work.

SLOYD SCHOOL.

During the summer vacation, Mr. Morse, principal of the Bell School, and Mr. Hathaway, principal of the Lincoln, who, with other principals and teachers, had completed a course in Sloyd at the North Bennett-street Industrial School through the kindness of Mrs. Shaw, solicited funds, and, having secured the use of the basement room of the Bell School, fitted up benches and purchased tools for Sloyd work. Four classes of sixteen boys each, from all parts of the city, attended the school for six weeks and maintained a great interest throughout the course. Each class had three two-hour lessons a week, and very good results were attained. At the close of the term, a public evening session was held, which many citizens took advantage of. After witnessing the boys at work, the people assembled in the hall upstairs, and were addressed by Professor Ordway, of New Orleans, Mr. Lars Ericsson, of the North Bennett-street School, the superintendent of schools, and others.

The experiment showed that boys are sufficiently interested in manual training to voluntarily devote part of their vacation to it,

not only for the knowledge to be obtained, but for the sake of having something to do. It also demonstrates the fact that there are people in Somerville who are sufficiently interested in the introduction of manual training to put their hands into their pockets and pay for an experiment.

It was an illustration of what might be done in this direction by the School Board for those who need to be employed during the long vacation, as outlined and urged in last year's report.

Great credit is due Mr. Morse and Mr. Hathaway for their interest and energy in the matter, and the city is under obligation to the generous donors of the funds which supported the enterprise. I sincerely hope that arrangements may be made by which the work can be carried on.

With this brief and superficial review of the work in the schools during the year, I turn to the consideration of measures demanding attention in the near future.

TRAINING OF TEACHERS.

In my last annual report I devoted a chapter to this subject, and in it I made the statement that I was not prepared to advocate the establishment of a training school, but gave some considerations which might be urged in favor of providing some means of training for those who are capable of becoming good teachers, but who cannot take a normal-school course. I have been convinced that the time would come when the city would be driven to the necessity of establishing a training school.

In January last the Board, through the committee on High School, to whom power was given in the premises, authorized me to organize a training class to be composed of young ladies who were in the list of substitutes. A meeting was accordingly held, and the plan laid out. The young ladies very willingly and earnestly entered into the work, were assigned to particular schools for observation and practice, and began a course of reading on the subject of teaching. I continued meetings once a week at first, and then once in two weeks, at which the principles and methods of teaching were considered, and the various experiences of the members of the class related and discussed. The following young ladies were members of the class: Florence E. Baxter, Lena B. Blaikie, Maizie E. Blaikie, Mary

Blodgett, Emma Burckes, Eula M. Byrns, Martha E. Daniels, A. B. Goucher, Mary E. Lacy, Nettie M. Orne, Minnie A. Perry, Martha M. Power, Hattie E. Richardson, Fanny M. Seymour, Grace M. White. All but one were graduates of our High School ; two were graduates one was a student of the Salem Normal School, and two came from the Quincy Training Class.

The experiment was a success in many ways. They engaged in systematic work, became posted in our methods, and competent to substitute successfully. Two of these are now teaching out of town at good salaries, one has entered the Bridgewater Normal School, and the others are teaching here as assistants, or as regular teachers, with fair success.

I have not organized a class this term because of unusual demands upon my time ; but there are several young ladies ready to enter such a class.

The amount of instruction and practice was inadequate as a preparation for teaching. At least a year should be given these young teachers to qualify them for their work, but it has been impossible to continue the class this fall, and they have depended wholly upon what they could gather up for themselves.

From this experience and from the experience of others, I am prepared to ask for the establishment of a training class, with a definitely prescribed course of study and practice, covering at least a year, under rules similar to those in practice in other cities. I would also recommend that the new grammar school now being erected at the corner of Washington and Boston streets, be designated as a training school, in which there should be model teachers in charge of the several rooms. I mean by that, teachers of experience, who would be expected to take under their direction the several members of the training class. There should also be a teacher of methods who could instruct the class in the principles and methods of teaching. The school should be in charge of a principal, as all grammar schools are, and the whole should be designed and equipped for special work. I consider this matter of vital importance to the city and to the school system, and I invite the immediate consideration of the Board to the subject as a special undertaking. The establishment of the school for this purpose would not in the least interfere with its mission as a grammar school. The organization, gradation, course of study, and general rules of government and administration would be identical

with those of other schools. It would simply be a designation for the purposes of a model school, and it would furnish a domicile for the class.

VACATION SCHOOLS.

One other subject I wish to bring to your attention as worthy of immediate action. In my last annual report I presented some views upon this subject and related the experience of other cities, speaking of it as a matter for future consideration. Now the needs of the pupils for whom vacation schools are designed come to me with irresistible force. The children who live in districts where these schools should be opened not only have a long summer on their hands in which to grovel in dirt, fall into bad company, acquire the habit of idleness, learn the lessons of truancy, but also become the most unteachable pupils in our schools. They are the boys and girls who have to leave early to go to work, and can ill afford two months of idleness in the dullest industrial part of the year. In the country they could find useful employment and learn by the occupation. In the city is nothing but a dreary waste. President Eliot said in a recent address: "The children cannot afford to have so large a proportion of vacation as is now given to them, particularly in cities, where the immense majority of the children are unable to leave town, and where they have no adequate occupation for a vacation of two months. This need not mean, of course, that the teachers are not to have a vacation. It seems to me that the teachers do need a vacation, but the pupils do not need it so much. But we encounter always, when we ask for more time for schools, this objection: 'The children can hardly stand the stress to which they are now subjected.' I believe," he says, "there are three good answers to this objection. First, ventilation. Second, gymnastic movements during school hours in the class-room. It is conclusively demonstrated that very brief intervals of gymnastic exercises throughout the public schools of Scandinavia and Germany do keep the children in good condition, do enable them to do a much greater amount of intellectual labor than American children. Third, by making the work interesting, etc."

I would like to have the Board take up this matter for special

consideration before the appropriations are asked for, in order that, if thought practicable, something may be done this year.

GRADUATIONS.

The graduating exercises of the High School were held as usual in the First M. E. Church, and were of a high order. The diplomas were awarded by his Honor Mayor Pope.

The programme was as follows: —

THIRTY-EIGHTH ANNUAL EXHIBITION OF THE SOMERVILLE
HIGH SCHOOL, TUESDAY, JUNE 24, 1890, AT 9 A. M.

ORDER OF EXERCISES.

PRAYER.

REV. GEORGE W. DURELL.

SINGING.* — CHORUS: "Unfold, ye Portals." "Redemption." *Gounod.*
(With organ and orchestra.)

1. SALUTATORY IN LATIN. CHARLES ST. C. WADE.
2. ESSAY. *The Real and the Unreal.* ALICE M. NICKERSON.
3. READING. THE ESCAPE OF JEAN VALJEAN. *Hugo.*
JOSEPHINE F. A. HOPKINS.

SINGING. — LULLABY. (Female Voices.) *Chadwick.*
CHORUS OF DERVISHES. (Male Voices.) "Ruins of Athens."
Beethoven.

4. READING. A FEW FRIENDS. H. OSGOOD LACOUNT.
5. Entwirrungsspiel.
EDITH A. CHAPMAN, CHARLOTTE M. LEONARD,
ALICE M. EMERSON, ALICE M. LIBBY,
ABBIE G. FISH, LEILA I. PRIMUS,
CORDELIA A. FOSTER, CLARA B. SNOW,
FLORENCE E. WHITMAN.

SINGING. — SEMI-CHORUS: "Dreamy Lake." (Unaccompanied.) *H. K. H.*
"Whither." (Müller-Longfellow.) Composed
for and dedicated to the Class of 1890, by
Henry K. Hadley.

6. ESSAY. *Lesser Lights.* MARY E. NICKERSON.

* Singing accompanied by Hadley's Orchestra.

MEMBERS OF THE GRADUATING CLASS.

Bertha Leavitt Bartlett.	Charles Edwin Giles, Jr.
Mary Bayfield.	George Edward Howe.
Edith Azubah Chapman.	Ned Herbert Janvrin.
Agnes Warren Crosby.	Henry Osgood Lacount.
Aroline Bradford Ellis.	Thomas M. David McCloskey.
Alice Maud Emerson.	Carl Edward Merrill.
Abbie Gertrude Fish.	Arthur Bigelow Roberts.
*Cordelia Arlington Foster.	Harry Granville Waters.
Helen Gertrude Frye.	Howard Hanchett Weston.
Bertha Annie Gould.	
Harriette Nash Hayden.	Course Preparatory to College.
Josephine Frances Augusta Hopkins.	Walter Channing Bailey, Jr.
Edith Louise Hunnewell.	Harry Aldrich Barnes.
Elizabeth Amelia Lambert.	John Lawton Butler.
Alice Mary Lavers.	Alexander Dewing.
Charlotte Marie Leonard.	Arthur Dow Flitner.
Alice May Libby.	Frank Sawyer Hight.
Carrie Tapley Lincoln.	Warren Dustin Holt.
Nettie Maude Lovering.	Freeman Lamprey Lowell.
Mary Emma Nickerson.	Lawrence Aloysius Murphy.
Leila Isabelle Primus.	Ernest Wallace Noone.
Annie Lillian Ricker.	William Henry O'Connell.
Annie Louise Shedd.	Charles Erwin Parkhurst.
Mary Agnes Sheridan.	Charles St. Clair Wade.
Grace Shorey.	
Clara Belle Snow.	Lillian Sara Allen.
Eva Margaret Veazie.	Grace Lizzie Atkins.
Florence Evelyn Whitman.	Lena Walker Briggs.
Bessie Winn Yeaton.	Alice Mary Nickerson.
	Mabel Edith Townsend.
Arthur McArthur Coffin.	Edith Marion Walker.
Arthur Clifton Dyer.	Jennie Webb.
Frederic Whitney Fitts.	Elizabeth Morris Wood.

* Diploma not received on account of the omission of a part of the Course of Study.

GRADUATION.

The graduation exercises of the grammar schools also took place in the First M. E. Church. Addresses were given by Rev. Dr. Miner, Mrs. Mary A. Livermore, and the superintendent of schools.

The diplomas were awarded by His Honor Mayor Pope, who also gave a brief address. The following is the programme:—

THURSDAY, JUNE 26, 1890, AT 7.30 P. M.

PROGRAMME.

PART I.

1. OVERTURE. Raymond. *A. Thomas.*
2. PRAYER. *REV. C. L. NOYES.*
3. SINGING.*— SOLO AND CHORUS: "Let the People Praise Thee,"
from "Eli." *Costa.*
COMBINED GRAMMAR CLASSES.
(Accompanied by orchestra and organ.)
4. ADDRESS. *SUPT. C. E. MELENEY.*
5. ADDRESS. *REV. A. A. MINER, D. D.*

PART II.

6. SINGING. — "Sweet Summer Morn."
(With orchestra.) *Smart.*
7. ADDRESS. *MRS. MARY A. LIVERMORE.*
8. SINGING. — TRIO: "Rest Thee on this Mossy Pillow."
FEMALE VOICES. *Smart.*
9. ADDRESS TO THE GRADUATES AND CONFERRING OF DIPLOMAS. *MAYOR CHARLES G. POPE.*
10. SINGING. — CHORUS: "Early Morning."
(With orchestra and organ.) *Kreutzer.*

* Director — S. HENRY HADLEY, Teacher of Music.

LUTHER V. BELL SCHOOL.

DISTRICT COMMITTEE.

CHARLES I. SHEPARD.

JAMES F. BEARD.

MAYOR POPE.

ALPHONZO H. CARVILL.

Principal, HERBERT L. MORSE. Assistants, ABBIE C. HUNT, MAY E. BERRY.

GRADUATES.

Frederick W. Adams.	Margaret Adam.
Joseph Adler.	Elizabeth M. Baldwin.
Edward A. Ashe.	Mabel E. Barr.
William H. Atwood.	Maude E. Bickford.
Thomas D. Bennett.	Flora M. Blaisdell.
Louis H. Birmingham.	Grace L. Boynton.
Harry B. Bullen.	Ida F. Brooks.
Edward S. Chapin.	Addie P. Chappell.
Daniel J. Cotter.	Josephine E. Coggin.
William L. Crowe.	Elvira C. Cole.
George B. Cutter.	Mary D. M. Cooney.
John W. Diskin.	Kate M. Dane.
Alvah F. Dole.	Susie E. Dewing.
Fred S. Eveleth.	Clara B. Dickey.
J. Frederick Farrell.	Kate A. Diggins.
James R. Fidler.	Daisy B. Farnum.
Charles E. French.	Minnie S. Farrell.
Martin Garrity, Jr.	Bertha L. Frazier.
Henry A. Goddard.	Lizzie C. Frazier.
Daniel I. Gooding.	Ada B. Gilmore.
Carl R. Gossweiler.	Lottie H. Godfrey.
William C. Hammond.	Florence W. Gooding.
Louis L. Hanaford.	Grace M. Gordon.
Harry A. Harmon.	Ella M. Griffith.
William Higgins.	Hattie M. Hamblin.
John W. King.	Hattie M. Hanson.
Albert E. Lincoln.	Elsie G. Hatchard.
Charles E. Lord.	Katherine C. Heffernan.
Robert J. Lynd.	Clara G. Hegan.
John J. McCarty.	S. Elizabeth Hight.
Robert J. McIntire.	Maud A. Holbrook.
Charles W. McIntosh.	Cora I. Howe.
Corbett J. McLean.	Blanche M. Huse.
Thomas Miller, Jr.	Annie F. McFadden.
Harry L. Morse.	Alice R. L. McGann.
John J. O'Connell.	Annie M. Mahoney.
Walter L. Peavey.	Bessie F. Manning.
John H. Rafferty.	Lura M. Messer.
Francis F. Rogers.	Ethel S. Mills.
J. Frederick Singleton.	Josephine L. Mitchell.
William H. Smith.	Grace H. Morse.
Francis A. Twitchell.	A. Adella Myers.
Alexander McK. Watt.	Annie G. O'Connell.

Nathaniel Webb, Jr.
 Richard I. Webb.
 Arthur J. Wier.
 Frederick A. Worden.
 Leila H. Sprague.
 Mary E. Ware.
 Alice L. Westgate.
 M. Gertrude Wetherbee.
 Alice M. Wood.
 Annie J. Wood.

Harriet F. Olin.
 Jennie R. Oliver.
 Bertha L. Peirce.
 Mabel A. Pettes.
 Isabella H. Pousland.
 Eleanor E. Priest.
 Nannee M. Sargent.
 Ada B. Scales.
 Esther Shaw.
 Alice M. Singleton.

PRESCOTT SCHOOL.

DISTRICT COMMITTEE.

HORACE C. WHITE.

S. NEWTON CUTLER.

SANFORD HANSCOM.

Principal, G. A. SOUTHWORTH.

Assistant, ANNA M. BATES.

GRADUATES.

Annie M. Almeida.
 Olive Z. Burkett.
 Agnes Burns.
 Lizzie P. Chapman.
 Florence R. Conant.
 Lillie E. Corson.
 Mabel J. Crisp.
 Jennie L. Curran.
 Mabel G. Delano.
 Agnes C. Edworthy.
 Maude J. Craig.
 Annie A. Gee.
 Mabel A. Grant.
 Josephine W. Hale.
 Lura S. Hall.
 Gertie E. Hammond.
 Lillie M. Johnson.
 Bessie M. Junkins.
 Bertha Lawrence.
 Mattie L. Littlefield.
 Katie M. McCarthy.
 Ruth J. McGregory.
 Ida G. Norton.

Gertrude A. Strout.
 Gertrude E. Taylor.
 L. May Wellington.
 Susie A. Wentworth.
 Blanche Wheeler.
 Mabel V. White.
 Edith A. Winship.
 Willard H. Andrews.
 Charles D. Babb.
 Fred T. Baker.
 Albert M. Burbank.
 James E. Charlesworth.
 Paul K. Clymer.
 Fred B. Crowell.
 Arthur W. Fitzgerald.
 Stanley D. Fobes.
 Frederick T. Grant.
 Arthur D. Hadley.
 Henry D. Newell.
 Percy F. Parsons.
 James R. Pitman, Jr.
 Joseph W. Ralph.
 Nathan P. Reed.

Mabel Olmsted.
Lily Peterson.
Carrie M. Prentiss.
Mattie I. Purinton.

Herbert Richardson.
William H. Taplin.
Benjamin H. Thacher.
Samuel G. Underhill.

HIGHLAND SCHOOL.

DISTRICT COMMITTEE.

GILES W. BRYANT.

MRS. ADDIE B. UPHAM.

MARTIN W. CARR.

Principal, GEORGE E. NICHOLS.

Assistant, M. ALICE PAUL.

GRADUATES.

Malcolm C. Anderson.
C. Ellie Atwood.
Arthur R. Barnes.
Emma A. Barnes.
John W. Berry.
Lottie G. Bowers.
Herbert E. Bowman.
Bertha E. Brown.
Clara H. Brown.
James F. Brown.
Jules W. Brown.
Samuel P. Capen.
Ethel M. Carley.
Florence E. Caseau.
Florence W. Chase.
Fred D. Dion.
T. Milton Dillaway.
Edith B. Dodge.
Minnie G. Dodge.
Katie E. Dolbear.
Alice G. Durnin.
Herbert W. Easton.
Inez M. Felt.
Grace M. Foster.
Rebecca J. Green.
Miriam Gunsenhiser.
Louisa D. Haartz.
Emma M. Haskell.
Jennie M. Young.

Arthur B. Kempton.
Alice Maud Kimball.
Henry Lavers.
Annie May McKean.
Sadie A. Merry.
Ada G. Morton.
James Munn.
Norman S. Muzzey.
T. Bartie Nicholson.
George F. Nichol.
Arthur W. Orrill.
Carrie E. Perry.
Edith W. Richardson.
J. Fred Ruston.
Harrison F. Sargent.
Mattie W. Sargent.
Edwin A. Shaw.
Katharine L. Stebbins.
John F. Stevens.
Arthur E. Thayer.
Lizzie E. Thorpe.
Coleman Tousey.
Mattie E. Vincent.
Frank H. Walker.
Elizabeth M. Ward.
Mirriam B. Ward.
Grace R. White.
Andrew A. Wilson.

MORSE SCHOOL.

DISTRICT COMMITTEE.

MARTIN W. CARR.

MRS. A. B. UPHAM.

G. W. BRYANT.

Acting Principal, MINA J. WENDELL.

GRADUATES.

Tennyson L. Baker.	Eleanor A. Hurl.
Edith M. Barrows.	M. Gertrude Hyson.
Samuel T. Birmingham.	Thomas M. James.
D. Wilbur Bowie.	Robert H. James.
Joseph Andrew Boyle.	Rebekah A. Jenks.
Percival Richards Bowers.	Franklin C. Kendall.
Charles I. Bucknam.	Mary L. LeBosquet.
Michael J. Carey.	Lida A. Littlefield.
Ethel M. Chabot.	Emily C. Lochman.
Arthur A. Clarke.	William L. Morehouse.
M. Emma Clarke.	Marion Bonacina McNear.
C. Frances Connell.	Hugh J. O'Neil.
Edward S. Cox.	Emma L. O'Neil.
Sallie Harris Davenport.	Mabel Gray Paul.
James Q. David.	Edward A. Purcell.
James H. Farrell.	Charles F. Quick.
J. William Fellows.	Bessie Rapp.
William Z. Flemming.	C. Grace Richardson.
Ida Z. Forrest.	Edith N. Rockwell.
Charles H. Fuller.	Arthur B. Robinson.
Roswell L. Gardner.	Clara M. Shea.
Francis P. Garland.	John W. Shepherd.
Harry C. Garland.	William G. Walker.
Arthur L. Hale.	Jennie M. Waterman.
Cora M. Hanscom.	Edith Adams West.
John W. Higgins.	M. Edith Winslow.
Alice M. Horrigan.	J. Almond Worcester.
Grace Clementine Howes.	Henrietta L. Yelland.

FORSTER SCHOOL.

DISTRICT COMMITTEE.

NORMAN W. BINGHAM.

QUINCY E. DICKERMAN.

CHARLES B. OSGOOD.

WILLIAM P. HILL.

Principal, JOHN S. HAYES.*Assistant*, MARY E. NORTHUP.

GRADUATES.

Louis E. Allen.	Julia A. Cotter.
Arthur L. Burckes.	Georgina Crosby.
James A. Fitzgerald.	Bessie A. Dadmun.
Harry E. Hastey.	Emma C. Darling.
Edgar H. Hunter.	Mabel G. Fisher.
Holbrook F. Learned.	Mabel A. Fitz.
Wayland H. Lewis.	Jane H. Flaws.
George B. Nason.	Ethel G. Hodgkins.
John E. O'Brien.	Ula Hollis.
Austin J. Palmer.	Alice E. Holway.
Charles R. Raymond.	Laura Gertrude Little.
Hiram L. Rich.	Elizabeth A. Lucas.
Frederick A. Smith.	Mabelle E. McKim.
Arthur C. Tracy.	Mary L. Murray.
Cyrus E. Wheeler.	Evangeline Norwood.
Carlton M. Woods.	Etta I. Piccott.
Mabel L. Bement.	Harriett M. Piccott.
Blanche I. Bennett.	Ethel F. Tucker.
Josephine E. Bingham.	Bessie M. Wallace.
Mary Brown.	Grace I. White.
Dora E. Cilley.	Florence C. White.
Alice R. Collins.	Mattie G. York.
Carrie J. Coombes.	

IN CONCLUSION.

In concluding this brief report, I wish to acknowledge the consideration of the Board and its several committees, and to express my cordial gratitude for the assistance of individual members who have advised and coöperated with me in the arduous duties of the year. Again I must acknowledge the untiring zeal, and faithful, painstaking

ing work of the principals and the regular and special teachers. It is my hope that we may always administer the affairs of the schools to merit the approval of considerate citizens, and our energetic and progressive press.

Respectfully submitted,

C. E. MELENEY,

Superintendent of Schools.

FINANCIAL STATEMENT.

	Estimated.	Expended.	Deficit.
Salaries of teachers	\$97,000	\$100,733 72	\$3,733 72
Salary of superintendent	2,500	2,500 00	-
Salaries of truant officers	950	950 00	-
Salaries of janitors	7,100	7,539 17	439 17
Water and gas	900	996 72	96 72
Text-books	8,600	8,690 31	90 31
Writing and drawing books			
Stationery and supplies			
Printing	350	546 23	196 23
Miscellaneous	1,100	1,141 69	41 69
Total	\$118,500	\$123,097 84	\$4,597 84

Amount received for tuition of non-resident pupils, \$111.56.

TABLE SHOWING THE NUMBER OF SCHOOLS, TEACHERS, AND PUPILS, THE NUMBER IN THE NINTH CLASS, AND THE AVERAGE NUMBER TO A SCHOOL IN THE SEVERAL DISTRICTS IN DECEMBER.

DISTRICTS.	No. of Schools.	No. of Teachers.	No. of Pupils.	No. in Ninth Class.	Average No. to a School.
East Somerville	26	27	1,233	90	47.4
Prospect Hill	46	46	2,187	87	47.2
Winter Hill	20	20	969	50	48.5
Spring Hill	21	21	1,027	55	48.9
West Somerville	14	14	662	47	47.3
	127	128	6,078	329	47.8

TABLE SHOWING THE NAME, LOCATION, DATE OF ERECTION, ESTIMATED VALUE, CAPACITY, ETC., OF THE SEVERAL SCHOOL BUILDINGS.

DISTRICTS.	SCHOOLS.	LOCATION.	When Built.	No. Feet in Lot.	Estimated Value.	No. of Rooms.	No. of Classes.	No. of Grammar Classes.	No. of Primary Classes.
East Somerville	High	Highland Avenue	1871	-	\$44,000	10	4	-	-
"	Prescott	Myrtle Street	1867	21,444	42,000	12	12	8	4
"	Elderly	Cross Street	1871	26,428	43,100	10	10	5	3
"	Davis	Tufts Street	1884	29,584	18,333	4	4	1	3
Prospect Hill	L. V. Bell	Vinal Avenue	1874	22,262	43,000	13	13	11	2
"	Bow-street	Bow Street	-	-	-	1	1	-	1
"	O. S. Knapp	Concord Square	1889	24,517	32,000	8	8	5	3
"	Prospect Hill	Washington Street	1848	25,313	20,600	6	6	3	3
"	Cummings	School Street	1884	11,300	15,357	4	4	3	3
"	Brastow	Medford Street	1861	10,019	6,250	2	2	1	1
"	Bennett	Joy Street	1868	20,560	8,300	4	4	2	2
"	Jackson	Poplar Street	1861	11,212	8,300	4	4	1	3
"	Webster	Webster Avenue	1868	11,050	8,300	4	4	1	3
"	Union	Prospect Street	1842	9,360	2,600	1	1	1	1
Winter Hill	Forster	Sycamore Street	1866	32,693	39,422	13	13	9	4
"	Chapel	Broadway	-	-	-	1	1	-	1
"	Brazilian Hall	Broadway	-	-	-	1	1	-	1
"	Bingham	Lowell Street	1886	20,896	15,105	4	4	1	3
"	Cedar-street	Cedar Street	1843	-	800	2	1	1	1
Spring Hill	Morse	Summer Street	1869	29,109	45,000	12	11	8	3
"	Beech-street	Beech Street	1872	6,000	4,750	2	2	-	2
"	Franklin	Somerville Avenue	1846	33,017	14,300	4	4	2	2
"	Harvard	Beacon Street	1851	9,810	2,600	1	1	-	1
"	*Burns	Cherry Street	1886	16,080	15,250	4	4	2	2
West Somerville	Highland	Highland Avenue	1880	23,260	43,000	12	11	7	4
"	Lincoln	Broadway, Clarendon Hill	1885	17,662	15,487	4	4	2	2
						143	134	70	58

* Receives pupils from both the Spring Hill and the West Somerville Districts.

TEACHERS.

Number of teachers (including 7 assistants)	159
Male, 12 ; female, 147.	
Number of teachers in High School	10
Male, 3 ; female, 7.	
Number of teachers in the grammar grades	76
Male, 7 ; female, 69.	
Number of teachers in the primary grades (including 7 assistants)	67
Teacher of music	1
Teacher of drawing	1
Teachers of sewing	2
Teacher of physical culture	1
Teacher of military drill	1
	— 159

SCHOOLS AND TEACHERS.

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected.
High	George L. Baxter	Harvard College	\$2,400	1867
"	Frank M. Hawes	Tufts College	1,800	1879
"	Charles T. Murray	Dartmouth College	1,400	1887
"	Sarah W. Fox	High School, Taunton. Instruction in classics and German abroad	1,200	1868
"	Sarah F. Litchfield	Lawrence Academy, Gro- ton. Private instruc- tion in Latin, French, and German	850	1880
"	Fannie W. Kaan	Somerville High School and Salem Normal School	850	1882
"	Eudora Morey	Malden High and Bridge- water Normal School	850	1882
"	Bessie R. White	Colby University	800	1877
"	Josephine H. Short	Boston University	700	1887
"	Mabel S. Clark	Boston University	700	1890
Prescott	G. A. Southworth	Chicago, Ill., and Lowell (Mass.) High School	1,900	1873
"	Anna M. Bates	Salem High and Normal School	700	1874
"	Adelaide Reed	Bridgew'r Normal School	650	1877
"	Abbie A. Anderson	Stoughton High School and Canton Training School	600	1878
"	Emma M. Cate	High School, Winchester	600	1882

SCHOOLS AND TEACHERS. — *Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Salaries.	When Elected.
Prescott . . .	Amelia I. Sears . . .	Westfield Normal School	\$600	1873
" . . .	Catherine T. Brown . . .	Somerville High School . . .	600	1868
" . . .	Emma F. Porter . . .	Boston Normal School . . .	600	1890
" . . .	Clara Taylor . . .	Somerville High School . . .	600	1871
" . . .	Sarah E. Pratt . . .	Bridgewater Nor'l School	600	1877
" . . .	Elgina M. Plummer . . .	High School, Boston . . .	600	1877
" . . .	Florence M. Morton . . .	Somerville High School . . .	600	1882
" . . .	Ada Cowles . . .	Somerville High School . . .	600	1875
" . . .	*Louise E. Pratt . . .	Somerville High School . . .	500	1889
Elderly . . .	Charles E. Brainard . . .	High School, Danielsonville, Conn.	1,200	1889
" . . .	Addie L. Smith . . .	Malden High School . . .	675	1890
" . . .	Anne A. Iathrop . . .	Wellesley College and Harvard Annex . . .	600	1890
" . . .	Amy C. Hudson . . .	Somerville High School . . .	600	1885
" . . .	Lilla J. Pike . . .	High School and Academy, Salmon Falls, N. H. . . .	600	1887
" . . .	Enola C. Brainard . . .	Salem Normal School . . .	600	1888
" . . .	Gertrude L. Gardner . . .	R. I. State Normal . . .	600	1889
" . . .	Alice M. Dearing . . .	High School, Lisbon Falls, Me.	600	1890
" . . .	Lillian Nealley . . .	Salem Normal School . . .	600	1882
" . . .	Clara M. Bagley . . .	Somerville High School . . .	600	1873
" . . .	Martha M. Power . . .	Somerville High School and Quincy Training Class	300	—
Davis . . .	*Margaret A. Orr . . .	Bridgewater Normal Sch'l	200	—
" . . .	Lucretia A. Burns . . .	Framingham Nor'l School	675	1882
" . . .	Gertrude A. Earle . . .	Bridgewater Normal Sch'l	600	1884
" . . .	Annie J. Richardson . . .	Winchester High School	600	1889
" . . .	Priscilla A. Merritt . . .	Salem Normal School . . .	600	1885
L. V. Bell . . .	*Nettie M. Orne . . .	Somerville High School . . .	200	—
" . . .	Fred W. Shattuck . . .	Dartmouth College . . .	1,750	1890
" . . .	Abbie C. Hunt . . .	Ipswich Female Seminary	675	1873
" . . .	May E. Berry . . .	Somerville High School . . .	675	1880
" . . .	Nellie S. Dickey . . .	Quincy Training School . . .	600	1889
" . . .	Emma F. Schuh . . .	Somerville High School . . .	600	1874
" . . .	Alice I. Norcross . . .	High School	600	1885
" . . .	Nellie A. Knowlton . . .	Salem Normal School . . .	600	1887
" . . .	Anna L. Dickerman . . .	Bridgewater Normal Sch'l	600	1890
" . . .	Fannie A. Wilder . . .	High School and Academy	600	1874
" . . .	Mary A. Bradford . . .	Mt. Holyoke Seminary . . .	600	1888
" . . .	Gertrude E. Robbins . . .	Bridgewater Normal Sch'l	600	1888
" . . .	Mary S. Rinn . . .	Somerville High School . . .	500	1889
" . . .	Lilian A. Wellington . . .	Boston Normal School . . .	600	1889
" . . .	Eliza L. Schuh . . .	Somerville High School . . .	600	1882
" . . .	*Grace M. White . . .	Somerville High School . . .	200	—
Bow-street . . .	Hattie E. Richardson . . .	Somerville High School . . .	350	—

*Assistant.

SCHOOLS AND TEACHERS. — *Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected.
Prospect Hill.	Helen Tincker . . .	Mt. Holyoke Seminary and Salem Normal School .	\$700	1872
" "	Mary C. Jones . . .	Gorham (Me.) Nor'l Sch'l	600	1890
" "	Ellen Ledyard . . .	Somerville High School .	600	1874
" "	Maria Miller . . .	Somerville High School .	600	1869
" "	Kate R. Miles . . .	Somerville High School .	400	-
" "	Emily G. Arnold . . .	Bridgewater Nor'l School	500	1890
Cummings .	Lydia J. Page . . .	Somerville High School .	675	1869
" .	Addie M. Brown . . .	Somerville High School .	600	1886
" .	Ida F. Fillebrown . . .	Somerville High School .	600	1888
" .	Annie Coffin . . .	Somerville High School .	600	1884
Brastow . .	Lizzie W. Parkhurst .	Gloucester High and Training Schools . . .	625	1885
" . .	Lillian C. Albee . . .	High School, No. Attle- boro'	600	1888
Bennett . .	Mary B. Smith . . .	Maine Wes. Seminary .	675	1885
" . .	Florence O. Bean . . .	Framingham Normal Sch'l	600	1888
" . .	Annie G. Sheridan . . .	Salem Normal School .	600	1886
" . .	Isadore E. Taylor . . .	Somerville High School .	600	1883
" . .	*Frances M. Seymour .	Somerville High School and Quincy Training School	200	-
Jackson . .	Annie E. McCarty . . .	Somerville High School .	675	1880
" . .	Fannie L. Gwynn . . .	Salem Normal School . .	600	1886
" . .	Lena G. Allen . . .	Somerville High School .	600	1884
" . .	Annie E. Crimmings . .	Somerville High School .	600	1884
O. S. Knapp .	Harry N. Andrews . . .	Bridgewater Nor'l School	1,000	1890
" .	Rubie M. Stetson . . .	High School and Academy Hanover, Mass.	600	1888
" .	Carrie E. Cobb . . .	Taunton High School . . .	600	1887
" .	Nellie A. Hamblin . . .	Bridgewater Nor'l School	600	1882
" .	Maizie E. Blaikie . . .	Somerville High School .	300	-
" .	Annie E. Robinson . . .	Somerville High School .	600	1876
" .	Abbie A. Gurney . . .	Bridgewater Nor'l School	600	1888
" .	Lucia Alger . . .	Bridgewater Nor'l School	600	1889
Union . . .	Minnie A. Perry . . .	Salem Normal School . . .	350	-
Webster . .	Clara B. Parkhurst . . .	Salem Normal School . . .	675	1889
" . .	Nellie F. Sheridan . . .	Somerville High School .	400	1888
" . .	Annie L. Savage . . .	Salem Normal School . . .	600	1873
Forster . .	John S. Hayes . . .	Phillips Exeter Academy	1,800	1878
" . .	Mary E. Northup . . .	High School, Centreville	675	1878
" . .	Mary E. Stiles . . .	Farmington Nor'l School	600	1883
" . .	Minna L. Wentworth . .	High School, Salmon Falls, N. H.	600	1885
" . .	Blanche E. Heard . . .	Waltham New Church School	600	1890

* Assistant.

SCHOOLS AND TEACHERS. — *Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Salaries.	When Elected.
Forster . .	Frances M. Guptill . .	Training Department of Eliot Academy, Lebanon, Me.	\$600	1869
" . .	Lizzie A. Page	N. H. State Normal Sch'l	600	1899
" . .	Lizzie F. Clement . .	Tilton (N. H.) Seminary	600	1884
" . .	† Alice A. Batchelor . .	High School, Northboro', Mass.	600	1877
" . .	Addie S. Winnek	Salem Normal School . .	600	1883
" . .	Clara B. Cutler	Fitchburg High School . .	600	1890
" . .	Helen P. Bennett	N. H. Normal School . .	500	1890
" . .	Martha H. Pennock	Somerville High School . .	600	1873
" . .	Annie S. Gage	Somerville High School . .	600	1883
" . .	Harriet A. Brown	Westfield Normal School	600	1890
" . .	Clara A. Jordan	Gorham Normal School . .	600	1889
" . .	Emma Burckes	Somerville High School . .	300	1890
Bingham . .	† Mary A. Osborne	Quincy High and Training Schools	675	1885
" . .	Mrs. Cora E. Dimpsey . .	Boston University	675	1890
" . .	Alice Simpson	Newburyport High School	600	1872
" . .	Nora F. Byard	Somerville High School . .	600	1884
" . .	Laura C. Duddy	Salem Normal School . .	400	1889
" . .	* Florence E. Baxter	Somerville High School . .	200	—
Cedar-street	Alice M. Porter	Salem Normal School . .	600	1880
Morse . . .	Mina J. Wendell	High and Training Sch'ls, Woburn	1,600	1882
" . . .	Sarah S. Waterman	Bridgewater Nor'l School	675	1887
" . . .	Stella Hall	Salem Normal School . .	600	1884
" . . .	Pauline S. Downs	Cooper Union, New York City	600	1872
" . . .	Ella F. Gould	Lowell High School	600	1882
" . . .	† Anna E. Sawyer	Somerville High School . .	600	1873
" . . .	Mary A. Haley	Boston High School	600	1868
" . . .	Hallie M. Hood	Somerville High School . .	600	1884
" . . .	Ella G. Worden	Somerville High School . .	500	1890
" . . .	Mary E. Bosworth	State Nor'l School, N. H.	650	1882
" . . .	Ella P. McLeod	Boston High School	600	1888
" . . .	Anna Pushee	Bridgewater Nor'l School	600	1888
Franklin . .	Hattie A. Hills	Somerville High School . .	675	1874
" . . .	E. C. Summerhayes	High School, Nantucket . .	600	1876
" . . .	Anna C. Damon	Worcester State Normal School	600	1879
" . . .	Caroline S. Plimpton	Southbridge, Mass.	600	1859
" . . .	* Mary E. Lacy	Somerville High School . .	200	—
Beech-street	Emma T. Tower	Somerville High School . .	600	1890
Harvard . .	Florence B. Ashley	Somerville High School . .	600	1887
Burns . . .	Laura J. Brooks	Providence	675	1883

* Assistant.

† On leave of absence.

SCHOOLS AND TEACHERS. — *Concluded.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Salaries.	When Elected.
Burns . . .	Minnie S. Turner . . .	Somerville High School .	\$600	1885
" . . .	Annie L. Brown . . .	Cambridge High School .	600	1885
" . . .	Florence M. Hamlin . . .	Somerville High School .	400	1889
" . . .	*Anna Stetson . . .	Framingham Nor'l School and Kindergarten Train- ing School	500	-
Highland . .	George E. Nichols . . .	Dartmouth College . . .	1,800	1877
" . . .	M. Alice Paul . . .	Somerville High School .	675	1879
" . . .	Harriet B. Sargent . . .	Worcester Normal School	600	1887
" . . .	S. Adelaide Blood . . .	Salem Normal School . .	600	1882
" . . .	Mary H. Knight . . .	Gorham Normal School . .	600	-
" . . .	Annie R. Cox . . .	State Nor'l School, N. H.	600	1883
" . . .	Jennie C. Frazier . . .	Boston Normal School . .	600	1887
" . . .	Sarah E. Pray . . .	Somerville High School . .	600	1878
" . . .	Lilias M. Bryden . . .	Quincy Training School . .	600	1888
" . . .	Jenny M. Horner . . .	Somerville High School . .	500	1888
" . . .	Mary Winslow . . .	Boston High School . . .	500	1887
" . . .	Lucretia C. Sanborn . .	N. H. Normal School and Kindergarten	600	1888
Lincoln . . .	H. F. Hathaway . . .	Bridgewater Nor'l School	800	1890
" . . .	Carrie E. Fay . . .	. . . . .	600	1889
" . . .	Charlotte F. Mott . . .	Private School, Wadding- ton, N. Y.	600	1886
" . . .	†Annie C. Thayer . . .	Boston Normal School . .	600	1885
" . . .	Eliza H. Lunt . . .	Concord High School . . .	600	1890
Music . . .	S. Henry Hadley . . .	Somerville High School . .	1,333	1868
Drawing . .	L. A. Herrick . . .	Mass. Normal Art School	1,200	1888
Sewing . . .	Mrs. C. M. Coffin . . .	Nantucket High School . .	500	1888
" . . .	Mary L. Boyd . . .	. . . . .	500	1888
Phy'cal culture	C. Isabelle Livingstone	Framingham Nor'l School, Boston Normal School of Gymnastics	500	1890
Military drill .	Capt. S. T. Kirk . . .	. . . . .	200	1890

* Assistant.

† On leave of absence.

PUPILS.

Number of persons in the city on the first day of May last, between five and fifteen years of age 6,469
 Number between eight and fourteen years of age 3,916

	High School.	Grammar and Prim. Schools.	Total.
Whole number registered during the year	442	7,436	7,878
Average whole number	423	6,062	6,485
Average attendance	405	5,670	6,075
Per cent. of attendance	95.9	93.5	93.6
Number cases of tardiness	282	2,851	3,133
Number cases of dismissal	766	2,054	2,820
Number cases of punishment		650	650
Number pupils in attendance in January	415	5,712	6,127
Number pupils in attendance in December	470	6,078	6,548
Average number of pupils to a school		47.8	
Number pupils over fifteen years of age	389	346	735
Number pupils between 8 and 14 years of age	15	4,029	4,044

TABLE OF PUPILS BY GRADES.

(Number registered in December.)

Grades.	Class.	No. of Teachers.	Boys.	Girls.	Total.	No. Promoted to Higher Grade in June.	No. Double Promotion.
High	Fourth year	10	35	36	71	-	-
"	Third "		27	60	87	-	-
"	Second "		50	77	127	-	-
"	First "		75	110	185	-	-
			187	283	470		
Grammar . .	Ninth	7	158	171	329	306	-
"	Eighth	8	200	217	417	348	5
"	Seventh	11	268	227	495	400	15
"	Sixth	13	325	304	629	520	24
"	Fifth	13	339	300	639	536	14
"	Fourth	18	413	368	781	635	25
		70	1,703	1,587	3,290	2,745	83
Primary . .	Third	15	400	351	751	684	13
"	Second	18	453	369	822	737	15
"	First	34	667	548	1,215	643	37
		*67	1,520	1,268	2,788	2,064	65
Total		*147	3,410	3,138	6,548	4,809	148

* Including seven assistants, also two teachers whose schools have been discontinued.

EXHIBIT OF THE PUBLIC SCHOOLS.

SCHOOLS.	Whole Number Registered During the Year.	Average Whole Number.	Average Attendance.	Per Cent. of Attendance.	Number Cases of Tardiness.	Number Cases of Dismissal.	Number Cases of Punishment.	Number Pupils in Attendance in January.	Number Pupils in Attendance in December.	Average Number of Pupils to a School in December.	Number of Pupils Over 15 Years of Age.	Number of Pupils Between 8 and 14 Years of Age.
High	442	422.6	405.4	95.9	282	766	-	415	470	-	389	15
Forster	884	709	673	95.	54	164	12	678	709	47.3	72	510
Bingham	251	198.6	181.7	91.	70	59	1	201	226	56.5	-	140
Cedar-street	63	32.5	28.	86.	75	14	6	39	34	34.	-	1
Prescott	733	578.3	551.	94.1	67	96	48	556	567	47.3	52	443
Edgerly	537	444.3	423.4	95.3	64	94	32	420	467	46.7	15	316
Davis	280	197.9	184.8	93.4	43	53	30	194	199	49.8	1	109
L. V. Bell	713	665.8	624.1	93.	179	368	27	624	676	48.3	86	409
O. S. Knapp Union	205	400.	381.	95.3	150	108	18	95	405	45.	8	111
Prospect Hill	510	311.	286.	92.	128	74	18	374	313	52.	4	336
Cummings	288	198.	188.	94.	73	59	27	228	192	48.	-	103
Brastow	131	84.9	78.4	92.3	128	40	6	82	92	46.	-	44
Bennett	250	184.	164.3	89.2	347	86	123	183	199	50.	1	128
Jackson	284	187.4	172.3	92.4	178	54	93	216	193	48.3	-	126
Webster	191	127.3	120.1	94.	347	136	68	138	118	49.3	4	64
Somerville-ave. Kindergarten	62	41.	29.	70.7	87	5	-	27	-	-	-	-
Morse	619	607.3	571.4	94.	276	215	46	553	554	50.4	62	339
Franklin	289	219.4	205.1	93.5	92	40	21	193	235	47.	2	201
Harvard	71	44.4	40.2	89.9	60	13	12	34	53	53.	-	4
Burns	276	200.	187.5	93.8	89	112	12	209	185	46.3	-	186
Highland	575	462.4	427.7	92.4	295	203	41	488	482	48.2	33	334
Lincoln	225	168.4	159.4	94.6	44	61	9	176	180	45.	6	125
Total	7,878	6,484.5	6,074.8	93.6	3,133	2,820	650	6,127	6,548	51.5	735	4,044

ADDITIONAL STATISTICS OF THE HIGH SCHOOL.

Whole number of different pupils during the year	626
Largest number at one time	487
Number admitted during the year	211
“ from our Grammar Schools	184
“ from other schools	27
“ graduated	61
“ of graduates who entered college	17
“ “ “ “ Institute of Technology and Scientific School	6
“ who have left during the year exclusive of graduates,	95
Whole number at the present time, December, 1890	470
Average number to a teacher	47
Number over 15 years of age	420
“ in course preparatory to college	151
“ pursuing the regular course	246
“ “ “ English course	73
“ in the first class when it entered the school	149
“ “ “ at the present time	71
“ “ second class when it entered the school	175
“ “ “ at the present time	87
“ “ third class when it entered the school	187
“ “ “ at the present time	127
“ “ fourth class when it entered the school	196
“ “ “ at the present time	185

REPORT OF TRUANT OFFICER.

Number of visits to schools	526
“ absences investigated	424
“ cases of truancy	122
“ truants arrested	2
“ sent to House of Reformation	1

STATISTICS OF EVENING SCHOOLS.
(SEASON OF 1890-1.)

	No. Enrolled.	Average Attendance.	No. of Teachers.	No. of Sessions.	Cost of Instruction.	Cost of Janitors' Services.
Prescott School	80	34	4	45	\$294 50	\$47 00
L. V. Bell	155	51	7	45	376	47 00
Burns	54	32	3	41	246 50	47 00
Drawing School, } Free-hand	66	26	3	32	260 50	34 00
	77	41	3	32	250	34 00
Total	432	184	20		\$1,427 50	\$209 00

Cost of instruction	\$1,427 50
Cost of supplies	500 00
Cost of janitors' services	209 00
Total cost	\$2,136 50

PROGRAMMES OF SPECIAL TEACHERS.
SEWING TEACHERS.

	MRS. COFFIN.	MISS BOYD.
Monday	L. V. Bell School	Forster School.
Tuesday { A. M.	L. V. Bell School	Edgerly School.
	P. M. Burns School	Edgerly School.
Wednesday	Morse School	Prescott School.
Thursday { A. M.	Highland School	Prospect Hill and Jackson Schools.
	P. M. Highland School	Bingham and Davis Sch'ls.
Friday { A. M.	Brastow, Cummings, and Frank- lin Schools	O. S. Knapp School.
	P. M. Lincoln School	Forster School.

MR. HADLEY, SUPERVISOR OF MUSIC.

	SCHOOLS.
Monday A. M.	Edgerly, Burns, Bingham.
Tuesday { A. M.	L. V. Bell, Prospect Hill.
	P. M. Morse, Franklin.
Wednesday { A.M.	Knapp, Cummings, Webster, Prospect Hill, Bennett, Jackson.
	P. M. Highland, Lincoln.
Friday { A. M.	Prescott, Davis, Edgerly.
	12.10 to 1.30 High.
P. M.	Forster.

MISS LIVINGSTONE, TEACHER OF PHYSICAL TRAINING.

	MONDAY, P. M.	TUESDAY, P. M.	WEDNESDAY, P. M.
First week of each month .	Knapp and Webster Schools.	Prospect Hill Sch'l	Forster and Bingham Schools.
Second week of each month .	Morse School.	Highland School.	Davis and Brastow Schools.
Third week of each month .	L. V. Bell School.	Bennett and Jackson Schools.	Prescott School.
Fourth week of each month .	Lincoln and Burns Schools.	Franklin and Cummings Schools	Edgerly School.

On Monday, Tuesday, and Wednesday of each week, at half-past four o'clock, the teachers receive instruction in physical training in three classes, the Monday and Tuesday classes meeting at the Young Men's Christian Association Hall, Union square, and the Wednesday class at the Forster and Prescott Schools alternately.

PROGRAMME OF VISITS OF MISS HERRICK, SUPERVISOR OF DRAWING.

	DAYS.	A. M.	P. M.
For the weeks beginning October 6, November 3, December 1, January 12, February 9, March 16, April 13, May 18, June 15.	Monday Tuesday Wednesday Thursday Friday	Burns School High School Forster School Knapp School Morse School	Knapp School. Supplementary work. Supplementary work. Edgerly School. Prospect Hill School.
For the weeks beginning October 13, November 10, December 8, January 19, February 16, March 23, April 20, May 25, June 22.	Monday Tuesday Wednesday Thursday Friday	Bingham School High School Bell School Highland School Prescott School	Cedar-street School. Supplementary work. Webster School. Brastow and Cummings Sch'ls. Union School.
For the weeks beginning October 20, November 17, December 15, January 26, March 2, March 30, April 27, June 1, June 29.	Monday Tuesday Wednesday Thursday Friday	Jackson School High School Forster School Edgerly School Morse School	Cummings School. Supplementary work. Bennett School. Supplementary work. Prospect Hill School.
For the weeks beginning October 27, November 24, January 5, February 2, March 9, April 6, May 11, June 8.	Monday Tuesday Wednesday Thursday Friday	Lincoln School High School Bell School Highland School Prescott School	Franklin School. Supplementary work. Bell, Bow-street, and Harvard. Davis School. Supplementary work.

REPORT

OF THE

SOMERVILLE MYSTIC WATER BOARD.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 3, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 3, 1891.

Referred to the committee on printing, to be printed in the annual reports,
in concurrence.

CHAS. S. ROBERTSON, *Clerk.*

SOMERVILLE MYSTIC WATER BOARD, 1890.

ADNA C. WINNING, *President.*

WALTER C. MENTZER.

FRANK A. TITUS.

SAMUEL W. HOLT.

FRANK G. LOMBARD.

CLERK OF THE WATER BOARD.

FRANK E. MERRILL.

SUPERINTENDENT.

NATHANIEL DENNETT.

ASSISTANT SUPERINTENDENT.

FRANK E. MERRILL.

ENGINEER AT PUMPING STATION.

SIDNEY E. HAYDEN.

OFFICE OF THE WATER BOARD AND SUPERINTENDENT.

Prospect Street, corner of Somerville Avenue.

PUMPING STATION.

Cedar Street, near Broadway.

Regular meeting of the Water Board first Wednesday of each month. Bills against the department should be rendered to the clerk on or before the first day of each month, and are payable by the city treasurer on the fifteenth of the month.

REPORT
OF
SOMERVILLE MYSTIC WATER BOARD.

December 31, 1890.

To His Honor the Mayor and the City Council : —

GENTLEMEN, — The Somerville Mystic Water Board respectfully submit the seventeenth annual report of the condition of the water department for the year ending December 31, 1890, together with reports of the superintendent, clerk, and pumping engineer, to which reference may be had for details of the service connected with the department.

On account of the large and constantly increasing business of the water works, the Board early in the year decided to employ a permanent clerk, and was fortunate in being able to secure the services of Mr. F. E. Merrill, whose experience has proved of much value in many ways to this department. Mr. Merrill was afterward appointed assistant superintendent, and in this capacity has had charge of the services, acted as time-keeper, and otherwise relieved Superintendent Dennett of a portion of his duties.

No work of great importance has been instituted during the year, but a large amount has been done in the completion of the

work begun under the previous Board, and a greater than usual quantity of pipe-laying and regular work of the department to satisfy the demands of the community for water.

Lightning has again played havoc with our cement-lined pipe, the main in Hawthorne street being struck early in the summer and so badly riddled that it was necessary to relay the entire length of the street.

HIGH SERVICE.

The year just closed has been a memorable one in the history of the water works in this city, in that it has witnessed the introduction and successful operation of a high-service system, for which there has been a crying and just demand for many years.

Late in April the contractors for the pump and boiler notified us of the completion of their work and their readiness for the duty trial. On the 24th of April this took place, the result being entirely satisfactory in every respect to the Board, and later and continued use of the pump, boiler, and appurtenances only confirms our belief that the city is in possession of a pumping plant and high-service reservoir second to none of its size.

Following is the report of the Hon. C. E. Rymes, in whom the city was fortunate to secure a man in every way capable of superintending the mechanical construction of the work, and to whom the Board feels much is due for the general excellence of the plant:—

HON. C. E. RYMES' REPORT.

SOMERVILLE, May 12, 1890.

Somerville Mystic Water Board:—

GENTLEMEN,—I have attended to the duties which you appointed me to do as inspector in the erection of the stand-pipe and machinery for the high-water service system of the City of Somerville.

The erection of the stand-pipe was commenced by the contractors on the 9th of September, 1889, and completed on the 23d November, 1889. It was filled with water for the first time on the

1st of March, 1890, and proved to be remarkably tight, considering the necessarily large number of seams and rivets required in its construction.

The contractors have made it practically tight. Any moisture showing on the outside at the present time is more attributable to condensation of the atmosphere than to any leak. The material used in its construction is free from flaws or other imperfections, and the workmanship is good. Another coat of paint will be required on the outside surface, and I recommend a darker color, and that the painting be delayed until September or October.

At your request, I made plans for the chimney of the pumping station, the height being ninety-six feet; base, ten feet square, with a batter of $\frac{9}{32}$ inch on each side. The flue is circular, and entirely free to expand or contract without affecting the stack. The draft has proved to be excellent.

The pumping engines arrived at the station January 15th, 1890, and the contractors commenced the erection of them at once.

I will take this opportunity to say that at all times during the progress of the work the contractors were disposed to do anything which was suggested to them, so far as finish and the location of and general fitting of details were concerned, and I believe you have a thoroughly-constructed, first-class piece of work in every particular.

The boiler is made of steel, steams easily, and proved to be perfectly tight.

The pumps were started for the first time on the 28th of February, 1890; and the stand-pipe filled with water March 1st, 1890. With the exception of some trifling leaks in the piping, and a consequent difficulty in obtaining a suitable vacuum in the condenser, everything worked well; and after running the engines for a few days, and making such slight changes as were necessary, the vacuum was brought up to twenty-seven and one-half inches, and maintained at that point throughout the entire six hours' test, as shown by the figures given further along.

The duty trial was made on the 24th of April, 1890, the time of running was six hours, and the readings of the gauges, counter and stroke of pistons were taken every fifteen minutes during the time. The contractors' guarantee was that the pumps should deliver at the rate of 2,000,000 gallons of water in twenty-four hours, and that

50,000,000 foot pounds of water should be raised with each 100 pounds of coal consumed. One set of readings were taken by me and another by Mr. Caldwell, the chief of the testing department of the contractors. Each made his calculations separately, and the result was substantially the same, any variation being due to the use of fractions in the estimate. The following figures will show the result, which I have no hesitation in saying is much above the average duty as shown by engines of this size :—

RESULT OF SIX HOURS' DUTY TRIAL.

Diameter of water plungers	14	inches
Diameter of piston rod of pump	$2\frac{5}{8}$	inches
Average strokes per minute	32.591	
Average length of stroke	18.265	inches
Average steam pressure	61.666	pounds
Average vacuum	27.391	inches
Average water pressure, force main	94.083	pounds
Average back water pressure	37.416	pounds
Coal consumed	940	pounds
Gallons of water pumped	558,619	
Duty in foot pounds	64,601,609	

No allowance was made for slip, which would amount to not more than one per cent., neither was there any deduction for ashes made during the trial.

To conclude, I congratulate the Water Board on the very satisfactory result of their contracts, and the city that it has a plant for high-water service that is as perfect in its construction and detail as any other of the same magnitude in the country.

Very respectfully,

[Signed]

C. E. RYMES.

The Board elected Mr. Sidney E. Hayden as engineer at the pumping station, and his ability to properly handle the pump and

boiler has been made manifest to the Board, while his general care of the station and its appurtenances has been such as to meet our approval.

By the completion of the railroad bridge on Central street we are now enabled to reach the stand-pipe via Broadway and Central street, as contemplated in the original plan, and the pumping via Cedar street has been discontinued.

The section of the city now covered by the high-water service embraces the following streets:—

- Adams street, from Broadway, about 575 feet.
- Albion street, from Central street, about 1,350 feet.
- Aldersey street.
- Ames street.
- Bartlett street.
- Belmont street, from Highland avenue to Summer street.
- Benton avenue, from Highland avenue to Gibbens street.
- Bigelow street.
- Boston street.
- Brastow avenue.
- Broadway, from Cedar street to School street.
- Brooks street, from Main street to Heath street.
- Central street, from Broadway to Summer street.
- Chapel court.
- Chestnut court.
- Craigie street, from Summer street, about 850 feet.
- Dartmouth street, from Broadway to Evergreen avenue.
- Eastman place.
- Elm court.
- Forster street.
- Fremont street.
- Gibbens street.
- Grandview avenue.
- Greenville street.
- Harvard street, from Summer street to Beech street.
- High street.
- Highland avenue, from Cedar street to Walnut street.
- Hillside park.
- Hudson street, from Central street, about 125 feet.

Lowell street, from Summer street to Brastow avenue.
Madison street.
Main street, from Broadway to Fremont street.
Montrose street.
Montrose court.
Mountain avenue.
Munroe street.
Pleasant avenue.
Prospect Hill avenue.
Porter street, from Highland avenue to Summer street.
Robinson street.
Rustic avenue.
School street, from Highland avenue to Montrose street.
Spring street, from Summer street to Beech street.
Summer street, from Porter street to Central street.
Summit avenue.
Sycamore street, from Broadway to Medford street.
Sycamore street, from Highland avenue to Madison street.
Tennyson street, from Forster street, about 275 feet.
Thurston street extension, from Broadway, about 80 feet.
Vinal avenue, from Highland avenue to Aldersey street.
Walnut street, from Medford street to Bow street.

The system would have been extended farther had the condition of the pipe in other streets warranted its introduction, but the Board, having an insufficient amount of funds to do more than make a beginning of relaying the streets with suitable pipe, is obliged to confine the high pressure within the above limits, and recommends that an appropriation be made sufficiently large to enable the work to be carried to completion during the coming year.

The necessity of relaying Walnut street from Highland avenue to Columbus avenue and Sycamore street from Broadway to Medford street was found to be imperative to accommodate the high pressure, and these streets, with Forster and portions of Adams street and Boston street, comprise all the relaying that we have been able to do in high-service territory.

The Board is aware of a general feeling, in which it is also a sharer, that the high service is not yet what it ought to be nor what it was intended to be, and that, while it has benefited many, it has

also been a source of trouble and discomfort to others, which can only be remedied by carrying the system to completion, thus forming the circuits and obtaining a circulation of water in the pipes.

As bearing upon this very important matter, we cannot do better than to submit for your consideration portions of a communication to this Board from City Engineer Eaton, which explains in a simple manner the origin of the difficulty which is the source of complaint from many of our citizens, and confirms the expressed opinion of the Board as to the necessity of an early appropriation to enable the original plan to be carried to fulfilment : —

“ The distribution of the Somerville Water Works was designed as one system, and it has had to supply from one source and under one pressure, that due to the elevation of the Mystic Reservoir.

“ Every part of the system is dependent on every other part, and we cannot add to or take from the whole any part without affecting the capacity of the whole. If we add to the present system, we increase the consumption and decrease the head ; if we take from it by separating a certain part, or, in other words, divide the system into a high and low service, we decrease the pressure in both systems, unless both systems are remodelled and the distribution rearranged to meet the new conditions. It is the division of the system into a high and low service that has affected the low-service supply, and it will never be remedied until the high-service distribution has been relaid, as recommended in the report to the special committee of the City Council.

“ The effect of this division on the high and low service is thus explained : On the introduction of the high service as an independent system it was necessary to gate the mains at the line which divides the high and low service. Under the new condition in these mains which are thus gated there is no circulation. The high-service water runs into the high-service mains until it reaches the gates, and the low-service water runs into the low-service main until it reaches the gate ; there both lines stop and make in both high and low service what are called dead ends. There will be dead ends on all mains which cross the line dividing the high and low service. The effect of these dead ends is to cause the water to become muddy or discolored from lack of circulation ; to decrease the pressure in the low service, and to reduce the quantity of water which can be supplied to both high and low service, for the following reason :

the high and low service systems must of necessity be entirely independent of each other, as much so as if each system supplied a city entirely remote from the other. From a map of the high-service district, as recommended in the report of the special committee of the City Council, it can be readily seen that the high-service system separates from the low service a large area, and in this area are many mains which cross the city from north to south from the twenty-four-inch and thirty-inch supply mains, and act as feeders to maintain the pressure in the lower parts of the city, namely, Somerville avenue and Washington street, and the territory to the south to the Cambridge line. In this area also there are other mains in the streets which run east and west, namely, Summer street, Highland avenue, Medford street, and Broadway, which connect with mains running north and south and assist in maintaining the pressure. Now, by separating the high and low service, these mains above referred to are cut off and the assistance which they afforded in maintaining the pressure in the low service is lost.

“The effect of cutting off these mains will be evident if it is noticed that when the high-service system is in operation the only mains which supply Union square and vicinity are the eight-inch main in Somerville avenue, which connects with the twelve-inch on Central street; the eight-inch on Washington street, which has a six-inch connection with the thirty-inch in Pearl street by way of Cross and Tufts streets; and an eight-inch on Myrtle street, which connects with the thirty-inch on Pearl street. Whatever connection there may be with laterals would not be of any assistance, for any length of time, if a large supply of water was wanted in case of a large fire. So that practically the fire supply at Union square, at the present time, is what the eight-inch on Somerville avenue and Washington street will furnish, and must be a limited quantity.

“That the effect of separating the high and low service may be more apparent, it may be noticed that the eight-inch pipe on Highland avenue, the six-inch on Summer street, and the eight-inch on Medford street, all having a connection with the twelve-inch on Central street; and the four-inch on School street, the six-inch on Prescott street, the four-inch on Putnam street, the six-inch on Vinal avenue, the ten-inch on Walnut street, and the eight-inch on Boston street, all connecting with the mains that formerly supplied Union

square before the high service was introduced, — have all been cut off from the low service.

“It should also be stated that the mains which run to the north between Somerville avenue and Summer street are supplied now only from Somerville avenue. The quantity of water which these mains now deliver is but one-half what it formerly was before the high service was introduced; and in case of a large demand for fire purposes, the head will be very materially reduced, as was evident at the recent fire on Belmont street at the house of Maurice Terry, when the pressure was not sufficient to throw one hydrant stream as high as the eaves of the house.

“The inadequacy of the supply is still more evident when it is noticed that of the fourteen streets leading to the north from Somerville avenue and Elm street, between Cedar street and Bow street, in only two streets are the mains more than four inches in diameter; it is customary to use six-inch pipe for hydrant branches, and no through street should be laid with less than a six-inch pipe.

“For the same reasons, the high-service system on Winter Hill has reduced the capacity of the low-service mains.”

We further quote from the communication of City Engineer Eaton the following estimate of the cost of carrying the high-service system to completion, his figures not including the relaying of the cement-piped laterals, a matter which will soon become necessary, even under the low pressure which is now upon them:—

“That the high-service system be operative and the full benefit of the present pumping plant may be obtained, the following changes in the present mains are necessary; the estimate submitted covering the cost of the completion of the system as recommended in the report of the special committee of the City Council:—

ESTIMATED COST OF COMPLETION OF THE PROPOSED HIGH-SERVICE SYSTEM.

STREET.	FROM.	To.	Size.	Length in feet.	Estimat'd. Cost.
Highland Avenue . . .	Central Street . .	Walnut Street . . .	12 in.	2,800	\$6,000
Highland Avenue . . .	Walnut Street . .	Medford Street . . .	12 in.	1,550	3,200
Medford Street	Highland Avenue .	Prospect Hill Avenue }			
Summer Street	Central Street . .	Union Square . . .	10 in.	3,400	6,350.
Cedar Street	Highland Avenue .	Elm Street	12 in.	1,800	3,800.
Elm Street	Cedar Street . .	Somerville Avenue . .	12 in.	1,500	3,550
Somerville Avenue . . .	Elm Street . . .	Union Square . . .	12 in.	4,400	9,400.
Central Street	Highland Avenue .	Summer Street . . .	12 in.	2,100	4,400
School Street	Highland Avenue .	Somerville Avenue . .	12 in.	2,000	4,250.
Prospect Hill Avenue . .	Medford Street .	Munroe Street . . .	10 in.	500	650
Broadway	Central Street . .	School Street	12 in.	1,350	2,900
Medford Street	Lowell Street . .	Broadway	12 in.	400	800
School Street	Broadway	Richdale Avenue . .	10 in.	1,750	3,050
Richdale Avenue	School Street . .	Sycamore Street . . .	10 in.	950	1,700
Pembroke Street	Sycamore Street .	Central Street . . .	10 in.	700	1,120
Vernon Street	Central Street . .	Lowell Street	10 in.	1,400	2,450
Lowell Street	Vernon Street . .	Medford Street . . .	12 in.	1,300	2,850
Medford Street	Lowell Street . .	School Street	8 in.	3,100	4,150
					\$60,620
Add 10 per cent. for contingencies					6,062
					\$66,682

“In addition to the foregoing estimate, the following is respectfully submitted:—

STREET.	FROM.	To.	Size.	Length in feet.	Estimat'd Cost.
Lowell Street	Vernon Street . .	Somerville Avenue .	12 in.	3,700	\$8,700
Summer Street	Cedar Street . .	Central Street . . .	10 in.	2,550	4,050
Albion Street	Cedar Street . .	Central Street . . .	8 in.	2,700	3,900
					\$16 650
Add 10 per cent. for contingencies					1,665
					\$18 315

“It is intended that the proposed twelve-inch on Lowell street shall be used as a second force main in case of an accident to the fourteen-inch, and as a supplementary force main when the consumption increases beyond the capacity of the fourteen-inch force main.

“The above estimates cover the cost of setting new hydrants, but do not include the cost of making changes in the house services from the low to the high service, nor for relaying the cement pipe.”

STAND-PIPE.

The stand-pipe has recently been recaulked and painted, and the grounds about the same have been brought to grade, walks laid out and concreted, and the lot enclosed with a substantial fence, all under the direction of the City Engineer.

PUMPING STATION.

The pumping station is in excellent condition, but the grounds about the building should be filled in and graded so as to present a more favorable comparison with the structure upon them.

The Board considered plans for a coal-shed to be constructed near the station, but it was finally decided to make use of a temporary arrangement, as there was a unanimity of feeling in the Board

that the shop and yard of the works should be located at the pumping station lot, and the property on Prospect street, which is poorly arranged and fitted for so extensive a business as is now done, should be sold or devoted to other purposes for which it is more valuable ; and the Board would recommend the early erection of a brick building adjoining the pumping station, to be constructed for the accommodation of fuel and to contain suitable apartments for the horses, wagons, tools, etc., a workshop and a room for tarring and lining the pipe used for services.

The Board also recommends the early purchase of a second boiler and connections, so that the service may not be interrupted in case of a disabling injury or necessity of repairs in the boiler now in use.

CONSTRUCTION.

Perhaps nothing is more indicative of the growth of the city than the demand which is made upon the Board for the construction of mains in new streets which are being rapidly opened up for settlement and the extensions of the pipes into territory hitherto unoccupied. In this respect, also, the year 1890 is a notable one in the history of the water works in this city, for in no other year has there been such a call for new pipe ; and while the Board has weighed carefully every such request, and looked conservatively at the matter of construction, we have found that in every case the interests of the city would be served by granting the requests of the petitioners, and by the favorable action of the City Council in increasing the appropriation we have been enabled to do so in nearly every instance.

One has only to drive through the streets of this city and witness the transformation of former large estates and farming districts into streets and house lots, which are being rapidly taken up and occupied, to realize that for the next few years the city's account for "Extension of the Water Works" will be a large and important item, and a matter which should be regarded in a broad light and met in a liberal spirit by coming City Councils.

We have frequent occasion to realize that the pipe laid in previous years was insufficient in size, and was put in rather for present need than in anticipation of the city's growth ; but it must now be evident that we are to be a populous city, and, moreover, that certain localities are destined to become manufacturing centres in the future,

and that property adjacent to railroads and along the water front will be occupied by large buildings. Large mains will be required in these localities to furnish sufficient fire protection. If larger pipes are laid, it will be done in keeping with the practice in all other suburban cities, as they are remodelling their distribution and relaying with larger mains.

HYDRANTS.

Abundant fire protection in a city growing under the conditions of our own is a matter of paramount importance. To secure this an abundance of fire hydrants is necessary, and, while a larger number have been set during the past season than in any previous year, the Board would recommend that a special annual appropriation be made for the purpose of covering our territory with these appliances as numerous as the needs of the districts may require.

MAINTENANCE.

Of the maintenance of the works much may be said, and while the Board is not unmindful of the fact that certain recommendations have in the past been made to the City Council, we should feel derelict in our duty if we did not again bring them before your attention and urge their speedy adoption.

It is not the first time that a water board has brought to the notice of the City Council the fact that a very large part of the pipe which is now conveying water through our streets is of the old cement-lined, contract-made kind, which was understood when laid to be serviceable for only five years, but some of which has now been in use for twenty-two years. We have rapidly increasing evidences every year, however, that this pipe has outlived its usefulness. These evidences are not confined to any one locality, but come to us from all sections of the city where the pipe is laid; and the breaks upon it have been so numerous during the year now closing, and the drain upon the maintenance appropriation for repairs, that are but temporary at best, is so large and so constant, that the Board can but feel it to be in every way for the interests of the city to make an appropriation for the speedy removal of all the cement pipe within its borders and the substitution therefor of cast-iron pipe. The first

cost of making this change would be large, but the interest on the amount required would not much exceed the cost of repairs on the old pipe, compensation for damages, etc., to say nothing of the grave responsibilities of the city in case of fire, at which time the consequences of a broken main might prove very disastrous.

The Board is convinced that the safety limit of the cement pipe as a whole has already been reached, and that in its present condition it is a standing menace to our city.

The breaks in the pipe at the westerly end of Somerville avenue became so numerous that it was found necessary to relay that portion from the junction of Elm street to Mossland street with iron pipe.

The section of the city from Davis square to Church street is now supplied by a six-inch cement pipe, and the Board feels that this is altogether too small to supply the needs of that territory at the present day, and especially to furnish adequate fire protection. This pipe should be replaced with a twelve-inch iron pipe, as should also its feeder in Cedar street, from Elm street to Highland avenue. This portion of the city would then have an ample supply for domestic and fire purposes, and the circulation over a much larger territory would be benefited thereby.

Another feeding and distributing main of great importance is the one in Washington street, from Myrtle street to Union square. This should also be replaced at once with a sixteen-inch iron pipe to secure a proper degree of safety for this part of the city. In very many streets where it will be found necessary to remove cement pipe, the iron pipe to be substituted therefor should be of a larger size, to properly supply the present increase in population as well as in anticipation of the city's future growth. The population has increased from 9,353 in 1865, about the year the water was introduced, to 43,000 in 1890, nearly five times as large as in 1865; yet the distribution is planned on the same scale as in 1871. The city is destined to grow in a much larger ratio in the next thirty years than the last; and it may not be too high an estimate to make that in the next thirty years the population may increase to 140,000.

It has been carefully estimated on the basis of population in the thickly settled eastern portion of our city that the territory within our limits will comfortably contain about 180,000 inhabitants, and in the laying out of permanent works, as are those connected with the

water supply, a constantly increasing and, before the lapse of many years, a very large population should be anticipated.

As cast-iron water pipe has been used for fifty years and at the end of that time has been found to be in good condition, it will certainly be proper that this city should provide for the future wants of the people more liberally than in the past.

Altogether, a large sum of money can be judiciously expended in the maintenance of the works at the present day, but the work being once and properly done, the necessity for further expenditure would be reduced to a minimum.

Attention has also been called, and we wish to renew it, to the fact that the City of Cambridge has a large amount of pipe in our streets which we could replace with our own at a cost of not over \$10,000, and which would yield us a revenue of about \$2,500 per year, or enough in four years to pay the entire cost of making the change and bring us in handsome returns annually thereafter. We regard the extension of all pipe as a paying investment, and looking at this particular matter from a purely business standpoint, we consider the opportunity a most favorable one, and would therefore urge, for the city's benefit, the advisability of an appropriation for this purpose the coming year.

SERVICES.

The applications for service pipes have largely exceeded any previous year, the number laid in 1890 being 562.

MYSTIC WATER WORKS.

The extension and completion of the high-service system will probably largely increase the daily average consumption, and will, undoubtedly, in a short time, severely tax the storage capacity of the tank on Spring Hill. It will be found that it will soon be necessary to run the pump for the larger part of the day to maintain the pressure in the mains. This extra work at the pumping station will increase the cost of pumping and the wear and tear on the pumping plant; and it will be but a short time before the additional cost of pumping will amount to more than the interest on the cost of a new tank. A matter, therefore, which must receive early consideration is that of an additional stand-pipe for the high-service system. This

second stand-pipe was provided for in the original plan of the high-service system, its location to be on the summit of Winter Hill. This, however, does not satisfactorily settle the problem which must sooner or later present itself, viz., supplying all sections of the city with the high pressure. The Board has considered this matter to some extent, and feels that the City of Boston now holds the key to the simplest solution of the matter in its possession of the plant of the Mystic Water Works.

If this city owned the Mystic plant, a stand-pipe could be constructed on the reservoir grounds at College Hill, of sufficient size to furnish the entire western, northern, and eastern portions of the city with the high pressure, the present pumping plant taking care of the central and southern sections.

The stand-pipe could be supplied by the equipment which is now in the Mystic pumping station, and about the only expense necessary to be incurred would be the construction of the stand-pipe and a force main from the pump to the reservoir.

The Board would recommend that the next City Council take active steps toward the acquisition by the City of Somerville of the Mystic Water Works, believing that the interests of the City of Boston in the same at the present time are such that a change of ownership could be made on favorable terms.

We firmly believe it to be for the interest of this city to obtain control of this system of water supply, if possible.

Charlestown being now connected with the Cochituate system, Somerville, Chelsea, and Everett will soon be the only takers of the Mystic supply, and Boston's interest in what is to them practically an outside affair cannot reasonably be expected to be very great. The system is one, however, in which Somerville should take a very active interest, this being its only available source of water supply, and for this reason, if no other, steps should be taken toward protection* from possibilities of a waning interest in our sister city. Mystic Lake being fed by springs, the water is naturally pure, and it is expected that when the Metropolitan sewer is completed, and the drainage from the towns now bordering upon the lake is thus disposed of, the quality of the water will be much improved, and, with a reasonable degree of effort, further pollution can be checked.

As an investment, moreover, we should very favorably regard the purchase of the works, if a satisfactory arrangement could be

made. The amounts paid for water during the last year were as follows: —

Somerville	\$100,283 16
Chelsea	73,076 58
Everett	19,886 20
	<hr/>
A total of	\$193,245 94

Under the terms of the present contract a rebate would be made to

Chelsea	\$36,538 29
Everett	9,943 10
	<hr/>
	\$46,481 39

leaving, on this basis, an income of \$146,764.55 if the works were operated by the City of Somerville, or, deducting operating expenses, the net profits would be nearly, if not quite, double our present income under our contract with Boston. It is safe to say, also, that the expenses of maintaining the works could be very materially reduced from the amount charged to this account by the City of Boston.

As a matter of interest in this connection we add a few statistical tables and leave the subject, hoping the City Council will take it up, and give it the consideration which it deserves.

LENGTH OF SUPPLY MAINS IN FEET TO JAN. 1, 1890.

	3 in.	4 in.	6 in.	8 in.	10 in.	12 in.	14 in.	16 in.	18 in.
Somerville	7,455	89,342	140,389	41,896	8,704	8,614	8,037	-	387
Chelsea	18,640	79,268	38,987	11,487	20,127	-	-	1,460	-
Everett	914	47,005	47,591	2,681	7,128	-	-	-	-

SERVICES TO JAN. 1, 1890.

	Number.	Length.
Somerville	5,885	201,704 ft.
Chelsea	5,035	135,185 ft.
Everett	1,750	32,280 ft.

RECEIPTS FROM WATER RATES FROM JAN. 1, 1889, TO JAN. 1, 1890.

Somerville	\$81,533 61
Chelsea	61,311 90
Everett	17,823 25

RECEIPTS FROM METERS.

Somerville	\$18,750 05
Chelsea	11,764 68
Everett	2,062 95

NUMBER AND CLASS OF PREMISES SUPPLIED WITH
MYSTIC WATER IN CITY OF SOMERVILLE IN 1890.

Dwelling-houses	6,271
Families in the same	8,770
Model houses	160
Families in the same	565
Stables	935
Stores and shops	260
Manufactories	41
Hall and club rooms	30
Schoolhouses	29
Churches	25
Offices	21
Laundries	18
Bakeries	11
Greenhouses	10
Printing offices	7
Engine-houses	6
Masons' cellars	4
Saloons	4
Photograph saloons	3
Rock crusher	1
Fire hydrants	86
Miscellaneous	44

NUMBER AND KIND OF FIXTURES IN CITY OF
SOMERVILLE IN 1890.

Water takers	7,869
Taps	2,509
Sinks	11,309
Bowls	3,939
Water-closets, street pressure	2,689
Water-closets, tank pressure	5,248
Water-closets, hopper	19
Water-closets, waste	44
Water-closets, flush	17
Bath-tubs	3,419
Slop-hoppers	18
Wash-tubs	3,139
Foot-tubs	9
Urinals, automatic	50
Urinals, plain	20
Private hydrants	8

In conclusion, we desire to express our appreciation of the readiness with which City Engineer Eaton has responded to the several calls which we have made upon him for advice and assistance, and to acknowledge the ability which Superintendent Dennett has displayed in carrying to completion the work which he has been called upon to perform.

ADNA C. WINNING.
SAMUEL W. HOLT.
FRANK A. TITUS.
WALTER C. MENTZER.
FRANK G. LOMBARD.

FRANK E. MERRILL'S REPORT.

OFFICE OF THE SOMERVILLE MYSTIC WATER BOARD, }
SOMERVILLE, December 31, 1890. }

MR. A. C. WINNING, *President Somerville Water Board*: —

In accordance with your request, I present herewith a statement showing details of maintenance and construction for the year 1890.

The following accounts appear upon the books of the department: —

Books, stationery, and printing	\$61 26
Cement	193 45
Chimney at pumping station (balance of contract)	793 55
Claims	1,497 48
Carpentering	425 89
Fuel	693 99
Freight and express	493 60
Gas and electricity	91 24
Grain and feed	458 60
Hay and straw	172 41
Harnesses, etc.	90 20
High-service (sundry expenses)	1,373 13
Horses	350 00
Horse doctoring	11 00
Horseshoeing	107 36
Hydrants and stand-pipes	1,189 66
Insurance	151 88
Labor	27,725 04
Lanterns and oil	78 69
Lumber	239 88
Main pipe and fittings	18,257 28
Office expenses and repairs	45 10
Packing	122 19

Pattern work	\$227 05
Pig-lead	1,596 57
Plumbing	231 51
Powder and fuse	79 30
Pump and boiler (balance of contract) .	8,700 00
Pump and boiler (sundry expenses) . . .	309 49
Pumping station (balance of contract) .	1,850 00
Pumping station (sundry expenses) . . .	350 75
Repairs of hydrants	120 95
Repairs of harnesses	40 00
Repairs of tools	267 61
Repairs of wagons	137 45
Repairs of streets and sidewalks	59 27
Repairing embankment on Broadway . . .	401 59
Reporting leaks	47 00
Salaries	2,986 25
Stable expenses and repairs	78 18
Stable supplies	33 70
Stand-pipe and grounds (bal. of contract) .	4,296 00
Stand-pipe and grounds, painting	250 00
Stand-pipe and grounds, grading	830 80
Stand-pipe and grounds, fence	233 90
Stand-pipe and grounds (sundry expenses)	94 15
Sundry materials	608 19
Sundry expenses	13 48
Service pipe and fittings	4,338 05
Teaming	1,526 76
Tools	559 96
Telephone rentals	162 25
Water	11 20

The cost of relaying and extending main pipe is shown in the following table : —

Adams street	500	feet	8-inch pipe,	\$549 37
Aldersey street	29	"	6 " "	58 33
Albion street	214	"	6 " "	266 42
Ames street	612	"	6 " "	570 73.

Adrian street	225½ feet	6-inch pipe,	\$246 95
Bartlett street	7 "	6 " "	} 1,025 53
Bartlett street	757 "	8 " "	
Beacon street	75 "	8 " "	158 10
Benton avenue	227 "	6, " "	253 81
Billingham street (all ledge),	608 "	6 " "	792 57
Bond street	148 "	8 " "	277 27
Boston street	620 "	6 " "	} 1,245 89
Boston street	457 "	8 " "	
Bradley street	157 "	6 " "	183 86
Campbell park	1,067 "	6 " "	848 95
Chandler street (all ledge),	582 "	6 " "	1,083 71
Chestnut court	400 "	2 " "	219 00
Columbus avenue	7 "	6 " "	} 330 82
Columbus avenue	180 "	8 " "	
Central-street bridge, low- service main	96 "	12 " "	} 2,335 86
Central-street bridge, high- service main	108 "	14 " "	
Central-street bridge, blow- offs	150 "	4 " "	
Central-street bridge, drain connections	108 "	10 " "	
Dell street	240 "	4 " "	129 79
Derby street	498 "	6 " "	542 62
Dickinson street	5 "	6 " "	} 990 86
Dickinson street	588 "	10 " "	
Elm street	117 "	6 " "	148 80
Emery street	252 "	6 " "	222 77
Endicott avenue	441 "	6 " "	534 43
Evergreen avenue	175 "	2 " "	74 84
Forster street	516 "	6 " "	306 06
Francesca avenue (ledge).	10 "	6 " "	} 531 32
Francesca avenue (ledge).	325 "	8 " "	
Fremont street	102 "	6 " "	86 70
Fountain avenue	91 "	4 " "	76 46
Glen street	128 "	6 " "	169 88
Gorham street	418 "	6 " "	399 17

Grand View avenue	40	feet	6-inch pipe,	\$59 75
Granite street (all ledge)	61	"	6 " "	165 06
Grant street	77	"	6 " "	102 93
Hammond street	291	"	6 " "	326 54
Harrison street	301	"	6 " "	264 89
Harris street	163	"	2 " "	105 20
Hawthorne street	436	"	4 " "	316 34
Henderson street	3	"	4 " "	} 447 48
Henderson street	433	"	6 " "	
Holland street (near City Farm)	144	"	2 " "	65 42
Horace street	433	"	6 " "	} 480 90
Horace street	96	"	8 " "	
Hudson street	215	"	6 " "	} 1,120 63
Hudson street	666	"	8 " "	
Jaques street	8	"	6 " "	27 40
Jenny Lind avenue	9	"	4 " "	} 178 62
Jenny Lind avenue	179	"	6 " "	
Joseph street	369	"	6 " "	362 26
Kidder avenue (ledge)	286	"	6 " "	468 58
Lake street	365	"	6 " "	247 92
Lawrence street	438	"	6 " "	449 71
Lee street	5	"	6 " "	} 588 60
Lee street	410	"	8 " "	
Main street	308	"	6 " "	313 19
Medford street	406 $\frac{1}{2}$	"	6 " "	505 21
Mossland street	50	"	12 " "	174 19
Nashua street	652	"	6 " "	655 46
North street	489	"	6 " "	577 35
Oxford street	7	"	4 " "	} 365 32
Oxford street	526	"	6 " "	
Pauline street	2	"	10 " "	} 230 19
Pauline street	226	"	6 " "	
Park place	150	"	2 " "	60 33
Pearl street	571	"	6 " "	674 56
Porter street	440 $\frac{1}{2}$	"	6 " "	454 15
Pleasant avenue	45	"	6 " "	60 99
Raymond avenue	1,386	"	6 " "	1,382 11
Richardson street	92	"	6 " "	124 24

Richdale avenue	210	feet	6-inch pipe,	\$146 23
Robinson street	7	"	6 " "	} 932 24
Robinson street	660	"	8 " "	
Rustic avenue	247	"	4 " "	315 72
Sewall street	331	"	6 " "	290 42
School street	406	"	6 " "	168 32
South street	6	"	6 " "	} 1,192 49
South street	594	"	10 " "	
Somerville avenue	52	"	6 " "	} 1,928 92
Somerville avenue	958	"	8 " "	
Somerville avenue	156	"	12 " "	
Summit avenue	48	"	6 " "	62 06
Summit street (ledge)	67	"	6 " "	83 75
Sycamore street	1,284	"	8 " "	1,584 40
Taunton street	235	"	2 " "	136 60
Thurston-street extension	104	"	6 " "	178 31
Trull street	8	"	6 " "	} 1,018 79
Trull street	762	"	8 " "	
Union square —				} 276 70
setting hydrant	8	"	4 " "	
and connecting	2	"	6 " "	
with reservoir	62	"	8 " "	
Union square — connec-				
tion Bow street	88	"	8 " "	222 60
Walnut street	4	"	6 " "	} 3,210 38
Walnut street	1,734	"	10 " "	
Ward street	8	"	6 " "	} 958 53
Ward street	463	"	10 " "	
Wesley street (part ledge),	241	"	6 " "	333 31
William street	187	"	6 " "	194 17
Wilton street	4	"	4 " "	} 635 05
Wilton street	519	"	6 " "	

These figures include gates and hydrants set in connection with the work on above-named streets. In addition, seventeen hydrants

have been located, at a cost of \$888.25, and eight gates have been set, at a cost of \$360.00.

The following table shows the location of breaks on main pipe from April 14, and cost of repairing the same :—

April 14,	Vernon street	\$10 11
“ 16,	Vernon street	9 43
“ 16,	Gilman street	9 43
“ 24,	Broadway	20 47
“ 24,	Broadway	7 85
“ 24,	Forster street	11 43
“ 24,	Walnut street	13 43
“ 24,	Walnut street	13 43
“ 24,	Highland avenue	26 01
“ 24,	Thorpe place	18 35
“ 24,	Hamlet street	9 85
May 1,	Medford street	14 11
“ 7,	High street	5 50
“ 8,	Walnut street	13 53
“ 8,	Boston street	13 85
“ 8,	Chestnut court	9 11
“ 9,	Boston street	12 70
“ 9,	Walnut street	12 70
“ 22,	Boston street	12 68
“ 30,	Walnut street	13 21
“ 30,	Summit avenue	13 53
“ 30,	Boston street	13 21
June 2,	Adams street	10 11
“ 2,	Forster street	11 61
“ 6,	Webster avenue	13 95
“ 6,	Summer street	12 90
“ 12,	Hawthorne street	39 28
“ 13,	Murdock street	17 33
“ 14,	Walnut street	13 78
“ 15,	Murdock street	15 33
“ 16,	Adams street	13 11
“ 16,	Chester court	11 85

June	19,	Meacham street	\$11 46
"	21,	Walnut street	12 74
"	21,	Hamlet street	10 00
"	23,	Adams street	9 43
"	25,	Glen street	6 35
"	27,	Boston street	18 05
"	27,	Boston street	18 20
"	27,	Chester avenue	9 40
July	1,	Somerville avenue	10 79
"	2,	Somerville avenue	11 10
"	5,	Somerville avenue	10 43
"	5,	High street	5 33
"	5,	Boston street	3 43
"	7,	Medford street	12 86
"	7,	Boston street	9 10
"	7,	Medford street	21 36
"	10,	Vinal avenue	13 33
"	11,	Vinal avenue	13 33
"	12,	Vinal avenue	11 83
"	16,	Homer square	7 43
"	22,	Medford street	5 00
"	23,	Summer street	28 34
"	23,	Cherry street	11 46
"	23,	Elm street	8 25
"	26,	Chestnut court	6 85
Aug.	10,	Spring street	12 98
"	12,	Adams street	10 43
"	21,	Pleasant avenue	15 46
"	22,	Franklin avenue	8 25
"	26,	Adams street	11 43
Sept.	6,	High street	13 03
"	6,	Ashland street	8 80
"	8,	Washington street	20 38
"	9,	Hamlet street	4 25
"	9,	Summit avenue	13 43
"	10,	Hamlet street	6 45
Nov.	9,	Vernon street	9 78
"	9,	Columbus avenue	10 80
"	16,	Webster street	15 33

Nov. 16,	Marion street	\$5 35
“ 19,	Waverley street	6 25
“ 20,	Mystic avenue	11 33
“ 22,	Mystic avenue	21 08
“ 22,	Franklin avenue	12 75
Dec. 14,	Spring street	20 25
“ 23,	School street	18 75

The number of service pipes laid in 1890 is 562; length, three miles 4,309 feet; cost of same, \$9,691.29; average cost of services, \$17.25.

Repairs of service pipe and fittings have been made at a cost to the city of \$497.35.

STOCK AVAILABLE FOR FUTURE USE JANUARY 1, 1891.

Special castings, 57,977 lbs.	\$1,739 31
Cast-iron pipe, 136 $\frac{2}{3}$ tons	4,590 80
Hydrants, 9	307 35
Gates, 30	565 00
Gate boxes, 14	56 00
Total value	<u>\$7,258 46</u>

Respectfully submitted,

FRANK E. MERRILL, *Clerk.*

SIDNEY E. HAYDEN'S REPORT.

HIGH-SERVICE PUMPING STATION, }
SOMERVILLE, Dec. 31, 1890. }

MR. A. C. WINNING, *President Somerville Mystic Water Board*: —

Below please find statement of the work performed by the high-service pump from May 1 to December 31, inclusive, 1890: —

Number of days on which pump was run	245
Total pumping time in hours	735
Average pumping time per day in hours	3
Total number of strokes of pump	3,039,730
Average number of strokes per minute	34.46
Number of tons coal consumed	117 $\frac{420}{2000}$
Total gallons of water pumped, allowing one per cent. for loss of head	70,719,319
Average number gallons of water pumped per hour	96,217
Average number gallons of water pumped per pound of coal used, no deduction for ashes nor heating	301.7
Average steam pressure	53 lbs.
Average back-water pressure	40 lbs.

Respectfully submitted,

SIDNEY E. HAYDEN, *Engineer*.

NATHANIEL DENNETT'S REPORT.

To the Somerville Mystic Water Board: —

GENTLEMEN, — I present a detailed report of the work of the Somerville Mystic Water Works performed under my supervision during the year ending December 31, 1890. An inventory of tools, appliances, and stock on hand is included.

During the year the works have been extended by mains laid in the following streets: —

EXTENSION OF MAIN PIPE.

Adrian street, 96 feet of 6-inch.

Adrian street, Joseph street to dead end, 129.5 feet of 6-inch.

Albion street, dead end westerly, 214 feet of 6-inch.

Ames street, Central street to Bartlett street, 612 feet of 6-inch.

Bartlett street, dead end to Medford street, 757 feet of 8-inch.

Bartlett street, connected at Medford street, 7 feet of 6-inch.

Beacon street, dead end to Dickinson street, 75 feet of 8-inch.

Benton avenue, Gibbens street northeasterly, 227 feet of 6-inch.

Billingham street, William street to Broadway, 608 feet of 6-inch.

Bond street, Broadway northeasterly, 148 feet of 8-inch.

Boston street, Washington street northerly, 620 feet of 6-inch.

Bowman place, Broadway northerly, 247 feet of 4-inch.

Bradley street, Pearl street northeasterly, 157 feet of 6-inch.

Campbell park, Meacham street to Meacham street, 1,067 feet of 6-inch.

Chandler street, Chapel street northerly, 217 feet of 6-inch.

Columbus avenue, Walnut street easterly, 180 feet of 8-inch.

Columbus avenue, 7 feet of 6-inch.

Cook street, Marion street to Wyatt street, 235 feet of 2-inch.

- Dell street, Glen street northwesterly, 240 feet of 4-inch.
Derby street, dead end southeasterly, 498 feet of 6-inch.
Dickinson street, Beacon street to Leon street, 588 feet of 10-inch.
Dickinson street, 5 feet of 6-inch.
Elm street, Kidder avenue northerly, 117 feet of 6-inch.
Emery street, Ward street to South street, 252 feet of 6-inch.
Endicott avenue, Broadway southerly, 441 feet of 6-inch.
Evergreen avenue, Thurston street westerly, 175 feet of 2-inch.
Forster street, 23 feet of 6-inch.
Fountain avenue, dead end to Glen street, 91 feet of 4-inch.
Francesca avenue, Elm street easterly, 325 feet of 8-inch.
Francesca avenue, 10 feet of 6-inch.
Fremont street, Main street northerly, 102 feet of 6-inch.
Glen street, Fountain avenue to Dell street, 128 feet of 6-inch.
Granite street, dead end northerly, 61 feet of 6-inch.
Grant street, Broadway northerly, 77 feet of 6-inch.
Gorham street, Holland street southerly, 418 feet of 6-inch.
Hammond street, Concord avenue to Dickinson street, 291 feet of 6-inch.
Hanson street, 301 feet of 6-inch.
Harris street, Beacon street southerly, 163 feet of 2-inch.
Hawthorne street, 5 feet of 4-inch.
Henderson street, Wilton street to Richardson street, 433 feet of 6-inch.
Henderson street, 3 feet of 4-inch.
Hudson street, 125 feet of 6-inch.
Hudson street, 666 feet of 8-inch.
Holland street, Lawrence street northerly, 144 feet of 2-inch.
Horace street, South street northerly, 433 feet of 6-inch.
Horace street, 96 feet of 8-inch.
Jaques street, 8 feet of 6-inch.
Jenny Lind avenue, 9 feet of 4-inch.
Jenny Lind avenue, dead end northerly, 179 feet of 6-inch.
Joseph street, Concord avenue to Adrian street, 369 feet of 6-inch.
Kidder avenue, Elm street easterly, 286 feet of 6-inch.
Lawrence street, Wilton street to Richardson street, 438 feet of 6-inch.
Lee street, 5 feet of 6-inch.

Lee street, Richardson street northerly, 410 feet of 8-inch.

Main street, Moreland street northwesterly, 308 feet of 6-inch.

Medford street, School street southeasterly, 406.5 feet of 6-inch.

Mossland street, Somerville avenue northerly, 50 feet of 12-inch.

Nashua street, Wilton street to Richardson street, 652 feet of 6-inch.

North street, Raymond avenue northerly, 489 feet of 6-inch.

Oxford street, dead end to dead end, 526 feet of 6-inch.

Oxford street, 7 feet of 4-inch.

Park place, Laurel street easterly, 150 feet of 2-inch.

Pauline street, Holland street northerly, 226 feet of 6-inch.

Pauline street, 2 feet of 10-inch.

Pearl street, James street to Wigglesworth street, 571 feet of 6-inch.

Porter street, Mountain avenue to Highland avenue, 440.5 feet of 6-inch.

Raymond avenue, Curtis street to North street, 1,386 feet of 6-inch.

Richardson street, dead end to Lawrence street, 92 feet of 6-inch.

Richdale avenue, dead end to School street, 114 feet of 6-inch.

Richdale avenue, dead end westerly, 96 feet of 6-inch.

Robinson street, Ames street to Bartlett street, 660 feet of 8-inch.

Robinson street, 7 feet of 6-inch.

Sewall street, dead end to Grant street, 331 feet of 6-inch.

School street, Oakland avenue to Evergreen avenue, 248 feet of 6-inch.

School street, Medford street to Richdale avenue, 158 feet of 6-inch.

South street, Medford street to Emery street, 594 feet of 10-inch.

South street, 6 feet of 6-inch.

Summit street, dead end to Billingham street, 67 feet of 6-inch.

Thurston street, 104 feet of 6-inch.

Trull street, Vernon street northerly, 762 feet of 8-inch.

Trull street, 8 feet of 6-inch.

Union square, 115 feet of 8-inch.

Union square, 2 feet of 6-inch.

Union square, 8 feet of 4-inch.

Ward street, Medford street to Emery street, 463 feet of 10-inch.

Ward street, 8 feet of 6-inch.
 Wesley street, Pearl street northerly, 241 feet of 6-inch.
 William street, Billingham street easterly, 187 feet of 6-inch.
 Wilton street, 519 feet of 6-inch.
 Wilton street, 4 feet of 4-inch.
 Winslow avenue, 9 feet of 4-inch.
 Total, 23,533.5 feet.

STREETS RELAID.

Adams street, 500 feet of 8-inch in place of 6-inch.
 Aldersey street, 29 feet of 6-inch in place of 4-inch.
 Boston street, 457 feet of 8-inch in place of 4-inch.
 Chandler street, 365 feet of 6-inch in place of 2-inch.
 Chestnut court, 400 feet of 2-inch in place of 3-inch.
 Forster street, 493 feet of 6-inch in place of 4-inch.
 Grand View avenue, 40 feet of 6-inch in place of 4-inch.
 Hawthorne street, 431 feet of 4-inch in place of 4-inch.
 Hudson street, 90 feet of 6-inch in place of 4-inch.
 Irving street, 8 feet of 8-inch in place of 6-inch.
 Lake street, 365 feet of 6-inch in place of 4-inch.
 Pleasant avenue, 45 feet of 6-inch in place of 4-inch.
 Summer street, 34 feet of 12-inch in place of 6-inch.
 Summit avenue, 48 feet of 6-inch in place of 4-inch.
 Somerville avenue, 958 feet of 8-inch in place of 4-inch.
 Somerville avenue, 52 feet of 6-inch in place of 4-inch.
 Somerville avenue, 156 feet of 12-inch in place of 4-inch.
 Sycamore street, 1,284 feet of 8-inch in place of 4-inch.
 Union square, 35 feet of 8-inch in place of 6-inch.
 Walnut street, 1,734 feet of 10-inch in place of 4-inch.
 Total, 7,024 feet.

There were seventy-one breaks and leaks on the cement mains as follows: Eight on 3-inch; twenty-one on 4-inch; twenty on 6-inch; fifteen on 8-inch; five on 10-inch; two on 12-inch.

The streets referred to in my last report have given considerable trouble during the year from leaks and breaks, and will have to be relaid or extensively repaired the coming season.

The following table shows hydrants and gates set in 1890 : —

STREET.	HYDRANTS.			GATES.								
	Chap.	Hopkins or Boston Machine.	Holyoke or Bigelow.	2''	3''	4''	6''	8''	10''	12''	14''	
Adams Street . .	1	-	-	-	-	-	-	-	-	-	-	-
Albion Street . .	-	-	1	-	-	-	-	-	-	-	-	-
Aldersey Street . .	-	-	-	-	-	-	1	-	-	-	-	-
Ames Street . . .	-	-	-	-	-	-	2	-	-	-	-	-
Benton Avenue . .	-	-	-	-	-	-	1	-	-	-	-	-
Billingham Street .	-	-	1	-	-	-	-	-	-	-	-	-
Billingham Street .	-	-	-	-	-	-	1	-	-	-	-	-
Boston Street . . .	-	-	-	-	-	-	-	1	-	-	-	-
Boston Street . . .	-	-	-	-	-	-	1	-	-	-	-	-
Bowman Place . . .	-	1	-	-	-	1	-	-	-	-	-	-
Bradley Street . . .	-	-	-	-	-	-	1	-	-	-	-	-
Campbell Park . . .	-	-	-	-	-	-	2	-	-	-	-	-
Central Street . . .	-	-	-	-	-	-	-	-	-	2	-	-
Central Street . . .	-	-	3	-	-	-	-	-	-	-	-	-
Chandler Street . .	1	-	-	-	-	-	-	-	-	-	-	-
Chandler Street . .	-	-	-	-	-	-	1	-	-	-	-	-
Columbus Avenue . .	-	-	1	-	-	-	-	-	-	-	-	-
Columbus Avenue . .	-	-	-	-	-	-	-	1	-	-	-	-
Day Street	2	-	-	-	-	-	-	-	-	-	-	-
Delaware Street . .	1	-	-	-	-	-	-	-	-	-	-	-
Dickinson Street . .	-	-	1	-	-	-	-	-	-	-	-	-
Dickinson Street . .	-	-	-	-	-	-	-	1	-	-	-	-
Elm Street	3	-	-	-	-	-	-	-	-	-	-	-
Emery Street	-	-	-	-	-	-	1	-	-	-	-	-
Endicott Avenue . .	-	-	1	-	-	-	-	-	-	-	-	-
Endicott Avenue . .	-	-	-	-	-	-	1	-	-	-	-	-
Fairmount Avenue . .	-	1	-	-	-	-	-	-	-	-	-	-
Forster Street . . .	-	-	-	-	-	-	2	-	-	-	-	-
Fountain Avenue . .	-	-	-	-	-	1	-	-	-	-	-	-
Francesca Avenue . .	-	-	-	-	-	-	-	1	-	-	-	-
Gorham Street	-	-	†1	-	-	-	-	-	-	-	-	-
Grand View Ave. . .	-	-	-	-	-	-	1	-	-	-	-	-
Hammond Street . . .	-	1	-	-	-	-	-	-	-	-	-	-
Hammond Street . . .	-	-	-	-	-	-	1	-	-	-	-	-
Harris Street	-	-	-	1	-	-	-	-	-	-	-	-
Hawthorne Street . .	-	-	-	-	-	1	-	-	-	-	-	-
Hawthorne Street . .	-	-	1	-	-	-	-	-	-	-	-	-
Henderson Street . . .	1	-	-	-	-	-	-	-	-	-	-	-
Henderson Street . .	-	-	-	-	-	-	1	-	-	-	-	-
Herbert Street	1	-	-	-	-	-	-	-	-	-	-	-
Highland Ave. at Central Street . . .	-	-	-	-	-	-	-	-	-	1	-	-
Holland Street	-	-	-	-	-	-	-	-	2	-	-	-
(Ward Four)												
Holland Street	-	-	-	1	-	-	-	-	-	-	-	-
(Ward Three.)												
Horace Street	-	-	-	-	-	-	1	1	-	-	-	-
Hudson Street	-	-	-	-	-	-	-	1	-	-	-	-
Irving Street	1	-	-	-	-	-	-	-	-	-	-	-
Kidder Avenue	-	-	-	-	-	-	1	-	-	-	-	-
Lawrence Street . . .	-	-	-	-	-	-	1	-	-	-	-	-
Lawrence Street . . .	-	-	1	-	-	-	-	-	-	-	-	-

† Bigelow.

STREET.	HYDRANTS.			GATES.							
	Chap.	Hopkins or Boston Machine.	Holyoke or Bigelow.	2//	3//	4//	6//	8//	10//	12//	14//
Lee Street . . .	-	-	-	-	-	-	1	-	-	-	-
Main Street . . .	-	-	-	-	-	-	1	-	-	-	-
Main Street . . .	-	-	1	-	-	-	-	-	-	-	-
Medford Street . . .	-	-	-	-	-	-	1	-	-	-	-
Medford Street . . .	2	-	-	-	-	-	-	-	-	-	-
Mossland Street . . .	-	-	-	-	-	-	-	-	-	1	-
Nashua Street . . .	-	-	-	-	-	-	1	-	-	-	-
Nashua Street . . .	-	-	†1	-	-	-	-	-	-	-	-
North Street . . .	-	-	1	-	-	-	-	-	-	-	-
Park Place . . .	-	-	-	-	1	-	-	-	-	-	-
Pauline Street . . .	-	-	-	-	-	-	1	-	-	-	-
Pearl Street . . .	-	-	-	-	-	-	2	-	-	-	-
Pearl Street . . .	-	-	2	-	-	-	-	-	-	-	-
Pleasant Avenue . . .	-	-	-	-	-	-	1	-	-	-	-
Porter Street . . .	1	-	-	-	-	-	1	-	-	-	-
Raymond Avenue . . .	-	-	-	-	-	-	2	-	-	-	-
Richardson Street . . .	-	-	-	-	-	-	1	-	-	-	-
Richdale Avenue . . .	-	-	-	-	-	-	1	-	-	-	-
Robinson Street . . .	-	-	-	-	-	-	-	2	-	-	-
Robinson Street . . .	-	-	1	-	-	-	-	-	-	-	-
School Street . . .	-	-	-	-	-	-	1	-	-	-	-
Sewall Street . . .	-	-	-	-	-	-	1	-	-	-	-
Somerville Avenue . . .	-	-	-	-	-	-	-	2	-	-	-
Somerville Avenue . . .	-	-	3	-	-	-	-	-	-	-	-
South Street . . .	-	-	-	-	-	-	-	-	1	-	-
South Street . . .	1	-	1	-	-	-	-	-	-	-	-
Summit Avenue . . .	-	-	-	-	-	-	1	-	-	-	-
Sycamore Street . . .	-	2	-	-	-	-	-	-	-	-	-
Thurston Street . . .	-	-	-	-	-	-	1	-	-	-	-
Trull Street . . .	-	-	1	-	-	-	-	-	-	-	-
Trull Street . . .	-	-	-	-	-	-	-	1	-	-	-
Union Square . . .	-	-	-	-	-	-	-	1	-	-	-
Union Square . . .	-	-	-	-	1	-	-	-	-	-	-
Union Square . . .	-	*1	-	-	-	-	-	-	-	-	-
Vinal Avenue . . .	-	-	-	-	-	-	2	-	-	-	-
Walnut Street . . .	-	-	-	-	-	-	-	-	3	-	-
Walnut Street . . .	1	-	-	-	-	-	-	-	-	-	-
Ward Street . . .	2	-	-	-	-	-	-	-	-	-	-
Ward Street . . .	-	-	-	-	-	-	-	-	1	-	-
Wilton Street . . .	-	-	-	-	-	-	2	-	-	-	-
Wilton Street . . .	-	-	2	-	-	-	-	-	-	-	-
Winslow Avenue . . .	-	-	†1	-	-	-	-	-	-	-	-
	18	6	25	2	1	4	39	12	7	4	-

Hydrants: Chapman, 18; Boston Machine, 5; * Hopkins, 1; Holyoke, 22; † Bigelow, 3.

HYDRANT LOCATIONS.

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam r.	Hose.
Adams St.	240 ft. south of Broadway	High.	Chapman.	1	2
Adams St.	300 ft. north of Medford St.	High.	Boston Machine.	-	2
Adrian St.	118 ft. east of Marion St.	Low.	Boston Machine.	1	2
Allen St.	9 ft. north of Charlestown St.	Low.	Bigelow.	-	2
Albion St.	78 ft. west of Central St.	High.	Boston Machine.	-	2
Albion St.	312 ft. west of Central St.	High.	Boston Machine.	1	2
Albion St.	234 ft. east of Lowell St.	High.	Holyoke.	1	2
Appleton St.	Cor. Clifton St.	Low.	Boston Machine.	-	2
Allston St.	12 ft. west of Shawmut Pl.	Low.	Coffin.	-	2
Auburn Ave.	519 ft. west of Cross St.	Low.	Boston Machine.	-	2
Austin St.	82 ft. south of Mystic Ave.	Low.	Boston Machine.	-	2
Austin St.	66 ft. north of Benedict St.	Low.	Chapman.	1	2
Avon St.	585 ft. west of School St.	Low.	Boston Machine.	-	2
Beacon St.	300 ft. east from west end of Beacon St.	Low.	Boston Machine.	-	2
Beacon St.	84 ft. east of Harris St.	Low.	Boston Machine.	1	2
Beacon St.	46 ft. west of Sacramento St.	Low.	Boston Machine.	1	2
Beacon St.	15 ft. west of Kent St.	Low.	Boston Machine.	-	2
Beacon St.	Corner Ivaloo St.	Low.	Boston Machine.	1	2
Beacon St.	72 ft. east of Park St.	Low.	Chapman	1	2
Beacon St.	22 ft. east of Durham St.	Low.	Holyoke.	-	3
Beacon St.	260 ft. east of Washington St.	Low.	Bigelow.	-	2
Beacon St.	219 ft. west of Cooney St.	Low.	Chapman.	1	2
Beacon St.	222 ft. east of Buckingham St.	Low.	Holyoke.	-	2
Beech St.	Corner Spring St.	High.	Boston Machine.	-	2
Belmont St.	454 ft. south of Highland Ave.	High.	Holyoke.	1	2
Belmont St.	255 ft. north of Summer St.	High.	Holyoke.	1	2
Belmont St.	228 ft. north of Pitman St.	Low.	Boston Machine.	1	2
Benedict St.	34 ft. east of Mystic St.	Low.	Boston Machine.	1	2
Berkeley St.	8 ft. east of Central St.	Low.	Chapman.	1	2
Berkeley St.	103 ft. east of Hersey St.	Low.	Boston Machine.	1	2
Berkeley St.	28 ft. west of School St.	Low.	Holyoke.	1	2
Billingham St.	129 ft. north of William St.	Low.	Holyoke.	-	2
Bonair St.	Opposite Autumn St.	Low.	Bigelow.	1	2
Bonair St.	62 ft. east of Walnut St.	Low.	Bigelow.	1	2
Boston St.	213 ft. west of Bigelow St.	High.	Coffin.	-	2
Boston St.	90 ft. east of Bigelow St.	High.	Chapman.	1	2
Bow St.	125 ft. west of Union Sq.	Low.	Boston Machine.	1	2
Bow St.	Junction Summer and Bow Sts.	Low.	Holyoke.	-	3
Bow St.	Opposite Bow St. Pl.	Low.	Chapman.	1	2
Bowdoin St.	68 ft. north of Fremont Ave.	Low.	Boston Machine.	1	2
Bowman Pl.	192 ft. north of Broadway	Low.	Holyoke.	1	2
Brastow Ave.	212 ft. east of Porter St.	High.	Boston Machine.	1	2
Broadway	28 ft. west of George St.	Low.	Holyoke.	-	2
Broadway	21 ft. west of Broadway Pl.	Low.	Chapman.	1	2
Broadway	Corner Glen St.	Low.	Boston Machine.	-	2
Broadway	15 ft. west of Cross St.	Low.	Boston Machine.	-	2
Broadway	33 ft. west of Walnut St.	Low.	Coffin.	1	2
Broadway	250 ft. west of Edmund St.	Low.	Boston Machine.	-	2
Broadway	174 ft. west of Grant St.	Low.	Holyoke.	-	3
Broadway	Opposite Marshall St.	Low.	Holyoke.	1	2
Broadway	Corner School St.	Low.	Holyoke.	1	2
Broadway	Opposite School St.	Low.	Flush.	-	-
Broadway	Corner Thurston St.	Low.	Holyoke.	1	2
Broadway	240 ft. east of Central St.	High.	Holyoke.	1	2
Broadway	24 ft. east of Adams St.	High.	Boston Machine.	1	2

HYDRANT LOCATIONS. — *Continued.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam'r.	Hose.
Broadway . . .	12 ft. west of Norwood Ave.	High.	Boston Machine.	1	2
Broadway . . .	324 ft. west of Hinckley St.	High.	Boston Machine.	1	2
Broadway . . .	246 ft. east of Cedar St.	High.	Holyoke Gate.	1	2
Broadway . . .	180 ft. west of Wilson Ave.	Low.	Chapman.	1	2
Broadway . . .	40 ft. west of Packard Ave.	Low.	Boston Machine.	1	2
Broadway . . .	180 ft. east of Endicott Ave.	Low.	Boston Machine.	1	2
Broadway . . .	175 ft. east of North St.	Low.	Boston Machine.	-	2
Broadway . . .	415 ft. west of North St.	Low.	Boston Machine.	-	2
Broadway . . .	East corner Mt. Vernon St.	Low.	Flush.	-	-
Broadway . . .	West corner Lincoln St.	Low.	Flush.	-	-
Broadway . . .	West corner Franklin St.	Low.	Flush.	-	-
Brook St. . . .	18 ft. West of Rush St.	Low.	Boston Machine.	-	2
Buckingham St.	Corner Dimick St.	Low.	Bigelow.	-	2
Cameron Ave. .	Opposite Mead St.	Low.	Boston Machine.	1	2
Cameron Ave. .	438 ft. south of Mead St.	Low.	Chapman.	1	2
Cedar St. . . .	20 ft. south of Broadway	High.	Boston Machine.	-	2
Cedar St. . . .	270 ft. south of Broadway	High.	Holyoke.	1	2
Cedar St. . . .	24 ft. south of Murdock St.	Low.	Holyoke.	1	2
Cedar St. . . .	50 ft. north of Clyde St.	Low.	Holyoke.	1	2
Cedar St. . . .	124 ft. south of Warwick St.	Low.	Holyoke.	1	2
Cedar St. . . .	14 ft. north of Albion St.	Low.	Holyoke.	1	2
Cedar St. . . .	14 ft. north of Highland Ave.	Low.	Holyoke.	1	2
Cedar St. . . .	Opposite Sartwell Ave.	Low.	Boston Machine.	-	2
Central St. . . .	75 ft. south of Broadway	High.	Holyoke Gate.	1	2
Central St. . . .	6 ft. north of Forster St.	High.	Holyoke Gate.	1	2
Central St. . . .	9 ft. north of Vernon St.	High.	Holyoke.	-	3
Central St. . . .	200 ft. south of Vernon St.	High.	Holyoke Gate.	1	2
Central St. . . .	8 ft. north of Albion St.	High.	Holyoke Gate.	1	2
Central St. . . .	Corner Summer St.	Low.	Boston Machine.	1	2
Chandler St. . .	16 ft. south of Broadway	Low.	Chapman.	1	2
Chandler St. . .	216 ft. north of Park Ave.	Low.	Chapman.	1	2
Chauncey Ave. .	9 ft. north of Jaques St.	Low.	Boston Machine.	1	2
Chester St. . . .	15 ft. north of Chester Pl.	Low.	Boston Machine.	1	2
Chestnut St. . .	420 ft. south of Poplar St.	Low.	Chapman.	1	2
Church St. . . .	9 ft. south of Summer St.	Low.	Holyoke Gate.	1	2
Church St. . . .	327 ft. south of Summer St.	Low.	Boston Machine.	-	2
Church St. . . .	16 ft. south of Somerville Ave.	Low.	Holyoke.	1	2
Clark St.	200 ft. west of Newton St.	Low.	Boston Machine.	-	2
Clyde St.	Corner Murdock St.	Low.	Holyoke.	-	3
Columbus Ave. .	144 ft. east of Bonner Ave.	Low.	Bigelow.	-	2
Columbus Ave. .	123 ft. west of Bonner Ave.	Low.	Boston Machine.	1	2
Columbus Ave. .	8 ft. east of Walnut St.	Low.	Holyoke Gate.	1	2
Concord Ave. . .	90 ft. east of Concord Sq.	Low.	Chapman.	1	2
Concord Ave. . .	30 ft. east of Springfield St.	Low.	Coffin.	1	2
Concord Ave. . .	20 ft. east of Wyatt St.	Low.	Bigelow	-	2
Conwell Ave. . .	465 ft. west of Curtis St.	Low.	Bigelow.	-	2
Cragie St.	555 ft. south of Summer St.	High.	Boston Machine.	1	2
Cragie St.	400 ft. north of Somerville ave.	Low.	Boston Machine.	1	2
Crescent St. . . .	Opposite Hadley St.	Low.	Boston Machine.	-	2
Cross St.	Corner Otis St.	Low.	Boston Machine.	1	2
Cross St.	Corner Pearl St	Low.	Bigelow.	-	2
Cross St.	16 ft. north of Gilman St.	Low.	Chapman.	1	2
Curtis St.	146 ft. north of Professors' Row	Low.	Boston Machine.	1	2
Curtis St.	Opposite Raymond Ave.	Low.	Boston Machine.	-	2
Curtis St.	100 ft. north of Fairmount Ave.	Low.	Boston Machine.	1	2
Cutter St.	309 ft. west of Webster St.	Low.	Boston Machine.	1	2
Cutter St.	290 ft. south of Broadway, w. line	Low.	Flush.	-	-

HYDRANT LOCATIONS.—*Continued.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam f.	Hose.
Dane St.	9 ft. north of Tyler St.	Low.	Holyoke.	-	3
Dane St.	112 ft. south of Skehan St.	Low.	Boston Machine.	-	2
Dane Ct.	510 ft. east of Dane St.	Low.	Boston Machine.	-	2
Dartmouth St.	312 ft. south of Broadway	High.	Coffin.	1	2
Dartmouth St.	57 ft. south of Evergreen Ave.	Low.	Coffin.	1	2
Dartmouth St. . .	180 ft. north of Medford St.	Low.	Holyoke.	1	2
Day St.	30 ft. south of Herbert St.	Low.	Chapman.	1	2
Day St.	Corner Orchard St.	Low.	Chapman.	1	2
Delaware St. . . .	270 ft. east of Aldrich St.	Low.	Chapman.	1	2
Dickinson St. . . .	12 ft. east of Beacon St.	Low.	Chapman.	1	2
Dover St.	326 ft. south of Davis Sq.	Low.	Holyoke.	1	2
Dover St.	71 ft. north of Orchard St.	Low.	Boston Machine.	-	2
Durham St.	54 ft. south of Hanson St.	Low.	Bigelow.	-	2
Elm St.	275 ft. west of Cragie St.	Low.	Bigelow.	-	2
Elm St.	Corner Linden Ave.	Low.	Holyoke.	1	2
Elm St.	9 ft. west of Cedar St.	Low.	Holyoke.	-	3
Elm St.	6 ft. west of Cherry St.	Low.	Holyoke.	-	3
Elm St.	58 ft. east of Willow Ave.	Low.	Boston Machine.	-	2
Elm St.	90 ft. east of Tenny St.	Low.	Boston Machine.	-	2
Elm St.	18 ft. west of Grove St.	Low.	Boston Machine.	-	2
Elm St.	86 ft. west of Chester St.	Low.	Chapman.	1	2
Elm St.	10 ft. north of Winter St.	Low.	Chapman.	1	2
Elm St.	6 ft. south of Morrison St.	Low.	Chapman.	1	2
Elm St.	9 ft. south of William St.	Low.	R. D. Wood.	1	2
Endicott Ave. . . .	430 ft. south of Broadway	Low.	Holyoke.	-	3
Evergreen Ave. . . .	8 ft. east of School St.	Low.	Boston Machine.	-	2
Everett Ave.	200 ft. east of Dana St.	Low.	Boston Machine.	-	2
Everett St.	Opposite Emerson St.	Low.	Chapman.	1	2
Fairmount Ave. . . .	590 ft. west of Curtis St.	Low.	Boston Machine.	-	2
Farragut Ave.	254 ft. south of Broadway	Low.	R. D. Wood.	1	2
Farragut Ave.	550 ft. south of Broadway	Low.	R. D. Wood.	1	2
Fiske Ave.	126 ft. east of Hinckley St.	Low.	Chapman.	1	2
Fitchburg St.	401 ft. east of Linwood St.	Low.	Holyoke.	1	2
Florence St.	222 ft. south of Perkins St.	Low.	Holyoke.	1	2
Florence St.	486 ft. north of Washington St.	Low.	Boston Machine.	-	2
Forster St.	Opposite Tennyson St.	High.	Bigelow.	-	2
Franklin St.	14 ft. north of Arlington St.	Low.	Holyoke.	-	2
Franklin St.	80 ft. south of Webster St.	Low.	Holyoke.	1	2
Franklin St.	165 ft. south of Pearl St.	Low.	Holyoke.	-	3
Franklin St.	87 ft. south of Oliver St.	Low.	Chapman.	1	2
Franklin St.	96 ft. south of Palmer Ave.	Low.	Chapman.	1	2
Franklin St.	29 ft. north of Washington St.	Low.	Chapman.	1	2
Fremont St.	86 ft. north of Main St.	High.	Chapman.	1	2
Fremont St.	350 ft. north of Main St.	High.	Boston Machine.	-	2
Garden Ct.	475 ft. south of Somerville Ave.	Low.	Holyoke.	1	2
George St.	224 ft. west of Mt. Vernon St.	Low.	Boston Machine.	-	2
Gibbens St.	206 ft. west of Central St.	High.	Chapman.	1	2
Gibbens St.	129 ft. west of Benton Ave.	High.	Boston Machine.	1	2
Gilman St.	240 ft. east of Walnut St.	Low.	Boston Machine.	-	2
Gilman St.	180 ft. east of Aldrich St.	Low.	Boston Machine.	-	2
Glen St.	9 ft. north of Brooks St.	Low.	Holyoke.	-	3
Glen St.	Corner Flint St.	Low.	Boston Machine.	1	2
Gorham St.	Corner Howard St.	Low.	Bigelow.	1	2
Grand View Ave. . . .	288 ft. east of Vinal Ave.	High.	Boston Machine.	1	2

HYDRANT LOCATIONS. — *Continued.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam'r.	Hose.
Hammond St. . .	30 ft. west of Dickinson St.	Low.	Boston Machine.	-	2
Hanson St. . .	40 ft. north of Skehan St.	Low.	Holyoke.	-	2
Harvard St. . .	15 ft. north of Beach St.	High.	Boston Machine.	1	2
Hawkins St. . .	50 ft. east of Lake St.	Low.	Chapman.	1	2
Hawthorne St. .	340 ft. west of Willow Ave.	Low.	Holyoke.	1	2
Heath St. . . .	51 ft. west of Temple St.	Low.	Chapman.	1	2
Heath St. . . .	320 ft. west of West St.	Low.	Chapman.	1	2
Heath St. . . .	Corner Bond St.	Low.	Chapman.	1	2
Heath St. . . .	Corner Moreland St.	Low.	Chapman.	1	2
Henderson St. .	159 ft. north of Wilton St.	Low.	Chapman.	1	2
Herbert St. . .	192 ft. east of Day St.	Low.	Chapman.	1	2
High St.	114 ft. west of Boston St.	High.	Boston Machine.	1	2
Highland Ave. .	Corner Medford St.	Low.	Chapman.	1	2
Highland Ave. .	Corner Walnut St.	High.	Bigelow.	1	2
Highland Ave. .	88 ft. east of Vinal Ave.	High.	Bigelow.	1	2
Highland Ave. .	318 ft. west of School St.	High.	Holyoke.	-	2
Highland Ave. .	114 ft. east of Sycamore St.	High.	Bigelow.	1	2
Highland Ave. .	Corner Central St.	High.	Boston Machine.	1	2
Highland Ave. .	28 ft. west of Belmont St.	High.	Holyoke Gate.	1	2
Highland Ave. .	180 ft. west of Lowell St.	High.	Holyoke.	-	3
Highland Ave. .	Corner Porter St.	High.	Holyoke.	-	3
Highland Ave. .	Corner Eastman Pl.	High.	Holyoke.	-	3
Highland Ave. .	36 ft. east of Fanning Ave.	Low.	Holyoke.	-	3
Highland Ave. .	Corner Willow Ave.	Low.	Holyoke.	-	3
Highland Ave. .	Opposite West St.	Low.	Holyoke.	-	3
Highland Ave. .	6 ft. west of Grove St.	Low.	Boston Machine.	1	2
Highland Ave. .	60 ft. east of Davis Sq.	Low.	Holyoke.	-	4
Holland St. . . .	42 ft. west of Dover St.	Low.	Chapman.	1	2
Holland St. . . .	36 ft. east of Winter St.	Low.	Coffin.	1	2
Holland St. . . .	105 ft. west of Irving St.	Low.	Chapman.	1	2
Holland St. . . .	77 ft. east of Elmwood St.	Low.	Coffin.	1	2
Holland St. . . .	117 ft. west of Cameron Ave.	Low.	Boston Machine.	1	2
Holland St. . . .	80 ft. east of Newbury St.	Low.	Boston Machine.	1	2
Houghton St. .	200 ft. east of Springfield St.	Low.	Holyoke.	-	2
Irving St. . . .	6 ft. south of Broadway	Low.	Chapman.	1	2
Irving St. . . .	300 ft. south of Broadway	Low.	Boston Machine.	1	2
Irving St. . . .	420 ft. north of Holland St.	Low.	Boston Machine.	-	2
James St.	100 ft. north of Pearl St.	Low.	Boston Machine.	-	2
Jaques St. . . .	9 ft. west of Grant St.	Low.	R. D. Wood.	1	2
Jaques St. . . .	254 ft. west of Grant St.	Low.	Coffin.	1	2
Jaques St. . . .	190 ft. west of Temple St.	Low.	R. D. Wood.	1	2
Jaques St. . . .	300 ft. east of Bond St.	Low.	R. D. Wood.	1	2
Jay St.	90 ft. north of Howard St.	Low.	Boston Machine.	-	2
Joy St.	36 ft. south of Washington St.	Low.	Chapman.	1	2
Joy St.	440 ft. south of Washington St.	Low.	Chapman.	1	2
Joy St.	285 ft. south of Poplar St.	Low.	Chapman.	1	2
Kent Ct.	285 ft. west of Kent St.	Low.	Coffin.	-	2
Kingman Ct. . .	300 ft. south of Washington St.	Low.	Chapman.	1	2
Lake St.	205 ft. west of Hawkins St.	Low.	Boston Machine.	-	2
Lake St.	Corner Carleton St.	Low.	Chapman.	1	2
Laurel St. . . .	300 ft. south of Summer St.	Low.	Bigelow.	1	2
Lawrence St. .	9 ft. south of Richardson St.	Low.	Holyoke.	1	2
Lincoln St. . . .	Opposite Arlington St.	Low.	Boston Machine.	-	2
Linden St. . . .	33 ft. north of Charlestown St.	Low.	Boston Machine.	1	2

HYDRANT LOCATIONS. — *Continued.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam'r.	Hose.
Line St. . . .	500 ft. west of Cooney St.	Low.	Boston Machine.	1	2
Linwood St. . . .	416 ft. south of Washington St.	Low.	Coffin.	1	2
Linwood St. . . .	225 ft. north of Poplar St.	Low.	Holyoke.	-	3
Linwood St. . . .	252 ft. south of Poplar St.	Low.	Holyoke.	-	3
Linwood St. . . .	55 ft. south of London St.	Low.	Holyoke.	-	3
London St. . . .	400 ft. east of Linwood St.	Low.	Coffin.	-	2
Loring St. . . .	288 ft. north of Somerville Ave., w. line.	Low.	Flush.	-	1
Lowell St. . . .	Corner Fiske Ave.	Low.	Chapman.	1	2
Lowell St. . . .	195 ft. south of Richardson St.	Low.	Chapman.	1	2
Lowell St. . . .	Opposite Vernon St.	Low.	Holyoke.	-	3
Madison St. . . .	480 ft. west of School St.	High.	Holyoke Gate.	1	2
Main St.	116 ft. west of Mt. Vernon Ave.	High.	Bigelow.	1	2
Main St.	Corner Moreland St.	High.	Holyoke.	-	2
Maple St.	220 ft. east of Medford St.	Low.	Coffin.	1	2
Maple St.	9 ft. north of Poplar St.	Low.	Holyoke.	1	2
Marshall St. . . .	Corner Evergreen Ave.	Low.	Holyoke Gate.	1	2
Marshall St. . . .	Opposite Howe St.	Low.	Boston Machine.	-	2
Meacham St. . . .	Opposite Kingston St.	Low.	Bigelow.	-	2
Medford St. . . .	80 ft. south of Grand Junction R. R.	Low.	Chapman.	1	2
Medford St. . . .	18 ft. north of South St.	Low.	Holyoke.	-	3
Medford St. . . .	100 ft. north of Ward St.	Low.	Holyoke.	-	2
Medford St. . . .	150 ft. north of Fitchburg R. R.	Low.	Chapman.	1	2
Medford St. . . .	21 ft. north of Somerville Ave.	Low.	Boston Machine.	-	2
Medford St. . . .	78 ft. north of Maple St.	Low.	Holyoke.	1	2
Medford St. . . .	236 ft. south of Washington St.	Low.	Chapman.	1	2
Medford St. . . .	18 ft. east of Prospect Hill Ave.	Low.	Boston Machine.	1	2
Medford St. . . .	8 ft. east of Greenville St.	Low.	Holyoke.	-	3
Medford St. . . .	Junction with Pearl St.	Low.	Chapman.	1	2
Medford St. . . .	Corner School St.	Low.	Chapman.	1	2
Medford St. . . .	46 ft. east of Thurston St.	Low.	Coffin.	1	2
Medford St. . . .	16 ft. east of Sycamore St.	Low.	Boston Machine.	1	2
Medford St. . . .	Corner Central St.	Low.	Chapman.	1	2
Medford St. . . .	Junction with Broadway	Low.	Holyoke.	-	3
Merriam St. . . .	15 ft. north of Charlestown St.	Low.	Boston Machine.	-	2
Montrose St. . . .	417 ft. west of School St.	High.	Boston Machine.	-	2
Moore St.	21 ft. north of Mead St.	Low.	Bigelow.	1	2
Morrison St. . . .	195 ft. west of Clifton St.	Low.	Chapman.	1	2
Morrison St. . . .	33 ft. west of Grove St.	Low.	Boston Machine.	1	2
Murdock St. . . .	200 ft. east of Cedar St.	Low.	Chapman.	1	2
Mt. Vernon St. . .	9 ft. north of Pearl St.	Low.	Holyoke.	-	3
Mt. Vernon St. . .	276 ft. south of Broadway	Low.	Boston Machine.	1	2
Myrtle St.	82 ft. south of Pearl St.	Low.	Holyoke.	1	2
Myrtle St.	418 ft. north of Washington St.	Low.	Holyoke.	-	3
Mystic Ave. . . .	Corner Union St.	Low.	Boston Machine.	-	2
Mystic Ave. . . .	Near Medford line	Low.	Chapman.	1	2
Nashua St.	215 ft. south of Wilton St.	Low.	Bigelow.	-	2
Newbury St. . . .	570 ft. south of Holland St.	Low.	Boston Machine.	1	2
Newbury St. . . .	965 ft. south of Holland St.	Low.	Bigelow.	-	2
North St.	440 ft. north of Raymond Ave.	Low.	Holyoke.	-	3
North Union St. .	300 ft. north of Mystic Ave.	Low.	Boston Machine.	-	2
Oak St.	390 ft. west of Prospect St.	Low.	Holyoke.	1	2
Oakland Ave. . . .	230 ft. west of Marshall St.	Low.	Boston Machine.	1	2
Oliver St.	15 ft. east of Glen St.	Low.	Boston Machine.	1	2
Orchard St. . . .	9 ft. west of Russell St.	Low.	Boston Machine.	-	2
Orchard St. . . .	9 ft. east of Chester St.	Low.	Boston Machine.	-	2

HYDRANT LOCATIONS. — *Continued.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam'r.	Hose.
Otis St.	9 ft. east of Dana St.	Low.	Holyoke.	1	2
Oxford St.	358 ft. west of School St.	Low.	Boston Machine.	-	2
Oxford St.	100 ft. west of Hersey St.	Low.	Boston Machine.	-	2
Park Ave.	90 ft. west of Elm St.	Low.	Boston Machine.	1	2
Park St.	69 ft. north of Fitchburg R. R.	Low.	Bigelow.	-	2
Park St.	155 ft. north of Beacon St.	Low.	Bigelow.	-	2
Partridge Ave.	26 ft. north of Medford St.	Low.	Coffin.	1	2
Partridge Ave.	126 ft. south of Medford St.	Low.	Coffin.	1	2
Partridge Ave.	450 ft. south of Medford St.	Low.	Chapman.	1	2
Partridge Ave.	290 ft. north of Vernon St.	Low.	Holyoke.	-	2
Pearl St.	Corner Pinckney St.	Low.	Holyoke.	1	2
Pearl St.	9 ft. west of Glen St.	Low.	Holyoke.	1	2
Pearl St.	† 8 ft. west of Hillside Ave.	Low.	Holyoke.	1	2
Pearl St.	18 ft. east of Delaware St.	Low.	R. D. Wood.	1	2
Pearl St.	30 ft. west of Dana St.	Low.	Chapman.	1	2
Pearl St.	Corner Wigglesworth St.	Low.	Holyoke.	1	2
Pearl St.	Corner Walnut St.	Low.	Holyoke.	1	2
Pearl St.	120 ft. east of Marshall St.	Low.	Holyoke.	-	3
Perkins St.	21 ft. east of Mt. Pleasant St.	Low.	Chapman.	1	2
Perkins St.	Opposite Myrtle St.	Low.	Holyoke.	-	2
Perkins St.	Opposite Lincoln St.	Low.	Holyoke.	1	2
Perkins St.	63 ft. east of Perkins Pl.	Low.	Holyoke.	-	2
Pinckney St.	345 ft. south of Pearl St.	Low.	Boston Machine.	1	2
Pleasant Ave.	290 ft. east of Vinal Ave.	High.	Boston Machine.	1	2
Poplar St.	21 ft. west of Joy St.	Low.	Bigelow.	-	2
Porter St.	Corner Mountain Ave.	High.	Chapman.	1	2
Porter St.	24 ft. north of Williams Ct.	Low.	Bigelow.	-	2
Prescott St.	564 ft. north of Summer St.	Low.	Boston Machine.	1	2
Preston St.	375 ft. west of School St.	Low.	Chapman.	1	2
Professors' Row	300 ft. west of College Ave.	Low.	Boston Machine.	1	2
Professors' Row	580 ft. west of College Ave.	Low.	Boston Machine.	1	2
Professors' Row	188 ft. east of Packard Ave.	Low.	Boston Machine.	1	2
Professors' Row	305 ft. west of Packard Ave.	Low.	Boston Machine.	1	2
Prosp't Hill Ave.	9 ft. north of High St.	High.	Holyoke.	-	3
Prospect St.	135 ft. north of Bennett St.	Low.	Holyoke.	-	3
Prospect St.	Corner of Webster Ave.	Low.	Holyoke.	-	2
Prospect St.	210 ft. south of Oak St.	Low.	Holyoke.	-	2
Putnam St.	435 ft. south of Highland Ave.	Low.	Boston Machine.	1	2
Quincy St.	351 ft. south of Summer St.	Low.	Boston Machine.	-	2
Richardson St.	12 ft. west of Henderson St.	Low.	Chapman.	1	2
Richdale Ave.	Opposite Thurston St.	Low.	Coffin.	1	2
Robinson St.	333 ft. west of Central St.	High.	Holyoke Gate.	1	2
Sanborn Ave.	60 ft. east of Walnut St.	Low.	Holyoke Gate.	1	2
Sargent Ave.	36 ft. north of Mills St.	Low.	Boston Machine.	1	2
School St.	108 ft. south of Maple Ave.	Low.	Coffin.	1	2
School St.	8 ft. south of Montrose St.	Low.	Chapman.	1	2
School St.	6 ft. south of Avon St.	Low.	Holyoke.	-	3
School St.	15 ft. south of Preston St.	Low.	Bigelow.	-	2
Sewall St.	324 ft. west of Grant St.	Low.	Chapman.	1	2
Somerville Ave.	Corner Franklin Ct.	Low.	Coffin.	1	2
Somerville Ave.	South side Fitchburg R. R.	Low.	Holyoke.	1	2
Somerville Ave.	490 ft. north of Fitchburg R. R.	Low.	Boston Machine.	1	2
Somerville Ave.	30 ft. south of Poplar St.	Low.	Boston Machine.	-	2
Somerville Ave.	12 ft. east of Mystic St.	Low.	Holyoke.	-	3

HYDRANT LOCATIONS. — *Continued.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam'r.	Hose.
Somerville Ave. .	83 ft. west of Prospect St.	Low.	R. D. Wood.	1	2
Somerville Ave. .	400 ft. west of Prospect St.	Low.	R. D. Wood.	1	2
Somerville Ave. .	185 ft. west of Hawkins St.	Low.	Boston Machine.	1	2
Somerville Ave. .	Corner School St.	Low.	Boston Machine.	-	2
Somerville Ave. .	190 ft. east of Loring St.	Low.	Chapman.	1	2
Somerville Ave. .	15 ft. west of Laurel St.	Low.	Boston Machine.	-	2
Somerville Ave. .	9 ft. east of Central St.	Low.	Holyoke.	-	2
Somerville Ave. .	15 ft. west of Beech St.	Low.	Holyoke.	-	3
Somerville Ave. .	Opposite Spring St., on south line	Low.	Flush.	-	-
Somerville Ave. .	Corner Spring St.	Low.	Holyoke.	-	3
Somerville Ave. .	40 ft. west of Lowell St.	Low.	Boston Machine.	-	2
Somerville Ave. .	120 ft. west from junction of Elm St.	Low.	Holyoke Gate.	1	2
Somerville Ave. .	500 ft. east of Beacon St. bridge . . .	Low.	Holyoke Gate.	1	2
Somerville Ave. .	195 ft. east of Beacon St. bridge . . .	Low.	Holyoke Gate.	1	2
South St.	234 ft. west of Medford St.	Low.	Chapman.	1	2
South St.	Corner Emery St.	Low.	Holyoke.	1	2
South St.	Corner Earle St.	Low.	Holyoke.	-	2
Springfield St. .	12 ft. south of Houghton St.	Low.	Holyoke.	-	3
Summer St. . . .	200 ft. west of School St.	Low.	Chapman.	1	2
Summer St. . . .	54 ft. east of Preston St.	Low.	Coffin.	1	2
Summer St. . . .	Corner Harvard St.	High.	Bigelow.	1	2
Summer St. . . .	Corner Spring St.	High.	Boston Machine.	1	2
Summer St. . . .	Corner Lowell St.	High.	Boston Machine.	-	2
Summer St. . . .	Corner Porter St.	High.	Holyoke.	-	3
Summer St. . . .	6 ft. east of Cedar St.	Low.	Bigelow.	-	2
Summer St. . . .	6 ft. east of Cherry St.	Low.	Bigelow.	-	2
Summer St. . . .	160 ft. east of Cutter Ave.	Low.	Boston Machine.	-	2
Summit Ave. . . .	120 ft. west of Walnut St.	High.	Bigelow.	1	2
Sunnyside Ave. .	105 ft. west of Wigglesworth St. . . .	Low.	Chapman.	1	2
Sycamore St. . . .	18 ft. south of Broadway	High.	Boston Machine.	-	2
Sycamore St. . . .	36 ft. south of Broadway	High.	Chapman.	1	2
Sycamore St. . . .	Corner Forster St.	High.	Boston Machine.	1	2
Sycamore St. . . .	213 ft. north of Medford St.	High.	Boston Machine.	1	2
Temple St.	53 ft. north of Jaques St.	Low.	Chapman.	1	2
Tenney Ct.	318 ft. north of Mystic Ave.	Low.	Boston Machine.	1	2
Thurston St. . . .	6 ft. north of Evergreen Ave.	High.	Boston Machine.	1	2
Trull St.	264 ft. north of Vernon St.	Low.	Holyoke Gate.	1	2
Tufts St.	18 ft. north of Washington St.	Low.	Chapman.	1	2
Tufts St.	48 ft. west of Glen St.	Low.	Boston Machine.	-	2
Tufts St.	54 ft. east of Cross St.	Low.	Holyoke.	-	2
Union Sq.	Corner Washington St.	Low.	Holyoke.	1	2
Union Sq.	West Line.	Low.	Holyoke.	-	4
Vernon St.	75 ft. west of Partridge Ave.	Low.	Chapman.	1	2
Vinal Ave.	12 ft. south of Grand View Ave.	Low.	Boston Machine.	1	2
Vinal Ave.	129 ft. north of Aldersey St.	Low.	Holyoke.	-	3
Vinal Ave.	219 ft. north of Summer St.	Low.	Holyoke.	-	3
Vine St.	9 ft. south of Tyler St.	Low.	Boston Machine.	-	2
Vine St.	180 ft. north of Beacon St.	Low.	Chapman.	1	2
Wallace St.	40 ft. south of Broadway	Low.	Holyoke.	-	3
Wallace St.	480 ft. south of Broadway	Low.	Boston Machine.	1	2
Wallace St.	175 ft. north of Park Ave.	Low.	Chapman.	1	2
Walnut St.	38 ft. South of Veazie St.	Low.	Boston Machine.	1	2
Walnut St.	92 ft. south of Wellington Ave.	Low.	Holyoke.	1	2
Walnut St.	36 ft. north of Pleasant Ave.	High.	Chapman.	1	2

HYDRANT LOCATIONS. — *Concluded.*

STREET.	LOCATION.	Service.	Kind.	OUTLETS.	
				Steam'r.	Hose.
Walnut St. . . .	12 ft. south of Boston St.	High.	Chapman.	1	2
Ward St.	84 ft. west of Medford St.	Low.	Chapman.	1	2
Ward St.	Corner Emery St.	Low.	Holyoke.	1	2
Ward St.	Corner Harris St., on west line	Low.	Flush.	-	-
Ware St.	258 ft. west of Curtis St.	Low.	Bigelow.	-	2
Warren Ave. . . .	75 ft. south of Columbus Ave.	Low.	Boston Machine.	1	2
Warren Ave. . . .	175 ft. north of Bow St.	Low.	Holyoke Gate.	1	2
Warwick St. . . .	420 ft. east of Cedar St.	Low.	Chapman.	1	2
Washington St. . .	Corner Mt. Vernon St.	Low.	Boston Machine.	1	2
Washington St. . .	Corner Florence St.	Low.	Holyoke.	-	3
Washington St. . .	Corner Myrtle St., west line	Low.	Flush.	-	-
Washington St. . .	15 ft. west of Myrtle St.	Low.	Chapman.	1	2
Washington St. . .	20 ft. east of Franklin Ave.	Low.	Holyoke.	-	3
Washington St. . .	Corner Shawmut St.	Low.	Bigelow.	-	2
Washington St. . .	84 ft. east of Boston St.	Low.	Boston Machine.	-	2
Washington St. . .	Corner Mystic St.	Low.	Boston Machine.	1	2
Washington St. . .	East side Union Sq.	Low.	Holyoke.	1	2
Washington St. . .	6 ft. east of Kingman Ct.	Low.	Holyoke.	-	3
Washington St. . .	96 ft. south of Parker St.	Low.	Boston Machine.	-	2
Washington St. . .	9 ft. north of Leland St.	Low.	Boston Machine.	-	2
Washington St. . .	186 ft. south of Dane St.	Low.	Holyoke.	-	3
Webster Ave. . . .	12 ft. south of Everett St.	Low.	Bigelow.	-	2
Webster Ave. . . .	63 ft. north of Prospect St.	Low.	Boston Machine.	-	2
Webster Ave. . . .	275 ft. south of Prospect St.	Low.	Holyoke.	1	2
Webster St.	12 ft. east of Rush St.	Low.	Coffin.	1	2
Webster St.	12 ft. west of Cutter St.	Low.	Holyoke.	-	3
Wellington Ave. . .	West of Montgomery Ave.	Low.	Chapman.	1	2
Wheatland St. . . .	135 ft. north of Broadway	Low.	Chapman.	1	2
Wheatland St. . . .	9 ft. south of Jaques St.	Low.	R. D. Wood.	1	2
Wigglesworth St. .	Corner Otis St.	Low.	Boston Machine.	-	2
Willow Ave.	66 ft. south of Morrison St.	Low.	Chapman.	1	2
Willow Ave.	12 ft. north of Summer St.	Low.	Boston Machine.	1	2
Wilton St.	6 ft. east of Nashua St.	Low.	Holyoke.	-	2
Wilton St.	12 ft. east of Lawrence St.	Low.	Boston Machine.	-	2
Winslow Ave. . . .	66 ft. East of Villa Ave.	Low.	Bigelow.	-	2
Wyatt St.	42 ft. west of Cook St.	Low.	Boston Machine.	-	2

PRIVATE HYDRANTS.

NUMBER.	LOCATION.	Service.	OUTLETS.	
			Steam'r.	Hose.
Two	Middlesex Bleachery	Low.	-	-
One	American Tube Works	Low.	-	-
One	Union Glass Works	Low.	-	-
Two	North Packing and Provision Co.	Low.	-	-
Four	John P. Squire & Co.	Low.	-	-
Four	McLean Asylum	Low.	-	-
One	Fitchburg Railroad	Low.	-	-

HYDRANTS DISCONTINUED.

One on Chandler street, opposite Chapel street.

One on corner of Jenny Lind avenue and Vernon street.

One on Summer street, near Prescott street.

One hydrant on Allen street was moved forty feet north of the old location.

Fifteen of the old disc hydrants have been altered to the gate pattern.

Eighteen have had new valves and gaskets.

Sixteen have had valves repaired and new top nuts and chains.

Twenty-eight have had new outlet washers and other small repairs.

Total number now in use is 419, and there are fifteen private hydrants.

SERVICES.

There were laid 562, at an average cost of \$17.25; the number being eighty-seven in excess of last year, making the total number now in use 6,387, giving a length of forty-two miles 2,384 feet.

Eighteen were put in to replace old ones. Twenty-two were re-tapped at the corporation. Seventy-four were pumped and cleared of rust, sediment, etc.

Twenty-seven cast-iron gate boxes have been substituted for decayed wooden ones. Forty-one services were changed from the low to the high service system. There were twenty-six leaks on service pipes: eight were caused by settling of the earth; seven by defective soldering; three by defective leads; two by defective couplings; six by pick holes.

Eighteen services were stopped by fish.

STAND-PIPES FOR WATERING STREETS.

Two new ones have been set the past year, making the total number now in use thirty-one, located as follows:—

One corner Mystic avenue and Union street.

One on Broadway, near corner Franklin street.

- One on Broadway, opposite the Park.
- One on Medford street, corner Lee street.
- One on Medford street, near Magoun square.
- One on Pearl street, near Marshall street.
- One on Pearl street, near Delaware street.
- One on Pinckney street, corner Pearl street.
- One on Gilman street, opposite Aldrich street.
- One on Washington street, corner Myrtle street.
- One on Washington street, corner Boston street.
- One on Washington street, near Union square.
- One on Washington street, opposite Leland street.
- One on Somerville avenue, near Cambridge line.
- One on Somerville avenue, near Poplar street.
- One on Somerville avenue, corner Mystic street.
- One on Somerville avenue, near School street.
- One on Somerville avenue, corner Beacon street.
- One on Beacon street, opposite Cooney street.
- One on Highland avenue, corner Medford street.
- One on Highland avenue, corner Central street.
- One on Spring street, near Somerville avenue.
- One on Summer street, opposite Laurel street.
- One on Summer street, corner Cedar street.
- One on Summer street, corner Elm street.
- One on Broadway, corner Clarendon avenue.
- One on Elm street, near Park avenue.
- One on Vinal avenue, near Highland avenue.
- One on Linwood street, near Poplar street.
- One on Main street, near Broadway.
- One on Concord avenue, corner Marion street.

Twenty-one were packed in the valves ; eleven received general repairs. All of them have had the new rubber-lined connecting hose, which is much more durable than the ordinary rubber hose. A number will need new gates and boxes and other repairs the coming season.

DRINKING FOUNTAINS.

These have had the usual repairs, such as new wastes and stop cocks ; and two have been set on a firmer foundation.

STOP GATES.

Repairs have been made as follows: Twenty-one have been re-packed; three have had new spindles; seventeen decayed wooden boxes have been replaced with the new patent cast-iron boxes, doing away with the old style of box, frame, and cover, and obtaining greater durability at about one-half the cost.

MISCELLANEOUS.

In the shop of the department iron pipe for services was lined and fitted; lead connections made for all the services; forty-three wooden boxes made and fitted; thirteen hydrants altered over to the Holyoke pattern; and general repairs connected with the department were made as required.

STOCK AVAILABLE FOR FUTURE USE JANUARY 1, 1891.

Cast-iron pipe	\$4,590 80
Special castings	1,739 31
Gates and hydrants	928 35
Service pipe and materials	763 32
Sundry material	70 60

TOOLS AND FURNITURE.

Special patterns	\$1,250 00
Tools and machinery	1,118 00
Tools for water services	424 28
Stable department	1,725 00
Office furniture	475 00
Pumping station furniture	179 00

NATHANIEL DENNETT,

Superintendent.

REPORT

OF THE

OVERSEERS OF THE POOR.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

BOARD OF OVERSEERS OF THE POOR.

HON. CHARLES G. POPE, <i>Chairman, ex officio.</i>	
NATHAN H. REED	Ward One.
EDWARD B. WEST	Ward Two.
DANIEL C. STILLSON	Ward Three.
CHARLES G. BRETT, <i>President</i>	Ward Four.

COMMITTEES:

<i>On Investigation and Relief</i>	MR. BRETT AND MR. WEST.
<i>On Finance</i>	MR. STILLSON AND MR. REED.

CHARLES C. FOLSOM, *General Agent.*

FRANK W. KAAH, *Secretary.*

ALVAH B. DEARBORN, M. D., *City Physician.*

Office: Police Building, Bow Street.

CITY OF SOMERVILLE.

To the Honorable the City Council of Somerville:—

GENTLEMEN, — At the request of the Overseers of the Poor, the general agent has submitted to them his report of the work of this department for the year 1890. This report, together with the accompanying tables of statistics, they adopt as their official report.

CHARLES G. POPE, *Chairman.*
CHARLES G. BRETT, *President.*
NATHAN H. REED.
EDWARD B. WEST.
DANIEL C. STILLSON.

REPORT
OF
GENERAL AGENT.

Overseers of the Poor, City of Somerville: —

GENTLEMEN, — I have the honor to submit to you my report for the year ending December 31, 1890.

The history of this department for the past year differs from that of the years immediately preceding only in unimportant respects. The tables of statistics, which are given herewith, will indicate somewhat in detail the work that has been done.

The manner in which the duties of the city to its poor are performed is, probably, not known to a great majority of the tax-payers and other interested persons. It seems proper, therefore, through this, the only available opportunity, to present a statement of the methods in use.

A person who applies for aid is required as a preliminary step to give the general agent information, as complete as he can, in regard to the names and places of residence, with dates, of himself, his parents, and other relatives. A biography of every applicant is thus begun, and is afterward verified or completed by means of further investigation, if necessary, and remains on perpetual record. By the statute law of this State, certain facts — for example, the payment of poll taxes for three years during five years continuous residence in a town or city — give one a settlement in that place, which is thereby rendered liable for the cost of his support as a pauper. The general agent, therefore, endeavors to ascertain the settlement of every one who

receives aid from the city. When no place of settlement can be found, the account is charged against the State. Furthermore, certain near relatives of a pauper — parents, children, grandparents, and grandchildren — are liable for the cost of his support to the place of settlement, and in some cases persons aided have themselves property, held usually by guardians, which is applied to the reimbursement of the cost of support. From all these sources the city received in the year 1889 \$2,240.62; in the year 1890 \$1,415.28. On the other hand, the city, as being the place of settlement, paid to other cities and towns in the year 1889 \$1,609.00; in the year 1890 \$2,117.81.

The out-door aid given to needy persons varies in nature and amount. In some cases rent (four to seven dollars a month) is paid, usually to the pauper directly; in others board (four to fourteen dollars a month) is paid to the person furnishing the board; but, as a rule, the aid is given by means of written orders on various stores for food, fuel, and clothing, issued from time to time by the general agent as applied for. The food furnished on such orders is restricted to the following kinds: flour, meal, bread, rice, beans, salt pork, salt beef, salt fish, potatoes, molasses, soup meat, tea, sugar. Under the head of groceries there are also included kerosene oil and soap, and, in some cases of sickness, milk.

The original appropriation of \$12,000 for the expenses of this department for the year 1890 proved to be insufficient. The cost of the support of insane persons was \$738.66 more than in the year 1889, and the reimbursements to the city from all sources were \$825.34 less. The appropriations and net expenditures for several years past have been as follows:—

	1883.	1884.	*1885.	1886.	1887.	1888.	1889.	1890.
Appropriations .	\$14,000	\$15,000	\$15,000	\$15,000	\$14,000	\$14,000	\$14,000	\$12,000
Net expenditures .	14,103 47	15,821 30	14,934 53	11,860 06	11,873 56	11,082 91	†12,370 30	‡13,845 86

* The first year after the reorganization under Acts of 1885, Chap. 61.

† Not including \$500 transferred to the account of "Indigent Soldiers and Sailors."

‡ Population in 1885, 29,971; in 1890, 40,152.

It is a matter of interest, although, perhaps, of no great value, to note the comparative cost of the care of the unfortunate poor in

various cities in this State. The list here given contains statistics of all the cities whose returns were sent in exchange for ours, and is limited to the year 1889 as the latest that can now be given. It should be kept in mind that there is no constant proportion between the number of paupers and the number of inhabitants; that the cost of support depends largely on other considerations than the number supported, and that in each city the cost varies from year to year. All the cities mentioned, except Chelsea and Somerville, have almshouses, but interest on the original cost of the almshouses and permanent improvements are not here included: —

	Net Expenditures.	Population, Census of 1890.
Newton	\$8,974	24,379
Woburn	9,970	13,499
Somerville	12,370	40,152
Brockton	12,879	27,294
Fitchburg	14,569	22,037
Chelsea	14,900	27,909
Springfield	22,361	44,179
New Bedford	30,777	40,733
Salem	31,900	30,801
Lynn	36,800	55,727
Cambridge	44,890	70,028

Very respectfully,

CHARLES C. FOLSOM,

General Agent.

TABLE No. 1.

PARTIAL SUPPORT (OUT-DOOR RELIEF).

Families aided during the year	177
Persons aided during the year	704
" having a settlement in Somerville	356
" having a settlement in other cities and towns	192
" having no settlement, chargeable in part to the State	156
" aided in other cities and towns, chargeable to Somerville	63

TABLE No. 2.

FULL SUPPORT.

During the whole year, sane	19
" the whole year, insane	23
" part of the year, insane	22
In almshouses	8
" private families	20
" Boston hospitals	8
Insane persons in private families	5

TABLE No. 3.
GROSS EXPENDITURES.

1884. \$17,272 52	1885. \$16,430 32	1886. \$14,341 83	1887. \$13,430 89	1888. \$13,375 98	1889. \$14,610 92	1890. \$15,261 14
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TABLE No. 4.
EXPENDITURES FOR THE YEAR 1890.

	Rent.	Board.	Groceries.	Towns and Cities.	Public Institutions.	Boots and Shoes.	Dry Goods.	Burials.	Salaries.	Fuel.	Sundries.	Totals Monthly Pay-rolls.
January . . .	\$92 25	\$210 32	\$343 59	\$599 73	\$1,253 12	\$41 10	\$9 40	-	\$120 83	\$318 14	\$25 45	\$3,013 93
February . .	106 00	88 00	206 65	234 24	170 86	-	10 00	\$20 00	120 83	145 04	26 15	1,127 77
March . . .	90 00	204 40	197 50	7 75	1,145 35	29 75	2 00	-	120 84	107 28	9 65	1,914 52
April . . .	84 00	79 07	244 75	332 93	233 98	17 50	-	75 00	120 83	-	17 50	1,205 56
May . . .	85 00	80 61	128 05	3 43	-	9 00	-	5 00	120 83	-	18 10	450 02
June . . .	75 78	192 36	114 00	-	1,051 09	4 25	18 25	-	120 84	-	16 50	1,593 07
July . . .	76 79	80 61	98 13	646 81	362 60	1 50	2 50	-	120 83	-	17 00	1,405 27
August . . .	81 86	80 61	75 50	-	8 00	1 50	-	70 00	120 83	-	17 65	1,405 27
September .	81 57	80 61	196 50	-	1,379 87	18 50	-	0 00	120 84	-	70 55	2,143 66
October . . .	81 86	254 16	124 81	21 67	48 57	-	-	38 00	120 83	-	11 53	486 21
November . .	81 57	60 61	184 06	-	146 71	5 25	-	-	120 83	117 59	10 10	900 50
December . .	105 86	79 07	65 50	155 32	12 00	17 50	18 00	-	120 84	3 25	12 05	564 68
Totals . . .	\$1,042 54	\$1,503 57	\$1,979 04	\$2,117 81	\$5,812 15	\$144 35	\$60 15	\$208 00	\$1,450 00	\$691 30	\$252 23	\$15,261 14

TABLE No. 5.

REIMBURSEMENTS FROM VARIOUS SOURCES.

Expenditures : —

Commonwealth of Massachusetts	\$507 43
City of Boston	289 75
“ Cambridge	65 70
“ Salem	2 50
“ Lowell	28 10
“ Gloucester	10 00
Town of Arlington	20 05
“ Beverly	20 45
“ Stoneham	30 30
“ Milford	5 00
“ Northfield	8 00
“ Methuen	9 35
Guardians and relatives of paupers and insane persons,	418 65
Total	<u>\$1,415 28</u>

TABLE No. 6.

Gross expenditures for the year	\$15,261 14
Reimbursements	<u>1,415 28</u>
Net expenditures, 1890	\$13,845 86

REPORT
OF THE
BOARD OF HEALTH.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

REPORT
OF
BOARD OF HEALTH.

OFFICE OF THE BOARD OF HEALTH, CITY HALL, }
SOMERVILLE, MASS., January 22, 1890. }

To His Honor the Mayor and the City Council :—

GENTLEMEN,—Agreeably with law and usage, the Board of Health presents herewith its thirteenth annual report, consisting of a condensed statement of the sanitary conditions of Somerville and the doings of the Board during the year ending December 31, 1890.

MEMBERSHIP.

Mr. Charles H. Crane was appointed to the Board January 22, 1890, for two years. Alvah B. Dearborn, M. D., was appointed city physician by the Mayor and Aldermen January 16, 1889, for three years, and became, *ex officio*, a member of the Board. Mr. J. Frank Wellington was appointed January 23, 1889, by the Mayor and Aldermen, for two years.

ORGANIZATION.

The Board organized February 4, by electing officers as follows :—

Chairman, J. FRANK WELLINGTON.

Clerk, WILLIAM P. MITCHELL.

Inspector, CALEB A. PAGE.

NUISANCES.

The tabulated method of reporting nuisances abated is continued

in this report ; the arrangement being by the months when the complaints were received.

NUISANCES ABATED IN THE YEAR 1890.

	January.*	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Barn used as residence	-	1	-	-	-	-	-	-	-	-	-	-	1
Cellar damp	2	1	2	1	2	3	1	-	-	1	-	2	15
Cesspool offensive	-	1	-	1	-	1	-	1	-	-	-	-	4
Cesspool overflowing	1	1	-	1	1	2	-	1	-	-	-	-	7
Connections of drainage pipes defective	4	2	1	3	2	3	1	-	-	-	2	2	20
Cow kept under house	-	-	-	-	-	-	1	-	-	-	-	-	1
Dogs kept in cellar	-	-	1	-	1	-	-	-	-	-	-	-	2
Drainage defective	-	-	-	-	-	-	-	-	-	1	-	1	2
Drainage emptying into cellar	4	-	-	2	1	1	1	-	-	2	-	-	11
Drainage emptying on surface	1	-	1	1	1	6	3	1	3	1	-	1	26
Drainage not ventilated	-	1	-	-	1	3	1	1	1	-	-	-	8
Drain-pipe defective	3	-	-	1	-	1	2	1	-	-	-	-	8
Drying hair on land	-	-	-	1	-	-	-	-	-	-	-	-	1
Hennery offensive	-	-	-	-	-	-	1	-	-	-	1	-	2
Hens kept in cellar	-	-	-	-	1	-	-	-	-	-	-	-	1
Manure exposed and offensive	1	-	1	3	3	1	3	1	1	-	-	1	15
Offal in cellar	-	-	-	-	1	-	-	1	-	-	-	-	2
Offal on land	2	1	-	1	-	-	1	2	-	1	-	-	8
Offensive odor in and about dwellings	5	1	-	3	4	-	-	3	-	1	-	-	17
Opening in drain-pipe in cellar	1	-	-	1	1	2	-	-	-	-	-	-	5
Premises filthy	-	-	-	2	-	9	-	1	-	-	-	-	12
Premises untidy	3	1	-	2	3	2	1	2	-	-	-	-	14
Premises undrained	-	-	-	2	1	-	-	-	-	-	-	-	3
Privy-vault defective	2	-	-	1	5	2	6	3	1	1	-	1	22
Privy-vault full	8	-	1	9	34	8	17	10	7	2	1	-	97
Privy-vault offensive	10	1	1	9	36	10	20	10	7	2	1	-	107
Rubbish in cellar	2	1	-	1	-	3	-	-	-	1	-	-	8
Slops thrown on surface	-	-	-	-	-	1	-	1	-	-	-	-	2
Stable affected with glanders	-	-	-	-	1	-	-	-	-	-	-	-	1
Stable and stable premises filthy and offensive	2	-	-	2	-	1	-	-	-	-	-	1	6
Stagnant water in house cellar	-	-	-	-	1	-	-	-	-	-	-	-	1
Stagnant water on surface	-	-	-	3	-	1	-	-	-	-	-	-	4
Waste-pipe defective	3	-	1	-	-	-	2	-	-	1	-	-	7
Waste-pipe not trapped	5	1	2	1	1	3	1	-	-	-	-	-	14
Water-closet defective	2	1	-	-	-	1	1	1	-	-	-	-	6
Water-closet insufficiently supplied with water	4	1	-	-	1	1	1	-	-	-	-	-	8
Water-closet offensive	3	1	-	-	-	-	2	1	-	2	-	-	9
Total	68	16	11	51	109	65	66	41	20	16	5	9	477

* Including nuisances referred to us by the Board of 1889.

Number of nuisances abated	477
“ “ referred to the Board of 1891	40
“ “ complained of	517
“ complaints (many covering more than one nuisance)	264
“ tenements ordered vacated	4
“ notices mailed	211
“ “ served by constables	2
Letters written	51

Verbal notices from the inspector have, in many cases, led to the abatement of nuisances without further action.

PRIVATE STREETS. — In our last report we called attention to the bad sanitary condition of some of the private streets in the city. Owing to the lack of any concerted action of the abutters on such streets, some of them are in constant need of attention; and although the city is not responsible for the maintenance of private streets, yet we recommend that the highway department adopt a policy which will, at the expense of a small amount of labor, and such surplus materials, of little value, as may be at hand, keep their surfaces level and free from pools of stagnant water. The highway department has done much in the direction suggested, but many new private streets are being opened which, together with some of the older ones, will need constant attention to keep them in a sanitary condition.

PERMITS.

Applications for permits to keep cows, swine, and goats, and to collect grease, have been disposed of as follows: —

Cows. — Applications have been received from forty-five parties for permission to keep 270 cows. Permits were granted for 185 and refused for eighty-five. No fee is attached for permission to keep cows.

SWINE. — Applications received for 199; permits granted for 197 and refused for two. Fee, \$1 for each swine.

GOATS. — Applications received for fourteen; permits granted for fourteen. Fee, \$1 for each goat.

GREASE. — Number of applications received, two, both of which

have been granted. Both applicants were residents of Somerville. The fee for permission to collect grease is \$2.

PEDLERS.

In pursuance of Ordinance No. 40, entitled "Hawkers and Pedlers," 112 certificates of record have been issued to pedlers of goods in our streets. This number is in addition to 393 certificates previously issued, making a total of 505 certificates issued by this Board, but many of the recipients of the same have given up the business.

A monthly inspection is made at the Police Building, to see that the name and number are properly painted on the wagon, and that the wagon is kept clean.

ASHES.

The contract with Jeremiah McCarthy for the removal of ashes expired June 29th.

In response to an advertisement issued by the Board soliciting proposals for the removal of ashes for one year, from July 1, 1890, such proposals were received and opened June 5th, as follows :—

From J. O'Brien	\$4,490 00
T. F. Crimmings	3,925 00
Martin Gill	3,900 00
Jeremiah McCarthy	3,600 00
Owen Cunningham & Son	3,119 00

And at a meeting, June 9th, the contract was awarded to Owen Cunningham & Son, for the sum of \$3,119.00.

The city was districted for the removal of ashes in the same manner as stated in our last annual report during the larger part of the year; but in October it was found necessary to change the boundaries of some of the districts to provide for the uneven growth

of the city, and for the remaining portion of the year the districts have been as follows :—

DISTRICT 1. — Beginning at the Boston line, and bounded by the northeasterly line of Pearl street, the southeasterly line of Walnut street, the northeasterly line of Highland avenue, the northeasterly line of Medford street, the northerly line of Washington street, the northwesterly line of Prospect street, the northerly line of Concord avenue, extended across Beacon street to the Cambridge line, and by the Cambridge and Boston lines.

DISTRICT 2. — Beginning at the Boston line, and bounded by the northeasterly line of Pearl street, the southeasterly line of Pearl street, the northeasterly line of Broadway, the northeasterly line of Main street, and by the Medford and Boston lines.

DISTRICT 3. — Beginning at the Medford line, and bounded by the southeasterly line of Cedar street, the northeasterly line of Highland avenue, the southeasterly line of Walnut street, the northeasterly line of Broadway, the northeasterly line of Main street, and by the Medford line.

DISTRICT 4. — Beginning at the intersection of Medford and Washington streets, and bounded by the northerly line of Washington street, the westerly line of Prospect street, the northerly line of Somerville avenue, the easterly line of School street, the northeasterly line of Summer street, the southeasterly line of Cedar street, the northeasterly line of Highland avenue, and the easterly line of Medford street.

DISTRICT 5. — Beginning at the intersection of Prospect street and Somerville avenue, and bounded by the westerly line of Prospect street, the northerly line of Concord avenue prolonged to the Cambridge line, the Cambridge line (extending westwardly), the easterly lines of Oxford, Mossland, and Cedar streets, the northeasterly line of Summer street, the southeasterly line of School street, and the northeasterly line of Somerville avenue.

DISTRICT 6. — All of that portion of the city lying west of the easterly lines of Cedar, Mossland, and Oxford streets.

It will be seen by these descriptions that the side lines of streets are used as boundaries, and not the middle lines ; so that ashes are

removed from the sidewalks on both sides of the street on the same day.

The collections are made on the following-named days:—

Monday in District 1.

Tuesday in District 2.

Wednesday in District 3.

Thursday in District 4.

Friday in District 5.

Saturday in District 6.

The collector is required to remove all *ashes, rubbish, and house dirt* (free from filth and offal) that is placed in barrels or boxes on the outer edge of the sidewalk before 8 o'clock, A. M., of the day for collection.

HOUSE OFFAL.

House offal has been collected during the year by Mr. Henry Gray, under a contract for a term of three years, commencing June 26, 1889.

The contractor is required to make collections at least once every week in December, January, February, and March; twice a week in April, October, and November; and three times a week in the five remaining months.

Mr. Gray informs us that he has collected about 492 cords of house offal during the year.

NIGHT SOIL.

Night soil has been removed during the year by Mr. R. M. Johnson, of Arlington; his contract, which expired February 1, 1888, having been renewed for three years. Orders are taken at the Police Station on Bow street, and at Knowles Brothers' grocery store on the corner of Perkins and Franklin streets. The removal is made by the "odorless" process, and the price is four dollars for every load, or part of a load, of eighty cubic feet.

We are informed by the contractor that 496 loads have been removed in 1890.

DEATHS.

The number of deaths in the city in 1890 was 668, and there were thirty-four still-births.

MORTALITY IN SOMERVILLE IN 1890.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
ZYMOTIC DISEASES.													
<i>Miasmatic.</i>													
Scarlet fever	-	2	1	-	1	-	-	-	-	-	-	1	5
Diphtheria	2	2	2	1	1	-	4	1	-	3	4	2	22
Croup	-	-	1	-	1	-	1	-	-	1	3	1	8
Typhoid fever	-	1	-	2	1	-	2	1	1	1	1	2	12
Erysipelas	-	-	1	-	-	1	-	-	-	-	-	2	4
Diarrhœa	-	-	-	-	-	-	-	1	1	-	-	-	2
Cholera infantum	-	-	-	-	-	-	10	17	8	-	-	-	35
Septicæmia	-	-	-	-	-	-	-	1	-	-	-	-	1
Whooping cough	-	1	-	2	1	-	1	5	-	-	-	-	10
Dysentery	-	-	-	-	-	-	-	-	-	1	-	-	1
Malarial poison	1	-	-	-	-	-	-	1	-	-	-	-	2
CONSTITUTIONAL DISEASES.													
<i>Diathetic.</i>													
Cancer	2	3	1	6	1	1	4	4	3	3	1	-	29
Tumor	-	-	-	-	-	-	1	-	1	2	-	-	4
Carbuncle	-	-	-	1	-	-	-	1	-	-	-	-	2
<i>Tubercular.</i>													
Tuberculosis	1	-	-	-	2	1	-	-	1	-	1	1	7
LOCAL DISEASES.													
<i>Nervous System.</i>													
Apoplexy	-	2	2	1	1	-	2	4	-	3	1	2	18
Paralysis	-	2	-	-	5	-	1	-	2	4	1	-	15
Insanity	-	-	1	1	-	-	-	1	1	1	1	2	8
Brain disease	1	1	2	-	-	-	-	-	-	-	-	1	5
Meningitis	4	2	4	4	1	1	3	5	3	1	2	1	31
Convulsions	1	1	-	3	1	1	3	-	2	1	1	3	17
Spinal disease	-	-	1	-	-	-	-	-	-	-	-	-	1
Epilepsy	1	-	-	-	-	-	-	-	1	-	-	-	2
<i>Organs of Circulation.</i>													
Heart disease	5	9	4	3	6	6	3	2	8	6	7	6	65
<i>Respiratory Organs.</i>													
Pneumonia	13	7	8	3	5	5	4	2	3	1	4	15	70
Bronchitis	6	1	2	4	3	-	1	-	3	2	4	4	30
Hemorrhage	1	1	-	1	-	-	1	-	-	-	4	-	8
Phthisis pulmonalis	10	6	5	12	12	8	12	7	6	5	7	6	96
Pleurisy	-	-	-	-	-	-	-	-	-	-	1	-	1
Empyema	1	-	1	-	-	-	-	-	-	-	1	-	3
Influenza	3	-	-	-	-	-	-	-	-	-	-	-	3
<i>Digestive Organs.</i>													
Gastritis	-	-	-	-	1	-	-	-	1	-	-	-	2
Peritonitis	1	1	1	1	-	-	1	-	1	2	-	-	8
Liver disease	-	-	-	-	-	-	-	-	-	1	-	1	2
Obstruction of bowels	1	-	-	-	-	-	-	1	-	-	-	-	2
Inflammation of bowels	-	-	-	1	1	-	3	4	-	-	1	1	11

MORTALITY IN SOMERVILLE IN 1890. — *Continued.*

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
<i>Genito-Urinary Organs.</i>													
Bright's disease	-	1	3	1	2	3	2	-	1	-	1	-	14
Diabetes	-	-	-	-	-	-	-	-	-	-	-	1	1
Cystitis	-	-	-	-	1	1	-	-	-	-	-	-	2
Nephritis	1	-	-	-	-	1	-	-	2	-	1	2	7
Uræmia	-	1	-	-	-	-	-	-	-	-	-	-	1
Childbirth	-	-	-	-	-	-	-	-	-	1	-	-	1
DEVELOPMENTAL DISEASES.													
<i>Of Children.</i>													
Marasmus	2	-	2	2	-	1	1	3	5	2	1	2	21
Premature birth and congenital debility	2	4	3	2	3	1	1	4	1	1	5	2	29
<i>Of Old People.</i>													
Old age	-	2	2	-	-	-	3	4	1	3	-	3	18
General debility	-	1	2	2	-	-	2	-	1	-	-	-	8
VIOLENT DEATHS.													
Railroad	1	-	-	-	-	-	-	-	1	-	-	2	4
Burn	-	-	-	-	-	-	-	-	-	-	-	1	1
Asphyxia	-	-	-	-	1	-	-	-	-	-	-	2	3
Suicide	-	-	-	-	-	-	-	-	2	-	-	-	2
Unknown	-	-	-	-	2	-	3	-	1	1	1	1	9
Drowning	-	-	-	-	-	-	-	-	-	-	1	-	1
Electricity	-	-	-	-	-	-	-	-	-	-	1	-	1
Fracture of skull	-	-	-	-	-	-	-	-	1	-	-	-	1
Fracture of thigh	-	-	-	-	-	1	1	-	-	-	-	-	2
Hydrophobia	-	-	1	-	-	-	-	-	-	-	-	-	1
Total	60	51	50	53	52	32	70	69	61	47	56	67	668
Stillborn	3	6	2	2	5	-	2	3	2	1	2	6	34

Population (census of 1890) 40,117
 Death rate per thousand 16

DISEASES DANGEROUS TO PUBLIC HEALTH.

Of the diseases classified by this Board as dangerous to public health, scarlet fever, diphtheria, and typhoid fever are the only ones reported to us during the year.

SCARLET FEVER. — The year 1890 shows a slight decrease of the number of cases reported as compared with 1889, there being 192 cases reported in 1889 and but 161 cases in 1890. It has continued

to be, as in 1889, of a comparatively mild type, there being but five deaths in 1890 and seven in 1889.

Warning cards are placed on the houses, and the premises fumigated after the termination of the disease.

DIPHTHERIA. — There have been 117 cases reported and twenty-one deaths during the year, as compared with 130 cases reported and twenty-eight deaths in 1889.

We use warning cards and fumigation in dealing with this disease, the same as with scarlet fever, and we also have the sanitary condition of the premises investigated.

TYPHOID FEVER. — There has been a much less number of cases in 1890 than in 1889, but the disease has proved more fatal, there being sixty-one cases and seven deaths in 1889, and thirty-seven cases and ten deaths in 1890.

We examine the sanitary condition of the premises, but do not use a warning card or fumigation.

SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER REPORTED IN 1890.

MONTHS.	SCARLET FEVER.			DIPHTHERIA.			TYPHOID FEVER.		
	Cases Reported.	Number of Deaths.	Percentage of Deaths.	Cases Reported.	Number of Deaths.	Percentage of Deaths.	Cases Reported.	Number of Deaths.	Percentage of Deaths.
January	23	-	-	11	2	18	-	-	-
February	20	2	10	11	2	18	1	1	100
March	18	1	6	16	2	12	1	-	-
April	19	-	-	15	1	7	3	2	67
May	18	-	-	6	1	16	2	1	50
June	12	1	8	2	-	-	1	-	-
July	12	-	-	10	4	40	3	2	66
August	11	-	-	5	1	20	4	1	-
September	5	-	-	4	-	-	15	1	7
October	8	-	-	6	3	50	2	1	50
November	8	-	-	21	3	14	3	1	34
December	7	1	15	10	2	20	2	-	-
Total	161	5	3	117	21	18	37	10	27

DEATHS FROM SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER IN THE LAST TEN YEARS.

MONTHS.	SCARLET FEVER.										DIPHTHERIA.										TYPHOID FEVER.										
	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	
January . . .	-	-	2	-	2	-	1	5	-	-	7	11	2	1	2	1	2	1	1	2	-	1	2	1	2	-	-	3	-	-	
February . . .	-	1	-	-	1	-	-	3	1	2	4	5	3	-	2	2	1	3	-	2	1	1	-	1	-	-	-	-	-	1	
March . . .	-	-	1	-	1	1	1	4	1	1	7	7	3	3	1	-	-	-	-	4	2	2	1	-	-	2	-	-	-	2	
April . . .	-	-	1	-	5	-	-	1	-	-	2	8	6	1	2	1	1	3	2	1	-	1	-	-	-	-	-	-	-	1	2
May . . .	1	-	-	-	-	2	1	1	-	-	3	5	1	2	2	4	-	1	6	1	-	-	-	1	-	1	-	-	-	1	
June . . .	-	-	1	-	1	-	1	1	1	1	3	2	3	1	2	2	-	1	4	-	-	1	1	4	-	-	-	-	-	1	2
July . . .	-	-	-	2	-	-	-	-	1	-	2	1	3	2	2	1	-	2	1	4	-	-	-	-	-	-	-	-	-	2	2
August . . .	-	1	-	-	-	-	-	-	-	-	3	-	1	-	2	-	-	-	1	1	-	-	1	1	-	-	-	-	-	2	1
September . . .	-	-	1	1	1	-	-	-	-	-	2	1	1	4	3	2	1	1	1	1	-	1	3	2	2	3	-	1	4	2	1
October . . .	-	-	-	1	-	-	6	-	1	-	6	1	2	2	1	2	3	4	2	3	2	2	1	3	-	1	2	1	3	1	1
November . . .	-	-	-	3	2	-	11	-	2	-	2	7	1	4	5	2	1	4	1	3	1	-	-	2	1	1	2	3	-	-	1
December . . .	-	2	-	1	1	-	10	-	-	1	3	4	5	1	4	3	2	1	5	2	1	-	1	-	-	-	2	-	-	-	-
Total . . .	1	4	6	8	14	3	31	15	7	5	44	52	31	21	28	20	11	21	28	21	8	8	13	8	11	3	11	17	7	10	

DISTRICTS.

The several tabulated statistics of mortality, dangerous diseases, and nuisances in the ten health districts into which the city was divided by the Board of Health of 1878, as shown by the accompanying map, are continued in this report. The map also shows the location of sewers. The population is obtained from the census enumeration of 1890.

MAP OF
SOMERVILLE

1891

SCALE
0 100 200 300 400 500
1 2 3 4 5
MILES

SHOWING HEALTH DISTRICTS.



TABLE OF DEATHS IN EACH DISTRICT DURING THE LAST TEN YEARS, EXCLUSIVE OF DEATHS IN THE McLEAN ASYLUM.

Districts	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	Entire City.	
Area	337 A.	107 A.	93 A.	171 A.	361 A.	285 A.	194 A.	482 A.	174 A.	456 A.	2,630 A.	
Population	7,329	7,156	2,757	4,870	7,724	1,671	4,180	1,225	2,237	968	40,117	
Dwellings	1,098	1,024	485	781	1,213	442	699	308	466	276	6,792	
Average in each dwelling	6.7	6.9	5.7	6.2	6.3	3.8	5.9	4.0	4.8	3.5	5.9	
Year.	Number of Deaths.		Number of Deaths.		Number of Deaths.		Number of Deaths.		Number of Deaths.		Number of Deaths.	
	Rate per 1,000.		Rate per 1,000.		Rate per 1,000.		Rate per 1,000.		Rate per 1,000.		Rate per 1,000.	
1881	111	23	41	48	62	36	38	18	19	8	445	
1882	119	24	42	58	72	27	43	11	17	13	464	
1883	138	26	49	60	76	27	51	17	17	9	527	
1884	148	27	42	52	69	33	35	14	28	8	482	
1885	152	28	40	72	78	24	53	15	25	11	511	
1886	115	20	38	72	85	28	44	11	20	19	479	
1887	182	29	45	81	87	25	62	20	26	12	606	
1888	148	23	44	81	117	22	50	19	28	13	579	
1889	125	16	48	85	105	17	62	16	26	14	582	
1890	140	19	48	94	139	27	59	27	26	15	663	
Average death rate for ten years	24	11	19	17	14	26	15	16	14	16	17	

In 1890.

TABLE SHOWING THE FIVE PRINCIPAL CAUSES OF DEATH IN SOMERVILLE
IN 1890, WITH THE NUMBER AND RATE IN EACH DISTRICT.

DISTRICTS.	CONSUMPTION.		PNEUMONIA.		HEART DISEASE.		CHOLERA INFANTUM.		MENINGITIS.	
	Number of Deaths.	Number per 1,000 of pop.	Number of Deaths.	Number per 1,000 of pop.	Number of Deaths.	Number per 1,000 of pop.	Number of Deaths.	Number per 1,000 of pop.	Number of Deaths.	Number per 1,000 of pop.
I.	26	3.55	15	2.05	9	1.23	14	1.91	11	1.50
II.	10	1.40	3	0.42	14	1.96	2	0.28	2	0.28
III.	7	2.54	6	2.18	3	1.09	1	0.36	2	0.73
IV.	13	2.67	10	2.06	4	0.82	7	1.44	6	1.23
V.	24	3.11	17	2.20	21	2.72	5	0.65	3	0.39
VI.	3	1.80	5	3.00	5	3.00	2	1.20	3	1.80
VII.	7	1.61	7	1.61	4	0.96	3	0.72	3	0.72
VIII.	4	3.27	2	1.63	3	2.45	-	-	-	-
IX.	1	0.45	5	2.23	2	0.90	1	0.45	1	0.45
X.	1	1.02	-	-	-	-	-	-	-	-
Total	96	2.39	70	1.74	65	1.62	35	0.87	31	0.77

TABLE OF SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER IN EACH
DISTRICT IN 1891.

DISTRICTS.	SCARLET FEVER.				DIPHTHERIA.				TYPHOID FEVER.			
	Cases Reported.	Deaths.	Cases per 1,000 of pop.	Deaths per 1,000 of pop.	Cases Reported.	Deaths.	Cases per 1,000 of pop.	Deaths per 1,000 of pop.	Cases Reported.	Deaths.	Cases per 1,000 of pop.	Deaths per 1,000 of pop.
I.	26	-	3.55	-	11	4	1.51	.55	6	1	0.82	.14
II.	3	-	0.42	-	17	3	2.37	.42	5	2	0.69	.28
III.	22	-	7.97	-	6	2	3.18	.73	3	1	1.09	.37
IV.	16	1	3.24	.21	32	8	6.57	1.64	5	2	1.03	-
V.	49	2	6.34	.26	18	2	2.34	.26	7	2	0.91	.26
VI.	11	-	6.54	-	7	1	4.19	.59	4	2	2.39	1.19
VII.	22	-	5.26	-	14	-	3.37	-	4	1	0.95	.24
VIII.	4	-	3.27	-	5	-	4.08	-	2	1	1.63	.81
IX.	4	-	1.79	-	5	1	2.23	.45	1	-	0.45	-
X.	4	-	4.13	-	1	1	1.03	1.03	2	-	2.06	-
Total	161	3	4.01	.07	116	22	2.89	.54	39	10	0.97	.24

RATES PER THOUSAND OF POPULATION OF CASES OF SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER REPORTED, AND OF DEATHS FROM THE SAME IN THE LAST SEVEN YEARS.

Districts.	1884.			1885.			1886.			1887.			1888.			1889.			1890.			Average for Seven Yrs.		
	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.
I.	11.35	5.76	1.26	5.67	5.12	1.83	2.25	2.59	0.86	10.48	1.45	2.74	3.51	2.44	2.29	4.24	3.24	3.11	3.55	1.51	0.82	5.86	3.16	1.84
{	0.55	1.26	0.18	0.37	2.20	0.55	-	0.52	0.17	2.10	0.32	0.64	0.61	1.07	0.46	0.28	0.84	0.42	-	0.55	0.14	0.56	0.97	0.37
{	2.40	1.11	1.66	2.63	1.50	1.50	1.77	2.12	0.89	1.82	0.66	1.16	4.07	0.94	0.78	2.32	2.17	1.01	0.42	2.37	0.69	2.20	1.55	1.10
{	-	0.37	0.19	0.19	0.41	0.19	-	0.35	-	-	-	0.17	0.47	0.31	0.31	-	0.43	0.29	-	0.42	0.28	0.09	0.33	0.20
{	10.90	4.76	1.91	8.70	1.45	0.48	5.03	0.46	-	3.84	0.85	0.85	0.81	2.43	2.43	1.19	1.11	4.11	7.97	3.18	1.09	5.49	2.03	1.55
{	0.95	0.48	-	0.97	0.48	-	0.46	0.46	-	1.71	0.43	0.43	0.40	0.40	1.21	0.37	-	-	-	0.73	0.37	0.69	0.43	0.29
{	8.86	2.15	0.54	9.54	1.64	1.36	4.38	0.77	0.77	3.85	2.16	1.20	1.36	2.72	1.71	1.24	2.52	0.84	3.28	6.57	1.03	4.64	2.65	1.06
{	-	0.27	0.54	0.55	1.09	0.82	0.26	0.26	0.26	0.96	1.20	0.48	-	1.14	0.45	0.88	0.63	0.21	0.21	1.64	-	0.41	0.89	0.39
{	2.58	3.43	1.20	6.98	2.97	0.17	3.46	4.78	0.33	4.00	1.54	0.93	2.04	2.89	1.59	4.04	4.58	0.95	6.34	2.34	0.91	4.21	3.22	0.87
{	-	0.52	0.34	0.17	0.17	0.17	-	1.65	-	0.62	0.31	0.31	0.15	0.15	0.45	-	0.94	0.13	0.26	0.26	0.26	0.17	0.57	0.24
{	26.44	12.44	-	10.27	16.59	0.79	2.99	1.49	-	6.96	1.39	2.08	2.63	1.98	1.32	3.65	0.61	2.43	6.58	4.19	2.39	8.50	5.53	1.29
{	1.56	4.67	-	-	3.16	-	0.75	-	-	0.70	-	-	-	0.66	-	-	-	-	-	0.59	1.19	0.43	1.30	0.17
{	10.06	3.14	0.63	7.34	3.51	1.60	5.43	4.22	0.60	8.45	0.85	1.41	5.59	1.07	1.07	3.45	4.68	0.41	5.26	3.37	0.95	6.51	2.98	0.95
{	-	0.31	-	1.60	1.28	0.64	-	0.30	0.30	0.56	0.28	0.28	0.27	0.53	-	-	0.98	-	-	-	0.24	0.35	0.53	0.21
{	17.95	3.17	2.11	7.51	7.51	6.44	1.01	-	-	17.05	-	3.79	7.17	-	4.52	2.49	4.14	-	3.27	4.08	1.63	8.06	2.70	2.64
{	1.06	-	1.06	-	-	1.07	-	-	-	1.89	-	-	1.77	0.88	-	-	0.83	-	-	-	0.81	0.67	0.12	0.55
{	7.79	3.55	1.18	22.81	3.60	1.20	6.24	3.97	1.70	5.82	0.53	1.06	7.51	3.00	2.00	-	4.63	1.65	1.79	2.23	0.45	7.32	3.07	1.35
{	-	-	0.59	-	-	-	-	0.57	-	0.53	-	-	1.50	0.50	1.00	-	-	-	-	0.45	-	0.29	0.22	0.23
{	10.74	-	1.34	9.55	4.09	2.72	5.15	10.30	-	8.40	4.80	-	4.54	2.27	3.40	2.10	8.40	-	4.13	1.03	2.06	6.37	4.41	1.36
{	-	-	-	1.36	-	-	1.29	-	-	-	-	-	-	1.13	1.13	4.20	-	-	-	1.03	-	0.19	1.69	0.16
{	8.21	3.64	1.18	7.54	3.67	1.37	3.47	2.87	0.63	5.94	1.29	1.20	3.42	2.09	1.75	4.94	3.34	1.57	4.01	2.89	0.97	5.36	2.82	1.24
{	0.26	0.69	0.26	0.47	0.93	0.37	0.09	0.63	0.09	0.91	0.32	0.32	0.42	0.59	0.48	0.18	0.72	0.18	0.07	0.54	0.24	0.34	0.63	0.28

NUISANCES ABATED IN EACH DISTRICT IN 1890.

DISTRICT. Population (estimated).	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	Total.
Barn used as residence	-	-	-	-	-	-	-	1	-	-	1
Cellar damp	1	3	2	1	4	1	1	-	2	-	15
Cesspool offensive	-	-	1	-	-	2	1	-	-	-	4
Cesspool overflowing	1	-	1	-	-	3	2	-	-	-	7
Connection of drainage pipes defective	2	6	2	-	6	1	1	-	1	1	20
Cow kept under house	-	-	-	-	-	-	1	-	-	-	1
Dog kept in cellar	-	1	-	1	-	-	-	-	-	-	2
Drainage defective	-	1	-	1	-	-	-	-	-	-	2
Drainage emptying in cellar	-	2	1	1	3	1	1	-	1	1	11
Drainage emptying on surface	7	4	2	2	2	4	2	3	-	-	26
Drainage not ventilated	-	-	2	2	4	-	-	-	-	-	8
Drain-pipe defective	1	-	1	-	3	-	-	1	2	-	8
Drying hair on land	-	-	-	-	-	-	-	1	-	-	1
Hennery offensive	-	-	-	1	-	-	1	-	-	-	2
Hens kept in cellar	-	-	-	1	-	-	-	-	-	-	1
Manure exposed and offensive	5	2	2	2	-	2	1	-	1	-	15
Offal in cellar	-	-	-	-	1	1	-	-	-	-	2
Offal on land	2	1	-	1	2	1	-	-	1	-	8
Offensive odor in and about dwellings	4	3	-	1	4	1	1	-	2	-	17
Opening in drain-pipe in cellar	-	2	1	-	-	-	1	-	1	-	5
Premises filthy	2	-	-	-	8	-	-	2	-	-	12
Premises undrained	-	1	-	-	-	-	-	2	-	-	3
Premises untidy	3	5	1	1	-	2	2	-	-	-	14
Privy-vault defective	1	5	1	7	3	1	2	2	-	-	22
Privy-vault full	20	12	2	25	9	15	3	5	3	3	97
Privy-vault offensive	20	14	2	29	14	16	3	6	-	3	107
Rubbish in cellar	-	1	-	2	-	1	2	-	2	-	8
Slops thrown on surface	-	1	-	-	-	1	-	-	-	-	2
Stable affected with glanders	-	-	-	-	-	1	-	-	-	-	1
Stable and stable premises filthy and offensive	1	1	1	-	-	-	1	1	1	-	6
Stagnant water in house cellar	-	-	-	-	-	1	-	-	-	-	1
Stagnant water on surface	-	2	-	-	-	-	2	-	-	-	4
Waste-pipe defective	2	-	-	1	-	1	-	1	-	2	7
Waste-pipe not trapped	1	2	1	-	1	2	6	-	-	1	14
Water-closet defective	1	-	1	-	3	-	-	-	1	-	6
Water-closet insufficiently sup- plied with water	1	-	-	1	4	-	1	-	1	-	8
Water-closet offensive	-	1	1	1	2	1	2	-	1	-	9
Total	75	70	26	81	73	59	37	25	20	11	477

APPROPRIATION FOR HEALTH DEPARTMENT AND
EXPENDITURES THEREFROM, 1890.

Appropriation	\$6,000 00
Receipts for permits to keep swine and goats and collect grease	221 00
	\$6,221 00
Total credit	

Expenditures : —

For inspector's salary	\$1,000 00
collecting ashes	2,823 78
collecting offal	1,650 20
burying dead animals	174 75
vaccine virus	15 01
books, stationery, printing, etc.	72 88
care of ash dumps	113 32
rent of post-office box	5 00
moving and storage of goods of persons ejected from condemned premises	17 00
improving sanitary condition of Columbia street	29 50
maps	37 50
constable's fee	1 24
carriage hire	16 00
sulphur	6 88
expressing	50
repairing wheelbarrow	25
	5,963 81
Total debit	
Balance unexpended	\$257 19

J. FRANK WELLINGTON.
CHAS. H. CRANE.
ALVAH B. DEARBORN.

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REPORT
OF THE
CITY PHYSICIAN.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

REPORT
OF THE
CITY PHYSICIAN.

To His Honor the Mayor and the City Council :—

The following is my report as city physician for the year ending December 31, 1890 :—

Number of visits made, 853. Three hundred and seven persons have been treated at my office. Twenty-six visits have been made at the police station.

The past year has been one of remarkable freedom from contagious diseases among the poor, eight having been treated for diphtheria, four for scarlet fever, and two for typhoid fever.

There have been nine deaths.

Nine certificates have been given where persons died unattended by a physician.

Eighty-six children have been vaccinated.

Six women have been attended in childbirth.

Eighteen persons have been examined for the police force.

Six persons have been examined for insanity, four of whom were committed.

Respectfully submitted,

ALVAH B. DEARBORN,

City Physician.

REPORT

OF THE

TRUSTEES OF THE PUBLIC LIBRARY.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 28, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 28, 1891.

Concurred in.

WILLIAM P. MITCHELL, *Clerk pro tem.*

CITY OF SOMERVILLE.

To the City of Somerville: —

Nothing unusual has occurred in the management and care of the Public Library during the year now closing. It is, however, gratifying to be able to assert that the increased demand and use of books is in pace with the growth of the population in the city. It must be apparent, from a moment's consideration of the subject, that the annual appropriations made by the City Government should receive no diminution. On the contrary, the condition of many of the books and the growing demand would seem to require even greater liberality.

The librarian now reports that upwards of 90,000 volumes were taken out during the past year; that is to say, the different volumes are taken out to be read at least five times on an average. If the whole number were taken out equally, it would be seen that the "wear and tear" would be inconsiderable; but the principal wear is upon certain classes of books, and the condition of these can be imagined. An actual examination discloses the fact that a great many of these books are in a state unfit for use, and some of them absolutely valueless, and no credit to any library. These books must be replaced by new ones, and a large part of last year's appropriation has been used for this purpose. But the same want is still pressing.

It cannot be claimed that the sums heretofore granted for the supply of books has been any burden to our tax-payers, or that any complaints have been made from that source. Taking our population to be 40,000, it would seem that an expenditure of \$4,000 would

be only ten cents to a person. Or, if we take our assessors' valuation at \$30,000,000, the same expenditure would impose a tax of about one-seventh part of a mill on a hundred dollars; or, if we desire to ascertain the cost of circulation, take the number of books taken out at 90,000, and the whole annual expenditure of the library at \$4,000, and we shall find the cost of the use of each book by the reader is less than a half cent. This certainly shows that the library has been economically managed, and that there can be no just charge of extravagance.

The trustees do not, therefore, hesitate to request a larger appropriation for the ensuing year, while the wants of the library imperatively demand it.

The report of the librarian contains a statement in detail of the work done under her charge, and of the acquisitions to the library during the past year, and is respectfully submitted herewith.

CHARLES S. LINCOLN,	<i>President.</i>	
C. E. RYMES,	}	
GEORGE A. BRUCE,		
WILLIAM E. WELD,		
JAMES E. WHITAKER,		
JOHN B. VIALI,		<i>Trustees.</i>
J. HENRY FLITNER,		
ELIJAH C. CLARK,		
CHARLES H. BROWN,		

SOMERVILLE, Dec. 3, 1890.

LIBRARIAN'S REPORT.

To the Trustees of the Somerville Public Library:—

GENTLEMEN, — In accordance with the rules and regulations of the library, I have the honor to submit herewith my report as librarian, on the condition and work of the library for the year ending December, 1890, being the eighteenth annual report since the organization of the library.

ACCESSIONS.

The library now contains 18,151 volumes, and of this number 1,428 have been added during the year. Three hundred and twenty-two have been withdrawn because worn out. The histories of many of the towns and cities of our Commonwealth have been placed in the Reference library; the *London Graphic*, in thirty-six volumes, "Old and new Boston," and "Dictionary of Anonymous Literature," four volumes. Among the most valued of our recent additions none are more prized than the "Cyclopædia of Music and Musicians," now completed in three volumes.

Among the books intended for circulation are "Heroes of the Dark Continent," "Massachusetts in the War," "One of a Thousand," "Emin Pasha Expedition," "Marriages of the Bourbons," "Influence of Sea Power upon History," "The House of the Wolfings," "Civil War on the Border," "Five Years among the Congo Cannibals," "The Reign of Charles IV.," "Sacred Books of the East," in thirty-six volumes, "History of Rome," in eight volumes, "History of Abraham Lincoln," in ten volumes, "The Republic; or, History of the Adminis-

trations," in eighteen volumes, "In Darkest Africa," "Historic Oddities," "Pre-historic America," "Psychology," "Four Years in Rebel Capitals," "Gleanings from Japan," "Characteristics of Volcanoes," "Great Speeches by Great Lawyers," "Great Opinions by Great Judges," "Experimental Science," "The Argonauts of California," "In Darkest England and the Way Out."

An unusual amount of books of biography and fiction have been placed in the library, and many duplicate sets of books by authors most read have also been purchased.

CIRCULATION.

The circulation for 304 library days has been 87,376. Of this number, 912 were used for reference and 86,464 for home use. The largest number given out on any day was 727, on February 1st. The smallest number was 128, on July 11th. Five hundred and forty volumes have been bound and rebound. In fiction much the largest number of books is called for; essays, including education, science, theology, etc., come next, with history and travel nearly as large; periodicals with drama next, biography next, with poetry last. An endeavor has been made, by supplying the High and grammar schools with extra cards, to make the library more useful to the teachers, allowing five cards to each teacher to use for school purposes. Many of the teachers had not before made any use of the library, and all seemed pleased with the suggestion. The teaching of history or geography can be made so much more delightful where many books on the same subject are at hand, and so easily procured as at the library, and where a class are interested to present something new from their own reading.

Not only in the school work will it be useful, but also in directing and guiding some of our young people who have already acquired a taste for reading, which is a very important beginning.

Quite small boys take out, and read, three and four books a week, know just what authors they like best, understand all about catalogues, supplements, bulletins, and even the card-catalogue. This they like, because they find there all the books of one author together; this, too, with scarcely any showing or extra pains on our part. course, they show and assist each other. They never ask the questions older people are sometimes inclined to, or expect to find a

book in the library, as they would in a book-store, the day it was issued ; but, taking out books regularly, are content to take the book that we find, after they may have selected innumerable numbers, instead of becoming discouraged and going without any if the one book asked for happens to be out.

Some people wonder that anybody else should fancy the very book they had set their heart on, and say, " Well, I never can find the book in that I want," and then are ready to go away thinking it is of no use to try any more.

It is only by ascertaining the special tastes of some that the right book can be found, or another substituted, sometimes better than their own choice.

The old favorites among books still hold their own among the crowd of newer ones. " Uncle Tom's Cabin " leads in circulation, as it always has, and " Robinson Crusoe " is as great a favorite as when he first related his wonderful adventures.

REGISTRATION.

The registration for 1890 shows that during the year 5,131 persons have taken out books. Fourteen thousand nine hundred and seventy-three books have been covered, and 1,500 postal cards sent for books overdue.

The work of the assistants has been carried on in a careful and thorough manner, and the results accomplished have been all that could be desired.

The last week in March two stations for the delivery of books were established, one at West Somerville and one at East Somerville, where books are carried and returned by express four times a week. People have gladly availed themselves of this privilege, and evidences of its popularity are constantly given.

Through these two stations 5,948 books have been delivered. Other stations will undoubtedly be established in different sections of the city when called for.

Many successful attempts have been made to collect and gather up fragments of the early history of Somerville, and could they all be brought together, they would of themselves make a history.

The scrap-book of the library is to contain everything of the kind which can be obtained, and we hope that all who have any such

material on hand will contribute to the collection, which, when complete, will be for the benefit of all.

Some further accommodation for the placing of books will soon be needed, and the time is soon coming when the building itself will have to be enlarged, as it easily can be by extending the book room.

H. A. ADAMS, *Librarian.*

LIBRARY COMMITTEE.

G. A. BRUCE	Time expires 1892
J. H. FLITNER	“ “ 1892
E. C. CLARK	“ “ 1892
W. E. WELD	“ “ 1893
J. B. VIALI	“ “ 1893
J. E. WHITAKER	“ “ 1893
C. S. LINCOLN	“ “ 1894
C. E. RYMES	“ “ 1894
C. H. BROWN	“ “ 1894

President. — C. S. LINCOLN.

Secretary. — W. E. WELD.

On Building and Grounds. — C. E. Rymes, G. A. Bruce, J. B. Viall.

On Administration. — J. E. Whitaker, E. C. Clark, W. E. Weld.

On Books and Catalogues. — G. A. Bruce, C. E. Rymes, C. H. Brown, J. E. Whitaker.

On Finance. — J. H. Flitner, J. B. Viall, E. C. Clark.

Librarian. — H. A. ADAMS.

FINANCIAL STATEMENT OF CITY TREASURER.

CR.

Appropriation	\$3,000 00
Dog licenses	2,631 12
Fines	327 91
Catalogues	42 30
J. O. Paul	1 50
	<hr/>
	\$6,002 83

DR.

Salaries	\$1,808 70
Books	2,610 54
Printing and stationery	245 10
Binding	230 48
Newspapers	29 55
Gas	174 19
Fuel	169 15
Water	26 97
Repairs	4 50
Furniture	119 00
Expressing	125 45
Incidentals ¹	50 29
Insurance	252 00
Branch office	25 00
	<hr/>
	\$5,870 92
Balance to 1891	131 91
	<hr/>
	\$6,002 83

REPORT
OF THE
COMMITTEE ON HIGHWAYS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Concurred in

CHARLES S. ROBERTSON, *Clerk.*

REPORT
OF THE
COMMITTEE ON HIGHWAYS.

IN COMMITTEE ON HIGHWAYS, January 3, 1891.

To the City Council of Somerville : —

The following is respectfully submitted as the final report of this committee for the year ending December 31, 1890 : —

HIGHWAYS ACCOUNT.

CREDIT.

Appropriation		\$45,000 00
Transfer from Street Lights account		1,000 00
Receipts and credits : —		
For labor and materials furnished prior to January 1, 1890, the bills for which remained uncollected that day	\$582 26	
rent of dwelling at City Farm	\$136 00	
less repairs and water rates	90 05	
	45 95	
<i>Amounts carried forward</i>		\$628 21 \$46,000 00

<i>Amounts brought forward</i>	\$628 21	\$46,000 00
pasturage at Waltham		
gravel land	\$120 00	
less taxes on said land	119 00	
	<u> </u>	1 00
gravel sold from Wake-		
field gravel land	\$100 00	
less taxes on said land	26 88	
	<u> </u>	73 12
		<u> </u>
		702 33
pay of laborer not called for		2 00
Value of materials on hand January 1, 1890		1,237 31
Value of property (including steam road-roller purchased in 1889) on hand January 1, 1890		12,915 40
Net gain on tools, property, and materials		104 05
		<u> </u>
Total credit		\$60,961 09

DEBIT.

Expenditures: —

For construction of Carlton street	\$106 55	
construction of Chandler street	396 85	
construction of Dana street	318 55	
construction of James street	151 90	
construction of Mills street	75 50	
construction of Madison street	108 75	
construction of Montgomery and Wellington		
avenues	1,045 04	
construction of Sargent avenue	584 35	
construction of St. James avenue	683 77	
construction of Virginia street	373 85	
street crossings	884 03	
street signs	959 90	
repairs and improvements of streets		
and paving of gutters in connection with setting of edgestones:—		
Beacon and Harris street, at William H. Berry's, paving	\$79 95	
	<u> </u>	<u> </u>
<i>Amounts carried forward</i>	\$79 95	\$5,689 04

<i>Amounts brought forward</i> . . .	\$79 95	\$5,689 04
Bonner avenue, westerly side, Washington street to Colum- bus avenue, paving . . .	223 80	
repairs	222 55	
Bow street, Warren avenue to Walnut street, paving . . .	96 75	
Columbus avenue, from estate of Charles A. Cushman, easterly, to end of avenue, paving . .	114 35	
Elm street, southwest side, from near estate of William T. Hen- derson to Mossland street, paving	196 35	
Evergreen avenue, both sides, School to Thurston street, paving	285 05	
repairs	167 40	
Howe street, both sides, School to Marshall street, paving . .	313 90	
repairs	331 60	
Irving street, northwest side, Holland to Broadway, paving,	322 75	
Medford street, southerly side, School to Central street, pav- ing	415 00	
Medford street, northerly side, School to Tennyson street, paving	277 60	
Mills street, both sides, Walnut street to Sargent avenue, pav- ing	399 50	
Morrison street, at Charles S. Philbrick's, paving	18 73	
Mossland street, at estate of S. Spencer, paving	13 10	
<i>Amounts carried forward</i> . . .	<u>\$3,478 38</u>	<u>\$5,689 04</u>

<i>Amounts brought forward</i> . . .	\$3,478 38	\$5,689 04
Newbury street, east side, from Holland street to southwesterly side line of estate of Willard Dalrymple, paving	250 90	
Pearl street, corner Dana street, at estate of Charles H. Rams- dell, paving	51 35	
Pearl street, southwest side, Cross to Walnut street, paving, Sanborn avenue, at estate of R. H. Sturtevant and L. M. Ellis, paving	614 55	
Sargent avenue, both sides, Broadway to Mills street, pav- ing	57 07	
School street, both sides, from Summer street to Highland avenue, paving	372 68	
repairs	849 03	
	398 20	
Virginia street, both sides, Ald- rich to Jasper street, paving .	272 10	
	<hr/>	6,344 26

Ordinary repairs of streets : —

Bonair street, from Cross to Wal- nut street	826 85
Bow street, from near Summer street to Union square	104 00
Broadway, from Wheatland street northerly, about 250 feet	433 70
Cedar street, from branch R. R. track to Broadway	1,704 15
Chauncey avenue, from Jaques street easterly, about 250 feet,	140 60
Chester street, from Cambridge line to Elm street	317 85

<i>Amounts carried forward</i> . . .	\$3,527 15	\$12,033 30
--------------------------------------	------------	-------------

<i>Amounts brought forward</i>	\$3,527 15	\$12,033 30
Elm street, from Mossland street to Somerville avenue	211 80	
Holland street, from R. R. track, Russell square	1,656 35	
Irving street, from Broadway southwesterly, about 250 feet,	145 00	
Medford street, from Fitchburg railroad to Cambridge line	1,235 56	
Medford street, from Central street to Magoun square	483 80	
Medford street, from School street to Tennyson street	418 35	
Mt. Pleasant street, from Broad- way to Perkins street	266 50	
Mt. Vernon street, from Broad- way to Pearl street	142 90	
Newton street, from Prospect street to Fitchburg railroad	91 60	
Summer street, from Central street to Green street	89 55	
Washington street, from Somer- ville avenue to Medford street,	2,560 70	
Wheatland street, from Broad- way to Jaques street	892 00	
General repairs	13,668 76	
	<hr/>	25,390 02
cost to city of sidewalks, the bricks and edge- stones for which were furnished by the abutters,		848 78
repairs of stone paving		375 79
repairs of brick sidewalk		1,021 48
removing snow and ice and care of slippery side- walks		874 00
cleaning streets		5,788 90
clearing and repairing streets after the construction of sewers and catch-basins		39 00
sidewalk assessment, Sargent avenue		13 97
<i>Amount carried forward</i>		<hr/> \$46,385 24

<i>Amount brought forward</i>	\$46,385 24
setting trees	73 00
trimming trees	92 40
building shed for steam road roller	145 22
removing turnout at Cross street.	7 00
repairing fence at Middlesex avenue	49 99
opening for new street, Broadway, near Thurston street	11 90
repairs at Central-street bridge	151 20
advertising notice of hearing, laying out of Brastow avenue	10 50
advertising notice of hearing, laying out of Gibbens street	11 50
advertising notice of hearing, laying out of Montrose street	11 75
advertising notice of hearing, laying out of Norwood avenue	10 15
advertising notice of hearing, laying out of Runey street	11 50
advertising notice of hearing, laying out of Richdale avenue	11 25
advertising notice of hearing, laying out of Tremont street	8 15
advertising notice of hearing, laying out of Tyler street	10 15
advertising notice of hearing, laying out of William street	10 15
recording release, laying out of Howe street	65
one-half cost of maintaining Middlesex-avenue bridge for the year 1889; the other half being paid by the Town of Medford	629 12
superintendent's salary	1,500 00
board of superintendent's horses	359 45
rent of superintendent's telephone	41 85
tax on Winchester gravel land	11 33
building fence, North street	47 30
sundry small expenses	89 00
<i>Amount carried forward</i>	<u>\$49,689 75</u>

<i>Amount brought forward</i>		\$49,689 75
books, stationery, and printing		92 25
private work and materials, the bills for which remain uncollected		621 71
changing driveway		14 42
Value of materials on hand this day		1,728 20
Value of property on hand this day :—		
horses	\$3,000 00	
carts and implements used with horses	2,569 00	
harnesses and horse clothing	352 00	
stable utensils and property	92 75	
tools	313 75	
stone crusher, engine and fittings	951 00	
steam road roller	3,514 25	
		<u>10,792 75</u>
Total debit		\$62,939 08
Amount overdrawn		<u>\$1,977 99</u>

Labor and materials have also been furnished, for which payment has been made to the city treasurer, or credit received, as follows:—

Private parties, constructing driveways, sidewalks, etc.		\$1,215 59
Public Grounds account, constructing driveways at High School and library,	\$449 13	
Use of horse at Broadway Park	31 55	
		<u>486 68</u>
Watering Streets account, paving around stand-pipes,		120 75
Total		<u>\$1,817 02</u>

We have also sold

grass from City Farm	\$75 00
old junk	22 40
hogs from city stables	8 30
crushed stone (West End Street R. R. Co.)	1,051 27
repairing approaches at Cedar-street bridge	321 15
Total	<u>\$1,478 12</u>

The profit and loss account on city teams, tools, property, and materials is as follows:—

DEBIT.	
Tools, etc. (depreciation)	\$119 45
Repairs of tools (depreciation)	174 95
Holland-street ledge	686 99
City teams	512 51
Steam road roller	1,270 63
Total	<u>\$2,764 53</u>
CREDIT.	
Crushed stone	<u>2,868 58</u>
Net excess of credit over charges	<u>\$104 05</u>

The ledge has been worked during the year ninety-two days, mostly in the winter and early spring, as has been the usual custom. The price for stone has remained the same as last year delivered at the crusher, namely, forty-five cents for each single load, and for ballast delivered on the streets ten cents per single load.

Crushed stone has been charged, where it has been used, at the same price as in previous years, namely, seventy-five cents per load

at the crusher. This account shows a profit for the year of \$2,868.58. There was remaining on hand December 31, 500 loads.

Seventy-two hundred and seventy-six yards of gravel has been received from the Waltham gravel bank, at a cost of transportation of sixty cents per yard. Four hundred and fifteen loads have also been purchased from private parties during the year. One thousand loads of the Waltham gravel remained on hand at the Dane-street dump December 31. All the stone taken from the gravel has been sent to the crusher.

The charges to the city teams account are for: —

Horses (depreciation)	\$2,305 00
Carts and implements used with horses (depreciation)	29 50
Repairs of same	828 69
Harnesses and horse clothing (depreciation)	47 30
Repairs of same	380 32
Stable utensils and property (depreciation)	88 17
Stable expenses and repairs	1,313 65
Grain and feed	2,093 43
Hay and straw	1,125 73
Horseshoeing	545 16
Horse medicine and doctoring	157 71
Total	<u>\$8,914 66</u>

The credit to this account for earnings has been at the rate of \$1.40 per day for every day during the year that each horse has worked, which amounts to \$8,402.15, which is a loss of \$512.51.

One driving horse has been purchased during the year for the use of the superintendent of streets, at a cost of \$155. One pair of bay horses has also been purchased, for which the city has given in exchange one old horse and \$400. Two horses have also died during the year. At present there are twenty-three horses in the department, including two used by the superintendent.

SIDEWALKS ACCOUNT.

CREDIT.

Appropriation	\$10,000 00
Credit: pay of laborer not called for	2 00
	<hr/>
Total credit	\$10,002 00

DEBIT.

Expenditures: —

For Broadway sidewalk, southwesterly side, from School to Marshall street,	\$491 30
Broadway sidewalk, southerly side, from School to Sycamore street .	598 28
Bonner avenue, westerly side, from Washington street to Columbus avenue	277 01
Bow street sidewalk, easterly side, from Warren avenue to Walnut street	333 59
Church street sidewalks, easterly side, from Somerville avenue to Summer street	393 39
Columbus avenue sidewalks, from estate of C. A. Cushman easterly to end of avenue	196 05
Elm street sidewalks, southwesterly side, from a point 145 feet southeast of the northwesterly side line of the estate of William T. Henderson to Mossland street	851 77
Evergreen avenue sidewalks, both sides, from School street to Thurston street	604 06
	<hr/>
<i>Amount carried forward</i>	\$3,745 45

<i>Amount brought forward</i>	\$3,745 45
Howe street sidewalks, both sides, from School street to Marshall street	526 53
Highland avenue sidewalks, south- westerly side, from Central street to Trull lane	488 98
Irving street sidewalks, northwesterly side, Holland street to Broadway,	690 88
Linwood street sidewalks, easterly side, from Washington street to railroad	1,825 40
Medford street sidewalks, southerly side, from School street to Central street	937 60
Medford street sidewalks, northerly side, from School street to Tenny- son street	1,538 04
Mills street sidewalks, both sides, from Walnut street to Sargent avenue	736 60
Newbury street sidewalks, easterly side, from Holland street to south- westerly side line of estate of Wil- lard Dalrymple	774 92
Pearl street sidewalks, southwesterly side, from Cross street to Walnut street	999 64
Preston street sidewalks, both sides, from School street to Summer street,	1,268 40
Prescott street sidewalks, south- easterly side, from Summer street to Highland avenue	989 00
Sargent avenue sidewalks, both sides, from Broadway to Mills street	683 97
School street sidewalks, both sides, from Summer street to Highland avenue	1,213 06
<i>Amount carried forward</i>	<u>\$16,418 47</u>

<i>Amount brought forward</i>	\$16,418 47	
School street sidewalks, easterly side, from Somerville avenue to Summer street	615 07	
Tufts street sidewalks, northeasterly side, from Washington street to Cross street	554 40	
Virginia street sidewalks, both sides, from Aldrich street to Jasper street,	524 00	
	<hr/>	
Total cost of sidewalks		\$18,111 94
Less assessments		9,056 00
		<hr/>
Cost to city		\$9,055 94
Advertising notice of hearing for side- walk in Chandler street, westerly side, from Park avenue to north- easterly side line of estate of Amy A. Bailey	\$8 50	
Sidewalk in Chauncey avenue, west- erly side, from Jaques street north- erly 378 feet	8 50	
Sidewalk in Norfolk street, Webster avenue to Cambridge line	5 00	
Abatement of sidewalk assessment, Putnam street	9 34	
Abatement of sidewalk assessment, Linwood street	63 10	
	<hr/>	94 44
		<hr/>
		\$9,150 38
		<hr/>
Balance unexpended		<u>\$851 62</u>

NEW STREETS AND SIDEWALKS.

Fourteen private ways have been laid out and accepted by the city as public streets during the year, as follows :—

Brastow avenue, from Porter street to Lowell street.

Carlton street, from Somerville avenue to Lake street.

Chandler street, from Park avenue to Broadway.

Gibbens street, from Central street to Benton avenue.

Madison street, from School street to Sycamore street.

Mills street, from Walnut street to Sargent avenue.

Montrose street, from School street to Sycamore street.

Norwood avenue, from Medford street to Broadway.

Richdale avenue, from School street to Sycamore street.

Runey street, from Cross street to Aldrich street.

Sargent avenue, from Broadway to Mills street.

Tremont street, from Webster avenue to the Cambridge line.

Tyler street, from Dane street to Vine street.

William street, from Elm street to Chandler street.

Carlton street, from Somerville avenue to Lake street, has been gravelled.

Chandler street, from Broadway to Park street, has been gravelled.

Dana street, from Pearl street to Everett avenue (partially constructed in 1889), has been completed, — gravelled.

James street, from Pearl street to Veazie street, has been gravelled.

Mills street, from Sargent avenue to Walnut street, has been gravelled, and edgestones and gravelled sidewalks constructed on both sides.

Montgomery and Wellington avenues (partially constructed in 1889) has been completed, — macadamized.

Sargent avenue, from Broadway to Mills street, has been macadamized, and gravelled sidewalks with edgestone constructed on both sides.

St. James avenue, from Summer street to Elm street (partially constructed during the year 1889), has been completed, — macadamized.

Virginia street, from Aldrich street to Jasper street, has been macadamized, and gravel sidewalks with edgestones constructed on both sides.

GENERAL REPAIRS.

Considerable attention has been given to general repairs of streets during the year, the sum expended under this head amounting to \$13,668.76.

SCHEDULES.

Particulars of the work performed may be found in the following schedules:—

STREETS ACCEPTED.

NAME.	FROM.	To.	Length in Feet.
Brastow Avenue . . .	Porter Street . . .	Lowell Street . . .	686
Carlton Street . . .	Somerville Avenue . . .	Lake Street . . .	300
Chandler Street . . .	Park Avenue . . .	Broadway . . .	1,232
Gibbens Street . . .	Central Street . . .	Benton Avenue . . .	492
Madison Street . . .	School Street . . .	Sycamore Street . . .	891
Mills Street . . .	Walnut Street . . .	Sargent Avenue . . .	560
Montrose Street . . .	School Street . . .	Sycamore Street . . .	886
Norwood Avenue . . .	Medford Street . . .	Broadway . . .	350
Richdale Avenue . . .	School Street . . .	Sycamore Street . . .	875
Runey Street . . .	Cross Street . . .	Aldrich Street . . .	753
Sargent Avenue . . .	Broadway . . .	Mills Street . . .	522
Tremont Street . . .	Webster Avenue . . .	Cambridge Line . . .	589
Tyler Street . . .	Dane Street . . .	Vine Street . . .	404
William Street . . .	Elm Street . . .	Chandler Street . . .	381

STREETS IMPROVED.

STREET.	FROM.	To.	IMPROVEMENT.	FEET.
Bonair St. . . .	Cross St. . . .	Walnut St. . . .	Re-macadamized and gravelled	1,470
Bonner Ave. . . .	Columbus Ave. . . .	Washington St. . . .	Gravelled	450
Broadway	Wheatland St. . . .	N'yly about 250 ft.	Re-macadamized and gravelled	250
Carlton St. . . .	Somerville Ave. . . .	Lake St. . . .	Gravelled	300
Cedar St. . . .	Branch R.R. Track	Broadway	Re-macadamized and gravelled	1,800
Chandler St. . . .	Park Ave. . . .	Broadway	Gravelled	1,200
Chester St. . . .	Elm St. . . .	Cambridge Line . . .	Gravelled	850
Dana St. . . .	Pearl St. . . .	Everett Ave. . . .	Gravelled	200
Elm St. . . .	Mossland St. . . .	Somerville Ave. . . .	Re-macadamized and gravelled	800
Evergreen Ave. . . .	School St. . . .	Sycamore St. . . .	Gravelled	825
Howe St. . . .	Marshall St. . . .	School St. . . .	Re-macadamized and gravelled	445
Holland St. . . .	Railroad Track . . .	Russell Sq. . . .	Re-macadamized and gravelled	2,600
James St. . . .	Pearl St. . . .	Veazie St. . . .	Gravelled	320
Medford St. . . .	Fitchburg R.R. . . .	Cambridge Line . . .	Re-macadamized and gravelled	800
Medford St. . . .	School St. . . .	Tennyson St. . . .	Re-macadamized and gravelled	1,200
Medford St. . . .	Central St. . . .	Magoun Sq. . . .	Re-macadamized and gravelled	2,020
Mills St. . . .	Walnut St. . . .	Sargent Ave. . . .	Gravelled	500
Montgomery Ave. . . .	Broadway	Wellington Ave. . . .	Re-macadamized and gravelled	265
Mt. Pleasant St. . . .	Broadway	Perkins St. . . .	Gravelled	570
Mt. Vernon St. . . .	Broadway	Pearl St. . . .	Gravelled	1,000
Sargent Ave. . . .	Broadway	Mills St. . . .	Re-macadamized and gravelled	450
School St. . . .	Summer St. . . .	Highland Ave. . . .	Re-macadamized and gravelled	900
St. James Ave. . . .	Summer St. . . .	Elm St. . . .	Re-macadamized and gravelled	488
Virginia St. . . .	Aldrich St. . . .	Jasper St. . . .	Re-macadamized and gravelled	405
Washington St. . . .	Somerville Ave. . . .	Medford St. . . .	Re-macadamized and gravelled	1,500
Wellington Ave. . . .	Walnut St. . . .	Montgomery Av. . . .	Re-macadamized and gravelled	250
Wheatland St. . . .	Broadway	Jaques St. . . .	Re-macadamized and gravelled	495

SIDEWALKS CONSTRUCTED WHERE THE MATERIALS AND LABOR WERE FURNISHED BY THE CITY, AND ONE-HALF OF THE COST WAS ASSESSED UPON THE ABUTTING ESTATES.

STREET.	FROM.	To.	Feet of Edge-stones.	Yards of Brick.	Cost.
Broadway . . .	School St.	Marshall St.	-	514	\$491 30
Broadway . . .	School St.	Sycamore St.	-	673	598 28
Bonner Ave. . .	Washington St.	Columbus Ave.	366	-	277 01
Bow St.	Warren Ave.	Walnut St.	152	268	333 59
Church St. . . .	Somerville Ave.	Summer St.	-	435	393 39
Columbus Ave. .	Estate C. A. Cushman	End of Avenue	368	-	196 05
Elm St.	N. estate W. T. Henderson	Mossland St.	537	625	851 77
Evergreen Ave. .	School St.	Thurston St.	857	-	604 06
Howe St.	School St.	Marshall St.	891	-	526 53
Highland Ave. .	Central St.	Trull Lane	-	480	488 98
Irving St. . . .	Holland St.	Broadway	1,205	-	690 88
Linwood St. . . .	Washington St.	Railroad	21	1,703	1,825 04
Medford St. . . .	School St.	Central St.	1,392	-	937 06
Medford St. . . .	School St.	Tennyson St.	1,095	932	1,538 04
Mills St.	Walnut St.	Sargent Ave.	1,076	-	736 60
Newbury St. . . .	Holland St.	we'ly line estate Dalrymple	1,099	-	774 92
Pearl St.	Cross St.	Walnut St.	1,491	-	999 64
Preston St. . . .	School St.	Summer St.	1,722	-	1,268 40
Prescott St. . . .	ummer St.	Highland Ave.	-	1,015	989 00
Sargent Ave. . . .	Broadway	Mills St.	1,070	-	683 97
School St.	Summer St.	Highland Ave.	1,826	-	1,213 06
School St.	Somerville Ave.	Summer St.	-	652	615 07
Tufts St.	Washington St.	Cross St.	-	616	554 40
Virginia St. . . .	Aldrich St.	Jasper St.	859	-	524 00
Total . . . . .	. . . . .	. . . . .	16,027	7,913	\$18,111 94

SIDEWALKS CONSTRUCTED WHERE THE EDGESTONES AND
BRICKS WERE FURNISHED BY THE ABUTTERS.

FOR.	STREET.	Feet of Edgestones.	Yards of Bricks.
Maria P. Anderson	Broadway and Marshall Sts.	-	43.5
John L. Ambrose	Columbus Ave.	-	75.5
Wm. M. Armstrong	Summer St.	84.6	73
Wm. H. Berry	Cor. Beacon and Harris Sts.	27	-
Walter S. Barnes	Highland Ave.	-	4
Estate Maria T. Hollander	Boston St.	-	30
C. F. Hastings	Summit Ave.	-	30
Joseph J. Giles	Putnam St.	-	49
George D. Goodrich	{ Jaques, Temple, School, } and Montrose Sts. . . }	174.1	-
Wm. T. Henderson	Elm St.	-	330
J. B. Humphrey	Highland Ave.	-	113
George H. Hills	Summit Ave.	-	118
S. A. Harding	Sycamore St.	-	7.5
Mulliken and Moore	Gilman Sq.	96.2	-
Annie E. Milner	Highland Ave.	-	46
Charles S. Philbrick	Morrison St.	60	45.5
Wm. H. Preston	Boston St.	-	62
Charles H. Ramsdell	Cor. Dana and Pearl Sts. . .	148.8	-
George W. Shaw	Oakland Ave.	-	36
Sylvanus Spencer	Mossland St.	71.7	43
R. H. Sturtevant	Sanborn Ave.	166.7	116
M. C. Wright	Summit Ave.	-	42
H. K. Woodward	Mossland St.	-	22
Adelia A. Wheelock	Sanborn Ave.	57.2	40
W. Somerville Bap. Church	Elm St.	89.4	86.5
W. Somerville Bap. Church	Winslow Ave.	101.7	-
John M. Woods	School St.	-	76
John M. Woods	Avon St.	88.1	58.5
Total . . . . .	. . . . .	1,165.5	1,547

DRIVEWAYS CONSTRUCTED (AT EXPENSE OF ABUTTERS).

FOR.	STREET.
Charles C. Allen	Prescott Street
E. T. Baker	Concord Avenue
Edward Cox	Central Street
T. F. Crimmings and others	Warren Avenue
Michael J. McDonnell	Concord Avenue
Mulliken & Moore	Gilman Square
George S. Paine	Morrison Street
Timothy T. Scannell	Tufts Street
Sprague & Hathaway	Elm Street
Nathan A. Taylor	Putnam Street
Alvah M. Thompson	Cedar Street
Samuel Walker	Somerville Avenue
Benjamin F. Wild	School Street

CROSSINGS CONSTRUCTED.

- Broadway, from Odd Fellows' Hall to horse railroad track.
- Central street, at junction of Broadway.
- Central street, at junction of Pembroke street.
- Dartmouth street, at junction of Evergreen avenue.
- Evergreen avenue, at junction of Dartmouth street.
- Grove street, at corner of Morrison street.
- Mt. Vernon street, at corner of Pearl street.
- Orchard street, at corner of Day street.
- Pearl street, at junction of Dana street.
- School street, in front of Baptist Church.
- Sycamore street, in front of the Forster Schoolhouse.
- Thurston street, at corner of Medford street.
- Warren avenue, at junction of Columbus avenue.
- Winslow avenue, at junction of Elm street.

STREET SIGNS ERECTED.

By an order of the City Council, dated January 22nd, street signs have been placed at the several streets, including private streets,

lanes, and passageways, where there were none. This expense was \$959.90.

NUMBERING OF HOUSES.

By an order of the City Council, passed March 12th, all the houses in the city not already provided with numbers were numbered during the year, at an expense to the city of \$763.94.

EDGESTONES AND PAVING.

Lineal feet of edgestones set (including 1,781 feet reset), 18,973.5; square yards of brick paving laid (including 2,057 yards relaid), 15,757; square yards of stone paving laid (including 485 yards relaid), 5,827.

For the committee

GEORGE A. KIMBALL, *Chairman.*
WILLIAM P. MITCHELL, *Clerk.*

REPORT
OF THE
COMMITTEE ON SEWERS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 28, 1891.

Ordered to be filed with the City Clerk for presentation to the next City Council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk*.

IN COMMON COUNCIL, January 28, 1891.

Concurred in.

WILLIAM P. MITCHELL, *Clerk pro tem*.

REPORT
OF THE
COMMITTEE ON SEWERS.

IN COMMITTEE ON SEWERS, January 3, 1891.

To the Board of Aldermen of Somerville :—

The committee on sewers presents the following final report for the year 1890 :—

SEWERS ACCOUNT.

CREDIT.

Appropriation		\$10,000 00
Receipts and credits :—		
For catch-basin curbs in sidewalks, received credit from sidewalks account	\$62 71	
fee for drainage of asylum buildings into Fitchburg-street sewer	50 00	
fee for entering Elm-street sewer	297 43	
fee for entering Medford-street sewer,	48 33	
fee for entering Highland-avenue sewer	31 18	
<i>Amounts carried forward</i>	\$489 65	\$10,000 00

<i>Amounts brought forward</i>	\$489 65	\$10,000 00
labor and materials furnished in 1889, the bills for which remained uncol- lected January 1, 1890	444 91	
pay of laborers uncalled for in 1890	34 00	
	<hr/>	968 56
unpaid bills of 1890		21 75
Value of materials on hand January 1, 1890		269 98
Value of tools and property January 1, 1890		490 78
		<hr/>
Total credit		\$11,751 07

DEBIT.

Expenditures:—

For seventeen sewers, as per accom- panying table	\$9,101 30	
less assessments	8,514 63	
	<hr/>	
cost to city		\$586 67
thirty-five catch-basins (average cost \$70.59)		2,470 59
five-ninths cost removing deposit from mouth of Bridge-street sewer		1,304 24
building man-hole in Medford street		53 84
building man-hole in Concord avenue		40 42
flushing sewers and filling catch-basins with water		266 09
inspection of house drains		356 63
moving catch-basins		14 33
cleaning catch-basins		1,908 25
repairing catch-basins		219 08
cleaning mouths of catch-basins		127 48
rebuilding catch-basins		87 88
changing lines and grade of catch-basins		165 52
examining catch-basins		29 81
changing line and grade of man-holes		156 68
repairing man-holes		19 57
cleaning man-holes		58 50
cleaning sewers		308 00
examining sewers		81 51
		<hr/>
<i>Amount carried forward</i>		\$8,255 09

<i>Amount brought forward</i>	\$8,255 09
repairing sewers and drains	83 68
cleaning ditches	108 36
sundry small expenses	8 45
abatement of common sewer assessments	31 41
unpaid bills of 1889 paid in 1890	107 18
digging test pits	45 00
labor and materials furnished, the bills for which are to be presented for collection in 1891	22 60
private work, the bills for which remain uncollected, advertising hearing (South-street sewer)	14 82
miscellaneous account	7 50
digging to locate old sewer	5 00
books, stationery, and printing	2 00
repairing tools and property	61 50
arranging tools and property	106 58
inspecting sewers built by abutters in Arthur street, Avon street, Jenny Lind avenue, Lee street, Nashua street, Porter street, Richdale avenue, Rogers street, and street off Broadway	13 00
depreciation in value of tools, property, and materials, Value of materials on hand December 31, 1890	128 75
Value of tools and property on hand December 31, 1890 (including purchases during the year of \$128.55)	40 99
	355 00
	589 34
Total debit	<u>\$9,986 25</u>
Balance unexpended	<u>\$1,764 82</u>

In addition to the above statement, labor has been furnished for which credit has been received as follows : —

Public Grounds account, lumber	\$1 23
West End Street Railway Co., changing line and grade of man-hole, Broadway and Somerville avenue	92 44
Miscellaneous account, setting memorial tablets	87 41
Charles A. Mongan, puddling sewer trench	2 00

There also remains uncollected a bill for labor and materials furnished in 1889, amounting to \$48.47.

There still remains unpaid a bill of 1889, in favor of Dennis C. Collins and Maurice Terry for balance due for constructing a sewer in Highland avenue, amounting to \$434.53. This amount was withheld pending a settlement of suit against the city for injuries received by a carriage accident on the line of said sewer, for which the contractors were responsible. This suit has just been settled and the city has been reimbursed by said Collins and Terry for the amount of the verdict; the bill may, therefore, now be paid.

Thirty-five new catch-basins have been constructed during the year, being the same number as built in 1889. The average cost of construction this year was \$70.59, while in 1889 the average cost was \$73.96, and in 1888 the average cost was \$82.25.

There has been 8,673.8 feet of sewer built by the city in 1890, as compared with 11,986.9 feet built in 1889, and 5,218 feet built in 1888.

SEWERS BUILT IN 1890.

STREET.	From.	To.	Length in Feet.	Total Cost.	Assessment.	Cost to City.
Broadway	End of old sewer . .	Thurston St.	582	\$771 76	\$760 06	\$11 70
Brooks and Meacham Sts., and Street B	Dover St.	{ Northwesterly and westerly to end of Street B	1,473.2	1,247 50	1,242 12	5 38
Cedar and Hudson Sts.	{ Albion St. Cedar St. End of old sewer . .	{ Hudson St. Easterly Near Highland Ave. .	417.2	435 96	428 24	7 72
Cutter Ave.	Thurston St.	Near Sycamore St. . .	136.5	143 86	143 71	15
Evergreen Ave.	Cherry St.	Cedar St.	200.6	217 65	197 20	20 45
Highland Ave.	Central St.	Westerly	523.5	687 06	547 61	139 45
Hudson St.	South St.	Southwesterly	354	322 42	314 17	8 25
Hunting St.	Kent St.	Northwesterly	114	106 15	86 35	19 80
Kent Ct.	George St.	Near Lincoln St. . . .	304.2	218 86	215 84	3 02
Lincoln Ave.	{ Albion St. Lowell St. Lowell St.	{ Hudson St. Easterly Westerly	213	202 69	201 09	1 60
Lowell and Hudson Sts.	{ Lowell St. Lowell St.	{ Hudson St. Easterly Westerly	2,345.5	2,342 10	2,316 21	25 89
Meacham St. and Street C	Street B	{ Near Orchard St., and northwesterly to end of Street C	587.3	377 64	367 53	10 11
Moreland and Main Sts.	Heath St.	Main St.	474.2	931 36	649 76	281 60
Russell St.	{ Moreland St. Orchard St.	{ Near Mt. Vernon Av. Southwesterly	245.5	214 89	213 42	1 47
Street A	Meacham St.	Northwesterly	178.4	136 30	135 92	38
Sycamore St.	Madison St.	Southwesterly	204.2	265 42	258 62	6 80
Thurston St.	Broadway	Near Heath St.	320.5	479 68	436 78	42 90
Total			8,673.8	\$9,101 30	\$8,514 63	\$586 67

For the Committee.

CHARLES M. HEMENWAY, *Chairman.*

WILLIAM P. MITCHELL, *Clerk.*

REPORT
OF THE
CITY ENGINEER.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 25, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 26, 1891.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

OFFICE OF CITY ENGINEER, SOMERVILLE, Feb. 11, 1891.

To His Honor the Mayor and the City Council :—

In compliance with City Ordinance 9, Section 9, the following report of the City Engineer is respectfully submitted :—

CITY ENGINEER'S DEPARTMENT.

The number of persons permanently employed in this department during the year 1890 was six.

The expenses of the department have been as follows :—

Salary of city engineer, including care and maintenance of horse and carriage	\$2,300 00
Salary of assistants	3,112 52
Instruments and supplies	174 19
Car fares	26 70
	<hr/>
	\$5,613 41

The items of expenditure for salaries of assistants are as follows:—

For lines and grades for edgestone and brick sidewalks, examining titles, and making assessments . . .	\$436 67
work done for the highway department in revising street acceptance plans, giving lines and grades for defining street lines, for grading and macadamizing streets	282 72
making surveys, giving lines and grades for public and private sewers, examining titles, making assessment plans and computing assessments; lines and grades for building catch-basins, and for locating and recording private drains	1,003 22
giving lines and grades for laying water-pipe, making surveys and plans, and for locating and recording services	277 41
city survey	243 33
surveys, lines, and grades for Department of Public Grounds	110 81
making plans for numbering houses	246 13
miscellaneous work, including office records, indexing plans, note-books, and calculations; surveys and plans for the assessors' department	512 23
	\$3,112 52

SEWERS.

Eight thousand six hundred seventy-three and eight-tenths feet, or one and sixty-four one-hundredths miles, of public sewers were built during the year 1890.

The cost of the sewers built in 1890 was \$9,101.30. Of this amount, \$8,514.63 was assessed on abutters, and \$586.67 was assumed by the city.

The length of public sewers built by the city to January 1, 1891, is two hundred forty thousand and seventy and five-tenths lineal feet.

Assessment plans have been made showing the location and

profile, location of inlets, area and amount of assessments made on estates benefited.

The work of building these sewers has been done by contract, with two exceptions; the sewer in Thurston street, from Broadway northwesterly, and the extension of the sewer in Cutter avenue were built by the city by day labor.

Two thousand eight hundred thirty-four lineal feet of sewer have been built by private enterprise, under the superintendence of inspectors employed by the city. Plans have been made showing the location, profile, and location of inlets of private sewers built in 1890.

The sewers in Cedar and Hudson streets, in Lowell and Hudson streets, and Hudson street, from Cedar street westerly, were designed for house drainage only; storm water will be excluded.

The sewer laid in 1890 in Highland avenue, between Cedar and Cherry streets, was connected at Cedar street with the Cedar-street and Highland-avenue sewer, to relieve the Cedar-street sewer of a part of the discharge of the Highland-avenue sewer east of its connection at Cedar street. The thirty-inch sewer in Highland avenue east of Cedar street formerly discharged through a twelve-inch pipe into the Cedar-street sewer; and as the Cedar-street sewer at Elm street discharges under a head of four feet during any heavy rainfall, it was decided to attempt a partial relief by a second connection at Cedar street with the sewer in Highland avenue west of Cedar street. This connection will also serve to relieve the Highland-avenue sewer. The relief will only be temporary; there will be no permanent relief until the proposed main sewer is built in the Boston & Lowell railroad location, and the Highland-avenue sewer connected with it.

In the report of the city engineer for the year 1889 it was recommended that a sewer be built in Woodbine and adjacent streets. This recommendation is renewed. The necessity of providing some means of sewage disposal in this district is more evident this year than last.

CONSTRUCTION OF PRIVATE SEWERS.

The city ordinance relating to sewers gives the city practically no control of the laying out and construction of private sewers. Section 2 provides that the committee on sewers shall direct and control the places and manner of *entering* all private drains into the main drains or common sewers, but in no other section is there even an implied control over the *location* and *construction* of private sewers

Under Section 2, it has been the custom to furnish an inspector and to give lines and grades for private sewers on the application of a drain layer, or the owner of the estate to be drained; this method has prevailed for some time.

The objections to this method are as follows: The City Engineer has no authority to see that his instructions are carried out; he has no authority over the drain layer or contractor, and whatever directions the Engineer or inspector may give may or may not be observed. If the contractor chooses to ignore them, what power has the Engineer? He cannot order the work stopped, because the city ordinances give him no authority.

Another objection is that in many cases the owners intending to build private sewers are only anxious to build the sewers because their land cannot be sold for building purposes unless sewers are laid. So far as the land owner's interests are concerned, the cheaper the sewer is built, the better it suits his purpose. Consequently, he may refuse to place the sewer at the proper depth to afford the necessary fall for house drains; he may refuse to build man-holes; if ledge is encountered, he will insist on placing the sewer in the water-pipe trench. These are absolute defects in any system of sewer construction.

A slight fall in house drains is not noticed until houses are built and occupied for several years; man-holes may not be needed until the sewer becomes entirely filled up and house drains refuse to carry off the waste from houses; then complaint is made, and it becomes necessary to build man-holes and clean the sewer, perhaps at a large expense to the city.

The sewer laid in the water-pipe trench may not give any trouble while the original owner holds the land; but if a water-pipe bursts and a break in the sewer-pipe follows, the earth from the washout is carried into the sewer and must be removed at the city's expense; not infrequently it may happen that a settlement in the sewer trench causes the water-pipe to burst. In these cases the damage may not only occur from the house drain or sewer filling up, but a burst in the water-pipe may cause any additional damage. It is evident that in this question of the construction of private drains under the present methods the land owner has everything to gain and nothing to lose; the city everything to lose and nothing to gain.

Again, if a private sewer has been built in a private street and has been connected with the main sewer, the owner can extend it in

any way or manner, and in any direction he may see fit. To be sure, if the owner has no objection, the city's agent may or may not inspect it; it will make no difference to the owner, he can lay the sewer as he may wish; and the city can have no voice in the matter. It has been so decided by good legal authority.

Under the present ordinance trouble is continually arising between the City Engineer and the land owner. If the City Engineer does his duty, he is in no end of trouble; if he does not do his duty, and does not insist on the work being thoroughly done, then the city may be required to correct defects in the future.

Another argument in favor of a revision of this method of constructing private sewers is that, by the faulty construction of sewers, the house wastes are not carried away as soon as they should be, and the *public health* is endangered. Surely the mere question of what a real-estate speculator may desire ought not to influence in any way such questions of public health.

That the evils consequent on this method of construction of sewers may be avoided, I would recommend that Ordinance 16 be so amended that every sewer or drain laid in any street opened, or proposed to be opened, for public travel, for the purpose of draining more than one estate, shall be deemed to be a common sewer, and no such common sewer shall be laid or connected with any existing common sewer except by the city.

INSPECTION OF PLUMBING.

Under the sewer ordinance, and in accordance with the general practice in this city, no inspection of house drains is made except at the connection of the main sewer. The house drain between the sewer and the house, the soil pipe, plumbing and fixtures are laid, made and set up without any inspection; and every owner is at the mercy of his plumber or his architect.

It frequently happens that the drain layer who lays the drain-pipe and the plumber who does the iron work are not willing to work together, and one will sometimes injure the other's work.

After the pipes are covered defects cannot be found until, perhaps, diphtheria causes an inspection of the plumber's work.

It is the usual practice in most cities to require that the house drain inside or under the building and for a distance of four feet out-

side the foundation wall shall be laid of iron pipe with lead joints. It is a very common practice in this city to use earthen or vitrified clay pipes, for the same purpose, laid with cement joints. These earthen pipes are easily fractured, and if the pipes are disturbed after the cement joints are made, the joints will be broken and the discharge of sewer gas is sure to follow. Many other defects may occur which only a rigid inspection will detect.

I would recommend that the question of plumbing inspection be considered, and that, if possible, an inspector of plumbing be appointed.

PROPOSED SEWER IN THE LOCATION OF THE BOSTON AND LOWELL RAILROAD.

During the year instructions were received from the committee on sewers to make surveys, plans, and estimates of the cost of this sewer. Surveys and plans have been made, but the amount of routine work has been so great that it has been impossible to complete the plans and estimates.

The necessity for building this sewer is more urgent than last year; from surveys already made, it appears that large tracts of land near Broadway, the Powder House Farm, the Ayer estate, and the Derby & Kilmer Desk Company's land cannot be drained until this sewer is built. The sewers in Cedar, Central, Medford, School, and Marshall streets and Highland avenue must very soon be diverted from the present outlets, or damage will result from overflow of sewers in the lower parts of the city.

ELM-STREET SEWER.

From measurements taken in the man-hole at Cedar street and in the man-holes on Somerville avenue easterly to Park street, it is known that during a heavy rainfall the sewage rises at least four feet above the top of the sewer between Cedar and Craigie streets; and at least three feet between Craigie and Park streets. It can readily be seen, then, that the capacity of this sewer is not sufficient to carry off the storm water as fast as it reaches the sewer; the sewer must therefore act as a reservoir during the period of rainfall.

The area which this sewer drains is about seventy acres, and is enclosed by Cherry, Summer and Cedar streets, Highland and Ben-

ton avenues, the north side of Summer street to Porter street, and Porter street to Elm street. The entire rainfall which reaches the sewer from this area is discharged through an eighteen-inch sewer from Cedar to Porter street, and a twenty-four-inch sewer from Porter street to Somerville avenue.

The greatest damage by the defect in this sewer is felt at and near the intersection of Elm and Porter streets. Cellars have been flooded through the house drains, and when the catch-basins have failed to dispose of the surface water, the cellars have been flooded through basement windows. There has also been complaint made from owners of estates on Spring street, near Somerville avenue.

Damage and inconvenience in the future from this source may be avoided by building a connection between the Elm-street sewer at Cedar street and the Beacon and Elm street sewer at Elm and Mossland streets. This connection should be used only as a storm overflow. I would recommend that a connection be made this coming season.

The sewer in Elm street between Cherry and Cedar streets has settled, and is so very much distorted that it is nearly impossible to clean it. I would recommend that a section from Cherry street southwesterly about 300 feet be rebuilt.

SPRING-STREET SEWER.

The sewer in Spring street, from Somerville avenue northwesterly, about 220 feet, should be lowered. The existing sewer is not laid at a sufficient depth to drain the cellars of certain estates in this part of the street. I would recommend that this work be done the coming season.

THE EXTENSION OF THE WILLOW-AVENUE SEWER.

The sewer in Willow avenue, from Highland avenue southwesterly, is thirty inches by twenty inches, and now discharges through a twelve-inch pipe in Hawthorne street. The connection recently made with the thirty-inch sewer in Highland avenue at Cedar street will require a larger outlet at Willow avenue than is afforded by the twelve-inch sewer in Hawthorne street. I would therefore recom-

mend that the sewer in Willow avenue be extended to connect with the sewer in Elm street.

WINTHROP-AVENUE SEWER.

In the reports of the City Engineer for the years 1889 and 1888 it was recommended that the Winthrop-avenue sewer be extended from Mystic avenue to Middlesex avenue. In the report of 1888 the condition of the present outlet and the benefits to be derived from an extension of the sewer were very definitely stated. I desire to call particular attention to the report of 1888, and continue my recommendation that this sewer be extended immediately.

BRIDGE-STREET OUTLET.

The annual dredging at this outlet has been made this year at the following cost : —

New England Dredging Company, 3,322 cubic yards at \$0.60	\$1,993 20
Labor	219 05
Cambridge Water Works, flushing	92 80
Advertising	1 75
Teaming	11 50
Rubber boots	19 50
Oil suits and hats	7 50
Boston Woven Hose Company, pipe	2 33
	<hr/>
	\$2,347 63

Five-ninths of this amount, \$1,304.24, was paid by the City of Somerville.

PRIVATE DRAINS.

Four hundred and sixty-three permits for laying private drains and twenty-one for repairs have been granted during the past year.

Locations of new drains and changes made in old work have been recorded in the usual manner.

The cost of inspection was \$356.63.

CATCH-BASINS.

Thirty-five new catch-basins were built during the past year, at a cost of \$2,470.59.

Two catch-basins have been rebuilt at a cost of \$87.88.

The cost of cleaning catch-basins was \$1,908.25.

CLEANING SEWERS.

The usual examination of sewers has been made ; no large deposits have been found. The cost of cleaning sewers was \$308.00. The cost of cleaning ditches at outlets, Winthrop avenue, Canal, Union, and Waverley streets was \$108.36. The cost of cleaning dirt-catchers in man-holes was \$58.50.

A table showing the location, size, cost per foot, assessment and cost to the city of sewers built in 1890, may be found in Appendix A.

REPAIRING SEWERS AND CATCH-BASINS.

The cost of repairs on sewers was \$99.68 ; on catch-basins, \$219.08 ; on man-holes, \$19.57.

HIGHWAYS.

The work of the highway department has been under the charge of Thomas H. Eames, who was elected Superintendent of Streets January 22, 1890. It has been carefully, thoroughly and systematically done.

The principal items in the work done are laying edgestone and brick sidewalks ; paving gutters and grading and constructing streets where edgestones were laid during the year ; and repairs and improvements on old streets and streets accepted during the year.

Sixteen thousand and twenty-seven lineal feet of edgestones and gravel sidewalks, and seven thousand nine hundred and thirteen square yards of brick sidewalk have been laid.

The following items of work were done on streets on which edgestones were laid : —

Five thousand and eighteen square yards of gutter paving were laid, at a cost of \$5,004.23 ; three thousand two hundred twenty-six

square yards of gravel road were built, at a cost of \$476.45; and nine thousand seven hundred thirty-eight square yards of macadam road were built, at a cost of \$2,421.40.

In addition to this, six hundred fifty-five lineal feet of edgestone and garvel sidewalk, and five hundred fifty-one lineal feet of brick sidewalk have been built, the labor for which has been paid from the appropriation for highways, the abutters furnishing the materials. The cost to the city was \$848.78.

The contract price for edgestone delivered on the work was forty-four cents per lineal foot; for circles, sixty-five cents per lineal foot; and for flagging, thirty-five cents per square foot. The gutters were paved with cobble stone at \$1.65 per ton, or about forty-seven cents per square yard laid.

Fourteen thousand six hundred forty-three square yards of gravel road and thirty-four thousand two hundred ninety-six square yards of macadam roads were built during the year.

In Appendix B will be found a table showing the location and cost of edgestone and brick sidewalks, and the cost of paved gutters and roadway, constructed in streets where edgestones were laid. This table was prepared to show the relative cost of laying edgestone as compared with the cost of repairing and grading streets occasioned thereby. The average cost per lineal foot of edgestone, for repairing, grading and macadamizing, as computed from this table, is about twenty per cent. more than the amount assessed for laying edgestone; and for a gravel road from forty to seventy-five per cent. of the amount assessed.

In Appendix C will be found a table showing the location and cost of all street repairs and improvements made during the year.

There has been but very little expended on the maintenance of old streets. The large amount of work which has been done on new streets has more than exceeded the amount of the appropriation, and repairs on the old streets were postponed for another year.

It is imperative that some of the through streets be extensively resurfaced during the coming year. Somerville avenue, from the Fitchburg railroad to the North Cambridge line; Washington street, from Union square to the Cambridge line; Summer street, from Bow street to Central street; Middlesex avenue, from Mystic avenue to

Mystic river ; Mystic avenue, from Union street to the Medford line,—all need to be rebuilt.

SOMERVILLE AVENUE, FROM EAST CAMBRIDGE LINE TO NORTH CAMBRIDGE LINE.

The roadway was repaired in 1889 and 1887, at a cost of about \$2,600, and in 1888, from Prospect street to Craigie street, at a cost of about \$3,000.

The present condition of the roadway is such that it should be repaired from the East Cambridge line to the North Cambridge line. If these repairs are made in the same manner as has been the custom, the cost, in the same ratio, would be about \$3,500, or about twenty-four cents per running foot. But, in my opinion, these repairs should be more thoroughly made. It is of no value to pick up the surface and fill the depressions with stone, roll the new surface, gravel and roll again ; for the result is that, unless the old surface is removed from the work after it is loosened, when the wear takes place the new surface is soon ground down into the old and becomes worse than before. It is important that a road should have a firm foundation and be well drained. If the repairs were made the coming season in the most thorough manner, it is doubtful if the macadam would wear more than one season.

The travel on this thoroughfare is so heavy that a macadam road cannot be built which would stand the wear of the heavy traffic more than one season, and would then require a large expenditure the following season for repairs. This way of making repairs may appear to be economical at the time the repairs are made, yet this apparent saving only causes increased expense later, because of the continued demands for money for repairs, which must be made to keep the streets in passable condition.

A macadam pavement on this thoroughfare cannot be considered a permanent pavement ; it is muddy in wet weather, and unless it is properly sprinkled and rolled it wears out very rapidly. In dry weather the dust is a nuisance.

True economy demands that a granite pavement be laid on Somerville avenue ; as this pavement, if properly laid, will wear for a great many years. That this statement is correct is evident when it is noticed that the cost of repairs as given above, \$3,000, will capi-

talize \$75,000.00 at four per cent. ; a sum sufficient to pave from East Cambridge line to Carleton street.

WASHINGTON STREET, FROM UNION SQUARE TO THE CAMBRIDGE LINE.

This street was repaired in 1888, at a cost of \$961.79. The roadway is in very bad condition, and should be macadamized the coming season.

SUMMER STREET, FROM BOW STREET TO CENTRAL STREET.

Since 1881 this street has been repaired in sections at different times at a total cost of \$1,883.92. The paving in the horse car track is in an unsafe condition and should be relaid; the street should be macadamized at the same time.

MIDDLESEX AVENUE.

This avenue is in need of very extended repairs. The greater part of the roadway is at grade 12.50, and on a high course of tide it is flooded nearly the entire length. The grade of this avenue is fixed by statute at 16.00. There is no record that any repairs have been made since 1881, when it was repaired at a cost of \$2,960.46. I would respectfully recommend that this avenue be filled to grade 16.00 and the roadway macadamized during the coming season.

MYSTIC AVENUE, FROM UNION STREET TO THE MEDFORD LINE.

The roadway is very much out of repair, and a considerable length is below grade 13.00. It should be raised to grade 16.00 to conform to the statute and be macadamized. The reasons already given for paving Somerville avenue will apply equally well to Mystic avenue. The heavy travel will very soon destroy the macadam pavement.

STREETS ACCEPTED.

Fourteen new streets were accepted. Plans for these streets accepted were submitted by abutters, have been revised, corrected, and deposited with the city clerk.

In Appendix D. will be found a table showing the location, length, and width of streets accepted in 1890.

STREETS NUMBERED.

Three hundred and forty-nine streets and courts were numbered. One hundred and thirty-five plans for street numbers were prepared, and three thousand seven hundred fifty doors were numbered previous to May 15th.

Three hundred and eighty-five street signs were erected.

LOCATION AND LENGTH OF PUBLIC AND PRIVATE STREETS.

A table showing the location and length of public and private streets will be found in Appendix E.

BRIDGES.

Bridges over the Boston and Lowell Railroad.

CENTRAL-STREET AND CEDAR-STREET BRIDGES.

These bridges are substantial iron structures of modern design, and are in excellent condition.

CROSS-STREET BRIDGE.

This bridge is in about the same condition as in 1889. Contracts have been made by the Boston & Maine railroad for the erection of an iron bridge and some preliminary work has been done. It is probable that the new bridge will be completed early in the season.

WALNUT-STREET BRIDGE.

This bridge is in about the same condition as in 1889. Nothing has been done to make the temporary wooden blocking under the floor more permanent, and the abutments are very badly out of line.

MEDFORD-STREET BRIDGE.

This bridge appears to be in good condition. It is impossible to thoroughly examine the iron work under the floor. The iron work needs painting.

SCHOOL-STREET BRIDGE.

This bridge is in good condition.

SYCAMORE-STREET BRIDGE.

This bridge is in about the same condition as in 1889. The

abutments show signs of settlement and movement toward the track.

BROADWAY BRIDGE.

This bridge is in the same condition as in 1889. The floor is very light, and shows a great deal of vibration, even under light loads. It should be rebuilt immediately. By agreement between the County Commissioners and the Boston & Lowell Railroad, the order of the County Commissioners, for the reconstruction of the bridges in Somerville on the line of that road, was so modified that the road was required to rebuild two of these bridges every year. Last year only one was rebuilt, the Central-street; this year it is doubtful if more than one bridge is rebuilt, unless some measures are adopted to force the road to keep its agreement. I would recommend that immediate action be taken to enforce the terms of this agreement.

BRIDGES OVER THE FITCHBURG RAILROAD.

The bridges over the Fitchburg railroad are on Prospect, Washington, and Beacon streets, and are all in good condition.

Miscellaneous Bridges.

BROADWAY BRIDGE OVER ALEWIFE BROOK.

The retaining walls need pointing, and the fences are unsafe and should be rebuilt immediately. The surface water should be collected and carried to the river to prevent washing out the pinnars in the abutments. The surface water now runs through holes in the abutments, which have been gradually washed out by the water falling from the road.

BOSTON-AVENUE BRIDGE OVER MYSTIC RIVER.

The sidewalk planking needs patching, and the fences are shaky and should be repaired.

MIDDLESEX-AVENUE BRIDGE OVER MYSTIC RIVER.

The repairs to the draw which were recommended last year have been made. The total cost of repairs was \$1,258.24. One-

half of this amount — \$629.12 — was paid by the City of Somerville. The sidewalk planking on the draw is badly decayed. The covering plank on the heads of the draw pier should be renewed. The planking on the faces of the water way has fallen off in many places. The planking now in place should be newly fastened, and the faces of the water way entirely covered with planking. The cross bracing has fallen off in many places, and should be replaced. A new stringer should be fastened around the outside of the planking of the pier, and new ring-bolts provided to take the places of those removed.

PUBLIC GROUNDS.

CENTRAL HILL PARK.

The northerly slope of Central Hill to the Medford-street line and from Walnut street to the High School has been graded and covered with loam. About two and one-tenth acres were thus improved; of this area, about one and two-tenths acres were sown to grass. The hill was cut down from three to four feet near the Medford-street line, and from this excavation about two thousand one hundred twenty-seven cubic yards of surplus material were sold. Of this amount, two hundred thirteen cubic yards were exchanged for loam, and the remainder was disposed of for \$384.15.

IMPROVEMENT, CENTRAL HILL.

The items of expenditures are as follows: —

Labor (grading, loading, and spreading loam and manure, disposing of surplus, sodding, and sowing) .	\$2,177 98	
Teaming loam and manure and disposing of surplus material . . .	975 00	
Ploughing	42 00	
Harrowing	10 00	
Loam	574 50	
Manure	195 97	
Lime and lawn dressing	20 70	
Seed	32 90	
<i>Amount carried forward</i>	—————	\$4,029 05

<i>Amount brought forward</i>		\$4,029 05
Wire fence, labor	\$33 38	
Lumber and wire	22 52	
	<hr/>	55 90
Lumber		4 21
Express		7 00
Two large settees placed on battery wall	\$58 00	
Labor and bolts	8 20	
	<hr/>	66 20
Six lawn settees		15 00
Asphalt block paving, laid in 1889		25 00
Two catch-basins at steps near Medford street, built in 1889		82 74
		<hr/>
		\$4,285 10

MATERIALS USED.

Labor and teaming 1,174 loads surplus in exchange for 360 loads loam		\$237 88
Labor and teaming 1,976 loads surplus material otherwise disposed of,	\$502 62	
Credit for the same	384 15	
	<hr/>	\$118 47
Labor and teaming 1,891 loads loam		\$1,303 79
Manure, labor and teaming 38.85 cords manure,		\$195 97
Six hundred and ninety lineal feet wire fence		\$55 90

MAINTENANCE.

Labor (care of walks and grass, police service, removing snow and ice)	\$455 09	
Signs, lumber, sod	13 90	
Plants	25 00	
Repairing tools	12 65	
Hardware (oil and tools)	40 01	
	<hr/>	\$546 65
		<hr/>

IMPROVEMENT, HIGH SCHOOL GROUNDS.

Building two catch-basins, labor	\$27 75	
Bricks	22 50	
Gratings	15 00	
Cement	7 25	
	<hr/>	\$72 50

MAINTENANCE

Labor (care of grass and roads)	\$156 62	
Repairing road	303 87	
	<hr/>	<u>\$460 49</u>

IMPROVEMENTS, CITY HALL AND LIBRARY GROUNDS.

Paving gutters, 62 square yards, kidney stone paving, at \$2.60	\$161 20
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MAINTENANCE.

Labor (care of grass and roads)	\$255 45	
Manure and sod	13 66	
Repairing roads	145 26	
Repairing gutters	36 07	
	<hr/>	<u>\$450 44</u>

BROADWAY PARK.

The expenditures for improvements were for laying a drain and for building a catch-basin ; for laying a sod border on the section which was seeded in 1889 ; and for grading sewer trench of 1889 and resurfacing near the tool house.

The items of expenditures are as follows :—

Laying drain, labor	\$32 19
Drain-pipe	7 59
	<hr/>
<i>Amount carried forward</i>	\$39 78

<i>Amount brought forward</i>	\$39 78	
Lumber	1 23	
	<hr/>	\$41 01
Building catch-basin, labor	\$10 76	
Cement	1 45	
Bricks	11 68	
Grating	3 50	
	<hr/>	27 39
Laying sod border	\$15 56	
Sod	10 31	
Loam	6 00	
	<hr/>	31 87
Grading, labor	\$86 95	
Seed, loam, and manure	24 29	
	<hr/>	111 24
Sewer assessment in 1889	\$145 60	
Repairing outlet of pond in 1889	110 55	
	<hr/>	256 15
		<hr/>
		\$467 66

MAINTENANCE.

Labor	\$749 56	
Labor (trimming shrubs)	57 13	
Repairing tools and property	65 49	
Iron and hardware	23 62	
Raising and lowering flagstaff twice	20 00	
Use of horse and feed	70 57	
Plants	50 00	
Electric lights (two arc lights)	274 20	
Police service	50 00	
	<hr/>	\$1,360 57

WORK DONE.

40 lineal feet surface drain laid.
 1,100 square feet sod border laid.
 3,100 square feet grading done.

STATEMENT OF EXPENDITURES

IMPROVEMENT.

Central Hill	\$4,285 10	
High School Grounds	72 50	
City Hall and Library Grounds	161 20	
	<u> </u>	
	\$4,518 80	
Credit, by sale of surplus material	\$384 15	
Credit, by labor not called for	88	
	<u> </u>	
	385 03	
	<u> </u>	
	\$4,133 77	
Broadway Park	\$467 66	
Credit, by sale of dirt from pond	5 35	
	<u> </u>	
	462 31	
	<u> </u>	
		\$4,596 08

MAINTENANCE.

Central Hill	\$546 65	
High School Grounds	460 49	
City Hall and Library Grounds	450 44	
Broadway Park	1,360 57	
	<u> </u>	
	\$2,818 15	
Cleaning Cemetery, Somerville avenue	12 00	2,830 15
	<u> </u>	<u> </u>
		\$7,426 23

NATHAN TUFTS PARK.

In December, 1890, a formal offer was made to the city by the heirs of Nathan Tufts of about 70,000 feet of land adjoining the Powder House, on condition that the city construct and maintain

certain walks, roads and grass areas, as shown on a plan submitted.

A topographical survey of the location of the proposed park has been made, and estimates made of the cost of constructing the proposed roads and walks.

The following estimate of the cost of maintenance and improvement on the public grounds for the year 1891 is respectfully submitted :—

MAINTENANCE.

City Hall, Library, and High School Grounds, Central Hill, and Broadway Park	\$3,305 00
--	------------

IMPROVEMENT.

Central Hill, seeding slope on Medford-street line,	100 00
Grading slope in rear of Winter Hill Station	1,000 00
Laying edgestone on Medford street, Walnut street to Winter Hill Station driveway	224 00

Nathan Tufts Park

IMPROVEMENT.

Grading walks, drives, and grounds	4,700 00
Total	<u>\$9,329 00</u>

WATER WORKS.

Lines and grades have been given for laying water pipes, when required, by the superintendent, and all services laid have been located and placed on record.

Plans, contracts and specifications were prepared and proposals were received for a wooden coal-shed to be built at the high-service pumping station. After the proposals were received, it was decided

to postpone construction until another year and to build a brick building.

Plans were prepared for laying out the grounds at the pumping station, but little work has been done.

Plans have been prepared for grading the stand-pipe lot, and the grounds have been neatly graded and fenced, and the outside of the stand-pipe has been painted.

The high-service pumping plant was completed in January, and has been working satisfactorily since. The duty trial was held April 24, 1890. The engine developed a duty of 64,605,871 foot pounds with 100 pounds of coal consumed; and a capacity of 558,655 gallons in six hours, equal to 2,234,620 gallons in twenty-four hours. The contract required a duty of 50,000,000 foot pounds and a capacity of 2,000,000 gallons in twenty-four hours. The building and plant were briefly described in the report of 1889.

Nothing was done during the year on the extension of the high-service system, as recommended by the report of the special committee of the City Council of 1889. No extensions have been made, as was recommended; the system, in its present condition, is not working economically, and is not furnishing the quantity of water which is needed. Under the present system dead ends exist on very many streets, and in these streets the supply is not as large as before the introduction of the high service.

Reports have recently been submitted to the Water Board on the condition of the high and low service distribution, and recommendations and estimates made for extensions to remedy the defects in the present distribution. It is imperative that the work of relaying the high service and improving the low service should be done the coming season. For estimates of cost and further details I would respectfully call the attention of the City Council to the reports recently submitted to the Water Board, and would urgently request that an appropriation be made in accordance with the recommendations made.

HORACE L. EATON,

City Engineer.

APPENDIX A.

TABULAR STATEMENT OF SEWERS BUILT IN 1890.

LOCATION.		CONSTRUCTION.										COST.		
NAME OF STREET.	FROM.	To.	BUILT BY.	MATERIALS.	Size in Inches.	Man-holes.	Inlets.	Length in Feet.	Average Cut.	Average Cost Per Foot.	Total Cost.	Assessment.	Cost to City.	
Arthur	End of old sewer	Southwesterly	A. C. Winning	Akron pipe	12 and 10	1	4	88.0	7.2	*	-	-	-	
Ashland	End of old sewer	Southwesterly	Charles A. Mongan.	Akron pipe	8	-	4	72.0	5.6	*	-	-	-	
Avon	End of old sewer	Near Central St.	Andrew W. Bryne	Akron pipe	12	3	40	681.3	8.8	*	-	-	-	
Bowman Pl.	Broadway	Northeasterly	A. C. Winning	Akron pipe	8	-	6	214.0	8.8	*	-	-	-	
Broadway (1)	End of old sewer	Thurston St.	Richard Falvey	Akron pipe	12	2	15	582.0	10.1	\$1.33	\$771.76	\$760.06	\$11.70	
	Dover St.	Northerly and westerly		Akron pipe	15	4	35	766.5	5.8	99	755.10	-	-	
	Meacham St.	Northwesterly		Akron pipe	12	1	13	250.0	8.0	82	204.70	-	-	
	End of 12// pipe	Westerly	Christopher Burke	Akron pipe	10	1	26	355.7	7.0	67	239.30	-	-	
	End of 15// pipe	Southwesterly		Akron pipe	8	-	5	101.0	7.0	48	48.40	-	-	
Brook St., private ways and land, and Meacham St.	Meacham St.	Northwesterly		Akron pipe	10	1	13	180.1	7.9	82	146.95	-	-	
	Meacham St.	Northwesterly	Edward Fitzgerald	Akron pipe	8	1	29	407.2	6.6	57	230.69	-	-	
	Albion St.	Hudson St.		Akron pipe	8	1	10	178.4	7.4	76	136.30	-	-	
Cedar and Hudson (2)	Cedar St.	Easterly	Christopher Burke	Akron pipe	12	1	14	211.8	9.0	05	221.72	-	-	
Cutter Ave.	End of old sewer	Near Highland Ave.	City, day labor	Akron pipe	8	1	10	205.4	9.4	04	214.24	-	-	
Emery	Ward St.	Southerly	Andrew W. Bryne.	Akron pipe	12	1	12	136.5	8.1	05	143.86	-	-	
Evergreen Ave.	Thurston St.	Near Sycamore St.	Charles A. Mongan.	Akron pipe	12	7	7	142.0	3.5	*	-	-	-	
Henderson	Richardson St.	Southwesterly	Maurice Buttmer	Akron pipe	8	1	12	200.6	7.9	08	217.65	-	-	
Highland Ave. (3)	Cherry St.	Cedar St.	Andrew W. Bryne.	Prt'nd pipe	8	2	8	265.0	9.0	*	-	-	-	
Horace	Ward St.	Southerly	Andrew W. Bryne.	Akron pipe	12	1	33	523.5	12.1	1.31	687.06	-	-	
				Akron pipe	12	-	8	134.0	5.6	*	-	-	-	

* Built by private parties.

(1) 37 cubic yards of rock.

(2) .5 cubic yards of rock.

(3) 1 cubic yard of rock.

TABULAR STATEMENT OF SEWERS BUILT IN 1890. — Continued.

LOCATION.			CONSTRUCTION.							COST.			
NAME OF STREET.	FROM.	TO.	BUILT BY.	MATERIALS.	Size in Inches.	Man-holes.	Inlets.	Length in Feet.	Average Cut.	Average Cost per Foot.	Total Cost.	Assessment.	Cost to City.
Hudson (4)	Central St.	Westerly	Christopher Burke.	Akron pipe	8	1	23	354.0	9.5	\$ 91	\$322 42	\$314 17	\$8 25
Hunting	South St.	Near Cambridge line	Charles A. Mongan	Akron pipe	10	1	6	114.0	5.4	93	106 15	86 35	19 80
Jenny Lind Ave.	End of old sewer	Northeasterly	Maurice Buttmer	Akron pipe	10	1	8	190.0	8.0	*	-	-	-
Kent Ct.	Kent St.	Westerly	Charles A. Mongan	Akron pipe	10	1	18	304.2	6.7	62	218 86	215 84	3 02
Knowlton	End of old sewer	Southerly	Richard Falvey	Akron pipe	12	-	2	40.0	7.0	*	-	-	-
Lincoln Ave.	George St.	Near Lincoln St.	Andrew W. Bryne.	Akron pipe	8	1	13	213.0	9.5	95	202 69	201 09	1 60
Lowell and (5)	Albion St.	Hudson St.	Maurice Buttmer	Akron pipe	8	1	12	234.7	11.1	1 06	248 20	-	-
	Lowell St.	Easterly		Akron pipe	8	4	78	968.2	9.2	1 03	992 84	2,316 21	25 89
Hudson (6)	Lowell St.	Westerly	Maurice Buttmer	Akron pipe	8	4	92	1,142.6	9.1	96	1,101 06	-	-
	Heath St.	Main St.		Akron pipe	12 and 10	1	13	206.6	10.8	2 73	565 03	649 76	281 60
Moreland (7) and Main	Moreland St.	Near Mt. Vernon Ave.	Charles A. Mongan	Akron pipe	10	2	26	267.6	8.5	1 38	366 33	-	-
Nashua	Wilton St.	Near B. & L. R. R.	Maurice Buttmer	Akron pipe	8	1	7	183.5	11.3	*	-	-	-
Porter	Highland Ave.	Mountain Ave.	Christopher Burke.	P't'l'nd pipe	10	2	30	454.4	9.7	*	-	-	-
Rogers Ave.	Morrison Ave.	Northeasterly	Christopher Burke.	Akron pipe	12 and 10	1	28	370.0	13.4	*	-	-	-
Russell	Orchard St.	Near Cambridge line	Andrew W. Bryne.	Akron pipe	10	1	8	245.5	7.5	88	214 89	213 42	1 47
Sycamore (8)	Madison St.	Southwesterly	Andrew W. Bryne.	Akron pipe	8	2	10	204.2	10.0	1 30	265 42	258 62	6 80
Thurston (9)	Broadway	Near Heath St.	City, day labor	Akron pipe	10	1	16	320.5	11.7	1 50	479 68	436 78	42 90
	Total length of sewers built by city							8,673.8	-	-	\$9,101 30	\$8,514 63	\$586 67
	Total length of sewers built by private parties							2,834.2					

* Built by private parties.

(4) 10 cubic yards of rock. (5) 2.9 cubic yards of rock. (6) 1.3 cubic yards of rock. (7) 84.1 cubic yards of rock. (8) .8 cubic yard of rock. (9) 1.5 cubic yards of rock.

Total length of sewers built by the city previous to Jan. 1, 1890

Total length of sewers built by the city during the year 1890

Total length of public sewers built in the city Jan. 1, 1891

Total length of public sewers built in the city Jan. 1, 1891

Total length of public sewers built in the city Jan. 1, 1891

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Total length of public sewers built in the city Jan. 1, 1891

Total length of public sewers built in the city Jan. 1, 1891

Total length of public sewers built in the city Jan. 1, 1891

APPENDIX B.

TABLE SHOWING THE LOCATION AND COST OF EDGESTONE AND BRICK SIDEWALKS, OF PAVED GUTTERS AND ROADWAY CONSTRUCTED IN STREETS WHERE EDGESTONE WAS LAID.

STREET.	SIDE.	FROM.	TO.	WIDTH OF SIDEWALK.	MATERIALS.			PAVED GUTTERS.		GRAVEL.		MACADAM.	
					Gravel and Edgestones Lineal Feet.	Bricks, Sq. Yds.	Cost.	Sq. Yds.	Cost.	Sq. Yds.	Cost.	Sq. Yds.	Cost.
Bonner Ave.	West	Washington St.	Columbus Ave.	6.67	366	-	\$277 01	128	\$223 80	861	\$222 55	-	-
Bow	Northwest	Warren Ave.	Walnut St.	10.0	152	268	333 59	67	96 75	-	-	195	\$104 00
Broadway	Southwest	Marshall St.	School St.	15 and 8.5	-	514	491 30	-	-	-	-	-	-
Broadway	Southwest	School St.	Sycamore St.	8.5	-	673	598 28	-	-	-	-	-	-
Church	East	Somerville Ave.	Summer St.	6.67	-	435	393 39	-	-	-	-	-	-
Columbus Ave.	South	Est. of Cushman	Bonner Ave.	6.67	368	-	196 05	123	114 35	-	-	-	-
Elm	Southwest	Est. of Henderson	Mossland St.	10½ to 12	537	625	851 77	175	196 35	-	-	900	211 80
Evergreen Ave.	Both	School St.	Thurston St.	6.67	857	-	604 06	283	285 05	1,079	107 40	-	-
Highland Ave.	Southwest	Central St.	Trull Lane	6.0	-	480	488 98	-	-	-	-	1,022	331 60
Howe	Both	Marshall St.	School St.	6.67	891	-	526 53	297	313 90	-	-	-	-
Irving	Northwest	Holland St.	Broadway	6.67	1,205	-	630 88	400	322 75	-	-	-	-
Linwood	East	Washington St.	Fitchburg R. R.	8.33	21	1,703	1,825 40	-	-	-	-	-	-
Medford	Northwest	School St.	Tennysburg St.	8.33	1,095	932	1,538 04	380	277 60	-	-	-	-
Medford	Southwest	School St.	Central St.	8.33	1,392	-	937 60	463	415 00	-	-	-	-
Mills	Both	Walnut St.	Sargent Ave.	6.67	1,076	-	736 60	358	399 50	1,286	86 50	-	-
Newbury	South	Holland St.	Est. of Dalrymple	6.67	1,491	-	774 92	367	250 90	-	-	-	-
Pearl	South	Cross St.	Walnut St.	8.33	1,491	-	999 64	497	614 55	-	-	-	-
Prestcott	East	Summer St.	Highland Ave.	8.33	1,722	1,015	989 00	-	-	-	-	-	-
Preston	Both	School St.	Summer St.	6.67	1,722	-	1,268 40	-	-	-	-	-	-
Sargent Ave.	Both	Mills St.	Broadway	6.67	1,070	-	683 97	357	372 60	-	-	1,199	583 60
School	Both	Summer St.	Highland Ave.	6.67	1,826	-	1,213 06	840	849 03	-	-	1,991	398 20
School	East	Somerville Ave.	Summer St.	6.67	-	652	615 07	-	-	-	-	-	-
Tufts	Northwest	Washington St.	Cross St.	6.67	-	616	554 40	-	-	-	-	-	-
Virginia	Both	Aldrich St.	Jasper St.	6.67	859	-	524 00	283	272 10	-	-	1,482	373 85
Totals					16,027	7,913	\$18,111 94	5,018	\$5,004 23	3,226	\$476 45	9,738	\$2,421 40

APPENDIX C.

TABLE SHOWING LOCATION AND COST OF STREET IMPROVEMENTS.

NAME OF STREET.	GRAVEL.		MACADAM.	
	Sq. Yds.	Cost.	Sq. Yds.	Cost.
Bonair	-	-	3,376	\$826 85
Bonner Ave.	861	\$222 55	-	-
Broadway, Wheatland to Grant	-	-	722	433 70
Carlton	889	105 80	-	-
Cedar, Broadway to Arlington Branch R.R.	-	-	5,156	1,704 13
Chandler, near Park Ave., to William	1,482	395 85	-	-
Chester	2,021	317 85	-	-
Dana	815	318 55	-	-
Elm, Mossland St., southeasterly, one-half Evergreen Ave., School to Thurston	-	-	900	211 80
Howe	1,079	167 40	-	-
Holland	-	-	1,022	331 60
James	-	-	9,450	1,656 35
Medford, School to Central	948	151 90	-	-
Medford, Central to Bartlett	-	-	2,949	418 35
Medford, Camb'dge Line to Fitchb'g R.R. Mills	-	-	2,143	483 80
Montgomery Ave. and Wellington Ave. Mt. Pleasant	1,286	86 50	2,835	1,235 56
Mt. Vernon	-	-	1,422	1,045 05
Sargent Ave.	1,040	266 50	-	-
School	4,222	142 90	-	-
St. James Ave.	-	-	1,199	583 60
Virginia	-	-	1,991	398 20
Washington, Boston to Union Sq.	-	-	1,446	683 77
Wheatland, Broadway to Jaques	-	-	919	373 85
Totals	-	-	6,234	2,560 70
	-	-	1,482	892 00
	14,643	\$2,175 80	34,296	\$13,839 31

APPENDIX D.

STREETS ACCEPTED IN 1890.

NAME OF STREET.	FROM.	To.	Width in Feet.	Length in Feet.
Brastow Avenue . .	Porter Street . .	Lowell Street .	40	686
Carlton Street . .	Somerville Avenue	Lake Street . .	40	300
Chandler Street . .	Park Avenue . .	Broadway . . .	40	1,232
Gibbens Street . .	Central Street . .	Benton Avenue .	40	492
Madison Street . .	School Street . .	Sycamore Street	40	891
Mills Street . . .	Walnut Street . .	Sargent Avenue	40	560
Montrose Street . .	School Street . .	Sycamore Street	40	886
Norwood Avenue .	Medford Street . .	Broadway . . .	40	350
Richdale Avenue .	School Street . .	Sycamore Street	40	875
Runey Street . . .	Cross Street . . .	Aldrich Street .	40	753
Sargent Avenue . .	Broadway	Mills Street . .	40	522
Tremont Street . .	Webster Avenue .	Cambridge Line	40	589
Tyler Street . . .	Dane Street . . .	Vine Street . .	40	404
William Street . .	Elm Street . . .	Chandler Street	40	331

APPENDIX E.

TABLE SHOWING THE LOCATION, LENGTH, AND WIDTH OF PUBLIC AND PRIVATE STREETS.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Adams	Broadway	Medford St.	Public.	40	900	-
Adrian	Marion St.	Joseph St.	Private.	40	-	530
Albion	Central St.	Cedar St.	Private.	about 35	-	2,740
Albion	Broadway	Medford Line	Private.	50	-	100
Aldersey	Walnut St.	Vinal Ave.	Public.	40	508	-
Aldrich	Pearl St.	B. & L. R. R.	Public.	40	611	-
Alfred	Broadway	Medford Line	Private.	50	-	50
Allen	Somerville Ave.	Charlestown St.	Private.	25	-	680
Allen Ct.	Park St.	Northwesterly	Private.	20	-	150
Alpine	Cedar St.	Southeasterly	Private.	30	-	670
Alston	Cross St.	Shawmut Pl.	Private.	40	-	420
Ames	Bartlett St.	Robinson St.	Private.	40	-	515
Appleton	Willow Ave.	Clifton St.	Public.	40	510	-
Appleton	Clifton St.	Liberty Ave.	Private.	40	-	120
Arlington	Franklin St.	Lincoln St.	Public.	40	440	-
Arthur Ct.	Linden St.	Easterly	Private.	about 10	-	100
Arthur	Broadway	Bonair St.	Private.	40	-	438
Ashland	Summer St.	Chestnut St.	Private.	30	-	470
Asylum Ave.	Washington St.	McLean Asylum	Private.	about 30	-	2,000
Atherton	Central St.	Beech St.	Private.	40	-	264
Auburn Ave.	Cross St.	B. & L. R. R.	Private.	30	-	500
Austin	Broadway	Mystic Ave.	Public.	40	680	-
Autumn	Broadway	Bonair St.	Private.	20	-	420
Avon	School St.	Central St.	Private.	40	-	1,360
Avon Pl.	Cross St.	B. & L. R. R.	Private.	25	-	150
*Ayer Ave.	Morrison Ave.	Boston Ave.	Private.	70	-	1,500
Bartlett	Vernon St.	Broadway	Private.	40	-	1,550
Bartlett	Washington St.	Asylum Grounds	Private.	20	-	200
Beach Ave.	Webster Ave.	Columbia St.	Private.	about 20	-	200
Beacon Pl.	Beacon St.	Northeasterly	Private.	15	-	200
Beacon	Cambridge Line	Somerville Ave.	Public.	66	6,100	-
Bean's Ct.	Cutter St.	Southeasterly	Private.	16	-	100
Bedford	South St.	Cambridge Line	Private.	30	-	160
Beech	Somerville Ave.	Spring St.	Public.	40	800	-
Belmont	Somerville Ave.	Highland Ave.	Public.	40	2,175	-
Belmont Pl.	Belmont St.	Southeasterly	Private.	25	-	175
Benedict	Union St.	Austin St.	Public.	40	600	-
Benedict Ave.	Broadway	Benedict St.	Private.	20	-	200
Bennett	Prospect St.	Bennett Ct.	Private.	25 & 40	-	400
Bennett Ct.	Bennett St.	Prospect St.	Private.	10	-	100
Benton Ave.	Summer St.	Hudson St.	Private.	40	-	1,210
Berkeley	School St.	Central St.	Public.	40	1,360	-
Bigelow	Boston St.	High St.	Private.	50	-	203
Billingham	Broadway	William St.	Private.	40	-	568
Bishop's Pl.	Glen St.	Easterly	Private.	10	-	75
Blakeley Ave.	Winthrop Ave.	Cross St.	Private.	40	-	630
Bleachery Ct.	Somerville Ave.	Fitchburg R. R.	Private.	30	-	450
Bolton	Oak St.	Houghton St.	Private.	40	-	500
Bonair	Cross St.	Walnut St.	Public.	40	1,470	-
Bond	Broadway	Jaques St.	Public.	40	640	-
Bonner Ave.	Washington St.	Columbus Ave.	Public.	40	450	-
Boston	Washington St.	Walnut St.	Public.	40 & 45	1,880	-

* Proposed.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Boston Ave. . . .	Medford Line . .	Alewife Brook . .	Public.	60	910	-
*Boston Ave. . . .	Cedar St.	Medford Line . .	Private.	50	-	1,200
Bow	Union Sq.	Somerville Ave. .	Public.	60 to 50	1,100	-
Bowdoin	Washington St. .	Southerly	Private.	40	-	370
Bowman Pl.	Broadway	Northeasterly . .	Private.	25	-	177
Bow St. Pl.	Bow St.	Northwesterly . .	Private.	40	-	300
Bradford Ave. . . .	School St.	Southeasterly . .	Private..	40	-	150
Bradley	Pearl St.	Northeasterly . .	Private.	40	-	800
Brastow Ave.	Lowell St.	Porter St.	Public.	40	686	-
Broadway	Charlest'n Line .	Arlington Line . .	Public.	60 to 200	17,000	-
Broadway Pl.	Broadway	Southwesterly . .	Private.	22	-	250
Brook	Glen St.	Cross St.	Public.	40	500	-
Buckingham	Beacon St.	Dimick St.	Public.	40	300	-
Calvin	Washington St. .	Beacon St.	Private.	30 & 40	-	644
Cambria	Central St.	Northwesterly . .	Private.	40	-	300
Cameron Ave. . . .	Holland St. . . .	Cambridge Line . .	Private.	60	-	1,000
Carlton	Somerville Ave. .	Lake St.	Public.	40	300	-
Cedar	Elm St.	Broadway	Public.	40	4,150	-
Cedar Ave.	Cedar St.	Linden Ave. . . .	Private.	22	-	290
Cedar St. Pl.	Murdock St. . . .	Southwesterly . .	Private.	20	-	220
Central	Somerville Ave. .	Broadway	Public.	33, 40, 45	4,700	-
Centre	Albion St.	B. & L. R. R. . . .	Private.	35	-	200
Chandler	Park Ave.	Broadway	Public.	40	1,232	-
Chapel	Elm St.	Chandler Ct. . . .	Public.	40	273	-
Chapel Ct.	Sycamore St. . . .	Northwesterly . .	Private.	12	-	130
Charles	Washington St. .	Asylum Grounds .	Private.	30	-	200
Charlestown	Merriam St. . . .	Allen St.	Private.	15	-	440
Chauncey Ave. . . .	Broadway	Mystic Ave.	Public.	50	1,320	-
*Chelsea	Mystic Ave. . . .	Melrose St.	Private.	50	-	1,390
Cherry	Elm St.	Highland Ave. . .	Public.	45	1,450	-
Chester	Elm St.	Cambridge Line . .	Public.	40	850	-
Chester Ave.	Medford St. . . .	Angle	Public.	about 22	220	-
Chester Ave.	Angle	Cross St.	Private.	20	-	445
Chester Pl.	Chester St.	Northwesterly . .	Private.	40	-	200
Chestnut	Poplar St.	Southeasterly . .	Private.	40	-	540
Chestnut Ct.	Harvard St. . . .	Easterly & west'y	Private.	35	-	400
Church	Summer St.	Lake St.	Public.	40	900	-
Church St. Pl. . . .	Church St.	Northwesterly . .	Private.	25	-	170
Claremon	Holland St.	Cambridge Line . .	Private.	40	-	560
Clarendon Ave. . . .	Broadway	Cambridge Line . .	Private.	40	-	1,210
Clark	Newton St.	Northwesterly . .	Private.	35	-	450
Clifton	Appleton St. . . .	Morrison St. . . .	Public.	40	240	-
Clifton	Morrison St. . . .	Arlington B. R. R. .	Private.	40	-	220
Clyde	Cedar St.	Murdock St. . . .	Private.	30	-	600
College Ave.	Broadway	Medford Line . .	Public.	50	1,700	-
Columbia	Glass House Ct. .	Cambridge Line . .	Private.	40	-	550
Columbia Ct.	Columbia St. . . .	Webster Ave. . . .	Private.	9	-	150
Columbus Ave. . . .	Land of Clark . .	Walnut St.	Public.	40	1,000	-
Columbus Ct.	Washington St. .	Northerly	Private.	30	-	100
Concord Ave.	Prospect St. . . .	Leon St.	Public.	40	1,500	-
Concord Ave.	Leon St.	Beacon St.	Private.	30 & 40	-	470
Congress Pl.	Linwood St. . . .	Southwesterly . .	Private.	16	-	200
Conlon Ct.	Columbia St. . . .	Easterly	Private.	20	-	200
Conwell	Highland Ave. . .	Southwesterly . .	Private.	35	-	360
Conwell Ave.	Curtis St.	Westerly	Private.	40	-	600
Cook Ct.	So. Wyatt St. . . .	Marion St.	Private.	30 & 20	-	260
Cook	So. Wyatt St. . . .	Marion St.	Private.	40	-	275
Cooney	Beacon St.	Line St.	Private.	26	-	220
Cottage Ave.	Russell St.	Chester St.	Public.	40	500	-
Cottage Pl.	Washington St. .	Northwesterly . .	Private.	about 11	-	150
Craigie	Somerville Ave. .	Summer St.	Public.	50	1,250	-
Crescent	Washington St. .	Pearl St.	Private.	30 to 38	-	650

* Proposed.

STREET.	FROM.	To.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
*Crocker . . .	Highland Ave. .	Crown St. . . .	Private.	40	-	530
Cross	Mystic Ave. . .	Medford St. . .	Public.	45	3,750	-
Crown	Porter St. . . .	Lowell St. . . .	Private.	30	-	700
Curtis	Broadway	Medford Line . .	Public.	40	2,300	-
Cutler	Lawrence St. . .	Northwesterly . .	Private.	20	-	170
Cutter	Broadway	Webster St. . . .	Public.	40	740	-
Cutter Ave. . .	Summer St. . . .	Highland Ave. . .	Private.	40	-	450
Cypress	Central St. . . .	Beech St.	Private.	40	-	262
Dana	Bonair St. . . .	Pearl St.	Public.	40	690	-
Dane	Somerville Ave.	Washington St. .	Public.	40	1,270	-
Dane Ct. . . .	Dane St.	Easterly	Private.	30	-	600
Dartmouth . .	Medford St. . .	Broadway	Public.	40	1,450	-
Day	Elm St.	Cambridge Line .	Public.	40	940	-
*Dean Ave. . .	Morrison Ave. .	Boston Ave. . . .	Private.	40	-	1,145
Delaware . . .	Aldrich St. . . .	Pearl St.	Private.	40	-	450
Dell	Glen St.	Tufts St.	Private.	40	-	465
Derby	Temple St. . . .	Wheatland St. . .	Private.	40	-	1,032
Dexter	Broadway	Medford Line . .	Private.	50	-	25
Dickinson . .	Springfield St.	Beacon St.	Private.	40	-	650
Dimick	Concord Ave. . .	Calvin St.	Private.	40	-	860
Distillhouse .	South St.	Cambridge Line .	Private.	35	-	150
Dix Pl.	Linwood St. . . .	Southwesterly . .	Private.	10	-	100
Dover	Elm St.	Cambridge Line .	Public.	40	940	-
Dow	North St.	Easterly	Private.	40	-	645
*Downer Pl. .	Nashua St. . . .	Southeasterly . .	Private.	20	-	120
*Downer . . .	Downer St. . . .	B. & L. R. R. . .	Private.	20	-	125
Durham	Beacon St. . . .	Hanson St.	Private.	40	-	450
Earle	South St.	Fitchburg R. R. .	Private.	30	-	500
Eastman Pl. .	Highland Ave. .	Southwesterly . .	Private.	40	-	300
East Newton .	Prospect St. . .	Webster Ave. . . .	Public.	25	470	-
*Edgeworth . .	Mystic Ave. . . .	Melrose St. . . .	Private.	50	-	1,380
Edmands . . .	Broadway	Southwesterly . .	Private.	40	-	440
Eliot	Vine St.	Park St.	Public.	40	260	-
Ellsworth . . .	Cross St.	Rush St.	Public.	40	210	-
Elm	Somerville Ave.	Medford Line . .	Public.	60+	7,700	-
Elm Ct.	Villa Ave. . . .	Northwesterly . .	Private.	18	-	70
Elm Pl.	Harvard St. . . .	Easterly & west'ly	Private.	30	-	400
Elmwood . . .	Holland St. . . .	Cambridge Line .	Private.	40	-	970
Emerson	Everett St. . . .	Newton St.	Private.	30	-	170
Emery	Fitchburg R. R. .	South St.	Private.	30	-	530
Endicott Ave. .	Broadway	Southwesterly . .	Private.	40	-	800
Essex	Medford St. . . .	Richdale Ave. . .	Private.	40	-	200
Eustis Ct. . . .	Beacon St. . . .	Cambridge Line .	Private.	30	-	140
Everett	Webster Ave. . .	Newton St.	Private.	30	-	350
Everett Ave. . .	Cross St.	Dana St.	Public.	40	800	-
Evergreen Ave. .	Marshall St. . .	Sycamore St. . . .	Public.	40	1,320	-
Evergreen Sq. .	Porter St.	Southeasterly . .	Private.	8	-	200
Fairlee	Cherry St. . . .	Northwesterly . .	Private.	30	-	150
Fairmount Ave. .	Curtis St.	Northwesterly . .	Private.	40	-	700
Fanning Ave. . .	Highland Ave. . .	Lexington Ave. . .	Private.	50	-	375
Farragut Ave. .	Broadway	Southwesterly . .	Private.	40	-	840
Fisk Ave. . . .	Hinckley St. . . .	Lowell St.	Private.	20 & 25	-	460
Fitchburg Ct. . .	Fitchburg St. . .	Southeasterly . .	Private.	10	-	225
Fitchburg . . .	Linwood St. . . .	B. & L. R. R. . .	Private.	40	-	400
Fitchburg . . .	Linden St. . . .	Easterly	Private.	20	-	500
Flint	Franklin St. . . .	Cross St.	Public.	40	1,020	-
Florence	Washington St. .	Perkins St.	Public.	40	1,280	-
Folger	Broadway	Fairmount Ave. . .	Private.	40	-	280
Forest	Beacon St. . . .	Cambridge Line .	Public.	40	150	-
Forster	Sycamore St. . . .	Central St.	Private.	30	-	430

* Proposed.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Fountain Ave.	Cross St.	Glen St.	Private.	30	-	550
Francesca Ave.	Elm St.	Liberty Ave.	Private.	40	-	740
*Francis	Porter St.	Conwell St.	Private.	30	-	180
Franklin	Broadway	Washington St.	Public.	40+	2,230	-
Franklin Ave.	Washington St.	Franklin St.	Private.	20	-	500
Franklin Ct.	Somerville Ave.	B. & L. R. R.	Private.	-	-	200
Franklin Pl.	Franklin St.	Southeasterly	Private.	15	-	100
*Frederick Ave.	Willow Ave.	Cedar St.	Private.	45	-	1,360
Fremont	Main St.	Northeasterly	Private.	40	-	600
Fremont Ave.	Parker St.	Easterly & west'y	Private.	30	-	235
Frost Ave.	Somerville Ave.	Dane St.	Private.	35	-	550
Garden Ct.	Somerville Ave.	Fitchburg R. R.	Private.	25	-	370
Garfield Ave.	Broadway	Mystic Ave.	Private.	40	-	1,150
Garrison Ave.	Broadway	Southwesterly	Private.	40	-	850
George	Broadway	Lincoln Ave.	Private.	40	-	350
Gibbens	Central St.	Benton Ave.	Public.	40	492	-
Giles Pl.	Walnut St.	Northwesterly	Private.	32.71	-	168
Gill's Ct.	Franklin St.	Westerly	Private.	10	-	100
Gilman	Cross St.	Walnut St.	Public.	40	1,430	-
Glass House Ct.	Webster Ave.	Easterly	Private.	40	-	200
Glen	Broadway	Tufts St.	Public.	40	2,300	-
Gorham	Holland St.	Howard St.	Private.	40	-	760
Grand View Ave.	Walnut St.	Vinal Ave.	Public.	40	470	-
Granite	Somerville Ave.	Osgood St.	Private.	40	-	400
Grant	Broadway	Mystic Ave.	Private.	40	-	1,350
Greene	Summer St.	Southwesterly	Private.	40	-	300
Greenville	Medford St.	High St.	Public.	40	660	-
Grove	Elm St.	Arlington B. R. R.	Public.	40	600	-
Grove	Arlington B.R.R	Morrison St.	Private.	40	-	400
Hadley Ct.	Franklin St.	Westerly	Private.	20	-	150
Hall	Cedar St.	Cherry St.	Private.	30	-	350
Hall Ave.	Elm St.	Liberty Ave.	Private.	40	-	910
Hamlet	Highland Ave.	Southwesterly	Private.	30	-	400
Hammond	Dickinson St.	Concord Ave.	Private.	40	-	273
Hancock	Elm St.	Summer St.	Private.	40	-	770
Hanson	Washington St.	Vine St.	Private.	35	-	750
Harding	South St.	Cambridge Line	Private.	30	-	115
Harris	Beacon St.	Cambridge Line	Private.	35	-	150
Harrison	Ivaloo St.	Mondamin Ct.	Private.	40	-	330
Harrison	Elmwood St.	Southeasterly	Private.	40	-	210
Harvard	Summer St.	Beech St.	Public.	40	650	-
Hathorn	Broadway	Arlington St.	Public.	40	330	-
Hawkins	Somerville Ave.	Washington St.	Public.	40	330	-
Hawthorne	Willow Ave.	Northwesterly	Private.	30	-	700
Heath	Temple St.	Moreland St.	Private.	45	-	1,800
Henderson	Richardson St.	B. & L. R. R.	Private.	20	-	535
Hennessey Ct.	Medford St.	Fisk Ave.	Private.	20	-	250
Henry Ave.	Highland Ave.	Lexington Ave.	Private.	40	-	290
Herbert	Chester St.	Day St.	Public.	40	360	-
Hersey	Berkeley St.	Oxford St.	Private.	40	-	230
High	Boston St.	Munroe St.	Private.	50	-	1,100
Highland Ave.	Medford St.	Davis Sq.	Public.	60	9,100	-
Hillside Ave.	Pearl St.	Southwesterly	Private.	30	-	150
Hillside Pk.	Walnut St.	Northwesterly	Private.	40	-	245
Hinckley	Broadway	Lawrence St.	Private.	30	-	430
Hodgdon Pl.	Dane Ct.	Northeasterly	Private.	about 20	-	150
Holland	Davis Sq.	Broadway	Public.	60	2,650	-
Holland	Lawrence St.	Northwesterly	Private.	20	-	170
Holt's Ave.	Oak St.	Southeasterly	Private.	10	-	100
Homer Sq.	Bonner Ave.	Northwesterly	Private.	30+	-	200
Horace	South St.	Fitchburg R. R.	Private.	30	-	510

* Proposed.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Houghton . . .	Prospect St. . .	Springfield St. . .	Private.	40	-	750
Howard . . .	Thorndike St. . .	Northwesterly . . .	Private.	40	-	560
Howard . . .	Whipple St. . .	Willow Ave. . . .	Private.	30	-	255
Howe . . .	Marshall St. . .	School St. . . .	Public.	40	445	-
Hudson . . .	Cedar St. . . .	Central St. . . .	Private.	40	-	2,700
Hunting . . .	South St. . . .	Cambridge Line . .	Private.	30	-	125
Irving . . .	Holland St. . .	Broadway	Public.	40	1,180	-
Ivaloo . . .	Beacon St. . .	Park St.	Public.	40	650	-
Jackson . . .	Medford St. . .	Maple St.	Private.	30	-	150
Jacob . . .	Elm St.	Billingham St. . .	Private.	40	-	322
James . . .	Broadway . . .	Holland St. . . .	Private.	40	-	775
James . . .	Pearl St. . . .	Veazie St.	Public.	40	320	-
Jacques . . .	Chauncey Ave. .	Bond St.	Public.	40 & 45	2,250	-
Jasper . . .	Pearl St. . . .	Gilman St.	Private.	40	-	300
Jay . . .	Holland St. . .	Howard St.	Private.	40	-	525
Jenny Lind Ave.	Vernon St. . .	Medford St. . . .	Public.	40	910	-
Jenny Lind Ave.	Medford St. . .	Broadway	Private.	40	-	590
Jerome Ct. . .	Sycamore St. . .	Jerome St.	Private.	10	-	150
Jerome . . .	Montrose St. . .	Jerome Ct.	Private.	20	-	125
Joseph . . .	Newton St. . .	Northwesterly . . .	Private.	40	-	380
*Josephine Ave.	Morrison Ave. .	Broadway	Private.	45	-	1,715
Joy . . .	Washington St. .	Poplar St.	Private.	30	-	1,150
Joy St. Pl. . .	Joy St.	Southwesterly . . .	Private.	30	-	175
Kensington Ave.	Broadway . . .	Blakeley Ave. . . .	Private.	40	-	440
Kent . . .	Somerville Ave. .	Beacon St.	Private.	25 & 40	-	740
Kent Ct. . .	Kent St.	Northerly	Private.	about 25	-	420
Kidder Ave. . .	Elm St.	Liberty Ave.	Private.	40	-	610
Kingman Ct. . .	Washington St. .	Fitchburg R. R. . .	Private.	25	-	400
Knapp . . .	School St. . . .	Granite St.	Private.	40	-	350
Knowlton . . .	Oliver St. . . .	Tufts St.	Private.	40	-	925
Lake . . .	Hawkins St. . .	Church St.	Public.	40	860	-
Lamson Ct. . .	Linwood St. . .	Poplar St.	Private.	20	-	370
Landers . . .	School St. . . .	Westerly	Private.	40	-	280
Laurel . . .	Somerville Ave. .	Summer St.	Public.	40	940	-
Lawrence . . .	Hinckley St. . .	B. & L. R. R. . . .	Private.	35	-	650
Lawson Terrace	Putnam St. . . .	Easterly	Private.	5	-	200
Lee . . .	Medford St. . .	Richdale Ave. . . .	Private.	40	-	385
Leland . . .	Washington St. .	Northeasterly . . .	Private.	40	-	250
Leon . . .	Concord Ave. . .	Dickinson St. . . .	Private.	40	-	150
Leonard Pl. . .	Joy St.	Northeasterly . . .	Private.	13+	-	98
Lesley Ave. . .	Highland Ave. .	Lexington Ave. . . .	Private.	40	-	333
Leslie Pl. . .	Highland Ave. .	Easterly	Private.	12	-	75
Lexington Ave.	Willow Ave. . .	Cedar St.	Private.	50	-	1,360
Liberty Ave. . .	Appleton St. . .	Broadway	Private.	40	-	1,495
Lincoln Ave. . .	Lincoln St. . .	Mt. Vernon St. . . .	Private.	40	-	450
Lincoln . . .	Broadway . . .	Perkins St.	Public.	40	550	-
Linden . . .	Somerville Ave. .	Fitchburg R. R. . .	Private.	30	-	705
Linden Ave. . .	Elm St.	Summer St.	Public.	45	1,050	-
Linden Ave. . .	Summer St. . . .	Northeasterly . . .	Private.	45	-	250
Linden Pl. . .	Linden Ave. . .	Northwesterly . . .	Private.	20	-	160
Line . . .	Washington St. .	Cambridge Line . . .	Private.	33	-	1,750
Linehan Ct. . .	Linwood St. . .	Chestnut St.	Private.	about 15	-	200
Linwood . . .	Somerville Ave. .	Washington St. . . .	Public.	50	2,050	-
Linwood Pl. . .	Linwood St. . .	Southwesterly . . .	Private.	about 12	-	150
London . . .	Linwood St. . .	B. & L. R. R. . . .	Private.	40	-	340
Loring . . .	Somerville Ave. .	Northeasterly . . .	Private.	40	-	400
Lowell . . .	Somerville Ave. .	Crown St.	Private.	33+	-	1,600
Lowell . . .	B. & L. R. R. . .	Medford St.	Private.	33+	-	1,150

* Proposed.

STREET.	FROM.	To.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Madison	School St. . . .	Sycamore St. . . .	Public.	40	891	-
Main	Broadway	Medford Line . . .	Public.	50	950	-
*Malden	Mystic Ave. . . .	Melrose St.	Private.	50	-	1,360
Malloy Ct.	Somerville Ave. . .	Merriam St.	Private.	30 & 15	-	520
Mansfield	Somerville Ave. . .	Washington St. . . .	Private.	40	-	730
Maple	Poplar St.	Jackson St.	Private.	30	-	470
Maple Ave.	School St.	Southeasterly	Private.	40	-	300
Maple Pl.	White St.	Southeasterly	Private.	20	-	200
Marion	Concord Ave. . . .	Adrian St.	Private.	40	-	170
Marshall	Broadway	Pearl St.	Public.	40	1,650	-
Mason Ave.	Orchard St.	Cambridge Line . . .	Private.	35	-	220
May Pl.	Hawkins St.	Easterly	Private.	12	-	100
McGregor Ave.	Wigglesworth St. . .	Walnut St.	Private.	about 10	-	250
Meacham	Orchard St.	Cambridge Line . . .	Public.	40	100	-
Meacham	Arlington B. R. R. . .	Orchard St.	Private.	40	-	600
Meacham	Mt. Vernon Ave. . . .	Medford Line	Private.	40	-	800
Mead	Cameron Ave.	Moore St.	Private.	40	-	340
Medford	Cambridge Line	Medford Line	Public.	50 & 55	10,100	-
*Melrose	Mystic Ave.	Middlesex Ave.	Private.	50	-	2,310
Melvin	Bonair St.	Northeasterly	Private.	35	-	150
Merriam	Somerville Ave. . . .	Charlestown St. . . .	Private.	30	-	500
Middlesex Ave.	Mystic Ave.	Medford Line	Public.	60	3,400	-
Milk St. Pl.	Somerville Ave. . . .	Southwesterly	Private.	about 30	-	100
Miller	Sacramento St. . . .	Northwesterly	Private.	33	-	350
Mills	Walnut St.	Sargent Ave.	Public.	40	560	-
Miner	Vernon St.	Ames St.	Private.	40	-	245
Mondamin Ct.	Ivaloo St.	Harrison St.	Private.	25	-	250
Montgomery Ave.	Broadway	Wellington Ave. . . .	Public.	40	265	-
Montrose Ct.	Montrose St.	B. & L. R. R. . . .	Private.	12	-	110
Montrose	School St.	Sycamore St.	Public.	40	886	-
Moore	Holland St.	Mead St.	Private.	40	-	1,200
Moreland	Main St.	Meacham St.	Private.	40	-	700
Morgan	Beacon St.	Park St.	Public.	40	-	350
Morrison Ave.	Willow Ave.	Cedar St.	Private.	50	-	1,366
Morrison Pl.	Morrison St.	Northerly & East'ly	Private.	15 & 20	-	370
Morrison	Willow Ave.	Elm St.	Public.	40	1,700	-
Mortimer Pl.	Marshall St.	Southeasterly	Private.	20	-	150
*Morton	Glen St.	Knowlton St.	Private.	40	-	285
Mossland	Somerville Ave. . . .	Elm St.	Public.	40	350	-
Mountain Ave.	Linden Ave.	Porter St.	Private.	22	-	310
Mousal Pl.	North Union St. . . .	B. & M. R. R. . . .	Private.	20	-	200
Mt. Pleasant	Broadway	Perkins St.	Public.	33	570	-
Mt. Pleasant Ct.	Perkins St.	Southwesterly	Private.	40	-	260
Mt. Pleasant Ave.	Curtis St.	Northwesterly	Private.	40	-	700
Mt. Vernon	Washington St.	Broadway	Public.	40 & 50	1,640	-
Mt. Vernon Ave.	Main St.	Meacham St.	Private.	50	-	800
Munroe	Walnut St.	High St.	Private.	40	-	400
Murdock	Cedar St.	Clyde St.	Private.	30	-	900
Murray	Washington St.	Southerly	Private.	30	-	250
Museum	Beacon St.	Cambridge Line . . .	Private.	40	-	170
Myrtle	Washington St.	Perkins St.	Public.	40	1,400	-
Myrtle Ct.	Myrtle St.	Easterly	Private.	10	-	100
Mystic	Washington St.	Somerville Ave. . . .	Public.	40	360	-
Mystic	Benedict St.	Mystic Ave.	Private.	40	-	330
Mystic Ave.	Charlestown Line . . .	Medford Line	Public.	60 & 66	7,250	-
Nashua	Richardson St.	B. & L. R. R. . . .	Private.	35	-	640
Nevada Ave.	Village St.	Hanson St.	Private.	20	-	200
Newberne	Appleton St.	Morrison St.	Private.	40	-	200
Newbury	Holland St.	Cambridge Line . . .	Public.	40	1,250	-
Newton Pl.	Newton St.	Easterly	Private.	about 10	-	100
Newton	Webster Ave.	Concord Ave.	Public.	40+	650	-

* Proposed.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Norfolk	Webster Ave. . .	Cambridge Line . .	Public.	40	200	-
North	Broadway	Medford Line . . .	Public.	40	2,550	-
North Union . . .	Mystic Ave. . . .	Northeasterly . . .	Private.	30	-	600
Norton	Nashua St.	Southeasterly . . .	Private.	20	-	200
Norwood Ave. . .	Broadway	Medford St.	Public.	40	350	-
Oak	Prospect St. . . .	Angle	Public.	40	670	-
Oak	Angle St.	Cambridge Line . .	Private.	30	-	530
Oak St. Pl. . . .	Oak St.	Northerly	Private.	4	-	85
Oakland Ave. . .	Marshall St. . . .	School St.	Public.	40	440	-
Olive Sq.	Lake St.	Southerly	Private.	about 15	-	100
Oliver	Franklin St. . . .	Cross St.	Public.	40	1,050	-
Orchard	Cambridge Line . .	Meacham St.	Public.	40	1,025	-
Osgood	Granite St.	Easterly & west'ly	Private.	40	-	450
Otis	Cross St.	Wigglesworth St. . .	Public.	40	1,200	-
Oxford	School St.	Central St.	Private.	30+	-	1,330
Oxford	Beacon St.	Cambridge Line . .	Public.	50	100	-
Packard Ave. . .	Broadway	Medford Line . . .	Private.	60	-	2,000
Palmer Ave. . . .	Franklin St. . . .	Northwesterly . . .	Private.	20	-	200
Park	Somerville Ave. . .	Beacon St.	Public.	50	1,300	-
Park Ave.	Elm St.	Wallace St.	Public.	40	450	-
Park Pl.	Laurel St.	Easterly & north'ly	Private.	30 & 20	-	350
Parker	Washington St. . .	Fremont Ave.	Private.	35	-	200
Parker Pl.	Porter St.	Northwesterly . . .	Private.	20	-	150
Partridge Ave. .	Vernon St.	Broadway	Private.	40	-	1,500
Patten Ct. . . .	Cutter St.	Southeasterly . . .	Private.	8	-	100
Pearl	Crescent St. . . .	Medford St.	Public.	40 & 50	4,750	-
Pearl St. Pl. . .	Pearl St.	Northeasterly . . .	Private.	20	-	200
*Pearson Ave. . .	Morrison Ave. . . .	Boston Ave.	Private.	45	-	1,300
Pembroke Ct. . .	Pembroke St. . . .	Southwesterly . . .	Private.	25	-	130
Pembroke	Central St.	Sycamore St.	Private.	40	-	440
Perkins	Franklin St. . . .	Charlestown Line . .	Public.	40	1,350	-
Perkins Pl. . . .	Perkins St.	Northeasterly . . .	Private.	20	-	200
Pinckney	Washington St. . .	Perkins St.	Public.	40	-	-
Pitman	Beech St.	Belmont St.	Private.	30	1,170	800
Pleasant Ave. . .	Walnut St.	Vinal Ave.	Public.	40	470	-
Poplar Ct. . . .	Poplar St.	Southeasterly . . .	Private.	10	-	80
Poplar	Somerville Ave. . .	Joy St.	Private.	30 & 35	-	650
Porter Pl.	Porter St.	Northwesterly . . .	Private.	20	-	195
Porter	Elm St.	Summer St.	Public.	45*	1,150	-
Porter	Summer St.	Highland Ave. . . .	Private.	45	-	830
Prescott	Summer St.	Highland Ave. . . .	Public.	50	1,050	-
Preston	School St.	Summer St.	Public.	40	800	-
Professors' Row .	College Ave. . . .	Curtis St.	Private.	40	-	1,900
Prospect	Washington St. . .	Cambridge Line . .	Public.	40 & 50	2,050	-
Prospect Hill Av.	Medford St.	High St.	Public.	40	450	-
Prospect Pl. . . .	Prospect St. . . .	E. Newton St. . . .	Private.	20	-	130
Putnam	Summer St.	Highland Ave. . . .	Public.	50	1,240	-
Quincy	Somerville Ave. . .	Summer St.	Public.	40	700	-
Randolph Pl. . .	Cross St.	Westerly	Private.	15	-	244
Raymond Ave. . .	Curtis St.	North St.	Public.	40	1,345	-
Record's Pl. . . .	Broadway	Southwesterly . . .	Private.	10	-	110
Reed's Ct.	Oliver St.	Southwesterly . . .	Private.	20	-	105
Remick Ct. . . .	Cutter St.	Southeasterly . . .	Private.	10	-	100
Richardson . . .	Lowell St.	Lawrence St.	Private.	35	-	480
Richdale Ave. . .	School St.	Sycamore St.	Public.	40	875	-
Richmond High'ds	Madison St.	Southerly	Private.	30	-	150
*Roberts	Lawrence St. . . .	Northwesterly . . .	Private.	20	-	170
Robinson	Central St.	Bartlett St.	Private.	40	-	645
*Rogers Ave. . .	Morrison Ave. . . .	Broadway	Private.	45	-	1,700

* Proposed.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Roseland . . .	Beacon St. . .	Cambridge Line .	Public.	40	100	-
Rossmore . . .	Somerville Ave.	Washington St. .	Private.	40	-	525
Runey Pl. . . .	Runey St. . . .	Northerly	Private.	40	-	200
Runey	Cross St. . . .	Aldrich St. . . .	Public.	40	753	-
Rush	Broadway	Flint St.	Public.	40	1,400	-
Russell	Elm St.	Cambridge Line .	Public.	40	700	-
Sacramento . . .	Somerville Ave.	Cambridge Line .	Private.	40	-	600
Sanborn Ave. . .	Warren Ave. . .	Walnut St.	Public.	40	280	-
Sargent Ave. . .	Broadway	Mills St.	Public.	40	522	-
Sartwell Ave. . .	Cedar St.	Cherry St.	Private.	35	-	400
School	Somerville Ave.	Broadway	Public.	40 & 50	4,370	-
Sellon Ct.	Marshall St. . . .	Northwesterly . .	Private.	12	-	120
Sewall Ct.	Sewall St.	Southwesterly . .	Private.	25	-	190
Sewall	Grant St.	Temple St.	Private.	40	-	650
Shawmut Pl. . . .	Shawmut St. . . .	Alston St.	Private.	30	-	200
Shawmut	Washington St. . .	Cross St.	Public.	40	550	-
Shed	Somerville Ave.	Charlestown St. .	Private.	40	-	310
Sherman	Somerville Ave.	Frost Ave.	Private.	35	-	270
Sibley Ct.	Cutter St.	Northwesterly . .	Private.	10	-	100
Sibley Pl.	Cutter St.	Northwesterly . .	Private.	10	-	100
Simpson Ave. . . .	Broadway	Holland St.	Private.	40	-	825
Skehan	Dane St.	Durham St.	Private.	30	-	720
Smith Ave.	Beacon St.	Line St.	Private.	25+	-	200
Snow Pl.	Belmont St.	Easterly	Private.	25 & 30	-	270
Somerville Ave. . .	E. Camb. Line.	N. Camb. Line . .	Public.	70 & 75	11,100	-
South	Medford St. . . .	Westerly	Private.	30	-	940
* Southwick Ave.	Morrison Ave. . .	Boston Ave. . . .	Private.	40	-	990
Spring	Somerville Ave.	Summer St.	Public.	35	1,200	-
Spring Ct.	Somerville Ave.	Westerly	Private.	20	-	200
Springfield. . . .	Concord Ave. . . .	Cambridge Line .	Public.	40	800	-
Stickney Ave. . . .	Marshall St. . . .	School St.	Private.	40	-	450
St. James Ave. . .	Elm St.	Summer St.	Public.	40	488	-
Stone Ave.	Union Sq.	Columbus Ave. . .	Private.	40	-	675
Stone Pl.	Stone Ave.	Southeasterly . .	Private.	30	-	145
Summer	Bow St.	Elm St.	Public.	45	7,700	-
Summit Ave.	Walnut St.	Vinal Ave.	Public.	45	470	-
Summit	Elm St.	Billingham St. . .	Private.	40	-	264
*Summer	Lawrence St. . . .	Northwesterly . .	Private.	20	-	175
Sunnyside Ave. . .	Walnut St.	Wigglesworth St. .	Private.	35	-	250
Sycamore	Broadway	Medford St. . . .	Public.	45	1,250	-
Sycamore	Medford St. . . .	Highland Ave. . .	Private.	33 & 40	-	1,350
Sydney	Wheatland St. . .	Temple St.	Private.	40	-	925
Taylor's Pl.	Somerville Ave.	Southerly	Private.	15	-	200
Taylor	Mystic Ave.	Sydney St.	Private.	40	-	310
Temple	Broadway	Mystic Ave.	Public.	66	1,540	-
Tenney Ct.	Mystic Ave.	Northeasterly . .	Private.	30	-	400
Tennyson	Forster St.	Pembroke St. . . .	Private.	40	-	900
Thorndike	Holland St.	Arlington B. R. R.	Private.	40	-	460
Thorpe Pl.	Highland Ave. . . .	Southwesterly . .	Private.	30	-	450
Thurston	Broadway	Medford St.	Public.	40	1,350	-
Thurston	Broadway	Heath St.	Private.	40	-	340
Thurston	Medford St.	Richdale Ave. . . .	Private.	40	-	300
Tower Ct.	Tyler St.	Northeasterly . .	Private.	25	-	150
*Tower	Crown St.	Highland Ave. . . .	Private.	40	-	550
Tremont Pl.	Tremont St.	Southeasterly . .	Private.	about 10.	-	75
Tremont	Webster Ave. . . .	Cambridge Line .	Public.	40	589	-
Trull	Vernon St.	Medford St.	Private.	40	-	1,050
Trull Lane.	Highland St. . . .	Oxford St.	Private.	15	-	200
Tube Works Ct. . .	Somerville Ave.	Southwesterly . .	Private.	20	-	150
Tufts	Washington St. . .	Cross St.	Public.	40	940	-
Tyler	Vine St.	Dane St.	Public.	40	404	-

* Proposed.

STREET.	FROM.	TO.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Union	Broadway	Mystic Ave. . . .	Public.	40	330	-
Union Pl.	Linwood St. . . .	Southwesterly . .	Private.	10	-	100
Veazie	Walnut St.	Bradley St.	Private.	40	-	650
Vernon	Central St.	Jenny Lind Ave. . .	Public.	40	740	-
Vernon	Jenny Lind Ave.	Lowell St.	Private.	30	-	600
Villa Ave.	Winslow Ave. . . .	Arlington B. R. R.	Private.	40	-	200
Village	Dane St.	Vine St.	Private.	25	-	370
Vinal Ave.	Summer St.	Highland Ave. . . .	Public.	45	1,400	-
Vinal	Richardson St. . .	Northeasterly . . .	Private.	20	-	200
Vine	Somerville Ave. . .	Beacon St.	Private.	25 & 40	-	1,400
Virginia	Aldrich St.	Jasper St.	Public.	40	405	-
Wade Ct.	Cedar St.	Westerly	Private.	20	-	180
Wallace	Holland St.	Broadway	Public.	40	1,350	-
Walnut	Bow St.	Broadway	Public.	40	3,830	-
Ward	Medford St.	Earl St.	Private.	30	-	610
Warren Ave.	Union Sq.	Columbus Ave. . . .	Public.	40	650	-
Warren	Medford St.	Cambridge Line . .	Private.	30	-	100
Warwick	Cedar St.	Southeasterly . . .	Private.	40	-	630
Washington Ave.	Washington St. . .	Northerly	Private.	18	-	350
Washington	Charlest'n Line . .	Cambridge Line . .	Public.	60 to 100	7,250	-
Water	South St.	Northerly	Private.	25	-	250
Waverly	Washington St. . .	Southerly	Private.	35	-	200
Ware	Curtis St.	Northwesterly . . .	Private.	40	-	700
Webster Ave. . . .	Union Sq.	Cambridge Line . .	Public.	49.5	1,950	-
Webster	Franklin St.	Cross St.	Public.	40	1,000	-
Wellington Ave. . .	Walnut St.	Montgomery Ave. .	Public.	40	215	-
Wellington Ave. . .	Montgomery Ave. .	Easterly	Private.	40	-	85
Wesley Pk.	Wesley Sq.	Northeasterly . . .	Public.	40	405	-
Wesley	Otis St.	Pearl St.	Private.	30 & 40	-	515
West	Broadway	Heath St.	Private.	30	-	250
West	Hawthorne St. . . .	Arlington B. R. R.	Private.	30	-	590
Weston Ave.	Clarendon Ave. . .	Broadway	Private.	40	-	525
Wheatland	Broadway	Jaques St.	Public.	40	495	-
Wheatland	Jaques St.	Mystic Ave.	Private.	40	-	855
Whipple	Hawthorne St. . . .	Arlington B. R. R.	Private.	30	-	575
White	Elm St.	Cambridge Line . .	Private.	20	-	300
Wigglesworth	Bonair St.	Pearl St.	Private.	40	-	740
William	Chandler St.	Elm St.	Public.	40	381	-
Williams Ct.	Porter St.	Northwesterly . . .	Private.	30	-	150
Willoughby	Central St.	Sycamore St.	Private.	30	-	400
Willow Ave.	Elm St.	Broadway	Public.	50	3,440	-
Willow Pl.	Cambridge Line . .	South St.	Private.	25	-	150
*Willowdale	Willow Ave.	Easterly	Private.	40	-	550
Wilson Ave.	Broadway	B. & L. R. R. . . .	Private.	20	-	310
Wilton	Lowell St.	Lawrence St.	Private.	35	-	470
Winslow Ave.	Elm St.	Grove St.	Private.	40	-	470
Winter	Elm St.	Holland St.	Private.	30	-	430
Winthrop Ave. . . .	Broadway	Mystic Ave.	Public.	50	1,170	-
Woodbine	Centre St.	Lowell St.	Private.	30	-	600
*Woods Ave.	North St.	Alewif Brook	Private.	40	-	1,500
Wyatt Ct.	South Wyatt St. . .	Westerly	Private.	13	-	200
Wyatt (South)	Concord Ave. . . .	Northerly	Private.	40	-	400
Wyatt (North)	Washington St. . . .	Southerly	Private.	40	-	350

* Proposed.

UNNAMED STREETS.

STREET.	FROM.	To.	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
	Laurel St. . . .	Easterly	Private.	40	-	255
	Meacham St. . .	Northwesterly . .	Private.	40	-	400
	Meacham St. . .	North'y & west'y	Private.	40	-	740
	Meacham St. . .	Northwesterly . .	Private.	20	-	190
	Highland Ave. .	Hudson St. . . .	Private.	40	-	287
	Pearl St.	Pearl St.	Private.	40	-	560
Total . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	242,126	182,168

Public, 45.86 miles; private, 34.5 miles.

REPORT

OF THE

COMMITTEE ON FIRE DEPARTMENT.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 3, 1891.

Accepted and referred to the next City Council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 3, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

REPORT
OF THE
COMMITTEE ON FIRE DEPARTMENT.

IN COMMITTEE ON FIRE DEPARTMENT, }
January 3, 1891. }

To the City Council:—

The following is the final report of the committee on Fire Department for the year ending December 31, 1890:—

The manual force of the department consists of seventy-eight members, including one chief and one assistant engineer, which is an increase over last year of five members.

Under an order of the City Council, passed April 9, a new steam fire-engine has been purchased of the Silsby Manufacturing Company, of Seneca Falls, New York, for the sum of \$3,600, including freight, and placed in service at the hose-house on Highland avenue, Ward Four.

A new fuel wagon has been purchased during the year of William T. Henderson, for \$80.00, the city giving in exchange one of the old hose reel carriages, for which an allowance of \$25.00 was made, making a net cost of \$55.00.

A new hose wagon has also been purchased of E. Teel & Co., of Medford, for \$480.00, and been placed at Hose 3's house. There is

now only one reel hose carriage in service, which is run in connection with engine No. 1.

A new extension ladder has also been purchased of the Boston Woven Hose Company, at an expense of \$162.00, and placed on the hook and ladder truck.

A new pair of horses has been purchased during the year for steamer No. 1, of John S. Nason, for \$525.00. The horse used by the chief engineer has been exchanged, at a cost to the city of \$225.00. A horse has also been purchased for Hook and Ladder Company No. 1, of John S. Nason, at a cost of \$200.00, and a pair of horses has been purchased of the same party for the new steamer, at a cost of \$625.00.

One thousand feet of hose has been purchased during the year, at a cost of \$770.00.

The price paid for water from the hydrants this year was \$2,239.44, which is the same price as paid last year, namely, \$2,408.00, with a discount of seven per cent.

Five new fire-alarm boxes have been added during the year.

We present herewith the report of the chief engineer, recommending it be printed with the annual report.

The appropriation, receipts, and expenditures are shown by the following statements:—

FIRE DEPARTMENT ACCOUNT.

CREDIT.

Appropriation	\$32,900 00	
Receipts:—		
For manure sold	\$45 00	
for old junk, zincs, etc., sold	54 23	
	<hr/>	99 23
Total credit		<hr/> \$32,999 23
<i>Amount carried forward</i>		<hr/> \$32,999 23

Amount brought forward \$32,999 23

DEBIT.

Expenditures:—

For salaries of permanent men	\$11,360 00	
salaries of call men	5,934 63	
substitute drivers	927 34	
improvements and repairs of apparatus and vehicles	390 33	
improvements and repairs of buildings and furniture and new furniture	1,204 01	
new vehicles and apparatus	707 00	
maintenance and extension of fire-alarm telegraph	2,074 39	
hose and hose pipes and repairing same	908 95	
new horses, one old one given in exchange	950 00	
grain and feed	673 36	
hay and straw	901 14	
horseshoeing	348 72	
horse-doctoring and medicine	75 17	
harnesses and repairing same	392 70	
fuel	840 16	
supplies	276 89	
water for hydrants	2,239 44	
water for department buildings, gas	120 90	
ice	588 81	
washing and ironing	131 00	
telephones	168 28	
hand fire-extinguishers	36 10	
incidentals	123 39	
incidentals	640 80	
Total debit		32,013 51
Balance unexpended		<u>\$985 72</u>

STEAM FIRE-ENGINE AND EQUIPMENTS.

CREDIT.

Appropriation	\$4,600 00
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DEBIT.

Expenditures:—

For steam fire-engine	\$3,560 00	
freight on same	40 00	
one heater, complete	190 00	
one relief valve, complete	100 00	
one pair of horses	625 00	
Total debit	—————	4,515 00
Balance unexpended		<u>\$85 00</u>

For the committee.

JOHN W. CONVERSE, *Chairman.*
WM. P. MITCHELL, *Clerk.*

REPORT

OF THE

CHIEF ENGINEER OF FIRE DEPARTMENT.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 3, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 3, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

REPORT

OF THE

CHIEF ENGINEER OF FIRE DEPARTMENT.

To the Committee on Fire Department: —

GENTLEMEN, — I herewith submit to you the annual report of the Fire Department, which contains a statement of the fires and their causes, and the condition of the department, also the loss on property and the insurance thereon, for the year 1890.

The number of fire alarms was sixty-four; of this number fifty-nine were bell alarms, and thirteen still alarms.

Value of property	\$159,630
Insurance	94,833
Loss	4,539
Insurance paid	3,888

The causes for which the alarms were given were as follows: —

Sparks from tobacco pipe	2
Unknown	1
Fire in Medford	2
Defective fireplace	3
Clothing ignited from lamp	2
<i>Number of causes carried forward</i>	10

<i>Number of causes brought forward</i>	10
Explosion	3
Sparks from engine	3
Lighted cigar on roof	1
Sparks from foundry chimney	1
Rats and matches	1
Spontaneous combustion	1
Spark from stove in wood-box	2
Electric-light wire	1
Children playing with matches	2
Carelessness in smoking	1
Overheated oil stove	2
Breaking of kerosene lamp	3
Fire in Charlestown	1
Fire in Cambridge	3
Friction from belt	1
Defective chimney flue	3
Boiling over of tar-kettle	1
Fire-crackers	1
Clothing in contact with stove	2
Burning of rubbish	5
Hot ashes in wooden barrel	1
Fumigating hen-house	1
Lighted match thrown in shavings	1
Curtain in contact with gas jet	1
Burning out of chimney	4
Smoke mistaken for fire	1
Drying plastering	2
Accidental	3
Burning of grass	1
Lighted match dropped on cotton wool	1

CONDITION OF THE DEPARTMENT.

MANUAL FORCE.

The manual force of the department consists of seventy-eight men. This force is divided as follows:—

Chief engineer	1
Assistant engineer	1
Engine Company No. 1	12
Engine Company No. 4	14
Hose Company No. 1	9
Hose Company No. 2	9
Hose Company No. 3	9
Hose Company No. 5	8
Ladder Company No. 1	15
Total	<hr/> 78

The full number of men allowed by the ordinance in these companies is ninety; fourteen of the seventy-eight are employed permanently.

The manual force has not been called upon for work of long duration at any one fire this year.

Credit is due the permanent force in getting the apparatus promptly to fires and putting them out when they are small. One-half of the fires have been put out with chemical extinguishers.

The call force has responded promptly; it is not reasonable to expect them to arrive with their apparatus unless they are overtaken on their way to the fire. We are, therefore, obliged to rely on the assistance of volunteers, if happily they are at hand. A system that leaves it possible for the apparatus to arrive at a fire without a nucleus of members to put it in operation is faulty. The call members are nearly all mechanics, accustomed to hard work; they are good citizens of our city, and their average age is thirty-six years.

Our city always has had a good manual force in its department, but never a better one than at the present time.

APPARATUS.

The apparatus in service consists of engine No. 1, with hose carriage and 800 feet of hose.

Hose No. 1, with wagon, forty-three feet of ladder, two chemical extinguishers, and 900 feet of hose.

Hose No. 2, with wagon, forty-three feet of ladder, two chemical extinguishers, and 900 feet of hose.

Hose No. 3, with wagon, forty-three feet of ladder, two chemical extinguishers, and 900 feet of hose.

Engine No. 4, with hose carriage, forty-six feet of ladder, two chemical tanks, thirty gallons each, and 800 feet of hose.

Hose No. 5, with wagon, forty-three feet of ladder, two chemical extinguishers, and 900 feet of hose.

Ladder Truck No. 1, with 370 feet of ladders, four axes, four plaster-hooks, jumping canvas, two pitchforks, and other necessary tools.

In addition to the above, there is old apparatus as follows : —

One old steam fire-engine, one old ladder truck, and two old hose carriages.

HOSE.

There is 9,000 feet of hose in the department ; 8,200 feet is good, and 800 feet is worthless.

BUILDINGS.

The buildings occupied by the department are in good condition, and the cost of keeping them so will be small, with the exception of the old wooden building occupied by Hose Company No. 1, which is always a source of expense.

It is hoped that a new building will soon be erected in the East Somerville district.

The condition of this department in its manual force, apparatus, and its buildings never was better than it is at the present time. During the year the committee purchased a second size Silsby engine, No. 4. This engine is provided with a three-horse hitch, whereby three horses can be driven abreast. At this time it is a very valuable adjunct, as only three horses are in service to draw this engine, while

there are four to draw engine 1, by the old system of hitching for service in snow-storm time.

A new wagon was built for Hose Company No. 3; it is equipped with extinguishers and ladders. One thousand feet of new hose was purchased, and new fire hats were supplied to members of the department. A new sixty-foot extension ladder was also added to the ladder truck. Engine No. 4 is strictly an addition to the department, and is equal to that owned by any other city. The extension ladder is also an addition to the apparatus; although the hose wagon, hose, and fire hats are not, strictly speaking, additions, they are superior to those which have been discarded, in that more efficient work can be done with them.

Five new non-interference fire-alarm boxes have been bought and placed in circuit.

HYDRANTS.

It is expected that early the coming year a list of the location of hydrants will be furnished this department, and an increase both in the supply and pressure of water at hydrants.

As the growth of the city continues it will be necessary to make additions to the buildings and apparatus.

The fire-alarm circuits must be extended each year, and new alarm boxes and instruments connected therewith; these in turn require more electro-motive force.

The battery room is now occupied to its limit, and more room is necessary. A new repeater is desired, whereby the three large circuits can be cut into eight small ones; the advantages of small circuits have been so often stated that I presume they are well understood.

Before this instrument is obtained, however, alterations should be made in the house of engine 1, where the telegraph apparatus is located. A plan for changing this building has already been shown to you, which I believe is comprehensive, as it will supply the requirements of this department for many years, and will also furnish quarters for a chemical engine.

The location for an apparatus of this character is excellent, being practical and serviceable for three wards of the city (One, Two,

Three); Ward Four (West Somerville) has one of these engines, and the people of that section appreciate its value. If further evidence is necessary, other than our own experience of the importance of these machines to a city constructed as is ours, it will be furnished when wanted.

FIRE PREVENTION.

I again respectfully protest against the granting of licenses for the sale of fireworks. The buildings of Somerville are being erected in close proximity to one another, and the roofs of most of them are covered with shingles. A spark will quickly ignite them when dry. The burning of fireworks by many people simultaneously set many fires, and place in peril homes of the people; perhaps more of them at the same time than the department can reach.

The burning of fireworks (including fire-crackers) places in peril the whole city, more so here than in Boston, where the roofs of buildings are of non-combustible material. It ought to be stopped, and I am sure that not to license their sale will very much curtail their use.

The building of huge structures for bon-fires within 165 feet of a building should be prohibited, by making the limit where such structures can be built 1,000 feet from any building.

I present herewith a report of the condition of the fire-alarm telegraph, made to me by the fire-alarm operator, Edward F. Backus, and ask that it be received as a part of this report.

In conclusion, I desire to express my thanks to the officers and members of the force for the faithful and intelligent manner in which they have performed their duties.

To the joint standing committee on fire department, I tender my sincere thanks for the interest they have manifested in all matters appertaining to its success.

To his Honor the Mayor, the members of the City Council, the heads of departments, and clerks of committees, who by their courtesy have assisted the members of this department in the discharge of their duty, I tender my grateful obligations.

JAMES R. HOPKINS,

Chief of Fire Department.

EDWARD F. BACKUS' REPORT.

SOMERVILLE, December 31, 1890.

Chief J. R. Hopkins, Superintendent of Fire Alarm :—

I herewith submit to you the annual report of the fire-alarm department for the year ending December 31, 1890. During the year the system has been maintained in first-class working order, every alarm having worked correctly. There has been added to the same the following apparatus :—

Five new full non-interfering boxes, numbered and located as follows :—

Box 115, corner of Franklin and Oliver streets.

Box 116, Broadway, near Kensington avenue.

Box 231, corner of Boston and Greenville streets.

Box 421, corner of Highland avenue and Central street.

Box 447, corner of Elm and William streets.

Boxes 112 and 221, which were of the old pattern, without non-interfering attachment, have been replaced by latest pattern full non-interfering boxes, making seven new boxes placed in service. A vibrating bell has been placed in steamer house No. 1 and connected with City Hall, to be used as a private call in case of fire.

The following houses have been thoroughly re-wired with Clark wire, and are now in first-class condition, namely: Hose Nos. 2 and 3, ladder No. 1, and steamer No. 4.

The constant and rapid growth of the city, necessitating yearly additions to the system, requires the replacing of the present repeater with a larger one, which would allow of our separating our present circuits and making them shorter, thus enabling us to repair any faults which may occur in much shorter time, and leaving less territory uncovered in case of a break than at present while using large circuits. We also need better and larger accommodations for

our battery, which at present is very much overcrowded. I would also strongly urge the purchasing of a horse and wagon for this branch of the service, which would more than pay for itself in the way of repairing wires and apparatus, and quicker service means less risk to that part of the city which is unprotected while a circuit is out of order. With a wagon the operator is enabled to carry all the necessary tools and materials for repairing any defects which may occur, while under the present system he is obliged to take what tools can be carried by hand and then return to the station for any further material which may be required, thus leaving the section where the defect exists unprotected longer than it should be.

Following is a statement of labor and materials used during the present year : —

New poles set	11
Old poles reset	15
Miles of No. 9 iron wire run	6
Miles of copper wire run	$\frac{3}{4}$
Clark insulated wire run	2,000
Four-pin arms used	30
Two-pin arms used	85
Boxes put in service	7

The system at present consists of the following : —

Forty-six miles of wire, forty-nine boxes, six tower bell strikers, six box indicators, eight gongs, seventeen tappers, one five-circuit repeater, and 230 jars of gravity battery.

Respectfully submitted,

EDWARD F. BACKUS,

Fire-alarm Operator.

REPORT
OF THE
COMMITTEE ON FUEL AND STREET LIGHTS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 3, 1891.

Accepted and referred to the next City Council, to be printed in the annual reports. Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 3, 1891.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

REPORT

OF THE

COMMITTEE ON FUEL AND STREET LIGHTS.

IN COMMITTEE ON FUEL AND STREET LIGHTS, }
January 3, 1891. }

To the City Council of Somerville : —

The following is the final report of the committee on fuel and street lights for the year ending December 31, 1890 : —

SCHOOL FUEL ACCOUNT.

CREDIT.

Appropriation \$7,000 00

DEBIT.

Expenditures :—

For fuel to Beach-street School	\$30 42
Bell "	422 00
Bennett "	160 55
Bingham "	168 05

<i>Amounts carried forward</i>	<u>\$781 02</u>	<u>\$7,000 00</u>
--	-----------------	-------------------

<i>Amounts brought forward</i> . . .	\$781 02	\$7,000 00
For fuel to Brastow School . . .	71 85	
Brazillian Hall " . . .	16 08	
Burns " . . .	133 25	
Cedar-street " . . .	25 78	
Cummings " . . .	158 10	
Davis " . . .	149 01	
Edgerly " . . .	472 05	
Elm-street " . . .	32 41	
Forster " . . .	447 50	
Franklin " . . .	175 35	
Harvard " . . .	38 54	
High " . . .	326 68	
Highland " . . .	431 97	
Jackson " . . .	158 34	
Knapp " . . .	449 68	
Lincoln " . . .	92 01	
Morse " . . .	509 21	
Prescott " . . .	544 93	
Prospect Hill " . . .	291 80	
School-room 188 Somerville avenue . . .	1 60	
Sycamore-street Chapel . . .	59 32	
Union School . . .	25 78	
Webster School . . .	150 00	
Incidentals(weighing coal)	43 75	
Total debit . . .	<hr/>	5,586 01
Balance unexpended . . .		<hr/> <hr/> \$1,413 99

STREET LIGHTS ACCOUNT.

CREDIT.

Appropriation	\$22,000 00
Posts and lanterns on hand Jan. 1, 1890,	113 75
<i>Amount carried forward</i> . . .	<hr/> \$22,113 75

<i>Amount brought forward</i> . . .	\$22,113 75	
Less amount transferred to Highways account	1,000 00	
Total credit	—————	\$21,113 75

DEBIT.

Expenditures:—

For gas—

to Cambridge Gas Light Co.	\$69 73	
to Charlestown Gas Co.	113 37	
lighting and care of gas lamps	79 15	
electric lighting	20,210 16	
repairs of gas lamps	6 06	
discontinuing gas and oil lamps, new street lamps	69 40	
incidentals	49 25	
posts and lanterns on hand (four posts and six sign lanterns)	1 39	
Total debit.	—————	20,668 01
Balance unexpended		<u>\$445 74</u>

FUEL.

Under an order dated May 28, proposals were solicited for the furnishing of all fuel that would be required at the schoolhouses and public buildings during the year commencing July 1, 1890, and in response proposals were received, to furnish for ninety days only, from Horatio Wellington & Co. and B. F. Wild & Co., at the following prices: Furnace coal, per ton, \$4.97; egg, \$5.07; and stove coal, \$5.17 (twenty cents per ton extra for all coal delivered west of Cedar street); hard wood, per cord, \$7.75; and soft wood, per cord, \$6.25; and the above-named parties furnished the fuel at the prices quoted. The bins were filled during the summer, except at the Highland and Morse schools, which, owing to the alterations in process at that

time, the fuel could not be received, but later in the season the fuel was furnished for these schools at the same prices as in the summer.

GAS LIGHTS.

The price paid for gas for the month of January was \$1.55 per thousand feet. Since that time the gas has been discontinued.

ELECTRIC LIGHTS.

By referring to the report of this committee for the year ending 1889, it will be seen that an order was passed by the City Council, dated July 24, making a contract with the Somerville Electric Light Company for a term of three years from October 1, 1889, for the furnishing of 140 arc lights and 275 incandescent lights for the sum of \$20,000. On June 3 of the present year an order was passed by the City Council authorizing this committee to increase the number of electric lights with the Somerville Electric Light Company on the same terms as called for in the contract made in 1889, at a cost not to exceed \$2,000. Under said order dated June 3, 1890, six arc and seventy-two incandescent lights have been added, making a total of 151 arc and 347 incandescent lights December 31, 1890.

OIL LAMPS.

During the year three oil lamps have been located and put in service on Boston avenue, near the Medford line.

	GAS LAMPS.		Oil Lamps.	Arc Electric Lamps.	Incandescent Lamps.	Tot
	CHARLESTOWN.	CAMBRIDGE.				
	4-Foot Burners.	4-Foot Burners.				
Lamps in the city Jan. 1, 1890, as per last report,	45	11	14	145	162	377
Erected during the year at the expense of the city	-	-	3	-	-	3
Erected during the year at the expense of the comp'y	-	-	-	6	185	191
	45	11	17	151	347	571
Discontinued on account of electric lights . . .	45	11	14	-	-	70
Lamps in the city Jan. 1, 1891	-	-	3	151	347	501

For the committee,

C. B. SANBORN, *Chairman.*
 WILLIAM P. MITCHELL, *Clerk.*

REPORT

OF THE

COMMITTEE ON PUBLIC PROPERTY.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 14, 1891.

Accepted and referred to the next City Council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 14, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

REPORT
OF THE
COMMITTEE ON PUBLIC PROPERTY.

IN COMMITTEE ON PUBLIC PROPERTY, }
January 3, 1891. }

To the City Council of Somerville:—

The committee on public property presents the following final report for the year 1890:—

POLICE STATION INCIDENTALS ACCOUNT.

CREDIT.

Appropriation	\$2,600 00	
Receipts for rent of hall	500 00	
Total credit	_____	\$3,100 00

DEBIT.

Expenditures:—

For janitor's salary	\$850 00	
janitor's substitute in vacation	20 00	
gas	807 19	
<i>Amounts carried forward</i>	\$1,677 19	\$3,100 00

<i>Amounts brought forward</i>	\$1,677 19	\$3,100 00
fuel	297 99	
water	49 00	
repairs and improvements on building and furniture	908 26	
incidentals	36 83	
Total debit	—————	2,969 27
Balance unexpended		<u>\$130 73</u>

SCHOOLHOUSE INCIDENTALS ACCOUNT.

CREDIT.

Appropriation	\$16,000 00	
Receipts for articles sold	40 00	
Credit, for amount of bill approved in 1888, but not collected	1 00	
Total credit	—————	\$16,041 00

DEBIT.

Expenditures: —

For repairs	\$2,988 48	
improvements	8,266 02	
furniture	2,807 57	
rent	1,892 50	
insurance	1,009 27	
emptying privy vaults	104 00	
fitting up hired rooms	176 41	
sewer assessment	85 65	
sidewalk assessment	81 78	
flag-staffs	882 24	
repairs of furniture	337 50	
street cars for Highland School children during alterations at Highland School	500 00	
removing coal	21 00	
<i>Amounts carried forward</i>	<u>\$19,152 42</u>	<u>\$16,041 00</u>

<i>Amounts brought forward</i>	\$19,152 42	\$16,041 00
office sign for superintendent of schools	10 50	
carriage hire	5 00	
Total debit	—————	19,167 92
Amount overdrawn		<u>\$3,126 92</u>

Expenditures at the different schoolhouses as follows:—

Baptist Chapel, Belmont street.

Carpentering (fitting up room)	\$7 65	
Rent	265 00	
	—————	\$272 65

Baptist Chapel, Bow street.

Repairs	\$3 00	
Rent	175 00	
	—————	178 00

Beach street.

Repairs	\$65 10	
Emptying privy vaults	20 00	
	—————	85 10

Luther V. Bell.

Repairs	\$348 80	
Furniture	154 94	
Repairing furniture	1 00	
Improvements	50 00	
Flag-staff	52 25	
	—————	606 99

<i>Amount carried forward</i>		<u>\$1,142 74</u>
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Amount brought forward \$1,142 74

Bennett.

Repairs	\$37 06	
Furniture	4 35	
Emptying privy vaults	20 00	
	<u> </u>	61 41

Bingham.

Repairs	\$19 12	
Furniture	4 00	
Flag-staff	59 54	
	<u> </u>	82 66

Brastow.

Repairs	\$27 93	
Repairing furniture	3 00	
	<u> </u>	30 93

Brazillian Hall.

Carpentering (fitting up room)	\$34 35	
Rent	60 00	
	<u> </u>	94 35

Burns.

Repairs	\$75 74	
Furniture	22 50	
Repairing furniture	32 10	
	<u> </u>	130 34

Cedar-street.

Repairs	\$21 20	
Flag-staff	27 60	
	<u> </u>	48 80

Amount carried forward \$1,591 23

Amount brought forward \$1,591 23

Cummings.

Repairs	\$128 35	
Insurance	24 00	
Sidewalk assessment	46 66	
Flag-staff	46 43	
	<hr/>	245 44

Davis.

Repairs	\$63 16	
Improvements (concreting)	60 00	
Insurance	30 00	
Repairing furniture	6 00	
Sidewalk assessment	35 12	
Flag-staff	59 30	
	<hr/>	253 58

Eberle Building.

Repairs	\$2 90	
Repairing furniture	1 00	
Rent	125 00	
	<hr/>	128 90

Eggerly.

Repairs	\$247 19	
Improvements (concreting)	152 55	
Furniture	57 33	
Repairing furniture	12 00	
Flag-staff	71 26	
	<hr/>	540 33

Amount carried forward \$2,759 48

Amount brought forward \$2,759 48

Elm-street.

Carpentering (fitting up room)	\$40 22	
Rent	420 00	
	————	460 22

Forster.

Repairs (including stove work, \$55.24)	\$171 52	
Improvements (ventilation, etc.)	6,460 77	
Insurance	261 74	
Furniture	17 87	
Repairing furniture	23 50	
Sewer assessment	85 65	
Flag-staff	71 00	
	————	7,092 05

Franklin.

Repairs	\$94 19	
Furniture	4 00	
Flag-staff	4 80	
Removing night soil	12 00	
	————	114 99

Harvard.

Repairs	\$91 26	
Furniture	1 33	
Removing night soil	8 00	
	————	100 59

Amount carried forward \$10,527 33

Amount brought forward \$10,527 33

High.

Repairs	\$576 66	
Furniture	231 50	
Repairing furniture	12 00	
Flag-staff	85 30	
	<hr/>	905 46

Highland.

Repairs	\$288 89	
Improvements (speaking tubes and electric bells)	114 95	
Furniture	385 80	
Repairing furniture	39 75	
Insurance	63 53	
Street cars (conveying scholars to other schools)	500 00	
Flag-staff	25 24	
	<hr/>	1,418 16

Hill Building.

Repairs	\$1 50	
Rent	125 00	
	<hr/>	126 50

Jackson.

Repairs (including stove work, \$32.35)	\$113 57	
Furniture	4 00	
Repairing furniture	2 00	
Flag-staff	42 00	
Removing night soil	20 00	
	<hr/>	181 57

Amount carried forward \$13,159 02

Amount brought forward \$13,159 02

Knapp.

Repairs	\$26 60	
Improvements	691 95	
Furniture	1,123 08	
Insurance	300 00	
Flag-staff	52 95	
	<hr/>	2,194 56

Lincoln.

Repairs	\$75 55	
Furniture	38 00	
Repairing furniture	1 50	
Insurance	255 00	
Removing coal	21 00	
Flag-staff	80 42	
	<hr/>	471 47

Morse.

Repairs	\$115 54	
Improvements	735 80	
Furniture	696 52	
Repairing furniture	180 06	
Carpentering (fitting up room)	56 50	
Rent	60 00	
Flag-staff	81 71	
	<hr/>	1,926 13

Prescott.

Repairs	\$258 66	
Furniture	43 27	
Repairing furniture	20 59	
Insurance	75 00	
Flag-staff	44 54	
	<hr/>	442 06

Amount carried forward \$18,193 24

Amount brought forward \$18,193 24

Prospect Hill.

Repairs	\$41 65	
Furniture	13 75	
Flag-staff	69 13	
	<hr/>	124 53

188 *Somerville avenue.*

Carpentering (fitting up room)	\$7 85	
Repairing furniture	2 00	
Rent	110 50	
	<hr/>	120 35

Spring Hill.

Repairs		4 75
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Sycamore-street Chapel.

Carpentering (fitting up room)	\$29 84	
Rent	275 00	
	<hr/>	304 84

Union.

Repairs	\$2 75	
Furniture	1 33	
Removing night soil	8 00	
	<hr/>	12 08

Webster.

Repairs	\$85 84	
Furniture	4 00	
Repairing furniture	1 00	
Flag-staff	8 79	
Removing night soil	16 00	
	<hr/>	115 63

Amount carried forward \$18,875 42

Amount brought forward \$18,875 42

Superintendent of Schools' Office.

Rent and heat	\$277 00	
Office sign	10 50	
		<u>287 50</u>
Total		\$19,162 92
Carriage hire		5 00
		<u>5 00</u>
Total expenditure		<u>\$19,167 92</u>

SCHOOLHOUSE IN WARD TWO ACCOUNT

(Knapp School).

CREDIT.

Appropriation:—

Balance unexpended in 1889	\$10,272 86	
Transfer from Interest account	1,948 31	
Total credit		<u>\$12,221 17</u>

DEBIT.

Expenditures:—

Dearborn Bros. & Co. (on account contract)	\$7,677 06	
Dearborn Bros. & Co., extras	357 42	
S. Edwin Tobey, balance on account architect services	239 22	
Fuller-Warren Co., ventilating, heating, and sanitarries	2,755 62	
J. B. Hunter & Co., hardware	300 00	
Oliver Whyte & Co., wire screens	81 35	
P. O'Connell, grading	42 50	
		<u>42 50</u>
<i>Amounts carried forward</i>	\$11,453 17	\$12,221 17

<i>Amounts brought forward</i>	\$11,453 17	\$12,221 17
Horatio Wellington & Co., fuel	168 00	
Total expenditure	<u> </u>	11,621 17
Balance unexpended		<u><u>\$600 00</u></u>

SCHOOLHOUSE IN WARD TWO ACCOUNT

(Washington street).

CREDIT.

Appropriation		\$50,000 00
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DEBIT.

Expenditures :—

Herbert T. Allen and Joanna R. Davis (land)	\$14,979 80	
Loring & Phipps, architects' services,	1,160 88	
Taxes	147 00	
Total expenditure	<u> </u>	16,287 68
Balance unexpended		<u><u>\$33,712 32</u></u>

SCHOOLHOUSE IN WARD THREE ACCOUNT.

CREDIT.

Appropriation		\$35,000 00
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DEBIT.

Charles B. Sanborn, land	\$7,200 00	
Loring & Phipps, architects' services,	885 37	
Taxes	65 80	
Water service (service pipe)	28 85	
Total expenditure	<u> </u>	8,180 02
Balance unexpended		<u><u>\$26,819 98</u></u>

MORSE SCHOOLHOUSE ADDITION ACCOUNT.

CREDIT.

Appropriation :—

Balance unexpended in 1889 . . .	\$3,060 12	
Transfer from Schoolhouse in Ward Two account (Washington street),	16,500 00	
Transfer from Excess and Deficiency account	4,951 06	
Transfer from Interest account . . .	1,383 89	
Total credit	—————	\$25,895 07

DEBIT.

Expenditures :—

Dearborn Bros. & Co., balance on account contract	\$20,283 00	
Dearborn Bros. & Co., extras	1,167 12	
S. Edwin Tobey, balance on account architect services	471 45	
Fuller & Warren Co., heating, sani- taries, and ventilating	2,975 00	
R. J. Nourse, gas piping	140 00	
J. B. Hunter & Co., hardware	285 00	
T. S. Brown, dropping ceiling	300 00	
Labor, grading basement	75 60	
Horatio Wellington & Co., fuel	197 90	
Total expenditure	—————	<u>\$25,895 07</u>

HIGHLAND SCHOOLHOUSE ADDITION.

CREDIT.

Appropriation \$15,000 00

DEBIT.

Expenditures:—

George M. Starbird, on account contract	\$9,000 00	
Samuel D. Kelley, on account architect services	300 00	
Smead Warming & Ventilating Co., heating and ventilating	4,280 00	
J. E. Bell, blackboards	210 94	
Total expenditure	<u>13,790 94</u>	
Balance unexpended		<u>\$1,209 06</u>

EXPENDITURES BY THIS COMMITTEE ON MISCELLANEOUS ACCOUNT.

City Hall expenses:—

gas	\$12 18	
electric lighting	366 30	
fuel	188 51	
water	10 80	
telephone connections	35 80	
repairs and furniture	743 74	
incidentals	118 63	
	<u>\$1,475 96</u>	
Preparing rooms for elections and caucuses		185 06
Rent of " " " " "		25 00
Repairing ballot boxes		7 00
<i>Amount carried forward</i>		<u>\$1,693 02</u>

<i>Amount brought forward</i>		\$1,693 02
Distributing and collecting ballot boxes		9 15
Preparing hall for inauguration		4 00
Rental of seven sets telephone instruments in public buildings from Sept. 1, 1890, to Sept. 1, 1891		105 00
Carriage hire		4 00
Incidentals		232 68
Expenses on Rifle Range:—		
insurance	\$6 00	
rent of land one year from Oct. 1, 1889, to Oct. 1, 1890	150 00	
		<u>156 00</u>
City Messenger's team:—		
maintenance (including one extra horse and new buggy, \$547.50)		997 53
Net expenditure		<u>\$3,201 38</u>

POLICE STATION INCIDENTALS ACCOUNT.

At this building the cells have received new water-closets, and the walls have been painted, all at an expense of \$555.

The roof has been repaired during the year, at a cost of \$93.58. The dock in the police court-room has been enlarged, at a cost of \$70. The balance of expenses was for janitor's salary, fuel, gas, etc.

SCHOOLHOUSE INCIDENTALS ACCOUNT.

At the Davis School a concrete walk was laid from Tufts street, and also from Glen street, at a cost of \$60.

At the Edgerly School the rooms formerly occupied by the janitor and his family have been fitted up for school purposes. By this change seventy-five more scholars are accommodated in this building.

The room at No. 188 Elm street, which was used to relieve the Highland School, has been discontinued.

At the Forster School an entirely new system of ventilation, with indirect heat for each room, has been placed in the building; the

sanitaries have also been improved, and a new boiler has been placed in the building, made necessary by the change of ventilation. This building, until recently, has been heated entirely by direct steam. The system was placed in the building by A. A. Sanborn, at a cost of \$4,785, exclusive of sanitaries, carpentering, and mason work. The basement room has also been fitted up during the year for school purposes.

The High School wood work, and also the metal work on the outside of the building, has been painted, and the walls at the side of the stairways have received two coats of paint.

By an order dated May 28, a contract was made with George M. Starbird for an addition of four rooms to the Highland School building, at a cost of \$13,436. The building has been raised and the addition made in accordance with plans made by Samuel D. Kelley. The Smead warming and ventilating system has also been placed in the building, at a cost of \$4,280; speaking tubes and electric bells have also been placed in the building. The building is now finished and the school-rooms occupied, although all of the bills for the addition have not as yet been paid.

The Morse School, which has received an addition of six rooms by contract with Messrs. Dearborn Bros. & Co., under an order dated September 4, 1889, at a cost of \$24,987, has been finished during the year, and the Fuller-Warren system of heating, ventilating, and sanitaries has been placed in the building, at a cost of \$2,975. The entire cost of the addition was \$31,334.95.

There has also been paid, as will be seen by referring to the general table of expenses to the various school buildings, for repairs and improvements at this building a sum amounting to \$1,926.13, which expense was largely contracted by annexing the addition to the original building, and also for new furniture for the additional rooms. There has also been expended \$120 for concrete walks at the rear of the building on the west side.

The new eight-room brick building in Ward Two, now known as the Knapp School, has been finished during the year by contract with Messrs. Dearborn Bros. & Co., dated May 27, 1889, in accordance with plans and specifications made by S. Edwin Tobey, architect. The Fuller-Warren system of heating, ventilating, and sanitaries has been placed in this building, under an order dated May 8, 1889. The entire cost of this building, including the land (\$4,903.50), was

\$31,851.81, the bills for which have all been paid except \$600, due on account of the contract. The school-room recently used in the Eberle Building has been discontinued, and the scholars have been transferred to the Knapp and Bell schools.

In pursuance of an order dated June 11, land was purchased of Herbert T. Allen and Joanna R. Davis, situated at the corner of Washington and Boston streets, for the erection of a twelve-room brick school building, at a cost of \$14,979.80. A contract was also made with James McNeil, of 509 Columbus avenue, Boston, for the erection of the building in accordance with plans and specifications made by Messrs. Loring & Phipps, at a cost of \$42,875.00. The foundation was partly laid during the year, but work has now been discontinued until spring.

In pursuance of an order dated May 14, land was purchased of Charles H. Sanborn, on Jaques street, for the erection of an eight-room brick school building, at a cost of \$7,200.00. A contract was also made for the construction of the building with J. B. Wilson, of Charlestown, for the sum of \$32,500, in accordance with plans and specifications made by Messrs. Loring & Phipps. The foundation for this building is partly laid, but work has been discontinued for the present on account of the season.

For the committee,

ALVANO T. NICKERSON, *Chairman.*
WILLIAM P. MITCHELL, *Clerk.*

REPORT
OF THE
INSPECTOR OF BUILDINGS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 28, 1891.

Accepted and referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 28, 1891.

Concurred in.

WILLIAM P. MITCHELL, *Clerk pro tem.*

REPORT

OF THE

INSPECTOR OF BUILDINGS.

OFFICE OF INSPECTOR OF BUILDINGS, }
December 31, 1890. }

To the Honorable the Mayor and the City Council:—

GENTLEMEN,—I herewith submit a report of the Department for the Inspection of Buildings.

The total number of permits granted for the erection of new buildings was 607, classified as follows:—

Dwelling-houses	503
Stables	52
Shops, including those for mechanical work and for the sale of merchandise	12
Dwellings and stores combined	3
Sheds and carriage houses	13
Factories	3
Apartment houses	8
Storehouses	1
Club-house and store	1
Bakery	1
	597
<i>Number of permits carried forward</i>	597

<i>Number of permits brought forward</i>	597
Public halls and stores	2
Offices	2
Miscellaneous	6
	607
There were also granted permits to make additions to buildings to the number of	40
	647

Permits have been refused to persons who desired to erect dwelling-houses on posts, instead of building on a foundation of stone.

Nearly all the buildings erected have shingle roofs and wooden gutters.

The use of this material for covering roofs in a thickly populated district is dangerous, and contributes towards creating a conflagration. Its use should be prohibited.

Our building ordinance, which perhaps is sufficiently exacting in its provisions for a country town, where buildings are not in close proximity to one another, is not suited and does not give that security desired in a city where buildings are erected so near to each other that if one of them is on fire, and the fire gets on to the outside of it, it will quickly set fire to adjacent buildings.

I have heretofore recommended that this ordinance be changed, so that in the construction of buildings, both on the inside and outside, they will be less liable to take fire.

I renew my recommendation so as to prohibit the use of any material in covering roofs that will allow them to readily ignite when sparks fall upon them.

Shingle roofs and wooden gutters are the cause of many great conflagrations.

When a fire reaches the outside of a building, sparks carried by the wind fall on the roofs of other buildings remote from the apparatus of the Fire Department, and although these fires are small in the beginning, their dimensions soon become alarming, resulting in a great fire. If we act wisely in the construction of buildings, fires which do occur can be extinguished, and the loss on property will only be a

misfortune to a few persons ; while if we delay, and neglect to take proper measures of protection, we invite a public calamity.

Respectfully submitted,

JAMES R. HOPKINS,

Inspector of Buildings.

REPORT
OF THE
INSPECTOR OF MILK.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, January 3, 1891.

Referred to the next City Council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, January 3, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

REPORT
OF THE
INSPECTOR OF MILK.

SOMERVILLE, December 30, 1890.

To His Honor the Mayor and Gentlemen of the City Council: —

I herewith submit my report as milk inspector for the year ending December 31, 1890.

I have, during the year, given 238 licenses to sell milk; fifty-three registers to sell milk from stores; twelve licenses to sell oleo-margarine.

I have also collected and tested 230 samples from milkmen and stores. I am glad to inform you that my report is very favorable as to the quality of the milk sold in this city. Only fifteen samples have required notice. I have tested many dairies for milkmen, all generally good.

Of the 238 licenses granted, 101 were to persons who keep cows in Somerville and vicinity, — from one to twenty cows each.

These people deliver their milk directly to our citizens. It is of a very excellent quality. This proves to be a check on the dealers in

railroad milk, requiring them to keep up the standard, or they lose their trade.

All milk dealers seem anxious to handle a good article, and are very willing to have their milk tested.

I have nothing special to report in the oleo trade. Only a few persons in Somerville sell the article.

I have not been called upon to examine vinegar. All samples that I have examined have been of a good quality.

One hundred and fifty-one dollars and fifty cents (\$151.50) have been paid into the city treasury.

Respectfully submitted,

THOMAS CUNNINGHAM,

Milk Inspector.

REPORT
OF THE
CITY SOLICITOR.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 11, 1891.

Referred to the committee on printing, to be printed in the annual reports.
Sent down for concurrence.

GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

REPORT
OF THE
CITY SOLICITOR.

SOMERVILLE, February 11, 1891.

To the Honorable the Mayor and City Council:—

I respectfully submit my report as city solicitor for the year ending December 31, 1890.

The following are the cases now pending in the courts to which the City of Somerville is a party:—

1. *Parker vs. Somerville*— Before County Commissioners of Middlesex County. Damages on account of land alleged to have been taken for a sewer by the city.

2. *Squire vs. Somerville*— Before Superior Court in Middlesex County. Damages for conversion of box drain.

3. *Boston & Lowell Railroad Company vs. Somerville*— Before Superior Court in Middlesex County. Petition in regard to repairs and reconstruction of bridges across railroad location in Somerville and assessment of expenses thereof.

4. *Joslin vs. Cole et al.*— Before Superior Court in Middlesex County. Action for false arrest and imprisonment.

5. *Knowles vs. Somerville*— Before Superior Court in Middlesex

County. Damages on account of land alleged to have been taken by the city for a sewer.

6. *Wanamaker vs. Somerville* — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received upon Broadway, February 6, 1887.

7. *Philbrook vs. Somerville* — Before United States Circuit Court. Action for damages for alleged violation of the Knibbs patent for a relief valve on steam fire-engines. This action was commenced May 20, 1887, and similar actions were brought against other cities. Somerville and the other defendant cities put their cases into the hands of Livermore & Fish, patent solicitors. At a hearing, November 14, 1888, the court decided for the defendant, and the appeal from that decision is still pending.

8. *Grover vs. Somerville* — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received upon Union street.

9. *Maggie E. Norwood vs. Somerville* — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received upon Cedar street, November 2, 1889.

10. *Walter H. Snow vs. Somerville* — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received upon Jaques street, February 15, 1890.

11. *Frederick Riley vs. Somerville* — Petition to enforce mechanic's lien on Concord-square Schoolhouse. Before Superior Court for Middlesex County.

12. *Metropolitan Sewer Commissioners vs. Somerville* — Before Supreme Judicial Court for Suffolk County. Petition for appointment of commissioners to assess expenses. Questions raised as to constitutionality of act.

13. *William H. Kelly vs. Somerville* — Before Superior Court for Middlesex County. Action for personal injuries alleged to have been received upon Somerville avenue, November 25, 1890.

The above comprise all the cases now pending in the courts except—

Aldrich vs. Somerville — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received on Highland avenue, August 2, 1889.

Foss vs. Somerville — Before Superior Court in Middlesex County.

Action for personal injuries alleged to have been received on Highland avenue, August 2, 1889.

A settlement of the last two cases above named has been arranged for by payment to plaintiffs of \$150, which the sewer contractors, who were responsible for the condition of the street, will pay.

The following cases have also been disposed of:—

Lindsay vs. Somerville — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received on Highland avenue, August 30, 1889. The sewer contractors, who were responsible for the condition of the street, paid the plaintiff \$337.15 in settlement.

Condon vs. Somerville — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received on Beacon street, January 30, 1890. Settled by payment of \$450 to the plaintiff.

Shea vs. Somerville — Before Superior Court in Middlesex County. Action for personal injuries alleged to have been received on Russell street, October 14, 1885. Settled by payment of \$50 to the plaintiff.

It thus appears that the total amount expended by the city during the year on account of actions brought against it was \$500.

In most of the cases which came before the committee on claims the petitioners were given leave to withdraw, and as we have not heard from such cases since, I need not trouble you with a recital of them.

All which is respectfully submitted,

SELWYN Z. BOWMAN,

City Solicitor.

REPORT
OF THE
CITY CLERK.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 11, 1891.

Accepted and referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 11, 1891.

Concurred in.

CHARLES S. ROBERTSON, *Clerk.*

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CITY OF SOMERVILLE.

OFFICE OF THE CITY CLERK, }
February, 11, 1891. }

To the Honorable the Mayor and the City Council:—

GENTLEMEN,—The following is respectfully submitted as the report of the City Clerk of Somerville for the year ending December 31, 1890:—

CASH.

The receipts and payments were as follows:—

RECEIPTS.

Balance from year 1889, being for dog licenses issued in December, 1889,—		
21 males at \$2.00	\$42 00	
2 females at 5.00	10 00	
	<hr/>	\$52 00
Less city clerk's fees paid to the city treasurer in December, 1889, 23 at .20	4 60	
<i>Amount carried forward</i>	<hr/>	\$47 40

<i>Amount brought forward</i>		\$47 40
For dog licenses issued in 1890,—		
1,203 males at \$2.00	\$2,406 00	
2, under Chap. 272, Acts of 1890, 2.00	4 00	
135 females at 5.00	675 00	
		<u>3,085 00</u>
		\$3,132 40
recording mortgages, assignments, etc.		\$324 75
marriage certificates 435 at .50		217 50
licenses to collect junk 37 at 2.00		74 00
“ (apothecaries’) to sell liquor 13 at 1.00		13 00
“ for billiard and pool tables (three licenses) 11 tables at 2.00		22 00
“ to auctioneers 13 at 2.00		26 00
“ for intelligence offices 5 at 2.00		10 00
“ to sell fireworks 47 at 1.00		47 00
“ for amusements (tent show 1 day) 2 at 50 00		
(tent show 2 days) 1 at 60.00		
	19 at 1.00	179 00
recording and posting naturalization notice		50
furnishing copies of records		3 50
interest on deposits		20 00
		<u>\$937 25</u>
Total receipts		\$4,069 65

PAYMENTS.

To Joseph O. Hayden, county treasurer, June 1 and Dec. 1, dog license fees,—		
1,223 males at \$2.00	\$2,446 00	
2 under Chap. 272, Acts of 1890, 2.00	4 00	
137 females at 5.00	685 00	
		<u>\$3,135 00</u>
<i>Amount carried forward</i>		\$3,135 00

<i>Amount brought forward</i>	\$3,135 00	
Less city clerk's fees, 1,362 at .20	272 40	
	<u> </u>	\$2,862 60
To John F. Cole, city treasurer, monthly, city clerk's fees for issuing dog licenses, 1,340 at .20	\$268 00	
All of the "receipts" above speci- fied, except for dog licenses	937 25	
	<u> </u>	1,205 25
Total payments		<u>\$4,067 85</u>
Balance January 1, 1891, being for dog license issued in December, —		
1 male at \$2.00	\$2 00	
Less city clerk's fee paid to city treasurer	20	
	<u> </u>	\$1 80

BIRTHS.

Number of births in Somerville in 1890 registered	937
More than previous year	46
Males	505
Females	432
	<u> </u>
	937
Born of American parents	381
“ “ foreign “	365
“ “ American father and foreign mother	99
“ “ foreign father and American mother	92
	<u> </u>
	937
Number of cases of twins	10

MARRIAGES.

Number of intention certificates issued	434
More than previous year	31
Marriages registered	446
More than previous year	22
Both parties American	210
" " foreign	137
American groom and foreign bride	60
Foreign groom and American bride	39
	— 446 couples.
First marriage of	827
Second " "	57
Third " "	7
Fifth " "	1
	— 446 couples.
Oldest groom aged	71
" bride "	69
Youngest groom aged	18
" bride "	15
Youngest couple aged, —	
Groom	18
Bride	18

DEATHS.

Number of deaths in Somerville in 1890	668
More than previous year	70
Males	338
Females	330
	— 668

Under 10 years of age	243	
Between 10 and 20 years of age	23	
" 20 " 30 " " "	68	
" 30 " 40 " " "	55	
" 40 " 50 " " "	46	
" 50 " 60 " " "	59	
" 60 " 70 " " "	78	
" 70 " 80 " " "	67	
" 80 " 90 " " "	24	
" 90 " 100 " " "	5	
	<hr/>	668

Age of oldest person deceased 95

Born in Somerville	226	
" " other places in the United States	270	
Of foreign birth	169	
Birthplaces unknown	3	
	<hr/>	668

Number of deaths in January	60	
" " " " February	51	
" " " " March	50	
" " " " April	53	
" " " " May	52	
" " " " June	32	
" " " " July	70	
" " " " August	69	
" " " " September	61	
" " " " October	47	
" " " " November	56	
" " " " December	67	
	<hr/>	668

The number of still-births recorded during the year was . 34

The causes of death may be found in the report of the Board of Health.

VOTERS.

MEN'S LISTS.

WARD.	PRECINCT.	December 1, 1889.	Added in Mar., April, Sept.	Total.	Revised Lists of Oct. 1.	Added in Oct.	Nov. 1.	Added in Nov.	Dec. 1.	Voted Nov. 4.	Voted Dec. 2.
Ward 1 . . .	Precinct 1 . .	321	1	322	251	50	301	5	306	224	180
" 1 . . .	" 2 . . .	325	2	327	286	29	315	2	317	239	198
" 1 . . .	" 3 . . .	343	3	346	268	42	310	7	317	241	181
" 1 . . .	" 4 . . .	319	1	320	213	104	317	45	362	271	283
		1,308	7	1,315	1,018	225	1,243	59	1,302	975	842
Ward 2 . . .	Precinct 1 . .	385	5	390	333	74	407	10	417	340	287
" 2 . . .	" 2 . . .	407	5	412	356	81	437	5	442	380	323
" 2 . . .	" 3 . . .	248	-	248	186	61	247	5	252	211	180
" 2 . . .	" 4 . . .	313	2	315	244	80	324	10	334	268	219
" 2 . . .	" 5 . . .	272	1	273	195	57	252	44	296	217	254
		1,625	13	1,638	1,314	353	1,667	74	1,741	1,416	1,263
Ward 3 . . .	Precinct 1 . .	373	1	374	303	85	388	3	391	305	211
" 3 . . .	" 2 . . .	303	6	309	265	57	322	2	324	258	192
" 3 . . .	" 3 . . .	403	7	410	364	59	423	2	425	349	270
" 3 . . .	" 4 . . .	200	3	203	176	30	206	4	210	171	141
		1,279	17	1,296	1,108	231	1,339	11	1,350	1,083	814
Ward 4 . . .	Precinct 1 . .	288	9	297	257	53	310	5	315	261	214
" 4 . . .	" 2 . . .	219	4	223	180	43	223	8	231	184	140
" 4 . . .	" 3 . . .	245	4	249	218	32	250	9	259	213	168
" 4 . . .	" 4 . . .	322	6	328	285	46	331	27	358	270	249
		1,074	23	1,097	940	174	1,114	49	1,163	928	771
City		5,286	60	5,346	4,380	983	5,363	193	5,556	4,402	3,690

WOMEN'S LISTS.

WARD.	PRECINCT.	Dec. 1, 1889.	Revised Lists of Nov. 7.	Added in Novem- ber.	Decem- ber 1.	Voted Decem- ber 2.
Ward 1	Precinct 1	14	4	-	4	-
" 1	" 2	19	9	1	10	1
" 1	" 3	16	5	3	8	2
" 1	" 4	3	-	1	1	1
		52	18	5	23	4
Ward 2	Precinct 1	28	17	2	19	6
" 2	" 2	34	12	2	14	3
" 2	" 3	6	1	1	2	1
" 2	" 4	4	2	1	3	2
" 2	" 5	2	2	-	2	-
		74	34	6	40	12
Ward 3	Precinct 1	14	4	-	4	-
" 3	" 2	19	14	4	18	11
" 3	" 3	18	10	5	15	11
" 3	" 4	5	3	2	5	2
		56	31	11	42	24
Ward 4	Precinct 1	10	3	4	7	5
" 4	" 2	6	4	-	4	-
" 4	" 3	7	4	1	5	2
" 4	" 4	20	12	1	13	6
		43	23	6	29	13
City		225	106	28	134	53

GEORGE I. VINCENT,

City Clerk.

CITY GOVERNMENT AND OFFICERS FOR 1891.

CITY GOVERNMENT AND OFFICERS FOR 1891.

MAYOR.

CHARLES G. POPE.

BOARD OF ALDERMEN.

ALVANO T. NICKERSON, *President.*

WARD ONE.

CHARLES B. SANBORN 4 Austin Street.
CLARENCE H. WILLEY 11 Flint Street.

WARD TWO.

ALLEN F. CARPENTER 10 Park Street.
JEREMIAH J. LYONS 46 Highland Avenue.

WARD THREE.

ALVANO T. NICKERSON 334 Broadway.
CHARLES B. OSGOOD 71 Gilman Street.

WARD FOUR.

ALBERT W. EDMANDS 155 Summer Street.
WILLIAM A. HUNNEWELL 9 Mason Avenue.

CLERK.

GEORGE I. VINCENT.

COMMON COUNCIL.

FRANK E. DICKERMAN, *President.*

WARD ONE.

EDRIC ELDRIDGE	88 Pearl Street.
GEORGE W. PRICHARD	Mystic Street.
S. WALKER JAMES	142 Washington Street.
ISAIAH H. WILEY	5 Webster Street.

WARD TWO.

FRANK E. FITTS	17 Pleasant Avenue.
FRANKLIN J. HAMBLIN	30 Walnut Street
WARREN J. ROBINSON	17 Vinal Avenue.
JAMES W. BEAN	40 Columbus Avenue.

WARD THREE.

WILLIAM L. BARBER	36 Marshall Street.
FRANK E. DICKERMAN	85 Central Street.
THOMAS S. WENTWORTH	350 Broadway.
STILLMAN G. SMITH	37 Sewall Street.

WARD FOUR.

NEWELL F. CASWELL	43 Cedar Street.
SOLOMON S. HIGGINS	158 Summer Street.
FRANKLIN F. PHILLIPS	211 Holland Street.
CHARLES A. G. WINTHER	408 Highland Avenue.

CLERK.

CHARLES S. ROBERTSON.

JOINT STANDING COMMITTEES OF THE CITY COUNCIL.

ACCOUNTS. — Aldermen Hunnewell, Osgood ; Councilmen Hamblin, Wiley, Robinson.

CITY ENGINEERING. — Aldermen Carpenter, Edmands ; Councilmen Prichard, Higgins, Smith.

CLAIMS. — His Honor the Mayor ; Alderman Nickerson ; the President of the Common Council ; Councilmen Winther, Bean.

FINANCE. — His Honor the Mayor ; Aldermen Edmands, Osgood ; the President of the Common Council ; Councilmen Janes, Fitts, Barber, Phillips.

FIRE DEPARTMENT. — Aldermen Sanborn, Edmands ; Councilmen Phillips, Bean, Smith.

FUEL AND STREET LIGHTS. — Aldermen Hunnewell, Osgood ; Councilmen Robinson, Wentworth, Wiley.

HIGHWAYS. — Aldermen Carpenter, Willey ; Councilmen Barber, Winther, Janes.

LEGISLATIVE MATTERS. — His Honor the Mayor ; Alderman Lyons ; the President of the Common Council ; Councilmen Phillips, Hamblin.

ORDINANCES — Aldermen Lyons, Hunnewell ; Councilmen Fitts, Caswell, Wentworth.

PRINTING. — Aldermen Willey, Nickerson ; Councilmen Robinson, Smith, Caswell.

PUBLIC GROUNDS. — Aldermen Osgood, Willey ; Councilmen Winther, Bean, Prichard.

PUBLIC PROPERTY. — Aldermen Nickerson, Lyons ; Councilmen Eldridge, Caswell, Wentworth.

SOLDIERS' RELIEF. — Aldermen Sanborn, Edmands ; Councilmen Eldridge, Higgins, Barber.

WATER. — Aldermen Lyons, Willey ; the President of the Common Council ; Councilmen Higgins, Hamblin.

COMMITTEES OF THE BOARD OF ALDERMEN.**STANDING COMMITTEES.**

ELECTIONS. — Aldermen Lyons, Nickerson.

ENROLLED ORDINANCES. — Aldermen Hunnewell, Willey.

LICENSES. — Aldermen Willey, Hunnewell.

POLICE. — His Honor the Mayor ; Aldermen Nickerson, Carpenter.

SEWERS. — Aldermen Edmands, Sanborn, Osgood.

STATE AID. — Aldermen Osgood, Carpenter, Sanborn, Hunnewell.

SPECIAL COMMITTEE.

BUILDING PERMITS. — Aldermen Carpenter, Sanborn.

STANDING COMMITTEES OF THE COMMON COUNCIL.

ELECTIONS AND RETURNS. — Councilmen Fitts, Smith, Eldridge.

ENROLLED ORDINANCES AND RESOLUTIONS. — Councilmen Robinson, Higgins, Wiley.

SCHOOL COMMITTEE.

CHARLES G. POPE, Mayor, Chairman, *ex officio*.

FRANK E. DICKERMAN, President of the Common Council, *ex officio*.

(Term, three years.)

WARD ONE.

S. NEWTON CUTLER (elected 1888).

HORACE C. WHITE, M. D. (elected 1889).

SANFORD HANSCOM, M. D. (elected 1890).

WARD TWO.

ALPHONSO H. CARVILL, M. D. (elected 1888).

JAMES F. BEARD (elected 1889).

THOMAS M. DURELL, M. D. (elected 1890).

WARD THREE.

NORMAN W. BINGHAM (elected 1888).

QUINCY E. DICKERMAN (elected 1889).

HELEN J. SANBORN (elected 1890).

WARD FOUR.

GILES W. BRYANT, M. D. (elected 1889).

MARTIN W. CARR (elected 1890).

ADDIE B. UPHAM (elected 1888).

CLARENCE E. MELENEY, *Superintendent and Secretary*.

ASSESSORS.

(Term, three years.)

BENJAMIN F. THOMPSON (term expires 1893).

GEORGE W. HADLEY (term expires 1894).

SAMUEL T. RICHARDS (term expires 1892).

ASSISTANT ASSESSORS.

(Term, one year.)

WARD ONE.

JOSHUA H. DAVIS.

WARD TWO.

WILLIAM A. FLAHERTY.

WARD THREE.

EDGAR T. MAYHEW.

WARD FOUR.

HARRY A. TRUE.

BOARD OF HEALTH.

(Term : Physician, three years ; other members, two years.)

J. FRANK WELLINGTON (term expires 1893), Chairman.

CHARLES H. CRANE (term expires 1892).

ALVAH B. DEARBORN, M. D. (term expires 1892).

Clerk, WILLIAM P. MITCHELL.*Inspector*, CALEB A. PAGE.

OVERSEERS OF THE POOR.

Office, Police Building, Bow Street.

CHARLES G. POPE, Mayor, Chairman, *ex officio*.

(Term, four years.)

CHARLES G. BRETT (term expires 1893).

EDWARD B. WEST (term expires 1891).

DANIEL C. STILLSON (term expires 1892).

NATHAN H. REED (term expires 1894).

Agent, CHARLES C. FOLSOM.

Secretary, FRANK W. KAAAN.

SOMERVILLE MYSTIC WATER BOARD.

Office, Prospect Street, corner Somerville Avenue.

(Term, three years.)

GEORGE D. WEMYSS (term expires 1894),
5 Austin Street.

ALBION A. PERRY (term expires 1893),
366 Broadway.

GEORGE A. KIMBALL (term expires 1892),
21 Prospect Hill Avenue.

NATHANIEL DENNETT, *Supt. Water Works*.

FRANK E. MERRILL, *Clerk*.

REGISTRARS OF VOTERS.

(Term: City Clerk, one year; other members, three years.)

CROMWELL G. ROWELL (term expires 1894), Chairman.

CHARLES P. LINCOLN (term expires 1892).

WILLIAM B. HAWES (term expires 1893).

GEORGE I. VINCENT, *City Clerk*.

TRUSTEES OF THE PUBLIC LIBRARY.

(Term, three years.)

CHARLES S. LINCOLN, *Chairman* (term expires 1894).

WILLIAM E. WELD, *Secretary* (term expires 1893).

GEORGE A. BRUCE (term expires 1892).

JAMES E. WHITAKER (term expires 1893).

JOHN B. VIALL (term expires 1893).

J. HENRY FLITNER (term expires 1892).

CHRISTOPHER E. RYMES (term expires 1894).

ELIJAH C. CLARK (term expires 1892).

CHARLES H. BROWN (term expires 1894).

Librarian, HARRIET A. ADAMS.

CITY OFFICERS.

CITY CLERK AND CLERK OF BOARD OF ALDERMEN.

GEORGE I. VINCENT.

CITY TREASURER AND COLLECTOR OF TAXES.

JOHN F. COLE.

MESSENGER TO CITY COUNCIL.

JAIRUS MANN.

CITY SOLICITOR.

SELWYN Z. BOWMAN.

CITY AUDITOR.

CHARLES S. ROBERTSON.

CITY ENGINEER.

HORACE L. EATON.

SUPERINTENDENT OF STREETS.

THOMAS H. EAMES.

SUPERINTENDENT OF PUBLIC BUILDINGS AND LIGHTS.

THOMAS R. ROULSTONE.

CHIEF OF POLICE.

MELVILLE C. PARKHURST.

CHIEF ENGINEER OF THE FIRE DEPARTMENT.

JAMES R. HOPKINS.

INSPECTOR OF BUILDINGS.

JAMES R. HOPKINS to May 13.
THOMAS R. ROULSTONE from May 13.

SUPERINTENDENT OF TELEGRAPH AND TELEPHONE
LINES.JAMES R. HOPKINS.

CITY PHYSICIAN.

ALVAH B. DEARBORN, M. D.

INSPECTOR OF MILK AND VINEGAR.

THOMAS CUNNINGHAM.

INSPECTOR OF PROVISIONS AND OF ANIMALS INTENDED
FOR SLAUGHTER.

D. WARREN DANFORTH.

CLERK OF ASSESSORS AND COMMITTEES.

WILLIAM P. MITCHELL.

ASSISTANT CLERK OF ASSESSORS AND COMMITTEES.

ALBERT B. FALES.

Suitable Person to Cause to be Properly Interred the Bodies of
Honorably Discharged Soldiers, Sailors, and Marines,
Under Chapter 395, Acts of 1889.

JESSE J. UNDERHILL.

CONSTABLES.

JAIRUS MANN.	WILLIAM D. HAYDEN.
ROBERT R. PERRY.	SAMUEL R. DOW.
CHARLES C. FOLSOM.	JOSEPH J. GILES.
EDWARD MCGARR.	GEORGE CULLIS.
CHRISTOPHER C. CAVANAGH.	DENNIS KELLY.
	EUGENE A. CARTER.

FIELD DRIVERS.

CHRISTOPHER C. CAVANAGH.	CHARLES S. THRASHER.
GEORGE H. CARLETON.	GEORGE W. BEAN.
JOHN E. FULLER.	CHARLES L. ELLIS.
JACOB W. SKINNER.	JOHN G. KNIGHT.
	THEODORE E. HERON.

FENCE VIEWERS.

CHARLES A. PEARSON.	LAMBERT M. MAYNARD.
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POUND KEEPER.CHARLES A. SMALL.

SEALER OF WEIGHTS AND MEASURES.AMMIEL COLMAN, 34 Marshall Street.

MEASURER OF WOOD AND BARK.SAMUEL T. LITTLEFIELD.

MEASURER OF GRAIN.JOHN CRAIG.

WEIGHERS OF COAL.

JOHN CRAIG.	D. WARNER DANFORTH.
GEORGE K. WALCOTT.	THADDEUS HARRINGTON.
CHARLES H. TUCKER.	C. C. WOOLEY.
	G. E. SLACK.

WEIGHERS OF HAY AND STRAW.

JOHN CRAIG.	THADDEUS HARRINGTON.
CHARLES A. TUCKER.	C. C. WOOLEY.
	G. E. SLACK.

WEIGHERS OF BEEF.

D. WARNER DANFORTH.	THADDEUS HARRINGTON.
CHARLES H. TUCKER.	GEORGE K. WALCOTT.
C. C. WOOLEY.	G. E. SLACK.

WEIGHERS OF BOILERS AND HEAVY MACHINERY.

THADDEUS HARRINGTON.	CHARLES H. TUCKER.
GEORGE K. WALCOTT.	C. C. WOOLEY.
	G. E. SLACK.

UNDERTAKERS.

WILLIAM A. FLAHERTY.	PATRICK H. RAFFERTY.
EDWARD H. MARSH.	THOMAS J. BARKER.
ALFRED E. MANN.	PATRICK RAFFERTY.
HORACE D. RUNEY.	WILLIAM A. FRINK.

POLICE DEPARTMENT.

MELVILLE C. PARKHURST, *Chief*.

ROBERT R. PERRY, <i>Captain</i> .	SAMUEL R. DOW, <i>Sergeant</i> .
EDWARD MCGARR, <i>Sergeant</i> .	CHRIS. C. CAVANAGH, <i>Sergeant</i> .
JOHN E. FULLER.	PHINEAS W. SKINNER.
ALBION L. STAPLES.	SAMUEL A. BROWN.
JUDSON W. OLIVER.	JOHN HAFFORD.
GEORGE W. BEAN.	MYRON H. KINSLEY.
GEORGE L. SMITH.	GEORGE A. BODGE.
EDWARD M. CARTER.	DENNIS KELLY.
JOHN F. JOHNSON.	GEORGE H. CARLETON.
EUGENE A. CARTER.	HUBERT H. MILLER.
EDWARD E. HAMBLÉN.	FRANCIS A. PERKINS.
CHARLES L. ELLIS.	CHARLES S. THRASHER.
CHARLES E. WOODMAN.	WILLIAM H. JOHNSON.
ARTHUR E. KEATING.	JOHN G. KNIGHT.
STEPHEN S. SMITH.	JACOB W. SKINNER.

THEODORE E. HERON.

MELVILLE C. PARKHURST, *Lock-up Keeper*.

MEETINGS.

BOARD OF ALDERMEN.

Second and fourth Wednesday evenings of each month.

COMMON COUNCIL.

Thursday evenings following the second and fourth Wednesdays of each month.

SCHOOL COMMITTEE.

Last Monday evening of each month.

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