





CITY OF SOMERVILLE

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With Mayor's Inaugural Address

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INAUGURAL ADDRESS

DELIVERED BY

Mayor Zebedee E. Cliff

MONDAY, JANUARY 1, 1917

Gentlemen of the Board of Aldermen:—

We are beginning a new municipal year on New Year's Day, the first time that it has been a legal holiday in Massachusetts. It is my earnest hope that this new year may bring, not only to you and the people of Somerville, but to the whole world, peace, prosperity, happiness, and a return to normal conditions.

The voters approved of the city government of last year. This was shown by the recent election, when a large majority of us were reelected without opposition. Let us do our best to merit this approval.

The two branches of last year worked in harmony on the many matters before them, and I feel confident that the same will be true of the present year. We have before us, however, much harder problems to solve than have been presented for many years. Prices are abnormal and economy is absolutely necessary. The high cost of living has struck our country and has struck it hard. It is felt everywhere,—in our homes, in our institutions, in our governments. It is being investigated by national and state commissions. You cannot pick up a newspaper without reading of it,—it is so generally talked that many of the newswriters do not bother to write it in full, but refer to it as H. C. L. These initials sound like those of some fraternal organization, but they have a far, far different meaning in every way. Such organizations are limited in membership. To the H. C. L. we all belong. H. C. L.,—High Cost of Living,—we are all elected whether we like it or not. Try as we may to avoid it, we suffer the privations it forces upon us. Everything is high in cost, and the larger the corporation the more need for caution and economy.

Lumber, copper, pipe, cement, and the many other materials and supplies the city uses have increased in cost far above the ordinary. Consider cement alone. The city uses quantities of it in the construction of streets, sidewalks and buildings,—during the past year over 11,000 barrels. In 1915 cement was a dollar a barrel; today it is a dollar and a half; an increase in cost to the city of over \$5,000 in this one item alone. Other materials and supplies have all gone the same way, and if we carry on our city, we must pay the cost.

I cannot at this time see any possibility of a reduced tax rate the present year, and if this high cost of living continues, it must undoubtedly be increased.

The tax rate was reduced last year, but the credit should be given where it belongs,—to the economy in state management.

The legislature last year enacted a new law for the assessment of an income tax, and its effect upon cities and towns cannot be foreseen. It had many opponents, but it is generally regarded as a remedy for many evils in the former method of personal tax assessment. The new income tax will be collected by the state and distributed to the cities and towns. We are assured of having an amount equal to the amount derived in 1915 as income from intangible property, but it is not probable that the amount of personal valuation will show the increase of former years.

Men who have given careful study to this phase of the taxation question are confident that the new law will result in a fairer apportionment of personal taxes, but we have no means of knowing just how this law is going to affect our own city.

A statement of our finances will be printed in full as a part of this address. I will simply say at this time that all our bills are paid and we have a balance in the treasury of \$75,000, and we shall need every cent of this the coming year to help meet increased fixed charges.

Schools.

To my mind, we have been more progressive in educational matters in 1916 than in any other previous year in the history of Somerville. The city has been divided into four

junior high school districts. In the easterly and northerly districts the buildings are already in use and in the westerly the building is under construction. In the southerly, land has been acquired and I should be inclined to recommend the beginning of this fourth unit at the present time were it not for the unreasonable high cost of materials.

It is the ultimate purpose to provide accommodations, in each of the four districts, for all pupils of the seventh and eighth grades in the elementary schools and all first year high school pupils. This will relieve crowded conditions in elementary schools all over the city to such an extent that ample accommodations should be ready for all future needs. I believe that this comprehensive plan of 1916 is one that will prove most satisfactory when it is fully under way, and that future city governments will recognize this and carry it forward from year to year as the needs arise.

An addition to the boys' industrial school is now under construction and a considerable portion of the work is being done by the pupils of the school, as part of their industrial training. It is expected that the city will be reimbursed by the commonwealth for a certain amount of the cost of this addition.

We all feel proud of the excellent showing made by our athletic teams under the new management and their success shows the presence of good athletic material in our schools. I do not believe that we have enough physical training for our pupils. It should not be confined almost wholly to those boys who are members of, or are trying to make, the various teams. In some manner the advantage of this training should be extended to all the pupils in our city. I believe that the work of the playgrounds and physical direction of our schools should all be under the same head, as the work of one leads up to the work of the other and the foundation could thus be laid for the proper physical training of our children throughout their entire school life.

Libraries.

Early in December there was installed in the Central Library a beautiful bronze tablet in memory of Sam Walter Foss. It is a particularly fitting tribute to one who did so much for the library's success and it was made possible by

use of part of the fund of the late Martha R. Hunt, whose liberality to the library was noteworthy.

The offer of the Carnegie Corporation of New York of \$18,000 for the erection of a branch library in East Somerville has been accepted and land purchased for a site. Plans were prepared and estimates received, but none were sufficiently low. The high cost of materials will necessitate a considerable number of changes in the plans to permit the construction within the amount available.

When the Union Square branch is extended to the additional quarters now available in the building, its service and usefulness will be greatly increased.

Buildings.

During the summer automatic sprinkler systems were installed in three more of the city buildings, the City Home, the Cummings and the Burns schoolhouses. I believe there is nothing we can do that will better assure safety from fire in school buildings not of fireproof construction than to continue the installation of these systems and I recommend a liberal appropriation for this purpose the current year.

New assembly halls, each with a seating capacity of 200, have been constructed in the Brown and Burns schoolhouses, and are greatly appreciated by the principals and the parents of children attending these schools.

Two matters particularly relating to the building department will come before the next General Court and should be carefully considered by your honorable board. One is the bill relating to fire protection in schools and if enacted will necessitate the appropriation of a large amount to enable us to meet its requirements. The other relates to construction, alteration and maintenance of buildings and contemplates the taking from cities and towns control of all local building operations.

Early in the year information was received from the owners of the land which the city was then using for a bathing beach that our occupancy was liable to be terminated at short notice. Being unable to make any agreement with them for permanent occupancy, negotiations were commenced with the Metropolitan Park Commission which resulted in our being granted a location, for a period of ninety-

nine years, on the easterly side of the Fellsway, near the Wellington bridge.

A building is now practically completed with seventy-two dressing-rooms and one hundred and seventy-two lockers. The building is up-to-date in every particular and all modern devices for a building of this kind will be installed. We are thus assured the city will have its own public bathing facilities for many years to come.

Streets.

Our main thoroughfares and public squares have been reconstructed to a considerable extent and new construction work has been confined to these as far as possible. In some cases the work is still uncompleted and not wholly satisfactory, but at the earliest possible date these streets will be put in proper condition. In every instance where the work was by contract, provision has been made to assure the completion of the work in accordance with the terms and specifications, and final payments will not be made until the work is wholly satisfactory in every detail. It is my opinion that the best interests of the city demand that all its main thoroughfares be in good condition and I recommend that during this year all uncompleted portions be completed.

In pursuance of a resolve passed last year a report is to be made to the incoming legislature as to the advisability of constructing a state highway across Somerville, from Broadway park to the Cambridge line at or near Columbia street.

Some agreement should be reached with the City of Cambridge for the construction of a large storm overflow drain at the East Cambridge line, to extend from Somerville avenue, to relieve the flooding of streets and cellars in that section in times of severe storm.

The new Alewife Brook parkway, connecting Powder House boulevard in Somerville with Massachusetts avenue in Cambridge, has been completed and opened for travel and has already relieved traffic congestion. The Metropolitan Park Commission has taken over the care and control of that portion of Powder House boulevard extending from the new parkway northerly to the Medford and Arlington lines, relieving the city of the cost of maintenance.

Sanitary Department.

One of the recommendations in my inaugural address of two years ago, and which I again urged last year, was the taking from the street department the control of the collection of ashes and offal. Early in the year this matter was considered by the Board of Aldermen and the change made by ordinance. This work is now carried on under the supervision of an official who devotes his entire time to the duties of the department, and the change has proven most satisfactory. The ratio of increase in the expense for this year has been thirty-three per cent. less than that of former years.

The superintendent informs me that the dump on Mystic avenue, the only one within the city limits, can be used for only a short time. Some provision should be made in the near future for the disposal of ashes and refuse.

Fire Insurance Rates.

Only a few years ago the fire department was manned by a force of whom sixty per cent. were callmen. Fire apparatus was of the old type and horse-drawn. Building restrictions in regard to tenement houses were lax and no particular requirements were made as to fire-resisting roofs.

Today our fire force is nearly all permanent men and the equipment is up-to-date and over sixty per cent. motor-drawn. Our building ordinances have been revised to require double the space between certain types of buildings, and in all cases, except in minor repairs, non-combustible roofing materials must be used.

The new fireproof building for housing the electrical department has been completed and a system second to none in the country installed. In addition to all this, the strict rules and regulations of the Metropolitan Fire Prevention Commissioner still further safeguard our community.

Notwithstanding all that has been done to lessen the fire danger as I have just stated, and the further extension of high pressure water mains in our most hazardous districts, the insurance underwriters have recently greatly increased our rates.

In the report of the National Board of Fire Underwriters on the city of Somerville, which was issued in June of last year, are a number of recommendations, and every effort is

being made to comply therewith that the present rates may be decreased to our former rating. To carry out all the recommendations is an absolute impossibility with the present high costs, but an attempt should be made to do so as far as we are able. I still believe, as I expressed to the board in my first inaugural, in the establishment of fire districts where the danger from fire seems greatest, and I earnestly hope that your honorable board will give this matter serious consideration.

Charities.

I regret that the people of Somerville, who are as a rule so liberal in responding to appeals for help, have not accorded to our oldest and most prominent charitable organization the necessary support to enable it to continue its activities. For over twenty years it has carried on a grand work and it is greatly to be regretted that lack of finances obliges it to curtail its usefulness.

Our Saviour said: "Ye have the poor always with you," and these words of truth are more forcibly impressed upon us today than ever before. In every large city countless men and women are giving their time and money for the relief of the millions of families made destitute by the awful war abroad. Their work is a noble one and deserves our support, but the pitiful needs in foreign lands should not blind us to the wants of those at home. Our sufferings are not so acute nor the demands for relief so great, but our duty of providing for them should not be forgotten.

The city's expense for relief of those outside the City Home has increased the past year over \$6,000 and with the high cost of living there is no prospect of any decrease at present. While the cost of maintenance of all departments has greatly increased during the past ten years, that of the poor department has been greater than in any other, nearly 158 per cent.

Health.

Early in July an epidemic of infantile paralysis brought terror to many of the families in this section of our country, and medical science was unable to combat it. Somerville had forty-eight cases, of which nine were fatal. Acceding to the entreaties of many parents, the school committee postponed

opening the schools until the epidemic had to a large degree abated.

Our ordinary cases of contagion, scarlet fever and diphtheria, we are thankful to say, have been much less prevalent than usual. At two different times during the year there have been no such cases in quarantine in the city, except at the contagious hospital, and at one time the hospital had no such cases whatever.

It is a pleasure to commend the valuable service of the veteran agent, Caleb A. Page, who retired last fall after twenty-eight years faithful service in this department.

Department Heads.

The custom has been continued of holding occasional meetings in the mayor's office of all heads of departments. The free discussion, at these meetings, of work contemplated and in progress has, in no slight manner, resulted in a continuation of harmony between the various executive branches of our government and a mutual desire to help one another in their work.

It is a pleasure to commend these various officials for their loyalty to duty.

Somerville Hospital.

This splendid institution continues a credit to its management, and the great good it is doing is recognized more and more each year as its work is known. It is a pleasure to recommend an appropriation for the current year of the same amount of seven thousand dollars as was appropriated last year. I believe the money is wisely expended and that the city receives much more than this amount of service in return for its appropriation.

Patriotism.

When in the year 1861 President Lincoln asked for troops to preserve the Union, Somerville loyally answered that call. Again, in 1898, when President McKinley issued his call, Somerville's loyalty was again evidenced. And when last June President Wilson deemed it necessary to send troops to protect our Mexican border, our boys, with the same loyal devotion to their country's needs, came bravely forward. The mere fact that they were not obliged to battle

with an enemy detracts in no wise from that spirit that in '61 and '98 prompted them to lay down their all for their country, and they deserve all the credit heaped upon them. Many of those who went away left behind them families without means of support and I want again at this time to thank the people of our city for their readiness and willingness in giving these families the relief that was necessary. I visited the boys of Companies M and K in camp at Framingham before their departure and found many of them full of worry about the folks at home. I told them at that time they could be assured that their friends in Somerville would look after them and that they could go away with the certainty that none would be left in want, and my confidence was more than justified by the response to the call for funds. As I have stated before, this was not in any sense a matter of charity but was only furnishing to the families of those who were ready to fight your battles and mine the support and care that were rightfully theirs. As it was not possible under the law to appropriate public funds for this purpose, a committee was formed and donations solicited. The response was liberal, and under the direction of the committee the funds were so wisely disbursed that to my knowledge no soldier's family in our city was in want at any time. A special session of the Legislature authorized the making of appropriations for this purpose, and on the same day the act was signed by the Governor our Board of Aldermen passed an order making a special appropriation so that the work might continue without interruption.

We are particularly thankful that every man returned home safe and sound. Their return was welcomed with a splendid parade and the people turned out in masses to give them an enthusiastic welcome.

I pray that never again may we have the sorrowful duty of sending forth the young manhood of our city to the dangers of war and battle, but if such a time should come upon us we are proud to know that the same spirit of patriotism will be shown.

Intoxicating Liquors.

The voters at the last election emphasized more strongly than ever before their sentiment upon the liquor question.

Though the total vote was smaller than usual, the percentage of "No" votes was the largest in our history,—over seventy-nine per cent. of the total cast.

There is no question that the policy of the Board of Aldermen in refusing all sixth class licenses meets with the approval of a great majority of our citizens. I believe extreme care should be used in acting upon all applications for the so-called pony express licenses.

Community Christmas.

Somerville's first Community Christmas, held one week ago, was most successful and the committee having charge of the arrangements well merits the praise and congratulation it received. The exercises around the tree were witnessed by a large number, estimated at nearly 15,000. After the singing of carols by a chorus, the singers divided into groups, singing before hospitals, institutions, and the homes of shut-ins.

The general interest manifested in the affair all over the city shows a community spirit that is most pleasing to all of us. Anything that will break away the barriers of class prejudice and racial difference makes for the good of our city, and it was a particularly fitting time, when all the Christian world was celebrating the birth of Him who knows no such prejudice or difference, for so magnificent a demonstration of good will to all. May this spirit continue, not only at Christmastide, but throughout all time.

Gentlemen of the Board:—

In closing, I want, once more, to urge upon you the necessity of bearing in mind the effect upon our finances of present-day costs. We must keep up our various departments, our schools, our departments of public works, our departments of public safety, and all the other branches of our municipal government. It is our duty to see that they are maintained properly and that their standard is not lowered. But it is an absolute necessity that we exercise the strictest economy in our appropriations during these times of high prices and see to it that the city receives its full value for money expended. I regret exceedingly the probability of an increase in the tax rate the present year and shall do all

in my power, as I feel assured you will do, to make the additional burden upon our taxpayers as light as possible.

My office is open to all of you at all times and it will be a pleasure to consult with you upon all matters of city business. We both realize that the powers of the legislative and executive branches are intentionally separated by the charter, but it is very certain that there was no intention in this charter to have the affairs of the city conducted without the co-operation of these branches, and I feel confident that the same hearty spirit of co-operation will prevail throughout the coming year as has existed throughout the one that has closed.

Gentlemen, I wish you a most successful and happy new year.

Financial Statement, December 31, 1916.

FUNDED DEBT.

The total funded debt of the city January 1, 1916, was \$1,650,500. This debt was increased during the year \$291,000. Maturities paid amounted to \$212,500, making the funded debt January 1, 1917, \$1,729,000, an increase of \$78,500.

The debt January 1, 1916, was classified as follows:—

City Loan	\$845,500 00
Municipal Loan	67,000 00
Sewer Loan	292,000 00
Public Building Loan	140,000 00
Highway Loan	207,000 00
Lowell Street Bridge Loan	34,000 00

Total inside limit	\$1,585,500 00
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Sewer Loan	\$30,000 00
Metropolitan Park Assessment Loan	14,000 00
Water Loan	21,000 00

Total outside limit	\$65,000 00
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Total Funded Debt	\$1,650,500 00
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Appropriations increasing the debt were made as follows:—

Sewers Construction	\$18,000 00
Highways Construction, New Streets	11,000 00

Amount carried forward	\$29,000 00
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Amount brought forward	\$29,000 00
Highways Construction, Permanent Pavement	93,000 00
Highways Construction, Macadam Pavement	32,000 00
Sidewalks Construction	14,000 00
New School Building, Holland Street	94,500 00
Bell School, Additional Land	3,500 00
Boys' Industrial School Addition	10,000 00
Land East Somerville Branch Library	4,500 00
Field House, Somerville Field	3,000 00
Park Building, Lincoln Park Addition	2,000 00
New Bathhouse, Mystic River	5,500 00
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	\$291,000 00

The debt was reduced by maturities as follows:—

City Loan	\$131,500 00
Municipal Loan	10,000 00
Sewer Loan	17,000 00
Highway Loan	36,000 00
Public Building Loan	8,000 00
Bridge Loan	1,000 00
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Total inside limit	\$203,500 00
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Sewer Loan	\$3,000 00
Metropolitan Park Assessment Loan	1,000 00
Water Loan	5,000 00
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Total outside limit	\$9,000 00
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Total reduction	\$212,500 00

The funded debt of the city January 1, 1917, is classified as follows:—

City Loan	\$714,000 00
Municipal Loan	57,000 00
Sewer Loan	293,000 00
Public Building Loan	255,000 00
Highway Loan	321,000 00
Lowell Street Bridge Loan	33,000 00
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Total within limit	\$1,673,000 00
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Sewer Loan	\$27,000 00
	<hr/>
Amount carried forward	\$27,000 00

Amount brought forward	\$27,000 00
Metropolitan Park Assessment Loan	13,000 00
Water Loan	16,000 00
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Total outside limit	56,000 00
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Total Funded Debt	\$1,729,000 00

TAXES.

The total amount of taxable property as of April 1, 1916, not including non-resident bank shares, was \$79,304,329. The tax rate was fixed at \$21.40 per \$1,000 valuation.

Real Estate	\$69,972,100 00
Personal Estate	9,267,600 00
Resident Bank Shares	64,629 00
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Total valuation	\$79,304,329 00
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At \$21.40 per \$1,000	\$1,697,112 64
Polls, 25,077 at \$2	50,154 00
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	\$1,747,266 64

Special Assessments:—

Street Sprinkling	\$36,282 85
Moth	1,991 50
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	\$38,274 35
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	\$1,785,540 99
Non-resident Bank Shares at \$21.40	2,190 74
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Total tax levy \$1,787,731 73

Appropriations, classified under general headings, were made from revenue, as follows:—

General Government	\$88,119 00
Protection of Persons and Property	258,800 00
Health and Sanitation	186,205 00
Highways	152,900 00
Charities	72,300 00
Soldiers' Benefits	38,750 00
Education	487,790 00
Libraries	45,075 00
Recreation	19,315 00
Unclassified	40,225 00
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Amount carried forward	\$1,389,479 00

Amount brought forward	\$1,389,479 00
Municipal Indebtedness	302,475 22
Water Works	186,640 00
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	\$1,878,594 22
Less estimated revenue	495,011 40

Amount raised by taxation for city purposes \$1,383,582 82

State and County Taxes, Metropolitan and Other Assessments, etc.:—

State Tax	\$127,360 00
State Highway Tax	790 00
Metropolitan Sewer Tax	67,511 00
Metropolitan Park Tax	40,259 07
Wellington Bridge Tax	1,292 32
Special Wellington Bridge Tax	1,795 17
Grade Crossing Tax	13,861 56
Charles River Basin Tax	6,616 78
Alewife Brook Tax	1,255 23
Gas and Electric Light Commission	294 67
Auditing Municipal Accounts	823 40
Fire Prevention Tax	1,363 54
County Tax	82,190 71
Overlay	18,270 37
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	\$363,683 82
Collected for State on Non-resident Bank Shares	2,190 74
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Total	\$365,874 56

It may be of interest to show the percentage of increase in the valuation, tax rate, state and county taxes, etc., using as a basis of comparison the figures for the years 1906 and 1916.

Valuation	31.3%
Tax Rate	22.4
State Tax	108
County Tax	34.1
Interest	53.3
Reduction of Funded Debt	51.2
Metropolitan Water Assessment	13.7
Departmental Maintenance:—	
Poor Department	157.9
Sanitary Department	116.8
Libraries	92.6
Health Department	81.4

Maintenance School Buildings	61.
Fire Department	53.2
Parks and Playgrounds	42.5
Sewers Maintenance	40.
School Teachers' Salaries	39.9
Police Department	32.8
School Contingent	28.6
Sidewalks Maintenance	21.1
Water Maintenance	19.4
General Government	19.3
Highways Maintenance	9.4

The following tables, giving a condensed history of the city's finances, are herewith presented for reference:—

Year.	Amount of Funded Debt.	Increase of Funded Debt.	Reduction of Funded Debt.	Tax Rate per \$1,000 Valuation on Account of Reduction of Funded Debt.
Town	\$593,349	.....	.....	....
Dec. 31, 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	*\$55,130 62	\$2 07
" 1877	1,606,854	10,000	*58,828 58	2 30
" 1878	1,596,854	.....	61,004 64	2 91
" 1879	1,585,000	.....	64,915 76	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 00	1 28
" 1889	952,500	130,000	38,000 00	1 27
" 1890	1,057,500	150,000	45,000 00	1 38
" 1891	1,045,500	45,000	57,000 00	1 55
" 1892	1,194,500	253,000	104,000 00	2 73
" 1893	1,279,500	222,000	137,000 00	3 27
" 1894	1,344,500	172,000	107,000 00	2 42
" 1895	1,506,500	247,000	85,000 00	1 83
" 1896	1,531,000	177,000	152,500 00	3 11
" 1897	1,548,000	167,000	150,000 00	2 39
" 1898	1,552,000	176,000	172,000 00	3 99
" 1899	1,492,500	110,000	169,500 00	3 30
" 1900	1,478,000	152,000	166,500 00	3 17
" 1901	1,461,000	146,000	163,000 00	3 02
" 1902	1,447,000	175,000	159,000 00	2 86
" 1903	1,505,500	197,500	169,000 00	2 96
" 1904	1,498,500	132,500	139,500 00	2 40
" 1905	1,510,000	148,000	136,500 00	2 30
" 1906	1,464,500	100,000	145,500 00	2 41
" 1907	1,508,000	198,000	154,500 00	2 51
" 1908	1,466,500	110,000	151,500 00	2 06
" 1909	1,503,000	190,000	153,500 00	2 42
" 1910	1,500,000	160,000	163,000 00	2 26
" 1911	1,519,000	188,000	169,000 00	2 41
" 1912	1,674,000	332,000	177,000 00	2 54
" 1913	1,674,000	222,000	222,000 00	2 92
" 1914	1,616,000	145,000	203,000 00	2 63
" 1915	1,650,500	240,000	205,500 00	2 57
" 1916	1,729,000	291,000	212,500 00	2 60

*10,000 applied to payment of bonds; balance to sinking funds.

†Sinking fund 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	504,475 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
1890	32,557,500	447,704 00	14 00
1891	36,843,400	539,137 10	14 00
1892	38,093,100	596,357 50	15 00
1893	41,873,600	675,886 80	15 50
1894	44,142,900	721,165 54	15 70
1895	46,506,300	745,609 02	15 40
1896	49,070,800	786,412 32	15 40
1897	50,231,000	913,574 42	17 30
1898	50,739,700	954,187 11	17 90
1899	51,262,400	882,580 96	16 30
1900	52,578,200	889,916 08	16 00
1901	53,924,200	907,439 82	15 90
1902	55,558,300	964,535 80	16 40
1903	57,062,000	1,038,849 84	17 20
1904	58,137,900	1,059,292 56	17 20
1905	59,233,000	1,144,000 14	18 30
1906	60,371,500	1,114,023 62	17 40
1907	61,627,200	1,144,434 92	17 40
1908	63,158,400	1,237,694 72	18 40
1909	63,658,953 20	1,260,144 32	18 60
1910	66,376,338 70	1,306,888 71	18 50
1911	67,284,066	1,366,240 92	19 10
1912	69,632,540	1,390,824 93	18 80
1913	71,906,464	1,505,706 98	19 80
1914	74,946,894	1,665,289 46	21 10
1915	77,217,399	1,764,448 81	21 70
1916	79,304,329	1,785,540 99	21 40

REPORT OF THE CITY AUDITOR.

OFFICE OF THE CITY AUDITOR, }
January 25, 1917. }

To the Honorable, the Mayor, and the Board of Aldermen
of the City of Somerville.

Gentlemen,—In accordance with the requirements of Section 3 of Ordinance Number 44, I herewith submit a report of the expenditures and receipts during the year 1916, showing in detail the appropriations and expenditures, and the receipts from each source of income, also a statement of the funded debt and temporary loans together with a balance sheet showing the assets and liabilities at the close of the financial year.

Respectfully submitted,
HOWARD E. WEMYSS,
City Auditor.

BALANCE SHEET, DECEMBER 31, 1916.

Revenue Accounts.

ASSETS.

Cash:—	
In banks and offices	\$79,354 03
Advance to poor department	1,500 00
Accounts receivable:—	
Taxes, 1916	\$343,800 71
Taxes, 1915	2,707 54
Special assessments, 1916	24,000 92
Special assessments, 1915	6,217 97
Departmental bills receivable	20,822 74
Commonwealth of Massachusetts, Soldiers' Benefits, 1916	16,958 36
Water Department accounts, 1916	25,505 70
Real estate liens	
Grade crossings	

LIABILITIES.

Temporary loans	\$400,000 00
Unexpended balances:—	
Income of trust funds	1,466 77
Tailings	127 11
Premiums on bonds	2,698 43
Accrued interest	169 45
Revenue from taxes, supplementary warrants	3,265 96
Revenue reserved when collected:—	
Departmental bills receivable	\$20,822 74
Water revenue	21 19
Overlay, reserved for abatements:—	
Levy of 1916	\$8,274 87
Levy of 1915	4,322 92
Reserve Fund, surplus from overlays	12,597 79
Excess and deficiency	3,224 45
	80,006 77
	<u>\$524,400 66</u>

Non-Revenue Accounts.

Cash in banks and offices	\$121,186 86
Unexpended balances:—	
Appropriations	\$121,186 86
	<u>\$121,186 86</u>

BALANCE SHEET.—Continued.

Municipal Indebtedness.

Net bonded debt	\$1,729,000 00	Loans within statutory debt limit:—	
		City bonds	\$714,000 00
		Municipal bonds	57,000 00
		Sewer bonds	293,000 00
		Highway bonds	321,000 00
		Bridge bonds	33,000 00
		Public building bonds	255,000 00
			<u>\$1,673,000 00</u>
		Loans outside statutory debt limit:—	
		Sewer bonds	\$27,000 00
		Metropolitan park assess- ment bonds	13,000 00
		Water bonds	16,000 00
			<u>56,000 00</u>
			<u><u>\$1,729,000 00</u></u>

Investments:—		Trust Funds.	
Cash and securities	\$25,414 58	Trust funds:—	
		School funds	\$5,000 00
		Library funds	20,414 58
			<u>\$25,414 58</u>
			<u><u>\$25,414 58</u></u>

CASH STATEMENT DECEMBER 31, 1916.

REVENUE.

Receipts.

General:—		
Taxes	\$1,714,556 08	
Corporation and Bank Taxes	78,895 26	
Licenses	3,023 50	
Permits	1,437 00	
Fines and forfeits	2,847 19	
Commonwealth of Massachusetts, ac- count Vocational Schools	5,894 15	
County of Middlesex, dog licenses	2,831 40	
	<hr/>	\$1,809,484 58
Special assessments		88,816 05
Departmental:—		
General government	\$8,104 59	
Protection of persons and property	2,172 80	
Health and sanitation	24,607 73	
Highways	4,431 59	
Charities	27,602 61	
Soldiers' benefits	15,364 50	
Schools	5,990 03	
Libraries	1,422 61	
Parks	125 00	
Baths and bathhouses	661 20	
Miscellaneous	886 86	
	<hr/>	91,369 52
Water Department Accounts		243,616 23
Interest:—		
On deposits, taxes, etc.	\$22,404 35	
Income from trust funds	1,132 21	
	<hr/>	23,536 56
Temporary loans		1,220,000 00
Premiums on general loans		2,698 43
Refunds		2,473 45
Trust funds:—		
Martha R. Hunt fund, principal		702 77
	<hr/>	
Total receipts		\$3,482,697 59
Transfer from non-revenue account, service trans- fers		11,937 21
Balance at beginning of period		145,331 62
	<hr/>	
		<u>\$3,639,966 42</u>

CASH STATEMENT DECEMBER 31, 1916.—Continued.**Payments.**

Appropriations	\$1,853,055 47	
Temporary loans	1,320,000 00	
State taxes and assessments	265,459 76	
County tax	82,190 71	
Income of trust funds	2,118 19	
Advance to poor department	300 00	
Refunds	917 34	
Real estate liens	70 92	
		<hr/>
Total payments		\$3,524,112 39
Transfer, revenue for outlays		36,500 00
Balance on hand		79,354 03
		<hr/>
		\$3,639,966 42

NON-REVENUE.**Receipts.**

Departmental accounts	\$842 50	
Redemption of tax liens	2,124 09	
Funded debt loans	291,000 00	
Refunds	58 17	
		<hr/>
Total receipts		\$294,024 76
Transfer, outlays from revenue		36,500 00
Balance at beginning of period		95,899 50
		<hr/>
		\$426,424 26

Payments.

Appropriations	\$291,176 10	
Redemption of tax liens	2,124 09	
		<hr/>
Total payments		\$293,300 19
Transfer to revenue account service transfers		11,937 21
Balance on hand		121,186 86
		<hr/>
		\$426,424 26

SUMMARY.

Total revenue receipts	\$3,482,697 59	
Total non-revenue receipts	294,024 76	
		<hr/>
Total cash receipts		\$3,776,722 35
Cash balance January 1, 1916		241,231 12
		<hr/>
		\$4,017,953 47
		<hr/>
Total revenue payments	\$3,524,112 39	
Total non-revenue payments	293,300 19	
		<hr/>
Total cash payments		\$3,817,412 58
Cash balance December 31, 1916		200,540 89
		<hr/>
		\$4,017,953 47

DEPARTMENTAL BILLS.

Departmental Accounts, Pledged to Revenue.

	Balance Jan. 1, 1916.	Committed 1916.	Total to Collect.	Collected and Abated.	Uncollected.
Engineering . . . . .	.....	\$35 00	\$35 00	\$35 00	.....
Law Department . . . . .	.....	7 81	7 81	.....	\$7 81
Police Department	\$125 40	437 31	562 71	437 31	125 40
Maintenance Police Buildings . . . . .	.....	1,000 00	1,000 00	1,000 00	.....
Fire Department . . . . .	.....	175 40	175 40	175 40	.....
Health Department, contagious diseases	234 85	121 16	406 01	277 86	128 15
Contagious Hospital	10,326 53	11,054 74	21,381 27	14,242 79	7,138 48
Inspection of Milk	73 50	318 50	392 00	313 50	78 50
Refuse Disposal	34 83	2,099 80	2,134 63	1,908 33	226 30
Sewers Construction . . . . .	.....	490 67	490 67	490 67	.....
Highways Maintenance	119 95	6,740 92	6,860 87	3,898 41	2,962 46
Street Sprinkling	30 00	60 00	90 00	90 00	.....
Sidewalks Maintenance . . . . .	.....	98 13	98 13	.....	98 13
Sidewalks Construction	35 00	241 25	276 25	276 25	.....
New Streets	179 30	.....	179 30	87 20	92 10
Maintenance Highway Buildings . . . . .	.....	240 00	240 00	240 00	.....
Poor Department, miscellaneous	11,300 30	19,828 95	31,129 25	23,172 18	7,957 07
Poor Department, City Home	167 96	2,654 07	2,822 03	1,861 43	960 60
Soldiers' Relief . . . . .	.....	24 00	24 00	24 00	.....
School Contingent	518 13	4,374 66	4,892 79	4,142 47	750 32
Maintenance School Buildings	3 75	1,252 25	1,256 00	1,192 25	63 75
Library Department . . . . .	.....	36 79	36 79	3 12	33 67
Parks Maintenance . . . . .	.....	100 00	100 00	100 00	.....
Somerville Field	200 00	25 00	225 00	25 00	200 00
Bathhouse . . . . .	.....	100 00	100 00	100 00	.....
Totals	\$23,399 50	\$51,516 41	\$74,915 91	\$54 093 17	\$20,822 74

Construction Accounts, Pledged to Appropriations.

Macadam Pavement	\$25 60	.....	\$25 60	\$25 60	.....
Permanent Pavement	92 50	\$594 40	686 90	686 90	.....
Sewers Construction . . . . .	.....	150 00	150 00	150 00	.....
Totals	\$118 10	\$744 40	\$862 50	\$862 50	.....

WATER DEPARTMENT ACCOUNTS:(REVENUE).

	Commitments.	Abatements.	Collected.	Balance.
Metered rates	\$187,588 4c	\$468 01	\$161,635 94	\$25,484 51
Annual rates	53,903 00	1,129 53	52,773 47	.....
Additional rates	2,115 50	293 43	1,822 07	.....
Maintenance bills	2,896 56	1 60	2,873 77	21 19
Service assessments	3,837 53	.....	3,837 53	.....
Total	\$250,341 05	\$1,892 57	\$222,942 78	\$25,505 70
Receipts . . . . .	.	.	.	\$222,942 78
Metered rates last quarter 1916 . . . . .	.	.	.	25,484 51
Water revenue, 1916 . . . . .	.	.	.	\$248,427 29

STATEMENT OF ESTIMATED REVENUE.

	Estimate.	Receipts.	Excess.	Deficit.
Taxes from State:—				
Corporation taxes	\$24,300 00	\$47,822 64	\$23,522 64	.....
National bank tax	4,000 00	4,127 73	127 73	.....
Street railway	40,000 00	38,619 13	.....	\$1,380 87
Licenses and Permits:—				
Milk	300 00	295 50	.....	4 50
Health department	400 00	361 00	.....	39 00
City Clerk	3,150 00	3,015 00	.....	135 00
Executive	600 00	786 00	186 00	.....
Miscellaneous . . . . .	.....	3 00	3 00	.....
Fines and Forfeits:—				
Court fines	1,500 00	2,602 19	1,102 19	.....
Departmental	250 00	245 00	.....	5 00
Grants and Gifts:—				
County, dog licenses	2,831 40	2,831 40	.....	.....
State, Industrial School	6,000 00	5,894 15	.....	105 85
Special Assessments:—				
Moths	3,000 00	1,935 25	.....	1,064 75
Sewer	2,000 00	2,744 06	744 06	.....
Street sprinkling	36,030 00	36,210 20	180 20	.....
Sidewalks	13,000 00	12,669 09	.....	330 91
Betterment	9,000 00	8,525 09	.....	474 91
General Government:—				
Treasury department	5,200 00	6,942 59	1,742 59	.....
Assessors' department	10 00	13 00	3 00	.....
City Clerk's department	1,150 00	1,114 00	.....	36 00
Engineering department	75 00	35 00	.....	40 00
Protection of Persons and Property:—				
Police department	600 00	437 31	.....	162 69
Rent of court room	1,000 00	1,000 00	.....	.....
Fire department	350 00	187 78	.....	162 22
Sealer of weights and measures	500 00	547 71	47 71	.....

Health and Sanitation:—									
Health department	600 00	277 86						322 14	
Contagious Hospital	16,000 00	12,962 08						3,037 92	
Inspection of milk and vinegar	400 00	350 00						50 00	
Refuse disposal	10,500 00	10,504 65							
Sewer department . . . . .	.....	22 47							
Highways:—									
Highway maintenance	1,000 00	3,803 14							
Highway buildings	240 00	240 00							
Charities:—									
City Home	5,000 00	5,513 17					491 74		
Poor department, miscellaneous	12,000 00	22,089 44					10,110 87		
Soldiers' Benefits:—									
State aid	15,000 00	14,108 00						892 00	
Military aid	200 00	155 00						45 00	
Soldiers' burials	1,000 00	464 00						536 00	
State aid special . . . . .	.....	2,231 36							
Soldiers' relief	25 00	24 00						1 00	
Education:—									
School department	3,000 00	4,104 43					1,104 43		
Maintenance school buildings	1,800 00	1,885 60					85 60		
Libraries:—									
Library department	1,400 00	1,422 61					22 61		
Recreation and Unclassified:—									
Electrolysis	500 00	500 00							
State, in lieu of taxes . . . . .	.....	64 86					64 86		
Parks maintenance	50 00	100 00					50 00		
Playgrounds maintenance . . . . .	.....	25 00					25 00		
Bathhouse	600 00	482 15						117 85	
Shower baths	150 00	179 05					29 05		
Public Service Enterprises:—									
Water department	232,000 00	248,427 29					16,427 29		

STATEMENT OF ESTIMATED REVENUE.

	Estimate.	Receipts.	Excess.	Deficit.
Interest:—				
Bank deposits	7,000 00	11,178 77	4,178 77	.....
Deferred taxes	10,800 00	10,763 23	.....	36 77
Special assessments	500 00	462 35	.....	37 65
	<u>\$475,011 40</u>	<u>\$531,304 33</u>	<u>\$65,310 96</u>	<u>\$9,018 03</u>
Total estimate . . . . .	. . . . .	. . . . .	. . . . .	\$475,011 40
Total actual . . . . .	. . . . .	. . . . .	. . . . .	531,304 33
Excess . . . . .	. . . . .	. . . . .	. . . . .	<u>\$56,292 93</u>

STATEMENT OF APPROPRIATIONS 1916 (REVENUE).

	Appropriation.	Appropriation Trans. from	Appropriation Trans. to	Receipts and Service Trans.	Total Credit.	Expenditures.	Balance to Excess and Deficiency.
General Government.							
Board of Aldermen, expenses	\$800 00	.....	\$216 25	.....	\$1,015 25	\$1,016 25	.....
Clerk of committees	1,900 00	\$16 25	.....	.....	1,883 75	1,870 48	13 27
Executive department	4,800 00	.....	.....	.....	4,800 00	4,697 33	102 67
Auditing department	4,150 00	.....	139 21	.....	4,289 21	4,289 21	.....
Treasury department	14,150 00	.....	282 50	146 25	14,578 75	14,578 75	.....
Assessors' department	12,680 00	.....	84 32	.....	12,764 32	12,764 32	.....
Certification of notes and bonds	600 00	.....	125 00	.....	725 00	725 00	.....
Recording assessments	400 00	253 75	.....	.....	146 25	146 25	.....
City Clerk's department	7,150 00	139 21	.....	1,254 80	8,265 59	8,095 25	170 34
Registration city laborers	315 00	.....	.....	.....	315 00	314 70	30
Law department	2,400 00	.....	42 25	.....	2,442 25	2,442 25	.....
City Messenger's department	3,100 00	.....	.....	.....	3,100 00	3,064 36	35 64
Engineering department	12,500 00	93 41	.....	.....	12,406 59	12,328 15	78 44
Commissioner of Public Buildings	5,030 00	35 36	.....	.....	4,994 64	4,918 35	76 29
Maintenance municipal buildings	8,500 00	.....	425 00	.....	8,925 00	8,922 91	2 09
City planning board	50 00	.....	.....	.....	50 00	17 40	32 60
Election expenses, City Clerk	2,250 00	125 81	.....	.....	2,124 19	1,992 84	131 35
Election expenses, registrars of voters	2,650 00	125 00	.....	.....	2,525 00	2,517 32	7 68
Pay of election officers	3,854 00	.....	.....	.....	3,854 00	3,822 00	32 00
Maintenance polling places	840 00	282 50	.....	.....	557 50	555 51	1 99
Totals	\$88,119 00				\$89,763 29	\$89,078 63	

STATEMENT OF APPROPRIATIONS, 1916 (REVENUE).

	Appropriation.	Appropriation Trans. from	Appropriation Trans to	Receipts and Service Trans.	Total Credit.	Expenditures.	Balance to Excess and Deficiency.
Protection of Persons and Property.							
Police department	\$109,500 00	.....	496 84	.....	\$109,996 84	\$109,965 31	31 53
Maintenance police buildings	3,500 00	.....	7 19	1 25	3,508 44	3,508 44	.....
Fire department	110,000 00	213 49	.....	878 88	110,665 39	110,217 58	447 81
Maintenance fire build- ings	7,900 00	.....	35 36	.....	7,935 36	7,935 36	.....
Militia	500 00	84 32	50 00	.....	465 68	462 22	3 46
Weights and measures department	2,700 00	7 19	.....	12 03	2,704 84	2,711 78	*6 94
Electrical department	9,500 00	425 00	.....	.....	9,075 00	9,028 44	46 56
Maintenance electrical department building	500 00	271 84	.....	.....	228 16	213 20	14 96
Suppression of moths	4,000 00	.....	20 10	240 74	4,260 84	4,260 84	.....
Care of trees	3,200 00	20 10	.....	11 58	3,191 48	3,157 10	34 38
Totals	\$251,300 00				\$252,032 03	\$251,460 27	
Health and Sanitation.							
Health department	\$11,350 00	.....	\$447 21	.....	\$11,797 21	\$11,797 21	.....
Vital statistics	1,100 00	.....	.....	.....	1,100 00	1,062 60	\$37 40
Contagious Hospital	20,575 00	2,375 12	.....	\$135 94	18,335 82	17,824 62	511 20
Maintenance Contagious Hospital	3,300 00	.....	322 27	.....	3,622 27	3,622 27	.....
Inspection of animals and provisions	1,350 00	.....	.....	.....	1,350 00	1,326 38	23 62
Inspection of milk and vinegar	3,125 00	2 65	.....	.....	3,122 35	3,120 84	1 51
Inspection school chil- dren	2,430 00	.....	2 65	.....	2,432 65	2,432 65	.....
Sewers maintenance	18,000 00	.....	.....	98 36	18,098 36	17,442 79	655 57

Maintenance sewer build- ings	175 00	21 51	.....	153 49	133 83	19 66
Highways, refuse disposal Sanitary department	98,000 00	56,863 51	.....	41,136 49	41,136 49	.....
Maintenance refuse buildings	800 00	.....	64,063 51	64,063 51	64,063 28	23
Highways, street cleaning	24,000 00	8 86	474 61	1,274 61	1,274 61	.....
Totals	\$24,800 00	.....	1,000 00	24,991 14	24,899 57	91 57
Highways.				\$90,329 26	\$90,237 46	
Highway maintenance	\$39,000 00	.....	\$1,500 00	\$66,063 88	\$65,875 56	\$188 32
Sidewalks maintenance	5,000 00	.....	125 80	5,125 80	5,125 80	.....
Street sprinkling	35,000 00	.....	8 86	35,056 86	35,056 86	.....
Street lighting	61,000 00	.....	.....	61,000 00	61,000 00	.....
Maintenance highway buildings	900 00	.....	595 06	1,495 06	1,495 06	.....
Totals	\$140,900 00	.....	.....	\$168,741 60	\$168,553 28	.....
Charities and Soldiers' Benefits.						
Poor department, mis- cellaneous	\$40,000 00	.....	\$11,759 62	\$51,786 07	\$51,786 07	.....
Poor department, City Home	11,500 00	.....	93 41	11,593 41	11,593 41	.....
Maintenance City Home buildings	1,800 00	.....	125 81	1,925 81	1,925 81	.....
Somerville Hospital	7,000 00	.....	.....	7,000 00	7,000 00	.....
Soldiers' benefits, gen- eral administration	1,050 00	.....	.....	1,050 00	1,031 58	\$18 42
Military aid	700 00	83 40	.....	616 60	310 00	306 60
State aid	15,000 00	400 00	20 00	14,620 00	14,108 00	512 00
Soldiers' relief	21,000 00	.....	40 00	21,040 00	21,034 90	5 10
Soldiers' burials	1,000 00	.....	.....	1,000 00	464 00	536 00
State aid special . . . . .	.....	.....	3,000 00	3,000 00	2,384 36	615 64
Totals	\$99,050 00	.....	.....	\$113,631 89	\$111,638 13	.....

STATEMENT OF APPROPRIATIONS, 1916 (REVENUE).

	Appropriation.	Appropriation Trans. from	Appropriation Trans to	Receipts and Service Trans.	Total Credit.	Expenditures.	Balance to Excess and Deficiency.
Education.							
School contingent	\$36,000 00	.....	\$478 19	\$26 50	\$36,504 69	\$36,504 69	.....
School teachers' salaries	364,890 00	\$5,237 11	.....	.....	359,652 89	359,602 15	50 74
Janitors' salaries	31,600 00	122 27	.....	.....	33,352 73	33,326 34	26 39
Fuel and light	24,300 00	.....	2,858 92	.....	27,158 92	27,158 92	.....
Buildings and grounds	28,000 00	.....	213 49	191 65	28,405 14	28,401 14	4 00
Central library	25,000 00	.....	.....	7 00	25,007 00	24,999 97	7 03
Maintenance Central li- brary	3,900 00	.....	83 40	191 50	4,174 90	4,174 90	.....
West Somerville Branch library	6,700 00	.....	.....	.....	6,700 00	6,700 00	.....
Maintenance West Som- erville Branch library	1,500 00	42 25	300 00	.....	1,757 75	1,745 14	12 61
East Somerville Branch library	3,100 00	.....	.....	.....	3,100 00	3,099 28	72
Maintenance East Som- erville Branch library	675 00	.....	12 40	.....	687 40	687 40	.....
Union Square Branch library	3,200 00	.....	.....	.....	3,200 00	3,199 39	61
Maintenance Union Square Branch library	1,000 00	125 80	.....	.....	874 20	855 15	19 05
Totals	\$529,865 00				\$530,575 62	\$530,454 47	
Recreation and Unclassified.							
Parks maintenance	\$10,000 00	.....	.....	.....	\$10,000 00	\$9,798 86	\$201 14
Maintenance park build- ings	685 00	.....	\$21 51	.....	706 51	706 51	.....
Playgrounds maintenance	3,500 00	.....	.....	.....	3,500 00	3,424 41	75 59
Summer playgrounds	2,300 00	.....	.....	.....	2,300 00	2,300 00	.....
Maintenance bathhouse	2,330 00	\$568 26	.....	.....	1,761 74	1,743 30	18 44

Independence Day	500 00	500 00	500 00	500 00	500 00
Memorial Day	425 00	425 00	425 00	425 00	425 00
Reception to Companies K and M	1 02	685 00	685 98	683 98	1 02
Municipal documents	1,800 00	1,550 00	1,489 57	1,489 57	60 43
Contingent fund	10,000 00	4,300 00	2,440 59	2,440 59	1,859 41
Workmen's compensation	5,000 00	17,317 87	15,659 91	15,659 91	1,657 96
Pensions	18,000 00	2 87			
Damage to persons and personal property	5,000 00	5,000 00	4,252 18	4,252 18	747 82
Totals	\$59,540 00	\$48,046 12	\$43,424 31	\$43,424 31	

Interest and Maturing Debt.

Interest	\$95,880 00	\$1,729 73	\$90,167 42	\$90,167 42	\$2,842 31
Reduction of funded debt	206,595 22	904 78	207,500 00	207,500 00	
Totals	\$302,475 22	\$300,509 73	\$297,667 42	\$297,667 42	

Enterprises.

Water maintenance	\$44,000 00	\$12,708 91	\$65,758 91	\$65,685 01	\$73 90
Water works extension	23,000 00	852 10	17,102 10	17,087 84	14 26
Maintenance water build- ings	1,300 00	121 50	1,361 44	1,346 06	15 38
Interest on water bonds	840 00	840 00	840 00	840 00	
Reduction of funded debt, water	5,000 00	5,000 00	5,000 00	5,000 00	
Metropolitan water as- sessment	112,500 00	110,468 29	110,468 29	110,468 29	
Totals	\$186,640 00	\$200,530 74	\$200,427 20	\$200,427 20	

Totals	\$1,842,094 22	\$45,214 70	\$1,895,308 92	\$1,882,840 85	\$12,468 07
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STATEMENT OF APPROPRIATIONS 1916 (REVENUE).

	Balance from 1915.	Receipts.	Total Credit.	Expenditures.	Balance to 1917.
Other Accounts.					
Income of Trust Funds:—					
School:—					
S. Newton Cutler fund	\$489 50	\$219 44	\$708 94	\$392 55	\$316 39
Library:—					
S. Newton Cutler fund	75 88	43 86	119 74	.....	119 74
Martha R. Hunt art fund	103 50	149 14	252 64	103 35	149 29
Martha R. Hunt book fund	181 35	494 77	676 12	125 52	550 60
Martha R. Hunt art fund:—					
Principal for expenses	702 77	702 77	1,405 54	1,202 77	202 77
Isaac Pitman art fund	147 67	175 16	322 83	219 30	103 53
Isaac Pitman poetry fund	37 39	43 80	81 19	74 70	6 49
Frances A. Wilder, children's fund	11 92	6 04	17 96	.....	17 96
Temporary loans . . . . .	.....	.....	1,320,000 00	1,320,000 00	.....
Real estate liens . . . . .	.....	.....	70 92	70 92	.....
State taxes and assessments . . . . .	.....	.....	265,459 76	265,459 76	.....
County of Middlesex . . . . .	.....	.....	82,190 71	82,190 71	.....
Advance to poor department . . . . .	.....	.....	300 00	300 00	.....
Cash refunds:—					
Taxes . . . . .	.....	.....	475 93	475 93	.....
Special assessments . . . . .	.....	.....	207 61	207 61	.....
Water rates . . . . .	.....	.....	233 80	233 80	.....
	<u>\$1,749 98</u>	<u>\$1,834 98</u>	<u>\$1,672,523 69</u>	<u>\$1,671,056 92</u>	<u>\$1,466 77</u>

STATEMENT OF APPROPRIATIONS, 1916 (NON-REVENUE).

	Balance from 1915.	Appropriation.	Appropriation Trans. from	Appropriation Transfer to	Receipts and Service Trans.	Total Credit.	Expenditures.	Balance to 1917 Account.
General Government.								
Central Heating Plant	\$602 21	.....	.....	\$1,277 38	.....	\$1,879 59	\$1,879 59	.....
Protection of Persons and Property.								
Electrical department, underground construction	\$2,000 31	.....	.....	.....	.....	\$2,000 31	\$1,202 17	\$798 14
Fire department, additional apparatus	3,881 47	\$7,500 00	.....	.....	.....	11,381 47	11,379 76	1 71
New building, fire alarm signal system	37,992 12	.....	.....	.....	.....	37,992 12	31,242 90	6,749 22
Health and Sanitation.								
Sewers construction	\$8 12	\$20,000 00	.....	.....	\$348 03	\$20,356 15	\$12,667 80	\$7,688 35
Highways.								
Highways construction:—								
New streets	\$81 77	\$20,000 00	.....	\$200 00	\$6 30	\$20,288 07	\$17,930 12	\$2,357 95
Permanent pavement	2,692 42	93,000 00	.....	.....	864 60	96,557 02	77,411 00	19,146 02
Macadam pavement	1,107 37	32,000 00	\$200 00	.....	25 60	32,932 97	32,918 39	14 58
Sidewalks construction	500 54	27,000 00	.....	.....	.....	27,500 54	27,482 49	18 05
New highway building	293 95	.....	11 95	.....	.....	282 00	282 00	.....

CITY AUDITOR.

STATEMENT OF APPROPRIATIONS, 1916 (NON-REVENUE).

	Balance from 1915.	Appropriation.	Appropriation Trans. from	Appropriation Transfer to	Receipts and Service Trans.	Total Credit.	Expenditures.	Balance to 1917 Account.
Education.								
Bennett school addition	\$166 71	.....	.....	.....	.....	\$166 71	.....	\$166 71
S. Newton Cut- ler school	944 79	.....	.....	.....	.....	944 79	.....	944 79
S. Newton Cut- ler school addi- tion	501 34	.....	.....	.....	.....	501 34	\$6 00	495 34
New school build- ing, East Som- erville	39,564 54	.....	.....	.....	.....	39,564 54	34,206 38	5,358 16
City Home sprink- ler system . . . . .	.....	\$2,000 00	.....	\$604 70	.....	2,604 70	2,604 70	.....
High School sprink- ler system	664 00	.....	3 00	.....	.....	661 00	661 00	.....
Schoolhouses sprinkler system New school build- ing, Holland street . . . . .	.....	3,000 00	604 70	181 38	.....	2,576 68	1,948 45	628 23
Bell school, addi- tional land . . . . .	.....	94,500 00	.....	.....	.....	94,500 00	35,603 16	58,896 84
Bingham school- house, shower baths . . . . .	.....	3,500 00	.....	.....	.....	3,500 00	3,412 80	87 20
Boys' Industrial school addition Land, East Som- erville branch library	1,200 00 ..... .....	.....	178 38 ..... .....	.....	.....	1,021 62 10,000 00 4,579 92	1,021 62 202 50 4,579 92	..... 9,797 50

Recreation.

Field house, Somerville field	\$3,000 00	43 94	3,043 94	60 42	2,983 52
Park building, Lincoln park addition	2,000 00	.....	2,000 00	1,706 01	293 99
New bathhouse, Mystic river	5,500 00	.....	5,500 00	2,515 00	2,985 00
Playgrounds extension	\$31 99	\$31 99	.....	.....	.....

Unclassified.

Building public buildings	\$1,347 76	.....	\$1,347 76	\$532 99	\$814 77
Grade crossings expenses	2,318 09	\$1,357 30	960 79	.....	960 79

Total appropriations

Redemption tax liens	\$95,899 50	\$327,500 00	\$2,387 32	\$1,244 53	\$303,457 17	\$121,186 86
Totals	\$95,899 50	\$327,500 00	\$2,387 32	\$3,368 62	\$305,581 26	\$121,186 86

SERVICE TRANSFERS.

Treasury Department:—			
Recording Assessments			\$146 25
City Clerk's Department:—			
Election Expenses, City Clerk	\$500 00		
Election Expenses, Registrars of Voters	750 00		
Health Department	4 80		
			<hr/>
			1,254 80
Fire Department:—			
Refuse Disposal	25 00		
Sewers Maintenance	9 25		
Highway Maintenance	304 55		
City Messenger	19 00		
Engineering Department	139 69		
Buildings and Grounds	22 32		
Commissioner of Buildings	99 28		
Electrical Department	162 67		
Weights and Measures	84 12		
School Contingent	13 00		
			<hr/>
			878 88
Sealer of Weights and Measures:—			
Soldiers' Benefits, General Administration			12 03
Suppression of Moths:—			
Maintenance City Home	1 75		
Buildings and Grounds	12 75		
Police Buildings	50		
Highway Buildings	75		
Maintenance West Somerville Branch Library	5 25		
Maintenance Union Square Branch Library	3 50		
Parks Maintenance	209 00		
Water Maintenance	75		
Highway Maintenance	1 50		
Macadam Pavement	4 99		
			<hr/>
			240 74
Care of Trees:—			
Parks Maintenance	6 78		
Highway Maintenance	4 80		
			<hr/>
			11 58
Contagious Hospital:—			
Poor Department, Miscellaneous			130 72
Sewers Maintenance:—			
Sewers Construction	29 49		
Water Maintenance	42 57		
Maintenance Contagious Hospital	50		
Buildings and Grounds	25 80		
			<hr/>
			98 36
Highways Maintenance:—			
Care of Trees	632 74		
Suppression of Moths	201 59		
Street Cleaning	3,418 00		
Street Sprinkling	3,590 56		
Sidewalks Maintenance	1,575 64		
Refuse Disposal	2,913 05		
			<hr/>
Carried forward	\$12,331 58		\$2,773 36

Brought forward	\$12,331 58	\$2,773 36
Sanitary Department	790 65	
Police Department	274 00	
Buildings and Grounds	13 50	
Water Maintenance	38 64	
Maintenance Fire Buildings	4 08	
Sewers Maintenance	1 47	
Maintenance Highway Buildings	63 90	
Playgrounds Maintenance	10 00	
New Streets	1,180 94	
Macadam Pavement	3,398 02	
Sidewalks Construction	3,787 95	
Permanent Pavement	2,880 00	
Parks Maintenance	40 88	
	<hr/>	24,815 61
Highways, Street Sprinkling:—		
Highways Maintenance		48 00
Poor Department, Miscellaneous:—		
Soldiers' Relief		26 45
School Buildings and Grounds:—		
School Contingent	153 00	
Summer Playgrounds	30 00	
Highways Maintenance	2 16	
	<hr/>	185 16
Maintenance Central Library:—		
Buildings and Grounds		191 50
Water Maintenance:—		
Highway Maintenance	137 40	
Buildings and Grounds	98 45	
Engineering Department	4 95	
Street Sprinkling	183 82	
Parks Maintenance	28 85	
New School Building, East Somerville	93 42	
Highway Buildings	64 22	
Playgrounds Maintenance	81 56	
Maintenance City Home	99	
Suppression of Moths	33 30	
New Fire Alarm Building	93 63	
Sewers Construction	4 28	
Macadam Pavement	9 18	
Poor Department, City Home	52	
Maintenance Park Buildings	1 25	
Maintenance Bathhouse	43	
Water Works Extension	11,872 66	
	<hr/>	12,708 91
Water Works Extension:—		
Water Maintenance	93 63	
Sprinkler Systems	536 04	
New School Building, Holland Street	222 43	
	<hr/>	852 10
Maintenance Water Buildings:—		
Maintenance Highway Buildings		121 50
		<hr/>
		\$41,722 59

TEMPORARY LOANS, 1916.

Taken By	No.	Issued.	Due.	Rate.	Amount.	Paid.
Loring, Tolman & Tupper	380 @ 387	Feb. 7, 1916	April 3, 1916	.25	\$100,000 00	April 3, 1916
Estabrook & Company	388 @ 400	Feb. 25, 1916	Nov. 3, 1916	2.52	100,000 00	Nov. 3, 1916
R. L. Day & Company	401 @ 415	March 7, 1916	Nov. 3, 1916	+25	200,000 00	Nov. 3, 1916
Estabrook & Company	416 @ 417	March 7, 1916	Nov. 3, 1916	+25	50,000 00	Nov. 3, 1916
Estabrook & Company	418 @ 430	March 14, 1916	Nov. 8, 1916	+1.25	200,000 00	Nov. 8, 1916
Old Colony Trust Company	431 @ 436	March 30, 1916	Nov. 11, 1916	2.75	100,000 00	Nov. 11, 1916
Old Colony Trust Company	437 @ 439	March 30, 1916	Nov. 17, 1916	2.75	50,000 00	Nov. 17, 1916
Estabrook & Company	440	March 30, 1916	Nov. 17, 1916	2.50	20,000 00	Nov. 17, 1916
Estabrook & Company	441 @ 449	May 26, 1916	April 3, 1917	3.20	100,000 00	Outstanding
Charlestown Five Cents Savings Bank	450 @ 459	June 26, 1916	June 26, 1917	3.65	100,000 00	Outstanding
Old Colony Trust Company	460 @ 461	July 13, 1916	April 4, 1917	3.85	25,000 00	Outstanding
Bond & Goodwin	462	July 13, 1916	May 10, 1917	3.74	25,000 00	Outstanding
Curtis & Sanger	463 @ 467	August 14, 1916	August 14, 1917	3.75	50,000 00	Outstanding
Curtis & Sanger	468 @ 472	August 14, 1916	April 3, 1917	3.55	50,000 00	Outstanding
F. S. Moseley & Co.	473 @ 477	Dec. 20, 1916	April 3, 1917	3.56	50,000 00	Outstanding
Amount outstanding December 31, 1916				+1.25	<u>50,000 00</u>	
					\$1,220,000 00	
					\$400,000 00	

COMMONWEALTH OF MASSACHUSETTS.

Charges.

State Tax	\$127,360 00
State Highway Tax	790 00
Non-Resident Bank Tax	2,190 74
Metropolitan Sewer Assessment	67,511 00
Metropolitan Park Assessment	40,259 07
Wellington Bridge Assessment	3,087 49
Grade Crossing Assessment	13,861 56
Charles River Basin Assessment	6,616 78
Alewife Brook Assessment	1,255 23
Abatement Smoke Nuisance	294 67
Fire Prevention Assessment	1,363 54
Auditing Municipal Accounts	823 40
Soldiers' Exemption	46 28
	<hr/>
	\$265,459 76

Credits.

State Aid	\$14,108 00
Military Aid	155 00
Soldiers' Burials	464 00
State Aid Special	2,231 36
	<hr/>
	\$16,958 36

STATEMENT OF REVENUE AND EXPENSES.

Revenue.

Total amount as per assessors' commitments	\$1,749,457 38
Less State Taxes	\$130,340 74
County Taxes	82,190 71
Overlay	18,270 37
	<hr/>
	230,801 82
Amount raised for municipal purposes	\$1,518,655 56
Other Revenue:—	
Sale of land Weston avenue	\$322 00
Estimated Revenue Receipts	475,011 40
Excess of Estimated Revenue	56,292 93
Excess of Appropriations over requirements	12,468 07
Transfer from Excess and Deficiency	20,000 00
	<hr/>
	564,094 40
Total	\$2,082,749 96

Expenses.

Revenue Appropriations:—	
Budget	\$1,868,594 22
Supplementary	15,000 00
	<hr/>
	\$1,883,594 22
Metropolitan and Other Assessments	135,119 02
	<hr/>
	\$2,018,713 24
Excess of Revenue	\$64,036 72

REVENUE FROM TAXES, SUPPLEMENTARY WARRANTS.

Credits:—

Balance from 1915	\$5,009 61	
Supplementary Warrant No. 1, 1916	240 00	
Supplementary Warrant No. 2, 1916	3,025 96	
		\$8,275 57

Charges:—

Abatements	\$957 27	
Transfer to Excess and Deficiency	4,052 34	
		5,009 61

Balance December 31, 1916		\$3,265 96
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FUNDED DEBT.

The total funded debt of the city January 1, 1916, was \$1,650,500. This debt was increased during the year \$291,000. Maturities paid amounted to \$212,500, making the funded debt January 1, 1917, \$1,729,000, an increase of \$78,500.

The debt January 1, 1916, was classified as follows:—

City Loan	\$845,500 00	
Municipal Loan	67,000 00	
Sewer Loan	292,000 00	
Public Building Loan	140,000 00	
Highway Loan	207,000 00	
Lowell Street Bridge Loan	34,000 00	
		\$1,585,500 00
Total inside limit		
Sewer Loan	\$30,000 00	
Metropolitan Park Assessment Loan	14,000 00	
Water Loan	21,000 00	
		\$65,000 00
Total outside limit		
Total Funded Debt		\$1,650,500 00

Appropriations increasing the debt were made as follows:—

Sewers Construction	\$18,000 00
Highways Construction, New Streets	11,000 00
Highways Construction, Permanent Pavement	93,000 00
Highways Construction, Macadam Pavement	32,000 00
Sidewalks Construction	14,000 00
New School Building, Holland Street	94,500 00
Bell School, Additional Land	3,500 00
Boys' Industrial School Addition	10,000 00
Land East Somerville Branch Library	4,500 00
Field House, Somerville Field	3,000 00
Park Building, Lincoln Park Addition	2,000 00
New Bathhouse, Mystic River	5,500 00
	\$291,000 00

The debt was reduced by maturities as follows:—

City Loan	\$131,500 00	
Municipal Loan	10,000 00	
Sewer Loan	17,000 00	
Highway Loan	36,000 00	
Public Building Loan	8,000 00	
Bridge Loan	1,000 00	
	<hr/>	
Total inside limit		\$203,500 00
Sewer Loan	\$3,000 00	
Metropolitan Park Assessment Loan	1,000 00	
Water Loan	5,000 00	
	<hr/>	
Total outside limit		9,000 00
		<hr/>
Total reduction		\$212,500 00

The funded debt of the city January 1, 1917, is classified as follows:—

City Bonds, 3½ per cent.	\$119,000 00	
City Bonds, 4 per cent.	523,000 00	
City Bonds, 4¼ per cent.	72,000 00	
Municipal Bonds, 4½ per cent.	57,000 00	
Sewer Bonds, 3½ per cent.	86,000 00	
Sewer Bonds, 4 per cent.	180,000 00	
Sewer Bonds, 4¼ per cent.	27,000 00	
Public Building Bonds, 4 per cent.	255,000 00	
Highway Bonds, 4 per cent.	196,000 00	
Highway Bonds, 3½ per cent.	125,000 00	
Bridge Bonds, 3½ per cent.	33,000 00	
	<hr/>	
Total within limit		\$1,673,000 00
Sewer Bonds, 4 per cent.	\$27,000 00	
Metropolitan Park Assessment Bonds, 3½ per cent.	13,000 00	
Water Bonds, 4 per cent.	16,000 00	
	<hr/>	
Total outside limit		\$56,000 00
		<hr/>
Total funded debt		\$1,729,000 00

FUNDED DEBT, DECEMBER 31, 1916.

Mature.	Lowell						Total Maturities by years.	
	City Loan.	Municipal Loan.	Sewer Loan.	Public Building Loan.	Highway Loan.	Street Bridge Loan.		
1917.....	\$118,500	\$10,000	\$19,000	\$19,000	\$56,000	\$1,000	\$232,500	
1918.....	105,500	8,000	19,000	19,000	54,000	1,000	215,500	
1919.....	92,500	8,000	19,000	19,000	53,000	1,000	200,500	
1920.....	79,500	8,000	19,000	19,000	40,000	1,000	172,500	
1921.....	68,500	8,000	19,000	19,000	31,000	1,000	150,500	
1922.....	52,500	8,000	19,000	14,000	22,000	1,000	120,500	
1923.....	41,500	7,000	18,000	13,000	22,000	1,000	106,500	
1924.....	25,500	.....	17,000	13,000	23,000	1,000	82,500
1925.....	23,000	.....	15,000	13,000	8,000	1,000	71,000
1926.....	19,000	.....	14,000	12,000	.....	1,000	57,000
1927.....	17,000	.....	12,000	12,000	.....	1,000	47,000
1928.....	16,000	.....	11,000	12,000	.....	1,000	43,000
1929.....	15,000	.....	10,000	12,000	.....	1,000	41,000
1930.....	12,000	.....	10,000	11,000	.....	.....	38,000
1931.....	9,000	.....	8,000	11,000	.....	.....	34,000
1932.....	.....	.....	8,000	10,000	.....	.....	29,000
1933.....	.....	.....	8,000	10,000	.....	.....	19,000
1934.....	.....	.....	7,000	4,000	.....	.....	19,000
1935.....	.....	.....	6,000	.....	.....	.....	12,000
1936.....	.....	.....	6,000	.....	.....	.....	7,000
1937.....	.....	.....	4,000	.....	.....	.....	7,000
1938.....	.....	.....	3,000	.....	.....	.....	5,000
1939.....	.....	.....	2,000	.....	.....	.....	4,000
1940.....	.....	.....	1,000	.....	.....	.....	3,000
1941.....	.....	.....	1,000	.....	.....	.....	2,000
1942.....	.....	.....	1,000	.....	.....	.....	2,000
1943.....	.....	.....	.....	.....	.....	.....	1,000
1944.....	.....	.....	.....	.....	.....	.....	1,000
1945.....	.....	.....	.....	.....	.....	.....	1,000
1946.....	.....	.....	.....	.....	.....	.....	1,000
1947.....	.....	.....	.....	.....	.....	.....	1,000
1948.....	.....	.....	.....	.....	.....	.....	1,000
1949.....	.....	.....	.....	.....	.....	.....	1,000
	\$714,000	\$57,000	\$293,000	\$255,000	\$321,000	\$33,000	\$16,000	\$1,729,000

Metropolitan Sewer Loan Park Assessment Loan Chap. 37 1895. Chap. 325, 1902

MATURITIES ON FUNDED DEBT, 1917.

Class of Loan.	Jan. 1, 1917.	April 1, 1917.	July 1, 1917.	Oct. 1, 1917.	Total.
City	\$10,000 00	\$67,000 00	\$39,500 00	\$2,000 00	\$118,500 00
Municipal	3,000 00	9,000 00	10,000 00	.....	10,000 00
Sewer	6,000 00	5,000 00	10,000 00	.....	22,000 00
Public Buildings	19,000 00	34,000 00	8,000 00	.....	19,000 00
Highway . . . . .	.....	1,000 00	3,000 00	.....	56,000 00
Bridge . . . . .	.....	.....	.....	.....	1,000 00
Metropolitan Park . . . . .	.....	.....	1,000 00	.....	1,000 00
Water . . . . .	.....	.....	1,000 00	4,000 00	5,000 00
Totals	\$38,000 00	\$116,000 00	\$72,500 00	\$6,000 00	\$232,500 00

INTEREST REQUIREMENTS ON FUNDED DEBT, 1917.

Class of Loan.	Jan. 1, 1917.	April 1, 1917.	July 1, 1917.	Oct. 1, 1917.	Total.
City	\$6,470 50	\$7,655 00	\$6,207 50	\$6,336 25	\$26,606 25
Municipal	1,282 50	.....	1,282 50	.....	2,565 00
Sewer	2,490 00	3,728 75	2,435 00	3,552 50	12,206 25
Public Buildings	3,340 00	1,760 00	3,220 00	1,660 00	9,980 00
Highway	2,687 50	3,420 00	2,355 00	2,740 00	11,202 50
Bridge . . . . .	.....	577 50	.....	560 00	1,137 50
Metropolitan Park	227 50	.....	227 50	.....	455 00
Water	40 00	280 00	40 00	280 00	640 00
Totals	\$16,475 00	\$17,421 25	\$15,767 50	\$15,128 75	\$64,792 50

MATURITIES ON FUNDED DEBT (3 YEARS).

Class of Loan.	1915.			1916.			1917.		
City	\$150,500 00	.	.	\$131,500 00	.	.	\$118,500 00
Municipal	10,000 00	.	.	10,000 00	.	.	10,000 00
Sewer	20,000 00	.	.	20,000 00	.	.	22,000 00
Highway	18,000 00	.	.	36,000 00	.	.	56,000 00
Public Buildings	8,000 00	.	.	19,000 00
Bridge	1,000 00	.	.	1,000 00	.	.	1,000 00
Metropolitan Park	1,000 00	.	.	1,000 00	.	.	1,000 00
Water	5,000 00	.	.	5,000 00	.	.	5,000 00
Totals	\$205,500 00	.	.	\$212,500 00	.	.	\$232,500 00

INTEREST REQUIREMENTS ON FUNDED DEBT (3 YEARS).

Class of Loan.	1915.			1916.			1917.		
City	\$37,558 75	.	.	\$31,768 75	.	.	\$26,606 25
Municipal	3,465 00	.	.	3,015 00	.	.	2,565 00
Sewer	13,176 25	.	.	12,708 75	.	.	12,206 25
Public Buildings	2,040 00	.	.	7,240 00	.	.	9,980 00
Highway	6,640 00	.	.	9,747 50	.	.	11,202 50
Bridge	1,207 50	.	.	1,172 50	.	.	1,137 50
Metropolitan Park	525 00	.	.	490 00	.	.	455 00
Water	1,040 00	.	.	840 00	.	.	640 00
Totals	\$65,652 50	.	.	\$66,982 50	.	.	*\$64,792 50

*Actual on present debt. Estimate for 1917 loans not included.

BORROWING CAPACITY DECEMBER 31, 1916.

Valuation, 1914	\$74,946,894 00	
Supplementary	179,300 00	
	<hr/>	\$75,126,194 00
Valuation, 1915	77,217,399 00	
Supplementary	227,000 00	
	<hr/>	77,444,399 00
Valuation, 1916	79,304,329 00	
Supplementary	141,400 00	
	<hr/>	79,445,729 00
		<hr/>
		\$232,016,322 00
Abatements, 1914	\$521,700 00	
Abatements, 1915	526,907 00	
Abatements, 1916	437,827 00	
	<hr/>	\$1,486,434 00
		<hr/>
		\$230,529,888 00
Average valuation for three years	\$76,843,296 00	
Two and one-half per cent.	1,921,082 40	
Present debt within the limit	1,673,000 00	
		<hr/>
Borrowing capacity December 31, 1916		\$248,082 40
Maturities:—		
January 1, 1917	\$38,000 00	
April 1, 1917	116,000 00	
July 1, 1917	\$72,500 00	
Less outside limit	5,000 00	
	<hr/>	67,500 00
October 1, 1917	6,000 00	
Less outside limit	4,000 00	
	<hr/>	2,000 00
		<hr/>
Maturities in 1917 within limit		\$223,500 00
		<hr/>
		\$471,582 40
Total maturities on Funded Debt in 1917		\$232,500 00

OVERLAY ACCOUNTS.

OVERLAY, 1912.

Credits.

Balance January 1, 1916	\$56 39
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Charges.

Transfer to Excess and Deficiency	\$56 39
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OVERLAY, 1913.

Credits.

Balance January 1, 1916	\$6,081 66
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Charges.

Abatements	\$118 02	
Transferred to Reserve, Surplus from Overlay	5,285 58	
*Transfer to Excess and Deficiency	678 06	
	\$6,081 66	

OVERLAY, 1914.

Credits.

Balance January 1, 1916	\$5,524 65	
Tax paid after abatement	2 26	
	\$5,526 91	

Charges.

Abatements	\$1,499 03	
Transferred to Reserve, Surplus from Overlay	938 87	
*Transfer to Excess and Deficiency	3,089 01	
	\$5,526 91	

OVERLAY, 1915.

Credits.

Balance January 1, 1916	\$10,168 05
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Charges.

Abatements	5,845 13	
Balance December 31, 1916	\$4,322 92	

OVERLAY, 1916.

Credits.

Taxes, 1916	\$18,270 37
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Charges.

Abatements	9,995 50	
Balance December 31, 1916	\$8,274 87	

*Collections on supplementary tax warrants.

RESERVE FUND, SURPLUS FROM OVERLAY.

Credits.

From Overlay, 1913	\$5,285 58	
From Overlay, 1914	938 87	
		<u>\$6,224 45</u>

Charges.

Appropriated for Special State Aid		\$3,000 00
		<u>\$3,224 45</u>

EXCESS AND DEFICIENCY.

Credits.

Balance January 1, 1916		\$28,140 02
Overlay, 1912	\$56 39	
Overlay, 1913 (Supplementary Taxes)	678 06	
Overlay, 1914 (Supplementary Taxes)	3,089 01	
Revenue from Taxes, Supplementary Warrants, 1915	4,052 34	
Balance Appropriations	12,468 07	
Excess Revenue, 1916	51,568 65	
		<u>71,912 52</u>
		<u>\$100,052 54</u>

Charges.

Transfer to reduce Tax Levy	\$20,000 00	
Abatements Special Assessments, 1915	16 55	
Abatements 1915 Water Charges	29 22	
		<u>\$20,045 77</u>
		<u>\$80,006 77</u>

CLASSIFICATION OF RECEIPTS AND EXPENDITURES.

RECEIPTS.

General Revenue.

Taxes:—	
Taxes, 1916	\$1,399,262 69
Taxes, 1915	314,309 40
Taxes, 1914	866 37
Taxes, previous years	117 62
From State:—	
Corporation	47,822 64
National Bank	4,127 73
Street Railway	26,944 89

Licenses and Permits.

Licenses:—	
Amusement	786 00
Junk	505 00
Milk	295 50
Pool, billiard and bowling alleys	338 00
Sunday	305 00
Innholders and victuallers	86 00
Pedlers, Health Department	337 00
All Other	371 00
Permits:—	
Marriage	1,044 00
Signs, etc.	18 00
Garages	346 00
All Other	29 00

Fines and Forfeits.

Court fines	2,602 19
Departmental penalties	245 00

Grants and Gifts.

From State, Vocational Schools	5,894 15
From County, dog licenses	2,831 40

Total General Revenue \$1,809,484 58

Commercial Revenue—Special Assessments.

For Expenses:—	
Street Sprinkling, 1916	\$27,642 45
Street Sprinkling, 1915	8,198 00
Moth Assessments, 1916	1,492 50
Moth Assessments, 1915	838 75
For Outlays:—	
Sewers, 1914 and 1915	1,450 40
Sidewalks, 1914 and 1915	13,923 89
Sidewalks, 1916	4,871 81
Street Betterments, 1914 and 1915	15,323 51
Street Betterments, 1916	3,400 50
Privileges:—	
Street Railway Excise	11,674 24

Total Commercial Revenue—Special Assessments . \$88,816 05

Carried forward \$1,898,300 63

Brought forward		\$1,898,300 63
Commercial Revenue—Departmental.		
General Government:—		
Treasurer	\$6,942 59	
Assessors	13 00	
City Clerk	1,114 00	
Engineering	35 00	
Protection of Persons and Property:—		
Police Department:—		
Cloth	437 31	
Rent of Court Room	1,000 00	
Fire Department	187 78	
Sealer of Weights and Measures	547 71	
Health and Sanitation:—		
Contagious Hospital	12,962 08	
Health Department, general	277 86	
Inspection	350 00	
Sewers Maintenance	22 47	
Sewers Construction:—		
Revenue	490 67	
Outlay	150 00	
Sanitary Department:—		
Garbage	10,099 65	
Incinerator	405 00	
Highways:—		
Labor and Materials	3,803 14	
Construction:—		
Pavement	692 50	
Sidewalks	328 45	
Sprinkling	60 00	
Rent of tenements	240 00	
Charities:—		
Almshouse:—		
Sale of produce, etc.	4,068 84	
Board	1,422 90	
Outside Relief:—		
Individuals	47 19	
Cities and towns	7,466 67	
State	3,729 59	
Mothers' Aid:—		
State	6,252 38	
Cities and towns	4,615 04	
Soldiers' Benefits:—		
State Aid	14,638 50	
Military Aid	152 00	
Soldiers' Burials	550 00	
Soldiers' Relief	24 00	
Schools:—		
Tuition state wards	733 56	
Other tuition	3,370 87	
Rent High School Hall	1,876 50	
Miscellaneous	9 10	
Libraries:—		
Fines, etc.	1,422 61	
Recreation:—		
Parks	100 00	
Playgrounds	25 00	
Bathhouse	482 15	
Shower baths	179 05	
Carried forward	\$91,325 16	\$1,898,300 63

Brought forward	\$91,325 16	\$1,898,300 63
Unclassified:—		
Electrolysis	500 00	
State, in lieu of taxes	64 86	
Sale of land	322 00	

Total Commercial Revenue—Departmental \$92,212 02

Commercial Revenue—Public Service Enterprises.

Water Department:—

Sale of Water:—

Metered, 1916	\$161,718 35	
Metered, 1915	20,468 37	
Annual, 1916	52,886 12	
Additional	1,830 49	
Service Assessments	3,837 53	
Maintenance bills	2,875 37	

Total Commercial Revenue—Public Service Enterprises \$243,616 23

Commercial Revenue—Interest.

Deposits	\$11,178 77	
Taxes	10,763 23	
Special assessments	462 35	
Trust funds	1,132 21	

Total Commercial Revenue—Interest \$23,536 56

Municipal Indebtedness.

Temporary Loans:—

 Anticipation of revenue \$1,220,000 00

General Loans:—

Sewer	18,000 00	
Highway	150,000 00	
Public Building	123,000 00	
Premiums on loans	2,698 43	

Total Municipal Indebtedness \$1,513,698 43

Agency, Trust and Investment.

Agency:—

Redemption of tax titles	\$2,124 09	
Hunt fund principal	702 77	

Total Agency, Trust and Investment \$2,826 86

Refunds.

Soldiers' benefits	\$68 00	
Revenue appropriations	2,236 00	
All other (accrued interest)	169 45	
Outlay appropriations	58 17	

Total Refunds \$2,531 62

Total Receipts \$3,776,722 35

EXPENDITURES.

GENERAL GOVERNMENT.

	Expenses.	Outlays.
Board of Aldermen Expenses.		
Books, stationery and postage	\$90 86	
Printing and advertising	189 90	
Auto hire, carfares, etc.	76 00	
Refreshments	538 35	
Badges	114 75	
All other	6 39	
	\$1,016 25	
Clerk of Committees Department.		
Salaries and Wages:—		
Clerk	\$1,400 00	
Assistant	300 00	
Other Expenses:—		
Books, stationery and postage	66 74	
Printing and advertising	12 00	
Telephone	91 74	
	1,870 48	
Executive Department.		
Salaries:—		
Mayor	\$2,500 00	
Secretary	1,600 00	
Other Expenses:—		
Books, stationery and postage	117 72	
Printing and advertising	90 90	
Auto hire, carfares, etc.	21 00	
Refreshments	51 19	
Telephone	88 66	
Inaugural expenses	68 10	
All other	159 76	
	4,697 33	
Auditing Department.		
Salaries:—		
Auditor	\$2,200 00	
Clerks	1,431 00	
Temporary clerk	16 00	
Other Expenses:—		
Books, stationery and postage	123 78	
Printing and advertising	467 51	
Telephone	45 86	
All other	5 06	
	4,289 21	
Treasury Department.		
Salaries and Wages:—		
Treasurer and collector	\$3,000 00	
Deputy collector	1,500 00	
Cashier	1,000 00	
Clerks	4,626 76	
Other Expenses:—		
Books, stationery and postage	2,343 44	
Printing and advertising	1,276 75	
Carfares, teams, etc.	70 20	
Telephone	158 12	
	\$13,975 27	
Carried forward	\$13,975 27	\$11,873 27

Brought forward	\$13,975 27	\$11,873 27
Bonds	265 00	
Attending convention	43 65	
All other	148 58	
	<hr/>	14,432 50
Assessors' Department.		
Salaries:—		
Chairman	\$2,000 00	
Assessors (four)	3,200 00	
Assistant assessors	1,500 00	
Clerks (office)	4,332 57	
Clerks (street)	318 00	
Other Expenses:—		
Books, stationery and postage	347 79	
Printing and advertising	912 83	
Carfares, auto hire	36 60	
Telephone	37 42	
All other	79 11	
	<hr/>	12,764 32
Certification of Notes and Bonds.		
Certifying	\$725 00	
	<hr/>	725 00
Recording Assessments.		
Recording sidewalk assess- ments	\$146 25	
	<hr/>	146 25
City Clerk's Department.		
Salaries and Wages:—		
City clerk	\$3,000 00	
Assistant city clerk	1,273 14	
Clerks	1,850 26	
Other Expenses:—		
Books, stationery and postage	320 40	
Printing and advertising	45 21	
Telephone	144 91	
Revenue stamps	20 00	
Typewriter	145 00	
All other	39 53	
	<hr/>	6,840 45
Registration of City Laborers.		
Salaries:—		
Registration clerk	\$300 00	
Other Expenses:—		
Stationery and postage	14 70	
	<hr/>	314 70
Law Department.		
Salaries:—		
City solicitor	\$2,100 00	
Claim agent	100 00	
Other Expenses:—		
Stationery and postage	5 50	
Printing and advertising	30 80	
Witness fees	40 00	
Recording deeds	11 36	
Clerical hire	104 00	
All other	50 59	
	<hr/>	2,442 25
Carried forward		\$49,538 74

Brought forward \$49,538 74

City Messenger's Department.

Salaries:—

Messenger \$1,500 00

Other Expenses:—

Books, stationery and postage 16 10

Auto and supplies 1,509 46

Telephone 22 30

Carfares 16 50

3,064 36

Engineering Department.

Salaries and Wages:—

City engineer \$3,000 00

Assistants 6,648 29

Clerk 683 93

Temporary clerk 31 00

Other Expenses:—

Books, printing, stationery
and postage 193 83

Telephone 103 98

Auto and maintenance 1,207 76

Instruments and equipment 107 21

Carfares 193 90

Attending convention 70 50

All other 87 75

12,328 15

**Public Buildings Department, Commissioner
of Public Buildings.**

Salaries and Wages:—

Commissioner \$2,152 26

Inspector of plumbing 1,200 00

Clerks 842 92

Other Expenses:—

Books, stationery and postage 151 82

Printing and advertising 76 35

Telephone 135 31

Auto supplies 218 44

Typewriter 88 75

All other 22 50

4,918 35

**Maintenance Municipal Buildings (City Hall
and City Hall Annex).**

Salaries and Wages:—

Janitors \$3,003 31

Labor 353 09

Other Expenses:—

Fuel and light 3,082 87

Janitors' supplies 204 45

Furniture and furnishings 1,121 03

Repairs:—

Building 1,004 28

Heating apparatus 9 71

All other 144 17

8,922 91

City Planning Board.

Stationery and postage \$7 40

Attending convention 10 00

17 40

Central Heating Plant.

Final payment on contract \$1,879 59

\$1,879 59

Carried forward

\$78,789 91

\$1,879 59

Brought forward	\$78,789 91	\$1,879 59
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Election Expenses, City Clerk.

Salaries and Wages:—

Clerks	\$500 00
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Other Expenses:—

Books, stationery and postage	247 44
Printing and advertising	789 55
Auto hire, carfares, etc.	281 00
Refreshments	46 10
Repair of ballot boxes	56 15
All other	72 60

 1,992 84
Election Expenses, Registrars of Voters.

Registrars	\$815 00
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Salaries and Wages:—

Clerks	219 00
City clerk's assistants	750 00

Other Expenses:—

Books, stationery and postage	88 23
Printing and advertising	594 00
Refreshments	15 09
Auto hire	36 00

 2,517 32
Election Expenses, Pay of Election Officers.

Salaries and Wages:—

Warden and clerks	\$1,125 00
Inspectors	2,697 00

 3,822 00
Public Buildings Department, Polling Places.

Labor	\$103 85
Teams	159 00
Rent	232 50
Lumber	1 38
Hardware	80
Fuel and light	22 73
All other	35 25

 555 51
PROTECTION OF PERSONS AND PROPERTY.**Police Department.**

Salaries and Wages:—

Chief	\$2,253 27
Captain and lieutenants	9,310 45
Sergeants and inspectors	5,252 24
Patrolmen	86,045 98
Special police	157 80
Matron and assistant matron	783 92
Other employees	3,204 25

Horses and Care of Same:—

Hay, grain and straw	159 46
Shoeing	108 00
All other	233 45

Equipment and Repairs:—

Automobile and motor cycles	623 29
Equipment for men	658 10
All other	7 39

Carried forward	\$108,797 60	\$87,677 58	\$1,879 59
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Brought forward	\$108,797 60	\$87,677 58	\$1,879 59
Other Expenses:—			
Books, printing, stationery and postage	310 65		
Care and transportation of prisoners	160 81		
Telephone	258 77		
Laundry	22 84		
Attending convention	45 00		
All other	369 64		
		109,965 31	

**Public Buildings Department, Maintenance
Police Buildings.**

Salaries and Wages:—			
Janitors	\$1,353 03		
Labor	128 50		
Fuel and light	1,065 74		
Janitors' supplies	113 59		
Furniture and furnishings	45 55		
Repairs:—			
Buildings	208 93		
Heating apparatus	7 30		
Resurfacing yard	553 87		
All other	31 93		
		3,508 44	

Fire Department.

Salaries and Wages:—			
Chief engineer	\$2,402 18		
Assistant engineers	3,205 45		
Firemen	88,438 64		
Callmen	4,031 98		
Temporary and emergency men	2,514 75		
Horses and Care of Same:—			
Harnesses and horse clothing	55 03		
Hay, grain and straw	3,195 08		
Shoeing	787 60		
Medicine and veterinary	112 05		
All other	2 11		
Equipment and Repairs:—			
Apparatus	1,734 86		
Hose	419 79		
Equipment for men	55 19		
Power	4 30		
Hardware, tools, etc.	295 59		
All other	20 83		
Other Expenses:—			
Books, printing, stationery and postage	131 58		
Telephone	55 37		
Attending convention	42 60		
Janitors' supplies	231 12		
Furnishings	53 54		
Laundry work	258 38		
All other	335 27		
Supplies:—			
Grease, oil	182 03		
Gasoline	614 00		

Carried forward	\$109,179 32	\$201,151 33	\$1,879 59
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Brought forward	\$109,179 32	\$201,151 33	\$1,879 59
Soda and acid	192 28		
Fuel	28 00		
All other	139 10		
	<hr/>		
	\$109,538 70		
Less service transfer for horse sold to the highway de- partment	200 00		
	<hr/>	109,338 70	

**Public Buildings Department, Maintenance
Fire Buildings.**

Labor	\$750 56		
Fuel and light	4,417 41		
Janitors' supplies	33 75		
Furniture and furnishings	322 94		
Repairs:—			
Buildings	1,450 33		
Heating apparatus	707 22		
Flag pole	185 00		
All other	68 15		
	<hr/>	7,935 36	

Fire Department, Additional Apparatus.

Labor and materials	\$63 58		
Chassis	3,600 00		
Pumping engine	7,500 00		
Fittings	13 10		
Painting, striping and lettering	110 00		
All other	93 08		
	<hr/>		11,379 76

New Building, Fire Alarm Signal System.

Contract for construction	\$16,433 00		
Blueprints and specifications	17 69		
Water service	93 63		
Plumbing	696 72		
Heating apparatus	1,231 00		
Fire alarm equipment	12,000 00		
Electrical supplies and fixtures	382 85		
Furniture and furnishings	335 75		
All other	52 26		
	<hr/>		31,242 90

Militia.

Rifle range	\$462 22		
	<hr/>	462 22	

Weights and Measures Department.

Salaries and Wages:—

Scaler	\$1,100 00		
Deputy scaler	1,000 00		

Other Expenses:—

Books, stationery and postage	28 61		
Printing and advertising	42 33		
Carfares	25		
Equipment	21 77		
Telephone	12 03		
Auto maintenance	439 16		
Attending convention	40 50		
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Carried forward	\$2,684 65	\$318,887 61	\$44,502 25
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Brought forward	\$2,684 65	\$318,887 61	\$44,502 25
All other	15 10		
	<hr/>	2,699 75	

Electrical Department.

Salaries and Wages:—

Commissioner	\$1,600 00
Clerk	40 00
Labor	4,949 75

Other Expenses:—

Fire alarm signal system	1,362 05
Police alarm system	5 80
Automobile and maintenance	883 36
Telephone	77 03
Printing, advertising, stationery and postage	65 04
All other	45 41

9,028 44

Electrical Department, Underground Wires.

Labor	\$919 75
Cables and wire	241 69
All other	40 73

1,202 17

**Public Buildings Department, Maintenance
Electrical Department Building.**

Fuel	\$122 40
Janitors' supplies	7 13
Furniture and furnishings	58 77
All other	24 90

213 20

Suppression of Moths.

Labor	\$3,433 51
Printing, stationery and postage	70 59
Hired teams	199 79
Hardware, tools and equipment	63 12
Insecticides	222 29
All other	30 80

4,020 10

Care of Trees.

Labor	\$2,402 91
Hired teams	590 77
Hardware, tools and equipment	93 22
Lumber	31 11
All other	27 51

3,145 52

HEALTH AND SANITATION.**Health Department.**

General Administration:—

Salaries and Wages:—

Agent	\$1,438 52
Clerks	1,362 66
Medical inspector	2,000 00
Acting medical inspector	287 09
Chauffeur	366 00

Carried forward	\$5,454 27	\$337,994 62	\$45,704 42
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Brought forward	\$5,454 27	\$337,994 62	\$45,704 42
Books, printing, stationery and postage	253 82		
Telephone	193 35		
All other	59 05		
Quarantine and Contagious Diseases:—			
Board and Treatment:—			
Cities and towns	1,286 06		
Tuberculosis:—			
Board and Treatment:—			
Cities and towns	816 35		
State	2,245 20		
Groceries and provisions	312 00		
Other Expenses:—			
Laboratory supplies	104 55		
Delivering cultures	12 90		
Vaccination	2 45		
Burying dead animals	76 25		
Auto ambulance maintenance	884 36		
Attending convention	94 10		
All other	2 50		
		11,797 21	

City Clerk's Department, Vital Statistics.

Canvassing and reporting births	\$727 80		
Reporting deaths	177 25		
Printing and advertising	47 55		
Books and supplies	109 35		
All other	65		
		1,062 60	

Contagious Hospital.

Salaries and Wages:—			
Matron	\$1,000 00		
Nurses and other help	7,700 13		
Physicians' services	150 00		
Other Expenses:—			
Drugs, medicines, instruments, etc.	305 22		
Dry goods and clothing	83 70		
Groceries and provisions	6,827 71		
Mattresses, etc.	136 18		
Other general supplies and utensils	1,204 51		
Telephone	79 53		
All other	206 92		
		17,693 90	

Public Buildings Department, Maintenance Contagious Hospital.

Salaries and Wages:—			
Janitor and labor	\$395 95		
Other Expenses:—			
Fuel	1,561 69		
Light	610 84		
Janitors' supplies	13 65		
Furniture and furnishings	207 81		
Repairs:—			
Buildings	741 73		
Heating apparatus	29 48		
Carried forward	\$3,561 15	\$368,548 33	\$45,704 42

Brought forward	\$3,561 15	\$368,548 33	\$45,704 42
All other	61 12		
	<hr/>	3,622 27	

Inspection of Animals and Provisions.

Salary of inspector	\$1,300 00		
Other Expenses:—			
Telephone	26 38		
	<hr/>	1,326 38	

Inspection of Milk and Vinegar.

Salaries:—			
Inspector	\$1,700 00		
Milk collector	522 86		
Other Expenses:—			
Printing, stationery and post- age	90 33		
Maintenance of auto	475 86		
Equipment and supplies	255 97		
Telephone	29 91		
All other	45 91		
	<hr/>	3,120 84	

Inspection of School Children.

Salaries:—			
Inspectors	\$1,600 00		
School nurse	780 00		
Other Expenses:—			
Printing, stationery and post- age	20 10		
All other	32 55		
	<hr/>	2,432 65	

Sewers Construction.

Salaries and Wages:—			
Inspector	\$235 31		
Labor	1,629 03		
Other Expenses:—			
Contracts for sewers	4,508 60		
Contracts for storm drains	1,870 50		
Hired teams	627 47		
Pipe and fittings	2,191 95		
Gravel, sand, brick and cement	640 50		
Castings	708 82		
All other	115 76		
	<hr/>	12,527 94	

Engineering Department, Sewers Maintenance.

Salaries and Wages:—			
Inspector	\$289 74		
Labor	9,525 42		
Other Expenses:—			
Hired teams	6,596 90		
Tools and equipment	615 28		
Sand, brick and cement	39 73		
Pipe and fittings	27 08		
Castings	20 46		
Telephone	35 73		
Power and care of Medford Street pump	127 94		
All other	66 15		
	<hr/>	17,344 43	

Carried forward		\$396,394 90	\$58,232 36
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Brought forward \$396,394 90 \$58,232 36

**Public Buildings Department, Maintenance
Sewer Buildings.**

Salaries and Wages:—

Labor \$35 65

Other Expenses:—

Fuel 20 00

Light 16 60

Repairs 38 71

All other 22 87

133 83

Highways, Refuse Disposal.

General Administration:—

Superintendent \$458 96

Printing and stationery 5 00

Telephone 12 76

All other 70

Ashes, Rubbish and Garbage:—

Labor 25,861 10

Hired teams 11,629 33

Equipment 412 84

Stable Expenses:—

Hay, grain and straw 2,532 25

Shoeing 111 92

Equipment 106 43

All other 5 20

41,136 49

Sanitary Department.

General Administration:—

Superintendent \$1,074 76

Bookkeeper 133 77

Printing and stationery 56 24

Telephone 17 43

All other 2 40

Ashes, Rubbish and Garbage:—

Labor 40,786 09

Hired teams 13,279 23

Equipment 770 72

Rent of dump 600 00

All other 33 07

Stable Expenses:—

Horses 1,950 00

Hay, grain and straw 4,634 85

Shoeing 157 35

Equipment 514 12

All other 53 25

64,063 28

**Public Buildings Department, Maintenance
Refuse Buildings.**

Labor \$64 00

Fuel 91 88

Light 222 94

Lumber 88 92

Furniture and furnishings 121 50

Repairs 680 47

All other 4 90

1,274 61

Carried forward \$503,003 11 \$58,232 36

Brought forward	\$503,003 11	\$58,232 36
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Street Cleaning.

Labor	\$18,914 61
Hired teams	5,805 69
Equipment	179 27

 24,899 57
HIGHWAYS.**Highway Maintenance.**

General Administration:—

Commissioner	\$2,400 00
Bookkeeper and clerk	1,733 33
Printing, stationery and postage	119 96
Telephone	221 50
Automobile and maintenance	1,257 03
All other	15 75

General:—

Labor	32,671 20
Hired teams	257 34
Tarvia, broken stone, gravel, etc.	1,435 67
Edgestone, paving blocks and cement	443 99
Lumber	264 20
Equipment and repairs	2,340 45
Fuel	749 90
Oil and waste	339 38
Horses	200 00
Hay, grain and straw	8,273 57
Shoing	416 95
Veterinary and medicine	194 74
Harnesses and horse clothing	281 52
All other	128 93

Other Expenses:—

Signs	96 41
Asphalt work, Cross Street	1,110 56
Taxes, City of Waltham	185 40
All other	253 40

 55,391 18

Less service transfers for teams
furnished other departments

 14,331 23

 41,059 95
Highways Construction, New Streets.

Labor	\$2,597 76
Hired teams	543 65
Tools and equipment	259 50
Paving blocks, edgestones and circles	3,844 41
Brick, stone, gravel and cement	1,636 93
Asphalt and tarvia	1,353 62
Contracts	6,674 28
Land damages	450 00
Fence, Davis Square	211 53
Printing and advertising	128 50
Recording documents	45 90
All other	177 74

 17,923 82

Carried forward

 \$568,962 63

 \$76,156 18

Brought forward \$568,962 63 \$76,156 18

Highways Construction, Permanent Pavement.

Labor	\$6,226 07		
Hired teams	2,402 98		
Tools and equipment	658 87		
Paving blocks	775 30		
Brick, stone, gravel and cement	8,042 27		
Asphalt, tarvia, etc.	3,065 99		
Contracts	55,949 13		
All other	92 69		
	<hr/>		
			77,213 30

Highways Construction, Macadam Pavement.

Labor	\$8,550 02		
Hired teams	4,142 66		
Tools and equipment	2,069 63		
Tarvia	6,769 92		
Crushed stone	11,146 96		
All other	239 20		
	<hr/>		
			32,918 39

Sidewalks Construction.

Labor	\$6,526 96		
Hired teams	1,797 12		
Tools and equipment	249 86		
Brick, stone and cement	3,161 42		
Edgestone and curbs	930 20		
Contracts	14,733 58		
All other	83 35		
	<hr/>		
			27,482 49

Highways, Sidewalks Maintenance.

Labor	\$3,479 69		
Hired teams	886 49		
Tools and equipment	16 00		
Brick, stone, gravel and cement	680 39		
Paving blocks	54 20		
All other	9 03		
	<hr/>		
			5,125 80

Highways, Street Sprinkling.

Labor	\$4,655 22		
Hired teams	3,375 86		
Equipment and repairs	491 34		
Oil and other dust layers	21,831 64		
Contracts water carts	1,193 34		
Use of sprinkler car	3,152 41		
Maintenance water posts	144 53		
All other	164 52		
	<hr/>		
			35,008 86

Street Lighting.

Electric lighting in accordance with contract	\$51,000 00		
	<hr/>		
			61,000 00

**Public Buildings Department, Maintenance
Highway Buildings.**

Labor	\$190 00		
Fuel	211 53		
Light	247 20		
	<hr/>		
Carried forward	\$648 73	\$670,097 29	\$213,770 36

Brought forward	\$648 73	\$670,097 29	\$213,770 36
Hardware	4 53		
Lumber	59 98		
Repairs:—			
Buildings	610 87		
Heating apparatus	38 90		
Furniture and furnishings	121 50		
All other	10 55		
	<hr/>	1,495 06	
New Highway Building.			
Contract	\$250 00		
Labor	32 00		
	<hr/>		282 00

CHARITIES.

Poor Department.

Advance for immediate aid	\$300 00		
	<hr/>	300 00	

Poor Department, Miscellaneous.

General Administration:—

Agent	\$1,700 00		
Secretary	700 00		
Clerk	700 00		
Books, printing, stationery and postage	168 61		
Telephone	110 86		
All other	10 60		

Outside Relief:—

City physician	1,500 00		
Acting city physician	60 00		
Board and care	2,014 99		
Cash	16,633 31		
Groceries and provisions	13,208 61		
Coal and wood	1,129 71		
Cash allowances	258 14		
Dry goods and clothing	15 50		
Medicine and medical attend- ance	233 84		
Nursing	95 50		
State institutions	912 90		
Somerville Hospital	2,272 08		
Contagious Hospital	130 72		
Other institutions	222 28		
Burials	356 00		
All other	56 42		

Relief by Other Cities and Towns:—

Cities	6,334 36		
Towns	847 50		

Mothers' Aid:—

Cities and towns	2,087 69		
	<hr/>	51,759 62	

Poor Department, City Home.

Salaries and Wages:—

Warden and matron	\$1,350 00		
Domestic labor	1,997 79		
Farm labor	1,572 25		

Carried forward	\$4,920 04	\$723,651 97	\$214,052 36
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Brought forward	\$4,920 04	\$723,651 97	\$214,052 36
Other Expenses:—			
Groceries and provisions	3,408 41		
Dry goods and clothing	361 50		
Drugs and medicine	118 93		
Household furnishings and supplies	151 09		
Farm equipment and supplies	426 59		
Live stock	137 94		
Garbage	374 10		
Hay, grain, straw and feed	1,058 66		
Horse shoeing	49 10		
Harness and horse clothing	7 50		
Seeds and fertilizer	167 16		
Telephone	61 69		
Books, stationery and postage	44 10		
All other	306 60		
	<hr/>	11,593 41	

**Public Buildings Department, Maintenance
City Home Buildings.**

Labor	\$273 18		
Fuel	1,112 09		
Light	203 22		
Furniture and furnishings	23 65		
Repairs:—			
Buildings	310 74		
Heating apparatus	1 03		
All other	1 90		
	<hr/>	1,925 81	

**Public Buildings Department, City Home
Sprinkler System.**

Payment on contract	\$2,308 00		
Plumbing	7 10		
Paint	12 00		
Water service	277 60		
	<hr/>	2,604 70	

Somerville Hospital.

Aid to sick poor	\$7,000 00		
	<hr/>	7,000 00	

SOLDIERS' BENEFITS.

Soldiers' Benefits, General Administration.

Salaries and Wages:—			
Agent	\$300 00		
Clerk	650 00		
Temporary clerk	32 00		
Other Expenses:—			
Telephone	12 03		
All other	37 55		
	<hr/>	1,031 58	

Soldiers' Relief.

Soldiers' benefits	\$21,008 45		
Medicine and medical attendance	26 45		
	<hr/>	21,034 90	
Carried forward		\$766,237 67	\$216,657 06

Brought forward	\$766,237 67	\$216,657 06
Military Aid.		
Soldiers' benefits	\$310 00	
		310 00
State Aid.		
Soldiers' benefits	\$14,108 00	
		14,108 00
State Aid Special (Mexican Border).		
Soldiers' benefits	\$2,384 36	
		2,384 36
Soldiers' Burials.		
Burials	\$464 00	
		464 00

EDUCATION.

School Contingent.

Salaries and Wages:—		
Superintendent	\$3,500 00	
Clerks	3,093 00	
Truant officer	1,350 00	
All other	244 66	
General Expenses:—		
Printing, stationery and post- age	543 34	
Telephone	694 12	
Traveling expenses	257 15	
Mimeograph	52 00	
All other	162 76	
Textbooks and Supplies:—		
Text and reference books	8,848 02	
Printing and stationery	7,341 65	
Machinery and equipment	3,352 04	
Supplies	4,485 85	
All other	6 02	
Tuition	585 47	
Support of truants	615 26	
Other Expenses:—		
Diplomas and graduation exer- cises	383 58	
Miscellaneous printing and ad- vertising	149 12	
Auto maintenance	261 92	
Power	502 43	
All other	76 30	
		36,504 69
School Teachers' Salaries.		
Day schools	\$352,033 65	
Evening schools	7,568 50	
		359,602 15
Maintenance School Buildings, Janitors' Salaries.		
Janitors' salaries	\$33,326 34	
		33,326 34
Maintenance School Buildings, Fuel and Light.		
Fuel	\$21,693 80	
Light	5,465 12	
		27,158 92
Carried forward	\$1,240,096 13	\$216,657 06

Brought forward \$1,240,096 13 \$216,657 06

**Maintenance School Buildings, Buildings
and Grounds.**

Labor	\$6,199 84	
Furniture and furnishings	3,892 94	
Janitors' supplies	1,630 04	
Repairs:—		
Buildings	9,339 59	
Heating apparatus	2,098 35	
All other	252 31	
Power	245 45	
Care of grounds	2,380 46	
Telephone	20 00	
New automobile	715 00	
Auto maintenance	66 81	
All other	1,375 19	
	<hr/>	28,215 98

S. Newton Cutler School Addition.

Electrical work	\$6 00	
	<hr/>	6 00

New School Building, East Somerville.

Labor	\$39 20	
Contract for construction	18,611 58	
Electric wiring and telephone system	849 50	
Heating and ventilating system	6,087 30	
Water service	92 56	
Plumbing	2,865 12	
Piping	195 45	
Fixtures	265 00	
Furniture and furnishings	4,138 12	
Hardware and slate	893 59	
Blueprints, specifications, etc.	13 55	
All other	155 41	
	<hr/>	34,206 38

New School Building, Holland Street.

Architect	\$3,250 83	
Contract for construction	30,431 70	
Heating and ventilating system	1,530 00	
Water service	222 43	
All other	165 20	
	<hr/>	35,603 16

Boys' Industrial School Addition.

Architect	\$202 50	
	<hr/>	202 50

**Public Buildings Department, Schoolhouses
Sprinkler System.**

Installation sprinkler system	\$1,661 12	
Plumbing	22 89	
Water service	258 44	
	<hr/>	
Carried forward	\$1,942 45	\$1,268,312 11 \$286,675 10

CITY AUDITOR.

71

Brought forward	\$1,942 45	\$1,268,312 11	\$286,675 10
All other	5 00		
	<u> </u>		1,948 45

Public Buildings Department, High School Sprinkler System.

Labor	\$76 00		
Payment on contract	500 00		
Extra sprinklers	85 00		
	<u> </u>		661 00

Bingham Schoolhouse Shower Baths.

Carpenter work	\$299 94		
Plumbing	591 68		
Slate bath stalls	130 00		
	<u> </u>		1,021 62

Bell School Additional Land.

Land	\$3,412 80		
	<u> </u>		3,412 80

Building Public Buildings.

Claims for damages	\$532 99		
	<u> </u>		532 99

SCHOOL TRUST FUNDS.

S. Newton Cutler Fund.

Books and magazines	\$392 55		
	<u> </u>		392 55

LIBRARIES.

Central Library.

Salaries and Wages:—

Librarian	\$2,750 00
Assistants	12,650 57

Books, Periodicals, Etc.:—

Books	5,772 91
Periodicals	682 67
Music	80 23
Binding	1,031 03

Other Expenses:—

Printing and advertising	310 40
Stationery and postage	479 90
Telephone	121 87
Cards	629 72
Express	102 45
General supplies	86 72
Agencies	42 38
Typewriter	59 10
Traveling expenses	147 11
All other	52 91
	<u> </u>

24,999 97

Public Buildings Department, Maintenance

Central Library.

Janitors	\$1,510 00
Labor	32 50
Fuel	627 34
	<u> </u>

Carried forward	\$2,169 84	\$1,293,704 63	\$294,251 96
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Brought forward	\$2,169 84	\$1,293,704 63	\$294,251 96
Light	1,284 07		
Furniture and furnishings	161 18		
Janitors' supplies	104 51		
Repairs:—			
Building	166 79		
Heating apparatus	90 76		
All other	6 25		
	<hr/>	3,983 40	

West Somerville Branch Library.**Salaries and Wages:—**

Assistants	\$4,469 96
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Books, Periodicals, Etc.:—

Books	1,361 91
Periodicals	308 65
Music	10 96
Binding	345 02

Other Expenses:—

Printing and advertising	13 00
Stationery and postage	32 36
Telephone	43 20
General supplies	7 00
Express	101 67
All other	6 27
	<hr/>

6,700 00

Public Buildings Department, Maintenance**West Somerville Branch Library.**

Janitor	\$794 00
Labor	17 73
Fuel	265 65
Light	384 10
Furniture and furnishings	69 38
Repairs:—	
Building	146 00
Heating apparatus	14 03
All other	54 25
	<hr/>

1,745 14

East Somerville Branch Library.**Salaries and Wages:—**

Assistants	\$2,022 51
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Books, Periodicals, Etc.:—

Books	635 00
Periodicals	112 81
Binding	179 26

Other Expenses:—

Printing and advertising	1 75
Stationery and postage	19 45
Telephone	30 19
General supplies	5 00
Express	93 31
	<hr/>

3,099 28

Public Buildings Department, Maintenance**East Somerville Branch Library.**

Janitor	\$265 00
Labor	6 25
	<hr/>

Carried forward	\$271 25	\$1,309,232 45	\$294,251 96
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Brought forward	\$271 25	\$1,309,232 45	\$294,251 96
Fuel	56 78		
Light	74 50		
Furniture and furnishings	2 71		
Repairs:—			
Building	82 16		
Rent	200 00		
	<hr/>	687 40	

Union Square Branch Library.

Salaries and Wages:—			
Assistants	\$2,045 83		
Books, Periodicals, Etc.:—			
Books	655 85		
Periodicals	128 50		
Binding	196 51		
Other Expenses:—			
Printing and advertising	1 75		
Stationery and postage	35 07		
Telephone	29 31		
General supplies	4 88		
Express	101 69		
	<hr/>	3,199 39	

**Public Buildings Department, Maintenance
Union Square Branch Library.**

Janitor	\$564 06		
Labor	11 62		
Fuel	118 54		
Light	89 10		
Furniture and furnishings	5 88		
Repairs	28 20		
All other	37 75		
	<hr/>	855 15	

Land, East Somerville Branch Library.

Land	\$4,500 00		
Highway betterment assessment	79 92		
	<hr/>		4,579 92

PUBLIC LIBRARY TRUST FUNDS.**Martha R. Hunt, Art Fund.**

Pictures, vases, etc.	\$47 35		
Marble border for Foss Memorial	56 00		
	<hr/>	103 35	

Martha R. Hunt, Book Fund.

Books	\$125 52		
	<hr/>	125 52	

Martha R. Hunt Fund, Principal.

Deposited in Warren Institution for Savings	\$702 77		
Foss Memorial	500 00		
	<hr/>	1,202 77	

Isaac Pitman, Art Fund.

Books and pictures	\$219 30		
	<hr/>	219 30	

Carried forward		\$1,315,625 33	\$298,831 88
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Brought forward \$1,315,625 33 \$298,831 88

Isaac Pitman, Poetry Fund.

Books \$74 70
 _____ 74 70

RECREATION.

Engineering Department, Parks Maintenance.

Labor \$5,891 57
 Hired teams 863 95
 Equipment 263 99
 Trees, shrubs, plants, etc. 1,375 88
 Repairs 925 42
 Crushed stone 366 61
 All other 111 44
 _____ 9,798 86

**Public Buildings Department, Maintenance
 Park Buildings.**

Labor \$293 07
 Hired teams 31 00
 Fuel 73 18
 Light 174 84
 Repairs 27 40
 All other 107 02
 _____ 706 51

Park Building, Lincoln Park, Addition.

Contract for construction \$621 00
 Contract, shower baths 765 00
 Heating apparatus 35 25
 Piping 14 75
 Slate 247 00
 Blueprints 55
 All other 22 46
 _____ 1,706 01

Engineering Department, Playgrounds Maintenance.

Labor \$2,674 39
 Hired teams 281 78
 Apparatus and repairs 184 82
 Other repairs 76 25
 Hardware and lumber 88 31
 Sand and lime 23 70
 Constructing bathing booths 24 70
 Fountain, Broadway Field 50 41
 All other 20 05
 _____ 3,424 41

School Department, Summer Playgrounds.

Instructors \$1,538 00
 Labor 106 20
 Hired teams 12 50
 Apparatus and equipment 424 00
 Band 61 60
 Sand 37 80
 All other 119 90
 _____ 2,300 00

Carried forward \$1,331,929 81 \$300,537 89

Brought forward \$1,331,929 81 \$300,537 89

Field House, Somerville Field.

Blueprints \$ 42
Metal lockers 60 00

60 42

**Public Buildings Department, Maintenance
Bathhouse.****Salaries and Wages:—**

Attendants \$885 75
Labor 90 00

Other Expenses:—

Bathing suits 323 95
Towels 8 40
Laundry 305 00
Repairs 102 46
All other 27 74

1,743 30

New Bathhouse, Mystic River.

Architect \$135 00
Payment on contract 2,380 00

2,515 00

Independence Day.

Celebration \$500 00

500 00

Reception to Companies K and M.

Decorating \$83 50
Catering 457 00
Music 125 00
Printing, etc. 18 48

683 98

UNCLASSIFIED.**Memorial Day.**

G. A. R. \$350 00
Spanish war veterans 75 00

425 00

Municipal Documents.

Printing annual reports . . . \$1,393 66
Manuals and covers 87 05
Postage 5 44
All other 3 42

1,489 57

Workmen's Compensation.

Compensation \$2,215 94
Medicine and medical attendance 224 65

2,440 59

Pensions.

Janitors \$1,944 11
Police 6,309 31
Fire 3,727 92
Health 145 49

Carried forward \$12,126 83 \$1,339,212 25 \$303,113 31

Brought forward	\$12,126 83	\$1,339,212 25	\$303,113 31
Laborers:—			
Highway	2,807 51		
Water	725 57		
		15,659 91	
Damage to Persons and Personal Property.			
Settlement of claims	\$4,252 18		
		4,252 18	

MUNICIPAL INDEBTEDNESS.

Interest.

Temporary Loans:—			
Anticipation of revenue	\$24,006 72		
General Loans:—			
Sewer	12,708 75		
Highway	9,747 50		
Municipal	3,015 00		
City	31,768 75		
Bridge	1,172 50		
Metropolitan park	490 00		
Public buildings	7,240 00		
Martha R. Hunt Art Fund	18 20		
		90,167 42	

Reduction of Funded Debt.

General Loans:—			
Sewer	\$20,000 00		
Highway	36,000 00		
Municipal	10,000 00		
City	131,500 00		
Bridge	1,000 00		
Metropolitan park	1,000 00		
Public building	8,000 00		
		207,500 00	

WATER WORKS.

Water Maintenance.

Administration:—			
Commissioner	\$2,300 00		
Clerks	4,266 50		
Printing, stationery and postage	1,387 86		
Telephone	185 31		
Adding machine	249 90		
Attending convention	19 90		
All other	84 88		
General:—			
Labor	28,207 05		
Hired teams	90 97		
Pipe and fittings	6,243 34		
Meters and fittings	1,011 44		
Hydrants and fittings	622 22		
Equipment and repairs	1,641 67		
Automobiles and supplies	3,539 01		
Horses, feed and shoeing	823 91		
Freight	38 54		
Lead	570 44		
Castings	1,213 90		
All other	793 52		
Carried forward	\$53,290 36	\$1,656,791 76	\$303,113 31

Brought forward	\$53,290 36	\$1,656,791 76	\$303,113 31
Less service transfers for teams furnished other depart- ments	314 26		
	<hr/>	52,976 10	

Water Works Extension.

Labor	\$4,677 63		
Hired teams	294 38		
Pipe and fittings	5,864 87		
Hydrants and fittings	164 13		
Meters and fittings	4,503 32		
Tools and equipment	99 30		
Contract, trench work	632 11		
	<hr/>	16,235 74	

**Public Buildings Department, Maintenance
Water Buildings.**

Labor	\$99 06		
Fuel	328 54		
Light	282 98		
Repairs:—			
Buildings	168 28		
Heating apparatus	337 43		
All other	8 27		
	<hr/>	1,224 56	

Interest.

Water loans	\$840 00		
	<hr/>	840 00	

Reduction of Funded Debt.

Water bonds	\$5,000 00		
	<hr/>	5,000 00	

Metropolitan Water Assessment.

Assessment	\$110,468 29		
	<hr/>	110,468 29	

OTHER ACCOUNTS.**Temporary Loans.**

Loans in anticipation of revenue	\$1,320,000 00		
	<hr/>	1,320,000 00	

Real Estate Liens.

Titles purchased by city	\$66 17		
Recording deeds	4 75		
	<hr/>	70 92	

State Taxes.

State tax	\$127,360 00		
State highway tax	790 00		
Non-resident bank tax	2,190 74		
	<hr/>	130,340 74	

Metropolitan and Other Assessments.

Metropolitan park assessment	\$40,259 07		
Metropolitan sewer assessment	67,511 00		
Wellington bridge assessment	3,087 49		
Grade crossing assessment	13,861 56		
	<hr/>		
Carried forward	\$124,719 12	\$3,293,948 11	\$303,113 31

Brought forward	\$124,719 12	\$3,293,948 11	\$303,113 31
Charles River Basin assessment	6,616 78		
Alewife Brook assessment	1,255 23		
Abatement of smoke assessment	294 67		
Fire prevention assessment	1,363 54		
Auditing municipal accounts as- essment	823 40		
Soldiers' exemption assessment	46 28		
	<hr/>	135,119 02	
County of Middlesex.			
County tax, 1916 . . . . .	.\$82,190 71		
	<hr/>	82,190 71	
Cash Refunds.			
Taxes	\$475 93		
Special assessments	207 61		
Water rates	233 80		
	<hr/>	917 34	
PRIVATE TRUST.			
Redemption of Tax Liens.			
Sundry persons, redemption of tax titles	\$2,124 09		
	<hr/>	2,124 09	
Total expenditures		<hr/>	<hr/>
		\$3,514,299 27	\$303,113 31

EXPENDITURES FOR TWO YEARS.

	1915		1916	
	Expenses.	Outlays.	Expenses.	Outlays.
General Government	\$84,272 99	.....	\$87,677 58	\$1,879 59
Protection of Persons and Property	247,644 27	\$1,345 05	250,317 04	43,824 83
Health and Sanitation	184,553 79	13,679 08	189,908 06	12,527 94
Highways	127,650 15	141,322 62	143,689 67	155,820 00
Charities	65,401 30	.....	72,578 84	2,604 70
Soldiers' Benefits	37,745 96	.....	39,332 84	.....
Education	467,799 49	62,295 46	485,200 63	77,594 90
Libraries	44,531 57	.....	46,995 37	4,579 92
Recreation	17,766 88	.....	19,157 06	4,281 43
Unclassified	25,959 52	.....	24,267 25	.....
Municipal Indebtedness	292,089 49	.....	297,667 42	.....
Water Works	185,351 43	.....	186,744 69	.....
State and County Accounts	372,557 09	.....	347,650 47	.....
Other Accounts (Temporary Loans, etc.)	1,123,765 55	.....	1,320,070 92	.....
Refunds	703 36	.....	917 34	.....
Redemption Tax Titles	1,423 21	.....	2,124 09	.....
Total	\$3,279 216 05	\$218,642 21	\$3,514,299 27	\$303,113 31
Expenses	\$3,279,216 05	.....	.....	\$3,514,299 27
Outlays	218,642 21	.....	.....	303,113 31
Grand Total 1915	\$3,497,858 26	Grand Total 1916 . . . . .	.....	\$3,817,412 58

SCHEDULE OF PUBLIC PROPERTY.

School Buildings.	Land and Buildings.	Personal.	Totals.
Prescott	\$102,700 00	\$3,000 00	\$105,700 00
Hanscom	\$66,500 00	1,500 00	68,000 00
Davis	27,000 00	6,000 00	33,000 00
Clark Bennett	44,500 00	3,500 00	48,000 00
Cummings	13,400 00	1,200 00	14,600 00
*High	360,000 00	30,000 00	390,000 00
Glues	88,400 00	5,000 00	93,400 00
Forster	59,000 00	8,000 00	102,000 00
Forster (Annex)	35,000 00	.....	.....
Morse	54,000 00	5,000 00	59,000 00
Carr	57,600 00	5,000 00	62,600 00
Durell	20,400 00	1,500 00	21,900 00
Burns	39,000 00	3,000 00	42,000 00
Brown	72,000 00	2,500 00	74,500 00
Highland	66,600 00	5,000 00	71,600 00
Lowe	46,000 00	2,000 00	48,000 00
Hodgkins	93,700 00	5,000 00	98,700 00
Lincoln	19,800 00	1,000 00	20,800 00
Cutler	98,700 00	9,000 00	107,700 00
Bingham	73,000 00	5,000 00	78,000 00
Edgerly	43,000 00	5,000 00	48,000 00
Knapp	50,000 00	5,500 00	55,500 00
Baxter	32,800 00	1,500 00	34,300 00
Perry	42,000 00	1,500 00	43,500 00
Bell	43,900 00	5,000 00	48,900 00
Prospect Hill	16,000 00	.....	16,000 00
Pope	78,600 00	5,000 00	83,600 00
†Proctor	44,000 00	.....	44,000 00
East Somerville Junior High School	62,000 00	3,000 00	65,000 00
West Somerville Junior High School	80,000 00	.....	80,000 00
Total	\$1,929,600 00	\$128,700 00	\$2,058,300 00

*Land included in Central Hill Park.

†Building and fixtures. Land owned by state.

Fire Buildings.

Central	\$47,700 00	} *\$103,000 00	\$178,200 00		
New fire alarm building	27,500 00				
Engine Two	37,000 00			8,500 00	45,500 00
Engine Six	29,000 00			20,000 00	49,000 00
Hose Five	21,500 00			7,500 00	29,000 00
Ladder One	60,000 00			10,500 00	70,500 00
Hose Eight	10,400 00			7,700 00	18,100 00
Ladder Two	17,600 00			15,000 00	32,600 00
Engine Four	19,500 00			7,000 00	26,500 00
Total	\$270,200 00	\$179,200 00	\$449,400 00		

*Includes Electrical Department equipment.

Libraries.

†Central	\$125,000 00	\$100,000 00	\$225,000 00
West Somerville Library	30,000 00	6,000 00	36,000 00
East Somerville Library	4,600 00	.....	4,600 00
Total	\$159,600 00	\$106,000 00	\$265,600 00

Miscellaneous Buildings.

Highway (stables, etc.)	\$55,000 00	\$30,000 00	\$85,000 00
Sewer	6,700 00	1,500 00	8,200 00
Contagious and Tuberculosis Hospital	45,900 00	9,000 00	54,900 00
City Home	92,400 00	17,000 00	109,400 00
Police	64,000 00	8,000 00	72,000 00
†City Hall	52,000 00	149,000 00	201,000 00
†City Hall Annex	62,000 00	12,500 00	74,500 00
Parks:—			
Broadway	3,100 00	.....	3,100 00
Lincoln	4,000 00	.....	4,000 00
Bathhouse	5,000 00	.....	5,000 00
Sanitary	21,000 00	19,200 00	40,200 00
Water	46,700 00	6,500 00	53,200 00
Polling booths	1,800 00	.....	1,800 00
Total	\$459,600 00	\$252,700 00	\$712,300 00

†Land included in Central Hill Park.

Parks and Playgrounds.

Broadway	\$421,200 00	.....	\$421,200 00
Central Hill	472,000 00	.....	472,000 00
Lincoln	82,700 00	\$2,000 00	84,700 00
Prospect Hill	69,800 00	1,500 00	71,300 00
Tufts	109,000 00	.....	109,000 00
Paul Revere	1,000 00	.....	1,000 00
Belmont Street	5,100 00	.....	5,100 00
City Field	70,900 00	.....	70,900 00
Glen Street	17,300 00	.....	17,300 00
Kent Street	12,000 00	.....	12,000 00
Poplar Street	5,500 00	.....	5,500 00
Beacon Street	3,000 00	.....	3,000 00
Webster Avenue	3,000 00	.....	3,000 00
Mason Street	4,200 00	.....	4,200 00
Somerville Field	40,000 00	19,000 00	59,000 00
Total	\$1,316,700 00	\$22,500 00	\$1,339,200 00

Miscellaneous Land.

Vinal Avenue land	\$3,500 00	.....	\$3,500 00
Somerville Avenue	300 00	.....	300 00
Powder House Boulevard	400 00	.....	400 00
Murdock Street	600 00	.....	600 00
Spencer Avenue	100 00	.....	100 00
Broadway	4,200 00	.....	4,200 00
Endicott Avenue	600 00	.....	600 00
Weston Avenue	2,200 00	.....	2,200 00
Lowell Street	100 00	.....	100 00
Putnam Street	400 00	.....	400 00
Broadway	5,900 00	.....	5,900 00
Ledge, Holland Street	55,000 00	.....	55,000 00
Gravel land, Waltham	10,000 00	.....	10,000 00
Total	\$83,300 00	.....	\$83,300 00
Sewers			\$1,331,420 00
Water Works			\$1,037,800 00

SUMMARY.

	Land and Buildings.	Personal.	Total.
School Buildings	\$1,929,600 00	\$128,700 00	\$2,058,300 00.
Fire Buildings	270,200 00	179,200 00	449,400 00
Libraries	159,600 00	106,000 00	265,600 00
Miscellaneous Buildings	459,600 00	252,700 00	712,300 00
Parks and Playgrounds	1,316,700 00	22,500 00	1,339,200 00
Miscellaneous	83,300 00	.....	83,300 00
Total	\$4,219,000 00	\$689,100 00	\$4,908,100 00
Sewers			1,331,420 00
Water Works			1,037,800 00
Total value public property			\$7,277,320 00

REPORT OF THE CITY TREASURER AND COLLECTOR OF TAXES.

Somerville, Mass., January 25, 1917.

To the Honorable, the Mayor, and the Board of Aldermen of
the City of Somerville:—

Gentlemen: I have the honor to present herewith the annual report of the Treasury department, showing the condition of the treasury, cash receipts and disbursements for the year 1916, together with the statements and information relative to the financial operations of the city.

CONDENSED CASH STATEMENT.

RECEIPTS.		PAYMENTS.	
Revenue	\$3,482,697 59		\$3,524,112 39
Non-revenue	294,024 76		293,300 19
	\$3,776,722 35		\$3,817,412 58
Cash balance Jan- uary 1, 1916	241,231 12	Cash balance De- cember 31, 1916	200,540 89
	\$4,017,953 47		\$4,017,953 47

DETAILED CASH STATEMENT.

RECEIPTS.			
Balance from 1915			\$241,231 12
Revenue.			
Taxes, 1912	\$2 00		
1913	115 62		
1914	866 37		
1915	314,309 40		
1916	1,399,262 69		
	\$1,714,556 08		
Street sprinkling, 1915	\$8,198 00		
1916	27,642 45		
	35,840 45		
Suppression of moths, 1915	\$838 75		
1916	1,492 50		
	2,331 25		
Assessments:—			
Highway, 1914	\$383 75		
1915	14,939 76		
1916	3,400 50		
	18,724 01		
Sidewalk, 1914	\$1,555 28		
1915	12,368 61		
1916	4,871 81		
	18,795 70		
Sewer, 1914	\$683 60		
1915	766 80		
	1,450 40		
Amounts carried forward		\$1,791,697 59	\$241,231 12

Amounts brought forward	\$1,791,697 59	\$241,231 12
Metered water charges, 1915	20,468 37	
Sale of land	322 00	
Commonwealth of Massachusetts (advances, Soldiers' benefits, 1915)	15,348 50	
Commonwealth of Massachusetts:—		
Corporation Taxes	\$47,822 64	
National Bank	4,127 73	
Street Railway	26,944 89	
Boston Elevated Tax	11,674 24	
	<hr/>	90,569 50
Vocational Schools	5,894 15	
In lieu of taxes	64 86	
County of Middlesex, dog licenses	2,831 40	
Courts:—		
Police	\$2,520 69	
County	81 50	
	<hr/>	2,602 19
Departmental penalties	245 00	
Licenses (from departments)	4,460 50	
Edison Electric Illuminating Co., electrolysis	500 00	
Water:—		
Sales, 1916	\$216,434 96	
Miscellaneous	2,875 37	
Services	3,837 53	
	<hr/>	223,147 86
Interest:—		
On taxes	\$10,763 23	
On assessments	462 35	
On bank accounts, treasurer	11,167 29	
On bank accounts, city clerk	11 48	
	<hr/>	22,404 35
Treasury Department, costs and fees	6,942 59	
Departmental deposits	16,970 71	
Departmental accounts	51,228 86	
Temporary loans	1,220,000 00	
Premium on bonds:—		
Issue of January 1	643 50	
April 1	1,567 28	
July 1	197 50	
July 1	290 15	
Accrued interest on bonds:—		
Issue of January 1	959 29	
April 1	479 11	
July 1	13 89	
July 1	155 56	
Trust Funds, Income:—		
School, S. Newton Cutler	219 44	
Library, S. Newton Cutler	43 86	
Martha R. Hunt, art	149 14	
Martha R. Hunt. (from investment fund)	702 77	
Martha R. Hunt, books	494 77	
Isaac Pitman, art	175 16	
Isaac Pitman, poetry	43 80	
Wilder children's department	6 04	
General expenses (refunds)	857 60	
	<hr/>	3,482,697 59
Amount carried forward		\$3,723,928 71

Amount brought forward \$3,723,928 71

Non-Revenue.

Bonds: Issue of January 1	\$143,000 00	
April 1	88,000 00	
July 1	25,000 00	
July 1	35,000 00	
Redemption of tax liens	2,124 09	
Outlay appropriation (offsets)	900 67	
		294,024 76
		\$4,017,953 47

PAYMENTS.

Revenue.

Taxes, 1914 refunds	\$2 00	
1915 refunds	138 37	
1916 refunds	335 56	
		475 93
Street sprinkling, 1916, refunds		79 90
Moth assessments, 1915, refunds	\$4 00	
1916, refunds	2 50	
		6 50
Highway assessments, 1916, refunds		121 21
Water charges (prior years) refunds		28 72
Water charges (current year) refunds		205 08
Advances, C. C. Folsom, agent		300 00
Commonwealth of Massachusetts:—		
State tax	\$127,360 00	
Assessments	135,862 74	
Bank tax (non-resident)	2,190 74	
Soldiers' exemption	46 28	
Metropolitan water assessment	110,468 29	
		375,928 05
County of Middlesex, county tax		82,190 71
General expenses		1,439,079 76
Interest:—		
Temporary loans	\$24,006 72	
Funded debt	66,982 50	
Hunt art fund	18 20	
		91,007 42
Reduction of funded debt		212,500 00
Trust Funds:—		
School, S. Newton Cutler	\$392 55	
Library, Martha R. Hunt, art	103 35	
Martha R. Hunt, art (from principal of fund)	500 00	
Martha R. Hunt, books	125 52	
Isaac Pitman, art	219 30	
Isaac Pitman, poetry	74 70	
		1,415 42
Martha R. Hunt, art, transferred to investment		702 77
Temporary loans		1,320,000 00
Real estate liens		70 92
		3,524,112 39
Amount carried forward		\$3,524,112 39

Amount brought forward \$3,524,112 39

Non-Revenue.

Outlay appropriations \$291,176 10
 Redemption of tax liens 2,124 09

293,300 19

\$3,817,412 58

Cash in office \$2,909 15
 Deposits in banks 197,631 74

200,540 89

\$4,017,953 47

Revenue Cash.

General expenses \$74,892 27
 Trust Funds (Public) 1,466 77
 Premium on bonds 2,698 43
 Accrued interest on bonds 169 45
 Sundry persons 127 11

\$79,354 03

Non-Revenue.

Outlay appropriations 121,186 86

\$200,540 89

BALANCES.

	Debit.	Credit.
Cash on hand and in banks	\$200,540 89	
Cash advances, C. C. Folsom, agent	1,500 00	
Taxes, 1915	2,707 54	
Taxes, 1916	343,800 71	
Street sprinkling assessments, 1915	1 75	
Street sprinkling assessments, 1916	8,587 65	
Moth assessments, 1916	445 25	
Overlay and Abatement, 1915		\$4,322 92
Overlay and Abatement, 1916		8,274 87
Reserve Supplementary assessments, 1915		3,265 96
Highway betterment assessments, 1915	3,897 39	
Highway betterment assessments, 1916	5,245 80	
Sidewalk assessments, 1915	2,318 83	
Sidewalk assessments, 1916	7,468 83	
Sewer assessments, 1916	2,253 39	
Metered water charges	25,484 51	
Commonwealth of Massachusetts (advances, Soldiers' benefits)	16,958 36	
Grade crossings (advances)	3,428 42	
Real estate liens	104 27	
Temporary loans		400,000 00
Outlays appropriations		121,186 86
Funded debt		1,729,000 00
Net funded debt (balancing account)	1,729,000 00	
Trust Funds, Income:—		
School, S. Newton Cutler		316 39
Library, S. Newton Cutler		119 74
Library, Martha R. Hunt, art		149 29
Amounts carried forward	<hr/> \$2,353,743 59	<hr/> \$2,266,636 03

Amounts brought forward	\$2,353,743 59	\$2,266,636 03
Library, Martha R. Hunt (part of principal)		202 77
Library, Martha R. Hunt, books		550 60
Library, Isaac Pitman, art		103 53
Library, Isaac Pitman, poetry		6 49
Library, Frances A. Wilder, (children's fund)		17 96
Premium on bonds		2,698 43
Accrued interest on bonds		169 45
Sundry persons		127 11
Excess and deficiency		80,006 77
Reserve fund (surplus from overlays)		3,224 45
Trust Funds, School		5,000 00
Trust Funds, Library		20,414 58
Trust Funds, School (investment)	5,000 00	
Trust Funds, Library (investment)	20,414 58	
	<u>\$2,379,158 17</u>	<u>\$2,379,158 17</u>

The assessors' warrant for the tax levy, assessed upon polls and property, April 1, 1917, including non-resident bank shares, was \$1,787,731 73
 and the tax rate established was \$21.40
 on each \$1,000.00 of the valuation, as follows:—

Real estate	\$69,972,100 00	
Personal estate	9,267,600 00	
Resident bank shares	64,629 00	
	<u>\$79,304,329 00</u>	
Total valuation		
At a rate of \$21.40		1,697,112 64
Polls, 25,077 at \$2		50,154 00
Non-resident bank shares to be paid to state (valuation \$102,371.00)		2,190 74
		<u>\$1,749,457 38</u>
Street sprinkling		36,282 85
Suppression of moths		1,991 50
		<u>\$1,787,731 73</u>
Additional assessments:—		
Personal estate, valuation \$141,400 at \$21.40	\$3,025 96	
Polls, 120 at \$2	240 00	
	<u>3,265 96</u>	
Total commitments by assessors		<u>\$1,790,997 69</u>

TAXES.

	1912.	1913.	1914.	1915.	1916.	Total.
Balance from 1915, uncollected	\$2 00	\$233 64	\$2,361 14	\$323,680 97	.....	\$326,277 75
Tax levy, 1916 . . . . .	.....	.....	.....	.....	\$1,749,457 38	.....
Supplementary warrants . . . . .	.....	.....	.....	.....	3,265 96	1,752,723 34
Cash refunds . . . . .	.....	.....	2 00	138 37	335 56	475 93
Charge to offset receipt . . . . .	.....	.....	2 26	.....	.....	2 26
Cash receipts	\$2 00	\$233 64	\$2,365 40	\$323,819 34	\$1,753,058 90	\$2,079,479 28
Abatements	2 00	115 62	866 37	314,309 40	1,399,262 69	1,714,556 08
Balance uncollected December 31, 1916 . . . . .	.....	\$118 02	\$1,499 03	\$9,509 94	\$353,796 21	\$364,923 20
	.....	118 02	1,499 03	6,802 40	9,995 50	18,414 95
	.....	.....	.....	\$2,707 54	\$343,800 71	\$346,508 25

STREET SPRINKLING ASSESSMENTS.

	1915.	1916.	Total.
Balance from 1915, uncollected	\$8,212 30	.....	\$8,212 30
Amount of assessors' warrant . . . . .	.....	\$36,282 85	36,282 85
Cash refunds . . . . .	.....	79 90	79 90
Cash receipts	\$8,212 30	\$36,362 75	\$44,575 05
Abatements	8,198 00	27,642 45	35,840 45
Balance uncollected December 31, 1916	\$14 30	\$8,720 30	\$8,734 60
	12 55	132 65	145 20
	\$1 75	\$8,587 65	\$8,589 40

MOTH ASSESSMENTS.

	1915.	1916.	Total.
Balance from 1915, uncollected	\$838 75	.....	\$838 75
Amount of assessors' warrant	.....	\$1,991 50	1,991 50
Cash refunds	4 00	2 50	6 50
Cash receipts	\$842 75	\$1,994 00	\$2,836 75
	838 75	1,492 50	2,331 25
Abatements	\$4 00	\$501 50	\$505 50
	4 00	56 25	60 25
Balance uncollected December 31, 1916	.....	\$445 25	\$445 25

OVERLAY AND ABATEMENT.

	1912 and Prior Years.	1913.	1914.	1915.	1916.	Total.
To credit, January 1, 1916	\$56 39	\$6,081 66	\$5,524 65	\$10,168 05	.....	\$21,830 75
Assessed in taxes	.....	.....	.....	.....	\$18,270 37	18,270 37
Taxes recharged	.....	.....	2 26	.....	.....	2 26
Total credits	\$56 39	\$6,081 66	\$5,526 91	\$10,168 05	\$18,270 37	\$40,103 38
Abatements	.....	122 02	1,499 03	5,845 13	9,995 50	17,461 68
Transferred from	56 39	5,959 64	4,027 88	.....	.....	10,043 91
Total charges	\$56 39	\$6,081 66	\$5,526 91	\$5,845 13	\$9,995 50	\$27,505 59
Credit balance December 31, 1916	.....	.....	.....	\$4,322 92	\$8,274 87	\$12,597 79

RESERVE SUPPLEMENTARY ASSESSMENTS.

	1914.	1915.	1916.	Total.
To credit January 1, 1916		\$5,009 61		\$5,009 61
Supplementary assessments, 1916			\$3,265 96	3,265 96
Abatements		\$5,009 61	\$3,265 96	\$8,275 57
Transferred from		957 27		957 27
		4,052 34		4,052 34
Balance to credit, December 31, 1916			\$3,265 96	\$3,265 96

ASSESSMENTS.

Highway Betterment.

	1914.	1915.	1916.	Total.
Balance uncollected January 1, 1916	\$383 75	\$18,837 15		\$19,220 90
Assessments levied, 1916			\$8,938 59	8,938 59
Refunds			121 21	121 21
Cash receipts	\$383 75	\$18,837 15	\$9,059 80	\$28,280 70
	383 75	14,939 76	3,400 50	18,724 01
Abatements		\$3,897 39	\$5,659 30	\$9,556 69
			413 50	413 50
Balance uncollected December 31, 1916		\$3,897 39	\$5,245 80	\$9,143 19

Sidewalk.

	1914.	1915.	1916.	Total.
Balance uncollected January 1, 1916	\$1,555 28	\$14,687 44		\$16,242 72
Assessments levied, 1916			\$12,401 39	12,401 39
Cash receipts	\$1,555 28	\$14,687 44	\$12,401 39	\$28,644 11
	1,555 28	12,368 61	4,871 81	18,795 70
Abatements		\$2,318 83	\$7,529 58	\$9,848 41
			60 75	60 75
Balance uncollected December 31, 1916		\$2,318 83	\$7,468 83	\$9,787 66

Sewer.	1914.	1915.	1916.	Total.
Balance uncollected January 1, 1916	\$683 60	\$766 80	\$2,253 39	\$1,450 40
Assessments levied, 1916 . . . . .	. . . . .	. . . . .	. . . . .	2,253 39
Cash receipts	\$683 60	\$766 80	\$2,253 39	\$3,703 79
Balance uncollected December 31, 1916	683 60	766 80	. . . . .	1,450 40
	. . . . .	. . . . .	\$2,253 39	\$2,253 39

WATER DEPARTMENT ACCOUNTS.

	Metered 1915.	Metered.	Annual.	Additional.	Maintenance.	Service Assessments.
Committed	\$20,468 87	\$187,588 46	\$53,903 00	\$2,115 50	\$2,896 56	\$3,837 53
Refunded	13 82	82 41	112 65	8 42	1 60	. . . . .
Collected	\$20,482 69	\$187,670 87	\$54,015 65	\$2,123 92	\$2,898 16	\$3,837 53
Abated	\$20,468 37	\$161,718 35	\$52,886 12	\$1,830 49	\$2,875 37	\$3,837 53
Balance	14 32	468 01	1,129 53	293 43	1 60	. . . . .
	\$20,482 69	\$162,186 36	\$54,015 65	\$2,123 92	\$2,876 97	\$3,837 53
	. . . . .	\$25,484 51	. . . . .	. . . . .	\$21 19	. . . . .

REFUNDS, WATER ACCOUNT, PRIOR YEARS.

Additional	\$2 10
Annual	12 80
Metered	13 82
	\$28 72

DEPARTMENTAL ACCOUNTS FOR COLLECTION.

	Balance Jan. 1, 1916.	Committed	Abated.	Collected.	Balance Dec. 31, 1916.
Revenue.					
Law department	\$7 81				\$7 81
Engineering department	35 00				35 00
Police department	\$125 40	437 31		437 31	125 40
Maintenance police buildings		1,000 00		1,000 00	
Fire department		175 40		175 40	
Health department	284 85	121 16		277 86	128 15
Contagious Hospital	10,326 53	11,054 74	\$1,282 01	12,960 78	7,138 48
Inspection of milk and vinegar	73 50	318 50		313 50	78 50
Sewers construction		490 67		490 67	
Refuse disposal	34 83	2,099 80	195 83	1,712 50	226 30
Highways maintenance	119 95	6,740 92	95 27	3,803 14	2,962 46
Maintenance highway buildings		240 00		240 00	
New streets	179 30			87 20	92 10
Street sprinkling	30 00		30 00	60 00	
Sidewalks maintenance		98 13			98 13
New sidewalks	35 00	241 25	35 00	241 25	
Poor department, miscellaneous	11,300 30	19,828 95	1,061 31	22,110 87	7,957 07
Poor department, City Home	167 96	2,654 07	86 85	1,774 58	960 60
Soldiers' relief		24 00		24 00	
School contingent	518 13	4,374 66	38 04	4,104 43	750 32
Maintenance school buildings	3 75	1,252 25	40 00	1,152 25	63 75
Libraries		36 79		3 12	33 67
Parks maintenance		100 00		100 00	
Bathhouse		100 00		100 00	
Somerville field	200 00	25 00		25 00	200 00
	\$23,399 50	\$51,516 41	\$2,864 31	\$51,228 86	\$20,822 74
Non-Revenue.					
Highways, macadam pavement	\$25 60			\$25 60	
Highways, permanent pavement	92 50	\$594 40	\$20 00	666 90	
Sewers construction		150 00		150 00	
	\$118 10	\$744 40	\$20 00	\$842 50	

TEMPORARY LOANS.

In Anticipation of Taxes.

Balance from 1915		\$500,000 00
Borrowed by authority of the Board of Aldermen on notes of the city as follows:—		
City Notes Nos. 380—387, 56 days, .0025%	\$100,000 00	
City Notes Nos. 388—400, 252 days, 2.52%	100,000 00	
City Notes Nos. 401—417, 241 days, 2.52%	250,000 00	
City Notes Nos. 418—430, 239 days, 2.57%	200,000 00	
City Notes Nos. 431—436, 233 days, 2.97%	100,000 00	
City Notes Nos. 437—439, 232 days, 2.75%	50,000 00	
City Note No. 440 232 days, 2.50%	20,000 00	
City Notes Nos. 441—449, 312 days, 3.20%	100,000 00	
City Notes Nos. 450—459, 1 year, 3.65%	100,000 00	
City Notes Nos. 460—461, 265 days, 3.85%	25,000 00	
City Note No. 462— 301 days, 3.74%	25,000 00	
City Notes Nos. 463—467, 1 year, 3.75%	50,000 00	
City Notes Nos. 468—472, 232 days, 3.55%	50,000 00	
City Notes Nos. 473—477, 104 days, 3.56%	50,000 00	
		1,220,000 00
		\$1,720,000 00
Paid notes maturing 1916		\$1,320,000 00
		\$400,000 00
Maturing in 1917		
Discount paid was \$24,006.72.		
Notes averaged 243 days to run, making average rate paid 2.915+%.		

OUTSTANDING BONDS, DECEMBER 31, 1916.

Due in	City.	Sewer (Outside of limit) Chap. 357 Acts 1895.	Water.	Met. Park Assessment (Outside) Chap. 325 Acts 1902.	Bridge.	Municipal.	Highway.	Public Buildings.	Total Due.
1917	\$118,500	\$19,000	\$5,000	\$1,000	\$1,000	\$10,000	\$56,000	\$19,000	\$232,500
1918	105,500	19,000	5,000	1,000	1,000	8,000	54,000	19,000	215,500
1919	92,500	19,000	4,000	1,000	1,000	8,000	53,000	19,000	200,500
1920	79,500	19,000	2,000	1,000	1,000	8,000	40,000	19,000	172,500
1921	68,500	19,000	.....	1,000	1,000	8,000	31,000	19,000	150,500
1922	52,500	19,000	.....	1,000	1,000	8,000	22,000	14,000	120,500
1923	41,500	18,000	.....	1,000	1,000	7,000	22,000	13,000	106,500
1924	25,500	17,000	.....	1,000	1,000	.....	22,000	13,000	82,500
1925	23,000	17,000	.....	1,000	1,000	.....	13,000	13,000	71,000
1926	19,000	15,000	.....	1,000	1,000	.....	8,000	13,000	57,000
1927	19,000	14,000	.....	1,000	1,000	.....	.....	12,000	47,000
1928	17,000	12,000	.....	1,000	1,000	.....	.....	12,000	43,000
1929	16,000	11,000	.....	1,000	1,000	.....	.....	12,000	41,000
1930	15,000	10,000	.....	.....	1,000	.....	.....	12,000	38,000
1931	12,000	10,000	.....	.....	1,000	.....	.....	11,000	34,000
1932	9,000	8,000	.....	.....	1,000	.....	.....	11,000	29,000
1933	.....	8,000	.....	.....	1,000	.....	.....	10,000	19,000
1934	.....	8,000	.....	.....	1,000	.....	.....	10,000	19,000
1935	.....	7,000	.....	.....	1,000	.....	.....	10,000	17,000
1936	.....	6,000	.....	.....	1,000	.....	.....	4,000	12,000
1937	.....	6,000	.....	.....	1,000	.....	.....	.....	7,000
1938	.....	4,000	.....	.....	1,000	.....	.....	.....	5,000
1939	.....	3,000	.....	.....	1,000	.....	.....	.....	4,000
1940	.....	2,000	.....	.....	1,000	.....	.....	.....	3,000
1941	.....	1,000	.....	.....	1,000	.....	.....	.....	2,000
1942	.....	1,000	.....	.....	1,000	.....	.....	.....	2,000
1943	.....	1,000	.....	.....	1,000	.....	.....	.....	2,000
1944	.....	.....	.....	.....	1,000	.....	.....	.....	1,000
1945	.....	.....	.....	.....	1,000	.....	.....	.....	1,000
1946	.....	.....	.....	.....	1,000	.....	.....	.....	1,000
1947	.....	.....	.....	.....	1,000	.....	.....	.....	1,000
1948	.....	.....	.....	.....	1,000	.....	.....	.....	1,000
1949	.....	.....	.....	.....	1,000	.....	.....	.....	1,000
	\$714,000	\$293,000	\$16,000	\$13,000	\$33,000	\$57,000	\$321,000	\$255,000	\$1,729,000

The funded debt December 31, 1916, was \$1,729,000.00, classified as follows:—

City Loan Bonds at 3½ per cent.	\$123,000 00
City Loan Bonds at 4 per cent.	519,000 00
City Loan Bonds at 4¼ per cent.	72,000 00
Sewer Loan Bonds at 3½ per cent.	86,000 00
Sewer Loan Bonds at 4 per cent.	207,000 00
Sewer Loan Bonds at 4¼ per cent.	27,000 00
Water Loan Bonds at 4 per cent.	16,000 00
Metropolitan Park Assessment Loan Bonds at 3½ per cent.	13,000 00
Lowell Street Bridge Loan Bonds at 3½ per cent.	33,000 00
Municipal Loan Bonds at 4½ per cent.	57,000 00
Highway Loan Bonds at 3½ per cent.	125,000 00
Highway Loan Bonds at 4 per cent.	196,000 00
Public Building Loan Bonds at 4 per cent.	255,000 00
	<hr/>
	\$1,729,000 00

Funded debt within the limit fixed by law:—

City Loan	\$714,000 00
Municipal Loan	57,000 00
Highway Loan	321,000 00
Public Building Loan	255,000 00
Sewer Loan	293,000 00
Lowell Street Bridge Loan	33,000 00
	<hr/>
	\$1,673,000 00

Funded debt beyond the limit fixed by law:—

Sewer Loan (Chapter 357, Acts 1895)	\$27,000 00
Metropolitan Park Assessment Loan (Chapter 325, Acts 1902)	13,000 00
	<hr/>
	\$40,000 00
Water Loan	16,000 00
	<hr/>
	56,000 00
	<hr/>
	<u>\$1,729,000 00</u>

BORROWING CAPACITY.

Valuation, 1914	\$74,946,894 00	
Supplementary	179,300 00	
	<hr/>	\$75,126,194 00
Valuation, 1915	\$77,217,399 00	
Supplementary	227,000 00	
	<hr/>	77,444,399 00
Valuation, 1916	79,304,329 00	
Supplementary	141,400 00	
	<hr/>	79,445,729 00
		<hr/>
		\$232,016,322 00
Abatements, 1914	\$521,700 00	
Abatements, 1915	526,907 00	
Abatements, 1916	437,827 00	
	<hr/>	1,486,434 00
		<hr/>
		\$230,529,888 00
Average three years (1-3)	\$76,843,296 00	
2½ per cent.	1,921,082 40	
Debt within the limit	1,673,000 00	
	<hr/>	
Borrowing capacity December 31, 1916		\$248,082 40
Maturities January 1, 1917	\$38,000 00	
April 1, 1917	116,900 00	
July 1, 1917	\$72,500 00	
Less outside limit	5,000 00	
	<hr/>	67,500 00
October 1, 1917	\$6,000 00	
Less outside limit	4,000 00	
	<hr/>	2,000 00
		<hr/>
Maturities in 1917 within the limit		\$223,500 00
		<hr/>
		\$471,582 40
Maturities within the limit	\$223,500 00	
Maturities outside the limit	9,000 00	
	<hr/>	
Total maturities	\$232,500 00	
	<hr/>	

BONDS DUE IN 1917.

	January.	April.	July.	October.	Total.
Water	.	.	\$1,000 00	\$4,000 00	\$5,000 00
Park	.	.	1,000 00	.....	1,000 00
Bridge	1,000 00
Sewer	.	\$3,000 00	10,000 00	.....	22,000 00
City	.	10,000 00	39,500 00	2,000 00	118,500 00
Municipal	10,000 00	.....	10,000 00
Highway	.	34,000 00	3,000 00	.....	56,000 00
Public buildings	.	5,000 00	8,000 00	.....	19,000 00
	\$38,000 00	\$116,000 00	\$72,500 00	\$6,000 00	\$232,500 00

BOND INTEREST DUE IN 1917.

	January.	April.	July.	October.	Total.
Water	.	\$280 00	\$40 00	\$280 00	\$640 00
Park	.	227 50	227 50	.....	455 00
Bridge	577 50	560 00	1,137 50
Sewer	.	2,490 00	3,728 75	3,552 50	12,206 25
City	.	6,407 50	7,655 00	6,336 25	26,606 25
Municipal	.	1,282 50	1,282 50	.....	2,565 00
Highway	.	2,687 50	2,355 00	2,740 00	11,202 50
Public buildings	.	3,340 00,	3,220 00	1,660 00	9,980 00
	\$16,475 00	\$17,421 25	\$15,767 50	\$15,128 75	\$64,792 50

MEMORANDUM OF PAYMENTS ON ACCOUNT OF DEBT, 1916.

	Principal.	Interest.	Total.
Bonds, General City Debt	\$207,500 00	\$66,142 50	\$273,642 50
Bonds, water	5,000 00	840 00	5,840 00
Temporary loan		24,006 72	24,006 72
Hunt art fund		18 20	18 20
On account of Metropolitan District debt:—			
Metropolitan sewers	16,050 53	28,947 67	44,998 20
Metropolitan parks	2,044 98	9,449 47	11,494 45
Wellington bridge	1,301 15	494 02	1,795 17
Charles river basin	248 68	367 43	616 11
Alewife brook	818 39	436 84	1,255 23
Metropolitan water assessment	14,765 33	74,058 98	88,824 31
Grade crossings	11,418 71	2,442 85	13,861 56
	<u>\$259,147 77</u>	<u>\$207,204 68</u>	<u>\$466,352 45</u>

TREASURY DEPARTMENT, 1916.

Appropriation budget	\$14,150 00
Transferred from maintenance polling places	282 50
	<u>\$14,432 50</u>
Salaries:—	
Treasurer and collector	\$3,000 00
Deputy collector	1,500 00
Cashier	1,000 00
Clerks	4,626 76
Stationery and postage	2,151 17
Books and printing	739 19
Car fares, auto-hire	68 30
Telephone	158 12
Bonds (surety)	265 00
Sundries	203 95
Advertising and recording tax sales	720 01
	<u>\$14,432 50</u>

Respectfully submitted,
 JOSEPH S. PIKE,
 City Treasurer and Collector of Taxes.

REPORT OF THE SCHOOL COMMITTEE.

School Committee Rooms, December 29, 1916.

Ordered, that the annual report of the Superintendent be adopted as the annual report of the Board of School Committee, it being understood that such adoption does not commit the Board to the opinions or recommendations made therein; that it be incorporated in the reports of the City Officers; and that 1,000 copies be printed separately.

CHARLES S. CLARK,
Secretary of School Board.

SCHOOL COMMITTEE, 1916.

GEORGE E. WHITAKER Chairman
 HERBERT CHOLERTON Vice-Chairman

Members.

Term expires
January.

EX-OFFICIIS.

ZEBEDEE E. CLIFF, Mayor,	29 Powder House terrace	1917
WILLIAM FLEMING, President Board of Aldermen,	73 Florence street	1917

WARD ONE.

THOMAS A. KELLEY,	39 Pennsylvania avenue	1917
JAMES J. RUDD,	46-A Franklin street	1918

WARD TWO.

CHRISTOPHER J. MULDOON,	88 Concord avenue	1917
DANIEL H. BRADLEY,	19 Concord avenue	1918

WARD THREE.

ALBERT C. ASHTON,	33 Columbus avenue	1917
GEORGE E. WHITAKER,	75 Walnut street	1918

WARD FOUR.

FRANK H. HOLMES,	22 Walter street	1917
HARRY A. STONE,	254 Broadway	1918

WARD FIVE.

MRS. JULIA R. ALDRICH,	262 School street	1917
HARRY M. STOODLEY,	283 Highland avenue	1918

WARD SIX.

MRS. MARY R. BREWER,	170 Summer street	1917
GUY E. HEALEY,	38 Cambria street	1918

WARD SEVEN.

HERBERT CHOLERTON,	94 College avenue	1917
FRANK E. PORTER,	43 Ossipee road	1918

Superintendent of Schools.

CHARLES S. CLARK.

Office: City Hall Annex, Highland avenue.

Residence: 75 Munroe street.

The Superintendent's office will be open on school days from 8 to 5; Saturdays, 8 to 10. His office hours are from 4 to 5 on school days, and 8 to 9 on Saturdays.

Office telephone, 314; house telephone, 12.

Superintendent's office force:—

Justin W. Lovett, 29 Cambria street.

Mary A. Clark, 42 Highland avenue.

Mildred A. Merrill, 26 Cambria street.

STANDING COMMITTEES, 1916.

Note.—The member first named is chairman; the one second named is vice-chairman.

District I.—Kelley, Rudd, Muldoon.

PRESCOTT, HANSCOM, BENNETT.

District II.—Muldoon, Bradley, Kelley.

KNAPP, PERRY, BAXTER.

District III.—Ashton, Whitaker, Mrs. Brewer.

POPE, BELL, CUMMINGS.

District IV.—Holmes, Stone, Mrs. Aldrich.

EDGERLY, GLINES.

District V.—Mrs. Aldrich, Stoodley, Stone.

FORSTER, BINGHAM.

District VI.—Mrs. Brewer, Healey, Stoodley.

CARR, MORSE, PROCTOR, DURELL, BURNS, BROWN.

District VII.—Cholerton, Porter, Healey.

HIGHLAND, HODGKINS, CUTLER, LINCOLN, LOWE.

High School.—Bradley, Cholerton, Kelley, Ashton, Stoodley, Healey, Mrs. Brewer.

Finance.—Stone, Bradley, Kelley, Ashton, Holmes, Porter, Stoodley, Cliff, Fleming.

Text-books and Courses of Study.—Healey, Muldoon, Rudd, Whitaker, Stone, Cholerton, Mrs. Aldrich.

Industrial Education.—Ashton, Stoodley, Rudd, Bradley, Holmes, Porter, Mrs. Aldrich.

School Accommodations.—Holmes, Muldoon, Rudd, Ashton, Porter, Mrs. Aldrich, Mrs. Brewer, Cliff, Fleming.

Teachers.—Cholerton, Bradley, Whitaker, Stone, Mrs. Brewer.

Playgrounds and School Hygiene.—Mrs. Aldrich, Mrs. Brewer, Rudd, Muldoon, Holmes.

Rules and Regulations.—Kelley, Healey, Whitaker.

REPORT OF THE SUPERINTENDENT OF SCHOOLS.

To the School Committee of Somerville:—

I have the honor to submit to you a report of the condition of the schools for the fiscal year ending December 31, 1916. This will be the forty-fifth annual report of the School Committee and the ninth which I have prepared.

In general, the work of the year has been along the lines of former years. There has been a slight increase in the enrollment of the pupils, the number for the year ending June 30 being 14,647, a gain of 142. There were graduated from the elementary schools 781 pupils and from the high school 348, thirty-seven more than last year, which was up to that time the largest number in the history of the school.

The appropriation for school expenses for the year 1916 was for teachers' salaries \$364,890, an increase of \$14,890; for contingent expenses \$36,000, an increase of \$1,000. Four hundred and ten teachers are now employed, sixteen more than were employed last year at this time. A new schoolhouse on the Prescott School site was occupied for the first time in September. This addition brings the total number of buildings occupied for school purposes up to thirty, counting the High School as comprising two buildings. Provision has been made for a new schoolhouse in West Somerville and for an addition to the Boys' Vocational School.

Certain statements were made in the report of last year to show the relations of expenditures for school purposes in Somerville to those of other cities in the state. The figures then were taken from the Report of the Board of Education for the year 1914-1915. The corresponding facts for the year 1915-1916 are given below. Where the rank for this year varies from last year the latter is shown in a parenthesis.

Somerville is the tenth city in population and the eleventh in valuation in the state, but four of the cities larger than Somerville taxed themselves at a higher rate. Somerville ranks eighth (ninth) in the number of teachers employed in the public day schools, ninth (seventh) in number of different

pupils of all ages in the public schools during the school year, eighth (seventh) in the average membership in all schools, fifth in number of pupils enrolled in the High School, and fifth in the number of teachers employed in the High School.

Somerville ranks 151 among the cities and towns of Massachusetts for the amount spent for support of each pupil in the average membership. Last year the rank was 116. On the other hand, in the amount of expenditure per \$1,000 valuation for school support from local taxation in the city fiscal year next preceding June 30, 1916, Somerville spent \$5.82 and has a rank of 155. This is an increase of seven cents and a change of rank from 158.

While the general problem has not changed materially during the year, policies have been adopted by the School Committee which are fundamental in nature and which will have a great influence on the future organization and conduct of the work of the schools. These policies relate to the providing of accommodations for the relief from present overcrowding and for the future growth of the schools, to the re-organizing of the school system upon the 6-3-3 plan, to the introduction of physical training in the High School and to the assumption by the School Committee of control over High School athletics. These subjects will be discussed in order.

Accommodations.

Again at the close of another school year emphatic demand must be made for more school accommodations. The High School is overcrowded and elementary schools in the central and western part of the city are full; some are overflowing. This condition continues to restrict the work of the schools and to prevent them from giving the service to the pupils which the schools of a large city ought to render. Fifty additional classrooms placed at appropriate centres would be put to advantageous use if they could be provided by the time for beginning a new school year. As that desirable consummation is apparently impossible, a statement showing the facts of the case may make plain why the additional accommodations needed should in the interest of economy and good school work be furnished at the earliest practicable time. In a word, plans for the future development of the schools which have been adopted during the present year can not be successfully executed without this increase of school room being supplied in the near future. Nor can the general situation be met as economically and well by any other plan. It is most important, therefore, that the beginning already made should be followed by vigorous action which shall insure the success of the plan and give to all parts of the city a satisfactory provision of school accommodations.

In January of this year His Honor, the Mayor, in a written communication to the School Committee asked to be told whether increased accommodations were needed, and, if so, of what capacity and in what location. He stated his desire to do what would be for the best interest of the entire city in regard to the schools and his belief that the School Committee should take the initiative in the matter. This letter was referred to the Standing Committee on School Accommodations for consideration and report. In February the School Committee held a special meeting for the purpose of considering a proposition to build a High School in West Somerville and gave a public hearing to citizens who wished to speak upon the question. No decision was reached at that meeting. There followed several weeks of discussion in the Committee on School Accommodations and in organizations of citizens, in which the needs of high, vocational and elementary schools were reviewed. At a special meeting held on April 3 the Committee on School Accommodations submitted the following report which was adopted by unanimous vote:—

“The Committee on School Accommodations has given careful consideration to the matter of providing accommodations for the needs of the schools. In its survey it has taken account of the fact that vocational and elementary schools as well as the High School are in need of more accommodations. It recognizes the necessity for moving in this matter in such a way as will conserve the educational interests of the whole city and all parts of the educational system and at the same time be consistent with a regard for true economy.

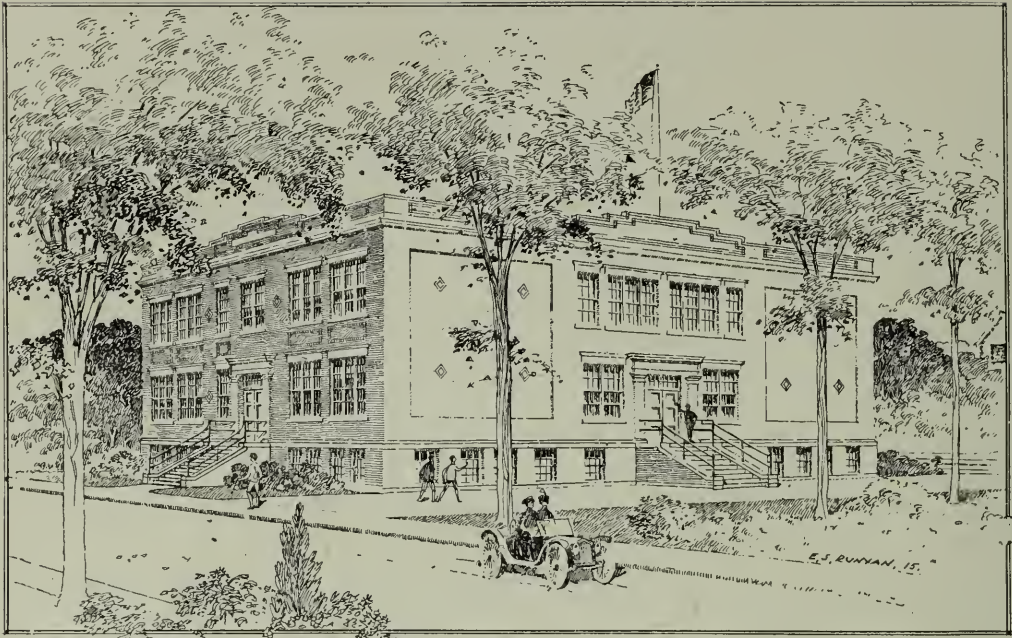
“The committee therefore have agreed without a dissenting vote upon the two following recommendations:—

“1. That there be adopted a plan for establishing four or five Junior High School centres in different parts of the city whereby relief shall be given to both High and Grammar Schools.

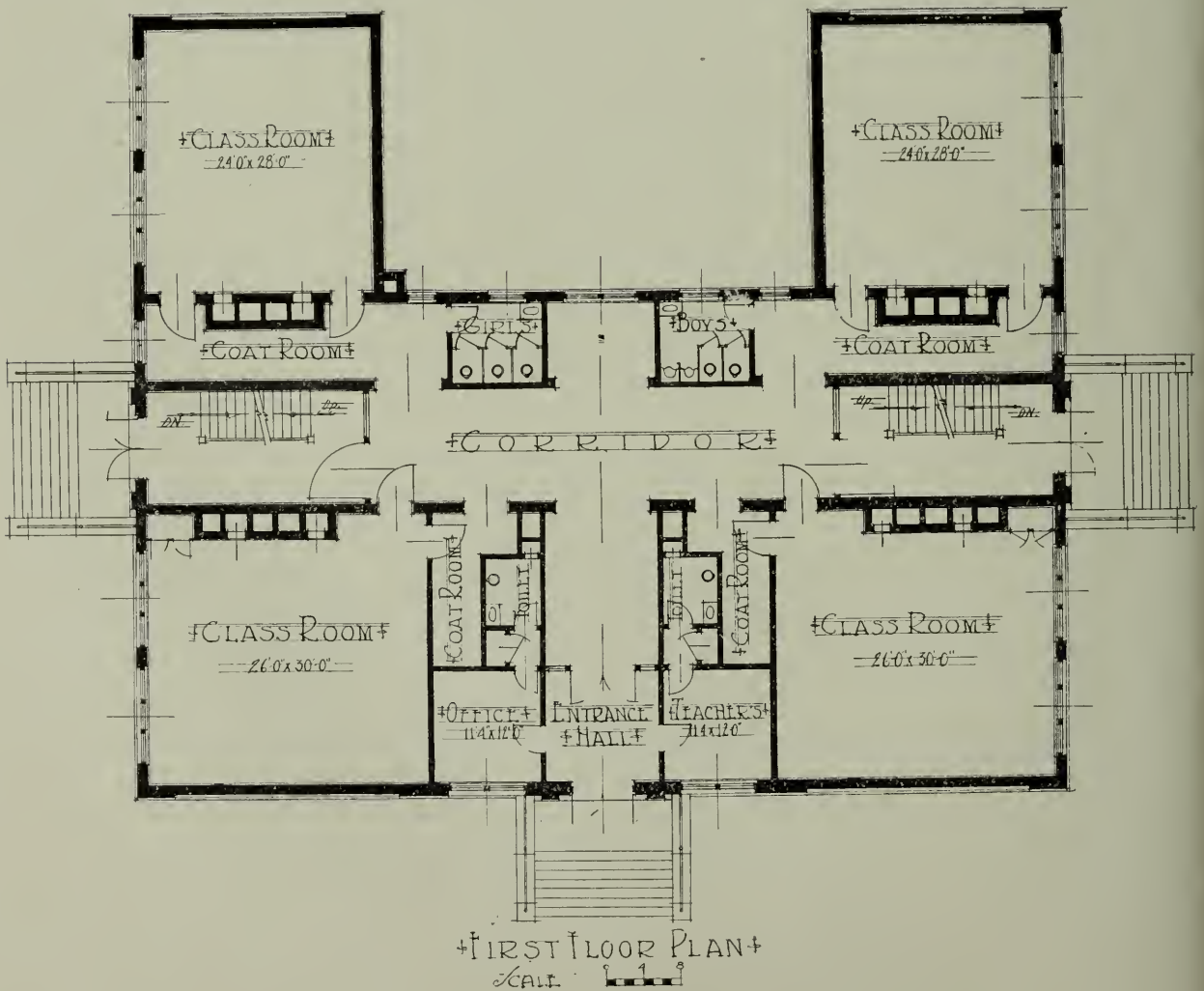
“2. That a petition be sent to His Honor, the Mayor, for immediate building in West Somerville on the ledge lot a schoolhouse suitable for a Junior High School, in conformity with plans submitted by Building Commissioner Littlefield and approved by this standing committee.”

The following resolution submitted by the committee was also adopted:—

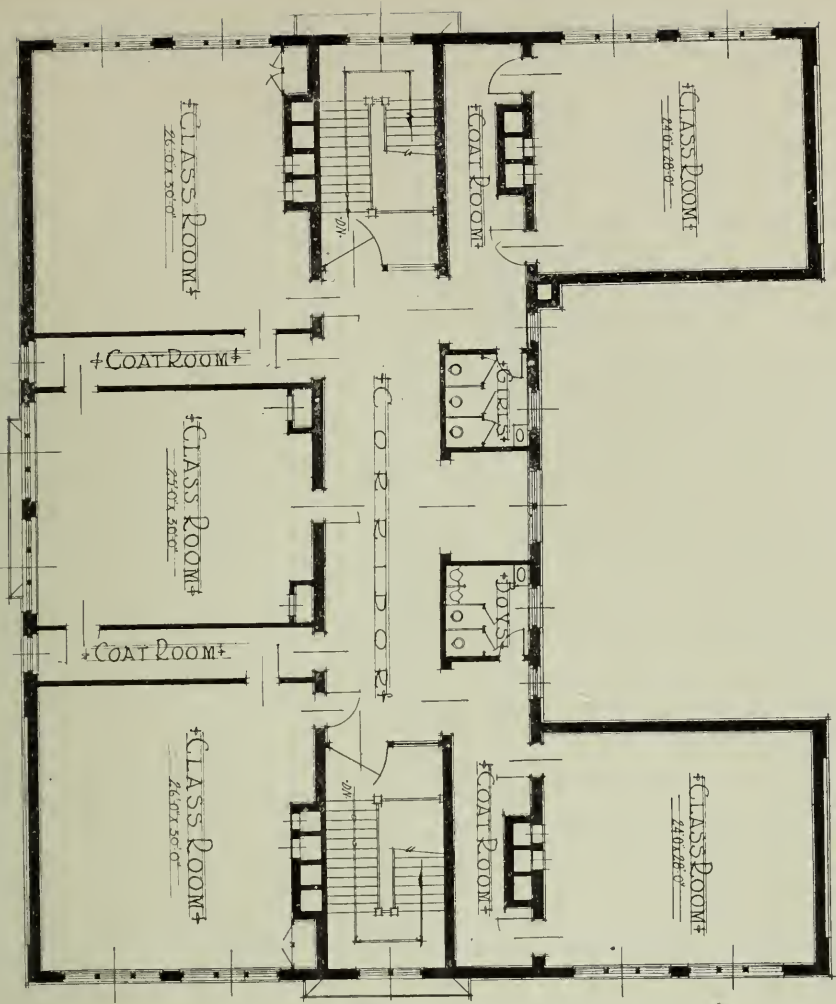
“Resolved: It is the judgment of the School Committee that a system of junior high schools for Somerville should be established to consist eventually of four units; one in the western part of the city on Holland Street; one at the Forster School in the northern section of the city; one at the Prescott School in the eastern section of the city; and a unit



† EAST SOMERVILLE JUNIOR HIGH SCHOOL †
 † SOMERVILLE MASS †
 † WALTER T. LITTLEFIELD ARCHT †
 † 9 HAMILTON PL. BOSTON †

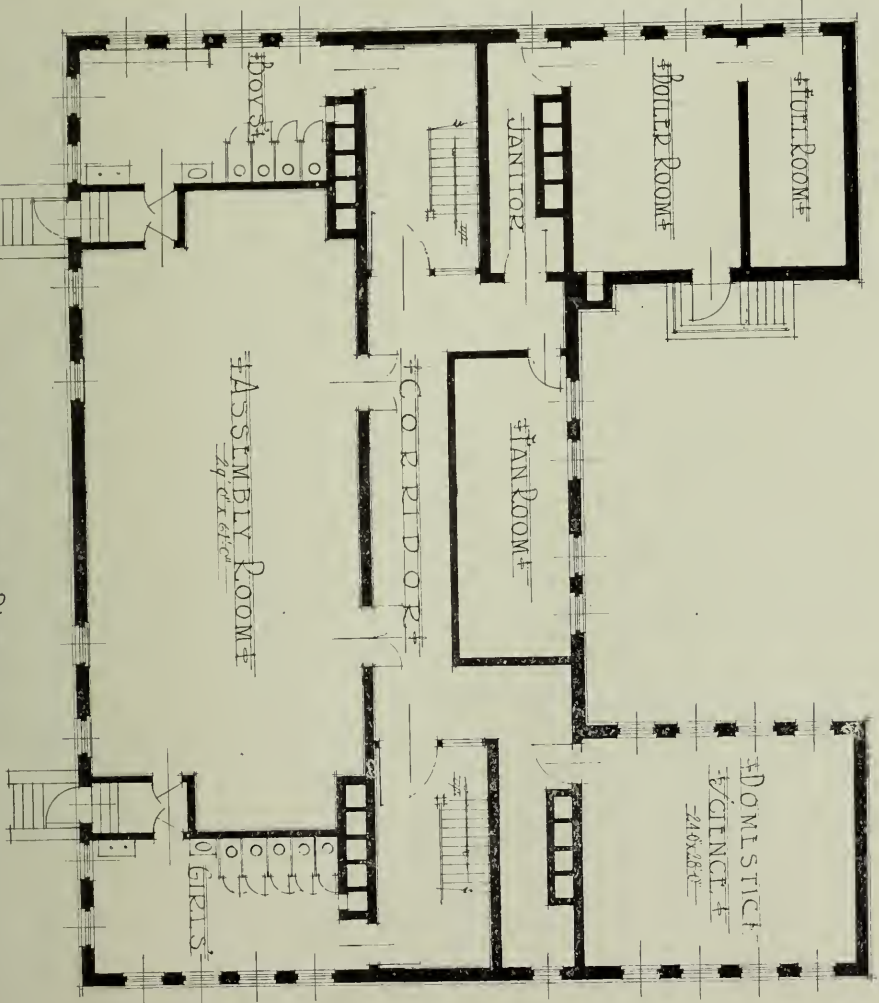


LATOINETTE JUNIOR HIGH SCHOOL
 ZOMBEVILLE MASS.
 WALTER HERRMANN ARCHT.
 HAMILTON PL. BOSTON



SECOND FLOOR PLAN
 SCALE 1/8" = 1'-0"

LATOINETTE JUNIOR HIGH SCHOOL
 ZOMBEVILLE MASS.
 WALTER HERRMANN ARCHT.
 HAMILTON PL. BOSTON



BASEMENT PLAN
 SCALE 1/8" = 1'-0"

to be erected in the southern part of the city preferably adjacent to the Bell Schoolhouse.

"It is the sense of the committee that provision be made not only for the construction of the proposed building in the western section, but also for the acquisition at the present time of the vacant land adjacent to the present Bell School lot on Vinal avenue; it being understood that the School Board is committed in its opinion to the future development of this whole project."

As a further step in the direction of supplying accommodations the board adopted the following report made by the Committee on Industrial Education:—

"This committee, realizing that the work of the vocational schools is unduly restricted by the limitations of their present quarters, believes it to be desirable at this time to make an enlargement of the accommodations for the Boys' Vocational School. That this may be done in the most economical way possible, with a due regard to the present needs and future contingencies, the committee recommends the following measures:—

"That an extension be made to the northerly side of the Davis School building, extending ninety feet parallel to Tufts street, with a width of forty feet, to be one story high with a basement, the basement and first floor to be of first-class fire-proof construction.

"That this structure be erected as far as possible by the labor of the boys of the Vocational School.

"That it be adapted to use as a machine shop on the main floor and as an automobile repair shop on the basement floor.

"That it be provided with the necessary equipment for fifteen students in the machine shop and fifteen students in the automobile repair shop."

Copies of these recommendations were sent to His Honor, the Mayor, and to the Board of Aldermen with the following results:—

\$94,500 were appropriated for a Junior High School building to be erected on the ledge lot on Holland street, West Somerville.

A lot of land 65 by 117 on Vinal avenue adjacent to the Bell Schoolhouse was bought as a site for a Junior High School; and \$10,000 were appropriated for an addition to the Boys' Vocational School. These decisions meant that adequate relief from overcrowding of the High School and of the elementary schools throughout the city could best be made by additional accommodations provided at several centres distributed so as to serve the whole city, which could draw from the High School in time the whole freshman class and from the grammar schools several upper grade classes; that for

the present at least vocational education for boys should be accommodated by additions to the present plant; and that a new educational organization, the Junior High School, should be made a part of the school system.

In discussing first the effect of these provisions upon the problem of school accommodations throughout the city, it can be stated that the new building at the Prescott School, which was begun last year and opened for use in September of this year, is occupied by the East Somerville Junior High School; that a building for the West Somerville Junior High School is being erected which will contain eleven classrooms and four basement rooms suitable for laboratories and shops, and will be ready for use in September; that a Junior High School was opened in the Forster School last September; and that a beginning has been made on the addition to the Boys' Vocational School. As a result of opening the Junior High Schools, a redistribution of pupils has been made in the eastern part of the city by means of which overcrowding has been relieved and part time classes in that section of the city abolished. These Junior High Schools retained 169 pupils of the tenth grade who were eligible to enter the High School in September. This act reduced by that number the membership of the Senior High School and relieved crowding there to an appreciable extent.

Upon this point Head Master Avery submitted the following statement soon after the opening of the schools in October:—

“The High School has already profited by the institution of the Junior High Schools in the following respects:—

- (1) The number of pupils:—

In June, 1916	2,003 pupils
In October, 1916	1,804 pupils
Decrease in attendance	199
- (2) Better use of building:—
 - (a) Four rooms, unfit for use as home rooms, have been freed from such use,—namely, two drawing rooms and two typewriting rooms.
 - (b) Two large rooms are devoted entirely to study purposes.
 - (c) The auditorium is freed from recitation purposes.

“Summary.—The administration has been made easier, the congestion has been decidedly relieved, the air seems better, and better work is already apparent.”

Thus a total addition of nine regular classrooms in the eastern part of the city has been made a means of bettering school conditions throughout that section of the city and in the High School as well. The Forster School, while it has not been enlarged, has contributed its share to the relief of the High School by retaining ninety-seven tenth grade pupils

who would otherwise have swelled the numbers in the Senior High School. This school is taxed to the utmost to house the pupils who attend there. Like the East Somerville Junior High School, it is not large enough for the work it is now doing, much less for the work which will be put upon it in the future. More room must be provided in both places in due time.

From this survey it will be seen that half of the plan adopted in the April meeting has been started and that a beginning has been made to provide facilities for carrying the other half into effect. In September when the West Somerville Junior High School is opened over 200 pupils will be retained there who would in ordinary procedure go to the High School. This will still further improve conditions in that school. It would be a most happy circumstance if the Union Square Junior High School could be opened at the same time, thereby making it possible to withhold the whole first year class from the High School and without further delay organize the work of the Senior and Junior High Schools upon the new basis.

Each Junior High School comprises the eighth, ninth and tenth grades. Each occupies exclusively the whole of one building and a part of a nearby building. At present the course of study for the tenth grade is identical with that for the first year of the High School and the course for the eighth and ninth grades is in subject matter similar to that of corresponding grammar school grades. Instruction is given on the departmental plan throughout the school, but the pupils of the eighth or lowest grade receive a large part of their instruction from their home room teachers. Elective studies are offered pupils in the eighth and ninth grades. In the tenth grade the studies are grouped in the same courses as in the High School. The elective studies are Latin, French, German, Spanish, typewriting, elementary bookkeeping, drawing and design, printing (at Winter Hill), woodworking and repairing, cooking, sewing and home management. Suitable restrictions concerning the number and kinds of electives which a pupil may take are established and provision is made for changing when it is to the advantage of the pupil to do so. Supervised study, promotion by subjects, and physical training are included in the general plan. The teaching of all High School subjects is given by the teachers qualified to teach in a Senior High School and is under the supervision of the heads of departments in the Senior High School. The teaching of grammar school subjects is given by experienced grammar school teachers. The animating spirit of the organization is liberal, cordial and sympathetic. It seeks to create in each pupil the desire for self-mastery and improvement and

to afford him an opportunity for self-discovery. In short, the Junior High School is a medium adapted to the needs of pupils during the period of transition from childhood to youth. The East Somerville and Winter Hill Junior High Schools have now passed through the first quarter-year of their existence, are well established and are giving evidence of meeting satisfactorily every reasonable expectation held concerning them.

Physical Education, Sports, and Military Drill.

The physical education of youth of the public schools has received unusual attention during the year now closing, both in our own city and in the state at large. That local opinion has been affected by the larger volume of thought cannot be doubted. That the sentiment in favor of state regulation of the physical education of the youth in public schools, at least, will grow until some legislation to govern the matter is placed on the statute books seems equally probable. A brief statement of these two conditions may serve to throw both into relief and to show their interrelations. From such a view may be obtained an opinion as to what is the duty of this community in the matter of properly providing for the physical development of its pupils.

In the last report of the School Committee an account was given of the work being carried on in the elementary schools to promote the health of pupils and to develop their physical powers. To that account can now be added the statement that the same plan has been followed this year with increased benefit to the pupils. It may be confidently expected that the physical training thus begun in the elementary schools will be continued and expanded as ways and means for doing so may be available:

This year another step, nearly as important, has been taken. Physical exercises for all pupils were made a part of the daily program of the High School by an order of the School Committee which went into effect at the opening of the school in October. A period of fifteen minutes daily is devoted to this work. During this time pupils are re-grouped in classrooms so as to permit boys and girls to exercise in separate places. Windows are thrown wide open and pupils go through a program of setting-up exercises with zest and vigor. Classmates chosen for the purpose by vote act as leaders, while teachers by their presence give sanction and official oversight to the work. The director of physical education has charge of the enterprise. He selects the exercises, drills the leaders, oversees the execution of the general plan and provides expert advice in matters involving the relation of physical training to health. Some of the benefits which are

sought by means of this work are the following: Relaxation from and dissipation of mental strain, change from sedentary postures, stimulation of respiration and circulation, correction of stooping and slanting carriage of the body, promotion of habitual correct carriage of the body; and training in such intellectual habits as co-operation, prompt obedience, alertness, subordination to chosen leaders, and other ideas which may grow out of the conduct of this undertaking.

While this plan has been in operation too short a time to give indisputable evidence of its worth, it has nevertheless been started successfully and has created enthusiasm and aroused interest among the students. The strong advantages of this plan are the following: It reaches all pupils; it occurs daily; it provides well-balanced exercise of the whole muscular system; it affects the physiological efficiency of vital organs and is fundamental and economical; and finally it can be carried on in spite of the fact that the school has no gymnasium. So far as it goes this provision is fundamental and would be desirable even if it were possible to add to it other important features, such as special work in a gymnasium. It forms a good basis for athletic sports and it will undoubtedly lead many pupils to take part in out-door sports who otherwise would have become victims of sedentary and indoor habits. A second step intended beneficially to affect the health and physical development of High School pupils was taken when the School Committee assumed control of High School athletics. The importance of this step is found in two considerations: First, it recognizes sports as an integral part of High School activities; and second, it commits the School Committee to a supervision and promotion of such sports as it deems to be advantageous to the conduct of the High School. Inasmuch as athletic contests are a means of physical exertion natural and attractive to youth of High School age, it is a wise action on the part of the School Committee to take control of the whole matter to the end that the best good to the greatest number of students may be brought out of it.

Already beneficial results have come from this action. Among these is the re-organization of the High School Athletic Association with a new constitution which provides a program for developing sports for many, rather than for few students as a means of wholesome outdoor recreation and enjoyment. This association while exercising immediate control of sports will be under the supervision of the School Committee and subject to its authority. By this union of forces the School Committee will define general policies and will support them and the Athletic Association will carry them into effect by actively managing the various athletic activities of the school.

While these policies were being developed a sentiment in favor of the introduction of military drill in the High School found expression in the community. In other parts of the state the same sentiment appeared. This sentiment became associated with the demand for greater national military preparedness. Two questions then naturally arose:—

1. What ought to be done to improve the condition of High School pupils for the sake of physical efficiency?

2. What ought to be done to improve the condition of High School pupils for the sake of preparedness? There being no recognized court of appeal for the determination of these matters the General Court in 1915 passed a resolve authorizing the appointment of a special board to report upon the practicability of providing military education for boys and for creating a militia reserve. It provided for the appointment by the Governor of "three officers of the militia of the rank of captain or higher rank, and six persons not members of the militia." This board was required to inquire into and report upon the following matters:—

1. "The practicability of providing military education for boys between the ages of fourteen and twenty-one for the purpose of securing a proper military training and discipline for the youths of this commonwealth and improving their physical, moral and mental qualities and for providing for the commonwealth an adequate basis for a citizen soldiery.

2. "The practicability of providing military training for youths in the public high schools."

In June, 1915, Governor Walsh appointed as members of the commission, one lawyer, one newspaper editor, one city mayor, one member Boston Printing Pressmen's Union, two college presidents, two major-generals, and one brigadier-general, M. V. M., retired.

In December, 1915, the report of this commission was made public. Because of its official nature and because of the representative character of the commission which made it, this report has great significance in any consideration of the introduction of military drill in high schools in this state. For this reason I quote in full the section of the report bearing upon Military Training in the Schools.

"'Military training' in the schools, as the words are used by different persons, may mean one or more of several things.

"First, military drill, in the sense of training with a musket, manual of arms and close order formation. In a word, an imitation of the sort of training which a young man receives at the armory when he goes into the militia.

"Second, physical exercises and physical training which will develop not only the body but the attention and mind of the boy receiving it,

“Third, the teaching of true military history, personal hygiene, and camp sanitation.

“Fourth, the teaching of love of country and willingness to serve it.

“The overwhelming weight of opinion from school teachers, military experts, officers of both the regular army and the militia, and the general public is against military drill as defined in the first clause above. It is generally agreed that the military drill which a boy receives in school is of little or no advantage to him from the point of view of practical soldiering. As far as available evidence goes, drill in the schools has had no beneficial effect in promoting enlistments in the militia except in a few isolated localities. For various reasons, it has seemed to create a dislike for soldiering. Military drill in the schools is objected to by many on the ground that boys of school age have not attained sufficient mental maturity to appreciate what war and fighting mean, and are therefore unable to digest ideas which military drill presents to them in concrete form. It is worth noting that military drill as such is given in the schools of no countries of the world except Australia and Japan.

“The commission does not recommend military drill in the schools but is opposed to it.

“Physical training which tends to make a boy strong, physically well set up and mentally alert, is the proper preparation for the real intensive training necessary to make a soldier, as it is also the proper preparation for civil life. The overwhelming weight of public opinion favors the greater development of physical training in the schools and the standardization and inspection of such training by some central authority.

“The commission recommends the adoption of a systematic plan of physical training in the schools and has drafted legislation providing for that purpose. It believes that the basis of such training should be the system of calisthenics used for many years at West Point under the supervision of Captain Herman J. Koehler, not because that system is particularly military, but because, according to the consensus of expert opinion, it is the best system which can now be adopted.

“The commission also recommends the teaching of personal hygiene, camp sanitation, and the truth about our military history, in the schools.

“The commission also recommends the establishment of training camps for school boys during one month of the summers preceding or following their last year in High or Latin Schools. Attendance at such camps should be voluntary and they should be conducted under the joint supervision of the State Board of Education and the Adjutant-General.

"The teaching of patriotism or love of country in the schools is something which can hardly be standardized or provided for by legislation. Nevertheless, the commission feels warranted in expressing the hope that teachers throughout the commonwealth will feel that it is their duty to inculcate these ideals in the minds of the boys under their charge as a real part of the school life.

"The most frequent criticism as to American boys is that they seem to lack a sense of responsibility or of loyalty and duty to something beyond themselves. A spirit of devotion to his country is the finest spirit which a boy can acquire. That spirit is not at all incompatible with the teaching that every endeavor must be made to maintain peace. The militaristic spirit which means blind faith in the doctrine of force is perhaps the most vicious idea which could be instilled in a boy's mind. The military spirit which means a willingness to serve and fight for his country in time of need, which recognizes as abhorrent the point of view which relies on others to perform the service and do the fighting, is a fine and unselfish sentiment which can not be too early instilled into the youthful mind.

"There is no need to use the word military in this connection. It is offensive to many, and unquestionably means very different things to different people. What the boy should be taught is that nothing can ever make other than glorious and holy the death of one who dies for his country, and that no boy can shift to the shoulders of others a duty to the nation any more than he can a duty to his family or friends." Among the definite recommendations for affirmative action are the following:—

"Development of physical training in the public schools according to a prescribed standard.

"Teaching of military history, personal hygiene and camp sanitation in the public schools." The sections quoted have the approval of all the commissioners as well as the expressed endorsement of Charles H. Cole, Adjutant-General Chief of Staff.

In May, 1916, the General Court passed the following resolve: "Resolved, That three persons, to be appointed by the Governor, shall constitute a board to investigate the subject of physical training for boys and girls in the public schools, and to define and recommend a system which will improve their physical, moral and mental qualities and provide the commonwealth with an adequate basis for a citizen soldiery, with special reference to the following subjects:—

- (a) Physical and disciplinary training.
- (b) Military history.
- (c) Personal hygiene and sanitation.

"The members of this board shall serve without pay but shall be allowed for clerical assistance and for necessary expenses, such a sum, not exceeding \$1,000, as shall be approved by the Governor and Council.

"The board is authorized in its discretion to consider any related matter, whether or not the same is particularly mentioned in this resolve. The board shall report the result of its investigations to the General Court on or before the second Wednesday in January in the year nineteen hundred and seventeen, and shall accompany its report with such recommendations for legislation as the board may deem advisable."

The report of this board soon to be made will doubtless recommend a policy to be followed by the schools of this state in the matter of physical and disciplinary training.

Meanwhile, it appears from this survey that the School Committee has acted in harmony with the recommendations of the commission appointed by Governor Walsh, both in establishing physical training in the High School and in refraining from introducing military drill.

High School.

The High School at this time is in a better condition than at the close of last year. This improvement has been due in part to the rearrangements which were made as a result of the reducing of the number of pupils in the school caused by the opening of Junior High Schools. Even the few rooms thus made available for new uses helped to relieve crowding and to give better opportunities for work to some departments. There is, however, today much loss of efficiency because there are not rooms enough in the school for the various activities which ought to be carried on there. A modern High School seeking to do the work which this day demands needs rooms of varying sizes in addition to the number of classrooms required to accommodate the teaching units into which the school is divided. Such additional rooms cannot be had, however, until the whole freshman class is withdrawn as a result of the opening of four Junior High Schools. The earlier this withdrawal can be made the sooner will the High School be able to do well the work for which teachers have been provided.

Boys' Vocational School.

The Boys' Vocational School has had a successful year. It became necessary to reduce the number of pupils in the machine shop because of the rules of the State Board of Education concerning the number of pupils allowed for the equip-

ment provided. There are now fifty-three pupils enrolled in the school. An appropriation for a new building forty by ninety feet has been made and work upon it has been begun. When completed it will provide accommodations for fifteen boys in the machine shop and fifteen boys in an automobile repair shop. Besides these accommodations there will be two classrooms and a washroom and lockers. The main building is to be built by contract labor, but the boys of the carpentry class will work on the outside finish and on all of the interior finish such as floors, partitions and sheathings. Two machines have been ordered for the wood-working department and ten new machines have been selected for the machine department.

The State Board of Education has made new rules which affect the teaching force of all vocational schools. After September, 1916, all new instructors employed shall do some approved professional improvement work during the first year of employment and during each year thereafter. All instructors in service shall do some approved professional improvement work each year.

Girls' Vocational School.

The Girls' Vocational School has placed a number of its seniors this year in positions as managers of lunch rooms in high schools and colleges, as teachers of sewing, as assistants and managers of food shops and tea rooms, as accommodators in places where the service would vary from preparing the whole dinner to serving a dinner, as dressmakers, and as mothers' helpers. The finding of these opportunities for graduates and members of the senior class has had an effect upon the plans of instruction in the school. While the principal business of the school is to train girls in home-making, it is also a recognized aim to provide a training which will enable the girls to be self-supporting after leaving the school. Hence it is deemed necessary to shape instruction so as to give the girls efficiencies which can be immediately used upon leaving school. It is found that some breadth of training as well as technical proficiency is desirable. Consequently emphasis is laid upon general training and upon the development of the sense of responsibility. In the future there will be a continuance of the practical instruction which has been given in the past and an effort will be made to increase the skill of the pupils in the technical side of their education. Reports from graduates of the school who are engaged in home-making either in homes of their own or in homes of their parents are such as to give proof of the value of the instruction which they received in the school,

Teachers' Salaries.

As the year draws to a close teachers of Somerville are generally asking for an increase of salary. For all, this request is dictated by a sense of the shrinkage in purchasing power of the salaries which they have been receiving. Contrasted with the cost of living salaries have a much lower value than was the case even a few years ago. Having no other way to meet these changed conditions the teachers ask for an increase of pay. In the case of some teachers there is added to this general condition the further one that an increase is justifiable because the present rate in their cases is unsatisfactory in relation to the other items of the salary schedule. These requests for increases of salary should be considered carefully before the estimate for next year is made up. It is fair to our teachers to say in this connection that the movement for an increase of salary for teachers is general throughout the state. For purposes of comparison salary schedules of other communities are today of small value unless they have been adopted within a year or two. Teachers are insisting on their right to a suitable return for their services. They maintain that such services have an intrinsic value; that this inherent value is not determined by the relative ability of the community to pay but by the service itself. They ask that recognition be given to the worth of the service as measured by the cost of living or by the returns which are given in other walks of life where the same grade of service is required. While it is true that teachers everywhere have to plead their own cause strenuously in order to get recognition, it is also true that Somerville has always been liberal in its dealings with its teachers. Therefore I feel certain that these petitions, respectfully made, will be given the attention which they deserve.

Semi-Annual Promotions.

After a trial of several years, the School Committee in November decided to give up the plan of mid-year promotions. This action was taken after a consideration of the question extending over several months, and after a hearing upon the matter had been given to the public and to the principals and teachers of the schools. To bring about the change to yearly promotions the committee ordered that admission of beginners to the first grade in February be discontinued, and that mid-year promotions be gradually abolished. As a consequence of this determination no admission to the first grade will be made next February and changes in the organization of the February classes will be made to return to the

annual formation in such manner and at such times as the committee shall approve.

Recommendations.

My conviction is that the first place in importance among the needs of the schools is held by the building program which has been outlined in this report. Progress in the development of policies for the benefit of all parts of the educational undertaking is conditioned upon the furnishing within a short time of the additional accommodations and equipment which that program includes. Therefore, I confine my recommendations for the immediate consideration and action of the School Committee to the following:--

1. That a schoolhouse for use as a Junior High School be built upon the Vinal avenue lot and be made ready for occupancy in September, 1917.

2. That land be secured as the site for a ten-room elementary school in the vicinity of the Winter Hill Junior High School.

3. That plans be made for such a building and steps be taken to have it ready for occupancy not later than September, 1918, in order that the whole of the Forster Schoolhouse and its annex may be used as a Junior High School.

While these additional buildings will not meet fully the present needs of the schools they will relieve conditions of overcrowding which are a source of complaint among the patrons of the schools and will give an opportunity for carrying on effectively the work which is now being done under serious restrictions.

Conclusion.

In conclusion I express again my obligation to the School Committee for its encouragement and assistance. I acknowledge the fidelity, willingness and cordiality of all the teachers, and I express the hope that these factors combined have produced results that are worthy of the efforts made.

Respectfully submitted,

CHARLES S. CLARK,
Superintendent of Schools.

December 29, 1916.

REPORT OF THE HEAD MASTER OF THE HIGH SCHOOL.

Mr. Charles S. Clark,
Superintendent of Schools,
Somerville, Mass.

Dear Sir: In 1911 the Somerville Latin School and the Somerville English High School were united. As this step was a radical one the wisdom of which was somewhat questioned by many interested people, I ask your permission at this time to review briefly the past five years of the school's history with a view of showing how conditions have been met and what has been done in the line of progress.

The objections raised at that time were those which naturally arise at such a time in all large schools. "The school would be too large; its organization would be cumbersome; pupils would lose in individual attention because of the numbers, and the teaching body would be disintegrated."

What has been the result?

1. *Organization.* I will admit that the increase in size of a school calls for a more carefully worked-out system just as a large business calls for more complicated administrative methods. The large business to run smoothly must advance new methods; so in the large school. Many duties performed in a small school by the principal must be assigned to others thoroughly capable. To secure this in our school a Board of Administration was organized consisting of three masters; one, assigned charge of the West building; another, of the East building, and a third, the vice headmaster, was given general supervision. As a board they have assisted the head master in formulating rules and plans of organization and in the control of routine discipline. In addition, a man teacher was placed in charge of each floor in both buildings (seven in all) for the purpose of general supervision and the securing of uniformity. In this way the work has been efficiently divided without undue strain on any one person.

2. *Curriculum.* After careful consideration I feel justified in stating that the curriculum of the school has been appreciably improved and enriched and has received wise and capable supervision. The Board of Supervision (four masters) have had this department of the school in charge. The Preparatory Course, for which the greatest apprehension was manifested, has increased in numbers and efficiency. New teachers have been added, weak places strengthened, and thorough supervision secured.

The Somerville High School has been in existence sixty-three years and during those years has sent many boys and girls to higher institutions.

From 1880 to 1895, number of graduates.....	959
Number entering higher institutions.....	312
Per cent. entering higher institutions.....	32.6%
From 1896 to 1905, number of graduates	1,523
Number entering higher institutions.....	529
Per cent. entering higher institutions.....	34.7%
From 1906 to 1910, number of graduates.....	1,198
Number entering higher institutions.....	393
Per cent. entering higher institutions.....	32.8%
From 1911 to 1915, number of graduates.....	1,476
Number entering higher institutions.....	436
Per cent. entering higher institutions.....	29.5%

Before comparing these figures and drawing conclusions therefrom, let me give a brief sketch of the history of the High School. Up to 1895 the Somerville High School was to a large extent a preparatory school for college with permission granted some pupils to take a general course which really meant a college course with certain subjects omitted. There were practically no commercial, manual or household subjects taught. In 1895 the Latin and English High Schools were established. The Latin School was a preparatory school for college exclusively. The English School fitted for Technical and Normal Schools and had also an extensive Commercial Course. In 1911 these schools were reunited into the Somerville High School,—in organization and scope of work, however, a very different school from the original school. The demands of the age and the ever forward movement in education required a much more varied and a broader course. The Preparatory Course grew steadily and naturally; the Commercial Course increased enormously and the Manual Arts Course has had a small and slowly increasing growth. These courses had the following enrollments for the year 1915-1916:—

Preparatory	801 or 39.4%
Commercial	966 or 47.7%
General	175 or 8.7%
Manual Arts	85 or 4.2%

With these facts in mind let us look again at the figures given first. In the days when the school did preparatory work only, i. e. up to 1895, 32.6 per cent. went to higher institutions; in the last five years, 29.5 per cent. or only 3.1 per cent. less, continued their studies after graduation. This, it seems to me, is a creditable showing and compares favorably, from all I can learn, with the experience of other schools around us.

On the other hand if we compare the figures of the school from 1880 to 1895,—a school of Preparatory and General Courses only,—with the figures of the General and Preparatory Courses for the year 1915, a very startling conclusion is obtained. In the early period 32.6 per cent. attended college,

in 1915 58.7 per cent., or an increase of 26.1 per cent. Another interesting fact is that in the year 1893, for example, pupils entered Harvard, Radcliffe, Tufts, Dartmouth, Technology, and Salem Normal School. In the year 1916 our graduates entered Boston College, Boston University, Dartmouth, Harvard, Holy Cross, Jackson, Massachusetts Agricultural College, Massachusetts Institute of Technology, Mt. Holyoke, Normal Schools, Radcliffe, Simmons, Smith and Tufts. All of these schools excepting Harvard, Radcliffe and Technology, which admit by examination only, received our graduates on certificate. Also during the present year four of our graduates are receiving scholarships at Harvard and three entered last fall with high honors.

As a result of these figures I feel justified in stating (1) that the work of our Preparatory Department compares favorably with the results of any year or group of years since the school was founded; (2) that the school in its present wide scope of work is more effectually meeting the needs of all classes of pupils in that it furnishes training along more varied lines. The Commercial Course, a very popular one, has been thoroughly changed and improved since 1911, a two year course introduced for those who could not remain four years, and new subjects and equipment added. Our graduates are placed in positions at once and are showing by rapid promotion the value of their training. The Commercial Course in 1910 required two years of general work followed by two years of special training in commercial subjects. The best pupils were allowed the opportunity to follow both lines. The fair or poor pupils found it necessary to return for a fifth year or to attend some other school. In the present plan for the Commercial Course, pupils begin their commercial training in the first year by taking in addition to English and a language or science, bookkeeping, arithmetic and penmanship. Stenography and typewriting may be started in the second year and before graduation a pupil may take three years of either stenography or bookkeeping, with additional work in business arithmetic, law, commerce and industry, and business practice.

The effect of these changes has led to an increase of commercial facilities and a much more thorough preparation along commercial lines. Pupils graduate with an excellent working knowledge of their special subject and a fair knowledge along other commercial lines. Opportunity is also granted seniors to spend at least one week in actual practice in the school office or in outside offices.

The General and Manual Arts Courses, though only about thirteen per cent. of the school, are carefully supervised and give thorough opportunities to the pupils. On the whole the

courses in the Somerville High School furnish the means for a broad selection of subjects and a satisfactory preparation for higher schools and for business.

3. *Attention to the Welfare of Individual Pupils.* Much care and thought have been given by the teachers to devising plans for watching the work and the progress of each pupil.

(a) *Advisory Plans.* An advisory system by means of which each pupil in his freshman year selects a teacher for advice and counsel has resulted in much good. The pupil's school record, his selection of courses and subjects, and his general conduct are carefully followed by his adviser. This plan gives each pupil at least one teacher who is especially interested in him and watches over his efforts and progress.

(b) *Committees of Teachers* on Social Service, Vocational Guidance, and Advice have frequent meetings for the purpose of studying conditions and making suggestions for the betterment of the social, moral, and physical standing of pupils. During the past years these committees have done much toward improving the advisory system, and have planned an annual reception to parents by advisers. Through this means Vocational Guidance has been started in the school about which I shall say more under the next heading.

(c) *Vocational Guidance and Placement.* A year ago the School Board authorized that the half time of two teachers be set aside to work on the problem of vocations and securing positions. One of these teachers has not yet been secured. A vocational adviser for the girls, however, has been at work since September. Her report is as follows:—

The work in Vocational Guidance has been confined to individual counseling, investigation and placement.

Number of pupils interviewed.....	161
Number of pupils placed.....	14
Number of requests for student workers.....	24
Follow-up Work.	
Letters sent to Class of 1916-B.....	300
Post cards sent to pupils at work during summer.....	46
Number of pupils induced to remain in, or return to, school.....	7

An attempt has been made to find out why pupils leave school. It is evident that the majority of pupils do not leave school because of economic pressure, but rather because they desire to leave, or because they have obtained positions which, in their opinion, offer greater opportunities than the continuance of their school work.

Reasons for leaving school: Death of father; ill health of mother; ill health of student; non-promotion; poor marks; trouble with teacher; the study of music; the preferring work to school; the completion of Two Year Course; the obtaining

of a position during vacation; the desire to go to a business college.

Whenever pupils have clearly indicated their choice of life work or have expressed a desire to investigate a certain line of work, an effort has been made to form a specific group. These pupils have been given information regarding the work, referred to books giving additional information, and later they will be given a definite outline for the study of the occupation.

Mr. Wilkins, head of the Civil Service Department in the Evening High School, gave a brief talk to pupils interested in Civil Service Work.

Catalogues of colleges and schools offering vocational training have been collected and will be placed at the disposal of pupils.

Home visiting, resulting in the more active co-operation of parents and a closer relation between home and school, fully warrants any additional expenditure of time and labor.

Vocational information is given with the idea that when the pupil has the vocational material with which to think, and is stimulated by the parent or adviser to make use of this material, his mind will generally arrive at the right solution.

A room, beginning in February, will be set aside for the use of the vocational adviser, who plans to meet all pupils at least once either *in groups* or *individually* as follows:—

January	Class of 1917-A
February	First Year Pupils
March	Fourth Year Pupils
April	Third Year Pupils
May	Second Year Pupils
June	Fourth Year Pupils (individually)

(d) *Parent-Teacher Association.* An effort has been made to connect the school and home by the organization of a Parent-Teacher Association. This association has shown an active interest in the school and has been helpful in bringing to parents' attention talks on many subjects of vital interest. Many parents, through this organization, have been brought more closely in touch with the school and the teachers.

(e) *Higher Scholarship.* As a means to encouraging and recognizing scholarship honor lists are posted after each quarter's marks. These lists are also published in the school paper. At graduation pupils who have been on the quarterly honor lists at least eight times are graduated "with honor." Two graduation speakers are chosen by the class from the honor lists. The lamentable tendency on the part of so many to be just satisfied with "getting by" makes any plan to encourage scholarship justifiable. An English Club has been recently formed to which honor pupils only are eligible.

(f) *Physical Training.* The health of our young people has been little considered in the past, yet the necessity for strong bodies must be recognized if we wish to produce able citizens. The need of a gymnasium has been long felt. As an alternative to gymnastic instruction a system of physical exercises has been instituted this past year. These exercises take place in the schoolrooms after the short recess. Groups of boys and girls under student leaders go through an energetic, carefully planned drill. Great interest has been taken in these exercises by the pupils and a keen rivalry has developed among the groups. I consider this drill the most helpful and valuable that could be devised under existing conditions.

(g) *School Hours and Lunch.* The school session extends from 9 A. M. to 3 P. M., with the understanding that pupils whose attendance, lessons and deportment have been satisfactory shall be dismissed at 2.15. The later hour for beginning is to enable pupils living at a distance from school to eat a proper breakfast and to reach school without undue haste. At noon a half hour is devoted to lunch. This is the proper time for a mid-day meal. Pupils may bring their luncheons from home or may buy nutritious luncheon at the school. The former custom of eating a hearty dinner on reaching home after school was essentially bad for the health of pupils and interfered with the purpose for which the pupils are sent to school, i. e., the ability and opportunity to study. Education is business. Pupils are expected to plan their day in such a way as to get the greatest results from their labor. The extra period from 2.15 to 3 is not to be considered a punishment but rather an opportunity to get assistance and to prevent failure. This new plan has already worked great advantage to the school.

In closing I feel justified in stating that, although the school has far from reached its maximum efficiency, yet many problems have been met successfully, progress has been made, and in harmony and unity of effort the school is now in a position to push forward to greater achievements. I wish also to express my sincere appreciation to the School Committee and Superintendent for their forbearance, their vital interest, and their hearty assistance.

Sincerely yours,

JOHN A. AVERY,
Head Master.

STATEMENT CONCERNING THE HIGH SCHOOL.

The *Preparatory Course* has an enrollment of 782, distributed by classes as follows:—

Graduate students	11
1917-A or IVb Class	37
1917-B or IVa Class	109
1918-A or IIIb Class	52
1918-B or IIIa Class	131
1919-A or IIb Class	66
1919-B or IIa Class	161
1920-A or Ib Class	69
1920-B or Ia Class	146

The *General Course* includes 174 pupils, distributed as follows:—

1917-A or IVb Class	11
1917-B or IVa Class	41
1918-A or IIIb Class	16
1918-B or IIIa Class	33
1919-A or IIb Class	13
1919-B or IIa Class	28
1920-A or Ib Class	9
1920-B or Ia Class	23

The *Commercial Course* has two divisions,—the four year course and the two year course.

The four year course includes 715 pupils, divided as follows:—

Graduate Students	4
1917-A or IVb Class	36
1917-B or IVa Class	78
1918-A or IIIb Class	41
1918-B or IIIa Class	110
1919-A or IIb Class	49
1919-B or IIa Class	159
1920-A or Ib Class	96
1920-B or Ia Class	142

The two year course includes sixty-five pupils, divided as follows:—

1919-A or IIb Class	5
1919-B or IIa Class	22
1920-A or Ib Class	13
1920-B or Ia Class	25

The *Manual Arts Course*, including fifty-nine pupils, is divided as follows:—

Graduate student	1
1917-B or IVa Class	11
1918-B or IIIa Class	15
1919-A or IIb Class	2
1919-B or IIa Class	12
1920-A or Ib Class	9
1920-B or Ia Class	9

The work of the entire school is distributed by subjects as follows:—

		No. Last Year.	Increase.
English	1795	2114	—319
History and Civics	1348	1620	—272
Mathematics	525	943	—418
Elocution	630	657	—27
Chemistry	182	282	—100
Physics	185	102	83
General Science	20	47	—27
Biology	44	57	—13
Physical Geography	17	23	—6
Physiology	71	55	16
Latin	469	541	—72
Greek	21	25	—4
French	578	684	—106
German	400	420	—20
Spanish	350	295	55
Manual Training	165	250	—85
Mechanical Drawing	334	406	—72
Freehand Drawing	253	327	—74
Cooking	35	78	—43
Dressmaking	88	107	—19
Bookkeeping	515	674	—159
Arithmetic	272	400	—128
Penmanship	797	851	—54
Commercial Law	22	59	—37
Community Civics	520		
Stenography	400	397	3
Typewriting	462	452	10
Commerce and Industry	252	243	9

The present senior class are preparing for the following institutions:—

Boston College	1
Boston University	1
Dartmouth	2
Harvard	10
Holy Cross	1
Jackson	2
Massachusetts Agricultural	2
Massachusetts Institute of Technology	11
Mt. Holyoke	1
Normal	3
Pittsburgh University	1
Radcliffe	5
Sheffield Scientific	1
Simmons	5
Trinity College	1
Tufts	11
Wellesley	4
Williams	1
Wheaton	4

REPORT OF THE PRINCIPAL OF THE VOCATIONAL SCHOOL FOR BOYS.

Mr. Charles S. Clark,
Superintendent of Schools,
Somerville, Mass.

Dear Sir: The following is a report of the Boys' Vocational School for the sixth year. Since the school reached its maximum working capacity last year, the number of departments and the corps of teachers remain unchanged.

In the school year 1914-1915 the school produced work to the trade value of \$2,341.79. This last year 1915-1916 the total productivity, as reported to the State Board of Education, was as follows:—

Cash Credits.	Credit for Work Done for School.	Credit for Work Done for City Dep'ts.	Credit for Work for Personal Use.	Credit for All Other Work.	Cost of Material.
Machine Department.					
\$278 40	\$164 89	\$14 77	\$31 09	\$546 23	\$1,076 21
Cabinet Department.					
208 68	161 75	203 50	35 74	15 05	367 52
Carpentry Department.					
22 51	77 09	895 02	21 90	16 61	591 70
<hr/> \$509 59	<hr/> \$403 73	<hr/> \$1,113 29	<hr/> \$88 73	<hr/> \$577 89	<hr/> \$2,035 43
Total productivity					\$2,683 23
Cost of material					2,035 43

The following tabulation shows the number of graduates, the number placed in the industries and earning capacity of each boy:—

Class.	Number of Graduates.	Number Placed in the Industry.	Earning Capacity at Start.
1912	12	9	\$6 16
1913	11	5	6 50
1914	13	8	6 00
1915	11	10	8 65
1916	15	15	11 00

The boys are placed in that industry for which they have been trained in those establishments where they are best fitted. Particular attention is given to see that the boy is placed in that position where he will have the best opportunity to render the most efficient service to the employer.

If the working conditions are satisfactory, and advancement possible, the boy is advised to remain. If these conditions do not prevail and another good position is open, we urge the boy to accept such change as will improve his condition.

We have been highly successful in placing the graduates in some of the best known industrial plants of Greater Boston. Twenty-four boys who were obliged to leave school before

graduation were placed in the industries during last year. One additional year for our graduates would add greatly to their efficiency and one year added to their age would be of advantage in placing them in better positions. I recommend that the course be made a three-years course at an early date.

A one-story addition now being built is expected to be ready in September, 1917. This building is 40 feet by 90 feet and provides for an enlarged machine shop for fifteen additional boys, and an automobile department for fifteen boys.

The school will then accommodate the following:—

Machine Department	45
Carpentry Department	15
Cabinet Department	15
Automobile Department	15
	—
Total	90

The class in carpentry will finish the outside and inside work, and some of the new machine equipment is being constructed this year by the machine department. The present machine shop, now located on the second floor of our building, will be discontinued and the room used for an additional class and drafting room. It seems advisable to introduce a painting and interior decorating course in the near future, and I recommend that this industry be given a place in the school curriculum. In regard to future growth it would seem advisable to present opportunities for new industries and thereby avoid overcrowding the present departments.

Respectfully yours,

H. L. JONES.

REPORT OF DIRECTOR OF DOMESTIC SCIENCE AND ART.

Mr. Charles S. Clark,
Superintendent of Schools.

Dear Sir: The training in the Vocational School remains practically the same as last year, except that textiles has had to be temporarily given up, and the course in home nursing has not yet been added, as we had hoped. On the other hand we have extended part of our course to cover a larger experience in cooking and food study that will fit for some of the higher positions that are being referred to us. This year five girls are giving an extra five months for lunch room practice, where the different operations in the conduct of a lunch room are divided into special problems, and each girl given one problem for a specified time, so that before graduation she will have had every phase of lunch room work as we have seen it. Our High School Lunch Room offers this opportunity. This has been heartily approved by temporary employers who are co-operating with us in a most helpful way, by employing our girls for short intervals and testing them out.

Accommodator service has been insistently sought, and so this year we have allowed our first-year pupils the privilege of testing their ability in this direction. Thirteen girls have been sent out at different times, and have earned forty dollars. Of more value is the good report that comes from this service and its practical application. When we hear that the school is one of the best training schools for entrance into more highly specialized schools because of its practicability, we feel that the standards we have set are not too high to make a connection for the girls who wish to go beyond what we can offer in our two-years' course. This opportunity is not open to all girls, however.

Three students had an interesting experience this year during the temporary absence of an instructor in cooking, when they prepared lunch for seven teachers, and thirty girls, for a week. They were first-year pupils who had done no cooking previously to their entrance in October, and they showed beyond question the value of cooking in larger quantities than individual. On two days lamb stew and baked beans were cooked in the fireless cooker; then there was brown bread made the day the beans were served, and every day hot bread of some kind; with a choice of two desserts, one of which meant the making of pie crust. On one day, besides the regular lunch, and unknown to anyone, a birthday cake was made, iced, and decorated, for one of the instructors. These girls lacked no confidence in attempting new and at-

tractive recipes, and came to school very early in the morning to get the food ready for the fireless so that it would be ready at noon. They planned the meals entirely, and made out the store order.

This year the housekeeper and waitress for the week are taken to the Boston markets on Monday, and with the help of the instructor purchase supplies for the week. They are shown the cuts of meat and their uses, and the best places to purchase supplies. All the girls are cooking at home and bring back delighted reports from fathers as well as mothers.

We feel that we are growing in the changed attitude of our students toward this training, that a better class of girls has been steadily coming to us, that their previous education makes it possible to train them well, and find increasingly good positions for them, that most of the mothers are interested to visit the school and talk over the future of their daughters with the principal, and that in some cases the fathers visit in order to see what kind of a school the daughters wish to attend. This is as it should be, and shows a healthy growth.

Of the fifty-six girls registered at the present time, two come from this locality. The others come from the following sections: West Somerville, 15; below Union Square, 9; East Somerville (Broadway), 10; Union Square (toward Cambridge), 6; Winter Hill, 5; Medford, 7; Melrose, 2; Lexington, 2.

Seventy-two students registered this year, fifty-six of whom are still in school. The records show: 3 are at home; 2 working at housework; 3 in factories; 5 illness at home or personal illness (2 will return to school later); 1 telephone operator; 2 placed by school (will graduate in June).

In spite of the small number entering, the percentage of those who have left has been less, and the per cent. attendance of those remaining has been higher than in any previous years.

Of these seventy-two, the majority have graduated from the grammar schools, as shown by the following school record: High School graduate, 1; High School (1 to 3 years), 16; grammar graduates, 21; eighth grade, 16; seventh grade, 11; sixth grade, 6.

We are keeping in close touch with our graduates. Of the thirty-seven graduated in the class of 1916, twelve are working in dressmaking establishments, and two in millinery houses. The employers tell us they will take all the girls we can send them, as they like the type of girl we are recommending, and have found them able to advance rapidly in responsibility.

Three are in tea rooms or food shops. They help prepare lunch, serve at noon, and make cakes and sandwiches. Four are at home. Four are married and have homes of their own, and send interesting letters to us of their housekeeping perplexities, as well as of their happiness. Two have not been heard from directly. Six are engaged in other occupations, as telephone operator, saleswomen, and various positions in factories. Four are taking advanced training for teaching domestic arts, and hospital training for nursing.

While previously we had graduated students only after they had been working successfully part of the time after the school course had been completed, this year and hereafter we shall graduate each class in June, as we think the tests given during the last year in school are sufficient to prove the value of the course. This year fourteen girls will be graduated.

The Lunch Room has been conducted this year by two graduates of the Vocational School with an undergraduate assistant training especially for lunch room work. All the food not prepared in the regular classroom lessons has been prepared in the lunch room by these helpers, with the exception of the bread and ice cream.

The number of students and teachers who are served each day remains about the same as last year: from five to six hundred students in the large lunch room, and fifty-six teachers in the small room.

The service has been changed to allow for greater speed in serving and for distributing the crowd. This arrangement, with the lunch period lengthened to half an hour, seems to be working out well.

Although the cost of food materials has steadily increased, in some instances as much as fifty per cent., we have not yet advanced the selling price of the food served, and we hope we shall not be obliged to do so for the rest of the year at least.

The value of this lunch room as a training school has been proven by the satisfactory reports that have come from those employing the girls to whom this opportunity was given.

Domestic Arts in the High School.

The elective courses in Domestic Arts and Science in the High School have been well attended. One student, having completed the course in dressmaking, was placed in a high class dressmaking establishment for practical trade experience preparatory to teaching the subject, and there are openings for others who wish to specialize along this line.

The progress made by the students electing this course

has been excellent. All parts of dressmaking have been taught, and the result has been many gowns of difficult construction. Some members of the class made their graduation dresses, and put much fine hand work upon them. As this department is in charge of a skillful dressmaker who is also a competent instructor the work of the classes has the professional appearance that is desired.

In the Domestic Science classroom the individual equipment has been replaced by ranges of family size, and large work tables, so that with greater facilities better results can be obtained. It is desired to give the students in these classes the opportunity to work in family quantities and to repeat processes often enough to gain skill in making a product that will have a distinct commercial value.

The lesson period is hardly long enough for some foods to be prepared, and it is to be regretted that often one class must finish what another has begun, the student thus losing the value to be gained by assuming the full responsibility for a finished product, and its ultimate value to the consumer. With this work in cooking are lessons in food values, their costs, and combinations for a balanced diet.

Sewing in the Elementary Schools.

The sewing in the elementary schools is progressing along the lines established last year. Wherever it is possible to change the prescribed course of study to meet the needs of either physical training in the schools or sewing and cooking in the Junior High Schools, it has been done. In the Junior High Schools where it has been necessary to make towels, holders, cooking caps and aprons for the classes this has been substituted for the underwear of the grades, and where physical training is taught and bloomers and middy blouses have been worn, these have been made in the higher grades.

We have been so fortunate as to secure another teacher in addition to the four we had, and we have also had the opportunity to use as a substitute teacher one who has been trained at the Vocational School, and another who is giving her time for the sake of the experience. This shows progress, and should mean, as far as large classes are concerned, more efficiency in dealing with them. While we have installed one sewing machine in each school, and while in some schools we are so fortunate as to have special rooms for sewing, there is still the problem to be solved of overcrowded rooms, one-half occupied by a study class. It is hoped that this will be remedied in time and that we shall be able to give to sewing the dignity and seriousness of purpose that it

merits, by having it conducted in classrooms equipped for that purpose.

Evening Practical Arts Classes.

The evening classes closed on March 15th with an exhibition and reception to the students and their friends. The results of the year's work have been gratifying, not only because of the quality and quantity of the work accomplished, but also because of the enthusiasm and good attendance of the students.

Classes were held in dressmaking, millinery, and cooking. Many dresses were shown, those of cotton materials from the elementary class, and of wool and silk from the advanced class.

Winter and spring hat making were taught in the respective units and the new flowers and trimmings for the individual hats.

The cooking differed from the last year. Instead of a group of the same kinds of food making a unit, the unit comprised the more general family meals, adapted to the need of this particular class.

During the course each member of the class learned to prepare those foods she wished to know about, and in small family quantities that could be taken home. This proved so much more satisfactory than serving what had been prepared during the school hour, that we shall probably conduct next year's classes in the same way. All the members hope to return next year and have asked that one lesson a week be devoted to cooking and the other to the study of food costs and their nutritive values.

Respectfully yours,

MARY HENLEIGH BROWN.

December 31, 1916.

SOMERVILLE PLAYGROUNDS ASSOCIATION.

Comparative Statement of Receipts and Expenditures.

Receipts:—	1914.	1915.	1916.	
Balance from previous account	\$46 71	\$51 06	\$180 76	
Donations and subscriptions	430 71	1,347 17	1,058 38	
Interest on deposit in bank	—	—	82	
	\$477 42	\$1,398 23	\$1,239 96	
 Expenditures:—				
Instructors	\$293 90	\$554 60	\$237 00	
Supplies	.	120 25	260 52	
Printing	14 00	29 35	57 25	
Expressing	.	.	30 50	
Rent of land for garden	18 46	16 00	.	
Labor	.	.	19 92	
Stamps, envelopes, etc.	.	15 62	.	
Catering	.	.	49 30	
A. E. McCarthy House	50 00	.	.	
Tuition of teachers	50 00	.	.	
Membership in Somerville Federation for Civic Service	.	1 00	.	
Gustavus T. Kirby for services rendered by Rowland Haynes	.	327 00	.	
Gustavus T. Kirby for Survey of Recreation Problem in Somerville	.	153 65	.	
Expense of delegates to Recreation Congress at Grand Rapids	.	.	160 00	
Balance	\$426 36 51 06	\$1,217 47 180 76	\$814 49 425 47	
	\$477 42	\$1,398 23	\$1,239 96	

SUMMER PLAYGROUNDS.

Comparative Statement of Receipts and Expenditures.

	1913.	1914.	1915.	1916.
Appropriation	\$2,500 00	\$2,000 00	\$1,700 00	\$2,300 00
Salaries of supervisors and instructors	1,689 00	1,598 00	1,292 20	1,538 00
Equipment:—				
Swings	422 00			
Jumping standards, etc.				86 00
Trees	15 48			
Tent				55 00
Hose	14 35			12 00
Labor and teaming	76 52	2 70		
Repairing			18 38	6 27
Athletic supplies:—				
Baseballs, bats, etc.	218 50	107 27	134 87	251 44
Medals, etc.	6 00	13 75	15 45	
Miscellaneous supplies, etc.:—				
Printing	24 50	6 25		12 00
Labor	37 88	10 50	20 00	45 00
Teaming and expressing	21 50	9 50	10 85	12 80
Sand	5 00	10 75	33 23	37 80
Band		61 60		61 60
Handwork supplies		44 84	52 00	7 40
Various	14 10	61 00	43 82	83 49
Baths:—				
Salary of attendant	204 00	35 00	79 20	91 20
Supplies and laundry	140 86	15 25		
School gardens:—				
Supplies	13 00	17 67		
Labor	15 50	5 55		
Balance unexpended	65	37		
	\$2,918 84	\$2,000 00	\$1,700 00	\$2,300 00
Expended by Somerville Play- grounds Association	1,446 52	426 36	1,217 47	814 49
Grand total of all money ex- pended for playgrounds	\$4,365 36	\$2,426 36	\$2,917 47	\$3,114 49

REPORT OF THE SCHOOL SAVINGS BANKS.

November 1, 1915, to October 31, 1916.

The School Savings Bank system has now been in operation in our schools since March, 1912. That it has met with the approval of both teachers and parents is shown by the results obtained. The details that at first were troublesome have been gradually eliminated until now the system is on a good working basis.

The aims of the School Savings Banks are to instill in the minds of children the necessity of laying aside something today for the needs of tomorrow; to teach them to spend money wisely; to discriminate between the essential and non-essential; in short, to form character, which is the object of education.

Thrift is not only saving money; it is also using to the best advantage all one's resources, mental and physical as well as financial. Money spent for a good book, healthful recreation, or anything that will make for increased efficiency is as truly invested and will return dividends as surely as money put in the Savings Bank.

A child trudging to school with a nickel for his savings account clutched in his fist, and bravely passing the store wherein candy and toys dear to the childish heart are temptingly displayed, is creating will-power that will enable him to resist the greater temptations of later life.

Through the courtesy of Ray R. Rideout, treasurer of the Somerville Institution for Savings, the following information relative to the School Savings Bank is furnished:—

The comparison of the School Savings Bank in Somerville with the statistics of the School Savings Banks in the State shows that while we are below the average per cent. of enrolled depositors we are well ahead of the average per cent. deposited. On October 31, 1915, the last date for which the figures for the State are obtainable, the School Savings Bank system was in operation in sixty-one cities or towns with an enrollment of 140,012 scholars. Of this number 68,780 were depositors, or 49.12%. On that date Somerville had 12,813 enrolled scholars, of whom 4,361 were depositors, or 34.04%.

The total number of depositors in Somerville was 6.34% of the total number of depositors in the State. The total amount deposited in Somerville for the year ending October 31, 1915, was 10.18% of the total deposited in the School Savings Banks of the State, while the amount of withdrawals for the same period was only 4.85% of the total amount withdrawn in the State, and the amount transferred to pass-books was

12.39% of the total amount transferred from the School Savings Banks of the State to individual pass-books.

The average amount saved by each depositor in the Somerville School Savings Banks for that period was \$4.04, while the average amount saved by each depositor in the School Savings Banks of the State for the same time was \$2.52. The teachers certainly deserve the credit for this remarkable showing as it is due to their interest and enthusiasm that the School Savings Banks in Somerville are so successful.

Below is a tabulation of the deposits, withdrawals, and transfers each year since the system was established, also a detailed report of each school for the year ending October 31, 1916:—

	Balance Nov. 1, 1915.	Amount Deposited.	Amount Withdrawn.	Amount Transferred.	Balance Oct. 31, 1916.
Prescott	\$139 65	\$907 35	\$232 20	\$814 80	
Hanscom	67 68	916 56	83 79	872 73	\$29 67
Bennett	50 45	385 78	132 42	330 16	
Knapp	153 97	797 95	136 52	747 29	68 11
Perry	79 95	499 70	43 00	499 90	36 75
Baxter	83 50	487 26	89 96	418 07	62 73
Cummings	56 65	299 51	43 40	273 30	39 46
Pope	130 85	692 85	153 65	573 00	97 05
Bell	166 90	706 75	234 60	580 25	58 80
Edgerly	181 80	999 11	90 99	982 63	107 29
Glines	81 25	1,138 95	43 00	1,079 20	98 00
Forster	402 61	1,594 46	121 50	1,625 76	249 81
Bingham	291 68	1,706 69	301 50	1,530 17	166 70
Carr	82 35	766 34	126 09	678 40	44 20
Morse	95 94	749 08	88 81	720 56	35 65
Burns	114 55	590 50	24 00	609 20	71 85
Proctor	30 85	578 05		607 90	1 00
Brown	303 04	1,212 18	120 21	1,128 00	267 01
Highland	130 22	1,009 50	53 85	1,004 25	81 62
Hodgkins	150 60	1,241 95	103 15	1,120 55	168 85
Lowe	98 00	735 35	68 95	654 55	109 85
Cutler	297 02	1,580 31	109 62	1,435 63	332 08
High School	73 80	320 90	69 25	225 25	100 20
Girls' Vocational	65				65
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$3,263 96	\$19,917 08	\$2,470 46	\$18,511 55	\$2,227 33

	Deposits.		Withdrawals.		Transfers to Number Somerville Pass Inst for Books Savings. Issued.	
	Number.	Amount.	Number	Amount.		
March 18, 1912, to						
October 31, 1912 .	7,388	\$3,917 16	306	\$442 85	\$1,554 30	404
November 1, 1912, to						
October 31, 1913 .	22,378	7,852 79	1,113	1,823 00	5,536 81	827
November 1, 1913, to						
October 31, 1914 .	36,534	12,860 43	1,680	1,790 77	10,480 10	1,607
November 1, 1914, to						
October 31, 1915 .	54,940	17,638 69	1,779	2,179 40	15,197 88	1,520
November 1, 1915, to						
October 31, 1916 .	62,960	19,917 08	1,979	2,470 46	18,511 55	1,484

REPORT OF THE SCHOOL DENTIST
For the School Year Ending June 28, 1916.

MONTH.	No. Children Treated.	No. First Appointment.	No. Re-appointment.	Teeth Extracted.	No. Treatments.	No. Teeth Filled.	No. Cleansings.	No. Having Brush.	No. Not Having Brush.	Amount of Fees Collected.	Incidental Expenses.
September .	85	79	6	49	14	25	31	78	7	\$7.95	\$.47
October .	123	99	24	59	34	62	40	84	39	13.20	2.78
November .	125	87	38	40	62	44	34	113	12	12.99	.62
December .	121	93	28	42	32	58	33	105	16	12.71	.80
January .	129	106	23	47	41	55	42	110	19	15.34	1.66
February .	101	79	22	48	30	28	18	90	11	12.00	1.88
March .	158	132	26	138	32	57	37	144	14	16.39	7.80
April .	93	69	24	42	27	53	30	82	11	10.69	2.70
May .	137	105	32	75	31	72	38	117	20	14.31	3.84
June .	150	108	42	84	38	61	32	140	10	26.30	4.85
Totals .	1222	957	265	624	341	515	335	1063	159	\$141.88	\$27.40

Comparative Financial Statement.

Receipts:—	1914-1915.	1915-1916.
Cash on hand at beginning of school year	\$12 78	
From fees	123 48	\$141 88
From sale of tooth brushes and powder	128 75	132 50
	\$265 01	\$274 38
Expenditures:—		
For supplies	\$265 01	\$220 02
Cash on hand at close of school year		54 36
	\$265 01	\$274 38

REPORT OF SCHOOL NURSE FOR YEAR ENDING JUNE 28, 1916.

DATE	Visits to School or Hospital	No. of Pupils		Treatments in School	Inspections for		PUPILS ESCORTED TO CLINICS																Operations		*Contagion found in		Home Visits		REMARKS					
		New	Old		Ped.	Uncl.	Eye		Ear		Nose and Throat		*Medical		Surgical		Skin		Dental		Optician	Corrected Vision	Tonsils	Adenoids	School	Home	New	Old						
							New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old														
September	Schools 60 Hospitals 2	322	188	65	96	6					1																							Assisted doctors in medical inspection. Two children taken to Psychopathic Hospital for physical and physiologic tests. One child taken to Homeopathic Hospital.
October	Schools 73 Hospitals 5	231	335	108	114	11	1	1		1	1			1	1	1								2	2	2		18	34	One child taken to hospital for an operation. Assisted doctors in medical inspection.				
November	Schools 67 Hospitals 8	287	321	131	89	6	3	3		2	2		1		1		2									2	2	28	34	Assisted doctors in medical inspection. Treated a child for a bad burn. Secured shoes for a child out of school for the lack of them. Clothing secured for needy children.				
December	Schools 55 Hospitals 3	110	261	122	83	9	1									1							2	1	4	5	18	22	One child found with Inguinal Hernia. Treated a child with convulsion. Names of needy families given Associated Charities for Christmas dinners, etc.					
January	Schools 69 Hospitals 6	181	215	115	39	4	5	4															6	6			16	28	Assisted doctors in medical inspection. Six children taken to Boston Dispensary for treatment.					
February	Schools 69 Hospitals 3	370	214	114	101	7	4						1	1									3	4			20	31	One child taken to hospital for examination. Two children supplied with glasses by Associated Charities.					
March	Schools 68 Hospitals 7	599	285	133	90	4	2	1				2													4		5	6	One child sent to Massachusetts General Hospital for treatment. Neglected family reported to S. P. C. C.					
April	Schools 46 Hospitals 8	377	188	81	79		3	3						1		1											13	35	One boy sent to hospital for surgical operation. Assisted doctors in medical inspection.					
May	Schools 68 Hospitals 8	127	276	89	53		1			5													3	2	2	2	22	24	Arranged for twelve children to be taken to Forsyth Dental Infirmary. Assisted doctors in medical inspection.					
June	Schools 73 Hospitals 6	189	210	92	65	4	1	1				1														2	2	22	24	One child with septic leg referred to hospital for treatment. Secured clothing and shoes for needy children.				
Total	Schools 648 Hospitals 56	2793	2493	1050	814	51	14	19	1	2	7	3	5	1	4	2	4	49	139	24	18	3	3	21	9	174	274					Thirteen children taken to Forsyth Dental Infirmary. One child taken to Boston Dispensary and glasses ordered. Reported condition in two homes to Board of Health. One family reported to S. P. C. C. Assisted doctors in medical inspection.		

*Treated by family physician or dentist.

STATEMENT CONCERNING THE ISSUING OF EMPLOYMENT CERTIFICATES, 1916.

Table showing the number of different persons receiving employment certificates, distributed as follows:—

Boys. —14-year-old	196			
15-year-old	179			
	375			
Girls. —14-year-old	123			
15-year-old	121			
	244			
Grand total				619

The following table shows the grades last completed by these pupils:—

	Boys.	Girls.	Total.
High, graduate	1	—	1
High, third year	1	—	1
High, second year	5	18	23
High, first year	36	21	57
Ninth	114	52	166
Eighth	65	50	115
Seventh	62	49	111
Sixth	41	27	68
Fifth	23	14	37
Fourth	9	5	14
Girls' Vocational	—	8	8
Boys' Vocational	17	—	17
Special	1	—	1
	375	244	619

Table showing cities in which these children found employment:—

	Boys.	Girls.	Total.
Somerville	113	46	159
Cambridge	50	124	174
Boston	206	64	270
All others	6	10	16
	375	244	619

Table showing kind of work which these children entered:—

	Boys.	Girls.	Total.
Department stores	24	29	53
Factories:—			
Candy	5	58	63
Rubber	4	11	15
Jewelry.....	25	25	50
Box	1	46	47
Shoe	2	11	13
Miscellaneous	42	47	89
Errands and office	180	4	184
Industries	17	4	21
Miscellaneous	75	9	84
	375	244	619

SOMERVILLE TEACHERS' ASSOCIATION.

Officers, 1916.

President, Harry L. Jones.

Vice-President, Arthur L. Doe.

Secretary-Treasurer, Mary F. Osborne.

Executive Committee:—

Superintendent Charles S. Clark, ex-officio.

Sarah H. Christie, Prescott.

Frances E. Robinson, Hanscom.

S. Ellen Brown, Bennett.

Minnie A. Perry, Knapp.

L. Gertrude Allen, Perry.

Sue A. Fitzpatrick, Baxter.

Mrs. Stella M. Hadley, Cummings.

George M. Wadsworth, Pope.

Ruth E. Clarke, Glines.

Elizabeth J. Mooney, Bingham

Alice C. Ray, Morse.

Cara M. Johnson, Burns.

Mary S. Richardson, Proctor.

Annie G. Smith, Brown.

Mrs. Nellie G. Stewart, Highland.

Clara G. Hegan, Lowe.

Bernice J. Andrews, Cutler.

Hortense F. Small, Lincoln.

Mary A. Holt, Bell.

Charles E. Brainard, Edgerly.

Marion P. Crawford, Girls' Vocational.

Leila L. Rand, Carr.

Grace E. Packard, Durell.

The meetings held under the auspices of this association in the year 1916 were as follows:—

April 14—Business meeting and lecture by James P. Haney of New York City on "Industrial Art."

May 11—Social, "Old English Festival."

SOMERVILLE TEACHERS' CLUB.**Officers, 1916-1917.**

President, Miss Elizabeth M. Collins.

Vice-Presidents, { Miss Alice W. Cunningham,
Miss M. Eva Warren.

Recording Secretary, Miss Lucia Alger.

Corresponding Secretary, Miss G. Marion Lovering.

Treasurer, Miss Mary L. Johnston.

Auditor, Miss Elizabeth Hersey.

Object.

The object shall be to secure a close union among the women teachers in Somerville; to promote the spirit of mutual helpfulness; to advance professional interests; to create a deeper sense of the dignity of the profession; to unite the interests of the home and school.

Program.

January 25—Readings from "Pickwick Papers".....Frank Speaight

February 15—Bungalow party. Hereford Musical Club, entertainers.

March 29—Annual meeting.

Reading, "The French Canadian Habitant"..Mabel Austin Gannet

May 16—Benefit night.

Mrs. Grace Bonner Williams, Soprano.

Mr. Carl Webster, 'Cellist.

Mr. Carl Lamson, Accompanist.

October 24—Song recital.....Ethelynde Smith

November 15—Opening meeting of Educational Forum.

Hon. Payson Smith—"The Four Fundamentals of Education"

December 20—Christmas party. Concert by Hereford Club.

HIGH SCHOOL ATHLETIC ASSOCIATION.

Report of Treasurer, January 1, 1917.

Receipts:—

Balance on hand September 1, 1916	\$14 53
From Somerville High School Athletic Association membership	105 50
From gate	3,995 00
From miscellaneous	7 15
	\$4,122 18

Disbursements:—

Police	\$320 00
Visiting teams	1,150 78
Officials	255 00
Miscellaneous	276 33
Supplies	1,070 38
Ticket selling	21 00
Printing	70 75
Track	6 71
Salaries	670 00
	\$3,840 95

Total disbursements	\$3,840 95
Total receipts	\$4,122 18
Total expenses	3,840 95

Balance	\$281 23
Balance on hand January 1, 1917	\$281 23

Respectfully submitted,

AUGUSTUS B. TRIPP,

Treasurer.

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SUMMARY OF STATISTICS.

1.—POPULATION AND SCHOOL CENSUS.

Population, state census, 1895.....	52,200
Population, United States census, 1900.....	61,643
Population, state census, 1905.....	69,272
Population, United States census, 1910.....	77,236
Population, state census, 1915.....	86,854
Children between five and sixteen years of age, October, 1915, by school census.....	15,156

2.—SCHOOL BUILDINGS.

	1915.	1916.	Change.
Number of school buildings.....	27	27	0
Number of classrooms in use in June	308	313	+5
Valuation of school property.....	\$1,801,714	\$1,901,700	

3.—TEACHERS.

	1915.	1916.	Change.
In high schools.....	76	77	+1
In junior high schools.....		35	+35
In grammar schools.....	172	152	-20
In primary schools.....	100	105	+5
In kindergartens	8	8	0
Total in elementary schools.....	280	265	-15
Vocational school for boys.....	6	7	+1
Vocational school for girls.....	9	9	0
Atypical classes	2	2	0
Cadet teachers	7	5	-2
Special	14	12	-2
Total	394	412	+18

4.—ATTENDANCE FOR YEAR.

	*1915.	*1916.	Change.
Entire enrollment for the year.....	14,505	14,647	+142
Average number belonging.....	12,903	13,191	+288
Average number attending.....	12,189	12,323	+134
Per cent. of daily attendance.....	94.5	93.4	-1.1
High school graduates.....	311	348	+37
Grammar school graduates.....	789	781	-8

5.—COST OF SCHOOL MAINTENANCE.

	*1915.	*1916.	Change.
Salaries of teachers.....	\$349,981 08	\$356,198 06	+\$6,216 98
Salaries of officers.....	7,600 00	7,750 00	+150 00
Cost of books and supplies..	29,078 41	25,378 63	-3,699 78
Cost of light	5,755 42	6,232 57	+477 15
Cost of janitors' services...	32,673 32	34,576 78	+1,903 46
Cost of fuel	18,366 00	20,196 92	+1,830 92
Telephones	523 46	810 03	+286 57
Total cost of day and evening schools	443,977 69	451,142 99	+7,165 30
Per capita cost	34 41	34 20	-0 21
Cost of high school instruction	83,724 52	84,379 05	+654 53
Per capita cost	41 90	40 98	-0 92

*School year.

CLASSIFIED STATEMENT SHOWING DISTRIBUTION OF EXPENDITURES CONTROLLED BY THE SCHOOL BOARD FOR THE YEAR 1916.

Item.	Total.	Administrative.	Books.	White Paper.	Manila Paper.	Blank Books.	Pencils, Pens, etc.	Bookbinding.	Seat Work and Kindergarten Supplies.	Manual Training Supplies.	Drawing Supplies.	Laboratory Supplies.	Bookkeeping Blanks.	Domestic Science Supplies.	Printing.	Travel.	Graduation.	Postage.	Tuition and Board of Truants.	Miscellaneous.	Equipment.	Tele. Ser.
...	\$83,980 72	.....	\$2,241 09	\$802 66	\$118 00	\$558 38	\$378 13	\$358 08	.....	\$572 57	\$560 29	\$647 68	\$786 57	\$5 17	\$335 51	\$5 85	\$195 71	\$74 00	.....	\$561 04	\$1,851 07	\$
...	1,637 14	.....	414 85	3 60	1 50	.....	8 33	13 10	.....	37 90	37 83	.....	38 26	7 40	8 00	.....	.....	.....	.....	17 18	631 00	.....
...	5,948 35	.....	618 63	6 79	19 70	.....	4 10	10 50	.....	3 10	34 62	.....	41 86	34 66	8 63	15 40	.....	1 25	.....	6 47	402 55	.....
...	10,861 89	.....	140 56	36 40	44 12	7 83	20 16	.....	5 25	2 96	22 71	.....	.....	.....	.....	75	13 77	.....	.....	24 42	90	.....
00	10,342 86	.....	148 82	38 12	49 46	8 61	20 83	.....	50 93	99	44 50	.....	.....	.....	.....	.....	.....	.....	.....	4 89	62	.....
62	10,185 30	.....	101 05	47 23	39 55	8 51	33 08	.....	76 99	60 26	36 05	.....	.....	.....	.....	.....	.....	.....	.....	185 30	63	.....
00	5,435 44	.....	42 81	24 38	14 35	3 66	9 83	45	28 47	.....	3 59	.....	.....	.....	.....	3 20	.....	.....	.....	3 70	.....	.....
...	13,024 39	.....	394 73	79 16	81 27	28 55	60 67	33 50	4 55	24 38	20 97	.....	.....	.....	.....	3 80	18 22	.....	.....	18 73	2 69	.....
...	5,077 21	.....	23 36	26 72	27 71	1 50	18 79	.....	1 87	99	3 66	.....	.....	.....	.....	.....	.....	.....	.....	4 72	71	.....
...	11,397 98	.....	209 78	69 53	54 58	9 84	30 26	36 60	6 32	16 82	19 74	.....	.....	.....	.....	.....	14 11	.....	.....	32 29	2 85	.....
...	9,770 24	.....	107 24	52 87	41 57	14 63	35 95	43 85	.....	28 43	25 96	.....	.....	.....	.....	3 67	14 05	.....	.....	22 52	21 09	.....
...	3,287 67	.....	40 37	11 73	10 45	.....	10 15	.....	34 51	.....	10 45	.....	.....	.....	.....	.....	.....	.....	.....	9 65	.....	.....
...	12,723 41	.....	365 86	85 65	56 41	.....	23 45	46 20	1 88	3 94	25 73	.....	.....	.....	.....	3 57	16 92	.....	.....	17 59	5 55	.....
13	13,922 64	.....	145 22	58 35	39 16	7 17	27 70	23 20	97 53	2 96	16 65	.....	.....	.....	.....	.....	8 89	.....	.....	15 21	90	.....
...	13,009 89	.....	150 94	106 08	68 13	12 87	41 95	5 25	2 02	199 08	29 33	.....	.....	89 14	15 20	.....	12 93	.....	.....	14 09	90 90	.....
...	15,123 88	.....	290 38	75 18	44 55	14 62	35 25	16 65	5 57	2 96	19 19	.....	.....	.....	.....	4 45	15 37	.....	.....	21 61	11 34	.....
...	16,236 23	.....	153 32	66 20	57 36	15 00	40 07	12 60	56 19	24 42	17 51	.....	.....	.....	.....	6 90	14 38	.....	.....	22 23	35 50	.....
...	12,213 76	.....	193 36	65 63	48 35	16 78	23 48	19 15	59 65	14 14	31 40	.....	.....	.....	.....	8 78	12 64	.....	.....	20 02	2 70	.....
...	6,283 63	.....	80 82	23 02	27 15	8 61	15 45	.....	5 17	3 04	10 18	.....	.....	.....	.....	.....	.....	.....	.....	6 25	.....	.....
...	3,270 44	.....	46 48	7 22	10 87	38	2 05	.....	3 81	.....	6 25	.....	.....	.....	.....	.....	.....	.....	.....	1 82	.....	.....
...	7,698 17	.....	194 98	34 35	40 41	6 35	21 92	.....	20 80	1 97	13 31	.....	.....	.....	.....	3 10	.....	.....	.....	10 16	.....	.....
...	10,778 67	.....	153 33	64 20	28 55	9 25	38 99	22 30	12 31	26 45	14 72	.....	.....	.....	.....	6 11	9 70	.....	.....	11 33	6 56	.....
...	12,504 90	.....	179 55	63 29	32 93	3 93	28 04	63 60	.....	64 79	7 61	.....	.....	.....	.....	3 70	25 89	.....	.....	14 49	11 06	.....
...	12,762 86	.....	361 62	78 96	69 64	6 94	57 35	18 10	12 05	33 87	19 74	.....	.....	.....	.....	3 50	8 25	.....	.....	10 87	41 92	.....
...	14,364 12	.....	365 49	76 73	32 77	19 82	42 02	63 15	12 76	59 01	56 46	.....	.....	.....	.....	4 40	8 91	54	.....	95 11	56 32	.....
...	3,131 23	.....	39 43	12 65	17 30	.....	1 28	.....	15 38	.....	19 13	.....	.....	.....	.....	.....	.....	.....	.....	2 67	.....	.....
...	6,501 20	.....	111 17	28 58	32 83	.....	33 50	23 85	21 02	.....	9 31	.....	.....	.....	.....	.....	.....	.....	.....	8 26	.....	.....
...	1,695 75	.....	.....	71	1 83	.....	12	.....	1 44	1 11	4 26	.....	.....	.....	.....	.....	.....	.....	.....	27	.....	.....
...	7,476 00	.....	1 00	41 93	3 70	9 65	16 48	.....	.....	72 55	89 01	.....	.....	.....	40 27	41 71	8 82	1 00	.....	14 29	161 23	.....
...	7,592 65	.....	1 38	40	.....	3 60	4 12	.....	.....	.....	2 43	.....	.....	39 89	32 11	5 00	25 42	14 00	.....	47 77	41 48	.....
...	4,074 00	.....	.....	52 57	4 96	9 41	44 62	.....	.....	3 42	97 82	.....	105 88	.....	60 95	3 50	5 88	4 50	.....	11 24	.....	.....
...	2,307 00	.....	3 75	11 81	6 39	.....	9 76	.....	.....	.....	33	.....	.....	.....	10 80	.....	7 10	9 83	.....	96	.....	.....
...	883 50	.....	.....	6 86	5 85	75	80	.....	.....	.....	.....	.....	.....	.....	7 53	.....	.....	.....	.....	.....	.....	.....
...	259 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
...	.....	\$7,900 00	35 13	6 22	.....	2 11	8 30	.....	.....	.....	09	.....	.....	.....	163 20	1400 63	.....	199 68	.....	188 58	56 65	1
...	.....	.....	23 13	119 45	38 55	18 33	7 57	45 75	47 82	.....	22 69	.....	.....	4 38	410 25	3 40	50	08	\$1,200 73	282 95	57 24	.....
...	810 60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
75	\$359,602 15	\$7,900 00	\$7,379 63	\$2,284 63	\$1,109 95	\$806 48	\$1,154 55	\$855 88	\$584 29	*\$1,212 11	\$1,333 55	\$647 68	\$972 57	\$180 64	\$1,092 45	\$544 35	\$446 91	\$310 28	\$1,200 73	\$1,707 78	\$3,492 86	\$6

*Lumber, \$938.41; hardware, \$263.70

†Includes maintenance of automobile, \$261.64

‡Includes maps and charts..... \$130.49
 Typewriter supplies..... 82.14
 Expressage..... 109.41
 Piano tuning..... 38.25
 Baths..... 175.06
 Gardens..... 72.50

CLASSIFIED STATEMENT SHOWING DISTRIBUTION OF EXPENDITURES CONTROLLED

SCHOOLS.	SALARIES					Administrative.	Books.	White Paper.	Manila Paper.	Blank Books.	Pencils, Pens, etc.	Bookbinding.	Seat Work and Kindergarten Supplies.	Manual Training Supplies.	Drawing Supplies.	Laboratory Supplies.
	Regular.	Substitute.	Special.	Kindergarten.	Total.											
High	\$83,509 50	\$51 00	\$420 22	.....	\$83,980 72	.....	\$2,241 09	\$802 66	\$118 00	\$558 38	\$378 13	\$358 08	.....	\$572 57	\$560 29	\$647 68
East Somerville Junior High	4,525 00	1 50	110 64	.....	4,637 14	.....	414 85	3 60	1 50	.....	8 33	13 10	.....	37 90	37 83	.....
Winter Hill Junior High....	5,828 75	9 00	110 60	.....	5,948 35	.....	618 63	6 79	19 70	.....	4 10	10 50	.....	3 10	34 62	.....
Prescott	10,255 00	52 25	554 64	.....	10,861 89	.....	140 56	36 40	44 12	.....	7 83	20 16	.....	2 96	22 71	.....
Hanscom	8,884 62	99 00	214 24	\$1,145 00	10,342 86	.....	148 82	38 12	49 46	8 61	20 83	.....	50 93	99	44 50	.....
Bennett	8,801 25	60 00	150 43	1,173 62	10,185 30	.....	101 05	47 23	39 55	8 51	33 08	.....	76 99	60 26	36 05	.....
Baxter	4,042 00	30 00	138 44	1,225 00	5,435 44	.....	42 81	24 38	14 35	3 66	9 83	45	28 47	.....	3 59	.....
Knapp	12,203 75	100 50	720 14	.....	13,024 39	.....	394 73	79 16	81 27	28 55	60 67	33 50	4 55	24 38	20 97	.....
Perry	4,845 50	43 75	187 96	.....	5,077 21	.....	23 36	26 72	27 71	1 50	18 79	.....	1 87	99	3 66	.....
Pope	10,680 00	51 00	666 98	.....	11,397 98	.....	209 78	69 53	54 58	9 84	30 26	36 60	6 32	16 82	19 74	.....
Bell	8,979 70	39 00	751 54	.....	9,770 24	.....	107 24	52 87	41 57	14 63	35 95	43 85	.....	28 43	25 96	.....
Cummings	3,172 75	30 50	84 42	.....	3,287 67	.....	40 37	11 73	10 45	.....	10 15	.....	34 51	.....	10 45	.....
Edgerly	12,052 37	81 50	589 57	.....	12,723 44	.....	365 86	85 65	56 41	.....	23 45	46 20	1 88	3 94	25 73	.....
Glines	12,104 00	48 25	553 26	1,217 13	13,922 64	.....	145 22	58 35	39 16	7 17	27 70	23 20	97 53	2 96	16 65	.....
Forster	12,632 25	28 75	348 89	.....	13,009 89	.....	150 94	106 08	68 13	12 87	41 95	5 25	2 02	199 08	29 33	.....
Bingham	14,422 50	83 00	618 38	.....	15,123 88	.....	290 38	75 18	44 55	14 62	35 25	16 65	5 57	2 96	19 19	.....
Carr	15,360 00	67 00	809 23	.....	16,236 23	.....	153 32	66 20	57 36	15 00	40 07	12 60	56 19	24 42	17 51	.....
Morse	11,618 45	67 00	528 31	.....	12,213 76	.....	193 36	65 63	48 35	16 78	23 48	19 15	59 65	14 14	31 40	.....
Proctor	5,972 01	77 75	233 87	.....	6,283 63	.....	80 82	23 02	27 15	8 61	15 45	.....	5 17	3 04	10 18	.....
Durell	3,170 00	16 00	84 44	.....	3,270 44	.....	46 48	7 22	10 87	38	2 05	.....	3 81	.....	6 25	.....
Burns	7,422 25	86 00	189 92	.....	7,698 17	.....	194 98	34 35	40 41	6 35	21 92	.....	20 80	1 97	13 31	.....
Brown	10,145 19	99 00	534 48	.....	10,778 67	.....	153 33	64 20	28 55	9 25	38 99	22 30	12 31	26 45	14 72	.....
Highland	11,601 50	12 50	890 90	.....	12,504 90	.....	179 55	63 29	32 93	3 93	28 04	63 60	.....	64 79	7 61	.....
Hedgkins	12,060 51	107 75	594 60	.....	12,762 86	.....	361 62	78 96	69 64	6 94	57 35	18 10	12 05	33 87	19 74	.....
Cutler	13,582 89	184 75	596 48	.....	14,364 12	.....	365 49	76 73	32 77	19 82	42 02	63 15	12 76	39 01	56 46	.....
Lincoln	3,020 00	44 75	66 43	.....	3,131 23	.....	39 43	12 65	17 30	.....	1 28	.....	15 38	.....	19 13	.....
Lowe	6,302 50	84 00	114 70	.....	6,501 20	.....	111 17	28 58	32 83	.....	33 50	23 85	21 02	.....	9 31	.....
Atypical	1,695 75	.....	.....	.....	1,695 75	.....	.....	71	1 83	.....	12	.....	1 44	.....	4 26	.....
Boys' Vocational	7,476 00	.....	.....	.....	7,476 00	.....	1 00	41 93	3 70	9 65	16 48	.....	.....	72 55	89 04	.....
Girls' Vocational	7,580 15	12 50	.....	.....	7,592 65	.....	1 38	40	.....	3 00	4 12	.....	.....	.....	2 43	.....
Evening, High	4,074 00	.....	.....	.....	4,074 00	.....	.....	52 57	4 96	9 41	44 62	.....	.....	3 42	97 82	.....
Evening, Bell	2,307 00	.....	.....	.....	2,307 00	.....	3 75	11 81	6 39	.....	9 76	.....	.....	.....	33	.....
Evening, Highland	883 50	.....	.....	.....	883 50	.....	.....	6 86	5 85	75	80	.....	.....	.....	.....	.....
Evening, Practical Arts	289 00	.....	.....	.....	289 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Administration .....	.....	.....	.....	.....	.....	\$7,900 00	35 13	6 22	.....	2 11	8 30	.....	.....	.....	09	.....
Miscellaneous .....	.....	.....	.....	.....	.....	.....	23 13	119 45	38 55	18 33	7 57	45 75	47 82	.....	22 69	.....
Dental	810 00	.....	.....	.....	810 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	\$342,309 64	\$1,668 00	\$10,863 76	\$4,760 75	\$359,602 15	\$7,900 00	\$7,379 63	\$2,284 63	\$1,169 95	\$806 48	\$1,154 55	\$855 88	\$584 29	*\$1,242 11	\$1,333 55	\$647 68

*Lumber, \$988.41; hardware, \$253.70

ROLLED BY THE SCHOOL BOARD FOR THE YEAR 1916.

Laboratory Supplies.	Bookkeeping Blanks.	Domestic Science Supplies.	Printing.	Travel.	Graduation.	Postage.	Tuition and Board of Truants.	Miscellaneous.	Equipment.	Telephone Service.	Electric Service. (Power.)	Totals.	SCHOOLS.
\$647 68	\$786 57	\$5 17	\$335 51	\$5 85	\$195 71	\$74 00	.....	\$561 04	\$1,851 07	\$72 04	\$153 00	\$10,276 24	..... High
.....	38 26	7 40	8 00	.....	.....	.....	.....	17 18	631 00	4 77	.....	1,223 72	..... East Somerville Junior High
.....	41 86	34 66	8 63	15 40	.....	1 25	.....	6 47	402 55	4 18	.....	1,212 44	..... Winter Hill Junior High
.....	75	13 77	.....	.....	24 42	90	28 67	.....	348 50	..... Prescott
.....	4 89	62	.....	.....	367 77	..... Hanscom
.....	185 30	63	1 20	.....	589 85	..... Bennett
.....	3 20	.....	.....	.....	3 70	.....	.....	.....	134 44	..... Baxter
.....	3 80	18 22	.....	.....	18 73	2 09	22 36	.....	792 98	..... Knapp
.....	4 72	71	.....	.....	110 03	..... Perry
.....	14 11	.....	.....	32 29	2 85	20 45	.....	523 17	..... Pope
.....	3 67	14 05	.....	.....	22 52	21 09	19 95	.....	431 78	..... Bell
.....	9 65	.....	.....	.....	127 31	..... Cummings
.....	3 57	16 92	.....	.....	17 59	5 55	22 88	.....	675 63	..... Edgerly
.....	8 89	.....	.....	15 21	90	19 82	.....	462 76	..... Glines
.....	89 14	15 20	12 93	22 38	5 40	.....	14 09	90 90	28 57	.....	894 26	..... Forster
.....	4 45	15 37	.....	.....	21 61	11 34	20 03	.....	577 15	..... Bingham
.....	6 90	14 38	.....	.....	22 23	35 50	24 86	.....	546 54	..... Carr
.....	8 78	12 64	.....	.....	20 02	2 70	19 82	.....	535 90	..... Morse
.....	6 25	.....	22 72	.....	202 41	..... Proctor
.....	1 82	.....	.....	.....	78 88	..... Durell
.....	3 10	.....	.....	.....	10 16	.....	.....	.....	347 35	..... Burns
.....	6 11	9 70	.....	.....	11 33	6 56	21 72	.....	425 52	..... Brown
.....	3 70	25 89	.....	.....	14 49	11 06	20 75	.....	519 63	..... Highland
.....	3 50	8 25	.....	.....	10 87	41 92	19 82	.....	742 63	..... Hodgkins
.....	4 40	8 91	54	.....	95 11	56 32	24 67	.....	898 16	..... Cutler
.....	2 67	.....	.....	.....	107 84	..... Lincoln
.....	8 26	.....	.....	.....	268 52	..... Lowe
.....	27	.....	.....	.....	9 74	..... Atypical
.....	40 27	41 71	8 82	1 00	.....	14 29	161 23	45 79	349 43	896 89	..... Boys' Vocational
.....	39 89	32 11	5 00	25 42	14 00	.....	47 77	41 48	32 69	.....	249 69	..... Girls' Vocational
.....	105 88	.....	60 95	3 50	5 88	4 50	.....	11 24	.....	.....	.....	404 75	..... Evening, High
.....	10 80	.....	7 10	9 83	.....	06	.....	.....	.....	59 83	..... Evening, Bell
.....	7 53	.....	.....	.....	.....	.....	.....	.....	.....	21 79	..... Evening, Highland
..... Evening, Practical Arts
.....	163 20	†400 63	.....	199 68	.....	188 58	56 65	196 98	.....	1,257 57	..... Administration
.....	4 38	410 25	3 40	50	08	\$1,200 73	282 95	57 24	20	.....	2,283 02	..... Miscellaneous
..... Dental
\$647 68	\$972 57	\$180 64	\$1,092 45	\$544 35	\$446 91	\$310 28	\$1,200 73	\$1,707 78	\$3,492 86	\$694 94	\$502 43	\$28,604 69	Totals

†Includes maintenance of automobile, \$261.64

†Includes maps and charts..... \$130.49
 Typewriter supplies..... 82.14
 Expressage..... 109.41
 Piano tuning..... 38.25
 Baths..... 178.06
 Gardens..... 72.50

For supplies..... \$28,604.69
 For salaries..... 7,900.00
 Total spent from Contingent..... \$36,504.69

6.—MISCELLANEOUS.

	*1915.	*1916.	Change.
Paid for new school buildings	\$9,745 09	\$81,183 73	+\$71,438 64
Repairs and permanent improvements	28,211 77	21,634 32	—6,577 45
Total school expenditures..	481,934 55	553,961 04	+72,026 49
Number of dollars spent to maintain schools out of every \$1,000 of valuation	5 75	5 69	—0 06
Valuation of city.....	77,153,500 00	79,304,329 00	+2,150,829 00
Number of dollars spent for all school purposes out of every \$1,000 of valuation	6 24	6 98	+0 74

*School year.

Cost of the Schools.

The total amount spent for the maintenance of the schools of Somerville for the school year ending June 30, 1916, is \$451,142.99.

This includes the sums spent for care of school buildings, including janitors' services, fuel, lights, and school telephones; the amount paid for salaries of officers, and the amount spent for school supplies; and the sum paid for salaries of teachers.

The expenditure for *care of school buildings* is wholly in charge of the City Government.

The amount paid for janitors is.....	\$34,667 43
The cost of fuel is.....	20,196 92
The cost of light is.....	6,232 57

A total cost of.....	\$61,096 92
The cost per capita.....	4 63
Cost of repairs.....	\$21,634 32

The second important expenditure is wholly under the control of the School Committee and is covered by what is known as the "*School Contingent*" appropriation. The following is the itemized account:—

Expenditures.	Total.	DAY SCHOOLS.		EVENING SCHOOLS.	
		High and Vocational.	Elementary.	High and Vocational.	Elementary.
Officers' Salaries	\$7,750.00	.....	.....	.....	.....
Office Expenses	1,932.07	.....	.....	.....	.....
Textbooks	7,359 63	\$3,028.69	\$4,285 94	\$45.00	.....
Stationery and Supplies	13,886.56	6,897.22	6,664.85	262.25	\$62.24
Other Expenses	694.83	188.36	502.97	3.50	.....
Miscellaneous (Tuition, etc)	2,224.92	561.27	1,451.85	204 70	7.10
Total	\$33,848.01	\$10,675.54	\$12,905.61	\$515.45	\$69.34

The third, and by far the largest, element of the cost of schools is the sum spent for the *salaries of teachers*. This expenditure is under the control of the School Committee.

The following statement shows the distribution of the sums paid for salaries:—

Expenditures.	Total.	DAY SCHOOLS.		EVENING SCHOOLS.	
		High and Vocational.	Elementary.	High and Vocational.	Elementary.
Supervisors	\$5,520.26	\$418.70	\$5,101.56	.....	.....
Principals	35,737.00	6,586.00	27,890.00	\$462.00	\$799.00
Teachers	314,940.80	92,938.10	216,360.20	3,162.00	2,480.50
Total	\$356,198.06	\$99,942.80	\$249,351.76	\$3,624.00	\$3,279.50

The *total outlay* for all school purposes includes all of the preceding and the sums spent for schoolhouse repairs and new buildings.

The *total outlay* for the school year ending June 30, 1916, is as follows:—

Care	\$61,096 92
Contingent	33,848 01
Salaries	356,198 06
Total for school maintenance.....	\$451,142 99
Paid for repairs.....	21,634 32
Paid for new buildings.....	81,183 73
Total for all school purposes.....	\$553,961 04

Each dollar of the sum spent for the support of schools has been divided in the following proportion:—

	1911.	1912.	1913.	1914.	1915.	1916.
Janitors' salaries	\$0.071	\$0.071	\$0.082	\$0.079	\$0.074	\$0.077
Heat and light.....	0.053	0.054	0.055	0.060	0.054	0.059
Administration	0.019	0.020	0.018	0.018	0.017	0.017
School supplies	0.068	0.076	0.065	0.065	0.067	0.058
Teachers' salaries	0.789	0.779	0.780	0.778	0.788	0.789
Total	\$1.000	\$1.000	\$1.000	\$1.000	\$1.000	\$1.000

Per Capita Cost. The proper method of comparison of the cost of schools year by year is to consider the sum spent for each pupil in the average membership. In this computation we exclude the cost of evening schools, and the vocational schools. The following shows

THE PER CAPITA COST OF DAY SCHOOLS FOR 1915 AND 1916.

	High Schools.			Grammar and Primary Schools.			All Day Schools.		
	1915.	1916.	Change	1915.	1916.	Change	1915.	1916.	Change
Instruction . . .	\$42 66	\$41 71	-\$0 95	\$23 10	\$23 19	+\$0 09	\$26 16	\$26 11	-\$0 05
Supplies	5 81	4 84	-0 97	1 46	1 27	-0 19	2 14	1 84	-0 30
Care	5 30	6 11	+0 81	3 93	4 05	+0 12	4 14	4 38	+0 24
Total	\$53 77	\$52 66	-\$1 11	\$28 49	\$28 51	+\$0 02	\$32 44	\$32 33	-\$0 11

Including the cost of maintenance of evening schools, the per capita cost is as follows:—

	1912.	1913.	1914.	1915.	1916.
Cost of instruction	\$23 61	\$24 54	\$24 55	\$24 90	\$25 35
Cost of supplies	2 12	1 91	1 89	2 03	1 78
Cost of care	3 99	4 18	4 27	3 92	4 28
Total	\$29 72	\$30 63	\$30 71	\$30 85	\$31 41

An examination of these tables shows that we have paid ninety-five cents less for the instruction of each pupil in the High School than in 1915, and ninety-seven cents less per pupil for supplies.

The grammar and primary schools have cost nine cents more per pupil for instruction, and nineteen cents less for supplies.

The amount spent for the school year 1916 was \$5.69, or six cents less than was spent in 1915. The amount yielded for each child in the average membership of the schools for 1916, not including the vocational schools, was \$31.41.

Comparative Per Capita. According to the annual report of the State Board of Education for 1915-16, the amount yielded for each child in the average membership of the public schools was \$34.49, giving to Somerville the rank of 151 among the cities and towns of Massachusetts. In 1914-15 the rank was 116. By the same report it is shown that Somerville appropriated to the support of the public schools \$5.82 for each thousand dollars of valuation, and had the rank of 155. The year before the amount spent was \$6.08 and the rank 152.

Teachers' Salaries.

The salaries paid to teachers in January, 1917, are as follows:—

1 man	\$3,200	13 women	\$875
1 man	2,400	12 women	850
1 man	2,250	7 women	825
1 man	2,100	1 man, 198 women	800
11 men, 2 women	2,000	1 man, 11 women	750
3 men	1,900	1 man, 16 women	700
1 man	1,850	5 women	650
1 woman	1,800	12 women	600
5 men	1,700	1 woman	550
1 man, 1 woman	1,500	9 women	525
1 man	1,400	5 women	500
3 men	1,300	3 women	475
1 man	1,250	4 women	450
3 women	1,200	3 women	425
2 men	1,150	1 woman	400
3 men, 1 woman	1,100	2 women	360
2 men, 4 women	1,050	5 women	350
3 men, 8 women	1,000	1 woman	300
1 man, 7 women	950	8 women	200
2 men, 23 women	900		

SIGHT AND HEARING.

The following gives the results of the eye and ear tests:—

EYES.

	1916.	1915.	Change.
Tested	11,869	12,028	—159
Defective	1,536	1,691	—155
Per cent. defective.....	12.9	14.1	—1.2
Notices sent to parents.....	1,052	1,016	+36
Professionally treated	152	212	—60

EARS.

	1916.	1915.	Change.
Tested	12,492	12,472	+20
Defective	271	284	—13
Per cent. defective	2.2	2.3	—0.1
Notices sent to parents.....	177	154	+23
Professionally treated	24	27	—3

TABLE 1.—SCHOOLHOUSES.

NAME.	No. of Classrooms.	No. of Seatings.	Size of Lot, including Space Occupied by Building.	Material.	How Heated.	How Ventilated.	Valuation, including Furniture.	When Built.	Enlargements.
High School } West	a43	1,786	*.....	Brick	Steam	Fan	\$390,000	1895	8 rooms added 1906
School } East	.	.	.....	Brick	Steam	Fan		1871	30 rooms added 1913
†Prescott	23	941	49,310	Brick	Steam	Fan	105,200	1867	11 rooms added 1916
Knapp	13	617	24,517	Brick	Steam	Gravity	55,500	1889	4 rooms added 1894
Pope	12	577	27,236	Brick	Steam	Gravity	83,600	1891	
Bell	12	503	29,860	Brick	Steam	Fan	48,900	1874	
Edgerly	12	572	24,000	Brick	Steam	Gravity	48,000	1871	{ 4 rooms added 1882 4 rooms added 1892
Glines	14	672	28,800	Brick	Steam	Gravity	93,400	1891	5 rooms added 1896
†Forster	23	817	30,632	Brick	Steam	Gravity	102,000	1866	6 rooms added 1899
Bingham	16	770	35,586	Brick	Steam	Gravity	78,000	1886	{ 4 rooms added 1894 8 rooms added 1904
Carr	17	705	20,450	Brick	Steam	Gravity	56,000	1898	
Morse	12	570	29,000	Brick	Furnace	Furnace	59,000	1869	6 rooms added 1890
Highland	12	582	23,260	Brick	Steam	Gravity	71,600	1880	4 rooms added 1891
Hodgkins	14	608	35,034	Brick	Steam	Gravity	98,700	1896	
Cutler	18	748	53,729	Brick	Steam	Fan	107,700	1912	6 rooms added 1915
Bennett	12	499	21,964	Brick	Steam	Gravity	48,000	1902	
Hanscom	10	482	16,767	Brick	Steam	Fan	70,500	1897	4 rooms added 1907
Carried forward	263	11,449	.....	.....	.....	.....	\$1,516,100	....

(a) There are besides, four recitation rooms, five laboratories, two lecture rooms, six manual training rooms, four manual training supply rooms, lockers, etc., three drawing rooms, two domestic science rooms, one domestic arts room, three typewriting rooms, two libraries, two supply rooms, five teachers' rooms, five offices, one luncheon room, one teachers' dining room, one hall, and six toilet rooms, making fifty-three rooms devoted to other than classroom uses.
*Buildings are located on Central Hill Park, which contains 13 1-10 acres. †2 Buildings.

TABLE 1 (Concluded).—SCHOOLHOUSES.

NAME.	No. of Classrooms.	No. of Sitings.	Size of Lot, including Space Occupied by Building.	Material.	How Heated.	How Ventilated.	Valuation, including Furniture.	When Built.	Enlargements.
Brought forward	263	11,449	.....	.....	.....	.....	\$1,516,100	....
Brown	10	487	26,733	Brick	Steam	Gravity	74,500	1901	4 rooms added 1907
Proctor	8	343	*	Brick	Steam	Gravity	44,000	1905	
Burns	8	404	16,080	Brick	Steam	Gravity	42,000	1886	4 rooms added 1899
Lowe	8	386	21,650	Brick	Steam	Gravity	48,000	1903	
Baxter	6	290	11,000	Brick	Steam	Gravity	34,300	1901	
Perry	6	298	46,080	Brick	Steam	Gravity	43,500	1899	
Girls' Vocational	6b	60	8,850	Wood	Furnace	Furnace	9,000	1911	
Boys' Vocational	4	50	30,155	Wood	Furnace	Furnace	33,000	1884	
Cummings	4	196	11,300	Wood	Furnace	Furnace	14,600	1884	
Durell	4	190	13,883	Brick	Steam	Gravity	21,900	1894	
Lincoln	4	189	17,662	Wood	Steam	Gravity	20,800	1885	
Total	331	14,342	.....	....	.....	.....	\$1,901,700	....

(b) There are besides one teachers' dining room, one stock room, one fitting room, one infirmary, two coat rooms, one janitor's room, and a principal's office.

* State property.

TABLE 2.—COST OF MAINTAINING SCHOOLS

FOR SCHOOL YEAR 1915-16.

SCHOOLS.	FROM SCHOOL APPROPRIATION.		SPENT BY CITY GOVERNMENT.	Total.
	Instruction and Supervision.	Supplies.	Care.	
High	\$85,873 97	\$9,969 06	\$12,585 35	\$108,428 38
Prescott	13,008 78	638 25	2,314 05	15,961 08
Knapp	13,455 68	749 49	1,943 30	16,148 47
Pope	11,843 56	715 00	2,050 13	14,608 69
Bell	9,962 19	554 55	1,587 80	12,104 54
Edgerly	13,441 37	730 27	1,645 27	15,816 91
Glines	14,462 43	695 53	2,411 99	17,569 95
Forster	17,742 99	1,475 44	3,447 49	22,665 92
Bingham	15,887 14	717 50	2,179 58	18,784 22
Carr	16,617 03	733 11	2,418 91	19,769 05
Morse	12,613 16	660 91	1,734 78	15,008 85
Brown	10,838 36	595 47	1,563 16	12,996 99
Highland	12,835 04	812 01	2,045 89	15,692 94
Hodgkins	13,164 94	740 18	1,608 14	15,513 26
Cutler	13,981 30	1,049 79	3,149 44	18,180 53
Bennett	10,292 66	695 19	2,296 89	13,284 74
Hanscom	11,235 24	535 82	1,563 93	13,334 99
Proctor	6,398 17	291 29	1,624 94	8,314 40
Burns	7,890 84	412 44	1,450 08	9,753 36
Lowe	6,835 65	315 04	1,448 05	8,598 74
Baxter	5,588 42	193 11	1,201 77	6,983 30
Perry	5,300 88	252 17	1,319 21	6,872 26
Cummings	3,351 25	154 38	1,225 21	4,730 84
Durell	3,349 72	109 60	971 62	4,430 94
Lincoln	3,195 29	130 30	1,125 89	4,451 48
Atypical	1,741 32	50 42	264 67	2,056 41
Boys' Vocational	7,683 69	1,195 52	1,250 08	10,129 29
Girls' Vocational	8,217 45	391 32	1,133 98	9,742 75
Evening	7,139 54	534 85	1,535 32	9,209 71
Total	\$363,948 06	\$26,098 01	\$61,096 92	\$451,142 99

TABLE 3.—PER CAPITA COST OF MAINTAINING SCHOOLS
FOR SCHOOL YEAR 1915-16.

SCHOOLS.	Instruction and Supervision.	Supplies.	Care.	Total.
High	\$41 71	\$4 84	\$6 11	\$52 66
Prescott	23 83	1 17	4 24	29 24
Knapp	26 18	1 46	3 78	31 42
Pope	23 83	1 44	4 12	28 39
Bell	23 83	1 33	3 80	28 96
Edgerly	24 05	1 31	2 94	28 30
Glines	24 43	1 17	4 07	29 67
Forster	24 07	2 00	4 68	30 75
Bingham	22 22	1 00	3 05	26 27
Carr	24 37	1 07	3 55	28 99
Morse	21 06	1 10	2 90	25 06
Brown	24 58	1 35	3 54	29 47
Highland	25 57	1 62	4 08	31 27
Hodgkins	25 32	1 42	3 09	29 83
Cutler	22 02	1 65	4 96	28 63
Bennett	22 82	1 54	5 09	29 45
Hanscom	18 91	90	2 63	22 44
Proctor	21 12	96	5 36	27 44
Burns	22 29	1 17	4 10	27 56
Lowe	19 31	89	4 09	24 29
Baxter	22 00	76	4 73	27 49
Perry	21 64	1 03	5 38	28 05
Cummings	20 69	95	7 56	29 20
Durell	22 18	73	6 43	29 34
Lincoln	22 34	91	7 87	31 12
Atypical	58 04	1 68	8 82	68 54
Evening	10 58	79	2 27	13 64
Gram. and primary	23 19	1 27	4 05	28 51
All schools	26 25	1 88	4 41	32 54
Boys' Vocational . .	134 80	20 97	21 93	177 70
Girls' Vocational . .	106 72	5 08	14 73	126 53

TABLE 4.—ANNUAL COST OF MAINTAINING THE SCHOOLS
FOR A SERIES OF YEARS.

Amounts are given to the nearest dollar and include what has been paid for maintaining day and evening schools of all grades.

YEAR.	Average Membership.	FROM SCHOOL APPROPRIATION.		SUM SPENT UNDER DIRECTION OF CITY GOVERNMENT.				Total.
		Instruction and Supervision.	School Supplies.	Light.	Heating.	Janitors.	School Tele-phones.	
1886	4,985	\$83,542	\$6,676	\$624	\$4,929	\$4,194	...	\$99,865
1887	5,198	86,713	7,526	765	6,475	5,084	...	106,563
1888	5,488	88,967	7,421	953	7,121	5,892	...	110,354
1889	5,956	96,466	9,903	805	6,081	6,448	...	119,703
1890	6,486	104,184	10,371	1,004	5,586	7,539	...	128,684
1891	6,502	114,066	13,899	1,047	8,032	8,544	...	145,588
1892	7,035	124,232	12,944	1,064	7,148	9,794	...	155,183
1893	7,217	128,720	10,137	1,014	8,312	10,160	...	158,333
1894	7,212	132,919	10,919	958	9,673	10,686	...	165,155
1895	7,617	144,113	15,063	1,398	8,796	11,581	...	180,951
1896	8,077	161,551	17,601	1,469	9,962	14,160	...	204,743
1897	8,589	180,222	14,815	1,920	10,065	16,251	...	223,273
1898	9,085	189,244	14,986	2,075	9,767	17,393	...	233,465
1899	9,502	197,660	16,131	2,472	10,821	17,831	...	244,915
1900	9,823	212,863	15,735	1,729	10,840	19,236	...	260,403
1901	9,991	226,556	18,707	1,731	13,723	20,078	...	280,796
1902	10,402	234,210	19,386	1,803	10,489	20,859	...	286,747
1903	10,719	242,964	20,873	2,015	18,052	21,042	...	304,946
1904	11,094	255,481	21,411	1,436	15,315	22,024	\$237	315,904
1905	11,543	259,597	20,137	4,345	15,167	21,949	482	321,677
1906	11,762	266,197	22,589	2,875	14,162	23,143	380	329,346
1907	11,909	273,107	24,317	3,760	15,236	23,999	433	340,852
1908	12,159	294,400	26,377	3,831	14,912	25,245	386	365,151
1909	12,423	298,839	21,819	4,071	14,798	26,072	550	366,149
1910	12,131	298,420	26,292	6,109	14,003	25,803	595	371,222
1911	11,871	300,393	24,968	4,751	14,907	26,031	529	371,579
*1912	11,710	306,709	30,319	5,995	15,676	30,219	512	389,431
*1913	11,856	320,744	25,877	5,842	16,055	32,939	542	402,092†
*1914	12,320	338,587	26,843	6,448	18,952	33,711	624	425,165
*1915	12,903	357,581	29,389	5,755	18,366	32,674	213	443,978
*1916	15,191	363,948	26,098	6,233	20,197	34,667	...	451,143

* Facts are given for school year, July 1 to June 30, inclusive.

† \$92.50 included for rental of church for schoolhouse purposes in Ward 7.

TABLE 5.—ANNUAL COST PER CAPITA OF MAINTAINING SCHOOLS

FOR A SERIES OF YEARS.

[Based on the average membership.]

YEAR.	Instruction and Supervision.	School Supply Expenses.	Janitors, Water, Heat, and Light.	Total.	Assessors' Valuation of City.	Ratio of Cost of School Maintenance to Valuation.
1886	\$16 76	\$1 34	\$1 94	\$20 03	\$26,003,200	.00384
1887	16 68	1 45	2 37	20 50	27,469,300	.00388
1888	16 21	1 36	2 54	20 11	28,756,400	.00384
1889	16 20	1 66	2 24	20 10	30,004,600	.00399
1890	16 06	1 60	2 18	19 84	32,557,500	.00395
1891	17 54	2 14	2 71	22 39	36,843,400	.00395
1892	17 66	1 84	2 56	22 06	38,093,100	.00407
1893	17 84	1 40	2 70	21 94	41,773,600	.00379
1894	18 43	1 51	2 96	22 90	44,142,900	.00374
1895	18 92	1 98	2 86	23 76	46,506,300	.00390
1896	20 00	2 18	3 17	25 35	49,013,050	.00418
1897	20 98	1 73	3 29	26 00	50,173,775	.00444
1898	20 83	1 65	3 22	25 70	50,739,700	.00460
1899	20 80	1 70	3 28	25 78	51,202,350	.00478
1900	21 67	1 60	3 24	26 51	52,513,400	.00496
1901	22 67	1 87	3 56	28 10	53,924,200	.00521
1902	22 52	1 86	3 19	27 57	55,485,370	.00517
1903	22 67	1 95	3 84	28 46	56,981,360	.00535
1904	23 03	1 93	3 52	28 48	58,056,700	.00544
1905	22 50	1 74	3 63	27 87	59,146,600	.00544
1906	22 63	1 92	3 45	28 00	60,371,500	.00546
1907	22 93	2 04	3 65	28 62	61,527,750	.00554
1908	24 21	2 17	3 65	30 03	63,158,400	.00578
1909	24 06	1 76	3 66	29 48	63,659,210	.00575
1910	23 05	2 03	3 59	28 67	66,376,338	.00559
1911	23 50	1 95	3 62	29 07	67,284,066	.00552
*1912	23 61	2 12	3 99	29 72	69,632,540	.00556
*1913	24 54	1 91	4 18	30 63	71,848,811	.00559
*1914	24 55	1 89	4 27	30 71	74,887,800	.00568
*1915	24 90	2 03	3 92	30 85	77,153,500	.00575
*1916	26 25	1 88	4 41	32 54	79,304,329	.00569

* Facts given for school year, July 1 to June 30, inclusive.

TABLE 6.—AMOUNT SPENT ANNUALLY FOR ALL SCHOOL PURPOSES
FOR A SERIES OF YEARS.

YEAR.	For New Schoolhouses.	For Repairs and Permanent Improvements.	For Maintaining Schools.	Amount Spent for all School Purposes.
1886	\$15,515	\$8,706	\$99,865	\$114,086
1887	14,839	13,636	106,563	135,038
1888	4,996	13,994	110,354	129,344
1889	20,167	14,225	119,703	154,095
1890	75,775	19,168	128,684	223,627
1891	84,902	14,847	145,588	245,337
1892	12,679	17,734	155,183	176,001
1893	22,809	12,440	158,333	193,582
1894	82,206	44,764	165,155	292,125
1895	87,680	15,651	180,951	284,282
1896	61,016	33,240	204,743	298,999
1897	46,621	20,507	223,273	290,400
1898	49,983	21,274	233,465	304,722
1899	72,516	15,637	244,915	333,068
1900	51,232	21,745	260,403	333,380
1901	49,203	11,000	280,796	340,999
1902	56,501	13,079	286,747	356,327
1903	59,822	12,261	304,946	377,029
1904	23,703	18,209	315,904	357,816
1905	51,987	8,306	321,677	381,970
1906	38,457	11,951	329,346	379,754
1907	31,804	18,008	340,852	390,664
1908	18,271	17,792	365,151	401,214
1909	828	21,195	366,149	388,172
1910	—	21,864	371,222	393,086
1911	7,149	18,911	371,579	397,639
*1912	35,527	14,163	389,431	439,121
*1913	34,866	19,341	402,092	456,299
*1914	120,913	19,700	425,165	565,778
*1915	9,745	28,212	443,978	481,935
*1916	81,184	21,634	451,143	553,961

* Facts are given for school year, July 1 to June 30, inclusive.

TABLE 8.—ATTENDANCE OF THE PUBLIC SCHOOLS FOR THE SCHOOL YEAR 1915-16.

Rooms Used for Classrooms in June	SCHOOLS.	Annual Enrollment.	Average Membership.	Average Attendance.	Per cent. of Attendance.	No. Attending in October.	No. Attending in June.	Average No. to Classroom in June.
44	High . . .	2,130	2,059	1,930	93.7	2,091	1,999	26*
12	Prescott . . .	639	546	514	94.1	550	530	45
12	Hanscom . . .	693	594	551	92.8	571	553	46
12	Bennett . . .	513	451	420	93.1	436	463	39
6	Baxter . . .	277	254	215	84.6	221	223	37
13	Knapp . . .	567	514	490	95.3	505	512	39
6	Perry . . .	280	245	231	94.3	240	245	41
12	Pope . . .	567	497	471	94.8	513	472	39
10	Bell . . .	449	418	394	94.3	405	400	40
4	Cummings . . .	199	162	149	92.0	166	157	39
12	Edgerly . . .	627	559	526	94.1	566	537	45
13	Glines . . .	675	592	552	93.2	577	593	46
17	Forster . . .	820	737	684	92.8	729	732	43
16	Brigham . . .	798	715	668	93.4	725	705	44
18	Carr . . .	756	682	641	94.0	685	668	37
12	Morse . . .	620	599	563	94.0	560	556	46
7	Proctor . . .	341	303	282	93.1	292	300	43
4	Durell . . .	180	151	140	92.7	163	154	38
8	Burns . . .	413	354	333	94.1	365	358	45
10	Brown . . .	502	441	415	94.1	441	439	44
12	Highland . . .	529	502	479	95.4	514	494	41
13	Hodgkins . . .	621	520	495	95.2	504	527	41
16	Cutler . . .	661	635	597	94.0	586	574	36
4	Lincoln . . .	193	143	131	91.6	167	139	35
8	Lowe . . .	395	354	308	87.0	348	325	41
2	Atypical . . .	30	30	26	86.7	28	30	15
4	Boys' Vocational	65	57	53	93.0	55	44	....
6	Girls' Vocational	107	77	65	84.4	75	63	....
313	Total	14,647	13,191	12,323	93.4	13,078	12,792	
308	Total for 1914-15	14,505	12,903	12,189	94.5	12,911	12,574	

* Per teacher.

**TABLE 9.—STATISTICS OF HIGH SCHOOL FOR SCHOOL YEAR
SEPTEMBER 8, 1915, TO JUNE 28, 1916.**

Number of teachers, including head master	75
Number of days school kept	187
Number enrolled	2,130
Average number belonging	2,059
Average daily attendance	1,930
Per cent. of attendance	93 8
Tardiness	4,540
Dismissals	683
In Class 1920-A February, 1916	276
June	236
Per cent. of loss	14.5
In Class 1919-B September, 1915	538
June	464
Per cent. of loss	13.8
In Class 1919-A February, 1915	226
June	173
Per cent. of loss	23.5
In Class 1918-B September, 1915	388
June	342
Per cent. of loss	11.9
In Class 1918-A September, 1915	154
June	123
Per cent. of loss	21.1
In Class 1917-B September, 1915	295
June	258
Per cent. of loss	12.5
In Class 1917-A September, 1915	108
June	97
Per cent. of loss	10.2
In Class 1916-B September, 1915	265
June	265
Per cent. of loss	0
In Class 1916-A September, 1915	88
February	85
Per cent. of loss	3.4
Special students, September, 1915	15
June	45
Total, September, 1915	2,077
June	1,999
Per cent. of loss	3.8
Number of graduates, male	150
Number of graduates, female	198
Total	348
Average age, male graduates	18 yrs.2 mos.
Average age, female graduates	18 yrs.3 mos.
Number entering college	71
Number of graduates entering technical schools	9
Number of graduates entering normal schools	20
Cost of instruction	\$84,379 05
Cost of supplies	9,125 87
Total cost	93,504 92
Per capita cost of instruction	40 98
Per capita cost of supplies	4 43
Total cost per capita	45 41

TABLE 10.—PUPILS BY GRADES, JUNE, 1916.

SCHOOL.	GRADE.	TEACHERS.			PUPILS.			Never in First Grade Before.	
		Men.	Women.		Boys.	Girls.	Total.	Sept.	Feb.
			Regular.	Assistants.					
High	Special . . .	....	....	....	24	21	45		
"	Thirteenth . .	....	....	....	153	205	358		
"	Twelfth . . .	....	....	....	183	198	381		
"	Eleventh . . .	....	....	....	205	310	515		
"	Tenth . . . .	....	....	....	332	368	700		
	Total	24	52	....	897	1,102	1,999		
Grammar	Ninth	11	22	....	380	432	812		
"	Eighth . . . .	....	27	....	508	525	1,033		
"	Seventh . . . .	....	26	....	542	596	1,138		
"	Sixth . . . .	....	27	1	505	502	1,007		
"	Fifth . . . .	....	26	....	563	514	1,077		
"	Fourth . . . .	....	30	1	641	656	1,297		
	Total gram-mar . . .	11	158	2	3,139	3,225	6,364		
Primary	Third . . . .	....	33	2	661	680	1,341		
"	Second . . . .	....	33	2	631	683	1,314		
"	First . . . .	....	32	3	738	655	1,393	955	460
	Total pri-mary . . .	....	98	7	2,030	2,018	4,048		
	Total gram-mar and primary .	11	256	9	5,169	5,243	10,412		
	Kindergarten .	....	4	4	96	104	200		
	Specials . . .	4	13	....	28	16	44		
	Cadets . . . .	....	6	....	....	....	....
	Atypical . . .	....	2	....	12	18	30		
	Boys' Vocational	6	....	....	44	....	44		
	Girls' Vocational	....	9	....	....	63	63		
	Grand Total .	45	342	13	6,246	6,546	12,792		

**TABLE 11.—PUPILS IN HIGH AND GRAMMAR SCHOOLS,
1915—1916.**

	High School.	Grammar and Primary Schools.	Kindergartens.	Vocational School for Boys.	Vocational School for Girls.	Atypical Schools.	Total.
Annual enrollment	2,130	12,012	303	65	107	30	14,647
Average membership	2,059	10,767	201	57	77	30	13,191
Average attendance	1,930	10,063	186	53	65	26	12,323
Per cent. of attendance	33.7	94.3	92.5	93.0	84.4	86.7	93.4
Number cases of tardiness	4,540	4,139	...	28	629	37	9,373
Number cases of dismissal	683	2,466	...	2	..	12	3,163
Number cases of punishment . . . . .	....	186	...	...	..	..	186
Membership, October, 1915.	2,091	10,617	212	55	75	28	13,078
Membership, June, 1916	1,999	10,456	200	44	63	30	12,792

**TABLE 12.—NUMBER OF PUPILS ADMITTED TO GRADE I IN
SEPTEMBER AND FEBRUARY.**

School.	1913-14.		1914-15.		1915-16.	
	Sept.	Feb.	Sept.	Feb.	Sept.	Feb.
Prescott	33	13	58	11	45	23
Hanscom	81	24	82	24	66	20
Bennett	76	21	65	9	73	26
Baxter	40	14	32	17	31	15
Knapp	31	14	9	15	27	14
Perry	43	1	33	12	64	12
Pope	29	11	42	6	36	8
Bell . . . . .	..	..	..	..	..	..
Cummings	50	9	61	15	51	13
Edgerly	35	15	33	10	26	17
Glines	41	17	42	31	43	26
Forster	60	21	42	21	44	33
Bingham	64	21	57	27	51	25
Carr	50	21	55	16	56	21
Morse	52	21	44	23	61	23
Proctor	44	10	43	8	25	16
Durell	24	16	3	8	23	11
Burns	47	25	58	27	16	17
Brown	16	16	47	20	47	22
Highland . . . . .	..	..	..	..	..	..
Hodgkins	54	14	50	25	19	23
Cutler	55	26	0	0	43	0
Lincoln . . . . .	..	..	45	30	44	18
Lowe	43	22	65	12	64	77
Total	968	352	966	367	955	460
Grand Total	1,320		1,333		1,415	

TABLE 13.—GRAMMAR SCHOOL GRADUATES, 1916.

SCHOOLS.	Number receiving Diplomas.	Number Certificated for High School.		Number Entering High School.	
		Conditionally.	Unconditionally.	Conditionally.	Unconditionally.
Prescott	53	9	44	5	37
Knapp	69	1	67	0	53
Pope	55	16	38	8	25
Bell	56	9	47	7	41
Edgerly	64	3	55	2	41
Glines	36	3	29	2	24
Forster	90		86		70
Bingham	60	4	51	2	35
Carr	55	6	40	6	38
Morse	46	4	42	2	32
Brown	38	3	34	3	32
Highland	96	8	79	7	71
Hodgkins	29	4	25	4	25
Cutler	34	19	15	15	12
Total	781	89	652	63	536

TABLE 14.—COMPARATIVE STATISTICS OF THE ATTENDANCE DEPARTMENT FOR THE SCHOOL YEAR 1915—1916.

	1915.	1916.	Change.
Number of visits to the schools	823	819	—4
Number of visits to the homes	1,455	1,250	—205
Number of cases investigated	1,562	1,357	—205
Number of cases found to be truancy or absenteeism	405	360	—45
Number of different pupils who were truants or habitual absentees	311	256	—55
Number who were truants for the first time	244	188	—56
Number who were truants for the second time	44	49	+5
Number who were truants for three or more times	23	19	—4
Number of girls who were truants or absentees	52	45	—7
Number of cases of parental neglect of children found and reported to charitable institutions	6	5	—1
Number of cases of removal of children from the custody of parents by order of the court	3	2	—1
Number of visits to mercantile or manufacturing establishments	58	37	—21
Number of minors found to be working without employment certificates	66	56	—10
Number of employers fined for working boys during school hours . . . . .	..	1	..
Number of employment certificates issued to boys	210	357	+147
Number of employment certificates re-issued to boys	115	202	+87
Number of employment certificates issued to girls	103	258	+155
Number of employment certificates re-issued to girls	64	131	+67
Number of educational literate certificates issued to minors over 16 years of age	1,158	1,390	+232
Number of newspaper licenses issued to boys 12 to 16 years of age	194	185	—9
Number of transfer cards investigated	1,401	1,449	+48
Number of truants in the County Training school at the close of the year	16	18	+2
Amount paid for board of truants	941.86	885.26	—56.60
Salary of Attendance Officer, Benjamin R. Jones	1,350.00	1,350.00	..

TABLE 14 (Continued).—COMPARATIVE STATISTICS OF THE ATTENDANCE DEPARTMENT.

For School Year 1915-1916.

Disposition of truancy and absenteeism cases:—

Warned and returned to school.....	149
Transferred to other schools.....	10
Obtained certificates (14 to 16 years).....	30
Left school (over 16 years).....	11
Removed from city.....	16
Brought before court and returned to school.....	14
Brought before court and sent to Training School.....	8
Appealed to Superior Court and sent to Training School.....	1
Returned to Training School for breaking parole.....	1
Parents brought before court for keeping children out of school (convicted)	2
Sent to Lyman School.....	5
Sent to State School for Boys.....	1
Sent to Concord Reformatory.....	1
Given in charge of State Board of Charity.....	1
Given in charge of Society Prevention of Cruelty to Children	1
Given in charge of Home for Destitute Catholic Children.....	4
Pending, 1 absentee.....	1

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TABLE 14-A.—TRUANCIES AND ABSENTEEISM BY AGES AND GRADES.

GRADE.	BY AGES.											Totals.
	6	7	8	9	10	11	12	13	14	15	16 or Over	
I.	2	3	2	..	..	..	..	..	..	..	..	7
II.	1	12	9	7	5	..	..	..	..	..	..	34
III.	2	4	9	1	3	1	..	..	..	..	20
IV.	4	7	10	6	9	9	..	..	..	45
V.	1	4	9	5	3	2	2	..	26
VI.	1	6	20	16	7	4	1	55
VII.	1	10	24	18	6	1	60
VIII.	1	13	16	12	1	43
IX.	1	6	11	1	19
X.	1	6	8	3	18
XI.	1	1	4	6
XII.	1	5	6
XIII.	2	2
Vocational 1st yr.	6	3	1	10
“ 2d yr.	0
Ungraded	1	1	2	1	..	..	2	1	1	..	9
Total . . .	3	18	20	26	22	25	46	69	63	49	19	360

TABLE 14-B.—TRUANTS AND ABSENTEES BY SCHOOLS.

School.	No. of Truants.
High	31
Prescott	22
Hanscom	10
Bennett	8
Baxter	0
Knapp	15
Perry	14
Pope	24
Bell	20
Cummings	12
Edgerly	18
Glines	3
Forster	2
Bingham	21
Carr	13
Morse	17
Proctor	2
Durell	5
Burns	3
Brown	1
Highland	5
Hodgkins	4
Cutler	7
Lincoln	1
Lowe	7
Vocational School for Boys.....	9
Vocational School for Girls.....	2
St. Joseph's Parochial.....	34
Not attending school; found on street.....	50
Total	<hr/> 360

TABLE 15.—ATTENDANCE IN ELEMENTARY EVENING SCHOOLS FROM OCTOBER, 1915, TO MARCH, 1916.

		Bell.	Highland.	Total.
Enrolled	Male	421	90	511
	Female	124	39	163
	Total	545	129	674
Ave. membership	Male	141	54	195
	Female	67	26	93
	Total	208	80	288
Ave. attendance	Male	101	39	140
	Female	53	19	72
	Total	154	58	212
Per cent. Att. out of No. belonging . . . . .	. . .	74.0	72.5	73.6
Per cent. Att. out of No. enrolled . . . . .	. . .	28.3	45.0	31.5
Ave. No. of teachers	Male	1	2	3
	Female	14	3	17
	Total	15	5	20
No. of sessions . . . . .	. . .	77	77	
Teachers, cost of . . . . .	. . .	\$2,396.00	\$883.50	\$3,279.50
Janitors, fuel, supplies and lights, cost of . . . . .	. . .	458.51	276.52	735.03
Total	Total	\$2,854.51	\$1,160.02	\$4,014.53
Cost per pupil per evening . . . . .	. . .	\$0.178	\$0.188	\$0.180
Cost per evening . . . . .	. . .	37.07	15.07	52.14
Cost per pupil in ave. membership . . . . .	. . .	13.72	14.52	13.94
Cost per pupil in ave. attendance . . . . .	. . .	18.54	20.00	18.94

**TABLE 15 (Concluded).—Evening High School, Season of
1915—1916.**

	Male.	Female.	Total.
Enrolled	464	309	773
Average membership	232	155	387
Average attendance	181	137	318
Number of teachers	10	10	20
Number of sessions			58
Cost of instruction		\$3,624 00	
Cost of janitors, fuel, supplies and light		948 36	
		<hr/>	
Total cost		\$4,572 36	
Cost per pupil per evening		\$0 204	
Average attendance: October, 511; November, 418; December, 357; January, 261; February, 244; March, 318.			

TABLE 16.—GRAMMAR SCHOOL GRADUATES

FOR A SERIES OF YEARS.

YEAR.	Prescott.	Bell.	Forster.	Morse.	Highland.	Egerly.	Pope.	Knapp.	Hodgkins.	Glines.	Carr.	Bingham.	Brown.	Cutter.	Total.	Average Membership of Grammar and Primary Schools.	Per cent. of Average Membership	Entered High School.	Per cent. of those Entering.
1890	54	106	45	56	57										318	6,062	5.24	184	57.86
1891	44	73	41	55	44	39									296	6,035	4.90	199	67.23
1892	41	36	75	49	45	49	36	39							370	6,525	5.67	228	61.62
1893	40	60	48	63	67	46	36	38							398	6,674	5.97	240	60.80
1894	39	29	79	66	68	41	35	32							389	6,600	5.89	253	65.04
1895	36	32	58	63	73	42	36	34							374	6,955	5.37	255	68.18
1896	38	34	72	38	70	46	37	35							370	7,201	5.13	281	76.00
1897	34	39	50	48	41	29	30	25	45	27					368	7,602	4.84	273	74.19
1898	36	43	31	46	36	50	36	28	41	35					382	8,029	4.75	281	73.56
1899	37	50	62	48	49	40	34	34	39	37					468	8,351	5.60	345	73.72
1900	36	45	43	31	43	47	44	34	42	36	38				434	8,689	4.99	317	73.00
1901	34	38	70	43	72	47	43	38	41	35	36				497	8,811	5.64	372	74.80
1902	41	48	61	45	67	46	35	31	32	40	51				497	9,328	5.33	350	70.40
1903	34	45	62	35	65	51	28	34	52	31	47				484	9,362	5.17	354	73.14
1904	31	35	84	46	79	44	36	38	40	36	43				512	9,739	5.26	367	71.68
1905	40	40	74	44	85	47	42	48	61	36	58	31			606	10,298	5.88	463	76.40
1906	35	54	67	44	109	49	44	64	58	40	43	33			640	10,209	6.22	474	74.10
1907	37	62	67	44	126	81	36	56	59	62	60	35			725	10,440	6.94	561	77.40
1908	44	51	71	71	88	50	64	66	61	42	58	36	40		742	10,410	7.13	551	74.26
1909	27	59	73	44	95	82	48	70	55	43	66	36	43		741	10,582	7.00	546	73.68
1910	30	53	72	48	96	68	56	80	62	32	57	39	50		743	10,451	7.10	521	70.12
1911	35	69	82	63	93	48	43	82	73	75	59	37	46		805	10,101	7.97	609	75.65
1912	40	75	79	56	90	70	62	79	62	33	43	47	45		781	9,806	7.96	538	68.88
1913	41	34	71	44	113	51	39	59	38	26	43	46	47	39	691	9,961	6.94	533	77.13
1914	62	72	66	38	85	65	47	58	26	28	61	51	47	35	741	10,098	7.32	587	79.21
1915	40	61	77	29	105	67	55	70	33	67	46	58	51	30	789	10,765	7.33	619	78.45
1916	53	56	90	46	96	64	55	69	29	36	55	60	38	34	781	10,998	7.10	599	76.70
	1,059	1,399	1,770	1,303	2,057	1,359	1,057	1,241	949	797	897	509	407	138	14,942	240,082	6.22	10,900	72.95

TABLE 17.—ATTENDANCE STATISTICS

FOR A SERIES OF YEARS.

DECEMBER.	ENROLLMENT.	Average Membership.	Average Attendance.	Per cent. of Attendance.	Number of Tardinesses.	Ratio of Tardiness to Average Attendance.
1886	6,350	4,985	4,678	93.8	2,834	0.606
1887	6,605	5,198	4,879	93.8	2,699	0.553
1888	7,262	5,488	5,174	94.0	2,938	0.549
1889	7,757	5,956	5,585	93.8	2,780	0.498
1890	7,878	6,485	6,075	93.6	3,133	0.516
1891	8,510	6,502	6,091	93.7	3,182	0.522
1892	9,120	7,035	6,608	93.9	3,181	0.481
1893	9,632	7,217	6,790	94.1	3,375	0.497
1894	9,387	7,212	6,840	94.8	3,000	0.419
1895	9,913	7,617	7,255	95.2	2,736	0.377
1896	10,582	8,077	7,663	94.9	2,743	0.358
1897	11,293	8,589	8,144	94.8	2,486	0.305
1898	11,577	9,085	8,636	95.1	2,941	0.341
1899	11,975	9,502	8,965	94.3	2,566	0.286
1900	12,345	9,823	9,174	93.4	2,759	0.300
1901	12,499	9,991	9,350	93.6	2,937	0.294
1902	13,116	10,402	9,733	93.5	3,335	0.343
1903	13,475	10,719	10,056	93.9	3,428	0.342
1904	13,804	11,094	10,422	93.9	3,887	0.373
1905	14,296	11,543	10,897	94.4	3,746	0.344
1906	14,551	11,762	11,069	94.1	4,046	0.366
1907	14,802	11,909	11,166	93.8	4,170	0.373
1908	15,105	12,159	11,458	94.2	3,882	0.344
1909	15,363	12,423	11,666	93.9	4,422	0.379
1910	14,481	12,131	11,435	94.3	4,320	0.378
1911	14,301	11,871	11,186	94.2	6,017	0.538
*1912	13,272	11,710	11,083	94.6	6,307	0.569
*1913	13,491	11,903	11,216	94.2	7,354	0.655
*1914	13,932	12,320	11,610	94.2	7,380	0.635
*1915	14,505	12,903	12,189	94.5	8,000	0.656
*1916	14,647	13,191	12,323	93.4	9,373	0.761

*June.

TABLE 18.—MEMBERSHIP, ETC., OF HIGH SCHOOL
FOR A SERIES OF YEARS.

YEAR.	Average Membership all Schools.	Largest Number in High School.	Per cent. of Average Membership of all Schools.	Number of Graduates of High School.	Per cent. of Average Membership of all Schools.
1867	2,157	119	5.51	7	0.32
1868	2,285	141	6.17	17	0.75
1869	2,480	158	6.37	25	1.01
1870	2,639	165	6.25	16	0.65
1871	2,549	161	6.31	33	1.29
1872	2,799	186	6.64	21	0.75
1873	3,217	190	5.91	28	0.87
1874	3,265	198	6.06	26	0.79
1875	3,515	213	6.06	31	0.88
1876	3,712	226	6.09	33	0.81
1877	3,788	227	5.91	37	0.98
1878	3,992	250	6.26	31	0.78
1879	4,169	246	5.90	34	0.82
1880	4,278	254	5.93	27	0.63
1881	4,064	256	6.29	34	0.84
1882	4,263	280	6.57	33	0.77
1883	4,438	278	6.26	43	0.97
1884	4,804	315	6.55	46	0.96
1885	4,904	385	7.85	46	0.94
1886	4,985	374	6.70	56	1.12
1887	5,198	387	7.44	53	1.02
1888	5,488	435	7.92	60	1.09
1889	5,956	444	7.45	67	1.12
1890	6,485	487	7.51	60	0.93
1891	6,502	535	8.23	68	1.05
1892	7,035	577	8.20	80	1.14
1893	7,217	626	8.67	82	1.14
1894	7,274	691	9.50	111	1.52
1895	7,617	775	10.17	92	1.21
1896	8,077	858	10.62	119	1.47
1897	8,589	885	10.31	121	1.59
1898	9,085	890	9.80	130	1.43
1899	9,502	985	10.70	137	1.49
1900	9,823	1,031	10.49	131	1.33
1901	9,991	1,098	10.99	152	1.52
1902	10,402	1,138	10.94	164	1.58
1903	10,719	1,208	11.27	181	1.70
1904	11,094	1,286	11.60	179	1.61
1905	11,543	1,372	11.89	211	1.83
1906	11,762	1,473	12.52	208	1.77
1907	11,909	1,614	13.55	223	1.87
1908	12,159	1,707	14.04	235	1.93
1909	12,423	1,828	14.71	265	2.13
1910	12,131	1,796	14.80	266	2.20
1911	11,871	1,836	15.47	277	2.33
*1912	11,710	2,023	17.28	296	2.53
*1913	11,903	2,081	17.48	296	2.48
*1914	11,610	2,111	18.18	273	2.35
*1915	12,903	2,258	17.50	311	2.41
*1916	13,191	2,288	17.35	348	2.64

*For school year ending June 30.

**TABLE 19.—PROMOTIONS FOR SCHOOL SEMESTER ENDING
JANUARY 28, 1916.**

GRADE.	On Promotion List.	Unconditionally Promoted One-half Grade.	Promoted on Trial.	Retarded One-half Grade.	Promoted More than One-half Grade.	Special Promotions during the Semester.	Promotees Dropped Back after Two Months' Trial.
I	1,513	1,200	55	242	16	3	1
II	1,443	1,223	69	128	23	7	4
III	1,378	1,131	96	117	34	10	9
IV	1,265	1,013	136	83	33	8	6
V	1,063	779	163	109	12	3	1
VI	1,065	758	191	95	21	5	5
VII	1,149	789	235	95	30	11	1
VIII	1,025	668	226	113	18	3	0
IX	780	593	127	38	22	11	1
Total	10,681	8,154	1,298	1,020	209	61	23

Percentage of Promotions for Semester Ending January 28, 1916.

GRADE.	On Promotion List.	Unconditionally Promoted One-half Grade.	Promoted on Trial.	Retarded One-half Grade.	Promoted More than One-half Grade.	Special Promotions during the Semester.	Promotees Dropped Back after Two Months' Trial.
I	100	79.3	3.6	16.0	1.1	0.2	1.3
II	100	84.7	4.8	8.9	1.6	0.5	3.7
III	100	82.1	7.0	8.5	2.4	0.7	7.6
IV	100	80.0	10.8	6.6	2.6	0.6	5.2
V	100	73.3	15.3	10.3	1.1	0.3	6.0
VI	100	71.2	18.0	8.9	1.9	0.5	2.7
VII	100	68.7	20.5	8.1	2.7	1.0	0.5
VIII	100	65.2	22.1	11.0	1.7	0.3	...
IX	100	76.0	16.3	4.9	2.8	1.4	0.7
Average	100	76.3	12.2	9.6	1.9	0.6	2.2

**TABLE 19.—PROMOTIONS FOR SCHOOL SEMESTER ENDING
JUNE 26, 1916.**

GRADE.	On Promotion List.	Unconditionally Promoted One-half Grade.	Promoted on Trial.	Retarded One-half Grade.	Promoted more than One-half Grade.	Special Promotions during the Semester.	Promotees Dropped Back after Two Months' Trial.
I	1,416	1,110	68	204	34	25	0
II	1,354	1,138	80	91	45	20	4
III	1,328	1,101	106	93	28	8	6
IV	1,318	1,057	150	96	15	11	5
V	1,091	848	147	71	25	3	5
VI	1,033	759	179	83	12	0	1
VII	1,134	836	199	76	23	8	4
VIII	1,042	756	192	88	6	..	..
IX	824	650	129	37	8	8	2
Total	10,540	8,255	1,250	839	196	83	27

Percentage of Promotions for Semester Ending June 26, 1916.

GRADE.	On Promotion List.	Unconditionally Promoted One-half Grade.	Promoted on Trial.	Retarded One-half Grade.	Promoted more than One-half Grade.	Special Promotions during the Semester.	Promotees Dropped Back after Two Months' Trial.
I	100	78.4	4.8	14.4	2.4	1.8	...
II	100	84.1	5.9	6.7	3.3	1.5	5.8
III	100	82.9	8.0	7.0	2.1	0.6	6.3
IV	100	80.2	11.4	7.3	1.1	0.8	3.7
V	100	77.7	6.5	13.5	2.3	0.3	3.1
VI	100	73.5	17.3	8.0	1.2	...	0.5
VII	100	73.7	17.6	6.7	2.0	0.7	1.7
VIII	100	72.6	18.4	8.4	0.6	...	...
IX	100	78.9	15.6	4.5	1.0	1.0	1.6
Average	100	78.3	11.9	7.9	1.9	0.8	2.1

TABLE 19-A.—DISTRIBUTION OF PUPILS BY AGES, NOVEMBER 1, 1916.

GRADE.	AGE.													Total.	Above Normal Age.	Percent Above Normal Age.														
	4	5	6	7	8	9	10	11	12	13	14	15	16				17	18	19	20 or over										
Kgn....	24	164	3	....	1	....	....	....	....	....	....	....	....	....	....	....	....	192	1	.52
1.....	....	115	1062	295	47	6	2	1	1	1	....	....	....	....	....	....	....	1,530	58	3.79		
2.....	....	....	103	780	340	78	18	2	....	....	....	....	....	....	....	....	....	1,321	98	7.42
3.....	....	....	2	135	746	353	108	34	3	2	2	....	....	....	....	....	....	1,385	149	10.76		
4.....	....	....	....	5	150	657	341	119	41	14	7	....	....	....	....	....	....	1,334	181	13.57	
5.....	....	....	....	....	9	204	553	274	143	42	15	4	1	....	....	....	....	1,245	205	16.47		
6.....	....	....	....	....	....	14	162	444	227	19	44	8	1	....	1	....	....	1,040	193	18.56		
7.....	....	....	....	....	....	....	31	244	364	252	100	24	2	....	....	....	....	1,019	126	12.37
8.....	....	....	....	....	....	....	....	55	323	348	218	84	14	....	....	1	....	1,043	99	9.49
9.....	....	....	....	....	....	....	....	6	63	294	255	169	34	4	....	....	....	829	42	5.07
10.....	....	....	....	....	....	....	....	1	6	90	286	221	80	29	4	1	1	719	35	4.87			
11.....	....	....	....	....	....	....	....	....	....	15	78	190	163	67	19	....	2	534	21	3.93
12.....	....	....	....	....	....	....	....	....	....	....	5	75	178	112	33	3	1	407	4	.98
13.....	....	....	....	....	....	....	....	....	....	....	....	6	58	125	99	27	8	323	8	2.48
P. G....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	8	1	3	16	....	.....								
Total.	24	279	1,170	1,215	1,293	1,314	1,215	1,180	1,171	1,197	1,010	781	532	340	168	33	15	12,937	.....	.....								
Under Normal Grade.....																		48	84	128	156	188	198	168	120	52	33	28	5	12
Per cent. under Normal Grade.....																		3.71	6.39	10.53	13.22	16.05	16.54	16.63	15.36	9.77	9.71	16.67	15.15	80.00

**TABLE 19-B.—DISTRIBUTION OF PUPILS, 14 BUT NOT 15,
NOVEMBER 1, 1916.**

	NUMBER OF GRADES													Total	
	1	2	3	4	5	6	7	8	9	10	11	12	13		
High.....	206	78	5	..	289	
Prescott.....	1	..	..	3	12	..	..	..	..	..	..	16	
E. S. Jr. High..	26	34	27	..	..	..	87	
Hanscom.....	0	
Bennett.....	2	..	..	..	..	..	..	..	..	2	
Baxter.....	1	..	..	..	..	..	..	..	..	..	1	
Knapp.....	5	5	13	26	..	..	..	..	49	
Perry.....	0	
Pope.....	2	7	..	..	..	..	..	..	9	
Bell.....	1	3	8	21	38	..	..	..	..	69	
Cummings.....	0	
Edgerly.....	1	1	3	1	..	..	..	..	..	..	6	
Glines.....	1	3	6	..	..	..	..	..	..	10	
Forster.....	2	..	..	1	..	..	..	..	..	..	3	
W. H. Jr. High..	53	47	53	..	..	..	153	
Bingham.....	2	6	6	..	..	..	..	..	..	14	
Carr.....	1	5	7	17	13	..	..	..	..	43	
Morse.....	1	3	4	3	8	9	19	..	..	..	..	47	
Proctor.....	2	..	..	..	..	..	..	2	
Durell.....	0	
Burns.....	0	
Brown.....	4	4	18	..	..	..	..	26	
Highland.....	7	15	51	39	..	..	..	..	112	
Hodgkins.....	2	4	5	10	9	..	..	..	..	30	
Cutler.....	1	..	13	14	14	..	..	..	..	42	
Lincoln.....	0	
Lowe.....	0	
*Specials.....	25	..	..	..	..	..	..	..	..	..	..	..	..	25
Total by grades.	25	0	0	2	7	15	44	100	218	255	286	78	5	0	1,035
P. C. by ".....	.024	0	0	.002	.007	.015	.042	.097	.211	.246	.276	.075	.005	0	100

*This number includes children in backward, atypical, non-English speaking and vocational classes.

TABLE 20.—RESIGNATIONS OF TEACHERS, 1916.

SCHOOL.	Teacher.	Resignation Took Effect.	In Service.
High	Mabel Williams	March 27, 1916	1 year 7 mos.
"	Lillian B. Treadwell	June 30, "	2 years
"	John M. Nichols	" " "	3 years
"	Mabel G. Curtis	" " "	13 years
"	Frances C. Hall	" " "	1 year 5 mos.
"	Helen J. Coffin	" " "	2 yrs. 5 mos.
"	Bessie L. Forbes	" " "	17 years
"	Albert W. Hopson	" " "	2 years
"	Joseph I. Horton	" " "	8 years
"	Walter I. Chapman	Sept. 30, "	5 yrs. 1 mos.
Prescott	Angie M. MacRitchie	June 30, "	3 yrs. 8 mos.
Knapp	Annie E. Robinson	" " "	40 years
Morse	Clara A. Ball	" " "	10 years
Burns	Mary C. Buck	March 27, "	16 yrs. 7 mos.
Brown	Katherine T. McMahon	June 30, "	3 years
Highland . . .	Nellie G. Stewart	" " "	8 yrs. 4 mos.
"	Bessie M. Royce	" " "	1 year 6 mos.
Hodgkins . . .	Augusta M. Harris	" " "	2 yrs. 4 mos.
"	Nellie F. Wright	November, "	4 yrs. 3 mos.
Cutler	J. Elsie Macdonald	May, "	2 yrs. 5 mos.
Lowe	Eleanor J. Homer	June 30, "	2 years
Girls' Vocational	Helen G. Leitch	" " "	3 years
" " "	Margaret J. Sullivan	" " "	2 yrs. 9 mos.
Dental Dispensary	Richard H. Norton	" " "	4 yrs. 7 mos.

TABLE 21.—TEACHERS ELECTED IN 1916.

SCHOOL.	Teacher.	Coming From.	Began Service.	Salary.
High	George E. Pearson . . .	Newton	Feb. 1915	\$1,100
High	Jean H. Congdon . . .	Not teaching	" 1916	800
High	Charles A. Dickerman . .	" "	Sept. 1916	800
High	Alfreda Veazie	Everett	" "	650
High	Florence Towne	Barre	" "	750
High	Gladys L. Swallow	Norwalk, Conn.	" "	650
High	Helen M. Stevens	Nashua, N. H.	" "	800
High	Lydia A. Jones	North Andover	" "	800
High	Mary C. Smith	Fall River	" "	850
High*	Grace A. Houlder	Not teaching	" "	800
High (Librarian)	Margaret M. Kneil	Olean, N. Y.	May 1916	400
High	Arthur N. Small	Philippines	Oct. 1916	1,500
High	John J. McLaughlin	Not teaching	" "	900
High	Florence C. Bowen	" "	" "	600
Prescott	Mary L. Guyton	Malden	Dec. 1916	750
E. Som. Jr. High	Mary A. Whitney	Lynn	Sept. 1916	750
E. Som. Jr. High	Anna J. Dolan	Somerville	Sept. 1915	700
Winter Hill Jr. High	Helen B. Parker	Vineyard Haven	Sept. 1916	600
Winter Hill Jr. High	George H. Lusk	Not teaching	Sept. 1916	750
Winter Hill Jr. High	Gertrude Chaffin	" "	Sept. 1916	650
Bennett	Lillias T. Lawton	Somerville	Jan. 1913	700
Knapp	Winifred I. Macdonald . . .	Malden	Feb. 1917	750
Glines	Florence W. Schroeder . . .	Somerville	Sept. 1915	450
Bingham	Lillian F. Commins	Somerville	Sept. 1914	450
Morse	Helene H. Parker	Hopedale	Sept. 1916	750
Brown	Bessie Thorpe	Somerville	Sept. 1915	450
Brown	Persis A. Richardson	Wakefield	Oct. 1916	750
Highland	Ethel M. Park	Beverly	Sept. 1916	650
Highland	Helen I. Stearns	Lynn	" "	750
Hodgkins	Helen M. Farr	Somerville	Sept. 1915	450
Cutler	Georgie B. Collins	Stoneham	May 1916	700
Cutler	Bessie A. Mirfield	Ludlow	Sept. 1916	700
Boys' Vocational .	Reginald Webster	Saylesville, R. I.	Oct. 1916	900
Dental Dispensary	William H. Hoyt	Somerville	Mar. 1916	700

*Temporary teacher.

TABLE 22.—LEAVE OF ABSENCE OF TEACHERS.

Clarence L. Foster, for school year 1916-1917.
 Elizabeth H. Hunt, for school year 1916-1917.
 M. Eva Warren, from October, 1916, to close of school year 1917.
 Pearl F. Dame, for school year 1916-1917.
 Helen G. Leitch, from April, 1916, to June 30, 1916.
 Helen C. French, from November, 1916, to close of school year 1917.
 Ruth L. Whitehouse, for school year 1916-1917.
 Richard H. Norton, from March, 1916, to June 30, 1916.

Cadets.

Anna E. McCully	Marion Donnelly
Mary T. Gurvin	Lucy S. Hardy
Carolyn E. Armitage.	

TABLE 23.—TRANSFER OF TEACHERS.

TEACHERS.	From	To
Mary J. Dewire	Hanscom	Pope
Carrie N. Frost	"	E.Som.Jr.High
Blanche G. North	Pope	Bell
Hazel N. Friend	Edgerly	Prescott
Louise V. Richardson	Glines	W. H. Jr. High
Elizabeth S. Brown	Forster	Bingham
Anna R. Canfield	"	"
Anna J. Dolan	"	E.Som.Jr.High
Catherine Heagney	Bingham	Prescott
Mary F. Mead	"	W. H. Jr. High
Elizabeth J. Mooney	"	E.Som.Jr.High
Herbert L. Gregory	Boys' Vocational	" "
Francis A. Ryan	" "	" "

TABLE 24.—NUMBER OF TEACHERS.
FOR A SERIES OF YEARS.

YEAR.	High School.	Grammar School.	Primary School.	Special Teachers.	Assistants not in Charge of Room.	Men.	Women.	Total.
1886	9	62	48	1	0	9	111	120
1887	10	64	48	1	0	9	114	123
1888	10	66	52	4	7	9	130	139
1889	10	60	56	4	7	10	127	137
1890	10	78	58	5	7	12	146	158
1891	12	86	63	5	13	12	167	179
1892	13	90	67	5	10	12	173	185
1893	14	88	63	5	19	12	177	189
1894	15	91	66	6	11	12	177	189
1895	28	91	73	5	12	19	186	209
1896	30	102	74	6	14	22	208	230
1897	31	109	85*	6	18	22	227	249
1898	32	112	87*	7	13	23	229	252
1899	36	119	92*	7	9	23	240	263
1900	40	127	96*	7	6	24	249	273
1901	44†	130	94*	7	8	26	257	283
1902	45†	140	91*	7	9	26	266	292
1903	48†	143	96*	7	14	25	281	306
1904	48†	152	98*	7	9	27	285	312
1905	48†	153	100*	7	7	27	288	315
1906	54†	157	99*	7	9	29	297	326
1907	57†	160	97*	9	14	32	305	337
1908	58†	164	97*	10	16	34	311	345
1909	59†	166	99*	10	16	36	314	350
1910	63†	165	87*	13	11	41	298	339
1911	62†	164	86*	20	11	40	303	343
1912	66†	168	84*	22	9	40	309	349
1913	68†	166	91*	28	12	39	326	365
1914	75†	167	99*	30	20	44	347	391
1915	76†	172	100*	31	15	45	349	394
1916	77†	189	101*	30	15	46	366	412

* Including four kindergartners.

† Including two secretaries.

‡ Including one secretary.

TABLE 25.—BOOKS AUTHORIZED FOR USE, 1916.*As text-books.*

Beginning German, Bierwirth.....	Henry Holt & Co.
German Composition, Bacon.....	Allyn & Bacon
Conversational Reader, Bierman and Frank.....	Allyn & Bacon
Causeries en France, Pattou.....	D. C. Heath & Co.
Lectures Historiques, edited by Emma Moffett..	D. C. Heath & Co.
Les Oberle, Rene Bazin.....	Henry Holt & Co.
Le Livre de Mon Ami, Anatole France.....	Henry Holt & Co.
French Newspaper Reader, edited by Felix Weill,	American Book Company

As reference books.

Primer of Sanitation, Ritchie.....	World Book Company
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For Elementary Schools.*As text-books.*

The Wide Awake Series of Readers.....	Little, Brown & Co.
Edson-Laing Series.....	Benjamin H. Sanborn Company
Baldwin Bender Series.....	American Book Company
Essentials of Geography, Brigham and McFarlane,	American Book Company
The Young and Field Literary Readers.....	Ginn & Co.
The Story Hour Series, Coe and Christie..	American Book Company
History Stories of Other Lands (Books one through six),	Row, Peterson & Co.
Gods and Heroes.....	Ginn & Co.
The Story of the Romans.....	American Book Company
The Story of the Greeks.....	American Book Company
Collodi Pinocchio in Africa.....	Ginn & Co.
Old Mother West Wind.....	Little, Brown & Co.
Merry Animal Tales, Bigham.....	Little, Brown & Co.
Sunbonnet Babies in Holland.....	Little, Brown & Co.
Busy Brownies at Work.....	Newson & Co.
Spring of the Year, Sharp.....	Houghton Mifflin Company
Fall of the Year, Sharp.....	Houghton Mifflin Company
Summer, Sharp	Houghton Mifflin Company
Winter, Sharp.....	Houghton Mifflin Company
Little People Everywhere (four volumes)....	Little, Brown & Co.
Men of Old Greece.....	Little, Brown & Co.
Peter and Polly Series (four books)....	American Book Company
Cherry Tree Children.....	Little, Brown & Co.
Arabian Nights	Ginn & Co.
The Playtime Primer.....	Houghton Mifflin Company
Little Blue Bird.....	Houghton Mifflin Company
The Irish Twins, Perkins.....	Houghton Mifflin Company
The Mexican Twins, Perkins.....	Houghton Mifflin Company
The Japanese Twins, Perkins.....	Houghton Mifflin Company
The Eskimo Twins, Perkins.....	Houghton Mifflin Company
The Dutch Twins, Perkins.....	Houghton Mifflin Company
Reynard the Fox, Smythe.....	American Book Company
Children's Classics in Dramatic Form (Books one, two, three, four, five)	Houghton Mifflin Company
In the Animal World.	
Work-a-Day Doings, Serl and Evans.....	Silver, Burdett & Co.
In Fable Land, Serl and Evans.....	Silver, Burdett & Co.

As reference books.

The Stars and Stripes, a history of the United States flag,	Boylston Publishing Company
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TABLE 26.—GRADUATION EXERCISES.**High School.**

The January graduation exercises of the High School were held in the High School Hall on Friday, January 28, 1916, in the presence of a large audience of parents and friends.

Order of Exercises.

George E. Whitaker, Chairman of the School Committee, presiding.

1. Overture.
Schauspiel, Chr. Bach
High School Orchestra, Wilhelm T. Hedlund, Leader.
2. Prayer.
Rev. Hendrik Vossema, Pastor of the Winter Hill
Universalist Church.
3. Singing.
"Praise the Lord." St. Saëns
4. Address.
"Our Debt to Conventionality,"
Janet A. MacLellan.
5. Violin Solo.
"Romance." Beethoven
Edward Siegel
6. Oration.
"Our Responsibility to the Future,"
Russell E. Cole.
7. Solo.
"The Nightingale's Song." Nevin
Marion A. Wheeler
8. Presentation of Diplomas to Girls.
9. Orchestral Selection.
"Apple Blossoms" Roberts
High School Orchestra.
10. Presentation of Diplomas to Boys.
11. Singing.
"The Two Grenadiers." Schumann
12. Postlude.
Singing under the direction of James P. McVey, Teacher of
Music in the Public Schools.

LIST OF GRADUATES.**January, 1916.**

Asterisk before name indicates that the pupil is graduated
"with honors."

Elsa Marie Aitken	Mary Collette Cotter
Marjorie Louise Aldrich	*Doris Wilmot Coyle
Ellen Phyllis Anderson	Mabel Louise Danchy
Louise Knight Berry	Annie Veronica Donovan
June Arielle Burns	Gladys May Fletcher
Ruth Sophia Coldwell	Mera Louise Flint
Margaret Stella Colleran	Frances May Foley
Dorothy Wentworth Conway	Mary Ellen Foley

Catherine Elizabeth Giles	*Gerald Ruggles Barrett
Charlotte Isabelle Halpin	Henry Wilhelm Benson
Agnes Elizabeth Heavern	*Frederick Mason Carey
Edith Lillian Higgins	Harold Goodrich Carper
Marjorie Gladys Higgins	*Russell Eliot Cole
Lilia Edana Hill	Earl Lewis Cragin
Helen Hobart	Stuart Cragin
Evelyn Catherine Kelley	Raymond Bolton Davison
Helen Jeanette Komenda	William Edgar DeWitt
Gertrude Elizabeth Macdonald	John Wetherbee Dunham
*Janet Anne MacLellan	Howard Alden Ellis
Mary Margaret MacLellan	*Wyman Parkhurst Fiske
Mabel March	Edward William Fudge
Helen Adelaide McCoubrey	George Wesley Gardiner
Helen Rosalind Milne	*Ramon French Gustin
Geneva May Mugford	Otis Cowell Hale
Amelia Elizabeth Ohse	Cyril James Heffernan
Nora Theresa O'Neill	Warren Freeman Horsman
*Mildred Ilda Russell	Elmer Lawrence Johansen
Olive Linnell Sharp	James Bryden Kellock, Jr.
Reta Angeline Pray Slack	*Ernest Merle Mills
Marion Cornelia Strom	Elmer William Moffatt
Eileen Modesta Sullivan	*Carl Elbridge Newton
Alice Belle Swasey	James Joseph Pollard, Jr.
Alice Tutein	Alfred Melville Pride
Marjorie Elizabeth Walker	William Harold Quinlan
Mildred Melbourne Weldon	Melvin Thomas Ross
Marion Angier Wheeler	Edward Siegel
Edna Virginia White	Joseph Walter Sullivan
Ruth Edith Yeaton	Russell Hopkins Sutcliffe
Estelle Julia Young	Crawford Kenneth Sweeley
John Henry Abbott, Jr.	Charles Thomas Taglino
James Alexander Adam	Nathaniel Chester Wiley
Samuel Baker	*Wendell Phillips Wood

Number of graduates, 84; boys, 37; girls, 47.

The June graduation exercises of the High School occurred on Monday, June 26, 1916, in the High School Hall.

Order of Exercises.

- George E. Whitaker, Chairman of the School Committee, presiding.
- Overture.
Selection from "Tannhauser." Wagner
High School Orchestra, Wilhelm T. Hedlund, Leader.
 - Prayer.
Rev. Francis W. O'Brien, D. D.
 - Singing.
(a) Chorale. Bach
(b) Roman War Hymn. Wagner
 - Address.
"The Three R's,"
Enna Bella Weisman.
 - Waltz.
"Faun." Andreefe
High School Orchestra.
 - Address to Graduates.
His Honor, Mayor Cliff.
 - Singing.
"America the Beautiful." MacFarlane

8. Oration.
"Compensation,"
Arnold H. Murray.
9. Singing.
Class Ode. (Written by Ruth E. Arrington.)
10. Presentation of Diplomas to Girls.
11. Violin Solo.
"Souvenir."
Russell A. Cook. Drdla
12. Presentation of Diplomas to Boys.
13. Singing.
The Sextet from "Lucia." Donizetti
14. Presentation to the School of a portrait in oil of S. Henry
Hadley.
Frank M. Hawes, Chairman of Committee.
15. Postlude.
Minuet. Paderewski
High School Orchestra.
Singing under the direction of James P. McVey, Supervisor of
Music in the Public Schools.

LIST OF GRADUATES.

June, 1916.

Asterisk before name indicates that the pupil is graduated
"with honor."

Marion Abbott	Dorothy Genevieve Cudmore
Dorothy Waldo Archer	Hazel Mae Davis
Ruth Marie Armstrong	Emeline Maria Dean
*Ruth Evelyn Arrington	Gertrude Madeline Dewire
*Winifred Welden Arrington	Ruth Agnes Doherty
Ethel Mary Baker	Ruth Donovan
Theresa Louise Baldwin	Esther Armor Dupee
*Lois Keith Bateman	Mabel Etta Eldridge
*Marjorie Johnson Beers	*Helen Gertrude Farrar
Gladys Eleanor Belding	Ruth May Ferguson
Mary Katherine Bennett	Mildred Isabel Fisher
*Pearl Berman	Mildred Battelle Fitz
Lillian Dorothy Bianconi	Margaret Mary Fitzpatrick
Dora Louise Bormann	Mary Elizabeth Flynn
Barbara Enola Brainard	Mary Elizabeth Ford
*Carolyn Lucie Brainard	Marjorie French
Mary Gertrude Buckley	Mathilda Fuhrman
Mary Lourdes Cabral	Blanche Borden Fuller
Gertrude Hazel Cameron	Mary Clara Fulton
Margaret Charlotte Cameron	Alice Teresa Garrity
Anna Mae Carlin	Mildred Givan
Margaretta Regina Chisholm	Ina Belle Gould
Hazel Isabelle Clark	Elizabeth Marie Haggie
Helen Phylis Colley	Martha Helen Hannon
Lelia Belinda Conway	Bertha Mae Hanson
Ethel Mae Cook	Helen Louise Hayden
Elizabeth Agnes Costello	Martha Gibson Hendersen
Elizabeth Creighton	Dorothy Whitney Hersey
Beatrice Bonta Cresto	Marion Frances Hersey
Blanche Bonta Cresto	Mary Chadwick Hilton
Marguerite Gertrude Cronin	Helen Frances Holahan
Estelle May Crowe	*Emma Holden

Emily Caroline Hood
 *Marjorie Hopkins
 Viola Louise Howard
 Sarah Boardman Ingham
 *Maude Charlotte Jaques
 Georgiana Colby Jones
 Jessie Marion Jones
 *Margaret Veronica Lamb
 Lucy Marshall Lanigan
 Nellie Elizabeth Leighton
 Alice Adelaide Libbey
 Gertrude Edith Lincoln
 *Helen Esther Linegar
 Ethel Catharine Lomasney
 Mabel Bell Lounsbury
 Elizabeth Jennings MacLachlan
 Veronica Cecilia Madigan
 Mildred Alice Marsh
 Edna Gertrude Marston
 Dorothy Matthews
 Derry May
 Sarah Hooker McAleer
 Veronica Catherine McCarthy
 Kathleen Ann McGrath
 Gladys Abegail McLane
 Alice Claire McLaughlin
 Ethel Muriel Michaud
 Marion Grace Minton
 Gwendolyn Isabel Mitchell
 Marian Moore
 Helen Agnes Moran
 Dorothy Kathryn Morgan
 Florence Marie Murphy
 Ethel Marion Nelson
 Grace Gertrude Newman
 Evelyn Hapgood Nichols
 Anna Marie Nolan
 Lillian Elizabeth Payette
 Leah Elizabeth Pearlman
 Lila Amelia Pearson
 Angela Marie Perron
 Sara Ruthena Phippen
 Thelma Holt Plumer
 Hazel Estelle Plummer
 Gertrude Elizabeth Prichard
 *Dorothy May Rankin
 Helen Cordelia Redfield
 Annie May Reilly
 Jessie Marie Roberts
 Bertha MacQueen Robertson
 Marie Elizabeth Robinson
 Mary Genevieve Ronan
 Lottie Martha Roundy
 Dorothy May Saltmarsh
 Edith Eugenie Scriven
 Margaret Mary Sharry
 *Isabelle Henrietta Slafsky
 Florence Gertrude Smallwood
 Evelyn Gertrude Smith
 *Sarah Specter
 Marguerite Genevieve Stanton
 Gertrude Ethel Starks
 Alice Augusta Tassinari
 Dorothy Taylor
 Ada Amelia Tehan
 Claire Louise Treat
 Evelyn Dorothy Truesdale
 Gladys Louise Vannah
 Mildred Mary Van Ummersen
 Doris Gwendolyn Veinotte
 Marion Alice Waltz
 Agnes Ellen Weir
 *Enna Bella Weisman
 Marion Carolyn Wells
 Gertrude Tomlinson West
 Louise Alice Wetherbee
 Stella Marie Whelan
 Lulu Asahel Whitcomb
 *Carol Whiting
 Madelene Stewart Wiley
 June Lusylvia Wilson
 Selena Gibson Wilson
 Virginia Gwendolyn Wilson
 Hildegard Elizabeth Wood
 Lillian Maude Woodman
 Mary Magdalen Woods
 Minnie Leontine Yeaton
 Clarence Rogers Baxter
 Carroll Hilton Beers
 Aurel Joseph Bensaia
 Carl Benjamin Bohlin
 David Cummings Bowen
 Arthur Lawrence Bradley
 Frank Merton Bradley
 Harold Benjamin Brinig
 John Joseph Brosnahan
 John Willis Brower
 Carroll Wooster Bunker
 Arthur Grant Burtnekt
 *Ralph Hunter Card
 John Joseph Carroll
 *George William Caspar
 John Daniel Chequer
 John Haggett Clarke
 George Francis Clements
 Arthur Gilbert Cohen
 Russell Wallace Conklin
 Russell Ames Cook
 William Patrick Corbett
 Joseph Francis Cox
 Walter Ambrose Cremen
 George Warren Cronin
 Francis Joseph DeCelles
 Walter Charles Downs
 Harry Orville Dudley, Jr.
 Hugh Perrins Duffill
 Carolus Levon Eksergian
 Roscoe Osborne Elliott
 George Ludvig Erickson
 Harry Benjamin Field
 *Philip Fine

Willard Ames Fleming	Donald Leslie Marshall
Charles Desmond Fletcher	Abbott Claxton Martin
Raymond Carroll Gage	Edward George Martin
Frederick Morton Gay	Lloyd Albert Mason
Frank Ralph Giannone	Edward Francis McNulty
George Frederick Giles	*Thomas Francis Meskill
Horace Edward Gillmore, Jr.	Elmer Forrest Mitchell
Archie Ralph Giroux	Charles Mason Morse
James Alexander Givan	William Martin Murphy
Adolphus Richard Gleitsman	*Arnold Howatt Murray
Charles Edward Goddard	John Ernest Murray
Herman Albert Godendorf	Lawrence Earl Nichols
Emil Goduti	Donald Edgar Nickerson
Webster Hall	Philip Fisk Norcross
William Mark Hanna	Roy Earl Patterson
John Edward Harding	Earle Wallace Perkins
Francis Clement Hart	Leo Ezra Phillips
Elmer Russell Hayes	Francis Mitchell Prendergast
*Wilhelm Theodor Hedlund	Clyde Everett Reick
John Aloyious Heiser	Henry Lawrence Rice
William John Hickey	Charles Edward Riley
Arthur Wilson Horton	Russell Frederic Riley
Samuel Nathan Hozid	John Dennis Ring
Henry Leo Hurwitz	Donald Edward Rockwell
Maxwell Charles Hyde	Laurence Cedric Saunders
Richard Edward Keating	Thomas Francis Scanlan
Francis Joseph Kelley	Russell Thurston Shay
James Alphonsus Kelley	Ross Almore Shepardson
James William Kelley	Max Sherman
Ralph Wilkinson Lamont	John Francis Smith
Anthony LaTerza	Joseph Peter Smith
James Francis Leahy	John Joseph St. Angelo
John Joseph Leahy	Frank Alliston Tibbetts
Philip Merritt LeGallee	Frank Clarence Traverse, Jr.
Maurice Levison	William Otho Tuttle
*Reuben Lipkind	Americo Benedict Ventura
Donald Lewis Macdonald	Raymond Caswell Vinal
Ronald Scribner Macdonald	Edwin Melvin Walker
Norman Joseph MacLeod	Howard Whitaker
Charles Colville Malton, Jr.	Arthur Frederic Williams

Total number of graduates, 265; boys, 114; girls, 151.

Note.—The pupils named below have completed the four-year high school course in less than the prescribed time.

In 3½ years, 1917-A.

Estelle May Crowe	Jessie Marie Roberts
Mary Chadwick Hilton	Evelyn Dorothy Truesdale
Helen Cordelia Redfield	

In 3 years, 1917-B.

Marjorie Beers

TABLE 27.—VOCATIONAL SCHOOL GRADUATES.

Boys' Vocational School, June, 1916.

Herbert Bohlin	Clinton J. Hart
Guy E. Cross	Joseph E. Hemmerlin
John E. Fay	Donald J. McDonald
Herbert G. Gordon	Fred A. Mahoney

George G. Oberbeck
Milton H. Smith
Algine B. Steele
Thomas B. Sullivan

Hector J. Tremblay
Ludwig Weckbacher
William Rock

Girls' Vocational School, June, 1916.

Charlotte A. Andrews
Ruth F. Bacon
Ruth L. Bidmead
Margaret L. Blanchard
Florence M. Brine
Julia Carney
Margaret Conway
Evelyn Dodd
Mildred Durgin
Alice R. Elkins
Marie Fitzpatrick
Agnes L. Foley
Eleanor F. Gabry
Mildred Garey
Margaret T. Gilligan
Amelia G. Graham
Edith J. Henderson
Marion G. Head
Frances E. Hicks

Clothilda F. Hillman
Grace Invernizzi
Gertrude C. Koschwitz
Esther M. Ramsdell
M. Pauline Rogers
Mary Mazzuckelli
Elsa E. Larson
Florence V. McMahon
Marian M. McConaghy
Marguerite R. McFarland
Hazel W. Montgomery
Martha Nash
Ruth Olson
Josephine Powers
Anna T. Saunders
Lena K. Schwarz
Geraldine Shea
Esther Soderberg

GRAMMAR SCHOOL GRADUATES.

Grammar school graduations occurred in the several grammar school buildings on January 28 and on June 26:—

January, 1916.

Prescott

Rosa J. Aberle
Grace Thelma Burke
Louise Angelina Cardinal
Mary Josephine Fitzgerald
Walter D. Hammond
Helen Margaret Hartnett
Alice A. Hayden
Robert Irving Hayes
Lillian E. Hubbard
Katherine V. Kelleher
Mary B. Lindsey
Katherine Mary Mahood

Margaret Ethelbirt Mayhew
Grace G. Morrison
Mary Agnes Newman
Chester O'Brien
Merton Howard Pierce
John J. Ronayne
Grace Louise Small
Grenville Taylor
Francis G. Whelan
Christine L. White
Clara Louise Wilson
James W. Young

Knapp

Max J. Andelman
May Charlotte Berman
Willoughby Douglas Burns
Leo Patrick Cody
Jefferson Paul Donahue
Mollie Fine
Thomas Leo Hafford
Agnes M. D. Holmes
Thomas Joseph Hart
William J. Heise

Albert Edward Lally
Charles King Lehan
Mildred C. MacArthur
Kathleen Gertrude Payette
Grace Louise Reynolds
Margaret Virginia Riley
Albert Clifton Southwick
Eugene Joseph Sheehan
Henry Edward Tassinari
Morris Samuel Weinstein

Pope

Arthur H. Dean
 Ethel A. Ferris
 Charles R. Gray
 J. Russell Gullage
 Samuel A. Hayes
 Albert F. Hoffman
 H. Vivian Hunter
 John B. Lazzaro
 Margaret T. Linehan
 James J. McGann
 Helen Teresa McKenna
 Marion Esther Mellett

Margaret C. Murray
 Eileen M. O'Brien
 Timothy F. O'Connell
 Mary C. Ryan
 Theresa A. Sinsarella
 Doris H. Taylor
 Edward W. Taylor
 Burpee H. Wagner
 Bernice L. Watt
 Matilda V. Westlin
 Pearl P. Yavner

Bell

Gertrude Frances Barker
 Grace Jane Campbell
 Genevieve Walker Chase
 Ruth Elizabeth Chequer
 Mildred Brown Coddling
 Raymond Joseph Dawson
 Gladys May Deckoff
 Eleanor Margaret Donovan
 Angeline Arabelle Emerson
 Ralph Waldo Emerson
 Marion Elizabeth Fudge
 Albert Irving Hamilton
 Mary Gertrude Louise Hogan

Charles William Irving
 Frederick Jillett
 Beatrice Lillian MacDonough
 Margaret Agnes Mahoney
 Gertrude Evelyn Miller
 Catherine Josephine Murphy
 Mary Catherine Murphy
 Winthrop Hegeman Root
 Joseph Leo Sliney
 George Arthur Sullivan
 Sidney Taylor
 Florence Williamson

Edgerly

Donald S. Blanchard
 Roland Stanley Bruneau
 William H. Canfield
 Walter H. Cook
 Elvira E. Covert
 Mary V. Cronin
 Theresa M. De Mita
 Marian Louise Dow
 Harry R. A. Frost
 Harry Crosby Hayes
 O. Dana Hilton
 Albro L. Hodgdon

Helen Gertrude Jenkins
 George H. Maines
 David Joseph Meaney
 Helen F. Miller
 Anna E. O'Neil
 Harold J. Ronco
 Elmer F. Walsh
 Alfred Clifton Walton
 Adelbert Thomas Walton
 Joseph A. Wright
 Charles W. Adams
 Miriam E. Tyler

Glines

Esther Evelyn Haskell
 Marion Isabelle Huff
 Victoria Newman
 Helen Gladys Priebe
 Dorothy Marie Sutherland
 Dorothy J. Trefry
 Mary Ruth Vercellini
 Matthew James Campbell
 Walter P. Cordeiro

George H. Jaques
 John J. Judge
 Charles Alvah Mitchell
 David Alexander Morrison
 Vincent Kenneth Reardon
 Ralph O. Silva
 John E. Stephens
 Paul R. Wetherbee

Forster

Naomi Atkins
 Walter G. Bakin
 Samuel A. Bent

Helen M. Campbell
 John W. Carey
 Frederick S. Copeland

Marian H. Doherty
 Lillian Evadell Edwards
 Marion G. Fermoye
 William E. Fermoye
 Lawrence A. Fisher
 Edward J. Foley
 William J. Geary
 John Stewart Gullion
 Alice Louise Hession
 Sylvester C. Hilton
 Blanche Louisa Hofman
 Francis Nickerson Howland
 Harold Keating
 Ethel Mae Kimball

Theodore McElroy
 Margaret Whitney McGill
 Harold Fifield Price
 Gladys Alma Reynolds
 Helen Ruff
 Lorenzo Spates
 Margaret M. Sullivan
 Ruth Cecily Swift
 M. Audrey Traver
 Mildred Elizabeth Walsh
 Irene G. Webber
 Madeline Margaret Whalen
 Anna Gertrude Whiton

Bingham

Gustav W. Anderson
 Irene M. Babineau
 Francis W. Carroll
 Albert Celata
 Albert L. Englund
 Anna L. Galvin
 Edward P. Hughes
 Walter J. Hynes
 Walter A. Latimer
 Margaret M. McAdam

William G. McCarthy
 Hortense M. Montier
 Florence A. Nixon
 Mary A. O'Gara
 Gladys M. O'Neil
 Loretta L. E. Randall
 J. Francis Ronan
 George E. Surette
 Mary L. Wharf
 Florence M. Whitcomb

Carr

Joseph A. Bellini
 Mildred Gordon Carter
 Lillian A. Cotter
 George H. Cox
 Mary Frances Dolan
 Anna G. Donahue
 Esther A. Donini
 Albert Dyson
 Joseph B. Fitzpatrick
 Gertrude M. Goodwin
 Florence Loraine Govang
 J. Francis Greene
 Lillian Edith Griffiths
 William R. Kilty

Martha Harriett Lacey
 J. Ellsworth Lundgren
 John S. Luurtsema
 Arthur Lawrence McAvoy
 Gertrude V. McCallum
 Katherine G. McDonnell
 Donald McKeown
 Charlotte A. MacMaster
 Charles Edward Marshall
 Evelyn F. R. Reidy
 Adella Frances Smith
 Isabelle Sorensen
 M. Louise Tracey
 Dorothy Trueman

Morse

Ada I. Benedetti
 Philip T. Clements
 David L. Donaldson
 Arthur F. Hopkins
 E. Ruth Lacey

John P. Mahoney
 Elmer Lewis Perron
 Albert W. Plummer
 Francis X. Rooney
 George W. Truesdale

Brown

Dorothy Antoinette Burgess
 Francis Gardner Chase
 Ethel Marie Coffey
 Fortis E. Merrill Hart
 Kathleen Jane Hitchcock
 Lillian Celia Jacobs
 Dorothy Cameron MacKay

Eunice M. Malaney
 Choate Miner
 Pauline Leah Nemser
 Payson B. Palmer
 Alice Gorham Peak
 Dorothy Gibson Winter
 V. Everett York

Highland

Kathryn Apel	Waldo A. Johnson
Henry Joseph Billings	Helen Aldegone Kilcoyne
Roger Blanchard	Mildred Louise Lambert
Edward Raymond Bradshaw	Reginald A. Langell
Doris May Campbell	Adele Martin
Charles Bishop Frederick Cord	Eleanor Mary McNamara
Dorothy Davis	Edward Henry O'Donoghue
Fenwick W. Demone	Timothy Leo O'Keefe
Janet Marion Fairbairn	Elsa Viola Quarnstrom
Martha Torborg Fallgren	Lloyd Edwin Smith
Wilhemina Mildred Flemming	Alice Maude Talbot
Marion Saloma Fowler	Gladys Warburton Talbot
Melvin A. B. Frost	Grace Tutein
G. Elbert Gage	Roland Elmer White
Winifred Anna Henehan	Dorothy Wilbur
Ruth Isabel Hanna	Alice Mae Waugh
Frank Hodgkins	

Hodgkins

Helen Gertrude Bormann	Ruth May Moore
Josephine A. Talamona	Albert C. Dearborn
Dorothy Mary Wellman	Helen Beatrice Smith

Cutler

Erving Lloyd Farquharson	Raymond C. Parsons
Frederick Johnson Drew	J. Miles Toulouse
Horace K. Dearborn	Miriam L. Cook
C. Raymond Carlson	Mary A. Ahern
Harold R. Jones	Edwin H. Blomquist
Albion Frederick Carlson	

GRAMMAR SCHOOL GRADUATES.**June, 1916.****Prescott**

George W. Arnold	Theodore A. Lynch
Alice J. R. Belyea	Irene Elizabeth Mason
Elodie M. Blakeney	J. Franklin McAloney
Charles Wilbert Campbell	Mary E. McCarthy
Isabel F. Carpenter	Mary J. Pacheco
Helen Agnes Carroll	Elmer Stuart Ricker
Richard M. Connor	Harry F. Ross
Arthur John Dallmer	James Birmingham Ryan
John F. Delaney	James Howard Shay
Helen Ford	Vera Viola Spence
William Francis Goddard	Harold Joseph Stackpole
Clarence Willis Gray	Richard B. Sullivan
Joseph Lee Herlihy	John William Thomas
John Howard	John Thornton
Lena Leveen	

Knapp

Charles Beattie	Frederick Joseph Collins
Mildred May Boggs	Mildred Dorothy Dewire
Henry Lester Bryant	Michael Bernard Dewire
Blanche Elena Catanzano	Florence P. Donahue
Timothy Francis Coakley	James Charles Donahue

William Joseph Donnelly
 Mary Margaret Duffy
 Karl Henrik Erickson
 John Ferretti
 Fannie Bessie Fishlin
 James Francis Fitzpatrick
 Margaret Louise Garrity
 Robert Goldman
 Harold H. Goldenberg
 Ida Sophie Graustein
 Theodore V. Hill
 David Joseph Lane
 Alice Theresa Leyden
 Edward H. Heanue
 Leonard Haley
 Katherine Gertrude Hastings
 Alice Leona Hastings
 Edith Matilda Gulbranson
 Walter Henry Grimes

Joseph Warren Goddard
 Flora Martin
 Alice Marie McFarland
 Fannie F. Myerson
 Helen Veronica Murphy
 Alice Louise Orr
 Hazel May Parker
 Francis Michael Quinn
 Stephen Patrick Quinn
 George Henry Reilly
 Lena Roderick
 Thelma Grace Robertson
 Harry J. Seymourian
 Edward Augusto Tosi
 John Christopher Tobin
 Edwin J. Watts
 Alice Norris Weymouth
 Marie Anna Weyand
 Hyman Weiner

Pope

Ada Dorothie Alden
 Charles J. Ardito
 Mabelle L. Backus
 Joseph M. Barry
 J. Josephine Bowe
 Ruth M. Boynton
 Loretta Colbert
 William P. Crowe
 Ethel C. Daley
 Stephen J. Doherty
 Mary Dornan
 Alice Josephine Duffy
 Joseph Ellison
 George E. Ferris
 Frieda Fisher
 Ethel F. Greeley

Frank L. Griffin
 Alfred R. Hyde
 Evelyn L. Macgillivray
 Irene A. Mahoney
 Richard R. Marcy
 Dorothy H. McQuinn
 Katharine Louise Meyer
 Leo Francis Molan
 Lucy E. Noreau
 Margaret Helen Raymond
 Paul B. Rice
 Lillian M. Seasley
 Helen B. Shea
 Elvia Arline Spaulding
 Wesley I. Taylor
 Gertrude Walsh

Bell

Philip Joseph Carrigan
 Anna Louise Corliss
 Ruth Cornell Cutler
 Dulcie Mertice Davis
 Anthony Doherty
 Agnes G. C. Dornan
 Edith Frame Dorren
 Alice Louise Hancock
 George R. Harlow
 Ellsworth S. Irwin
 Martha Frances Jackson
 William Jennings Mackey
 Florence Marie MacLachlan
 Frank Martin
 Hugh F. McGrath
 William P. F. McQueston
 Dorothy Tufts Miller

Manuel Miller
 Eva A. Moore
 Ruth Eleanor Newman
 Helen Gilson Northrup
 Ernest Gustav Pihl
 Frederick Winslow Pollock
 Elizabeth Louise Putney
 Ruth M. Ramsay
 Martha Ruth Spillard
 Francis Tansey
 Stewart F. Thompson
 Earl B. Walker
 Harriet B. Watson
 Harry George Williams
 Charles Davis Wilson
 Benjamin A. Young

Edgerly

Shepherd T. Albohn
 Frederick W. Beck
 Josephine N. Bonanno

Arthur Thain Buckwell
 Arthur J. Burns
 Caroline M. Comey

Ruth E. Dawes
 Dorothy Flavilla Durgin
 Rose Augusta Fiske
 Arthur L. Haff
 Chester T. Hammond
 Charles C. Harding
 Winefred M. Hofmann
 William J. Holland
 Margaret Helen Johnson
 Ermyn C. Laffee
 Adeline LaTerza
 Mildred LaTerza
 Franklin B. Lovering
 Viola M. McCloud
 George G. McLain
 Mabel Edna Morehouse
 Gladys J. Nugent

Margaret A. O'Donnell
 Frederick Towle PenDell
 Sarah T. Pickering
 Mabel F. Preston
 Allen M. Rideout
 William Henry Robinson
 Clarence A. Ronco
 Marguerite J. Ryan
 John Robert B. Scully
 Doris A. Sears
 Marion Shaw
 William Joseph Silk
 Katherine Maitland Simpson
 Adeline Marie Tobin
 Rose Lillian Travaglia
 Edna M. Tuttle
 Leafy H. Wright

Glines

Lester George Barrett
 Eleanor Brown
 Elizabeth Mae Charlesworth
 Madelyn Vanessa Dodge
 Hilda M. French
 Olga Vera Gleitsman
 Philip Forest Holmes
 Louise Rita Kane
 William Herbert Kelley
 Percival Leroy Lowell

Donald Kelly McLean
 Margaret B. McKenna
 Leon Ward Mooers
 Helen C. Nichols
 Kenneth E. Northrop
 Ruth Evelyn Pray
 Richard G. Shea
 Sven Oscar Swangren
 Clairey Blanche Trahan

Forster

Charles Edward Ames
 Marguerite Gertrude Ames
 Dorothy Phyllis Baker
 Roland Barker
 Sylvia Bateman
 Evelyn B. Calhoun
 Frances M. Carey
 Victor M. Carnes
 Frank A. Chapman
 Ruth C. Cronin
 Pauline Davenport Dodge
 Miriam Rogers Ewart
 Doris Elizabeth Flint
 Marie Elizabeth Flynn
 Madeline C. Geaton
 George W. Goddard
 Maxine M. Griffith
 Charles E. Gould
 Gratia M. Grisim
 Arline Parker Hall
 Gertrude N. Hill
 Stanislaus C. Hilton
 Harold F. Hellberg
 Marguerite F. Heughins
 Ruth Evelyn Hopson
 Helen Wilder Hudson
 Florence Elizabeth Johanson
 Thomas A. Kelley
 Maria T. Kelly

Elsie May Lincoln
 Dana E. Lincoln
 Eldridge L. Macnair
 Charles F. Maguire
 Etta Muriel March
 Walter A. Mayer
 Margaret M. McDonnell
 Eleanor Marie McElroy
 Georgia Merriam
 Jean Isabell Murray
 Helen Mulligan
 John H. Murphy
 Gertrude P. Nangle
 Lillian Grace Norris
 Lena Pearl Peck
 Eleanor Alice Randall
 Viola F. Richardson
 Angeline Ida Riddell
 James F. Ronan
 Harold E. Smith
 F. Wilton Smith
 George Edward Stokes
 John B. Sullivan
 Evelyn G. Sutherland
 Mildred Elizabeth Teakles
 Evelyn Toppan
 Howard Simpson Tochterman
 Jenny Underwood

Bingham

Fred J. Anderson
 Edgar A. Briand
 Lorenzo A. Briand
 Isabel C. Brown
 James F. Bullen
 Mona C. Burke
 Rosalie C. Carlson
 Mamie C. Cerussi
 Margaret M. Conners
 Francis T. Delaney
 Lea O. DeLorme
 Dorothy Dodge
 Jessie E. Dods
 Lester J. Doherty
 Thomas J. Dunn
 Grace C. Falvey
 Esther M. Filadoro
 Anna F. Finn
 Daniel V. Foley
 George P. Gallen

Emma C. Henderson
 Eleanor E. Kearns
 James P. Kennedy
 Frances G. Kenney
 Rose E. Kiley
 Lawrence F. Lewis
 Ethel M. McCormack
 Francis E. McGoldrick
 Mildred G. McHugh
 Charles E. Moore
 Marie E. Moore
 Theresa J. Ronayne
 Arthur E. Sandberg
 Russell H. Searle
 John D. Sexton
 James W. Shea
 Frances M. Stephenson
 Elizabeth M. Sullivan
 Margaret Vigneau
 Gertrude L. Harrow

Carr

Horace G. Bianconi
 Daniel Gordon Boyce
 Eleanor Folsom Carr
 Marguerite P. Clements
 Agnes Elizabeth Conwell
 Winifred Dorothea Crowne
 Thomas M. Doonan
 Barbara V. Douglas
 James E. Fitzmaurice
 Henry H. Holmes
 Walter S. Holmes
 Sabra Wyman Hood
 Antoine A. LeBlanc
 Bernice Florence Lutes

Susie C. McAllister
 Edward John McCarthy
 Mary L. McQueeney
 Mary K. Moran
 Dorothy Perkins
 Harold C. Richards
 Helen L. Rosengren
 Dorothy M. Sutherland
 John F. Thompson
 Mary E. Thornton
 Alexander P. Tosi
 Ambrose West
 Nelle K. Wilder

Morse

Ethel M. Armstrong
 Helen E. Caley
 Marie DiBenedetto
 Marion Garside
 Bertha Gorsun
 Sarah A. Grady
 Dorothy F. Gustafson
 Alice W. Hamilton
 Mildred M. Harkins
 E. Elizabeth Haskell
 Florence Hurwitz
 Dorothy E. McGuire
 Alice E. Morrison
 Alice I. Murphy
 Melba S. Sampson
 Margaret D. Taylor
 Helen E. Tierney
 Harry W. Bickford

Earl E. Bolton
 Elmer A. Carter
 Grant K. Chisholm
 Robert W. Cronin
 George F. Dondale
 Walter J. Gaddis
 Amando Ghelfi
 James F. Keating
 Robert J. Keating
 Chester R. Kennedy
 William M. Kuhn
 Albert J. Locatelli
 Malcolm M. MacLeod
 Herbert F. McGuire
 Gerald N. O'Brien
 John H. Rose
 George G. Salsman
 C. Clifton Tarbox

Brown

Gladys Elizabeth Ayers	Angela M. Anita Marchesi
Everett Windfield Blaisdell	Hobart Henry Mowers
Eleanor Gilchrist Buswell	James J. Murray, Jr.
Herrick Wrightson Farren	Louise Viola Newcomb
Francis Joseph Gannon	Arthur Herman Pohl
Constance Marie Geraghty	Helen Blaisdell Powers
Gladys May Hatton	Warren Philip Riley
Birger Richard Headstrom	Esther M. Skilton
Elva Gladys Hutchins	Alice C. Smith
William H. Knox	Paul D. Tinkham
Mildred Loretta Kodad	A. Gordon Wier
Herbert Francis Lawrence	Helen Wilson

Highland

Frederick Lawrence Bacigalupo	Elsie Dorothy Lundberg
Ernest Bales Bearisto	Charles B. MacDonald
Marion Alice Blood	Marjorie Grace MacPhee
Alfred Edward Bourges	Laurence Beckley Maddison
Myrtle Alberta Burnside	Emily Hazel Mathews
Alice Louise Callahan	Annie Kathleen McGowan
Joseph Neville Callahan	James Andrew McNamara
Lawrence Stewart Carr	Elmer Frederick Milliken
Miriam Goodspeed Cobb	Julian Ives Milliman
Norman Coolbrith	Arthur Hugh Murphy
Herbert O. Clark	Ida May Moore
Edna Lillian Crovo	Louise Addie Moulton
Earl Ogden Cruikshank	Guy Hosford Northrup
Madeline Agnes DeWitt	Carl O. Olson
Doris Ernestine Donovan	Franklin Andrew Phoenix
George M. Dyer	Merritt Adams Powers
Charles Austin Earl, Jr.	Velma Louise Pincus
Dorothy May Fellows	Marieta Frances Russell
Harriette Roberts Ford	Reginald J. Simpson
Adolphus Carl Gnecco	Roland Greely Snow
Harriet Esther Hammond	Rose Mary Still
Lewis Richard Hanson	Ruth Mary Stack
Ruth Vesta Hanson	Helen Ames Steere
Inez Ruth Harmon	Franklin Louis Sutton
Lillian S. Pierce	Ralph Edmund Tibbetts
Ruth L. Harrington	Pauline Elizabeth Thiel
Clara Madeline Hammerlin	Olive Margaret Tinker
Doris Henderson	Albert William Travers
Leslie Roderick Innis	Raymond Earle Whitney
Ruth T. Iris	Louis Vernon Waltz
Dagmar Elizabeth Lindequist	Nathalie Mildreth Warner
Edith Gertrude Lovequist	

Hodgkins

John T. Beaver, Jr.	Donald Joseph Fuchs
Weston Taft Bennett	Allene Lucine Holman
Walter O. Blanchard	Pearl Katherine Honold
Edna Alice Dawson	Edna May Ludwig
Dwight Foster Evans	Robert Bruce MacPhail
June Carol Evans	Walter W. Martin
Helen Katherine Foster	Harry McDonald Miller
Marion Emma Foster	Mary Ellen Murray

William Joseph Murray
Robert Anthony Repetto
Arthur T. Roche
Mary Catherine Shea

Leslie Baden Stahl
Helen Constance Tooker
Doris Evelyn Ward

Cutler

Byron Griffin Boyd
Winfield Sears Brooks
Charles Joseph Burns
Herbert Carl Engborg
Doris M. C. Goldstrass
Roy Y. Gordon
Ethel Dean Graham
Lola G. Hamilton
Cyril Vaughn Hunter
Esther R. M. Johnson
Robert Evans Lindner
William Mahan

Evelyn B. A. Peterson
Norwood A. Robinson
M. Grace Ryan
William Edwin Smith
Ada Elizabeth Snyder
Esther Ruth Taylor
Berenice Louise Tedford
Violet J. Tellier
Frank Herbert Townsend
Louise Whall
Gracie Wright

TABLE 28.—ORGANIZATION OF SCHOOL BOARD, 1917.

School Committee.

GEORGE E. WHITAKER	Chairman
HERBERT CHOLERTON	Vice-Chairman

Members.

		Term expires January
EX-OFFICIIS.		
ZEBEDEE E. CLIFF, Mayor,	29 Powder House terrace	1918
WARREN C. DAGGETT, President Board of Aldermen,	28 Belknap street	1918
WARD ONE.		
JAMES J. RUDD	46-A Franklin street	1918
DR. WINNIFRED P. DAVIS	125 Pearl street	1919
WARD TWO.		
DANIEL H. BRADLEY,	19 Concord avenue	1918
CHRISTOPHER J. MULDOON,	88 Concord avenue	1919
WARD THREE.		
GEORGE E. WHITAKER,	75 Walnut street	1918
OSCAR W. CODDING,	21 Pleasant avenue	1919
WARD FOUR.		
HARRY A. STONE,	254 Broadway	1918
FRANK H. HOLMES,	22 Walter street	1919
WARD FIVE.		
HARRY M. STOODLEY,	283 Highland avenue	1918
MRS. JULIA R. ALDRICH,	262 School street	1919
WARD SIX.		
GUY E. HEALEY,	38 Cambria street	1918
GEORGE E. WARDROBE,	31 Rogers avenue	1919
WARD SEVEN.		
FRANK E. PORTER,	43 Ossipee road	1918
HERBERT CHOLERTON,	94 College avenue	1919

Superintendent of Schools.

CHARLES S. CLARK.

Office: City Hall Annex, Highland avenue.

Residence: 75 Munroe street.

The Superintendent's office will be open on school days from 8 to 5; Saturdays, 8 to 10. His office hours are from 4 to 5 on school days, and 8 to 9 on Saturdays.

Office telephone, 314; house telephone, 12.

Superintendent's office force:—

Justin W. Lovett, 29 Cambria street.

Mary A. Clark, 42 Highland avenue.

Mildred A. Merrill, 26 Cambria street.

Board Meetings.

January 29.	April 30.	September 24.	December 28.
February 26.	May 28.	October 29.	January 4, 1918
March 26.	June 25.	November 26.	
		8.15 o'clock.	

TABLE 28.—ORGANIZATION OF SCHOOL BOARD, 1917.—
Concluded.

STANDING COMMITTEES, 1917.

Note.—The member first named is chairman; the one second named is vice-chairman.

District I.—Rudd, Dr. Davis, Muldoon.

PRESCOTT, HANSCOM, BENNETT.

District II.—Bradley, Muldoon, Coddling.

KNAPP, PERRY, BAXTER.

District III.—Whitaker, Coddling, Dr. Davis.

POPE, BELL, CUMMINGS.

District IV.—Stone, Holmes, Mrs. Aldrich.

EDGERLY, GLINES.

District V.—Stoodley, Mrs. Aldrich, Stone.

FORSTER, BINGHAM.

District VI.—Healey, Wardrobe, Stoodley.

CARR, MORSE, PROCTOR, DURELL, BURNS, BROWN.

District VII.—Porter, Cholerton, Healey.

HIGHLAND, HODGKINS, CUTLER, LINCOLN, LOWE.

High School.—Bradley, Cholerton, Dr. Davis, Whitaker, Holmes, Stoodley, Healey.

Finance.—Stoodley, Stone, Rudd, Bradley, Coddling, Wardrobe, Porter, Cliff, Daggett.

Text-books and Courses of Study.—Healey, Muldoon, Rudd, Whitaker, Stone, Mrs. Aldrich, Cholerton.

Industrial Education.—Holmes, Rudd, Bradley, Coddling, Mrs. Aldrich, Healey, Porter.

School Accommodations.—Stone, Porter, Dr. Davis, Muldoon, Coddling, Stoodley, Wardrobe, Cliff, Daggett.

Teachers.—Cholerton, Bradley, Whitaker, Stone, Mrs. Aldrich.

Playgrounds and School Hygiene.—Mrs. Aldrich, Muldoon, Dr. Davis, Holmes, Wardrobe.

Rules and Regulations.—Muldoon, Healey, Holmes.

TABLE 29.—TEACHERS IN SERVICE, JANUARY, 1917.

NAME AND RESIDENCE.	Salary.	Began Service.
HIGH SCHOOL.		
Central Hill.		
JOHN A. AVERY, Head Master, 22 Dartmouth Street	\$3,200	1895
Everett W. Tuttle, Master, 62 Highland Avenue	2,250	1895
Frank M. Hawes, Master, 257 School Street	2,000	1879
Frank H. Wilkins, Master, 93 Raymond Avenue	1,900	1906
John L. Hayward, Master, 242 School Street	1,900	1913
Harry F. Sears, Master, 44 Orris Street, Melrose Highlands	1,900	1901
William W. Obear, Master, 86 Belmont Street	1,850	1906
George M. Hosmer, Sub-Master, 13 Arlington Street	1,700	1901
Laurence A. Sprague, Sub-Master, 17 Perkins Street, West Newton	1,700	1906
John M. Jaynes, Sub-Master, 131 Summer Street	1,700	1901
Guy C. Blodgett, Sub-Master, 16 Monument Street, West Medford	1,700	1910
Arthur N. Small, Sub-Master, 31½ Dwight Street, Boston	1,500	1916
Fred W. Carrier, Sub-Master, Wilmington	1,300	1915
Augustus B. Tripp, Sub-Master, 67 Wallace Street	1,400	1909
S. Thomas Hall, Junior Sub-Master, 62 Highland Avenue	1,300	1910
*Clarence L. Foster, Junior Sub-Master, 32 Central Road	1,300	1911
Irving P. Colman, Junior Sub-Master, 151 Central Street	1,150	1915
Stephen H. Mahoney, Sub-Master, 16 Parker Street	1,100	1914
Lester W. Dearborn, Junior Sub-Master, 61 Lowden Avenue	1,050	1914
George E. Pearson, Junior Sub-Master, 325 Highland Avenue	1,100	1914
A. Marion Merrill, Assistant, 24 Central Road	1,200	1895
Frances W. Kaan, Assistant, 133 Central Street	1,200	1882
Helen L. Follansbee, Assistant, 40 Vinal Avenue	1,200	1900
Mrs. Lena Gilbert, Assistant, 7 Kingston Street	1,000	1892
Harriet E. Tuell, Assistant, 40 Vinal Avenue	1,050	1899
Elizabeth Campbell, Assistant, 40 Greenville Street	1,050	1902
A. Laura Batt, Assistant, 24 Central Road	1,050	1895
M. Helen Teele, Assistant, 11 Jason Street, Arlington	1,050	1895
Clara A. Johnson, Assistant, 177 Central Street	1,000	1897
*Elizabeth H. Hunt, Assistant, 121 St. Stephen Street, Boston	1,000	1908
Blanche S. Bradford, Assistant, 163 Summer Street	1,000	1903
Grace E. W. Sprague, Assistant, 888 Mass. Avenue, Cambridge,	1,000	1908
Mrs. Lucy I. Topliff, Assistant, 57 Cypress Street, Brookline	1,000	1914
Eudora Morey, Assistant, 121 St. Stephen Street, Boston	900	1874
Ella D. Gray, Assistant, 147 Walnut Street	900	1901
Ruth Tousey, Assistant, 106 Professors Row	900	1904
Bertha A. Raymond, Assistant, 147 Highland Avenue	950	1900
F. Gertrude Perkins, Assistant, 21 Highland Avenue	900	1906
Mabel Butman, Assistant, 49 Boston Street	900	1906
Grace Gatchell, Assistant, 6-A Pleasant Avenue	900	1906
A. Marguerite Browne, Assistant, 27 Everett Street, Cambridge	1,000	1908
Edith L. Hurd, Assistant, 125 Central Street	900	1910
Julia T. Connor, Assistant, 59 Church Street	900	1910
Esther Parmenter, Assistant, Lynnfield Centre	900	1911
Charlotte A. Norton, Assistant, 5 Gorham Street	900	1914
Annie C. Woodward, Assistant, 2 Madison Street	1,000	1906
Alice A. Todd, Assistant, 82 Munroe Street	900	1913
Hattie M. Baker, Assistant, 24 Sunset Road	900	1911
Mary F. Osborne, Assistant, 67 Boston Street	900	1911
Ella W. Bowker, Assistant, 2 Hillside Avenue	900	1911
Mrs. Ellen A. Patten, Assistant, 46 Mass. Avenue, Cambridge	900	1913
Florence L. McAllister, Assistant, 23 Wallace Street	900	1913
M. Belle Preston, Assistant, 84 Packard Avenue	900	1914
Edith R. Macurdy, Assistant, 28 Chester Street, Watertown	900	1911
Gladys S. Jeannison, Assistant, 196 Broadway	900	1913
Laura R. Cunningham, Assistant, 62 Highland Avenue	900	1914
Ruth A. Davis, Assistant, 15 Evergreen Avenue	900	1914
Mary L. Johnston, Assistant, 14 Fellsway West	900	1914
Bessie N. Page, Assistant, 106 Summer Street	850	1911

* Leave of absence.

TABLE 29.—Teachers in Service January, 1917.—Continued.

NAME AND RESIDENCE.	Salary.	Began Service.
Julia A. Haley, Assistant, 88 Prospect Street	800	1913
Lydia A. Jones, Assistant, 40 Vinal Avenue	800	1916
Mary C. Smith, Assistant, 117 Prospect Street	850	1916
Florence Towne, Assistant, 15 Pleasant Avenue	750	1916
Gladys L. Swallow, Assistant, 15 Pleasant Avenue	650	1916
Alfreda Veazie, Assistant, 193 Linden Street, Everett	650	1916
Helen M. Stevens, Assistant, 43 Sargent Avenue	800	1916
Jean H. Congdon, Assistant, 106 Summer Street	800	1916
Charles A. Dickerman, Assistant, 163 Summer Street	800	1916
John J. McLaughlin, Assistant, 84 Inman Street, Cambridge	900	1916
Mrs. Grace Houlder, Assistant, 75 Belmont Street	800	1916
Florence C. Bowen, Assistant, 30 Walnut Street	600	1916
Mrs. Phebe E. Mathews, Assistant, 159 Morrison Avenue	600	1916
B. Phoebe Abbott, Assistant, 67 Perrin Street, Roxbury	600	1916
Ruth E. Low, Assistant, 44 Tennyson Street	850	1913
M. Genevieve Smith, Assistant, 44 Tennyson Street	800	1915
Helen C. Ritchie, Assistant, 15 Willoughby Street	700	1912
Helen F. Lyon, Assistant, 392 Broadway	600	1914
*Margaret M. Kneil, Librarian, 44 Tennyson Street	400	1916
Mabell M. Ham, Clerk, 41 Boston Street	800	1906

* Part-time.

TABLE 29.—Teachers in Service January, 1917.—Continued.

NAME AND RESIDENCE.	Salary.	Began Service.
EAST SOMERVILLE JUNIOR HIGH SCHOOL		
Pearl Street		
Joseph A. Ewart, Head Master, 11 Bigelow Street	\$100	1916
Samuel A. Johnson, Master, 83 Thurston Street	2,000	1916
Elizabeth M. Warren, 8 Aldersey Street	875	1897
Mary L. Norton, 20 Watts Street, Malden	800	1914
*Sarah H. Christie, 61 Pearl Street	800	1914
Edyth M. Grimshaw, 1919 Hyde Park Avenue, Readville	800	1909
Euphemia K. Potts, 13 Langmaid Avenue	800	1913
Edith L. Laycock, 43 Franklin Street	800	1913
Elizabeth J. Mooney, 168 Summer Street	825	1904
Anna J. Dolan, 27 Hancock Street, Dorchester	700	1915
Anna J. Coll, 65 Newton Street	200	1916
*Charlotte Holmes, 24 Cambria Street	400	1913
Ellen G. Hopkins, 37 Brastow Avenue	425	1916
Francis A. Ryan, Canton	1,000	1913
Herbert L. Gregory, 18 Forster Street	950	1915
*Ruth E. Kingman, 11 Westwood Road	350	1913
Helen E. Linegar, 38 Broadway	200	1916
Carrie M. Frost, 87 Highland Road	800	1912
WINTER HILL JUNIOR HIGH SCHOOL.		
Forster Building, Sycamore Street and Evergreen Avenue.		
JOSEPH A. EWART, Master, 11 Bigelow Street	\$2,300	1913
Irene S. Nightingale, 12 Court Street, Arlington	875	1895
Emma G. Blanchard, 146 Massachusetts Avenue, Boston	825	1902
George H. Lusk, 44 Saratoga Street, East Boston	750	1916
M. Edna Merrill, 228 Broadway	800	1909
Anna R. Walsh, 27 Avon Street	525	1914
May A. Daly, 437 Medford Street	750	1915
Mary I. Bradish, 112 Magoun Avenue, Medford	800	1899
Louise V. Richardson, 61 Heath Street	800	1907
†Alice E. Wright, 12 Evergreen Avenue	600	1915
Mary F. Mead, 35 Kidder Avenue	800	1905
Helen B. Parker, 40 Chute Street, Reading	600	1916
*Sarah H. Christie, 61 Pearl Street	800	1914
Gertrude W. Chaffin, 4 Copeland Terrace, Malden	650	1916
Edith E. Neylan, 88 Rogers Avenue	600	1916
Arthur J. Marchant, 110 Bartlett Street	1,100	1914
Joseph S. Hawthorne, 40 Pearson Avenue	1,050	1915
Ethel V. Chisholm, 43 Franklin Street	525	1914
*Ruth E. Kingman, 11 Westwood Road	350	1913

*Part-time teacher.

†Temporary teacher.

TABLE 29.—Teachers in Service January, 1917.—Continued.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
(WILLIAM H.) PRESCOTT SCHOOL.			
Pearl and Myrtle Streets.			
	SAMUEL A. JOHNSON, Master, 83 Thurston Street . . . . .	.....	1893
7.	Mary L. Guyton, 34 Cross Street, Malden	750	1916
7.	Catherine Heagney, 32 Sewall Street	800	1912
7.	Mary L. Abbott, 32 Alaska Street, Roxbury	800	1910
6.	Hazel N. Friend, 128 Rowe Street, Melrose	800	1915
5.	Mary A. Whitney, 10 Dow Street	750	1916
4.	Clara Taylor, 36 Flint Street	800	1871
3.	Elizabeth L. Marvin, 17 Summit Street	800	1898
2.	Louise E. Pratt, 40 Greenville Street	800	1889
1.	A. Louise Bean, 9 Hamlet Street	800	1904
SANFORD HANSCOM SCHOOL.			
Webster and Rush Streets.			
	ELIZABETH M. COLLINS, Principal, 2 Madison Street	\$1,500	1901
4.	Mrs. Agness M. Travis, 98 Park Avenue, Winthrop Highlands	850	1908
3.	Jennie M. Twiss, 67 Berkeley Street	800	1903
3.	Maude A. Nichols, 166 Highland Avenue	800	1906
2.	Florence M. Shaw, 44 Tennyson Street	650	1909
2.	Frances E. Robinson, 43 Franklin Street	800	1908
1.	Marion A. Viets, 170 Lexington Street, Waltham	900	1912
1.	Mrs. Nellie W. McPheters, 163 Summer Street	750	1914
1.	Martha L. Littlefield, 65 Glen Street	800	1897
1.	Alice M. Saben, Jason Terrace, Arlington	800	1903
Kind'n.	Elizabeth J. Baker, 78 Boston Street.	700	1907
Asst.	Frances L. McGann, 45 Putnam Street	475	1914
VOCATIONAL SCHOOL FOR BOYS (Day).			
Davis Bldg., Tufts Street.			
	Harry L. Jones, Principal, 137 Powder House Boulevard	\$1,900	1914
	Nehemiah E. Gillespie, 28 Worcester Square, Boston	1,300	1911
	Charles A. Kirkpatrick, 27 Sewall Street	1,150	1913
	Fred P. Carter, 43 Auburn Avenue	1,000	1914
	Arthur E. Gordon, 45 Columbus Avenue	1,000	1914
	Reginald Webster, 12 Oxford Street	900	1916
	Edna E. Marsh, Secretary, 82 Liberty Avenue	\$9 per wk.	1917
CLARK BENNETT SCHOOL.			
Poplar and Maple Streets.			
	ELIZABETH M. COLLINS, Principal, 2 Madison Street . . . . .	....	1912
5.	Kate B. Gifford, 29 Robinson Street	\$850	1902
4.	S. Ellen Brown, 8 Aldersey Street	800	1913
3.	Mrs. Nettie L. Fay, 12 Grand View Avenue	800	1901
3.	Nellie F. Eaton, 15 Pleasant Avenue	800	1906
2.	Isadore E. Taylor, 36 Flint Street	800	1883
2.	Eleanor W. Nolan, 88 Highland Avenue	800	1909
1.	Alice M. Hayes, 8 Aldersey Street.	800	1913
1.	Mary L. Gallagher, 81 Benton Road	600	1913
1.	Mrs. Cora B. Gowen, 87 St. Stephen Street, Boston	800	1906
Kind'n.	Caroline G. Baker, 40 Benton Road	700	1896
Asst.	Helen Harrington, 28 Hurlburt Street, Cambridge	525	1912
Ungraded	Julia M. Riordan, 165 Albion Street	525	1914
Non-Eng.	Mrs. Lillias T. Lawton, 30 King Street, Dorchester	700	1913

TABLE 29.—Teachers in Service January, 1917.—Continued.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
GEORGE L. BAXTER SCHOOL.			
Bolton Street.			
5.	MARY G. BLACKWELL, Principal, 45 Ibbetson Street	\$875	1900
4.	Etta R. Holden, 30 Warren Avenue	800	1908
3.	Margaret M. Breen, 461 Somerville Avenue	650	1916
2.	Sue A. Fitzpatrick, 451-A Somerville Avenue	800	1912
1.	Maria D. McLeod, 1 Highland Park, Cambridgeport	800	1906
Kind'n.	Eleanor A. Connor, 59 Church Street	700	1903
Asst.	Martha W. Delay, 48 Beacon Street	525	1911
OREN S. KNAPP SCHOOL.			
Concord Avenue.			
	JOHN SHELBURNE EMERSON, Master, 3 Preston Road	\$2,000	1894
9.	Clara M. Burns, Ayer	875	1914
9.	Marion F. Orne, 43 Fairmount Avenue	800	1912
8.	Nellie Theresa McCarthy, Woburn	800	1909
8.	Minnie A. Holden, 30 Warren Avenue	800	1906
7.	Clara B. Parkhurst, 22 Highland Avenue	800	1889
7.	Clara B. Sackett, 91 Summer Street	800	1891
6.	Edith Hersey, 287 Medford Street	800	1899
6.	Florence M. Hopkins, 65 Chandler Street	800	1907
5.	Nona E. Blackwell, 45 Ibbetson Street	800	1906
4.	Winifred I. Macdonald, 43 Babcock Street, Brookline	750	1917
3.	Olivia H. Norcross, Wilmington	800	1914
2.	Minnie Alice Perry, 77 Walnut Street	800	1891
1.	M. Edith Callahan, Woburn	800	1911
ALBION A. PERRY SCHOOL.			
Washington Street, near Dane Street.			
6.	CATHERINE E. SWENEY, Principal, 633 Broadway	\$875	1901
5.	Mary A. Mullin, 27 Shawmut Street	800	1910
4.	Irene Vincent, 47 Vinal Avenue	800	1903
3.	L. Gertrude Allen, 230 Washington Street	800	1884
2.	Mrs. Sarah E. Murphy, 21 Fountain Avenue	800	1906
1.	Grace R. O'Neil, 347 Washington Street	700	1913
CHARLES G. POPE SCHOOL.			
Washington and Boston Streets.			
	GEORGE M. WADSWORTH, Master, Whitman	\$2,000	1891
7.	Florence A. Chaney, 56 Boston Street	950	1892
7.	Alice I. Norcross, 90 Russell Avenue, Watertown	800	1885
7, 6.	Harriet M. Clark, 10 Vernon Street, West Medford	800	1893
6.	M. Abbie Tarbett, 11 Washington Street, Stoneham	800	1906
6, 5.	Edith L. French, 17 Aldersey Street	800	1912
5.	Emma J. Kennedy, 50 Vinal Avenue	800	1912
4.	Lizzie W. Parkhurst, 22 Highland Avenue	800	1885
4, 3.	Annie G. Sheridan, 57 Stanley Avenue, Medford	800	1886
3.	M. Katherine Davis, 9 Harvard Place	800	1904
2.	Florence E. Locke, 22 Linden Street, Needham	800	1899
2, 1.	Mary J. Dewire, 384 Washington Street	600	1913
1.	Alice B. Frye, 44 Stevens Street, Malden	800	1904

TABLE 29.—Teachers in Service January, 1917.—Continued.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
LUTHER V. BELL SCHOOL.			
Vinal Avenue.			
	GEORGE M. WADSWORTH, Master, Whitman . . . . .	....	1912
9.	Alice L. Davis, 40 Vinal Avenue	\$950	1895
9.	Rena S. Hezelton, 61 Wellington Road, Medford	825	1909
8.	Esther L. Small, 17 Pleasant Avenue	800	1914
8.	Mrs. Blanche G. North, 24 Warren Avenue	800	1893
8, 7.	Eva R. Barton, 33 North Street, Stoneham	800	1904
7, 6.	Ada G. Macdonald, 44 Babcock Street, Brookline	800	1914
6.	Mrs. Mabel T. Totman, 17 Pleasant Avenue	800	1893
6, 5.	Lillian E. Haskell, 41 Putnam Street	800	1913
5, 4.	Julia A. Simmons, 11 East Newton Street, Boston	800	1911
4.	M. Eunice Young, 209 Washington Street, Winchester	800	1912
(JOHN A.) CUMMINGS SCHOOL.			
School Street, near Highland Avenue.			
	GEORGE M. WADSWORTH, Master, Whitman . . . . .	....	1912
3.	FANNIE L. GWYNNE, Principal, 65 School Street	\$850	1886
2.	Angeline Cann, Hotel Woodbridge	800	1897
2, 1.	Elizabeth L. Hersey, 96 Oxford Street	800	1896
1.	Mrs. Stella M. Hadley, 11 Greene Street	750	1914
(JOHN G.) EDGERLY SCHOOL.			
Cross and Bonair Streets.			
	CHARLES E. BRAINARD, Master, 82 Munroe Street	\$2,000	1889
7.	*M. Eva Warren, 21 Highland Avenue	875	1906
6.	Annie L. Dimpsey, Hotel Woodbridge	800	1891
6.	Mary E. Richardson, 35 Auburn Avenue	800	1893
6, 5.	Isabelle M. Gray, 25 Webster Street	800	1897
5.	Mabel C. Mansfield, 35 Auburn Avenue	800	1893
4.	Edith M. Snell, 4 Vine Street, Melrose	800	1900
4.	Berta M. Burnett, 1619 Massachusetts Avenue, Cambridge	800	1915
4.	G. Hortense Pentecost, 4 Walter Terrace	800	1905
4, 3.	J. Louise Smith, 196 Washington Street, Lynn	800	1896
3, 2.	Lillian Nealley, 109 Glen Street	800	1882
2, 1.	Alice W. Cunningham, 62 Highland Avenue	800	1901
1.	Martha M. Power, 37 Gleason Street, West Medford	800	1890
JACOB T. GLINES SCHOOL.			
Jaques Street, near Grant Street.			
	MARY E. NORTHUP, Master, 9 Forster Street	\$2,000	1878
7.	Mary E. Stiles, 9 Forster Street	875	1883
7, 6.	Lilla M. Marble, 85 Heath Street	800	1902
6.	Ruth E. Clarke, 35 Montrose Street	800	1915
5.	Margaret A. Orr, 146 Massachusetts Avenue, Boston	800	1890
5.	Harriet F. Ward, 18 Forster Street	800	1895
4.	Mary A. Goddard, 9 Winter Hill Circle	800	1893
4.	Mrs. Carrie Armitage, 57 Madison Street	800	1899
3.	Florence E. Baxter, 49 Hudson Street	800	1891
3.	Anna G. Welch, 22 Fenwick Street	800	1897
2.	Edith M. Dow, 2 Pleasant Avenue	650	1914
2.	Florence W. Schroeder, 268 Summer Street	450	1915
1.	Leslie Caverly, 9 Wildwood Street, Winchester	800	1908
1.	Isabel J. Tift, 37 Madison Street	800	1892
Kind'n.	Mrs. Etta D. Ellsworth, Trinity Court, Boston	700	1897
Asst.	Ida M. Kane, 28 Fellsway West	525	1905

*Leave of absence.

TABLE 29.—Teachers in Service January, 1917.—Continued.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
(CHARLES) FORSTER SCHOOL. Sycamore Street and Evergreen Avenue.			
	JOSEPH A. EWART, Master, 11 Bigelow Street . . . . .	.....	1913
7.	Mrs. Mina P. Bickford, 216 Park Street, Medford	800	1903
7, 6.	Elizabeth F. Clement, 29 Kidder Avenue	800	1884
6, 5.	Annie S. Gage, 32 Marshall Street	800	1881
5, 4.	Mrs. Annie J. Ireland, 62 Evergreen Avenue	800	1909
4, 3.	Carrie T. Lincoln, 65 Ashland Avenue, Medford	800	1893
3, 2.	Cora J. Demond, 146 Massachusetts Avenue, Boston	800	1900
2, 1.	Grace Shorey, 23 Forster Street	800	1892
(NORMAN W.) BINGHAM SCHOOL. Lowell Street, near Vernon Street.			
	HARRY F. HATHAWAY, Master, 29 Albion Street	\$2,000	1890
7.	Elizabeth J. O'Neil, 61 Central Street	950	1894
7, 6.	Jane Batson, 15 Florence Street, Malden	800	1900
6.	Maude M. Cunningham, 61 Central Street	800	1913
6.	Cora E. Crawford, 247 W. Newton Street, Boston	800	1912
5.	Helen L. Galvin, 1870 Beacon Street, Brookline	800	1903
5, 4.	Eva M. Barrows, 76 Boston Street	800	1903
5.	Bessie J. Baker, Malden	800	1905
4.	Clara L. Griffiths, 39 Ames Street	800	1902
4.	Elizabeth S. Brown, 58 Thurston Street	800	1897
4, 3.	Anna R. Canfield, 205 Cedar Street	525	1914
3.	Harriet M. Bell, 62 Highland Avenue	800	1904
3.	Lynda V. Merrill, 26 Brastow Avenue	800	1912
2.	Priscilla A. Merritt, 96 Oxford Street	800	1885
2.	G. Marion Lovering, 27 Flint Street	600	1913
1.	Mabel E. Mansir, 77 Albion Street	800	1894
1.	Lillian F. Commins, 24 Hanson Street	450	1914
MARTIN W. CARR SCHOOL. Atherton Street.			
	CHARLES G. HAM, Master, 20 Washburn Street, Watertown	\$2,000	1898
9.	May E. Berry, 14 Billingham Street	875	1884
8.	Clara D. Eddy, 71 Central Street	825	1900
8.	Susie L. Luce, 21 Francesca Avenue	800	1891
7.	Harriet A. Hills, 14 Billingham Street	800	1877
7.	Leila L. Rand, 47 Norfolk Road, Arlington	800	1906
6.	Marie T. Smith, 19 Day Street	800	1898
6.	Grace T. Merritt, 47 Cherry Street	800	1897
5.	L. Alice Grady, 9 Felton Street, Cambridge	800	1912
5.	Elizabeth S. Foster, 10 Cambria Street	800	1895
5, 4.	Mrs. Mary B. Soule, 39 Walnut Street	800	1902
4.	Katherine Pike, 24 Cambria Street	800	1906
3.	Eva S. Bent, 6 Steeves Circle	800	1915
3.	Bessie I. Berry, 38 Wyllis Avenue, Everett	800	1915
2.	Annie B. Russell, 14 Kidder Avenue	800	1901
2.	*Pearl F. Dame, 1 Ellsworth Street	800	1906
1.	Frances E. Welch, 303 Highland Avenue	700	1908
1.	Mabel Ingham, 27-B Summer Street	525	1912
Asst.	Dorothy Lundgren, 50 Harrison Street	350	1915
Asst.	Mary L. McKenna, 294 Lowell Street	350	1915

*Leave of absence.

TABLE 29.—Teachers in Service January, 1917.—Continued.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
GIRLS' VOCATIONAL SCHOOL.			
41 Atherton Street.			
	Mary Henleigh Brown, Principal, 64 Commonw'lth Ave., Boston	\$1,600	1911
	*Helen C. French, 60 Adams Street	700	1911
	Mary Donoghue, 10 Miller Avenue, Cambridge	800	1911
	Theresa Morrison, 174 Broadway	700	1912
	Lucy Dorr, 96 Oxford Street	700	1911
	Marion P. Crawford, 58 Central Street	900	1911
	Mrs. Vernie Neily, 96 Heath Street	600	1916
	†Gertrude Zeiss, 94 Mehoiden Road, Waban	300	1916
	Emma M. Damon, 64 Vinal Avenue	800	1908
	Flora E. Stevens, Secretary, 45 Kidder Avenue	\$9 per wk.	1915
(ENOCH R.) MORSE SCHOOL.			
Summer and Craigie Streets.			
	MINA J. WENDELL, Master, 211-A Summer Street	\$2,000	1882
9.	Mrs. Harriette C. Hamilton, 135 Lowell Street	875	1900
9, 8.			
8, 7.			
7.	Lennie W. Bartlett, 10 Cambria Street	800	1893
6.	Helene H. Parker, 26 Gibbens Street	750	1916
5.	Blanche E. Thompson, 33 Hudson Street	800	1906
5, 4.	Catherine Faircloth, 26 Lowden Avenue	800	1914
4, 3.	Mrs. Elva A. Cutler, 36 Powder House Boulevard	800	1911
3.	Mrs. Agnes C. Rice, 34 Highland Avenue	800	1900
3, 2.	Lena Munroe, 211-A Summer Street	800	1913
2.	Alice C. Ray, 26 Lowden Avenue	800	1914
1.	Helen L. Tuck, 43 Paulina Street	800	1912
Asst.	Marguerite Stetefeld, 34 Radcliffe Road	425	1914
Asst.	Eleanor Lundgren, 50 Harrison Street	475	1915
GEORGE O. PROCTOR SCHOOL.			
Hudson Street.			
	HARRY F. HATHAWAY, Master, 495 Broadway	....	1912
7, 6.	NORA F. BYARD, Principal, 27 College Avenue	\$950	1884
6, 5.	Alice G. Hosmer, 42 Boston Street	800	1906
5, 4.	Abbie A. Gurney, 88 Belmont Street	800	1888
4, 3.	Ella P. McLeod, 163 Summer Street	800	1888
3.	Edith L. Hunnewell, 23 Milton Street	800	1894
2.	Mary S. Richardson, 347 Boston Avenue, Medford	800	1906
1.	Lucia Alger, 10 Cambria Street	800	1889
Asst.	Editha F. Sharkey, 7 Wesley Park	350	1915
GEORGE W. DURELL SCHOOL.			
Beacon and Kent Streets.			
4.	ABIGAIL P. HAZELTON, Principal, 36 Central Street	\$850	1902
3.	Grace E. Packard, 12 Carlisle Street, Roxbury	800	1912
2.	Mary Winslow, 23 Hall Street	800	1887
1.	Alice M. Dicker, 82 Marion Street, East Boston	750	1912
MARK F. BURNS SCHOOL.			
Cherry Street, near Highland Avenue.			
6.	LAURA J. BROOKS, Principal, 31 Stevens Street, Stoneham	\$950	1883
Asst.	Margaret Beattie, 401 Washington Street	525	1914
5.	Cara M. Johnson, 47 Prentiss Street, Cambridge	800	1897
4.	Lizzie E. Hill, 11 E. Newton Street, Boston	800	1890
4, 3.	Mrs. Margaret D. Hellyar, 786 Main Street, Greenwood	800	1909
3.	Annie L. Brown, 4 Saginaw Avenue, North Cambridge	800	1885
2.	Mary E. Lacy, 63 Cherry Street	800	1890
2, 1.	Ardelle Abbott, 71 Craigie Street	800	1896
1.	Alice E. Morang, 114 Belmont Street	800	1893
Asst.	Louise Deady, 84 Bay State Avenue	350	1915

* Leave of absence. † Part-time.

TABLE 29.—Teachers in Service January, 1917.—Continued.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
BENJAMIN G. BROWN SCHOOL.			
Willow Avenue and Josephine Avenue.			
	GEORGE I. BOWDEN, Master, 92 Monument St., West Medford	\$2,000	1908
9.	Annie G. Smith, 59 Maple Street, Malden	875	1901
8.	Martha R. Taylor, 26 Simpson Avenue	800	1914
7.	Ida M. Record, 8 Aldersey Street	800	1899
6.	Gladys Stimson, 26 Lowden Avenue	800	1914
5.	Annie Sanburn, 11 East Newton Street, Boston	800	1906
5, 4.	Mary T. Ford, 154 Elm Street, Cambridge	800	1911
4, 3.	Anna N. Johnson, 33 Everett Avenue	700	1913
3.	Alice M. Dorman, 159 Morrison Avenue	800	1903
2.	Mrs. Grace H. Bliss, 33 Whitfield Road	800	1900
1.	Persis A. Richardson, 363 Broadway	750	1916
1.	Bessie Thorpe, 16 Park Place	450	1915
HIGHLAND SCHOOL.			
Highland Avenue and Grove Street.			
	FRANK W. SEABURY, Master, 18 Winslow Avenue	\$2,000	1911
9.	Grace M. Clark, 10 Vernon Street, West Medford	875	1893
9.	Marguerite Burns, 73 Hancock Street, Boston	825	1907
9, 8.	Sarah E. Pray, 58 Liberty Avenue	825	1877
8.	Mary L. Bryant, 24 Hall Avenue	800	1903
8.	Helen I. Stearns, 106 College Avenue	750	1916
8.	Mary H. Joyce, 76 Boston Street	800	1891
7.	Elsie M. Ross, Ipswich	800	1908
7.	Ethel M. Park, 48 Electric Avenue	650	1916
6.	Lillian F. Richardson, 129 Mount Auburn Street, Cambridge	800	1904
6.	Marie Clifford, 35 Langdon Street, Cambridge	800	1907
5.	Marion Allen, Danvers	800	1911
5.	Eva E. Perkins, 48 Astor Street, Boston	800	1911
WILLIAM H. HODGKINS SCHOOL.			
Holland Street.			
	ARTHUR L. DOE, Master, 27 Spruce Street, Malden	\$2,000	1896
9.	Edith W. Emerson, 135 Central Street	875	1896
9, 8.	Alice S. Hall, 135 Central Street	800	1896
8.	Mrs. Augusta H. Bergin, 80 Porter Road, Cambridge	800	1914
7.	Mrs. Gertrude W. Leighton, Abington	800	1895
7.	Helen M. Farr, 8 Atherton Street	450	1915
6.	Isabel M. Brunton, 33 Walnut Street	750	1910
6, 5.	Flora A. Burgess, Arlington Heights	800	1894
5.	Catherine A. Burden, 10 Wallace Street	800	1902
4.	Genieve R. Barrows, 52 Westland Avenue, Boston	800	1905
4, 3.	Katherine M. Fox, Stoneham	800	1896
3, 2.	Inez Prentiss, 54R College Avenue	800	1913
2, 1.	May V. Powell, 47 Centre Street, Malden	800	1913
1.			
S. NEWTON CUTLER SCHOOL.			
Powder House Boulevard, near Raymond Avenue.			
	HARLAN P. KNIGHT, Master, 22 Hamilton Road	\$2,000	1897
9.	N. Irene Ellis, 29 Newbury Street	875	1903
8.	Elizabeth R. Henderson, 83 Ossipee Road	800	1912
8.	Lilla E. Mann, 50 Curtis Street	800	1902
7.	Katherine A. Breen, 81 Avon Street	800	1912
7.	Edith A. Maxwell, 43 Whitfield Road	800	1906
6.	Bernice J. Andrews, 10 Locke Street	800	1914
6.	Ella H. Bucknam, 1105 Broadway	800	1897
5.	Georgie B. Collins, 1137 Massachusetts Avenue, Cambridge	700	1916
4.	Hazel McMillan, 7 Columbus Avenue	550	1916
4.	Olevia M. Woods, 116 Powder House Boulevard	800	1908
3.	Mary L. Ennis, 785 Broadway	700	1915
3.	Bessie A. Mirfield, 62 Raymond Avenue	700	1916
2.	Almena J. Mansir, 77 Albion Street	800	1899
2.	Inez M. Rodgers, 30 Conwell Avenue	800	1915
1.	Annie H. Hall, 97 College Avenue	800	1906
Asst.	Mrs. Katie L. Harmon, 187 Elm Street	475	1916
Asst.	Agnes Riley, 451 Somerville Avenue	350	1915

TABLE 29.—Teachers in Service January, 1917.—Concluded.

Grade.	NAME AND RESIDENCE.	Salary.	Began Service.
LINCOLN SCHOOL.			
Broadway, near Teele Square.			
	HARLAN P. KNIGHT, Master, 22 Hamilton Road . . . . .	....	1914
2.	Eliza H. Lunt, Principal, 50 Curtis Street	\$850	1889
3.	Mrs. Lillian M. Wentworth, 248 Highland Avenue	800	1911
1.	Hortense F. Small, 91 Electric Avenue	800	1912
1.	MARTHA PERRY LOWE SCHOOL.		
Morrison Avenue, near Grove Street.			
	FRANK W. SEABURY, Master, 18 Winslow Avenue . . . . .	....	1912
4.	MAY E. SMALL, Principal, 17 Park Avenue	\$950	1900
4.	Stella M. Holland, 32 Hall Avenue	800	1903
3.	Maude C. Valentine, 1098 Broadway	800	1901
3.	Mrs. Jane M. Taaffe, 159 Morrison Avenue	800	1888
2.	Katherine E. Hourahan, 15 Summit Street	800	1892
2.	Clara G. Hegan, 100 School Street	800	1897
1.	Martha A. Jencks, 33 Chester Street	800	1898
1.	Mildred Archibald, 21 Warner Street	500	1914
EVENING SCHOOL PRINCIPALS.			
	HARRY L. JONES, High	\$6.00	
	JOHN S. EMERSON, Bell	5.00	
	CHARLES E. BRAINARD, Highland	4.00	
CADET TEACHERS.			
	Anna E. McCully, 12 Francis Street	\$200	1916
	Marion Donnelly, 137 Summer Street	200	1916
	Mary T. Gurvin, 604 Broadway	200	1916
	Lucy S. Hardy, 64 Avon Street	200	1916
	Carolyn E. Armitage, 57 Madison Street	200	1916
SPECIAL TEACHERS.			
MUSIC.			
13-7.	James P. McVey, 29 Hammond Street, Cambridge	\$1,700	1915
6-1.	Mrs. Charlotte D. Lawton, 11 East Newton Street, Boston	1,000	1898
DRAWING.			
9-1.	Clara M. Gale, 7 Westwood Road	1,100	1911
SEWING.			
	Mary H. Brown, Supervisor, 64 Commonwealth Ave., Boston	*200	1913
8-5.	Mary L. Boyd, 74 Heath Street	800	1888
8-5.	Mrs. Emma J. Ellis, 54 Marshall Street	800	1900
8-5.	Charlotte Holmes, 24 Cambria Street	‡400	1913
8-5.	Jennie Williston, 3 Monmouth Street	500	1913
PENMANSHIP.			
‡9-1.	Ruth L. Whitehouse, 333 Broadway	750	1915
MANUAL TRAINING.			
	Harry L. Jones, Supervisor, 137 Powder House Boulevard	†200	1911
9, 8.	Kathinka Fessman, 1126 Boylston Street, Boston	850	1912
9, 8.	Eva G. Hardy, 64 Avon Street	850	1912
PHYSICAL INSTRUCTION			
9-1.	Ernst Hermann, 9 Humboldt Street, Cambridge	1,250	1914
ATYPICAL.			
	Mary A. Holt, 72 Boston Street	850	1910
	Mrs. Bertha M. Morton, 62 Highland Avenue	850	1913

*Additional to salary as Principal of Girls' Vocational School.

†Additional to salary as Principal of Boys' Vocational School.

‡Leave of absence.

§Part-time.

TABLE 30.—OFFICERS, ETC., IN SERVICE JANUARY, 1917.

NAME AND ADDRESS.	Salary.
SUPERINTENDENT AND SECRETARY.	
Charles S. Clark, 75 Munroe Street	\$3,500
CLERKS.	
Justin W. Lovett, 29 Cambria Street	1,400
Mary A. Clark, 42 Highland Avenue	900
Mildred A. Merrill, 26 Cambria Street	750
ATTENDANCE OFFICER.	
Benjamin R. Jones, 25 Loring Street	1,350

TABLE 31.—SCHOOL JANITORS, JANUARY, 1917.

School.	Name.	Residence.	Weekly Salary
High School, S	John H. Kelley	7 Madison St.	\$30.00
High School, assistant	Andrew R. Burke	337 Lowell St.	17.00
High School, assistant	Jeremiah M. Brennan	482 Medford St.	16.00
High School, assistant	John N. Quirk	202 Somerville Ave.	16.00
High School, assistant	Nicholas J. Lacey	85 Franklin St.	16.00
High School, fireman	Charles Hoyt	18 Trull St.	20.00
East Somerville J. High, S, 11	James M. Quirk	153-A Somerville Ave.	17.00
Prescott, S, 12	George A. McGunnigle	88 Glen St.	19.00
Hanscom, S, 10	Charles F. Rose	15 Brastow Ave.	17.00
Boys' Vocational, F, 4	George H. Clapp	35-A Franklin St.	15.00
Bennett, S, 12	Michael Mullaney	467 Somerville Ave.	19.00
Baxter, S, 6	Jeremiah J. Sullivan	60 Newton St.	16.00
Knapp, S, 12	Maurice T. Mullins	13 Fremont Ave.	19.00
Perry, S, 6	George B. Phillips	3 Emerson St.	16.00
Pope, S, 12	John J. Kilty	662 Somerville Ave.	19.00
Bell, S, 12	William Meskill	53 Partridge Ave.	19.00
Cummings, F, 4	Lewis G. Keene	56 Prescott St.	16.00
Edgerly, S, 12	Charles P. Horton	22 Everett Ave.	19.00
Glines, S, 14	Roy C. Burckes	298 Broadway.	20.00
Forster, S, 12	George W. Coombs	73 Bonair St.	20.00
Winter Hill Junior High, S, 11	Michael A. Mullin	16 Bowdoin St.	17.00
Bingham, S, 16	John F. O'Brien	347 Lowell St.	22.00
Carr, S, 16	John H. Lane	5-A Belmont St.	25.00
Morse, F, 12	John W. Cremen	69 Oxford St.	19.00
Proctor, S, 8	James F. Flynn	31 Linden St.	17.00
Durell, S, 4	Ellsworth C. Lundgren	50 Harrison St.	15.00
Burns, S, 8	Daniel E. Cunningham	23 Fitchburg St.	17.00
Brown, S, 10	James J. Cooper	105 Willow Ave.	17.00
Highland, S, 12	E. Parker Cook	103 Willow Ave.	20.00
Hodgkins, S, 14	Chauncey B. Phelps	25 Joseph Street	20.00
Cutler, S, 12	Daniel Campbell	85 Lexington Ave.	20.00
Cutler, Assistant	Walter M. Burns	23 Avon St.	17.00
Lincoln, S, 4	Thomas F. O'Day	134 Lowell St.	15.00
Lowe, S, 8	John F. Richardson	190 Morrison Ave.	17.00
Girls' Vocational, F, 6	Thomas G. Pullen	6 Madison St.	15.00

Buildings heated by steam are marked "S," by furnace "F." The numbers show the number of rooms.

The high school is heated from the Central heating plant.

LIST OF AUTHORIZED TEXT-BOOKS IN THE HIGH SCHOOL.

English.

Composition and Rhetoric, Scott and Denney.....	Allyn & Bacon
English Composition Book 2, Brooks.....	American Book Company
English Humorists, Thackeray.....	Henry Holt & Co.
Enlarged Practice Book in English Composition, Hitchcock,	Henry Holt & Co.
Lessons in English, Lockwood.....	Ginn & Co.
Studies in English Composition, Keeler and Davis....	Allyn & Bacon
Addison, Macaulay.....	Allyn & Bacon
Alhambra, Irving.....	American Book Company
Ancient Mariner, Coleridge.....	Houghton Mifflin Company
American Poems, Scudder.....	Houghton Mifflin Company
As You Like It, Shakespeare.....	Sibley & Ducker
Browning, Selections from.....	Ginn & Co.
Bunker Hill Orations, Webster.....	Sibley & Ducker
Burke on Conciliation.....	Ginn & Co.
Burns, Representative Poems of, with Carlyle's Essay, Burns,	Ginn & Co.
Byron, Selections from.....	Ginn & Co.
Christmas Carol, Dickens.....	Houghton Mifflin Company
Cranford, Gaskell.....	Ginn & Co.
David Copperfield, Dickens.....	Ginn & Co.
Deserted Village, Goldsmith.....	Houghton Mifflin Company
Essays of Elia, Lamb.....	Ginn & Co.
Essays, Selected, Emerson.....	Allyn & Bacon
Essay on Burns, Carlyle.....	Ginn & Co.
Essays on Lord Clive and Warren Hastings, Macaulay..	Ginn & Co.
Essays on Milton, Macaulay.....	Sibley & Ducker
Essays on Culture, etc., Emerson.....	Houghton Mifflin Company
Essays on the Choice of Books, Carlyle..	Houghton Mifflin Company
Evangeline, Longfellow.....	Houghton Mifflin Company
Franklin's Autobiography.....	Macmillan Company
Golden Treasury, Palgrave.....	Macmillan Company
Goldsmith, Life of, Irving.....	Houghton Mifflin Company
Hamlet, Shakespeare.....	Ginn & Co.
Homer's Iliad, Pope.....	American Book Company
House of Seven Gables, Hawthorne.....	Houghton Mifflin Company
Henry Esmond, Thackeray.....	Ginn & Co.
Henry V., Shakespeare.....	Ginn & Co.
Idylls of the King, Tennyson.....	Ginn & Co.
Inland Voyage, Stevenson.....	Ginn & Co.
In Memoriam, Tennyson.....	Houghton Mifflin Company
Introduction to American Literature, Painter.....	Sibley & Ducker
Ivanhoe, Scott.....	Ginn & Co.
Joan of Arc, DeQuincey.....	Ginn & Co.
Johnson, Life of, Macaulay.....	Sanborn & Co.
Julius Caesar, Shakespeare.....	American Book Company
L'Allegro, Milton.....	Ginn & Co.
Lays of Ancient Rome, Macaulay.....	D. C. Heath & Co.
Lady of the Lake, Scott.....	D. C. Heath & Co.
Last of the Mohicans, Cooper.....	Houghton Mifflin Company
Lorna Doone, Blackmore.....	Ginn & Co.
Lyrics, Milton.....	Houghton Mifflin Company
Macbeth, Shakespeare.....	Ginn & Co.
Merchant of Venice, Shakespeare.....	Ginn & Co.
Midsummer Night's Dream, Shakespeare.....	Ginn & Co.
Palamon and Arcite, Dryden.....	Ginn & Co.
Paradise Lost, Milton.....	Ginn & Co.
Pilgrim's Progress, Bunyan.....	Ginn & Co.

Princess, Tennyson.....Sibley & Ducker
 Questions on English Literature, Mason.....Macmillan Company
 Quentin Durward, Scott.....American Book Company
 Second Essay on the Earl of Chatham, Macaulay.....Ginn & Co.
 Self Cultivation in English, G. N. Palmer..Houghton Mifflin Company
 Sesame and Lilies, Ruskin.....Ginn & Co.
 Sketch Book, Irving.....American Book Company
 Silas Marner, Eliot.....Sibley & Ducker
 Sir Roger De Coverley Papers, Addison and Steele,
 Macmillan Company
 Sohrab and Rustum, Arnold.....Ginn & Co.
 Tales of a Traveler, Irving.....American Book Company
 Tale of Two Cities, Dickens.....Ginn & Co.
 Twelfth Night, Shakespeare.....American Book Company
 Twice Told Tales, Hawthorne.....Houghton Mifflin Company
 Treasure Island. Stevenson.....Ginn & Co.
 Travels with a Donkey, Stevenson.....Ginn & Co.
 Vicar of Wakefield, Goldsmith.....American Book Company
 Vision of Sir Launfal, Lowell.....Sibley & Ducker
 Washington's Farewell Address.....Sibley & Ducker
 Woodstock, Scott.....American Book Company

History and Civics.

American History, Muzzey.....Ginn & Co.
 Ancient History, Botsford.....Macmillan Company
 Ancient History for Beginners, Botsford.....Macmillan Company
 Ancient History, Myers.....American Book Company
 Ancient History, West.....Allyn & Bacon
 Civil Government in the United States, Fiske,
 Houghton Mifflin Company
 Community and the Citizen, Dunn.....D. C. Heath & Co.
 Eastern Nations and Greece, Myers.....American Book Company
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 History of Greece, Morey.....American Book Company
 Mediaeval and Modern History, Myers....American Book Company
 Outlines of European History,
 Part I, Robinson and Breasted.....Ginn & Co.
 Part II, Robinson and Beard
 Outlines of Mediaeval and Modern European History,
 D. C. Heath & Co.
 Plutarch's Lives.....Ginn & Co.
 Readings in Ancient History, Parts I and II, W. S. Davis,
 Allyn & Bacon
 Rome, Its Rise and Fall, Myers.....American Book Company
 Selected Readings in English History, Tuell & Hatch....Ginn & Co.
 Short History of Roman People, Allen.....Ginn & Co.
 Stories in Stone from the Roman Forum, Lovell..Macmillan Company
 Story of the Ancient Nations, Westerman.....D. Appleton & Co.
 Student's American History, Montgomery.....Ginn & Co.
 Student's History of the United States, Channing,
 Macmillan Company

Tales from Herodotus, Havell.....Crowell Publishing Company

Mathematics.

Academic Algebra, Wells.....D. C. Heath & Co.
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 College Algebra, Wentworth.....Ginn & Co.
 Complete Trigonometry, Wells.....D. C. Heath & Co.
 Elements of Algebra, Wentworth.....Ginn & Co.
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 Essentials of Algebra, Wells.....D. C. Heath & Co.
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 Essentials of Plane Geometry, Wells.....D. C. Heath & Co.
 Exercise Book in Algebra, McCurdy.....D. C. Heath & Co.
 Exercises of Plane Geometry.....Newton & Lynde
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 Plane and Solid Geometry, Schultz and Sevenoak,
 Macmillan Company
 Plane Geometry, Wells.....D. C. Heath & Co.
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 and Moore.....Ginn & Co.
 Solid Geometry, Wentworth.....Ginn & Co.

Commercial.

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 American Book Company
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 Bobbs-Merrill Company
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 American Book Company
 Practical Course in Touch Typewriting, Smith,
 Isaac Pitman & Sons
 Practical Shorthand, Chandler.....Chandler
 Twentieth Century Practical Business Dictation, Part I, Pitman,
 Isaac Pitman & Sons

Elocution.

Evolution of Expression, Vol. I.
 Evolution of Expression, Vol. II.
 Evolution of Expression, Vol. III.
 Evolution of Expression, Vol. IV.

Science.

Elementary Applied Chemistry, Allyn.....Ginn & Co.
 Elementary Biology, Peabody and Hunt.....Macmillan Company
 Elements of Physics, Crew and Jones.....Allyn & Bacon
 Elements of Astronomy, Young.....Ginn & Co.
 Elements of Natural Philosophy, Avery.....B. H. Sanborn & Co.

- Essentials of Chemistry, with laboratory exercises,
Hessler and Smith.....B. H. Sanborn & Co.
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General Science, Clark.....American Book Company
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American Book Company
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American Book Company
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German.

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D. C. Heath & Co.
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La Poudre aux Yeux, Labiche et Martin.....	Henry Holt & Co.
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Lectures Historiques, Emma Moffett.....	D. C. Heath & Co.

First Greek Book, White.....	Ginn & Co.
Greek Grammar, Goodwin.....	Ginn & Co.
Greek Reader, Goodwin.....	Ginn & Co.
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Hellenica, Xenophon, Manatt.....	Ginn & Co.
Iliad, Seymour, Books I-III, I-VI.....	Ginn & Co.
Iliad, Benner, Selections.....	D. Appleton & Co.
Lexicon, Siddell and Scott.....	American Book Company

Spanish.

All Spanish Method, First and Second Books, Guillermo Hall,	World Book Company
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A Spanish Reader, Bransby.....	D. C. Heath & Co.
Introduccion a la Lengua Castellana, Des Garennes,	D. C. Heath & Co.
Modelo de Cartas Comerciales, L. Oliver.....	F. Granado Y. C'a
Spanish Commercial Reader, Harrison.....	Ginn & Co.
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Spanish Grammar, complete, Olmsted and Gordon,	Henry Holt & Co.
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Miscellaneous.

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Classical Atlas	
Collegiate Dictionary	
Euterpean, Tufts.....	Silver, Burdett & Co.
Glee and Chorus Book	
International Dictionary, Webster	
Laurel Song Book, Tomlins.....	C. C. Birchard & Co.
Mechanical Drawing, Tracy.....	Harper & Brothers
Standard Dictionary	
School Song Book, Students' Edition.....	C. C. Birchard & Co.
Textiles, Dooley.....	D. C. Heath & Co.
Worcester's Dictionary (small)	
Webster's Dictionary (small)	

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Walton and Holmes' Arithmetic, Books I-IV,	American Book Company

Commercial.

Single Entry Bookkeeping, Meservey...	Thompson, Brown Company
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Dictionaries.

Clarendon.....	American Book Company
Concise Standard.....	Funk & Wagnalls
New International, Webster.....	G. C. Merriam Company
Standard	

Students' Dictionary

Webster's New School Dictionary.....American Book Company
 Worcester's School Dictionary

Geographies.

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 Elementary Physical, Tarr.....Macmillan Company
 Essentials of Geography, First and Second Book, Brigham
 and McFarlane.....American Book Company
 First Steps in Geography, Frye.....Ginn & Co.
 Grammar School Geography, Parts I, II, Frye.....Ginn & Co.
 Grammar School Geography, Complete.....Ginn & Co.
 Grammar School Geography, Tilden.....B. H. Sanborn & Co.
 Home Geography, Long.....American Book Company
 Natural School Geography, Parts I, II....American Book Company
 Natural Complete Geography.....American Book Company
 Physical Geography, Maury.....University Publishing Company
 First Book in Geography, Parts I, II, Tarr and McMurry,
 Macmillan Company

Histories.

American Explorers, Gordy.....Charles Scribner's Sons
 American Leaders and Heroes, Gordy.....Charles Scribner's Sons
 American History, Sheldon and Barnes.....D. C. Heath & Co.
 Beginners' History, Montgomery.....Ginn & Co.
 Commercial and Industrial History, Keller and Bishop...Ginn & Co.
 First Book in American History, Eggleston,
 American Book Company
 History of the United States, Eggleston..American Book Company
 History of the United States, Fiske.....Houghton Mifflin Company
 History of the United States, Thomas.....D. C. Heath & Co.
 History of the United States, Gordy.....Charles Scribner's Sons
 Introductory American History, Bourne and Benton,
 D. C. Heath & Co.
 Leading Facts of United States History, Montgomery....Ginn & Co.
 Our Country's Story, Tappan.....Houghton Mifflin Company
 School History of the United States, McMasters,
 American Book Company
 School History of the United States, Mace,
 Rand McNally Company

Language.

Aldine First Language Book, Bryce and Spaulding...Newson & Co.
 English Spoken and Written, Emerson and Bender,
 Macmillan Company
 New Webster-Cooley Course in English, Books I, II,
 Houghton Mifflin Company

Music.

Cecilian Music Reader, Books I-IV, Tufts.....Silver, Burdett & Co.
 Congdon Music Primer.....C. H. Congdon
 Laurel Music Reader, Tomlins.....C. C. Birchard & Co.
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 and Gilchrist.....Ginn & Co.
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 Normal First Music Reader, Tufts and Holt...Silver, Burdett & Co.
 Normal Second Music Reader, Tufts and Holt, Part I,
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Silver Song Series, Number VI.....Silver, Burdett & Co.

Spellers.

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Physiology of Health, Numbers I and II, Hunt,
American Book Company
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Baldwin, Bender Readers, Books I-VIII...American Book Company
Busy Brownies at Work.....Newson & Co.
Cyr's Primer.....Ginn & Co.
Cyr's Reader by Grades, Books I-VIII.....Ginn & Co.
Cyr's Dramatic Reader.....Ginn & Co.
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C. E. Merrill & Co.
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Reading-Literature Series, Free and Treadwell,
Row, Peterson & Co.
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Educational Publishing Company
Sprague Classic Readers, Book IV, Part I, II,
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Sprague Classic Readers, Book V, Part I, II,
Educational Publishing Company
The Beginners' Primer, Bryce.....Houghton Mifflin Company

Story Hour Readers, Books I-III, Cook, Christie,
American Book Company
Wide Awake Series, Murray.....Little, Brown & Co.

Supplementary Reading.

A Dramatic Reader, Books I, III, IV, Stevenson,
Houghton Mifflin Company
Action, Imitation and Fun Series, Pratt and Chadwick,
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Bow-Wow-Mew-Mew
Hop o' My Thumb
Jack and the Beanstalk
Jack the Giant Killer
Little Red Riding Hood
Puss in Boots
The Little Peoples' Sound Primer
The Little Red Hen
The Three Pigs
The Three Bears
The Three Little Kittens

Aesop's Fables, Stickney.....Ginn & Co.
Arabian Nights.....Ginn & Co.
Cherry Tree Children.....Little, Brown & Co.
Children's Classics in Dramatic Form, Books I-V,
Houghton Mifflin Company

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 South America
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Geographical Readers, Perkins.....Houghton Mifflin Company

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 The Eskimo Twins
 The Irish Twins
 The Japanese Twins
 The Mexican Twins

Geographical Readers, Books I-IV, Carroll....Silver, Burdett & Co.

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 The Earth and Its People
 Our American Neighbors
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 Heroic Ballads, Montgomery.....Ginn & Co.
 History Reader for Elementary Schools, Nilson..Macmillan Company
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 In the Animal World
 In the Child World, Emilie Poulsson.....Milton Bradley Company
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 Little Blue Bird.....Houghton Mifflin Company
 Little Daffydowdilly, Hawthorne.....Houghton Mifflin Company
 Little People Everywhere, Books I-IV.....Little, Brown & Co.
 Little Plays for Little People, Noyes and Ray.....Ginn & Co.
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 Men of Old Greece.....Little, Brown & Co.
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 Lothrop, Lee & Shepard Company
- Old Mother West Wind.....Little, Brown & Co.
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 Reynard, the Fox, Smythe.....American Book Company
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 SeegmillerHoughton Mifflin Company
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 Houghton Mifflin Company
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 The World and Its People Series, Dunton.....Silver, Burdett & Co.
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REPORT OF THE TRUSTEES.

To the Honorable, the Mayor, and the Board of Aldermen of
the City of Somerville:—

Gentlemen,—The forty-fourth annual report of the trustees of the public library is herewith respectfully submitted; being the report of the librarian and tables of statistics of operation.

Very respectfully,

The Board of Trustees, by

THOS. M. DURELL,

President.

Adopted at the Annual Meeting
March 6, 1917.

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Central Building, Highland Avenue.

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Saturday, 9 a. m. to 1 p. m., also.

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UNION SQUARE, Washington Street and Bonner Avenue—
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THE STAFF

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DREW B. HALL, Librarian. (May 1, 1917.)

LUCY B. CRAIN, Assistant Librarian, in charge of circulation, of staff personnel, and of "Central," and supervising children's work. (February 1, 1917.)

NELLIE M. WHIPPLE, Assistant Librarian, in charge of West Somerville Branch.

Edith B. Hayes, Chief Cataloguer. (On leave.)

Alice G. Higgins, Special Assistant in the Children's Room. (March 24, 1917.)

Margaret M. Kneil, High School Librarian.

Helen Luitwieler, Acting Cataloguer.

Esther M. Mayhew, Reference Librarian.

Lucinda F. Spofford, Branch Librarian, Union Square.

Carrie L. Williams, Branch Librarian, East Somerville.

Mabel Williams, High School Librarian. (March 31, 1916.)

Mabel E. Bunker, Assistant Branch Librarian, West Somerville.

Hazel M. Graham, Librarian's Assistant and Secretary. (March 3, 1917.)

Anna L. Stone, Cataloguing.

Mary S. Woodman, Classification.

Senior Assistants.

Susan W. Curtis, West Somerville.

Juliana Donovan, Union Square.

Nectar M. Eksergian, West Somerville.

Ruth S. Fales, East Somerville.

Rose Greenberg, Intermediate.

Myrtle Nicholson, Circulation.

Ethel M. Nute, Union Square.

Esther W. Shaw, Registration and Binding. (January 27, 1917.)

Helen P. Smith, Cataloguing.

Anna B. Truesdale, Children, West Somerville.

Elsie K. Wells, West Somerville.

Edna C. Woodbury, Children. (September 9, 1916.)

Junior Assistants.

Bertha F. Kerner (July 22, 1916) M. Hope Carpenter
Frances E. Haggens

UNGRADED—CLERICAL.**Typewriters.**

Marion L. Fall

Pages.James D. Blackall
Frank DionMae L. Gormley
Lillian McGowan
Bernard L. Maxwell**High School Attendants and Pages on Part Time.**Gladys M. Allingham
Bessie Berman
Helen Boyd
Olive B. Briggs
Elizabeth Carlin
L. Eugenia Carter
Hazel Cloyes
Lawrence W. Coddling
Doris B. CrestoRoger Estey
Gertrude French
Donald P. Geddes
James G. Geddes
Lucy M. Lannigan
Ronald A. Moore
Evelyn G. Smith
Leone Warren
Anna M. Wright

(Figures after the names are dates of leaving the service.)

ANNUAL REPORT OF THE LIBRARIAN.

To the Trustees of the Public Library of the City of Somerville:—

Gentlemen,—The forty-fourth annual report of the Librarian is herewith submitted, being that for the year 1916.

Buildings.

Early in the year the move to provide a better building in East Somerville was brought to a successful ending when the Carnegie Corporation offered the city, upon the usual terms, \$18,000 for that purpose. This sum was determined by facts concerning the city, shown in the 1915 State Census. During the summer a lot upon Broadway was purchased; and during the fall plans were matured and estimates taken which assure the erection of a building 34x74 feet, with all modern library conveniences and equipment and of first-class fireproof construction.

During the year attention also has been successfully given to the Union Square building. The six rooms of this former schoolhouse are now all assigned to the use of the public library; and the whole lower floor will be remodeled for the public use of the branch. This will treble the present floor area and introduce suitable work and staff room accommodations.

Circulation.

The lengthening of the loan period to one month and the better fitting of each book to the reader's needs have reduced the number of or prevented entirely renewals and early returns; these facts, together with the tremendous revival of business and manufacturing, have resulted in an eight per cent. decrease in the count of circulation. This decrease has been particularly marked in the sections of the city occupied by citizens engaged in the industries. This condition is paralleled in all towns and cities having like circumstances and is, if anything, an indication of healthy conditions. The bottom has been reached, however, and the tendency is now toward an increase; as the figures for various places and months are now exceeding those of the year previous.

The liberalization begun in 1911 and completed last year makes the lending rules of this library among the most liberal and wise in the country. They are continually commented upon with favor by our readers and comparisons are often drawn to our advantage. Other communities have watched this process and many of them have taken similar action based upon this practice and experience.

Three thousand six hundred eighty-seven persons registered for borrowers' cards for the first time; this brings the number of names entered on the new register (beginning October, 1912) to 27,627. Of these, 19,022 registered before

December 31, 1914, have expired under the two-year limitation, but of them 10,749 have been renewed; this makes valid, on December 31, 1916, 14,436 borrowers' cards.

In General.

The several departments have continued their work, building upon the foundations laid in the last few years, developing and perfecting it along the previous lines. There have been no radical changes. Many desirable developments and extensions of the service have not been possible because of changes in the staff and resulting shortage of time and readjustment. Miss Edith B. Hayes, cataloguer, began, the first of October, a year's leave of absence for rest and study after continuous and admirable service for seventeen years; the assistant cataloguer, Miss Helen Luitwieler, is serving at the head of the department with ability. Miss Mabel Williams accepted a position attractive in promise and for experience in the New York Public Library. Miss Edna C. Woodbury resigned the first of September for the purpose of adding, to her college experience and four years in this library, two years of study in the library schools of Simmons College and the New York Public Library, with the intention of specializing in children's work.

These and several minor withdrawals have been partly offset by the accession, in May, of Miss Margaret M. Kneil to become High School librarian, and in August, of Miss Louise Hoxie, both graduates of Simmons College, and with some experience; and, the very last of December, by four apprentices from our own training class, the Misses Hastings and Miller of Wellesley and Mount Holyoke Colleges and the Misses Carter and Kelly of the local high schools.

My statements in previous reports, both formal and informal, concerning the justness and desirability of increasing various salaries are receiving added support from the present conditions of business and general livelihood. Both justice and necessity, in my opinion, call for action on the recommendations which I have so carefully and heartily made. The organization of this library is well developed, well recognized and highly appreciated; the unit cost of issuing books and performing the various elements of library service is less than for service of similar quality in any other library whose figures, reckoned upon the same basis, have come to hand; the workers who are responsible for this situation surely merit recognition and more adequate compensation.

Very respectfully,

DREW B. HALL,
Librarian.

December 31, 1916.

THE PUBLIC LIBRARY OF THE CITY OF SOMERVILLE.

APPENDIX A.

Statistical Report for 1916.

	Central.	West.	East.	Union.	Total.
Volumes in library (January 1, 1916)	93,545	10,425	2,124	2,755	108,849
Volumes added	6,807	1,334	560	698	9,399
Volumes transferred to	460	6	33	61	560
Volumes transferred from	100	430	0	30	560
Volumes withdrawn	3,115	465	297	649	4,526
Volumes gained	4,052	445	296	80	4,873
<hr/>					
Volumes in library (December 31, 1916)	97,597	10,870	2,420	2,835	113,722

Adjustments of Records, 1906-1916.

	Central.	West.	East.	Union.	Total.
LOSSES.					
"Unaccounted" as shown by 1912-1916 inventory finals of September 12, 1916, by E. B. Hayes and November 27, 1916, by H. Luitwieler	674	290	112	97	1,173
"Withdrawn" (legitimate losses) not fully recorded	2,041	169	....	3	2,213
Transferred to Branches, January to February, 1912, but not charged to Branch accounts	1,514	....	....	....	1,514
	4,229	459	112	100	4,900
GAINS.					
Deposits of above to Branch accounts			1,022	492	1,514
Net losses	4,229	459			4,688
Net gains			910	392	1,302
Volumes in library (December 31, 1916)	97,597	10,870	2,420	2,835	113,722
Less net losses	4,229	459			4,688
					109,034
Plus net gains			910	392	1,302
<hr/>					
Volumes in library (January 1, 1917)	93,368	10,411	3,330	3,227	110,336
<hr/>					
	Central.	West.	East.	Union.	Total.
Volumes circulated, adult	130,795	86,130	34,092	30,772	281,789
Volumes circulated, juvenile	39,821	30,316	17,098	21,441	108,676
<hr/>					
Total circulation (A. L. A. rules)	170,616	116,446	51,190	52,213	390,465
Estimated circulation, "old basis"					94,927
<hr/>					
Total circulation, "old basis"					485,392
New borrowers registered	1,571	1,148	414	554	3,687
Valid borrowers' cards, i. e. registered or renewed within two years					14,436

APPENDIX B.
 CLASSIFIED EXPENDITURES—MAINTENANCE.
 JANUARY 1 TO DECEMBER 31, 1916.
 City Appropriations—Trustees.

	Central.	West.	East.	Union.	Total.
No. 1, services (power)	\$15,400 57	\$4,469 96	\$2,022 51	\$2,045 83	\$23,938 87
Books	\$5,773 66	\$1,361 91	\$635 00	\$655 85	\$8,426 42
Periodicals	681 92	308 65	112 81	128 50	1,231 88
Music	80 23	10 96	.....	.....	91 19
Binding	1,031 03	345 02	179 26	196 51	1,751 82
No. 2 (material)	\$7,566 84	\$2,026 54	\$927 07	\$980 86	\$11,501 31
Stationery and postage	\$472 28	\$32 36	\$19 45	\$35 07	\$559 16
Printing and advertising	310 40	13 00	1 75	1 75	326 90
Telephone	121 87	43 20	30 19	29 31	224 57
Express	102 45	101 67	93 31	101 69	399 12
Cards, catalogues, etc.	629 72	.....	.....	.....	629 72
General supplies	97 34	7 00	5 00	4 88	114 22
Agency	42 38	.....	.....	.....	42 38
Other	256 12	6 27	.....	.....	262 39
No. 3 (tools)	\$2,032 56	\$203 50	\$149 70	\$172 70	\$2,558 46
Bill roll No. 2 and 3	\$9,599 40	\$2,230 04	\$1,076 77	\$1,153 56	\$14,059 77
No. 1, 2 and 3	24,999 97	6,700 00	3,099 28	3,199 39	37,998 64
Appropriation	\$25,000 00	\$6,700 00	\$3,100 00	\$3,200 00	\$38,000 00
Expended	24,999 97	6,700 00	3,099 28	3,199 39	37,998 64
Balance reverting	\$ 03	\$ 00	\$ 72	\$ 61	\$1 36

City Appropriation—Building Commissioner.

	Central.	West.	East.	Union.	Total.
Total from city	\$3,983 40	\$1,745 14	\$687 40	\$855 15	\$7,271 09
	\$28,983 37	\$8,445 14	\$3,786 68	\$4,054 54	\$45,269 73

Endowment Funds—Current Accounts.

	Bal. from 1916.	Receipts.	Cr.	Charges.	Bal. to 1917
S. Newton Cutler	\$75 88	\$43 86	\$119 74	.....	\$119 74
Hunt Art, principal	2,702 77	.....	2,702 77	\$500 00	2,202 77
Hunt Art, interest	103 50	149 14	252 64	103 35	149 29
Hunt Book	131 35	494 77	676 12	125 52	550 60
Pitman Art	147 67	175 16	322 83	219 30	103 53
Pitman Poetry	37 39	43 90	81 19	74 70	6 49
Wildner Children's	11 92	4 04	15 96	.....	15 96
Totals	\$3,260 48	\$910 87	\$4,171 35	\$1,022 87	\$3,148 38

APPENDIX C.

American Library Association Form for Uniform Statistics.

Annual report for year ended December 31, 1916.			
Name of Library, The Public Library.			
City or town, Somerville; State, Massachusetts.			
Population served (State Census in 1915).....			86,854
Terms for use—Free for lending.			
Free for reference.			
Total number of agencies:—			
Consisting of—Central Library			
3 Branches (separate buildings)			
1 Station			
40 Other agencies; 23 school buildings, and 17 institutions, etc.			
Number of days open during year (Central library) 304			
for lending, 356 for reading.			
Hours open each week for lending (Central library)....			72
Hours open each week for reading (Central library)...			75
Number on staff (library service, adding part "timers" to make whole units)			37
Number of volumes at beginning of year.....			108,849
Number of volumes added during year by purchase...			9,106
Number of volumes added by gift or exchange.....			157
Number of volumes added during year by binding material not otherwise counted.....			136
Number of volumes withdrawn during year.....			4,526
Total number at end of year.....			113,722
	Adult.	Juvenile.	Total.
Number of volumes of fiction lent for home use	203,452	64,644	268,096
Total number of volumes lent for home use	281,789	108,676	390,465
<i>All books except 7 day and juvenile (2 weeks) lent for one calendar month.</i>			
Number of borrowers registered during year.....			3,687
Total number of valid cards December 31 (<i>used within two years</i>)			14,436
<i>Registration period two years.</i>			
Number of newspapers and periodicals currently received, 205 titles, 561 copies.			

Receipts From

Regular:—	
Local taxation	\$41,015 72
Endowment funds: Income balance from 1916....	3,260 38
Endowment funds: Income of 1916.....	910 87
*Fines	1,422 61
*Other sources: Dog licenses.....	2,831 40
	<hr/>
	\$49,440 98
Extraordinary:—	
From taxes for site of East Somerville Branch....	4,500 00
	<hr/>
	\$53,940 98

*These items are covered into the treasury of the city, which figures its appropriation to include them.

Payments For

Maintenance:—	
Books	\$8,737 18
Picture collection from funds.....	247 30
Periodicals	1,231 88
Binding	1,751 82
Salaries, library service.....	23,938 87
Library service "tools".....	2,558 46
Maintenance of buildings by Commissioner.....	7,271 09
	<hr/>
Total maintenance	\$45,736 60
Extraordinary:—	
Memorial bronze tablet: Sam Walter Foss: Hunt Art Fund	\$556 00
Site for East Somerville Branch building.....	4,500 00
Balances on Endowment Funds Income to 1917....	3,148 38
	<hr/>
	\$53,940 98

APPENDIX D.**Information for Readers and Borrowers.**

HOME USE. Books and periodicals may be taken from the library only when charged on a borrower's card, which must also be presented when the books are returned, so that the charge may be canceled.

BORROWER'S CARD. Any resident upon registering by signing the required application and agreement is entitled to a borrower's card. The parents of minors (juveniles) under eighteen must signify their consent in writing by endorsing the application.

Immediate notice in writing of a change of address must be given, and of the loss of a card. The registered owner of a card is in all cases responsible for books taken and charges incurred on his card. Cards should not be loaned.

"Special" and "Teachers" cards are not issued and all borrowers enjoy the service ordinarily rendered only to "Specials."

ISSUE OF BOOKS. Each adult may have on his card at one time:—

ONE SEVEN-DAY BOOK, due within one week;

ONE UNBOUND PERIODICAL, due within one week;

ANY REASONABLE NUMBER OF OTHER BOOKS, adult books due within one month, juvenile books due within two weeks.

Each juvenile (minor) borrower may have on his card at one time:—

ONE JUVENILE FICTION, due within two weeks;

ONE JUVENILE NON-FICTION, due within two weeks;

ONE UNBOUND PERIODICAL, due within one week;

ONE SEVEN-DAY BOOK (adult) due within one week;

ANY REASONABLE NUMBER OF OTHER BOOKS (adult) due within one month.

A yellow dating slip in the back of a book indicates that it is a seven-day book; a white dating slip indicates that the book is due within two weeks; a pink dating slip indicates that the book is due within one month.

The borrower agrees to return any book immediately after the fourteenth day on recall notice from the library that it is needed by another borrower.

FINES. A fine of two cents a day, including Sundays and holidays, is charged for each volume or number over-detained.

RESERVES. Other than seven-day books and unbound periodicals may be reserved by the filling of the required form.

RESPONSIBILITY cannot be assumed by the library for errors in executing telephone or verbal messages from borrowers, or for their failure to receive notices.

BOARD OF HEALTH.

1916.

JACKSON CALDWELL, Chairman.

RALPH F. HODGDON, M. D.

ROBERT M. LAVENDER.

Clerk and Agent to Issue Burial Permits.

LAURENCE S. HOWARD.

Agent.

CALEB A. PAGE,
Resigned October 21, 1916.

GEORGE I. CANFIELD,
Appointed October 23, 1916.

Medical Inspector.

FRANK L. MORSE, M. D.

Inspector of Animals and Provisions.

CHARLES M. BERRY, V. S.

Inspector of Milk and Vinegar.

HERBERT E. BOWMAN, Ph. G.

Milk Collector.

GEORGE E. PLIMPTON.

Plumbing Inspector.

DUNCAN C. GREENE.

REPORT OF THE BOARD OF HEALTH.

OFFICE OF THE BOARD OF HEALTH, }
City Hall Annex, January 1, 1917. }

To His Honor, the Mayor and the Board of Aldermen:—

Gentlemen,—We respectfully submit the following as the thirty-ninth annual report of the Board of Health, in which is presented a statement, tabulated, and otherwise, of the sanitary condition of the city and the business of the board for the year ending December 31, 1916.

Nuisances.

A record of nuisances abated during the year, in compliance with notices issued by the board, or under the board's direction, is presented in the following table:—

Animals kept in cellars	2
Blacksmith shops whitewashed	13
Cellar, water in	22
Cellars filthy	23
Cesspools removed	2
Defective garbage houses	10
Dirty milk utensils	9
Factories unsanitary	10
Fish box unsanitary	2
Fish, foul odors from	2
Garbage thrown in yards	7
Hens being kept without permit	16
Hens running at large	8
Manure heaps, foul odors from	15
Milk rooms, screens not on	5
Plumbing unsanitary	26
Privy vaults, foul odors from	4
Roosters crowing	11
Rubbish on vacant land	44
Stables offensive	15
Stables whitewashed	125
Stables ventilated	5
Stores (bakeries) whitewashed	11
Stores and utensils dirty	26
Tenements unsanitary	19
Unlicensed animals	16
Unclassified	48
Water-closets, foul odors from	26
Water-closets without water	6
Water pipes burst	3
Water turned off, house not tenantable	2
Yards filthy	157
Total	690
Complaints referred from 1915	6
Complaints received during 1916	684
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Complaints referred to 1917	63
	<hr style="width: 100%;"/>
Nuisances abated 1916	627
Second, third and fourth notices sent on nuisances	50
	<hr style="width: 100%;"/>
Total notices sent	734

In addition to the above, 244 dead animals have been removed from the public streets, and many nuisances have been abated on verbal notice from the agent, without action by the board, of which no record has been made. Each spring the whole city is examined, and cellars, yards and alleyways where rubbish and filth have collected are required to be cleaned.

Glanders.—Twenty-two cases of glanders have been reported during the year. Prompt action was taken in every case, and thirteen of the horses were killed, nine being released from quarantine by order of the cattle commissioners.

Permits.

The record of permits to keep cows, swine, goats and hens, and to collect grease is as follows:—

Cows.—Eight applications were received for permits to keep ten cows, which were granted.

Swine.—Twelve applications were received for permits to keep twenty-six swine, eleven of which were granted to keep twenty-four swine. The fee is one dollar for each swine.

Goats.—Eleven applications were received for permits to keep fifteen goats, ten of which were granted to keep fourteen goats. The fee is one dollar for each goat.

Hens.—Ninety-three applications for permits to keep 1,618 hens were received. Seventy-two permits to keep 1,260 hens were granted, and twenty-one permits were refused.

Grease.—Fifteen applications were received for permits for sixteen teams to collect grease, which were granted. The fee is two dollars for each team.

Melting and Rendering.—Three parties have been licensed to carry on the business of melting and rendering, under the provisions of the revised laws of 1902, chapter 75, section 111, for which a fee of one dollar is charged.

Massage and Manicure.—Fourteen persons have been licensed to practice massage and manicure. The fee is one dollar for each license.

Pedlers.

Two hundred and seventy-four certificates of registration were issued to hawkers and pedlers during the year under the provisions of ordinance number fifty-two. Each pedler is required to present a statement from the sealer of weights and measures, showing that his measures and scales have been properly sealed, before a certificate is issued to him. Pedlers are also required to present their vehicles at the police station the first Monday of each month for inspection by the agent of the board, that he may see if they

are kept in a clean condition, and are properly marked with the owner's name and number. A fee of one dollar is charged for each registration.

Stables.

Under the provisions of sections 69 and 70 of chapter 102 of the revised laws of 1902 the following regulations were passed:—

In Board of Health,
Somerville, April 17, 1916.

Voted: On and after this date all licenses issued by this Board for the erection, occupancy and use of any building as a stable shall be subject to the following conditions for a violation of any of which the license may be revoked by the said Board:—

All requirements of law and of the ordinances of the City and of the rules and regulations of said Board shall be complied with at all times.

The stable shall be at all times open for inspection by said Board and its agents.

The manure pit to be constructed of brick or stone laid in cement and maintained in good condition at all times.

The stable to be ventilated through every floor to the roof and drained to the sewer.

Between the floors (if constructed of wood) of stables erected under a license issued by this Board there shall be four thicknesses of tarred paper, the same to be saturated with hot tar. Gutters must be placed behind each stall and drained to the sewer and maintained in good condition at all times.

A true copy.

Attest:

LAURENCE S. HOWARD,
Clerk.

The agents of the Board of Health were instructed to inspect all the stables in the city, to ascertain the name and address of the occupant, and if the said occupant has no license to occupy to require that an application be filed immediately. The agents were also instructed to ascertain if the stables inspected complied with the regulations of the board and report on blanks provided. The greater part of the city has been inspected as shown by the following report:—

Stable buildings inspected	590
Not occupied at time of inspection	190
	400
Occupied at time of inspection	400

Number of licenses already granted for occupancy	80
Number not licensed	320
Number occupied by same occupants since before May 4, 1895, to whom licenses were granted	87
Applications received for stables previously occupied	233
Additional applications received	26
Total applications received	259
Licenses granted	132
Licenses refused	6
	138
Applications pending	121

Board of Infants.

Twenty-six parties, whose applications were first approved by this board, have been licensed by the state board of charity to care for fifty-two children in this city, under the provisions of chapter 83 of the revised laws of 1902.

Deaths.

There were 1,081 deaths and seventy-two stillbirths in the city during the year, as specified in the following table, which shows an increase of deaths over the previous year of seventy-eight.

Deaths at Somerville hospital during the year	88
Deaths at hospital for contagious diseases and tuberculosis	59
Deaths at home for aged poor (Highland avenue)	41
Deaths at city home	19
Deaths at other institutions	38

DEATHS BY AGES.

AGES.	Total.	Male.	Female.
Under one	132	73	59
One to two	25	14	11
Two to three	12	7	5
Three to four	11	5	6
Four to five	6	3	3
Five to ten	28	11	17
Ten to fifteen	8	6	2
Fifteen to twenty	17	6	11
Twenty to thirty	53	24	29
Thirty to forty	79	33	46
Forty to fifty	83	40	43
Fifty to sixty	137	72	65
Sixty to seventy	201	86	115
Seventy to eighty	193	83	110
Eighty to ninety	87	28	59
Ninety and over	9	—	9
Total	1,081	491	590

Mortality in Somerville in 1916.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
I. GENERAL DISEASES.													
<i>(A. Epidemic Diseases.)</i>													
Scarlet fever . . . . .	....	....	1	....	....	....	....	....	1	....	....	....	2
Diphtheria	3	3	4	1	2	1	....	....	1	1	3	2	21
Typhoid fever . . . . .	....	....	1	....	....	....	....	....	....	....	....	....	1
Measles . . . . .	....	....	....	....	....	....	1	....	1	....	....	....	2
Cerebro-spinal meningitis . . . . .	....	1	1	....	1	....	....	....	....	....	1	....	4
Pertussis . . . . .	....	3	1	....	....	....	1	....	1	....	....	....	6
Anterior Poliomyelitis . . . . .	....	....	....	....	....	....	....	3	3	2	....	1	9
<i>(B. Other General Diseases.)</i>													
Septicæmia	1	....	....	1	1	1	1	1	1	1	1	....	9
Pernicious anæmia . . . . .	....	3	1	....	2	2	....	1	1	1	....	1	12
Cancer breast . . . . .	....	....	....	2	1	....	2	1	....	1	2	2	11
Cancer intestines	4	....	....	....	....	3	1	1	....	....	....	....	10
Cancer stomach	1	3	1	1	2	2	2	1	3	1	....	1	18
Cancer rectum	1	....	....	....	....	....	....	....	....	....	....	....	1
Cancer uterus	1	....	3	1	....	1	1	3	....	....	1	1	12
Cancer other forms	4	6	2	2	3	....	2	2	3	8	1	2	35
Diabetes	1	2	....	....	....	....	....	....	....	2	....	....	5
Tuberculosis pulmonary	4	13	7	14	3	6	3	6	8	7	9	6	86
Tuberculosis other forms	1	3	3	2	2	3	1	2	3	1	1	....	22
Abscess . . . . .	....	1	....	....	....	1	....	....	....	....	....	....	2
Erysipelas . . . . .	....	1	....	1	....	....	1	1	....	....	....	....	4
Neuritis . . . . .	....	....	....	....	....	....	1	....	....	....	....	....	1
Purpura hemorrhagica . . . . .	....	....	....	....	....	....	1	....	....	....	....	....	1
Syphilis . . . . .	....	....	....	....	....	....	....	....	....	....	....	1	1
Rachitis . . . . .	....	....	....	....	....	....	....	....	....	....	....	1	1
La grippe	2	....	2	1	2	....	....	....	....	....	....	....	7
Acidosis	1	....	....	....	....	....	....	....	....	....	....	....	1
II. DISEASES OF THE NERVOUS SYSTEM.													
Meningitis . . . . .	....	....	....	....	....	....	....	....	....	....	....	....	....
Apoplexy	5	6	11	9	8	5	2	....	4	4	4	10	68
Paralysis	2	....	1	1	....	....	....	....	1	2	1	1	9
Hemiplegia	1	1	....	....	....	....	....	....	....	....	1	....	3
Eclampsia . . . . .	....	....	....	....	....	....	....	1	....	....	....	2	3
Locomotor ataxia . . . . .	....	1	....	....	....	1	....	....	....	1	....	....	3
Myelitis . . . . .	....	....	....	1	....	....	....	....	....	....	....	....	1
III. DISEASES OF THE CIRCULATORY SYSTEM.													
Heart disease	14	10	14	18	9	11	1	4	4	5	9	8	107
Endocarditis	1	....	4	3	6	1	3	....	4	....	....	2	24
Myocarditis	5	4	3	1	3	....	2	2	5	5	3	3	36
Angina pectoris . . . . .	....	1	....	1	1	....	....	....	....	....	....	....	3
Aneurism of aorta . . . . .	....	1	....	....	....	....	....	1	....	....	....	....	2
Regurgitation	1	....	....	....	....	....	2	2	2	4	....	3	14
Pericarditis . . . . .	....	....	1	....	....	....	....	....	....	....	....	....	1
IV. DISEASES OF THE RESPIRATORY SYSTEM.													
Pneumonia	40	23	13	19	15	7	2	6	5	6	12	13	161
Bronchitis	4	2	3	....	1	1	....	....	....	....	1	1	13
Pulmonary œdema	1	....	2	....	....	2	....	1	....	1	1	....	8
Asthma	1	....	....	....	....	....	....	....	....	....	1	....	2
Influenza	5	1	....	....	....	....	....	....	....	....	....	1	7
Empyema . . . . .	....	1	....	....	....	....	....	1	....	....	....	....	2

Mortality in Somerville in 1916.—Concluded.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
V. DISEASES OF THE DIGESTIVE SYSTEM.													
Acute indigestion						1						1	2
Colitis	1		1	1		1			1	1			6
Gastritis	1				1						1		3
Peritonitis	1	1	2		1		1	1				2	9
Diarrhoea				1		1		1	1				2
Gastric ulcer				1		1							2
Enteritis				1	2	1		5	7	4	1	4	25
Gall stones									1				1
Intestinal obstruction		2						1		1	1		5
Appendicitis				2		1						1	4
Intestinal toxæmia			1		1				1				3
Cirrhosis liver	1									2	1	1	5
Ptomaine poisoning			1										1
VI. DISEASES OF GENITO-URINARY SYSTEM.													
Bright's disease	3			1		2	1	1	2	1			2
Uraemia	3	5	3	3	6	4	3		3	3	8	2	14
Nephritis												7	45
Cystitis						1		1					1
Prostatitis													1
VII. CHILDBIRTH.													
Placenta previa													
Childbirth													
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUES.													
Gangrene		2			1								3
IX. MALFORMATIONS.													
Hydrocephalus							1		1				2
X. EARLY INFANCY.													
Malnutrition	1	1	1			1		1		1	1		7
Premature birth and congenital debility	4	6	3	1	4	4	1	2	3	8	5	4	45
Atalectosis					1			1	1		1		4
XI. OLD AGE.													
Senile dementia			1		1				1		1		4
Arterio-sclerosis	6	11	9	6	9	1	4	8	10	9	4	10	87
XII. VIOLENCE.													
Accidental strangulation							1						1
Railroad			1	1							2	1	5
Suicide		1							1		2	1	5
Accidental burns from hot water					1					1			2
Accidental gas poisoning					1		1						2
Fracture of skull		2	1										3
Surgical shock										1		1	2
Accidental poisoning							1						1
Accidental fall			2		2		3			2	1		10
Run over by auto				1			1			2	2	1	7
Accidental burns	2	1						1	1		1		6
Homicide				1			1						2
Exposure				1									1
Total	129	120	105	99	93	66	49	63	86	89	84	98	1081

Population (estimated)..... 90,000
 Death rate per thousand..... 12.01

Diseases Dangerous to the Public Health.

This board has adjudged that the diseases known as actinomycosis, anterior poliomyelitis, anthrax, Asiatic cholera, cerebro-spinal meningitis, chicken-pox, diphtheria, dog-bite (requiring anti-rabic treatment), dysentery, German measles, glanders, hookworm disease, infectious disease of the eye, leprosy, malaria, measles, mumps, pellagra, plague, rabies, scarlet fever, septic sore throat, smallpox, tetanus, trichinosis, tuberculosis (all forms), typhoid fever, typhus fever, whooping cough, yellow fever, are infectious, or contagious and dangerous to the public health and safety within the meaning of the statutes. Physicians are required to report immediately to the board every case of either of these diseases coming under their care, and postal cards conveniently printed and addressed are supplied to them for the purpose. On receipt of a card from a physician, the superintendent of schools, the principal of the school in the district in which the patient resides, the librarian of the public library and state board of health are notified.

Scarlet Fever.—One hundred nineteen cases of scarlet fever have been reported during the year, two of which resulted fatally. In 1915 there were 313 cases, four of which resulted fatally.

Diphtheria.—One hundred fifty-nine cases of diphtheria have been reported during the year, twenty-one of which were fatal. In 1915 there were 237 cases, eighteen of which proved fatal. Anti-toxin has been provided by the state board of health, and placed by this board in central locations for use by physicians. Culture tubes, for diphtheria, and sputum bottles for suspected tuberculosis are obtainable at the same stations.

Warning cards are used in dealing with scarlet fever and diphtheria. An inspection is made by the agent of the board of the premises where diphtheria is reported, and all sanitary defects discovered are required to be remedied as soon as possible.

Tuberculosis.—One hundred sixty-six cases of pulmonary tuberculosis have been reported during the year with eighty-six deaths, and twenty-one cases of other forms of tuberculosis with twenty-two deaths during the year.

Typhoid Fever.—Sixteen cases of typhoid fever have been reported during the year, one of which has proved fatal. In 1915 there were thirty-one cases reported, eleven of which were fatal.

Number of persons with diphtheria or scarlet fever taken in ambulance to hospital by agent	142
Number of cases of scarlet fever and diphtheria for which houses were placarded	136

TABLES.

The prevalence of scarlet fever, diphtheria, and typhoid fever in the city during the several months of the year 1916 is shown by the following table, and in the table next following is given the number of deaths from these three diseases, by months, during the last ten years:—

Scarlet Fever, Diphtheria and Typhoid Fever Reported in 1916.

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 . . .	19	0	....	11	3	27.1	1	....	....
February . . .	18	0	....	11	3	27.1	....	....	....
March . . .	24	1	4.1	12	4	33.3	2	1	50.0
April . . .	14	0	....	14	1	7.1	....	....	....
May . . .	10	0	....	23	2	8.7	....	....	....
June . . .	10	0	....	9	1	11.1	1	....	....
July . . .	8	0	....	4	....	....	....	....	....
August . . .	1	0	....	3	....	....	7	....	....
September . . .	3	1	33.3	14	1	7.1	1	....	....
October . . .	3	0	....	14	1	7.1	2	....	....
November . . .	1	0	....	15	3	20.0	1	....	....
December . . .	8	0	....	29	2	6.9	1	....	....
Total . . .	119	2	1.7	159	21	13.2	16	1	6.2

Deaths from Scarlet Fever, Diphtheria and Typhoid Fever in the Last Ten Years.

MONTHS.	SCARLET FEVER										DIPHThERIA.										TYPHOID FEVER.									
	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
January . . .	3	2	1	1	1	1	1	1	1	1	1	4	5	1	1	1	1	4	3	3	1	1	1	1	1	1	1	1	1	1
February . . .	2	1	1	1	1	1	1	1	1	4	3	4	1	4	2	1	3	2	1	3	1	1	1	1	1	1	1	1	1	1
March . . .	1	3	1	1	1	1	1	1	1	2	2	2	2	1	1	3	3	2	4	4	1	1	1	1	1	1	1	2	1	1
April . . .	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
May . . .	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	4	2	2	2	2	2	1	1	1	1	1	1	1	1	
June . . .	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
July . . .	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
August . . .	2	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	3	1	1	1	1	1	1	1	2	2	1	1	1	
September . . .	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1	
October . . .	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	3	1	4	1	4	1	1	1	1	1	2	1	
November . . .	1	1	1	1	1	1	1	1	1	1	2	1	1	1	4	3	5	3	3	3	1	2	1	1	1	1	1	2	1	
December . . .	2	2	2	2	2	2	2	2	2	4	2	3	1	3	3	1	4	2	2	1	1	1	1	1	1	1	2	1	1	
Total . . .	12	4	9	5	3	2	4	11	4	9	11	27	20	15	14	13	25	18	21	11	9	8	6	6	4	6	6	11	1	

Table of Deaths During the Last Ten Years.

Year.	No. of Deaths.	Rate per 1,000
1907	997	13.47
1908	903	11.96
1909	988	13.08
1910	1,043	13.45
1911	1,035	12.93
1912	983	12.13
1913	993	12.11
1914	990	11.65
1915	1,003	11.55
1916	1,081	12.01
Average death rate per 1,000 for ten years		12.43

Table Showing the Five Principal Causes of Death in Somerville in 1916.

PNEUMONIA.		TUBERCULOSIS. ALL FORMS.		HEART DISEASE.		CANCER.		ARTERIO SCLEROSIS.	
Number of Deaths.	Number per 10,000 of Pop.	Number of Deaths.	Number per 10,000 of Pop.	Number of Deaths.	Number per 10,000 of Pop.	Number of Deaths.	Number per 10,000 of Pop.	Number of Deaths.	Number per 10,000 of Pop.
161	17.9	108	12.0	107	11.9	87	9.6	87	9.6

Medical Inspection of Schools.

The medical inspection of the schools of Somerville, which was instituted in December, 1907, has been continued during the year. The value of the system has been constantly demonstrated, and the work has been done in a very satisfactory manner. There has been harmony of action between the board of health and the school board, and the school principals and teachers have very generally co-operated with the inspectors in making the system as successful as possible.

The inspectors make daily visits to the schools under their charge, and to them are referred all children who show evidences of disease or abnormal conditions. Children who are found to be unfit to remain in school are sent home, accompanied by a slip properly filled out advising that the family physician be consulted. The inspectors also make an annual inspection of all the children in the schools, and any defects discovered are called to the attention of the parents. Monthly inspections of the school buildings and premises are made, and suggestions or criticisms are referred to the proper authorities. Every effort is made to protect the health of the chil-

dren and to co-operate with the parents in keeping the children in as normal a condition as possible.

It is extremely desirable that one or more additional school nurses should be employed to supplement and make more effective the work of the inspectors, and it is to be hoped that funds will be available to carry out this project. One nurse has been employed since September, 1913.

In accordance with the provisions of the statute, tests of sight and hearing are made by the principals or teachers.

During the year, 8,068 children have been referred to the inspectors during their daily visits, and 465 have been sent home because of illness.

The following list will show the classes of diseases and defects which have been found in the schools, except defects of sight and hearing:—

List of Diseases and Number of Cases Reported.

1. Infectious diseases:—

Measles	14
Whooping cough	42
Chicken pox	31
Mumps	137
Scarlet fever	2
Total	226

2. Diseases of the nose and throat:—

Enlarged tonsils and adenoids	499
Inflammatory diseases	260
Other abnormal conditions	18
Total	777

3. Diseases of the eyes:—

Inflammatory conditions of the eyes and lids	33
Foreign bodies and injuries	3
Other abnormal conditions	54
Total	90

4. Diseases of the ears:—

Inflammatory conditions	16
Other abnormal conditions	24
Total	40

5. Diseases of the skin:—

Pediculosis	534
Impetigo	71
Scabies	17
Eczema	56
Tinea	2
Herpes	23
Miscellaneous conditions	164
Total	867

6. Miscellaneous diseases:—

Constitutional diseases	97
Diseases of the digestive system	32
Diseases of the respiratory system	191
Diseases of the circulatory system	5
Diseases of the lymphatic system	2
Diseases of the nervous system	25
Diseases of the urinary system	5
Wounds and injuries	18
Diseases of teeth	137
Other conditions	873
<hr/>	
Total	1,385
Total number of diseases reported	3,385
Vaccinations performed	141
Examinations for vaccinations	1,100

The districts and inspectors are as follows:—

District No. 1.—Prescott, Hanscom, Davis, Edgerly and Boys' Vocational schools. Inspector, Dr. Francis Shaw, 57 Cross street.

District No. 2.—Baxter, Knapp, Perry and Bell schools. Inspector, Dr. Edward J. Dailey, 46 Bow street.

District No. 3.—Bennett, Pope, Cummings, and Proctor schools. Inspector, Dr. L. H. Raymond, 146 Highland avenue.

District No. 4.—Morse, Carr, Durell, Burns and Girls' Vocational schools. Inspector, Dr. W. L. Bond, 322 Highland avenue.

District No. 5.—Brown, Bingham, and Forster schools. Inspector, Dr. H. M. Stoodley, 283 Highland avenue.

District No. 6.—Lincoln, Hodgkins, Highland, Cutler, and Lowe schools. Inspector, Dr. H. Cholerton, 94 College avenue.

District No. 7.—Glines and High schools. Inspector, Dr. Edgar F. Sewall, 281 Broadway.

Parochial Schools.—Inspector, Dr. M. W. White, 21 Walnut street.

Bacteriological Department.

The work of this department was performed by Frank L. Morse, M. D., medical inspector of the board, whose report is appended to this report.

Specimens will be received at the laboratory at the city hall annex daily, including Sunday, at any time, and they will be examined and reported upon the morning following their reception.

Specimens and Anti-toxin.

Outfits for specimens to be examined for tuberculosis, diphtheria, and typhoid fever, and diphtheria anti-toxin, vac-

cine lymph and nitrate of silver solution may be obtained at the laboratory and at the following places:—

Edward Edwards, 25 Union square.

Willis S. Furbush & Co., 1153 Broadway.

Hall Drug Co., Hobbs building, Davis square.

Ernest B. McClure, 529 Medford street.

John Morrison, 288 Highland avenue.

Richardson Pharmacy, 310 Broadway.

George E. Wardrobe, 693 Broadway.

After the specimen is collected, it must be taken to the culture station or sent directly to the laboratory at the city hall annex.

Undertakers.

Under the provisions of Section 44 of Chapter 78 of the Revised Laws of 1902, twenty-one persons have been duly licensed as undertakers.

Examination of Plumbers.

The public statutes provide for a board of examiners of plumbers, consisting of a chairman of the board of health, the inspector of buildings, and an expert at plumbing, to be appointed by the board of health. This board appointed Duncan C. Greene, the inspector of plumbing, to fill the place of expert. The number of licenses granted will be found in the report of the inspector of buildings.

Agent of Board.

On October 21, 1916, Mr. Caleb A. Page, after twenty-eight years of service, severed his connection with this board by resignation. This board desires to express its sincere appreciation of his faithful, conscientious and valuable service rendered to the city. Major George I. Canfield was appointed his successor and assumed his duties October 23, 1916.

FINANCIAL STATEMENT FOR 1916.

Health Department.

CREDIT.

Appropriation	\$11,350 00
Transferred from Contagious Hospital	447 21
	<hr/>
Total credit	\$11,797 21

DEBIT.

Salaries	\$5,454 27
Books, printing, etc.	254 01
Telephones	193 35
Care of tuberculosis in other hospitals	3,553 40
Care of other diseases	1,106 21
Maintenance of vehicles	888 31
Other expenses	347 66
	<hr/>
Total debit	\$11,797 21

Contagious Hospital.

CREDIT.	
Appropriation	\$20,575 00
Received from Poor Department	130 72
Received from refunds	93
	<hr/>
	\$20,706 65
Amounts transferred:—	
Health Department	\$447 21
Sanitary Department	200 00
Support of Poor, miscellaneous	1,727 91
	<hr/>
	2,375 12
Net credit	<hr/> \$18,331 53

DEBIT.	
Salaries and wages	\$8,845 84
Groceries and provisions	7,148 52
General supplies	1,458 10
Other expenses	367 87
	<hr/>
Total debit	17,820 33
Balance unexpended	<hr/> \$511 20

Inspection of Animals and Provisions.

CREDIT.	
Appropriation	\$1,350 00
DEBIT.	
Salary	\$1,300 00
Expenses	26 38
	<hr/>
Total debit	\$1,326 38
Balance unexpended	<hr/> \$23 62

Inspection of Milk and Vinegar.

CREDIT.	
Appropriation	\$3,125 00
Transferred to inspection of school children	2 65
Net credit	<hr/> \$3,122 35
DEBIT.	
Salaries	\$2,222 86
Maintenance of laboratory	254 55
Maintenance of automobile	475 86
Telephone	29 91
Printing, stationery and postage	92 20
Other expenses	45 46
	<hr/>
Total debit	\$3,120 84
Balance unexpended	<hr/> \$1 51

Inspection of School Children.

CREDIT.

Appropriation	\$2,430 00
Transferred from inspection of milk and vinegar	2 65
	<hr/>
Total credit	\$2,432 65

DEBIT.

Salaries	\$2,380 00
Other expenses	52 65
	<hr/>
Total debit	<u>\$2,432 65</u>

JACKSON CALDWELL, Chairman,
 RALPH F. HODGDON, M. D.,
 R. M. LAVENDER,
 Board of Health.

Attest:

LAURENCE S. HOWARD, Clerk.

REPORT OF THE MEDICAL INSPECTOR.

Somerville, January 1, 1917.

To the Board of Health of the City of Somerville:—

Gentlemen,—I herewith present the report of the medical inspector for the year 1916, including the statistics of the contagious disease hospital and the bacteriological laboratory.

Scarlet Fever. During the year 119 cases of this disease were reported in the city, a decrease of 194 in number from the previous year. Each case has been inspected before release from quarantine and 100 visits were made at residences to determine when desquamation was complete.

Diphtheria. During the year 159 cases of diphtheria were reported in the city, a decrease of 78 in number from the previous year. Before patients are released from quarantine two successive negative cultures must be obtained, and during the year 152 visits were made at houses for this purpose.

Typhoid Fever. During the year sixteen cases of this disease were reported, a decrease of fifteen cases from the previous year.

Tuberculosis. During the year 166 cases of this disease were reported, an increase of twenty-five cases over the previous year.

Ophthalmia Neonatorum. During the year forty cases of this disease were reported, a decrease of three cases from the previous year. An investigation was made of all these patients.

Infantile Paralysis. During the year there were forty-eight cases of this disease with nine deaths. All of these cases were quarantined under the same restrictions as scarlet fever or diphtheria, but there is no evidence to show that these measures in any way prevented the spread of the disease.

Contagious Disease Hospital.

During the year 373 visits were made at the hospital.

Scarlet Fever. During the year forty-nine cases were admitted, two of which proved fatal. The average stay in the hospital was thirty-five days.

Diphtheria. During the year 115 cases were admitted, eighteen of which proved fatal. The average stay in the hospital was sixteen days.

Tuberculosis. During the year seventy-six cases were admitted, thirty-one of which proved fatal. The average stay in the hospital was seventy-five days.

Other Diseases. Two cases of measles were admitted, six cases of erysipelas, one of tooth abscess, and nine cases of infantile paralysis, four of which were fatal.

The daily average of patients was 10.57 in the contagious department and 15.76 in the tuberculosis department, a total of 26.33.

Bacteriological Department.

During the year 815 examinations were made of diphtheria cultures, 260 examinations of sputum, and eighty-one examinations of blood for typhoid fever.

Respectfully submitted,

FRANK L. MORSE,

Medical Inspector.

REPORT OF INSPECTOR OF ANIMALS AND PROVISIONS.

Somerville, Mass., January 1, 1917.

To the Board of Health, Somerville, Mass.:—

Gentlemen,—Following is the report of the inspector of animals and provisions, including tables showing the amount of work accomplished.

Articles Condemned.

Meats.

Hamburg steak, 121 pounds; tripe, 33 pounds; liver, 142 pounds; pigs' feet, 1 keg; common sausage, 65 pounds; fresh pork, 116 pounds; poultry, 369 pounds; veal, 274 pounds; lamb, 292 pounds; corned beef, 267 pounds; fresh beef, 412 pounds; whole swine, 16.

One man fined thirty dollars for selling meat unfit for food.

Fish.

Salt fish, 17 pounds; haddock, 219 pounds; halibut, 143 pounds; pollock, 87 pounds; salmon, 51 pounds; fresh herring, 212 pounds; (whole) fresh mackerel, 182; clams in shell, 1½ bushel; clams, 37 quarts; oysters, 5 gallons.

Fruit.

Plums, 19 baskets; oranges, 11 boxes; lemons, 2½ boxes; strawberries, 393 quarts; blackberries, 45 quarts; raspberries, 184 cups; grape fruit, 6 boxes; grapes, 41 baskets; bananas, 134 dozen; cantaloupe melons, 11 crates; peaches, 47 baskets; apples, 16 bushels; pears, 9 bushels.

Vegetables.

Cauliflower, 51 heads; rhubarb, 11 boxes; yellow turnips, 5 barrels; asparagus, 33 bunches; squash, 9 barrels; sweet potatoes, 5 baskets; common potatoes, 29 bushels; greens, 19 bushels; lettuce, 17 dozen; green corn, 7 bushels; cucumbers, 2 bushels; cabbage, 3½ barrels; onions, 4 barrels; tomatoes, 14 baskets; green beans, 6 bushels.

Groceries.

Macaroni, 267 boxes; flour, 1,900 pounds; salt, 300 pounds.

Eggs.

Eggs, 81 dozen.

Inspected for 1916.

The following table shows the number of inspections made on slaughter houses, markets, grocery stores and street pedlers, over which there is a constant supervision to safeguard the consumer.

Retail pedlers and hawkers	1,853
Retail fish markets	867
Retail markets and stores	4,924
Wholesale market and packing	187

Slaughter House Inspection.

During the year weekly inspections have been made at all slaughtering establishments. Inspections have also been made of all animals for infectious disease. The slaughtering

REPORT OF THE INSPECTOR OF MILK AND VINEGAR.

LABORATORY OF INSPECTOR OF MILK AND VINEGAR. }
 City Hall Annex, Somerville, Mass., January 1, 1917. }

To the Board of Health of the City of Somerville:—

Gentlemen,—I herewith present my annual report for the year ending December 31, 1916.

On the above date there were in this city licensed to sell milk, four hundred ninety-six stores and sixty-nine pedlers, and twenty-six stores to sell oleomargarine.

Of the sixty-nine pedlers thirty-seven are located in this city and thirty-two in the neighboring cities and towns.

There are approximately 6,000 gallons of milk distributed in Somerville daily, and thirty-two dealers selling pasteurized milk supply over eighty per cent. of this amount.

Table 1.

Months.	Licenses Issued.	License Fees.	Analytical Fees.	Cash paid City Treas.	Analyses on Account.	Total Income for Dept.
January	12	\$6.00	\$2.00	\$8.00	\$18.50	\$26.50
February	9	4.50	1.50	6.00	43.00	49.00
March	17	8.50	. . . .	8.50	18.50	27.00
April	63	31.50	13.50	45.00	41.50	86.50
May	397	198.50	2.50	201.00	23.50	224.50
June	35	17.50	2.50	20.00	36.50	56.50
July	20	10.00	. . . .	10.00	19.00	29.00
August	8	4.00	. . . .	4.00	60.50	64.50
September	8	4.00	8.50	12.50	12.00	24.50
October	9	4.50	2.00	6.50	16.50	23.00
November	8	4.00	3.00	7.00	10.00	17.00
December.	5	2.50	1.00	3.50	19.00	22.50
Total	591	\$295.50	\$36.50	\$332.00	\$318.50	*\$650.50

*In addition to above fines imposed amounted to \$515.00 and two cases continued for sentence.

Table 2.
Samples of Milk, Cream, Ice Cream and Vinegar Examined.

Months.	Chemical Samples Collected.	Bact. Collections.	Lorenz Tests.	Total Collections.	Samples left at Office.	Total Examinations.
January	198	98	17	313	35	348
February	148	88	8	244	82	326
March	162	64	16	242	35	277
April	166	80	27	273	73	346
May	243	40	84	367	45	412
June	127	70	111	308	57	365
July	197	87	22	306	22	328
August	272	103	25	400	103	503
September	186	120	...	306	34	340
October	197	80	150	427	25	452
November	189	112	178	479	26	505
December	215	88	84	387	35	422
Total	2,300	1,030	722	4,052	572	4,624

Table 3.

Months.	Chem. Notices.	Bact. Notices.	Sanitary Notices.	Total Notices.	Inspections.	Infected Samples.
January	5	13	15	33	60	0
February	5	15	6	26	42	0
March	4	1	12	17	35	0
April	32	16	24	72	40	0
May	46	12	47	105	155	0
June	19	14	29	62	76	0
July	32	26	8	66	43	0
August	37	31	9	77	141	0
September	17	29	11	57	118	0
October	8	6	32	46	22	0
November	12	7	89	108	83	0
December	10	2	8	20	40	0
Total	227	172	290	689	855	0

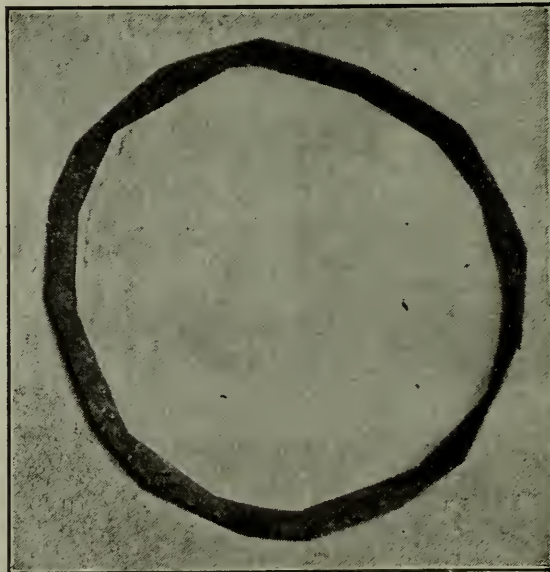
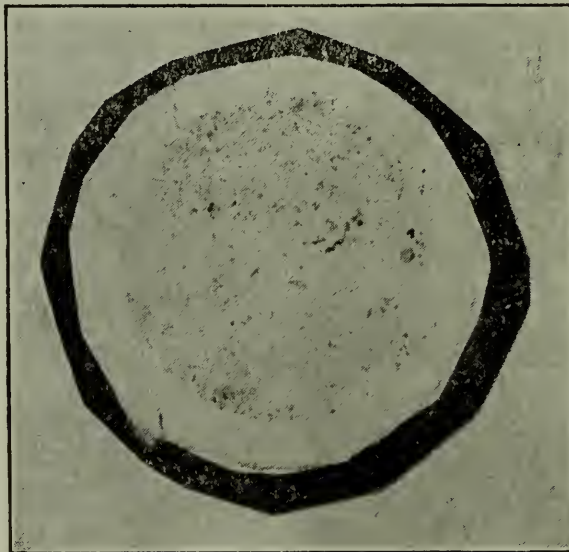
City Inspection.

The department work in the city proper covers the supervision of milk at the receiving stations, the taking of temperatures, examination of utensils and wagons, examination of milk from dairies for visible dirt and bacteriological

standard, inspection of milk plants and stores and the taking of samples of milk at railroad stations, teams, stores, lunch rooms and hotels.

Laboratory work consists of the analysis of milk, cream, butter, ice cream and vinegar, chemically and bacteriologically, with the exception of butter and vinegar (which are not examined for bacteria).

Milk dealers are urged to see that the bottles distributed by them are free from particles of dirt which settle to the bottom of the bottle, and consumers are requested to notify this department when any such conditions are noticed. The following cuts show the condition of a cotton disc after a pint of milk has been strained through it.



It is needless to elaborate further as these cottons tell their own story. Dealers are further urged to see that their producers ship only clean milk to them.

During this year the Boston and Maine Railroad has built at the East Somerville yards a receiving station for the milk cars coming to Greater Boston. These cars are known as the open cars, that is, cars in which any producer may ship milk. This was done to comply with the ruling of the Interstate Commerce Commission.

Somerville is now the largest receiving centre for milk in New England, about forty cars arriving daily, bringing in 312,375 quarts of milk to forty (40) dealers.

There were twenty-seven court cases during 1916.

Prosecutions in court were as follows:—

Twenty-three for milk below standard.

One for tasting milk contrary to law.

Three for watered milk.

Six cases were appealed and two cases were placed on probation. Fines to the amount of five hundred and fifteen dollars were imposed.

I desire to express my appreciation of the very efficient assistance rendered this department by the city solicitor, as convictions were obtained in each instance.

Table 4.

	1912	1913	1914	1915	1916
MILK INSPECTION—CITY.					
Samples of milk and cream, ice cream and vinegar for chemical analysis	1,001	876	787	3,008	4,624
Number found below grade	146	106	70	374	399
Samples of milk and cream for bacteriological analysis	740	820	752	1,143	1,030
Number found above 500,000 bacteria per C. C.	102	66	58	47	172
Temperatures of milk and cream taken	1,500	1,690	1,599	2,006	1,775
INSPECTIONS.					
Number of stores and depots handling milk	559	480	517	610	591
Number of inspections made	1,002	753	1,004	1,227	855
Number of re-inspections made	120	687	190	162	101
Number found contrary to regulations on 2d insp.	118	98	25	....	2*
Average number of inspections per store, including re-inspections . . . . .	....	3	2.35	....	....
LICENSES.					
Number of licenses for wagons issued	98	78	72	69	69
Number of licenses for stores issued (milk)	461	480	517	528	496
Number of licenses refused	2	2	0	2	....
Number of licenses revoked	1	0	0	0	....
Number of licenses for stores issued (oleomargarine) . . . . .	....	....	....	....	26
LEGAL CASES.					
Suits instituted	9	7	11	17	27
Convictions	8	6	11	16	27
Pending	0	0	2	1	....
Fines imposed	\$100	\$62	\$105	\$205	\$515†
MISCELLANEOUS MILK DATA.					
Total daily supply (gals.)	6,000	6,200	5,665	6,250	9,000
Per cent. of milk pasteurized	44	56	60	80	82
Average price of milk, winter	9	9	9	9	10
Average price of milk, summer	8	8	8	8	10
Letters or orders sent. (See sanitary notices.) . . . . .	....	....	....	....	....
Total daily cream supply (gals.) . . . . .	....	....	420	450	560

* This work has been taken over by the Sanitary Inspectors.

† Two defendants were placed on probation for 6 months.

Table 5.—Infantile Mortality.

Year.	Births.	Deaths under 1 year, all causes.	Deaths under 1 year, enteric diseases.	Enteric Death Rate per 10,000 population under 1 year.	Population.
1912.....	1839	142	45	5.84	77,000
1913.....	1861	166	45	5.48	82,000
1914.....	1992	147	33	3.92	84,000
1915.....	1898	142	25	2.90	86,000
1916.....	Birth returns incomplete	....	23	2.58	89,000

For several years I have tried to impress upon all concerned the desirability of pasteurizing *all* the milk offered for sale in Somerville.

I believe pasteurization is an absolute necessity and that every large city should have the necessary authority to enforce pasteurization in its entire supply. Table five is one of the most eloquent arguments for pasteurization that can possibly be presented, showing, as it does, the steady decrease in mortality of children under one year of age.

Note should be made of the fact that the population and amount of milk consumed has steadily increased.

I should like to recommend at this time that the Somerville Board of Health support some legislation having as its object the enforcing of pasteurization in the larger cities and the control of the process by the local authorities.

New Legislation.

Chapter 744 of the Acts of 1914 was amended by Chapter 228 of the Acts of 1916, to include the inspection of the milk as well as the premises, as follows:—

Chapter 228.

Acts 1916.

It shall be unlawful for any producer of milk or dealer in milk to sell or deliver for sale in any city or town in the commonwealth any milk produced or dealt in by him without first obtaining from the Board of Health of such city or town a permit authorizing such sale or delivery. Said Boards of Health are hereby authorized to issue such permits after an inspection, satisfactory to them, of the milk and of the place in which and of the circumstances under which

such milk is produced and handled, has been made by them or by their authorized agent. Any permit so granted may contain such reasonable conditions as said board may think suitable for protecting the public health and may be revoked for failure to comply with any of such conditions. No charge shall be made to the producer for said permit or for said inspection.

Chapter 134 of the Acts of 1916 extends the duties of collectors and inspectors of milk as follows:—

Chapter 134.

Acts 1916.

Inspectors of milk and collectors of milk samples shall have authority to take samples from milk, intended for sale in their respective cities or towns, wherever, within the commonwealth, such milk is produced, stored or transported, but this act shall not be construed to permit of any interference by such inspectors or collectors with milk in the course of interstate commerce.

Country Inspection.

There are at present about four hundred dairies, sending milk to this city, who have a permit in accordance with Chapter 744, Acts of 1914, as amended by Chapter 228, Acts of 1916. Four producers were prosecuted for selling watered milk and each paid a fine of fifty dollars.

I wish to advise producers of milk to have their milk tested for butter fat. I mean by this, to have each cow tested separately.

Many cows do not pay for their keep and the earlier this fact is discovered the better for the producer. All producers are urged to weigh the milk from each cow at each milking. It only takes a moment and it is of the greatest importance if milk is to be produced at a profit.

I wish to express my appreciation to my co-workers in the board of health for the assistance they have rendered this department during the past year, and to remind the citizens of Somerville that the department is at their service at all times upon any matter with which we can consistently deal.

Respectfully submitted,

HERBERT E. BOWMAN,

Inspector of Milk and Vinegar.

SUPPORT OF POOR DEPARTMENT.

Board of Overseers of the Poor.

HENRY F. CURTIS, M. D., President.
ALBERT W. EDMANDS, Vice-President.
PHILIP KOEN.
MICHAEL COLL.

Committees.

ON FINANCE, INVESTIGATION AND RELIEF, AND CITY HOME—Dr. Curtis,
Mr. Edmands, Mr. Koen and Mr. Coll.

Secretary.

CORA F. LEWIS.

Clerk.

JEANNETTE M. HUTCHINS.

General Agent.

CHARLES C. FOLSOM.

City Physician.

C. CLARKE TOWLE, M. D.

Warden and Matron, City Home.

MR. AND MRS. J. FOSTER COLQUHOUN.

Office.

City Hall Annex, Highland Avenue.

REPORT OF OVERSEERS OF THE POOR.

Somerville, Mass., December 31, 1916.

To His Honor, the Mayor, and the Board of Aldermen of the City of Somerville:—

Gentlemen,—The reports of the general agent and the warden of the City Home, with tables showing the work, are herewith submitted. Philip Koen, a valued member of the board for some years, resigned late in the fall, owing to his removal from the city, and the Mayor appointed in his place Michael Coll, otherwise the members of the board, agent, clerks and warden and matron of the City Home remain the same as last year. Our Home Hospital has been well patronized and is nearly full at the present time. We were somewhat handicapped at the beginning of the year at the City Farm owing to the wet weather, and later by scarcity of farm labor, but the good prices helped out so that the revenue from the Home and Farm amounted to \$5,491.74, only about \$100 less than last year. We now have forty-three inmates in the Home. We have had during the year eighty-four. We are aiding at the present time under the Mother's Aid Law, fifty-four families, containing 287 children; the amount given is from \$3.00 to \$11.00 per week, according to the number of children and the conditions. We are paying out under this law about \$1,500 per month in cash, besides groceries and fuel. The friendly law suit between Somerville and the Commonwealth referred to a year ago in our report has been decided in the Supreme Court of the State in favor of Somerville. The total collections for the department were \$27,581.18; the total expenditures for the department were \$63,353.03; the net cost to the city for charity during the year was \$35,771.85.

Respectfully submitted,

HENRY F. CURTIS,	} Overseers of the Poor.
A. W. EDMANDS,	
MICHAEL COLL,	

REPORT OF THE GENERAL AGENT.

Somerville, Mass., December 31, 1916.

To the Overseers of the Poor, Somerville, Mass.:—

Gentlemen,—The following is a brief report of the work of the department for the year 1916. There has been quite a falling off in the number of families and persons aided during 1916 from that of the year previous, owing I suppose to the fact that business has been good and work opportunities plenty. Very few families have been aided where there was a man at home. The Mother's Aid cases continue to influence larger amounts in other cases. I wish to thank the members of the board and all connected with the department for their universal courtesy and help during the year. Tables showing our work are herewith submitted.

Sincerely,

C. C. FOLSOM,
General Agent.

Table No. 1.**FULL SUPPORT (During the year).**

In city home (men 53, women 31)	84
In city home December 31, 1916	43
In private families	16
In hospitals for the sick in other towns, cities and state	77
In care of state division minor wards (children)	10

Table No. 2.**PARTIAL SUPPORT (Outside Relief).**

Families	350
Persons aided (including hospital cases)	1,672
Burials	15
Permits to state infirmary	25
Average expense to the city for each (carriage for 8)	\$1 89

Table No. 3.**AID UNDER 1913 LAW.**

Number of applications from widows or deserted women	77
Number of families aided at close of year	54
Number of children	287
Amount earned by mothers and children over fourteen, each week	\$216 00
Amount allowed each family, from \$3.00 to \$11.00 per week	
Number of out of town families	8
Number having no settlement	16

Table No. 4.

REIMBURSEMENTS.

Commonwealth of Massachusetts	\$9,981 97
City of Boston	3,821 36
“ “ Brockton	280 23
“ “ Cambridge	4,571 78
“ “ Chelsea	48 93
“ “ Everett	411 65
“ “ Gloucester	10 00
“ “ Haverhill	20 00
“ “ Lawrence	69 00
“ “ Lowell	136 67
“ “ Lynn	31 43
“ “ Malden	22 85
“ “ Medford	167 22
“ “ New Bedford	107 40
“ “ Newton	134 45
“ “ Salem	11 43
“ “ Springfield	15 33
“ “ Woburn	162 56
“ “ Worcester	124 29
Town of Amherst	211 33
“ “ Arlington	173 34
“ “ Burlington	78 41
“ “ Concord	68 38
“ “ Duxbury	138 66
“ “ Easton	18 45
“ “ Framingham	262 60
“ “ Lancaster	7 73
“ “ Marshfield	118 00
“ “ Medfield	8 00
“ “ Northboro	31 66
“ “ Peabody	365 16
“ “ Sandwich	12 00
“ “ Saugus	34 00
“ “ Sterling	6 00
“ “ Stoneham	18 00
“ “ Wakefield	93 17
“ “ Whitman	283 10
“ “ Winchendon	7 14
Individuals	47 19
	<hr/>
	\$22,110 87

Table No. 5.

SOMERVILLE HOSPITAL (PATIENTS ON CITY BEDS).

Patients having settlement in Somerville	133
Patients having settlement in other cities or towns	57
Patients having no settlement (chargeable to state)	71
Total number of patients sent to hospital	261
Money paid hospital by the city for patients settled in Somerville	\$7,000 00
Amount reimbursed to the city and paid to the hospital for patients not settled in Somerville	2,272 08
	<hr/>
Total paid to the hospital , , , , ,	\$9,272 08

Table No. 6.

POPULATION AND GROSS EXPENDITURES, 1883 TO 1916, INCLUSIVE.

Year.	Population (Estimated).	Expenditures.
1883 . . .	27,000 . . .	\$15,959.80
1884 . . .	28,000 . . .	17,272.52
1885 . . .	*29,992 . . .	16,430.32
1886 . . .	32,000 . . .	14,341.83
1887 . . .	34,000 . . .	13,430.89
1888 . . .	36,000 . . .	13,375.98
1889 . . .	39,000 . . .	14,610.92
1890 . . .	*40,117 . . .	15,261.14
1891 . . .	43,000 . . .	15,980.49
1892 . . .	46,000 . . .	17,015.30
1893 . . .	48,000 . . .	17,799.58
1894 . . .	50,000 . . .	19,733.13
1895 . . .	*52,200 . . .	20,755.46
1896 . . .	54,000 . . .	21,999.79
1897 . . .	56,000 . . .	25,681.47
1898 . . .	57,500 . . .	28,522.21
1899 . . .	60,000 . . .	28,924.39
1900 . . .	*61,643	{ Miscellaneous, \$23,697.62 } 29,226.45
		{ City Home, 5,528.83 }
1901 . . .	62,500	{ Miscellaneous, \$29,171.15 } 35,793.58
		{ City Home, 6,622.43 }
1902 . . .	63,500	{ Miscellaneous, \$28,667.04 } 36,063.68
		{ City Home, 7,396.64 }
1903 . . .	65,500	{ Miscellaneous, \$30,470.20 } 38,018.59
		{ City Home, 7,548.39 }
1904 . . .	69,500	{ Miscellaneous, \$20,476.54 } 27,039.65
		{ City Home, 6,563.11 }
1905 . . .	*69,272	{ Miscellaneous, \$17,527.88 } 25,002.24
		{ City Home, 7,474.36 }
1906 . . .	72,000	{ Miscellaneous, \$18,237.53 } 25,044.32
		{ City Home, 6,806.79 }
1907 . . .	74,000	{ Miscellaneous, \$17,852.20 } 24,853.43
		{ City Home, 7,001.23 }
1908 . . .	75,500	{ Miscellaneous, \$17,955.34 } 24,830.90
		{ City Home, 6,875.56 }
1909 . . .	75,500	{ Miscellaneous, \$16,843.17 } 24,406.00
		{ City Home, 7,562.83 }
1910 . . .	*77,236	{ Miscellaneous, \$16,110.42 } 23,806.31
		{ City Home, 7,695.89 }
1911 . . .	78,000	{ Miscellaneous, \$16,327.56 } 24,169.59
		{ City Home, 7,842.03 }
1912 . . .	81,000	{ Miscellaneous, \$19,201.33 } 28,200.30
		{ City Home, 8,998.97 }
1913 . . .	82,000	{ Miscellaneous, \$21,827.73 } 32,773.68
		{ City Home, 10,945.95 }
1914 . . .	85,000	{ Miscellaneous, \$35,619.68 } 46,819.93
		{ City Home, 11,200.25 }
1915 . . .	88,000	{ Miscellaneous, \$45,490.98 } 56,709.63
		{ City Home, 11,218.65 }
1916 . . .	90,000	{ Miscellaneous, \$51,759.62 } 63,353.03
		{ City Home, 11,593.41 }

*Census,

Table No. 7.

EXPENDITURES, IN DETAIL, FOR THE YEAR 1916.

1916.	Cash Allowance.	Med. Att. and Medicine.	Board.	Groceries.	Somerville Poor in Other Cities and Towns.	Dry Goods and Shoes.	Burials.	Salaries.	Fuel.	Sundries.	Cash Paid Out.	Telephone.	Stationery and Printing.	Somerville Hospital.	State Institutions.	Other Institutions.	Nursing.	Somerville Poor in other Cities and Towns 1913 Law.	Total.
January . .	\$16.07	\$84.45	\$156.36	\$1,740.00	\$299.86	\$10.50	\$30.00	\$383.32	\$307.62	\$8.40	\$1,861.20	\$ 8.83	\$58.51	\$150.00	\$92.80	\$20.00	\$15.00	\$171.99	\$5,414.91
February . .	15.35	7.41	89.08	1,255.46	1,899.06	. . .	121.00	383.32	239.34	3.00	1,243.42	18.95	24.52	150.00	. . .	. . .	. . .	13.33	5,463.24
March . . .	16.07	15.94	237.21	1,412.00	1,864.16	. . .	30.00	383.32	233.08	16.00	1,348.30	9.20	. . .	150.00	. . .	. . .	8.75	. . .	5,724.03
April	15.72	9.24	141.30	1,319.00	113.12	. . .	26.00	383.32	9.85	10.00	1,258.08	9.43	. . .	150.00	202.50	. . .	2.75	. . .	3,650.31
May	16.07	57.61	118.57	1,152.00	43.50	5.00	55.00	383.32	. . .	7.92	1,359.55	9.36	2.69	150.00	. . .	. . .	4.00	86.67	3,451.26
June	15.72	. . .	221.73	1,026.00	. . .	. . .	. . .	383.32	. . .	. . .	1,412.86	. . .	7.41	150.00	. . .	30.00	6.00	686.65	3,939.69
July	16.07	9.92	173.43	1,212.00	147.17	. . .	. . .	383.32	. . .	2.75	1,392.68	18.13	8.53	150.00	248.60	69.71	11.75	. . .	3,844.06
August . .	16.07	. . .	99.42	976.00	1,655.59	. . .	36.00	383.32	. . .	19.95	1,383.80	9.26	35.28	150.00	. . .	10.00	18.75	. . .	4,793.44
September	27.72	. . .	345.23	860.00	55.35	. . .	. . .	383.32	. . .	1.00	1,462.25	7.16	12.73	150.00	. . .	62.57	11.00	88.00	3,466.33
October . .	36.64	21.15	160.96	873.00	371.48	. . .	28.00	443.32	. . .	4.00	1,431.69	11.03	2.94	150.00	369.00	. . .	6.25	853.04	4,762.50
November .	32.86	6.65	140.13	839.55	566.98	. . .	. . .	383.32	181.59	. . .	1,500.45	9.51	. . .	150.00	. . .	20.00	6.75	104.67	3,942.46
December .	33.78	47.92	131.57	543.60	165.59	. . .	30.00	383.48	158.23	. . .	979.03	. . .	10.00	622.08	. . .	10.00	4.50	83.34	3,203.12
Totals . .	\$258.14	\$260.29	\$2,014.99	\$13,208.61	\$7,181.86	\$15.50	\$356.00	\$4,660.00	\$1,129.71	\$73.02	\$16,633.31	\$110.86	\$162.61	\$2,272.08	\$912.90	\$222.28	\$95.50	\$2,087.69	\$51,655.35

Overseers of the Poor of Somerville.

SINCE THE REORGANIZATION IN 1885.

† Hon. Mark F. Burns, chairman, ex-officio	1885	1888 inclusive
† Col. Herbert E. Hill	1885	1889 “
† Charles S. Lincoln, Esq., chairman	1885	1887 “
Hon. Edward Glines	1885	1887 “
† Charles G. Brett (president 1888-1892)	1885	Apr. 1893 “
Edward B. West (president May, 1894-February, 1912)	1888	to 1912 “
† Daniel C. Stillson	1888	Apr. 1892 “
† Hon. Charles G. Pope, chairman ex-officio	1889	1891 “
Nathan H. Reed (president 1893 to April, 1894)	1890	Apr. 1894 “
† Hon. William H. Hodgkins, chairman ex-officio	1892	1895 “
† James G. Hinckley	May, 1892	1894 “
Albert W. Edmands	May, 1893	to date* “
† Herbert E. Merrill	May, 1894	1909 “
† Ezra D. Souther	1895	Feb. 1898 (Died)
Hon. Albion A. Perry, chairman ex-officio	1896	1898 inclusive
James H. Butler	March, 1898	1899 “
Hon. George O. Proctor, chairman, ex-officio	1899	
Henry F. Curtis, M. D.	1910	to date* inclusive
Philip Koen	1912	Nov. 9, 1916 “
Michael Coll	November, 1916	to date* inclusive

*Present member.

†Deceased.

Table No. 8.

RECAPITULATION (MISCELLANEOUS).

Appropriations and transfers	\$51,759 62
Reimbursements	22,110 87
	<hr/>
Total receipts	\$73,870 49
Total expenditures	51,759 62
Net expenditures	29,648 75

REPORT OF WARDEN OF CITY HOME.

City Home, January 1, 1917.

To the Overseers of the Poor, Somerville, Mass.:—

Gentlemen,—I submit the following as the report of the warden of the city home for the year ending December 31, 1916:—

Table No. 1.

REIMBURSEMENTS.

Farm produce sold	\$3,984 41	
Board of sundry persons	1,507 33	
		\$5,491 74

Table No. 2.

LIVING EXPENSES.

Salaries and wages:—		
Warden and matron	\$1,350 00	
Domestic labor	2,037 79	
Farm labor	1,532 25	
Other expenses:—		
Groceries and provisions	3,407 41	
Dry goods, clothing and shoes	359 25	
Drugs and medicine	117 43	
Kitchen utensils and supplies	67 39	
Farm equipment	428 67	
Live stock and feed	137 94	
Garbage	375 10	
Hay, grain and straw	1,056 91	
Horse shoeing	49 10	
Harness and horse clothing	7 50	
Telephone	61 69	
Seeds and garden expenses	167 13	
All other expenses	423 07	
		\$11,578 63
Credits:—		
Farm produce	\$3,984 41	
Board of sundry persons	1,507 33	
		\$5,491 74
Net living expenses		\$6,086 89

Table No. 3.

Number of weeks' board of inmates	1,953-4
Number of males admitted during 1916	33
Number of females admitted during 1916	16
Number of males discharged during 1916	21
Number of females discharged during 1916	7
Number of males supported during 1916	49
Number of females supported during 1916	29
Number of males died during 1916	8
Number of females died during 1916	7
Number of inmates in home, December 31, 1916	42

City Home Hospital.

Number of weeks' board	475-4
Number of patients admitted	29
Number of patients in hospital, December 31, 1916	9

Table No. 4.**FARM ACCOUNT.****REIMBURSEMENTS.**

Farm produce sold	\$3,984 41	
Produce used at home	250 00	
Milk used at home	551 04	
	<hr/>	\$4,785 45

EXPENSES.

Wages for help	\$1,427 25	
Feed for one horse	176 15	
Feed for three cows	528 45	
Shoeing one horse	16 37	
Harness and horse clothing	7 50	
Farm equipment	428 67	
Garbage	375 10	
Live stock	137 94	
Seeds and fertilizer	167 13	
	<hr/>	\$3,264 56
Balance		\$1,520 89

Table No. 5.

Reimbursements	\$5,491 74	
Net expenditures	6,086 89	
Transfer	14 78	
	<hr/>	\$11,593 41
Appropriation		11,500 00
		<hr/>
Overdraw		\$93 41

Respectfully submitted,

J. FOSTER COLQUHOUN,

Warden.

REPORT OF THE CITY PHYSICIAN.

OFFICE OF THE CITY PHYSICIAN, }
Somerville, January 1, 1917. }

To His Honor, the Mayor, and the Board of Aldermen:—

Gentlemen,—The work of your City Physician during the year 1916 is presented in the following abstract:—

Office consultations and treatments	563
Total outside visits	1,502
Confinements	13
Vaccinations	81
Visits at City Home	146
Attended at police station	53
Examinations:—	
For legal department	29
For highway department	17
For police department	58
For fire department	24
For water department	3

Respectfully submitted,

C. CLARKE TOWLE,
City Physician.

REPORT OF THE PLANNING BOARD.

Somerville, Mass., December 31, 1916.

To His Honor, the Mayor and the Board of Aldermen:—

Gentlemen,—As required by the Acts of the Legislature of 1913, the Planning Board herewith submits its annual report for the year ending December 31, 1916.

The board met and organized with Oscar W. Coddington as chairman and Waldo E. Dodge as secretary, the rest of the board consisting of David J. Kelley, Clarence D. Waterhouse, and Charles W. Hodgdon.

Since the Acts of 1913, wherein the Planning Board was created, an ordinance has been passed providing for a Planning Board, as now composed, of five members, the term of office of one member to expire each year, and providing further that appointments to fill vacancies be made for the balance of any unexpired term. As the Planning Board was originally constituted, the majority of the members of the board were likely to change each year, and consequently the board had not the nucleus necessary to give proper study to the problems and questions before it.

The duties of a Planning Board are to make careful studies of the resources, possibilities, and needs of the city or town, with special reference to the proper housing of its people. A complete map or set of maps should be prepared under the direction of the City Engineer for the use of the Planning Board which should embrace as many of the physical and topographical facts as possible, showing the Park and Playground system, area served by school centres, the location of industrial plants, transportation facilities, density of population, also probable fire districts and business centres. Comprehensive plans should be drawn showing the development of the city along artistic, architectural and business lines.

His Honor, Mayor Z. E. Cliff, and President Fleming of the Board of Aldermen attended one meeting of the board, as well as Superintendent of Schools Clark and Fire Chief Rich. Their advice was of the greatest assistance to this board during the past year. Henry Sterling, secretary of the Homestead Commission, addressed the board on City Planning, and his suggestions were also very helpful.

The Planning Board is always willing and is desirous of receiving suggestions from the different civic bodies in Somerville, as well as from any of its citizens, intended to assist the board in matters pertaining to the welfare of the city.

During the past year the board has spent considerable

time on the following subjects, and makes recommendations as follows:—

1. Junior High School System.—The City Government has inaugurated a system of Junior High Schools, and after holding public hearings relative to the matter and investigating the subject thoroughly, it has been decided to establish four centres for the work, two of which are already in operation, one in the Winter Hill district, one in East Somerville, and a building for one in West Somerville nearing completion, leaving the Union Square district as yet unprovided for, although the city owns a lot of land on Vinal avenue, upon which at some future time it is intended to erect a building for this purpose. This board feels, however, and recommends that immediate steps be taken to build the proposed Junior High School in order that this district be provided for and the entire system completed.

2. Fire Protection.—The City being composed almost entirely of wooden buildings, this board has considered the advisability of taking steps towards safeguarding the homes and the lives of its people. The matter of fire protection is one that has been taken up by our City Government in the past, but as yet no action has been taken. Fire districts have been established in neighboring cities, leading to a better class of building construction. This board therefore recommends that fire districts be established in and about the business squares of the city without further delay.

3. Widening of Bridge Street.—An important matter considered by this board, together with the Cambridge Planning Board, was a proposed plan of widening Bridge street in Cambridge. Somerville avenue, together with Bridge street in Cambridge, constitutes the main artery of travel from Somerville to Boston. Thousands of passengers are carried daily over this thoroughfare. More trucking and expressing is done over these streets than any other highway of Somerville. Practically all produce from the market gardens in the outlying towns is transported to Boston by this route. Somerville avenue between Medford street and the Cambridge line has a width of fifty-one feet from curb to curb, while Bridge street is narrowed down to only thirty-three feet from curb to curb. Nearly all our congestion of passenger transportation on both the Highland avenue and Somerville avenue line of cars occurs between the Somerville-Cambridge line and Kelley square, Cambridge, on this narrow street. On one side of Bridge street we find nothing but small, dilapidated dwelling houses, mostly of wooden construction, which have long since passed their usefulness for residential purposes, many of which are now vacant, with windows either broken in or boarded up, and having but little taxable value. Not

only are they an eyesore to the thousands who view them daily, but they constitute a great fire menace to that section and especially to the lumber yards, coal pockets and manufacturing buildings which line the opposite side of the street.

We therefore recommend that our City Government immediately take steps to obtain the necessary legislation to effect this much needed improvement.

4. Street Car Service.—The street car service in our City is an ever present problem. This is a matter that has been taken up in past years by our City Government and civic organizations with a view of obtaining relief. The main arteries of travel to Boston are Somerville avenue, Highland avenue and Broadway, and it is a fact that there are not enough cars and the infrequent service does not care for the travel on these lines. As a means of relieving this congestion this board has, with the Cambridge Planning Board, considered the advisability of establishing a new artery from Elm street, West Somerville, through Beech street, Cambridge, with a view of diverting some of the traffic from the present overcrowded street car lines. This might eventually lead to a cross-town line, making better connection with the cities north and south of Somerville. This board therefore recommends that the City Government investigate the matter, and, if necessary, take the question up with the Public Service Commission to obtain the necessary relief.

5. Branch Library, Prospect Hill.—This building is in bad repair inside and out, and the grounds surrounding same are in a neglected condition. This board therefore recommends that steps be taken to improve the condition of this building as well as the grounds surrounding same.

6. Old Buildings.—There are numerous old and dilapidated buildings scattered around the city that are unsightly, a detriment to public health, and a fire menace to our city. Under existing statutes these buildings may be removed, and the Planning Board recommends that immediate steps be taken toward their removal, as recommended in this board's previous reports dated 1914 and 1915.

7. Clean-up Week.—This city, in common with other cities and towns, has held a clean-up week, the object of which is the cleaning up of the streets, premises of the householders, and vacant lots of land. Great success has attended these campaigns in the past, and this board recommends that this feature be made a semi-annual affair, one clean-up week to be held in the Spring and one held in the Fall.

As recommended in the Planning Board's report of 1915, space should be provided in the City Hall where the board may keep its maps and data collected by it in order that the

same may be accessible to the members of the board at all times.

The sum of fifty dollars was appropriated for the use of the Planning Board for the year 1916. If the Planning Board is to successfully accomplish the work for which it was originally intended, it is necessary that a sufficiently large appropriation be made for the necessary data and equipment. To effectually consummate the plans of this board for the coming year a complete survey of the City should be made and this board supplied with proper topographical maps, etc. Planning Boards in other cities and towns which have demonstrated their value to those cities and towns have been provided with money with which to carry on their work. This board therefore recommended that an appropriation of at least two hundred and fifty dollars be made available for the year 1917.

OSCAR W. CODDING,

Chairman.

CHARLES W. HODGDON,

CLARENCE D. WATERHOUSE,

DAVID J. KELLEY,

WALDO E. DODGE,

Secretary.

REPORT OF THE CITY ENGINEER.

OFFICE OF THE CITY ENGINEER, }
CITY HALL, Somerville, January 10, 1917. }

To His Honor, the Mayor, and the Board of Aldermen:—

Gentlemen,—In accordance with the provisions of the city charter, the following report of the work done and expense incurred for the year ending December 31, 1916, by the Engineering Department and appropriations under my charge and supervision, including the accounts of City Engineer, sewers construction, sewers maintenance, parks maintenance, playgrounds maintenance, and other public works, is herewith presented.

ENGINEERING DEPARTMENT.

City Engineer Account.

Statement of Expenses, 1916.

Salary of City Engineer	\$3,000 00	
Salaries of assistants (see itemized statement following)	7,363 22	
Stakes, tools and general supplies (outside work)	78 17	
Draughting materials and office supplies (inside work)	296 61	
Car fares and miscellaneous expenses (assistants)	193 90	
Maintenance of automobile for all divisions of engineering department (new auto, \$735.00; maintenance, \$480.31)	1,215 31	
Telephone, postage and expressing	110 44	
Incidentals	70 50	
Total expenditure		\$12,328 15
	CREDIT.	
Appropriation	\$12,500 00	
		\$12,500 00
Balance unexpended (transferred to other accounts)		\$171 85

Classification of Expenses, Assistants' Salaries.

Sewers,—comprising surveys, estimates, profiles, lines, grades, titles, plans, assessments and all engineering work relating to sewers	\$1,020 00
Highways,—comprising plans, estimates, titles, profiles, lines and grades, inspection of paving and all other engineering work relating to the department	1,295 00
Sidewalks,—comprising profiles, lines, grades, measurements, inspection, titles, costs and assessments	995 00
Bridges and Grade Crossings,—comprising surveys, plans, profiles, estimates, lines and grades, etc.	10 00

Water Works,—comprising lines, grades, locations of mains, gates, hydrants and services and other matters relating to the department	495 00
Public Grounds and Parks,—comprising surveys, plans, estimates, profiles and grades, including laying out of parks and playgrounds and boulevard	415 00
Public Buildings,—comprising surveys, estimates, lines and grades, and other work relating to construction and laying out of grounds	45 00
Street Numbering,—comprising locations of buildings, plans, and assigning street numbers	295 00
Street Lines and Grades,—comprising establishing of lines, grades, and miscellaneous data given parties for building and grading	255 00
City Survey,—comprising establishing of street lines, acceptance plans, and miscellaneous survey work for city map, etc.	590 00
Middlesex Registry,—comprising copying of plans, and abstracts from deeds and examination of titles filed at East Cambridge, also tracing of street acceptance and sewer taking plans filed for record	275 00
Private Corporations, Railway, Telephone, Electric Light and Gas Light Companies,—comprising grades, plans, profiles and office notes, locations of poles and conduits	120 00
Office Work,—comprising record of all locations, indexing, typewriting, bookkeeping, calculations, reports, and general draughting	1,180 70
Miscellaneous Work,—comprising preliminary surveys, designs, sketches, etc., relating to various schemes for different committees	92 00
Vacations and Sickness	280 52
Total	<u>\$7,363 22</u>

Office Records and Value of Instruments.

Number of survey note-books, sewer permit books, deed books, calculation books and record books—three hundred and sixty.

Number of plans, including sewers, highways, parks, house lots, etc.—seven thousand seven hundred.

Value of field instruments, tools and office instruments \$2,000 00

The number of assistants employed during the year on engineering work varied from seven to nine.

The total cost of maintaining the Engineering Department (City Engineer Account) since it was established, 1872-1916, both years inclusive, has amounted to \$355,768.00.

General Work. Under the title of Engineering Department a varied line of city work is carried on each year, including the designing and superintending of the construction and maintenance of sewers, parks, playgrounds, boulevards, bridges, and other public works as may be authorized; the making of such surveys, plans, profiles, estimates, descriptions of property, specifications and contracts for work as the mayor, board of aldermen, or any committee or department may require; the custody of all plans and data relating

to the laying out, widening or discontinuing of streets, the computing of all sewer, sidewalk, and street betterment assessments, and the recording and indexing of all work under the control of the city engineer.

The city ordinances require that the city engineer must be consulted on all work where the advice of a civil engineer would be of service; and no structure of any kind can be placed upon, beneath, or above any street, by any department of the city, corporation, or individual, until a plan is furnished showing the location and approved by him.

During the year the department made plans and established lines and grades for the acceptance, under the betterment act, of thirteen new public streets, a total length of 5,240 feet (0.99 mile); and plans were made of four private streets for acceptance as public ways, as ordered, but not as yet made public. There are plans for acceptance of eleven other private streets, previously made, on file in the office that for various reasons are still unaccepted as public streets.

Stone bounds have been reset in Portland cement concrete at a number of street intersections and angles, to define and preserve the true lines of public streets, and this work should be continued as much as possible each year. These bounds are also of great convenience in establishing permanent "Bench Marks" throughout the city for giving grades.

No new street bounds were set during the year 1916. There are at the present time 576 stone bounds set in the city for defining street lines. (Table showing location in 1907 report.)

The total length of public streets in the city is 83.041 miles, and private streets 17.479 miles. (See table in this report for location, width, length, etc.)

Streets Accepted as Public Highways in 1916, Under the Betterment Act.

NAME OF STREET.	WARD.	FROM	To	Width in Feet.	Length in Feet.	Date of Acceptance
Burnham street . . .	7	Broadway . . .	Pow. House Blvd.	40	543	December 29
Electric avenue . . .	7	Mason street . . .	Packard avenue . . .	40	633	December 29
Hamilton road . . .	7	Russell road . . .	North street . . .	40	560	December 29
Harding street . . .	2	Ward street . . .	Northerly . . .	30	70	December 29
Heath street . . .	5	Bond street . . .	Edgar avenue . . .	40	390	December 29
Illinois avenue . . .	1	Broadway . . .	Pennsylvania ave.	40	427	February 25
Mason street . . .	7	Broadway . . .	Pow. House Blvd.	40	681	December 29
Michigan avenue . . .	1	Broadway . . .	Pennsylvania ave.	40	470	December 29
Mountain avenue . . .	6	Porter street . . .	near Linden ave.	22	280	December 29
New Hampshire av.	1	Pennsylvania av.	Mystic avenue . . .	40	406	December 29
Vermont avenue . . .	1	Pennsylvania av.	Mystic avenue . . .	40	433	May 6
Walter terrace . . .	4	Walter street . . .	Southwesterly . . .	40	222	December 29
Willow place . . .	2	South street . . .	Cambridge line . . .	25	125	December 29
Total . . . . .	..	. . . . .	(0.992 miles)	.....	5,240	.....

A new map of the city on a scale of 600 feet to an inch has been compiled and 500 copies printed for general use.

Length of Public Streets in Each Ward.

	Miles.
Ward one	10.357
Ward two	9.225
Ward three	7.587
Ward four	9.954
Ward five	12.200
Ward six	13.392
Ward seven	20.326
Total length of public streets in the city .	83.041

A number of streets have been changed and plans made, showing a re-numbering of the buildings, and all old numbering plans revised, new houses plotted, and numbers assigned.

Some of the old main thoroughfares should be re-numbered throughout the entire length, so as to eliminate half numbers and letters now being used, as many of these old streets have outgrown their original numbering.

There are many streets, avenues, courts, and places in the city of the same or very similar name, which should be changed to prevent the confusion now existing.

During the year 1916 approximately \$149,000.00 were spent for construction work on the improvement of city streets and about \$27,500.00 for the construction of new sidewalks.

This construction work was carried on jointly by the Engineering department and the Highway department, part of the work being done by contract, and the remainder by the city highway department, day labor.

The contractors were James H. Fannon and Charles A. Kelley, Somerville, Hassam Paving Company, Worcester, and Simpson Bros. Corp., Boston, for street construction work and Denis I. Crimmings, Somerville, for granolithic sidewalk construction.

Sections of Broadway (Charlestown line to Garfield avenue) and Medford street (Central square to Highland avenue) have had an asphaltic wearing surface, about two inches in thickness, placed on top of the old concrete pavement, a total of 16,864 square yards, 3,700 feet in length, constructed by contract. (This old concrete roadway has been in use about ten years.)

Sections of Pearl and Medford streets (Cross street to School street) and Summer street (Bow street to School street) have been re-constructed with a "Bi-co-mac" pave-

ment (concrete base) a total of 10,779 square yards, 4,090 feet in length, constructed by contract.

A portion of Union square has been re-constructed with granite blocks (re-cut) laid on a concrete base and grouted with Portland cement; 5,240 square yards were laid by contract and the remaining area will be completed early in 1917.

Four thousand ninety-seven square yards vitrified brick pavement (concrete base) have been laid in portions of Day street, Chester street, Magoun square and Washington street, a total length of 958 feet, by contract, at a cost of \$2.80 per square yard complete, and 472 square yards laid by the highway department in Meacham road, 151 yards remaining to be completed.

One thousand two hundred and thirty-one square yards bituminous macadam pavement (concrete base) have been constructed in North street (Powder House boulevard to Conwell avenue) and in Washington street (Dane street to Kingman road, excepting inclines at railroad bridge) a total length of 7,731 feet, at a contract price of \$1.36 per square yard exclusive of asphaltic binder.

One thousand nine hundred and eight-three square yards of this kind of pavement, a length of 714 feet, was constructed in a portion of Summer street by the city highway department. day labor.

Alewife Brook Parkway in Somerville has been constructed by the state park commission with a bituminous macadam surface, a length of about 2,400 feet.

The total length of permanent paved streets in the city amounts to 16.3 miles.

Nine new streets have been constructed, under the betterment act, with a bituminous macadam wearing surface, concrete gutters and granite edgestone, a total length of 3,406 feet; three being done by contract and six by day labor.

The average cost of this type of construction for a forty-foot street complete, by contract was \$5.34 per linear foot, and by the city highway department, day labor, \$6.36 per linear foot.

The total street betterment assessments amounted to \$8,938.59.

Fourteen streets were constructed by the city highway department by day labor, a total length of 14,083 feet, at a cost of \$32,918.39.

Nine thousand eight hundred forty-nine square yards of granolithic sidewalk, a total length of 2.64 miles, were constructed by contract during the year at an average cost of \$1.48 per square yard and 6,486 square yards of granolithic sidewalk, a total length of 1.88 miles, were constructed by the city highway department at an average cost of \$1.64 per square yard.

Lines and grades have been given for setting 7,448 linear feet (1.41 miles) of new edgestone, 16,335 square yards (4.52 miles) of granolithic sidewalks and measurements taken for computing assessments; 0.16 of a mile of edgestone has been reset and in addition to this 0.802 mile of granolithic sidewalk has been laid on private streets by property owners.

The total sidewalk betterment assessments and income amounted to \$12,610.74.

In connection with setting edgestones 821 square yards of new concrete gutters have been laid by the city highway department, by day labor, at an average cost of \$2.64 per square yard.

A number of driveways and crossings have been constructed, all requiring lines, grades, and measurements.

(See tables for cost of new work, 1916, and total lengths of sidewalks constructed in the city to date.)

The average cost for the year has been as follows:—

For setting edgestone with gravel sidewalk by highway department	\$1.33 per linear foot
For setting edgestone with gravel sidewalk by contract	1.02 per linear foot
Laying granolithic sidewalk, complete, by highway department	1.64 per square yard
Laying granolithic sidewalk, complete, by contract (including one year guarantee)	1.48 per square yard

And the cost of materials furnished by contract:—

Edgestone (straight) delivered at work	0.67 per linear foot
Edgestone (circle) delivered at work	0.85 per linear foot
Bricks delivered at work (sidewalks)	15.00 per M
Bricks (vitrified) on cars (paving)	31.00 per M
Cement (Portland) on cars	1.47 per barrel (net)
Sand and gravel on cars	0.70 per cubic yard
Trap-rock delivered on work (various size)	1.48 per ton (average)

From a comparison of the cost of constructing new streets, sidewalks, etc., by day labor and by contract for a number of years past, it would seem advisable to do by contract all new work, where approximately one-half of the total cost of construction is assessed on abutting property owners, and thereby making the assessments, as levied, more uniform throughout the city.

In sections of the city where brick sidewalks have been laid many years, and must necessarily be relaid on account of deterioration and unevenness, granolithic should be substituted in the place of brick.

Miles of Edgestone, Granolithic and Brick Sidewalks in Each Ward.

	Edgestone.	Gravel Sidewalk.	Brick Sidewalk.	Granolithic Sidewalk.
Ward one	18.584	3.795	12.093	4.256
Ward two	16.043	6.308	6.744	3.050
Ward three	14.258	1.040	11.572	1.646
Ward four	15.142	1.558	9.993	3.605
Ward five	22.053	5.160	12.194	4.887
Ward six	24.410	4.759	10.678	9.922
Ward seven	29.621	2.847	8.462	19.796
	140.111	25.467	71.736	47.162

Table of Street Construction.

	Square Yards.	Miles.
*Streets paved with granite blocks	108,732	4.56
**Streets paved with concrete	23,990	1.42
†Streets paved with asphaltic top	42,215	2.59
Streets paved with vitrified brick	19,149	1.14
Streets paved with "Bi-co-mac"	10,780	0.77
Streets paved with bitulithic (patent)	3,911	0.11
Combination pavement (concrete base with bituminous top)	86,107	5.73
‡Streets macadamized ("tarvia" bound)		28.14
Streets macadamized (water bound)		37.59
Streets graveled or unimproved		18.47
Total		100.52

*Also 31.9 miles (single track) electric railway paved with granite, asphalt, bitulithic, etc.

**Includes 0.42 miles state highway.

†Includes 1.16 miles of state highway.

‡Includes 1.406 miles of city boulevard and park roadways and 2.331 miles of state boulevard (Metropolitan Park Commission).

A considerable quantity of stone still remains on the two parcels of ledge property owned by the city, situated in West Somerville, that can be quarried and used for the foundation of streets, and on sidewalk work, to the city's advantage. By using the stone from these two ledges and purchasing trap-rock, the city will have a sufficient supply of good road material for a number of years to come.

The policy recently adopted of permanently constructing the city's main thoroughfares in preference to side streets has shown good results.

In a few years' time, by the continuation of permanently constructing the remaining roadways, namely short sections of Broadway, Somerville avenue, Medford, Summer, Washington and Beacon streets, and some of the principal cross-town streets, the city will have main thoroughfares that will compare favorably with any city in the state.

Many times in the past, streets newly constructed, or where an improved pavement was laid, were torn up and excavations made a short time after being built, when the changes should have been made considerably in advance of the new street construction work.

Previous notice of the city's intended street improvements should be given to the various departments and interested corporations and ample time allowed for making all extensions and repairs of underground work; and no permission should be granted to cut any newly constructed street, except for emergencies or under special conditions, where a sufficient sum of money, as determined by the city, is paid the city in advance for the restoration of the paving or other street surface.

An ordinance should be enacted whereby no street openings can be made until these conditions are complied with satisfactorily to the city.

The Boston Elevated Railway Company has made extensive repairs in its roadbed in this city during the past year, replacing the old tracks with new and heavier rails. There are a number of miles of trackage in the city's main thoroughfares where the old granite block pavement, within the railroad location, should be relaid and grouted with Portland cement, and additional catch basins constructed between the rails to relieve the flooding of sections of certain streets in times of heavy storms.

There are 31.9 miles of electric railroad (single track location) laid at the present time in the city's streets.

Where double tracks have been laid in streets, leaving narrow roadways on either side, it is impossible to maintain a macadam surface, even at a heavy expense yearly, and these streets should be permanently paved with a suitable pavement, adapted to the character of the surroundings and amount of traffic and conditions encountered.

More granite block pavement should be laid in sections of certain streets in various parts of the city; this could be accomplished at a comparatively low rate of cost by relaying each year, as the appropriation would allow, sections of the old granite paved streets with modern work and using the surplus re-cut blocks for new streets desired.

Lines and grades have been given for laying new city water mains. New house services, many gates, hydrants, water posts and blow-offs have been located and recorded, sketches and plans made showing the same, and the water works maps corrected to date; also a large number of old water services where new meters were installed, have been located and recorded.

A number of the locations of old hydrants, gates, etc., have been found to be incorrect, a few having been removed entirely; a new survey of the entire distribution system should be made and the maps and office records compiled.

Plans have been made by the various companies and corporations, and filed in the city engineer's office, showing the locations of gas mains, poles, tracks and conduits in this city,

which have been granted by the board of aldermen during the year; and the work of placing overhead wires in conduits underground and removing all poles from the streets should be extended as rapidly as possible.

At the present time there are underground in the city's streets 16.74 miles of telephone conduits, 11.99 miles of electric light conduits, 1.4 miles of electric railway conduits and about 9.7 miles of underground conduits used for the city's wires.

The Cambridge and Charlestown Gas Companies have extended their mains in the city's streets 0.66 mile the past year.

Heavy explosions have occurred in the city's streets from underground conduits, owned by private corporations. The city ordinances should be so changed that in the future all underground work constructed by these companies should be rigidly inspected by a competent man employed by the city, so as to eliminate, as far as possible, faulty construction.

A set of block plans should be made covering the entire city area, from accurate surveys made during the past twenty-five years, and carefully compared section by section with the deed dimensions and areas recorded in the assessor's department, and in this manner the correct areas of land determined.

This set of plans would show the area and dimensions of each lot, all houses and other buildings, sewers, catch basins, house drains, water services, gas mains, underground conduits for wires, street lights, street railway tracks, etc., and be of great value to many city departments. Five of these sectional plans have already been made. A separate appropriation should be made for completing these plans.

Plans have been made and photographs taken where accidents have occurred on the city work, or where boundaries were in dispute, and special plans and data prepared for the city solicitor's use in court cases and hearings.

All plans of estates in Somerville recorded at the Registry of Deeds, East Cambridge, including land court plans, have been copied, also titles examined, abstracts from deeds made for the purpose of assessments, and the proportional part of the cost of new work computed, and the schedules of assessments made out showing the property owners. Copies have been made of all city plans where land has been taken for highways or sewers, and these have been filed and recorded at the Registry, East Cambridge, as required by law.

GRADE CROSSINGS AND BRIDGES.

No actual construction on grade crossing abolishment in this city has been done during the past year. The construc-

tion work for the elimination of these dangerous grade crossings should be continued until completed as decreed by the court. Work should be commenced at the Park street crossing immediately.

The special automatic pump at Medford street installed for removing storm water from the subway under the steam railroad tracks and discharging into a city sewer at a higher elevation (this means of disposal of water being made necessary by an act of the state legislature) has not proved satisfactory to the city up to the present time.

The plans for abolishments of these crossings were described in previous annual reports, and at two streets the plan adopted is the same as proposed by the city's scheme presented to the commission; at the other three streets the plan adopted is just the reverse of the city's scheme as presented.

Washington street bridge over the Fitchburg division of the Boston & Maine railroad near Union square has been extensively repaired by the railroad company and the sidewalks improved and made a greater width.

Prospect street bridge over the Fitchburg division of the Boston & Maine railroad is an old narrow wooden bridge that has existed for many years and is wholly inadequate for the unusual amount of automobile travel at the present time and should be rebuilt immediately to the full width of the street. Likewise the Broadway bridge at North Somerville over the southern division of the Boston & Maine railroad should be widened to the full width of the street.

The old bridge carrying the Boston & Maine railroad tracks over Washington street (East Somerville) should be replaced with a new bridge of modern design and thereby increasing the head-room in the street about two and one-half feet where at present the traffic is seriously impeded.

City Boundary Lines. In November, 1916, representatives appointed from the city of Somerville and the city of Boston examined the bounds defining the division line between these two cities and reported their findings in due form to the board of aldermen.

These boundary lines are perambulated every five years as prescribed by the statutes.

A number of stone boundary markers, defining the division lines between Somerville and bordering cities, are out of plumb and should be reset.

A contemplated change in the boundary line between Somerville and Medford has been under consideration by both cities for some time and an exchange of territory could be made that would be equally advantageous.

SEWER DIVISION.

Construction Account.

Statement of Expenses, 1916.

Constructing "separate system" sewers (assessments levied)	\$2,434 08	
Constructing "combined system" sewers (assessments levied)	2,169 86	
Constructing storm drains	3,314 33	
Reserve payments on sewer contracts 1915	418 03	
Constructing catch basins (40)	2,472 36	
Constructing new manholes on old sewers	501 73	
Charged to other departments and ac- counts	348 03	
Materials on hand December 31, 1916	1,009 38	
	<hr/>	
Total expenditure		\$12,667 80
	CREDIT.	
Appropriation	\$20,000 00	
Balance unexpended, 1915	8 12	
Received from other departments and ac- counts, labor and materials furnished	348 03	
	<hr/>	
Total credit		\$20,356 15
		<hr/>
Balance unexpended (over to 1917)		\$7,688 35

The greater part of the new construction work has been done by contract, and the remainder by the city employing day labor, where old structures were to be remodeled or replaced by some difficult construction work. All materials have been furnished by the city, and the prices paid for supplies for the season have been by contract with the lowest bidder as follows:—

Sewer pipe (3 foot lengths)	76%	discount from list price on cars
Sewer pipe fittings	78%	discount from list price on cars
Portland cement per barrel	\$1.47	on cars (net)
Sand per cubic yard	0.70	on cars
Sewer bricks per M.	0.75	delivered at yard
Iron manhole and catch basin castings per hun- dred weight	1.95	delivered at yard
Catch basin traps, each	1.88	delivered at yard

A number of sewers have been constructed as petitioned for in various sections of the city, or as considered necessary for the improvement of the drainage system, and portions of the cost of construction assessed on the abutting estates under orders passed by the board of aldermen.

Short lines of storm drains and overflows from congested sewers have been constructed during the year in the most needed districts.

The "separate system" sewers (those built for house drainage only) have been extended in a number of streets in

the older districts, and this system should be extended yearly until all the flooded districts in the city have two complete systems of drainage, the old sewer to be used for storm and surface water. The city pays the entire cost of these new sewer extensions for house drainage, and wherever constructed the house plumbing should be changed where necessary; and the house drains and conductor, or surface water drains, reconnected with both systems as soon as possible.

New sewers and drains were constructed during the year varying in size from eight-inch pipe to twenty-inch pipe in the following localities:—

“Separate system” sewers in:—

High street,—Powder House boulevard to near North street.

Mystic avenue,—Wheatland street to Temple street (southerly sidewalk).

North street,—Medford city line to Woods avenue.

Powder House boulevard,—Sewer built in 1914, at No. 305 Boulevard to High street (easterly sidewalk).

Temple street,—Mystic avenue to near Sydney street (easterly sidewalk).

“Combined system” sewers in:—

Central street,—Cambria street to Oxford street.

Storm drains in:—

High street,—Powder House boulevard to North street.

North street,—Bailey street to College Hill road.

Powder House boulevard,—Storm drain built in 1915 at No. 285 Boulevard to High street.

Somerville Field,—Alewife brook to Powder House boulevard (two lines) near Fairfax street and Gordon street.

SUMMARY OF WORK.

Eleven new sewers and drains have been constructed during the year, a total length of 4,985.2 linear feet (0.944 mile) at a cost of \$7,918.27; plans have been made showing these sewers in detail, and assessments levied on a portion of them, amounting to \$2,744.06. (See tabular statement of sewers and drains for 1916, showing itemized statement of work and cost.)

The total length of the city's drainage system is 111.277 miles; 31.661 miles being on the “separate system” and 10.449 miles of storm drains, and the entire cost of construction has amounted to about \$1,331,420.00 exclusive of the amount paid to the state for assessments for the construction of the North Metropolitan sewerage system.

TABULAR STATEMENT OF SEWERS AND STORM DRAINS BUILT IN 1916.

LOCATION.				ITEMS OF CONSTRUCTION AND COST.																							
NAME OF STREET.	FROM	TO	CONTRACTOR.	MATERIAL EXCAVATED.	Average Cut.	SEWER.		SUB-DRAIN.		Cubic yards Rock Excavation.	Price per cubic yard, Rock.	Manholes.	Average cost, Manholes.	Inlets.	PIPE SEWER, COST PER LINEAR FOOT.										Total Cost.	Assessment.	Cost to City.
						Size in inches.	Length in feet.	Size in inches.	Length in feet.						Excavating Re-filling, and Pipe Laying.		Price, including Sub-drain where laid.	Engineering and Inspection.	Miscellaneous.	Lumber.	Repairing Side-walks, Resurfacing Streets, etc.	Average Cost per linear foot.					
															Main Sewer.	Sub-drain.											
Central street, sewer	Cambria street	Oxford street	T. F. Crimmings	Filling and sandy loam .	8'0"	15	188.9	.....	.....	.....	.....	.....	.....	1	\$1.43	.....	\$0.40	\$0.02	\$0.13	.....	.....	\$1.98	\$374.96	.....	\$374.96
High street, sewer	Powder House Boulevard	Near North street	Denis I. Crimmings	Sandy clay	6'9"	8	614.0	5 & 6	388.0	1	\$4.00	3	\$47.95	45	0.90	\$0.20	0.25	0.07	.....	.....	.....	1.59	974.67	\$974.67	.....	
High street, storm-drain	Powder House Boulevard	North street	Denis I. Crimmings	Sandy clay	5'9"	10	704.0	.....	.....	.....	.....	3	41.45	2	0.45	.....	0.23	0.01	0.04	.....	.....	0.86	823.55	.....	823.55
North street, storm-drain	Bailey street	College Hill road	Denis I. Crimmings	Sandy clay	6'0"	8	259.0	.....	.....	.....	.....	3	41.45	2	0.45	.....	0.23	0.01	0.04	.....	.....	0.86	823.55	.....	823.55
Mystic av., sewer (southerly sidewalk)	Wheatland street	Temple street	James H. Fannon	Filling	9'6"	8	740.4	4 & 6	396.7	8	5.00	4	53.75	22	1.48	0.20	0.22	0.09	0.03	.....	0.03	2.30	1,700.20	501.77	1,198.43	
North street, sewer	Medford City line	Woods avenue	Bartholomew Burke	Hardpan and rock	8'0"	8	473.2	.....	.....	51.4	5.00	1	61.15	34	1.15	.....	0.20	0.04	0.01	.....	.....	2.07	981.33	828.22	153.11
Powder House Boulevard, sewer	{ Sewer built in 1914 at No. 305	High street	Denis I. Crimmings	Clay	7'6"	8	290.5	5 & 6	172.0	2	4.00	1	47.95	11	0.98	0.20	0.28	0.06	0.02	.....	.....	1.65	478.08	221.54	256.54
Powder House Boulevard, storm-drain	{ Storm drain built in 1915 at No. 285	High street	Denis I. Crimmings	Clay	6'6"	20	659.5	.....	.....	.....	.....	1	38.20	.....	0.65	.....	0.68	0.02	0.05	0.02	.....	1.54	971.95	.....	971.95
Somerville Field, storm-drain	Alewife Brook	{ Powder House Blvd. near Fairfax street	Denis I. Crimmings	Peat and clay	3'4"	15	496.0	.....	.....	.....	.....	1	46.91	..	0.92	.....	0.38	0.03	.....	.....	.....	1.43	1,143.87	.....	1,143.87
Somerville Field, storm-drain	Alewife Brook	{ Powder House Blvd. near Gordon street	Denis I. Crimmings	Peat and clay	4'0"	12	301.8	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Temple street, sewer (easterly sidewalk)	Mystic avenue	Near Sydney street	James H. Fannon	Filling	7'6"	8	66.9	4 & 5	244.3	.....	.....	1	54.55	9	1.00	0.20	0.26	0.11	.....	.....	.....	1.76	469.66	217.86	251.80
												4,985.2 (0.944 miles.)												\$7,918.27	\$2,744.06	\$5,174.21	

Total length of public sewers in the city, January 1, 1917 497,624.6 feet.
 Total length of private sewers in the city January 1, 1917 34,748.0 feet.
 Total length of sewers in the city, January 1, 1917 532,372.6 feet = 100.828 miles (31.661 miles separate system sewers)
 Total length of storm drains in the city, January 1, 1917 55,169.1 feet = 10.449 miles
 Total length of city drainage system, January 1, 1917 111.277 miles
 Total length of Metropolitan sewerage system mains running through the city 3.475 miles

Forty new catch basins have been constructed in the highways during the year, making a total of 1,803 basins in the city for street drainage purposes, constructed and maintained as follows:—

By the city (sewer division):—

Located in streets and subways	1,737	basins
Located in city boulevard	39	“
Located in parks (15) and other city lots (12)	27	“
	<hr/>	
Total catch basins constructed and maintained by the city		1,803
By Boston & Maine Railroad Company on railroad locations	33	basins
By state, located in boulevards	71	“
	<hr/>	104
Total catch basins in the city for storm drainage purposes		1,907

Metropolitan Sewer Connections. There are within the city's limits, thirteen connections with the North Metropolitan state sewerage system, also four outlets through the city of Cambridge and three outlets through the city of Medford. The locations of the connections of the city's mains with the state sewer are shown in the 1912 report.

Wherever the city's "combined system" sewers are connected with the Metropolitan sewer, the flow is automatically regulated so that in times of storms the connection closes and the discharge continues through the old channels to the rivers; the "separate system" connections are always in operation under all conditions.

The city's assessment for the Metropolitan sewer system for the past year was \$14,998.20 on construction account and \$22,512.80 for maintenance, and the total amount paid the Commonwealth of Massachusetts for this state sewer has been \$1,167,777.40 (1892-1916, both years inclusive). The total length of the Metropolitan sewerage system mains running through the city amounts to 3.475 miles.

New Work. The separate system sewers should be extended in the old section of the city each year, as the appropriations will allow.

The construction of the storm drainage system in the vicinity of North Somerville should be extended, the outlet for this district being through the city of Medford into Mystic river; and in connection therewith, the boundary line between Somerville and Medford should be changed in the vicinity of Pearson road and Boston avenue, so that this outlet, Two Penny brook, can be improved by Somerville, and the covered channel extended to the Boston & Maine railroad, to conform with the work already done within the present city limits.

A large storm overflow drain has been contemplated for some time at the East Cambridge line, across private lands from Somerville avenue, discharging into Miller's river. The construction of this conduit would relieve, to a great extent, the flooding of certain streets and many cellars in times of excessive storms. The city of Cambridge is equally interested in this matter of improved drainage and the cities acting jointly should complete this work without further delay.

Some agreement should be made whereby a storm drain and sewers may be constructed in the valley along the location of the southern division of the Boston & Maine railroad, between Gilman square and Cedar street, this being the natural outlet for a number of the city's streets and house lots, which at the present time have either very poor or no means of drainage, and would abolish two syphons under the railroad tracks. It would be of great benefit to the railroad company as well as giving relief to sections of the city's over-charged drainage system during heavy storms by diverting through this proposed conduit the proper drainage area which is now flowing in other directions.

The city's drainage system will be greatly improved when all the foregoing changes are made and construction work completed.

MAINTENANCE ACCOUNT.

Statement of Expenses, 1916.

Maintenance of sewers, including cleaning and flushing (11.3 miles)	\$4,984 13	
Maintenance of catch basins, cleaning and flushing (1,803)	9,556 43	
Maintenance of storm water pump, Medford street	128 93	
Changing line and grade and repairing catch basins	275 45	
Changing line and grade and repairing manholes	215 94	
Repairing old sewers	691 60	
Inspection and location of house drains	289 72	
New tools and supplies	594 61	
Repairs of tools and property	39 44	
Maintenance of sewer division yards and buildings	625 33	
Sundry expenses, telephone, expressing, etc.	36 26	
	<hr/>	
Total debit		\$17,437 84
	CREDIT.	
Appropriation	\$18,000 00	
Transfers from other departments and accounts (materials and labor furnished)	93 41	
	<hr/>	
Total credit		\$18,093 41
		<hr/>
Balance unexpended (transferred to other accounts)		\$655 57

Table Showing Sidewalks Constructed (proportional part of cost assessed on abutters) in 1916

STREET	Ward.	SIDE.	FROM	To	WIDTH OF SIDEWALK IN FEET.	MATERIAL.			Total Cost.
						Gravel and Edge-stone. Lineal Feet.	Lin. Feet.	Sq. Yards.	
Albion terrace	5	Both	Albion street	Southwesterly	5.00	*194.5	.....	.....	.....
Ash avenue	5	Westerly	Meacham street	East Albion street	6.67	.....	558.2	377.7	\$573.11
Auburn avenue	4	Both	Cross street.	N'thwesterly (where not laid)	5.00	*376.5	.....	.....	.....
Auburn avenue	4	Northeasterly	In front of estate	No. 123 Cross street	5.00	.....	94.1	45.7	86.89
Barton	7	Both	Broadway	Hamilton road	6.67	*772.9	.....	.....	.....
Beacon	6	Southwesterly	In front of estate No.	362-368 (filling in grass plot)	.....	.....	.....	54.0	77.22
Boston	3	Easterly	Washington street	Northerly	7.50	.....	454.8	334.2	565.49
Broadway	7	Northerly	Leonard street	Burnham street	11.00	.....	244.9	277.2	407.96
Broadway	7	Northerly	In front of estates	No. 977 to 983	11.00	.....	91.6	105.1	156.89
Carter terrace	3	Circles for	street opening at Summer	street	6.67	19.2	.....	.....	.....
Cedar	6	Northwesterly	Hall street	Aberdeen road	6.67	129.0	174.6	113.7	335.06
Charles	1	Easterly	Washington street	Southly	5.00	.....	140.8	68.3	119.40
Craigie	6	Northwesterly	Someville avenue	Craigie terrace	7.50	.....	195.1	149.7	214.07
Curtis	7	Easterly	Teele avenue	Whitfield road	6.67	.....	168.2	110.1	157.44
Eliot	2	Northeasterly	Vine street	Park street	6.67	.....	295.0	198.9	341.06
Fountain avenue	1	Both	Glen street	Cross street	5.00	.....	1,149.2	561.1	971.76
Gibbens	6	Both	Benton road	Westerly	6.67	*252.4	.....	.....	.....
Greenville	3	Southerly	Medford street	Boston street	6.67	.....	381.6	324.5	560.99
Hamlet	3	Both	Boston street	Highland avenue	5.00	.....	1,238.2	603.6	1,055.29
Hinckley	5	Both	Broadway	Richardson and Sumner sts.	5.00	.....	1,003.5	490.5	724.52
Illinois avenue	1	Both	Broadway	Pennsylvania avenue	7.50	*804.7	.....	.....	.....
Jaques	5	Both	Temple street	Fenwick street	7.50	69.8	1,579.5	1,205.1	1,912.12
Kidder avenue	6	Southwesterly	In front of estates	No. 66 Highland road	6.67	.....	99.6	64.2	91.81
Langmaid avenue	5	Southeasterly	Broadway	Heath street	5.00	.....	350.8	171.5	292.39
Lesley avenue	7	Both	Highland avenue.	Lexington avenue	6.67	.....	663.8	447.0	839.37
Line	2	Northeasterly	Washington street	Cambr'ge line (where not laid)	5.50	.....	1,501.9	813.1	1,218.57
Lovell	7	Both	Broadway	Electric avenue	6.67	.....	770.7	516.1	739.68
Magnus avenue	2	Circles for street	opening at Washington	street	6.67	19.2	.....	.....	.....
Morrison avenue	6	Northeasterly	Highland road	Willow ave. (where not laid)	8.33	.....	468.5	393.1	576.08
Morrison avenue	6	Southwesterly	Highland road	Willow avenue	8.33	.....	589.6	499.1	713.71
Mystic avenue	1	Northeasterly	North Union street	Estate of Price	10.00	.....	260.2	271.2	460.30
Newbury	7	Easterly	Holland street	Newbury Park	6.67	157.1	1,176.7	803.2	1,502.94
North	7	Southeasterly	Broadway	Powder House Boulevard.	6.67	527.5	527.7	358.4	1,058.46
North	7	Northwesterly	Broadway	Powder House Boulevard.	6.67	403.7	586.2	410.5	1,092.96
Pearson road	7	Southwesterly	In front of	estate of Waugh	6.67	.....	80.2	54.8	78.36
Poplar and Maple sts.	1	In front	of Clark Bennett School	Lot	5.00	.....	292.3	140.8	242.87
Powder House Roulev'd	7	Northeasterly	In front of estates	No. 189-193 inc.	8.00	.....	123.6	121.4	211.33
Powder House Boulev'd	7	Northeasterly	In front of S. Newton	Cutler School	8.00	8.0 feet gran.	236.3	244.0	442.83
Powder House Boulev'd	7	Northeasterly	In front of	estate No. 181	8.00	walk on 20 ft.	47.0	45.6	79.62
Powder House Boulev'd	7	Northeasterly	In front of	estate No. 183	8.00	sidewalk with	47.0	46.3	80.62
Powder House Boulev'd	7	Northeasterly	In front of	estate No. 249	8.00	grass plot.	54.4	57.3	107.41
Powder House terrace	7	Easterly	Liberty avenue	Kidder avenue	6.67	.....	557.4	354.5	514.56
Powder House terrace	7	Westerly	Powder House Park	Kidder avenue	6.67	.....	327.9	222.2	317.75
Prospect street	2	Southeasterly	Webster avenue	Cambridge line	8.33	.....	926.6	786.3	1,292.14
Sacramento	6	Both	Beacon street	Cambridge line	6.67	*224.5	.....	.....	.....
Simpson avenue	7	Southeasterly	Holland street	Broadway	6.67	.....	806.9	597.7	873.40
Simpson avenue	7	Northwesterly	near Holland street	Broadway	6.67	.....	696.1	491.1	702.27
Stone place	3	Both	Stone avenue	Southeasterly	5.00	*260.8	.....	.....	.....
Summer	6	Northeasterly	Porter street	Linden avenue	7.50	.....	332.8	254.1	398.22
Sycamore	5	Northwesterly	at Boston &	Maine R.R. bridge	8.00	.....	31.1	25.7	40.44
Teele avenue	7	Southerly	Curtis street	Easterly	6.67	.....	257.1	173.9	248.68
Temple	4	Southeasterly	Sydney street	Mystic avenue	11.00	377.5	365.7	342.0	1,165.59
Victoria	7	Northwesterly	Woodstock street	Cambridge line	6.67	.....	95.7	64.1	91.66
Victoria	7	Southeasterly	In front of estates	No. 62-64 and No. 66	6.67	.....	100.0	67.8	96.95
Victoria	7	Southeasterly	Broadway	No. 54	6.67	.....	726.3	492.3	703.99
Victoria	7	Northwesterly	Broadway	Woodstock street	6.67	.....	967.2	614.2	878.31
Victoria	7	Southeasterly	In front of	estate No. 82.	6.67	.....	41.4	28.1	40.13
Walker	7	Both	Broadway	Leonard street	6.67	*1,390.9	.....	.....	.....
Ware	7	Both	Curtis street	Russell road	6.67	*1,469.0	.....	.....	.....
Washington	1	Southerly	In front of	estate No. 80	12.00	.....	27.4	34.7	61.85
Waterhouse	7	Southeasterly	Broadway	Woodstock street	6.67	.....	871.3	589.5	842.99
Wheatland	4	Southeasterly	Jaques street	Mystic avenue	6.67	.....	828.1	559.3	809.15
Willoughby	5	Southwesterly	Sycamore street	Sidewalk already laid	6.67	.....	237.5	161.0	259.93
						7,448.2	23,842.3	16,335.5	\$27,426.64

Total assessment, \$12,610.74.

Net cost to city, \$14,815.90.

Amount of edgestone, brick, granolithic and tar in front of private estates.

Totals . . Gravel sidewalks, 1.240 miles. Brick sidewalks, 0.733 miles. Granolithic sidewalks, 2.526 miles.

*Proportionate cost assessed under street construction.

value of tools and property on hand used in maintenance of sewers, \$2,000.00.

A permanent force of men and teams are kept continually at work flushing, cleaning and repairing the city's drainage system, catch basins, etc., the expense necessarily increasing yearly as lengths of sewers, drains and catch basins are added to the system, and the distance increased to the dumps.

About 7,260 cubic yards of material have been removed from the catch basins and sewers during the year, at an average cost of \$1.32 per cubic yard, and the average cost per mile for cleaning and flushing the drainage system, including catch basins, has amounted to \$130.64. There are about twenty catch basins (average) to a mile of roadway in this city and the average cost of cleaning per basin is about \$5.30 a year.

A number of repairs have been made and sections rebuilt on some of the old sewers, alterations made in the outlets and overflows, and extra manholes built for the purpose of improving the system.

Many catch basins and manholes have been repaired and grade or line changed.

Three hundred and ninety permits have been issued to licensed drain layers for connecting buildings with the main sewers, sixty-five being for repairs or alterations; all of the work being done under the supervision of the city's inspector.

At the present time there are eight persons licensed as drain layers by the city and under bonds, for the purpose of laying these private drains.

There are to date about 16,292 private house drain connections with the city's drainage system.

During the year the sewer division has done considerable miscellaneous work for other city departments and outside companies, where alterations and new construction work have been required, furnishing materials and labor, and being reimbursed for the same.

Some of the old trunk sewers which were constructed many years ago are in a dangerous condition; sections, where the arch is badly cracked and liable to collapse any time, should be immediately rebuilt.

PARKS AND PLAYGROUNDS DIVISION.

At the present time there are twenty separate parcels of land located in the various parts of the city and containing about seventy-five acres, which are maintained as parks and playgrounds; also the care of about one and one-third miles of boulevard is under this division. Five of these pleasure parks are famous historically. Included in this total area are playgrounds where the land is owned by private parties, and leased to the city for use in the following localities; on

Fellsway, east, 2.5 acres; Knowlton street, 1.5 acres; Tufts College land, 4.8 acres, and the city also maintains the cemetery on Somerville avenue, containing 0.7 acre. Satisfactory arrangements have been made during the past year whereby the city has the use of Tufts College playfield during the summer vacation months, and "the artificial" during the skating season.

This area of parks and playgrounds completely developed will compare favorably with other cities, Somerville being very small in area and the most densely populated city in the state, averaging about 22,000 in population to a square mile. (Approximately 34 per acre.)

There are eight baseball "diamonds" and three football fields in use and under the city's supervision, as well as numerous smaller playgrounds, on which are located an outdoor gymnasium, running track, tennis courts, and various kinds of athletic apparatus for recreation and rest, where children can play and enjoy themselves and are safe from the dangers of a thickly settled city. These areas are constantly in use by the many athletic teams, the games being arranged for and regularly scheduled on the various grounds throughout the season; and have been policed by regular officers from the police department, when required.

Trees and shrubs have been added on the various grounds, a Christmas tree planted on Central Hill Park, bulbs, plants, and flowers furnished in their seasons, and during the winter time, ponds and artificial areas flooded for skating when the weather was favorable.

Tennis courts have been maintained at Mason street playground, Broadway park, Central Hill park, and Somerville field and used continually throughout the season.

At Lincoln park one of the ball fields has been partially regraded, and the wading pool maintained during the hot weather being a source of much enjoyment to a very large number of children in the immediate vicinity. At Somerville field additional bubbler drinking fountains have been installed and an area laid out for playing girls' hockey has been used considerably. An appropriation has been made for the construction of one unit of a permanent field house; this building is to be a modern concrete structure equipped with shower baths, lavatories, dressing rooms, lockers, etc., and should be completed the coming year.

Somerville field has proven to be very popular with the various clubs and athletic teams in our city, and a number of outside school teams and associations have had the use of this field, the city receiving a small income each year. The centre sections of the grand-stand should be provided with a covering for the convenience of the public. Some progress has been made in the development of the large ungraded portion

of the field, and an appropriation should be made annually for this purpose and when the entire area is laid out and completed as originally designed Somerville will have one of the finest recreation fields owned by any city. In the 1910 report a plan was published showing the proposed laying out.

The city has become so densely populated that portions of some of the larger park areas should be utilized for public recreation and physical training purposes; on several of the playfields concrete buildings should be constructed in place of some of the old wooden structures, additional apparatus provided on some of the principal parks and playgrounds for the smaller children's pleasure, where a regular park employee can have the care of the same, and some of the smaller playground areas should be enclosed by wire fencing for the protection of children.

In certain localities of the city well-lighted playgrounds, during the summer evenings, should be maintained for the young men and women working in the factories daily.

Five hundred and fourteen and six-tenths square yards of granolithic sidewalks have been constructed in sections of Powder House boulevard during the past year as petitioned for by the abutting property owners.

The northerly end of this city boulevard from near North street, a length of about 2,300 feet, has been taken over by the Metropolitan Park Commission, and connecting therewith the new Alewife Brook parkway has been constructed by the state along the Somerville side of the brook extending to Massachusetts avenue in Cambridge and making a continuous state roadway connecting with the Mystic Valley parkway.

Paul Revere park area should be enlarged by acquiring additional land, constructing a street across from Main street to Broadway separating the city's park from the adjoining land, and thereby preserving an historical spot on the top of Winter Hill for the future, also making a convenient connection for travel.

An old ledge property owned by the city, located on Clarendon Hill, near the Cambridge boundary line, might be developed in the future into a pretty pleasure park, similar in nature to the Powder House park; also the Holland street ledge property, owned by the city and situated in West Somerville, could be developed by laying out a portion of the area for a connecting street with house lots on one side and the remainder for a children's playground.

There are a number of vacant lots in the city owned by private parties, large enough for the purpose of establishing recreation grounds and breathing spaces, which undoubtedly could be obtained for short-term leases by payment of the taxes to the owner of the property, and be of great benefit to a large number in the congested parts of the city.

With all these various parcels of land, referred to, properly developed in the future as parks, playgrounds, and resting places, the city will be amply provided for in this line.

The Playgrounds Association has continued its good work in the city, and funds contributed by citizens and a sum appropriated by the city for the special equipment of grounds and supervision of playfields during the summer months have been expended under the direction of the superintendent of schools.

Certain areas (about thirty acres) were used in the city's parks, playgrounds, and school yards which have been equipped with swings, sand boxes, and various kinds of gymnastic apparatus, and supervisors were employed during the months of July and August. Many children enjoyed themselves at these outdoor kindergarten schools, while the larger boys were instructed in baseball, basket ball and other games, and in the use of gymnastic apparatus; athletic competitions were held between the various teams and interesting exhibitions were given at the close of the summer work.

Probably still better results in this city could be obtained by establishing a system with a permanent director of athletics and gymnastics, who would have charge and instruct in every form of athletics and recreation; including all sports and games for the high schools, grammar schools, and all others using the city's playfields and buildings.

The city's assessment for Metropolitan parks and boulevards for the year 1916 amounted to \$11,494.45 on construction account, \$28,764.62 being the proportional cost for maintaining the same; in addition to this the city's special assessment for the Charles River basin construction and maintenance amounted to \$6,616.78; for the improvement of Alewife brook and maintenance of same \$1,255.23 and for the maintenance of Wellington bridge across Mystic river, \$3,087.49. The total of these assessments amounts to \$51,218.57, being Somerville's proportional payment to the state on account of the Metropolitan park system for the year 1916.

The total assessment paid to the state for parks and boulevards amounts to \$592,841.70, January 1, 1917, and the length of state boulevard at present constructed in this city consists of seven-tenths of a mile of double roadway, located in the easterly part of the city and extending between Broadway and Mystic river, and one and three-tenths miles bordering Mystic river and Alewife brook located in the westerly part of the city.

PARKS AND PLAYGROUNDS.

Maintenance Account.

Statement of Expenses, 1916.

(Playgrounds)		(Parks)
	Broadway Park (15.9 acres):—	
\$247 11	Maintenance of grounds, pond and general care of property, labor and teams	\$1,045 16
	Removing brown tail and gypsy moths	73 75
10 35	Supplies and repairs of tools, etc. . . .	73 64
	Plants, flowers, bulbs, etc.	206 00
<hr/>		<hr/>
\$257 46		\$1,398 55
	Broadway Parkway (2.0 acres):—	
	Maintenance of grounds, labor and teams	\$68 56
	Plants, flowers, etc.	100 00
		<hr/>
		\$168 56
	Central Hill Park (13.1 acres):—	
\$100 39	Maintenance of grounds and general care of property, labor and teams	\$1,874 43
	Removing brown tail and gypsy moths	21 00
2 60	Supplies and repairs of tools, etc.	46 39
	Trees, plants, flowers, bulbs, shrubs, etc.	425 20
	Repairing fountain, steps, etc.	106 15
108 53	Constructing running track	
<hr/>		<hr/>
\$211 52		\$2,473 17
	Lincoln Park (8.3 acres):—	
\$754 18	Maintenance of grounds and general care of property, labor and teams	\$874 26
	Removing brown tail and gypsy moths	12 00
125 09	Supplies and repairs of tools, etc.	125 40
	Repairing fountain, steps, etc.	65 38
<hr/>		<hr/>
\$879 27		\$1,077 04
	Prospect Hill Park (2.6 acres):—	
\$44 15	Maintenance of grounds and observation tower, labor and teams	\$891 68
	Removing brown tail and gypsy moths	13 25
\$0 60	Supplies and repairs of tools, etc.	72 20
<hr/>		<hr/>
\$44 75		\$977 13
	Tufts Park (4.5 acres):—	
\$4 70	Maintenance of grounds and Old Powder house, labor and teams	\$654 24
	Removing brown tail and gypsy moths	49 00
	Supplies and repairs of tools, etc.	33 21
	Plants, flowers, bulbs, etc.	270 10
<hr/>		<hr/>
\$4 70		\$1,006 55
	Paul Revere Park (.02 acre):—	
	Maintenance of grounds, labor	\$13 19
	Plants, bulbs, etc.	30 15
		<hr/>
		\$43 34

(Playgrounds)	(Parks)
Belmont Street Park (0.4 acre):—	
Maintenance of grounds, labor and teams	\$294 14
Supplies and repairs of tools	3 20
Plants, flowers, bulbs, etc.	128 65
	<hr/> \$425 99
Powder House Boulevard (1 1-3 miles long):—	
Maintenance of roadway, walks and grass plots, labor and teams	\$449 80
Resurfacing and repairing roadway	928 46
	<hr/> \$1,378 26
Powder House Square Parkway (0.2 acre):—	
Maintenance of area between streets, labor	\$25 34
Cemetery, Somerville Avenue (0.7 acre):—	
Maintenance of grounds, labor and teams	\$74 87
Somerville Field at Alewife Brook (11.5 acres):—	
\$456 62 Maintenance of field and care of property, labor and teams	\$356 13
27 70 Supplies and repairs of tools, etc.	25 83
50 41 Repairing seats, fence, etc.	162 04
	New drinking fountain
<hr/> \$534 73	<hr/> \$544 00
Playground, Cedar street and Broadway, (4.3 acres):—	
\$383 28 Maintenance of grounds, labor and teams	\$77 26
75 45 Supplies and repairs of tools, etc.	9 68
<hr/> \$458 73	<hr/> \$86 94
Playground, Glen street and Oliver street, (0.9 acre + 1.5 acres leased):—	
\$249 10 Maintenance of grounds, labor and teams	\$249 10
37 41 Supplies and repairs of tools, etc.	37 41
<hr/> \$286 51	
Playground, Kent street and Somerville avenue (0.8 acre):—	
\$131 59 Maintenance of grounds, labor and teams	\$52 85
27 82 Removing gypsy moths	16 00
	Supplies and repairs of tools, etc. 86
<hr/> \$159 41	<hr/> \$69 71
Playground, Poplar street and Joy street, (0.5 acre):—	
\$5 22 Maintenance of grounds, labor and teams	\$2 94
Playground, Beacon street, near Washington street (0.2 acre):—	
\$24 41 Maintenance of grounds, labor and teams	\$9 36
	Removing gypsy moths 12 00
<hr/> \$24 41	<hr/> \$21 36

(Playgrounds)		(Parks)
	Playground, Webster avenue, near Cambridge line (0.2 acre):—	
\$27 66	Maintenance of grounds, labor and teams	\$25 11
	Playground, Mason street and Broadway (0.3 acre):—	
\$132 29	Maintenance of grounds, labor and teams	
55 27	Supplies and repairs of tools, etc.	
<hr/>		
\$187 56		
	Playground, Fellsway East (2.5 acres leased):—	
\$64 55	Maintenance of grounds, labor and teams	
13 82	Supplies and repairs of tools, etc.	
<hr/>		
\$78 37		
	“Tufts Oval” (Summer Playground) Tufts College Land:—	
\$48 83	Maintenance of grounds, labor and teams	
1 30	Supplies	
<hr/>		
\$50 13		
	“Artificial” (Skating area) Tufts College Land:—	
\$184 18	Maintenance of area, labor and teams	
29 80	Fencing hockey rink	
<hr/>		
\$213 98		
	Total expenditure, maintenance (75 acres) 65.5 acres city property + 8.8 acres leased land, 0.7 acre cemetery and 1 1-3 miles boulevard, and 0.54 mile parkway roads	
<hr/>		<hr/>
\$3,424 41		\$9,798 86

CREDIT.

Playgrounds and Recreation		Parks
\$3,500 00	Appropriation for parks	\$10,000 00
	Appropriation for playgrounds	
<hr/>		<hr/>
\$75 59	Balance unexpended (transferred to other accounts)	\$201 14

APPENDED TABLE.

Annexed to this report is a table giving names of all streets in the city, public and private, lengths, widths, and the total mileage; in the 1910 report, tables were published showing old names of certain streets as formerly known, and names of public squares in the city.

Respectfully submitted,

ERNEST W. BAILEY,

City Engineer.

TABLE SHOWING THE LOCATION, LENGTH AND WIDTH OF
PUBLIC AND PRIVATE STREETS.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Abdell	Somerville ave. .	Southwesterly . .	Private.	25	....	203
Aberdeen road . .	Cedar st.	Highland ave. . .	Public.	40	449	....
Aberdeen road ext.	Angle	Westerly	Private.	30	....	67
Acadia pk.	Somerville ave. .	Northeasterly . .	Public.	40	256	....
Adams	Broadway	Medford st. . . .	Public.	40	907	....
Addison pl.	Somerville ave. .	Southwesterly . .	Private.	20	....	150
Adelaide rd.	Somerville ave. .	Northeasterly . .	Private.	20	....	138
Adrian	Marion st.	Joseph st.	Public.	40	579	....
Albion pl.	Albion st.	Northeasterly . .	Private.	10	....	166
Albion ct.	Albion st.	Southwesterly . .	Private.	16	....	116
Albion	Central st.	Cedar st.	Public.	40	2,742	....
Albion	Broadway	Medford line . . .	Private.	50	....	100
Albion ter.	Albion st.	Southwesterly . .	Public.	25	100	....
Aldersey	Walnut st.	Vinal ave.	Public.	40	508	....
Aldrich	Pearl st.	B. & L. R. R. . . .	Public.	40	611	....
Alewife Brook pkwy	Mystic Val. pkwy	Cambridge line . .	Public.	....	4,775	....
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 . .	Public.	30	667	....
Alpine	Alpine st.	Lowell st.	Public.	40	688	....
Alston	Cross st.	Shawmut st. . . .	Public.	40-30	757	....
Ames	Bartlett st.	Robinson st. . . .	Public.	40	580	....
Appleton	Willow ave.	Clifton st.	Public.	40	548	....
Appleton	Clifton st.	Liberty ave. . . .	Public.	40	120	....
Arlington	Franklin st.	Lincoln st.	Public.	40	452	....
Arnold ave.	Porter st.	Southeasterly . .	Private.	15	....	127
Arnold ct.	Beacon st.	Northeasterly . .	Private.	10	....	115
Arthur ct.	Linden st.	Easterly	Private.	about 10	....	100
Arthur	Broadway	Bonair st.	Public.	40	438	....
Ash ave.	Meacham st.	East Albion st. . .	Public.	40	554	....
Ash ave.	East Albion st. . .	Northeasterly . .	Private.	40	....	151
Ashland	Summer st.	Sartwell ave. . . .	Public.	30	478	....
Atherton	Central st.	Spring st.	Public.	40	741	....
Auburn ave.	Cross st.	B. & L. R. R. . . .	Public.	30	606	....
Austin	Broadway	Mystic ave.	Public.	40	716	....
Autumn	Broadway	Bonair st.	Public.	20	408	....
Avon	School st.	Central st.	Public.	40	1,360	....
Avon pl.	Cross st.	B. & L. R. R. . . .	Private.	25	....	150
Bailey	North st.	West Adams st. . .	Private.	40	....	420
Banks	Elm st.	Summer st.	Public.	40	639	....
Bartlett	Vernon st.	Broadway	Public.	40	1,550	....
Barton	Broadway	Hamilton road. . .	Public.	40	382	....
Bay State ave.	Broadway	Fosket st.	Public.	40	1,237	....
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	6,007	....
Beacon ter.	Somerville ave. . .	Northeasterly . .	Private.	24	....	110
Bean ter.	Cutter st.	Southeasterly . .	Private.	16	....	100
Beckwith circle	Beacon st.	Southwesterly . .	Private.	28.5	....	112
Bedford	South st.	Cambridge line . .	Public.	30	165	....
Beech	Somerville ave. . .	Atherton st.	Public.	40	313	....
Belknap	Broadway	Hamilton road. . .	Public.	40	449	....
Bellevue ter.	Albion st.	Northeasterly . .	Private.	20	....	90
Belmont	Somerville ave. . .	Highland ave. . . .	Public.	40	2,192	....
Belmont pl.	Belmont st.	Southeasterly . .	Public.	25	177	....
Belmont sq.	Belmont st.	Southeasterly . .	Private.	30	....	75
Belmont sq.	Belmont ter.	No'es'ly & so'ws'ly	Private.	20	....	145
Belmont ter.	Belmont st.	Easterly	Private.	15	....	137
Benedict ave.	Broadway	Benedict st.	Private.	20	....	200
Benedict	Union st.	Austin st.	Public.	40	585	....
Bennett ct.	Bennett st.	Prospect st.	Private.	10	....	100
Bennett	Prospect st.	Bennett ct.	Private.	40 to 25	....	400
Benton road	Summer st.	Hudson st.	Public.	40	1,208	....
Berkeley	School st.	Central st.	Public.	40	1,360	....
Berwick	Hinckley st.	Northwesterly . .	Private.	20	....	170
Bigelow	Boston st.	Munroe st.	Public.	50	208	....
Billingham	Broadway	William st.	Public.	40	563	....

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Bishop's pl.	Glen st.	Easterly	Private.	10	....	75
Blakeley ave.	Fellsway east	Cross st.	Private.	40	....	630
Bleachery ct.	Somerville ave.	Fitchburg R. R.	Private.	30	....	450
Bolton	Oak st.	Houghton st.	Public.	40	476	....
Bonair	Cross st.	Walnut st.	Public.	40	1,535	....
Bond	Broadway	Jaques st.	Public.	40	655	....
Bonner ave.	Washington st.	Columbus ave.	Public.	40	376	....
Boston ave.	Medford line	Mystic river	Public.	60	915	....
Boston ave.	Broadway	Medford line	Public.	50	80	....
Boston ave.	Broadway	Highland road	Public.	65	287	....
Boston ave.	Highland road	Prichard ave.	Public.	50	509	....
Boston ave.	Prichard ave.	Easterly to angle in st.	Private.	50	....	146
Boston ave.	Angle inst. south'y	Kidder ave.	Private.	40	....	376
Boston ave.	Kidder ave.	Morrison ave.	Public.	40	649	....
Boston	Washington st.	Prospect Hill ave.	Public.	45	640	....
Boston	Prospect Hill av.	Walnut st.	Public.	40	1,242	....
Bow	Union sq.	Wesley sq.	Public.	60	658	....
Bow	Wesley sq.	Somerville ave.	Public.	50	570	....
Bowdoin	Washington st.	Lincoln park	Public.	40	341	....
Bowers ave.	Cottage ave.	Elm st.	Private.	24	....	288
Bow St. pl.	Bow st.	Northwesterly	Private.	40	....	300
Bradford ave.	School st.	Southeasterly	Private.	40	....	150
Bradley	Pearl st.	Walter st.	Public.	40	762	....
Braemore road	Broadway	Medford line	Private.	40	....	9
Brastow ave.	Lowell st.	Porter st.	Public.	40	686	....
Bristol road	Broadway	Medford line	Public.	40	146	....
Broadway	Charlestown line	Cross st.	Public.	100	2,590	....
Broadway	Cross st.	Marshall st.	Public.	100 to 200	2,060	....
Broadway	Marshall st.	Main st.	Public.	100	1,570	....
Broadway	Main st.	Top of hill	Public.	100 to 90	1,030	....
Broadway	Top of hill	Albion st.	Public.	90	2,540	....
Broadway	Albion st.	Willow ave.	Public.	90 to 70	1,030	....
Broadway	Willow ave.	Paulina st.	Public.	70	3,250	....
Broadway	Paulina st.	Arlington line	Public.	65-60-65	3,220	....
Broadway pl.	Broadway	Southwesterly	Private.	22	....	250
Bromfield road	Warner st.	Dearborn road	Public.	40	1,262	....
Brook	Glen st.	Cross st.	Public.	40	504	....
Browning road	Sycamore st.	Central st.	Public.	40	679	....
Buckingham	Beacon st.	Dimick st.	Public.	40	292	....
Buena Vista rd.	Holland st.	Southwesterly	Private.	35	....	276
Burnham	Broadway	Powder House Blvd.	Public.	40	543	....
Burnside ave.	Elm st.	Summer st.	Public.	40	720	....
Cady ave.	Simpson ave.	Northwesterly	Private.	40	....	203
Caldwell ave.	Washington st.	Southerly	Private.	20	....	210
Calvin	Beacon st.	Dimick st.	Public.	40	263	....
Calvin	Dimick st.	Washington st.	Public.	30	392	....
Cambria	Central st.	Benton road	Public.	40	488	....
Cameron ave.	Holland st.	Cambridge line	Public.	60	1,065	....
Campbell pk.	Meacham rd.	Kingston st.	Public.	40	399	....
Campbell Pk. pl.	Kingston st.	Arlington Br. R. R.	Private.	20	....	84
Carlton	Somerville ave.	Lake st.	Public.	40	300	....
Carter terrace	Summer st.	Southwesterly	Private.	40	....	214
Carver	Porter st.	Northwesterly	Private.	40	....	156
Cedar ave.	Cedar st.	Linden ave.	Private.	22	....	290
Cedar ct.	Cedar st.	Southeasterly	Private.	15+	....	70+
Cedar St. pl.	Murdock st.	Southwesterly	Private.	20	....	378
Cedar St. pl.	Cedar n'r Elm st.	Southeasterly	Private.	12+	....	80+
Cedar	Elm st.	Broadway	Public.	40	4,137	....
Central road	Central st.	E'ly and N'y.	Private.	40	....	223
Central road	Central road	Sycamore st.	Private.	30-15	....	220
Central	Somerville ave.	Summer st.	Public.	33	1,043	....
Central	Summer st.	Medford st.	Public.	40	2,539	....
Central	Medford st.	Broadway	Public.	45	1,079	....
Centre	Albion st.	B. & L. R. R.	Private.	35	....	200
Chandler	Park ave.	Broadway	Public.	40	1,232	....
Chapel	College ave.	Chandler st.	Public.	40	273	....
Chapel ct.	Sycamore st.	Northwesterly	Private.	12	....	130
Charles	Washington st.	Southerly	Public.	30	166	....

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Charlestown . . .	Allen st. . . .	Easterly	Private.	15	....	400
Charnwood road .	Willow ave. . .	Hancock st. . .	Public.	40	589	....
*Chelsea	Mystic ave. . .	Melrose st. . .	Private.	50	....	1,390
Cherry	Elm st.	Highland ave. .	Public.	45	1,450	....
Cherry	Highland ave. .	Northeasterly .	Private.	45	....	110
Chester	Elm st.	Cambridge line .	Public.	40	885	....
Chester ave. . . .	Medford st. . .	Angle	Public.	about 22	220	....
Chester ave. . . .	Angle	Cross st.	Public.	20	451	....
Chester pl.	Chester st. . . .	Northwesterly .	Private.	40	....	200
Chestnut	Poplar st. . . .	Southeasterly .	Public.	40	537	....
Chetwynd road . .	Curtis st. . . .	West Adams st. .	Private.	40	....	892
Church	Summer st. . . .	Lake st.	Public.	40	964	....
City road	Broadway	Cedar st.	Private.	45	....	980
Claremon	Holland st. . . .	Mead st.	Public.	40	560	....
Clarendon ave. . .	Broadway	Cambridge line .	Public.	40	1,217	....
Clark	Newton st. . . .	Lincoln parkway .	Public.	35	552	....
Cleveland	Central st. . . .	Harvard st. . . .	Public.	40	459	....
Clifton	Appleton st. . .	Morrison ave. . .	Public.	40	200	....
Clifton	Morrison ave. . .	Arlington Br. R.R.	Private.	40	....	220
Clyde	Cedar st.	Murdock st. . . .	Public.	30	664	....
College ave.	Davis sq.	Medford line . .	Public.	60	4,080	....
College Cir.	College ave. . . .	und to College ave.	Private.	10 and 12	....	284
College Hill road .	Conwell ave. . . .	North st.	Private.	40	....	449
Columbia	Webster ave. . . .	Cambridge line .	Public.	40	816	....
Columbia ct.	Columbia st. . . .	Webster ave. . . .	Private.	9	....	150
Columbus ave. . . .	Washington st. . .	Walnut st.	Public.	40	1,425	....
Concord ave.	Prospect st. . . .	Wyatt st.	Public.	40	1,483	....
Concord ave.	Wyatt st.	Beacon st.	Public.	30	472	....
Congress pl.	Linwood st. . . .	Somerville ave. .	Public.	50	202	....
Conlon ct.	Columbia st. . . .	Easterly	Private.	20	....	200
Connecticut ave. . .	Mystic ave. . . .	Pennsylvania ave.	Private.	40	....	487
Conwell ave.	Curtis st.	North st.	Public.	40	1,346	....
Conwell	Highland ave. . .	Southwesterly .	Public.	35	363	....
Cooney	Beacon st.	Line st.	Private.	30	....	220
Corinthian road . .	Broadway.	Cady ave.	Private.	40	....	560
Cottage ave.	Russell st.	Chester st.	Public.	40	550	....
Cottage circle . . .	Cottage ave. . . .	Southwesterly .	Private.	25	....	87
Cottage pl.	Washington st. . .	Northwesterly .	Private.	about 11	....	160
Craigie	Somerville ave. . .	Summer st.	Public.	50	1,280	....
Craigie ter.	16 Craigie st. . . .	Westerly	Private.	25	....	126
Crescent	Washington st. . .	Hadley	Private.	30	....	402
Crescent	Hadley st.	Pearl st.	Public.	30	174	.. .
Crocker	Highland ave. . .	Crown st.	Public.	40	528	....
Cross	Medford st. . . .	Broadway	Public.	45	2,680	....
Cross st. (East) . .	Broadway	Mystic ave. . . .	Public.	40	1,100	....
Cross St. pl.	Cross st.	Northwesterly .	Private.	24	....	150
Crown	Porter st.	Lowell st.	Private.	30	....	700
*Cummings	Fellsway	Middlesex ave. . .	Private.	40	....	625
Curtis ave.	Curtis st.	Hillsdale road . .	Public.	40	654	....
Curtis	Broadway	Medford line . . .	Public.	40	2,357	....
Cutler	Hinckley st. . . .	Northwesterly .	Private.	20	....	170
Cutter ave.	Summer st.	Highland ave. . .	Public.	40	480	....
Cutter pk.	Cutter ave.	Northwesterly .	Private.	12	....	83
Cutter	Broadway	Webster st. . . .	Public.	40	730	....
Cypress	Central st.	Beech st.	Public.	40	262	....
Dana	Bonair st.	Pearl st.	Public.	40	696	....
Dane	Somerville ave. . .	Washington st. . .	Public.	40	1,341	....
Dane ave.	Dane st.	Leland st.	Public.	30	569	....
Dante terrace	Craigie st.	Westerly	Private.	25	....	125
Dartmouth	Medford st.	Broadway	Public.	40	1,465	....
Day	Elm st.	Cambridge line . .	Public.	40	908	....
Dearborn road . . .	Boston ave.	College ave. . . .	Public.	50	469	....
Delaware	Aldrich st.	Pearl st.	Public.	40	451	....
Dell	Glen st.	Tufts st.	Public.	40	466	....
Derby	Temple st.	Wheatland st. . .	Public.	40	1,031	....
Dexter	Broadway	Medford line . . .	Private.	50	....	25
Dickinson	Springfield st. . .	Beacon st.	Public.	40	770	....
Dickson	Broadway	Fairmount ave. . .	Private.	40	....	271
Dimick	Concord ave. . . .	Calvin st.	Public.	40	957	....
Dix pl.	Linwood st.	Southwesterly . .	Private.	10	....	100
Douglas ave.	Edgar ave.	Southeasterly . .	Private.	30	....	162

*Proposed.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	TO	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Dover	Elm st.	Cambridge line	Public.	40	975	....
Dow	PowderHouseBd.	Ware st.	Private.	40	....	257
Downer pl.	Downer st.	B. & L. R. R.	Private.	20	....	125
Downer	Nashua st.	Southeasterly	Private.	20	....	120
Dresden circle	Cutter ave.	Westerly	Private.	30	....	133
Durant	Washington st.	Southerly	Private.	20	....	200
Durham	Beacon st.	Hanson st.	Public.	40	423	....
Dynamo	Willow ave.	Whipple st.	Private.	30	....	255
Earle	South st.	Fitchburg R. R.	Private.	30	...	322
East Albion	Mt. Vernon ave.	E. of Moreland st.	Private.	25	...	188
East Albion	E. of Moreland st.	Medford line.	Private.	40	...	490
Eastman road.	Highland ave.	Southwesterly	Public.	40	296	....
Edgar ave.	Main st.	Meacham st.	Private.	50	....	800
Edgemere st.	Washington st.	Southerly	Private.	40	....	509
(Magnus ave.)						
*Edgeworth	Mystic ave.	Melrose st.	Private.	50	....	1,380
Edmunds	Broadway	near Bonair st.	Public.	40	376	....
Edmonton ave.	Cross st.	Fellsway east	Private.	40	....	630
Electric ave.	Mason st.	Curtis st.	Public.	40	1,374	....
Eliot	Vine st.	Park st.	Public.	40	291	....
Ellington road	Highland ave.	Northeasterly	Private.	35	....	120
Ellington road	West st.	Northwesterly	Private.	30	....	405
Ellsworth	Cross st.	Rush st.	Public.	40	230	....
Elm ct.	Villa ave.	Northwesterly	Private.	18	....	70
Elm pl.	Harvard st.	Westerly	Private.	30	....	190
Elm road	Elm st.	Northeasterly	Private.	25	....	183
Elm	Somerville ave.	Cherry st.	Public.	63	1,672	....
Elm	Cherry st.	White st.	Public.	63 to 60	330	....
Elm	White st.	Banks st.	Public.	60	660	....
Elm	Banks st.	Beech st.	Public.	60 to 77.5	290	....
Elm	Beech st.	Tenney st.	Public.	77.5 to 60	570	....
Elm	Tenney st.	Davis sq.	Public.	60	1,429	....
Elmwood	Holland st.	Cambridge line	Public.	40	1,057	....
Elmwood ter.	Elmwood st.	Easterly	Private.	20	....	190
Elston	Elm st.	Summer st.	Public.	40	396	....
Emerson	Everett st.	Newton st.	Private.	30	....	170
Endicott ave.	Broadway	Woodstock st.(Ext'n)	Private.	40	....	800
Essex	Medford st.	Richdale ave.	Public.	40	232	....
Eustis	Beacon st.	Cambridge line	Private.	30	....	150
Everett ave.	Cross st.	Dana st.	Public.	40	845	....
Everett	Webster ave.	Newton st.	Private.	30	....	350
Evergreen ave.	Marshall st.	Sycamore st.	Public.	40	1,320	....
Evergreen sq.	Porter st.	Southeasterly	Private.	22	...	179
Exchange pl.	Washington st.	Southerly	Private.	4.5	....	70
*Fairfax st.	North st.	Powder House Blvd	Private.	40	....	915
Fairlee	Cherry st.	Northwesterly	Public.	30	144	....
Fairmount ave.	Curtis st.	Northwesterly	Public.	40	679	....
Fairview ter.	Sycamore st.	Southwesterly	Private.	15	....	173
Farragut ave.	Broadway	Woodstock st.(Ext'n)	Public.	40	905	....
†Fellsway	Mystic ave.	Mystic river	Public.	70 to 130	2,500	....
†Fellsway east						
(Winthrop ave.)						
†Fellsway west	Broadway	Mystic ave.	Public.	50	1,222	....
(Chauncey ave.)						
Fenwick	Broadway	Jaques st.	Public.	40	601	....
Fisk ave.	Hinckley st.	Lowell st.	Public.	20	484	....
Fitchburg ct.	Fitchburg st.	Southeasterly	Private.	10	....	225
Fitchburg	Linwood st.	B. & L. R. R.	Private.	40	....	400
Flint ave.	Flint st.	Northerly	Public.	40	202	....
Flint	Franklin st.	Aldrich st.	Public.	40	1,790	....
Florence	Washington st.	Perkins st.	Public.	40	1,304	....
Florence ter.	Jaques st.	Southwesterly	Private.	20	....	90
Forest	Beacon st.	Cambridge line	Public.	40	117	....
Forster	Sycamore st.	Central st.	Private.	30	....	430
Fosket	Willow ave.	Liberty ave.	Public.	40	668	....
Fountain ave.	Cross st.	Glen st.	Public.	30	578	....
Francesca ave.	College ave.	Liberty ave.	Public.	40	762	....
Francis	Porter st.	Conwell st.	Public.	30	180	....

* Proposed.

† Metropolitan Park Commission Boulevard.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	TO	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Franklin ave. . . .	Washington st. . .	Franklin st. . . .	Public.	20	575	....
Franklin pl. . . .	Franklin st. . . .	Southeasterly . . .	Private.	15	....	100
Franklin	Broadway	Washington st. . .	Public.	40+	2,316	....
Fremont ave. . . .	Bowdoin st. . . .	Lincoln pk. . . .	Public.	30	232	....
Fremont	Main st. . . .	Near E. Albion st.	Public.	40	1,112	....
Fremont	Near E. Albion st.	Mystic ave. . . .	Private.	40	....	335
Garden ct. . . .	Somerville ave. . .	Fitchburg R. R. . .	Private.	25	....	370
Garfield ave. . . .	Broadway	Blakeley ave. . . .	Public.	40	447	....
Garfield ave. . . .	Blakeley ave. . . .	Middlesex ave. . . .	Private.	40	....	983
Garrison ave. . . .	Broadway	Land of City of Camb.	Public.	40	460	....
Garrison ave. . . .	Land City of Camb.	Woodstock st. (Ext'n)	Private.	40	....	390
George	Broadway	Lincoln ave. . . .	Public.	30	275	....
Gibbens	Central st. . . .	Benton road, w'ly	Public.	40	665	....
Giles pk. . . .	Walnut st. . . .	Northwesterly . . .	Public.	32.71	167	....
Gill's ct. . . .	Franklin st. . . .	Westerly	Private.	10	....	100
Gilman	Cross st. . . .	Walnut st. . . .	Public.	40	1,430	....
Gilman ter. . . .	Pearl st. . . .	Northeasterly . . .	Public.	40	360	....
Gilson ter. . . .	Linden ave. . . .	Northwesterly . . .	Private.	20	....	124
Glen	Broadway	Tufts st. . . .	Public.	40	2,373	....
Glendale ave. . . .	Cameron ave. . . .	Yorktown st. . . .	Public.	40	410	....
Glenwood road . . .	Vernon st. . . .	Broadway	Public.	40	1,524	....
Glover circle	Meacham road . . .	Southeasterly . . .	Private.	20	....	110
*Gordon st. . . .	North st. . . .	Powder House Blvd	Private.	40	....	1,245
Gorham	Holland st. . . .	Howard st. . . .	Public.	40	763	....
Gould ave. . . .	Porter st. . . .	Southeasterly . . .	Private.	16	....	156
Gove ct. . . .	Cedar st. . . .	Southeasterly . . .	Private.	15	....	145
Grand View ave. . .	Walnut st. . . .	Vinal ave. . . .	Public.	40	542	....
Granite	Somerville ave. . .	Osgood st. . . .	Public.	40	411	....
Grant	Broadway	Mystic ave. . . .	Public.	40	1,405	....
Greene	Summer st. . . .	Laurel st. . . .	Public.	40	555	....
Greenville	Medford st. . . .	Munroe st. . . .	Public.	40	660	....
Greenville ter. . . .	Greenville st. . . .	Northerly	Private.	20	....	250
Greenwood ter. . . .	Beacon st. . . .	Northeasterly . . .	Private.	25	....	165
Gritter way	College ave. . . .	Bromfield rd . . .	Private.	4	....	160
Grove	Elm st. . . .	Morrison ave. . . .	Public.	40	996	....
Hadley ct. . . .	Franklin st. . . .	Westerly	Private.	16	....	95
Hall ave. . . .	College ave. . . .	Liberty ave. . . .	Public.	40	926	....
Hall	Cedar st. . . .	Cherry st. . . .	Public.	30	456	....
Hamlet	Highland ave. . . .	Boston st. . . .	Public.	30	616	....
Hamilton road	Russell road	North st. . . .	Public.	40	560	....
Hammond	Dickinson st. . . .	Concord ave. . . .	Public.	40	267	....
Hancock	Elm st. . . .	Highland ave. . . .	Public.	40	1,349	....
Hancock	Highland ave. . . .	Lexington ave. . . .	Public.	50	376	....
Hanson ave. . . .	Hanson st. . . .	Easterly	Private.	30	....	252
Hanson	Washington st. . . .	Skehan st. . . .	Public.	30	469	....
Hanson	Skehan st. . . .	Vine st. . . .	Public.	35	347	....
Hardan road	Powder House Bd.	Ware st. . . .	Private.	20 and 40	....	283
Harding	North of Ward st.	Cambridge line . . .	Public.	30	465	....
Harold	Dimick st. . . .	Marion st. . . .	Public.	40	316	....
Harrison	Ivaloo st. . . .	Kent st. . . .	Public.	40	644	....
Harrison	Elmwood st. . . .	Southeasterly . . .	Private.	40	....	210
Harvard pl. . . .	Harvard st. . . .	Westerly	Private.	35	....	200
Harvard	Summer st. . . .	Beech st. . . .	Public.	40	717	....
Hathorn	Broadway	Arlington st. . . .	Public.	40	339	....
Hawkins	Somerville ave. . .	Washington st. . . .	Public.	40	330	....
Hawthorne	Willow ave. . . .	Cutter ave. . . .	Public.	30	807	....
Hayden ter. . . .	Linden ave. . . .	Easterly	Private.	20	....	120
Heath	Temple st. . . .	Bond st. . . .	Public.	45	1,043	....
Heath	Bond st. . . .	Moreland st. . . .	Public.	40	754	....
Henderson	Richardson st. . . .	B. & L. R. R. . . .	Public.	20	569	....
Hennessy ct. . . .	Medford st. . . .	Fisk ave. . . .	Private.	20	....	250
Henrietta ct. . . .	Somerville ave. . .	Northerly	Private.	8 and 20.	....	161
Henry ave. . . .	Highland ave. . . .	Lexington ave. . . .	Public.	40	290	....
Herbert	Chester st. . . .	Day st. . . .	Public.	40	337	....
Hersey	Berkeley st. . . .	Oxford st. . . .	Private.	40	....	230
Higgins ct. . . .	Mt. Vernon st. . . .	Westerly	Private.	16	....	149
High	North st. . . .	Powder House Bd.	Private.	40	....	678
Highland ave. . . .	Medford st. . . .	Davis sq. . . .	Public.	60	9,135	....
Highland p'th, east	Morrison ave. . . .	Arlington Br. R.R.	Private.	10	....	107
Highland p'th, west	Morrison ave. . . .	Arlington Br. R.R.	Private.	10	....	108

*Proposed.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
†Highland road . . .	Morrison ave. . .	Boston ave. . .	Public.	30(70 wide)	1,499	....
Hill . . .	Broadway . . .	Fairmount ave. . .	Public.	40	284	....
Hillsdale rd. . .	Conwell ave. . .	Sunset rd. . .	Private.	40	....	632
Hillside ave. . .	Pearl st. . .	Southwesterly . . .	Private.	30	....	160
Hillside cir. . .	Craigie st. . .	Westerly . . .	Private.	16	....	151
Hillside pk. . .	Walnut st. . .	Northwesterly . . .	Public.	40	196	....
Hinckley . . .	Broadway . . .	B. & L. R. R. . .	Public.	30 and 35	1,081	....
Hodgdon pl. . .	Dane ave. . .	Northeasterly . . .	Private.	about 20	....	150
Holland . . .	Davis sq. . .	Broadway . . .	Public.	60	2,696	....
Holt's ave. . .	Oak st. . .	Southeasterly . . .	Private.	10	....	100
Holyoke road . . .	Elm st. around to	Elm st. . .	Public.	40	637	....
Homer sq. . .	Bonner ave. . .	Northwesterly . . .	Public.	30+	200	....
Horace . . .	South St. . .	Ward st. . .	Public.	30	222	....
Horace . . .	Ward st. . .	Fitchburg R. R. . .	Private.	30	....	265
Houghton . . .	Springfield st. . .	Cambridge line. . .	Public.	40	653	....
Howard . . .	Thorndike st. . .	Gorham street . . .	Public.	40	431	....
Howe . . .	Marshall st. . .	School st. . .	Public.	40	445	....
Hudson . . .	Central st. . .	Cedar st. . .	Public.	40	2,760	....
Hunting . . .	South st. . .	Cambridge line . . .	Private.	30	....	125
Ibbetson . . .	Somerville ave. . .	Lowell st. . .	Public.	40	802	....
Illinois ave. . .	Broadway . . .	Pennsylvania ave. . .	Public.	40	427	....
Indiana ave. . .	Broadway . . .	Pennsylvania ave. . .	Public.	40	384	....
Irving . . .	Holland st. . .	Broadway . . .	Public.	40	1,180	....
Ivaloo . . .	Beacon st. . .	Park st. . .	Public.	40	685	....
James . . .	Pearl st. . .	Radcliffe road. . .	Public.	40	320	....
Jaques . . .	Fellsway west . . .	Temple st. . .	Public.	40	1,182	....
Jaques . . .	Temple st. . .	Bond st. . .	Public.	45	1,005	....
Jaques . . .	Bond st. . .	Edgar ave. . .	Private.	40	....	378
Jasper pl. . .	Walnut st. . .	Easterly . . .	Private.	20	....	80
Jasper . . .	Pearl st. . .	Gilman st. . .	Public.	40	283	....
Jay . . .	Holland st. . .	Howard st. . .	Public.	40	534	....
Jerome ct. . .	Sycamore st. . .	Jerome st. . .	Private.	10	....	150
Jerome . . .	Montrose st. . .	Jerome ct. . .	Private.	20	....	125
Jerome . . .	Lawrence rd. . .	Mystic Valley Park'y	Private.	40	....	495
Joseph . . .	Newton st. . .	Lincoln parkway . . .	Public.	40	458	....
Josephine ave. . .	Morrison ave. . .	Broadway . . .	Public.	45	1,718	....
Joy . . .	Washington st. . .	Poplar st. . .	Public.	30	1,121	....
Joy St. pl. . .	Joy st. . .	Southwesterly . . .	Private.	30	....	175
Kenneson road . . .	Broadway . . .	Walnut road . . .	Private.	30	....	338
Kensington ave. . .	Broadway . . .	Blakeley ave. . .	Public.	40	455	....
*Kensington ave. . .	Blakeley ave. . .	Middlesex ave. . .	Private.	40	....	1,150
Kent ct. . .	Kent st. . .	Northerly . . .	Private.	about 25	....	420
Kent . . .	Somerville ave. . .	Fitchburg R. R. . .	Public.	40	292	....
Kent . . .	Fitchburg R. R. . .	Beacon st. . .	Public.	25	386	....
Kenwood . . .	College ave. . .	Billingham st. . .	Public.	40	322	....
Kidder ave. . .	College ave. . .	Boston ave. . .	Public.	40	2,554	..
Kilby . . .	Somerville ave. . .	Southwesterly . . .	Private.	20	....	180
Kilsyth road . . .	Broadway . . .	Medford line . . .	Private.	40	....	5
Kimball . . .	Lowell st. . .	Craigie st. . .	Private.	40	....	303
Kingman road. . .	Washington st. . .	Fitchburg R. R. . .	Private.	25	....	400
Kingston . . .	Meacham foad . . .	Cambridge line. . .	Public.	40	647	....
Knapp . . .	School st. . .	Granite st. . .	Public.	40	379	....
Knowlton . . .	Tufts st. . .	N'E'y line Est. 37	Public.	40	461	....
Knowlton . . .	End of above	Oliver st. . .	Private.	40	....	464
Lake . . .	Hawkins st. . .	Church st. . .	Public.	40	840	....
Lamson ct. . .	Linwood st. . .	Poplar st. . .	Private.	20	....	370
Landers . . .	School st. . .	Westerly . . .	Public.	40	228	....
Langmaid ave. . .	Broadway . . .	Heath st. . .	Public.	30	353	....
Latin way . . .	Talbot ave. . .	Professors row . . .	Private.	60	....	250
Laurel ave. . .	Laurel st. . .	Northwesterly . . .	Private.	18	....	125
Laurel . . .	Somerville ave. . .	Summer st. . .	Public.	40	983	....
Lawrence road . . .	Medford line . . .	Mystic Valley Park'y	Private.	40	....	585
Lawson ter. . .	Putnam st. . .	Easterly . . .	Private.	5	....	200
Lee . . .	Medford st. . .	Richdale ave. . .	Public.	40	385	....
Leland . . .	Washington st. . .	Dane ave. . .	Public.	40	359	....

*Proposed.

†Roadway (only) accepted 30 feet wide, full width of street 70 feet.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Leon	Concord ave. . .	Dickinson st. . .	Public.	40	155	...
Leonard pl. . . .	Joy st.	Northeasterly . . .	Private.	13+	...	98
Leonard	Broadway . . .	Powder House Blvd.	Public.	40	450	....
Lesley ave. . . .	Highland ave. . .	Lexington ave. . .	Public.	40	333	....
Leslie pl.	Highland ave. . .	Northerly	Private.	12	....	75
Lester ter.	Meacham road . .	Northwesterly . . .	Private.	20	....	190
Lexington ave. . .	Willow ave. . . .	Hancock st.	Public.	50	624	....
Lexington ave. . .	Hancock st. . . .	Angle	Public.	45 to 40	147	....
Lexington ave. . .	Angle	Cedar st.	Public.	40	578	....
Liberty ave. . . .	Broadway	Appleton st. . . .	Public.	40	1,493	....
Liberty rd.	Morrison ave. . .	Liberty ave. . . .	Private.	16	....	200
Lincoln ave. . . .	Lincoln st. . . .	Mt. Vernon st. . .	Public.	30	478	....
Lincoln parkway .	Washington st. .	Perry st.	Public.	40	1,520	....
Lincoln pl.	Lincoln ave. . . .	Northerly	Private.	9	....	120
Lincoln	Broadway. . . .	Perkins st.	Public.	40	550	....
Linden ave.	Elm st.	Summer st.	Public.	45	1,083	....
Linden ave.	Summer st. . . .	Northeasterly . . .	Private.	45	....	250
Linden circle . . .	Linden ave. . . .	Southeasterly . . .	Private.	24	....	120
Linden pl.	Linden ave. . . .	Northwesterly . . .	Private.	20	....	160
Linden	Somerville ave. .	Charlestown st. . .	Public.	33	587	....
Line	Washington st. .	Cambridge line . .	Public.	33	1,727	....
Linehan ct.	Linwood st. . . .	Chestnut st.	Private.	about 15	....	200
Linwood pl.	Linwood st. . . .	Southwesterly . . .	Private.	about 12	....	150
Linwood	Somerville ave. .	Washington st. . .	Public.	50	2,114	....
London	Linwood st. . . .	B. & L. R. R. . . .	Private.	40	....	340
Loring	Somerville ave. .	Osgood st.	Public.	40	413	....
Louisburg pl. . . .	Autumn st. . . .	Easterly	Private.	13	....	90
Lovell	Broadway	Electric ave. . . .	Public.	40	385	....
Lowden ave.	Broadway	Fosket st.	Public.	40	1,247	....
Lowell	Somerville ave. .	Summer st.	Public.	36	1,259	....
Lowell	Summer st. . . .	Medford st.	Public.	40	3,472	....
Lowell circle . . .	Lowell st.	Westerly	Private.	11 and 27.5	....	143
Lowell ter.	Lowell st.	Northwesterly . . .	Private.	20	....	150
Madison	School st.	Sycamore st.	Public.	40	891	....
Main	Broadway	Medford line . . .	Public.	50	966	....
Maine ave.	Mystic ave. . . .	Pennsylvania ave. .	Private.	40	....	379
Maine ter.	Maine ave.	Southeasterly . . .	Private.	32	....	205
*Malden	Mystic ave. . . .	Melrose st.	Private.	50	....	1,360
Mallet	Willow ave. . . .	Liberty ave.	Public.	40	657	....
Malloy ct.	Somerville ave. .	Merriam ave. . . .	Private.	30	....	255
Malvern ave. . . .	Cameron ave. . .	Yorktown st. . . .	Public.	40	410	....
Mansfield	Somerville ave. .	Washington st. . .	Public.	40	735	....
Maple ave.	School st.	Southeasterly . . .	Private.	40	....	300
Maple pl.	Marshall st. . . .	Maple ave.	Private.	5	....	125
Maple	Poplar st.	Medford st.	Public.	30	699	....
Mardel circle . . .	Spring st.	Northwesterly . . .	Private.	8	....	140
Marion	Concord ave. . .	Dimick st.	Public.	40	1,111	....
Marshall	Broadway	Pearl st.	Public.	40	1,650	....
Mason	Broadway	Powder House Blvd.	Public.	40	681	....
May pl.	Hawkins st. . . .	Easterly	Private.	12	....	100
McCarroll ct. . . .	Clyde st.	Southwesterly . . .	Private.	25	....	75
McCulpe pl.	Medford st. . . .	Easterly	Private.	10	....	110
McGregor ave. . . .	Wigglesworth st. .	Walnut st.	Private.	13	....	302
Meacham road . . .	Dover st.	Cambridge line . .	Public.	40	1,060	....
Meacham	Mt. Vernon ave. .	Medford line . . .	Public.	40	777	....
Mead	Cameron ave. . .	Moore st.	Private.	40	....	340
Medford	Cambridge line . .	Central st.	Public.	50	8,047	....
Medford	Central st. . . .	Broadway	Public.	55	1,985	....
Melrose	Mystic ave. . . .	Fellsway	Private.	50	....	2,310
Melvin	Broadway	Bonair st.	Public.	40	487	....
Merriam ave. . . .	Merriam st. . . .	Malloy ct.	Private.	15	....	255
Merriam	Washington st. .	Somerville ave. . .	Public.	40	360	....
Merriam	Somerville ave. .	Charlestown st. . .	Public.	30	510	....
Michigan ave. . . .	Broadway	Pennsylvania ave. .	Public.	40	470	....
†Middlesex ave . .	Mystic ave. . . .	Fellsway	Public.	60	2,304	....
Milk pl.	Somerville ave. .	Southwesterly . . .	Private.	about 30	....	100
Miller	Sacramento st. .	Beacon st.	Private.	33	....	465

*Proposed.

†State Highway.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private
Milton	Orchard st. . . .	Cambridge line	Public.	40	223	....
Miner	Vernon st.	Ames st.	Public.	40	244	....
Minnesota ave.	Broadway	Pennsylvania ave.	Private.	40	....	525
Mondamin ct.	Ivaloo st.	Harrison st.	Private.	25	....	250
Monmouth	Central st.	Westerly	Public.	40	267	....
Moumouth	End of above	Harvard st.	Private.	35	....	200
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	....
Montvale (Lewis)	Edgemere st.	Easterly	Private.	40	....	416
Moore	Holland st.	Mead st.	Public.	40	695	....
Moreland	Main st.	Mystic ave.	Public.	40	1,471	....
Morgan	Beacon st.	Park st.	Public.	40	377	....
Morrison ave.	Cedar st.	Willow ave.	Public.	50	1,366	....
Morrison ave.	Willow ave.	College ave.	Public.	40	1,690	....
Morrison pl.	Morrison ave.	Northerly	Private.	20	....	190
Morrison pl.	Morrison pl.	Easterly	Private.	15	....	175
Mortimer pl.	Marshall st.	Walter st.	Private.	20	....	280
Morton	Glen st.	Knowlton st.	Public.	40	287	....
Mossland	Somerville ave.	Elm st.	Public.	40	377	....
Mountain ave.	Porter st.	near Linden ave.	Public.	22	280	....
Mountain ave.	End accepted part	Linden ave.	Private.	22	....	30
Mousal pl.	North Union st.	B. & M. R. R.	Private.	20	....	200
Mt. Pleasant ct.	Perkins st.	Southwesterly	Private.	40	....	260
Mt. Pleasant	Broadway	Perkins st.	Public.	33	584	....
*Mt. Vernon ave.	Meacham st.	Mystic ave.	Private.	50	....	764
Mt. Vernon	Washington st.	Pearl st.	Public.	40	600	....
Mt. Vernon	Pearl st.	Perkins st.	Public.	50	473	....
Mt. Vernon.	Perkins st.	Broadway	Public.	40	590	....
Munroe	Walnut st.	Easterly	Public.	40	375	....
Munroe	End of above	Boston st.	Public.	50	1,214	....
Murdock	Cedar st.	Clyde st.	Private.	30	....	900
Murray	Washington st.	Southerly	Private.	30	....	250
Museum	Beacon st.	Cambridge line	Public.	40	164	....
Myrtle ct.	Myrtle st.	Easterly	Private.	10	....	100
Myrtle pl.	Myrtle st.	Westerly	Private.	20+	....	120
Myrtle	Washington st.	Perkins st.	Public.	40	1,423	....
Mystic ave.	Charlestown line	Union st.	Public.	60	378	....
†Mystic ave	Union st.	Medford line	Public.	66	6,938	....
Mystic	Benedict st.	Mystic ave.	Public.	40	336	....
‡Mystic Val. Pky.	Medford line	Arlington line	Public.	60	2,530	....
Nashua	Richardson st.	B. & L. R. R.	Public.	35	637	....
Nevada ave.	Village st.	Hanson st.	Private.	20	....	200
Newberne	Appleton st.	Morrison ave.	Public.	40	200	....
Newberne	Morrison ave.	Arlington Br. R. R.	Private.	40	....	173
Newbury park	Newbury st.	Southeasterly	Private.	55	....	68
Newbury	Holland st.	Cambridge line	Public.	40	1,260	....
N. Hampshire ave.	Mystic ave.	Pennsylvania ave.	Public.	40	406	....
Newman pl.	Cedar st.	Southeasterly	Private.	15	....	100
Newton pl.	Newton st.	Easterly	Private.	about 10	....	100
Newton	Prospect st.	Webster ave.	Public.	25	470	....
Newton	Webster ave.	Concord ave.	Public.	40+	637	....
Norfolk	Webster ave.	Cambridge line	Public.	40	283	....
North	Broadway	Medford line b. 17	Public.	40	1,961	....
North	Medford line b. 17	Medford line b. 18	Public.	37 to 42	649	....
North Union	Mystic ave.	Northeasterly	Private.	30	....	600
Norton	Nashua st.	Southeasterly	Private.	20	....	200
Norwood ave.	Broadway	Medford st.	Public.	40	350	....
Oak Circle	Cambridge line	Northerly	Private.	30	....	35
Oak	Prospect st.	Angle	Public.	40	665	....
Oak	Angle	Cambridge line	Public.	30	563	....
Oak St. pl.	Oak st.	Northerly	Private.	4	....	85
Oak ter.	Elm st.	Northeasterly	Private.	10+	....	90
Oakland ave.	Marshall st.	School st.	Public.	40	440	....
Olive ave.	Linden ave.	Peterson ter.	Private.	25	....	155
Olive sq.	Lake st.	Southerly	Private.	about 15	....	100
Oliver	Franklin st.	Cross st.	Public.	40	1,085	....

*Proposed.

†State Highway Austin St. to Medford line.

‡Metropolitan Park Commission Boulevard.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Orchard	Cambridge line .	Meacham road . .	Public.	40	1,567	....
Osgood	Granite st. . . .	Easterly & west'ly	Private.	40	....	450
Ossipee road . .	Mason st. . . .	Curtis st. . . .	Public.	40	1,375	....
Otis	Cross st. . . .	Wigglesworth st. .	Public.	40	1,200	....
Oxford	School st. . . .	Central st. . . .	Public.	35	1,361	....
Oxford	Beacon st. . . .	Cambridge line . .	Public.	50	100	....
Packard ave. . .	Broadway	Professors row . .	Public.	60	1,758	....
Packard ave. . .	Professors row . .	Medford line . . .	Private.	60	....	240
Palmer ave. . .	Franklin st. . . .	Northwesterly . .	Private.	20	....	200
Park ave. . . .	College ave. . . .	Wallace st. . . .	Public.	40	467	....
Park pl. . . .	Laurel st. . . .	Easterly	Private.	30	....	522
Park pl. . . .	Park pl. . . .	Northeasterly . .	Private.	20	....	120
Park	Somerville ave. . .	Beacon st. . . .	Public.	50	1,238	....
Parkdale	Washington st. . .	Montvale st. . . .	Private.	40	....	500
Parker pl. . . .	Porter st. . . .	Northwesterly . .	Private.	20	....	150
Parker	Washington st. . .	Fremont ave. . . .	Public.	35	203	....
Partridge ave. .	Vernon st. . . .	Broadway	Public.	40	1,467	....
Patten ct. . . .	Cutter st. . . .	Southeasterly . .	Private.	8	....	100
Paulina	Broadway	Holland st. . . .	Public.	40	769	....
Pearl	Crescent st. . . .	Mt. Vernon st. . .	Public.	37	341	....
Pearl	Mt. Vernon st. . .	Franklin st. . . .	Public.	50	957	....
Pearl	Franklin st. . . .	Cross st. . . .	Public.	40	1,060	....
Pearl	Cross st. . . .	Medford st. . . .	Public.	50	2,447	....
Pearl St. pl. . .	Pearl st. . . .	Northeasterly . .	Public.	20	166	....
Pearl ter. . . .	Pearl st. . . .	Northerly	Private.	23	....	161
Pearson ave. . .	Morrison ave. . . .	Boston ave. . . .	Public.	45	1,320	....
Pearson road . .	Broadway	Dearborn road . .	Public.	40	1,713	....
Pembroke ct. . .	Pembroke st. . . .	Southwesterly . .	Private.	25	....	130
Pembroke	Central st. . . .	Sycamore st. . . .	Public.	40	430	....
Pennsylvania ave.	Broadway	Wisconsin ave. . .	Public.	50	1,112	....
Pennsylvania ave.	Wisconsin ave. . . .	Cross st. . . .	Private.	40	....	350
Perkins pl. . . .	Perkins st. . . .	Northeasterly . .	Private.	20	....	200
Perkins	Franklin st. . . .	Charlestown line .	Public.	40	1,336	....
Perry	Washington st. . .	Lincoln parkway . .	Public.	40	606	....
Peterson ter. . .	Porter st. . . .	Olive ave. . . .	Private.	7.5	....	155
Philips pl. . . .	Spring st. . . .	Westerly	Private.	15+	....	100
Pinckney pl. . .	Pinckney st. . . .	Southeasterly . .	Private.	24	....	125
Pinckney	Washington st. . .	Perkins st. . . .	Public.	40	1,186	....
Piper ave. . . .	Cedar st. . . .	Westerly	Private.	20	....	461
Pitman	Beech st. . . .	Spring st. . . .	Private.	30	....	380
Pitman	Spring st. . . .	Belmont st. . . .	Private.	26	....	390
Pleasant ave. . .	Walnut st. . . .	Vinal ave. . . .	Public.	40	543	....
Poplar ct. . . .	Poplar st. . . .	Southeasterly . .	Private.	10	....	80
Poplar	Somerville ave. . .	Linwood st. . . .	Public.	30	351	....
Poplar	Linwood st. . . .	Joy st. . . .	Public.	35	315	....
Poplar	Joy st. . . .	B. & L. R. R. . . .	Private.	35	....	65
Porter ave. . . .	Porter st. . . .	Northwesterly . .	Private.	20	....	220
Porter	Elm st. . . .	Mountain ave. . . .	Public.	45	1,622	....
Porter	Mountain ave. . . .	Highland ave. . . .	Public.	40	415	....
Powder house boulevard . . .	Powder house square	Alewife Brook Parkway	Public.	80	4,560	....
Powder house ter.	Kidder ave. . . .	Liberty ave. . . .	Public.	40	585	....
Prentiss	Beacon st. . . .	Cambridge line . .	Private.	35	....	150
Prescott	Summer st. . . .	Highland ave. . . .	Public.	50	1,110	....
Preston road . .	School st. . . .	Summer st. . . .	Public.	40	839	....
Prichard ave. . .	Morrison ave. . . .	Boston ave. . . .	Public.	40	1,191	....
Princeton	Alpine st. . . .	Lowell st. . . .	Public.	40	648	....
Princeton	Lowell st. . . .	Centre st. . . .	Private.	40	....	540
Professors row . .	College ave. . . .	Curtis st. . . .	Public.	40	2,000	....
Proposed	Fellsway	Middlesex ave. . .	Private.	40	....	195
Proposed	Fellsway	Middlesex ave. . .	Private.	40	....	315
Proposed	Fellsway	Middlesex ave. . .	Private.	40	....	340
Prospect	Washington st. . .	Cambridge line . .	Public.	50	2,071	....
Prospect Hill av.	Medford st. . . .	Munroe st. . . .	Public.	40	597	....
Prospect Hill p'k'y	Munroe st. . . .	Stone ave. . . .	Public.	40	400	....
Prospect pl. . . .	Prospect st. . . .	Newton st. . . .	Private.	20	....	130
Putnam	Summer st. . . .	Highland ave. . . .	Public.	50	1,262	....
Quincy	Somerville ave. . .	Summer st. . . .	Public.	40	781	....
Radcliffe road. .	Walnut st. . . .	Bradley st. . . .	Public.	35	392	....
Radcliffe road. .	Bradley st. . . .	Marshall st. . . .	Public.	40	261	....
Randolph pl. . .	Cross st. . . .	Westerly	Private.	15	....	244
Raymond ave. . .	Curtis st. . . .	North st. . . .	Public.	40	1,345	....

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private
Record ct. . . .	Broadway . . .	Southwesterly . .	Private.	10	....	110
Reed's ct. . . .	Oliver st. . . .	Southwesterly . .	Private.	20	....	105
Remick ct. . . .	Cutter st. . . .	Southeasterly . .	Private.	10	....	100
Renfrew (Rose) .	Washington st. .	Montvale st. . . .	Private.	40	....	450
Rhode Island ave.	Mystic ave. . . .	Pennsylvania ave.	Public.	40	460	....
Richardson . . .	Lowell st. . . .	Hinckley st. . . .	Public.	35	467	....
Richardson ter. .	Richardson st. .	Northeasterly . .	Private.	20	....	135
Richdale ave. . .	School st. . . .	Sycamore st. . . .	Public.	40	875	....
Roberts	Hinckley st. . . .	Northwesterly . .	Private.	20	....	170
Robinson	Central st. . . .	Bartlett st. . . .	Public.	40	582	....
Rogers ave. . . .	Morrison ave. . .	Boston ave. . . .	Public.	45	1,682	....
Roland	Waverly st. . . .	Boston line	Private.	40	....	100
Roseland	Beacon st. . . .	Cambridge line . .	Public.	40	121	....
Rossmore	Somerville ave. .	Washington st. . .	Public.	40	534	....
Royce pl.	Bonair st.	Northeasterly . .	Private.	15+	....	175
Rush	Broadway	Flint st.	Public.	40	1,400	....
Russell rd. . . .	Broadway	N. line Hamilton rd.	Public.	40	559	....
Russell rd. . . .	N. line Hamilton rd.	Northerly	Private.	40	....	75
Russell	Elm st.	Cambridge line . .	Public.	40	700	....
Sacramento . . .	Somerville ave. .	Fitchburg R. R. . .	Public.	40	80	....
Sacramento . . .	Fitchburg R. R. .	Beacon st.	Public.	40	290	....
Sacramento . . .	Beacon st. . . .	Cambridge line . .	Public.	40	154	....
Sanborn ave. . .	Warren ave. . . .	Walnut st.	Public.	40	280	....
Sanborn ct. . . .	Washington st. .	Northwesterly . .	Private.	30	....	176
Sargent ave. . . .	Broadway	Walnut st.	Public.	40	1,075	....
Sartwell ave. . .	Cedar st.	Cherry st.	Public.	35	427	....
Sawyer ave. . . .	Packard ave. . . .	Curtis st.	Private.	40	....	690
School	Somerville ave. .	Highland ave. . .	Public.	40	1,901	....
School	Highland ave. . .	Broadway	Public.	50	2,500	....
Sellon pl.	Marshall st. . . .	Northwesterly . .	Private.	12	....	120
Seven Pines ave.	Cameron ave. . .	Cambridge line . .	Public.	40	92	....
Sewall ct.	Sewall st.	Southwesterly . .	Private.	25	....	190
Sewall	Grant st.	Temple st.	Public.	40	615	....
Shawmut	Washington st. .	Cross st.	Public.	40	575	....
Shedd	Somerville ave. .	Merriam ave. . . .	Private.	40	....	310
Sherman ct. . . .	Sargent ave. . . .	Marshall st. . . .	Private.	10	....	250
Sibley ct.	Cutter st.	Northwesterly . .	Private.	10	....	100
Sibley pl.	Cutter st.	Northwesterly . .	Private.	10	....	100
Simpson ave. . . .	Broadway	Holland st.	Public.	40	1,018	....
Skehan	Dane st.	Hanson st.	Public.	30	306	....
Skehan	Hanson	Durham	Private.	30	....	414
Skilton ave. . . .	Pearl st. around to	Pearl st.	Private.	40	....	540
Smith ave.	Beacon st.	Line st.	Private.	25+	....	200
Snow ter.	Jaques st.	Southwesterly . .	Private.	16	....	120
Somerville ave. .	E. Camb. line . .	Union sq.	Public.	75	4,325	....
Somerville ave. .	Union sq.	N. Camb. line . .	Public.	70	6,793	....
South	Medford st. . . .	Water st.	Public.	30	989	....
Spencer ave. . . .	Cedar st.	Hancock st. . . .	Public.	40	727	....
Spring ct.	Somerville ave. .	Westerly	Private.	20	....	200
Spring	Somerville ave. .	Summer st.	Public.	40	1,220	....
Springfield . . .	Concord ave. . .	Cambridge line . .	Public.	40	788	....
Spring Hill ter. .	Highland ave. . .	Belmont st. . . .	Private.	20	....	670
Stanford ter. . .	Beacon st. . . .	Northeasterly . .	Private.	20	....	200
Steeves circle . .	Cherry st.	Easterly	Private.	15	....	120
*Sterling st. . . .	North st.	Powder House Bd.	Private.	40	....	800
Stickney ave. . .	Marshall st. . . .	School st.	Public.	40	458	....
St. James ave. . .	Elm st.	Summer st.	Public.	40	488	....
St. James ave. ext.	Summer st. . . .	Northeasterly . .	Public.	30	125	....
Stone ave.	Union sq.	Columbus ave. . .	Public.	40	676	....
Stone ave.	Columbus ave. . .	Prospect Hill p'k'y	Public.	38	107	....
Stone pl.	Stone ave.	Southeasterly . .	Public.	30	142	....
Strathmore road.	Broadway	Medford line. . . .	Private.	40	....	15
Summer	Bow st.	Elm st.	Public.	45	7,900	....
Summit ave. . . .	Walnut st.	Vinal ave.	Public.	45	532	....
Summit	College ave. . . .	Billingham st. . . .	Public.	40	262	....
Sumner	Hinckley st. . . .	Northwesterly . .	Private.	20	....	175
Sunnyside ave. . .	Walnut st.	Wigglesworth st. .	Public.	25 to 35	306	....
Sunset rd.	Curtis st.	Hillsdale road . .	Private.	40	....	658
Sycamore	Broadway	Medford st. . . .	Public.	45	1,275	....

*Proposed.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Sycamore	Medford st. . . .	B. & L. R. R. . . .	Public.	40	667	....
Sycamore	B. & L. R. R. . .	Highland ave. . . .	Public.	35	722	....
Sydney	Grant st.	Temple st.	Public.	40	679	....
Talbot ave. . . .	Packard ave. . . .	College ave.	Private.	50	....	1,409
*Tannery (Ext'n)	Cambridge line . .	Woodstock st.(Ext'n)	Private.	40	....	160
Taunton	Wyatt. st.	Easterly to angle . .	Private.	30	....	170
Taunton	Angle	Marion st.	Private.	20	....	95
Taylor pl.	Somerville ave. . .	Southerly	Private.	15	....	200
Taylor	Mystic ave.	Sydney st.	Public.	40	309	....
Teele ave.	Packard ave. . . .	Curtis st.	Public.	40	685	....
Temple	Broadway	Mystic ave.	Public.	66	1,637	....
Tenney ct.	Mystic ave.	Northeasterly	Private.	30	....	400
Tennyson	Forster st.	Pembroke st.	Public.	40	922	....
Thorndike	Holland st.	Arl'ngt'n Br. R. R. . .	Public.	40	465	....
Thorndike	Arl'gt'n Br. R. R. .	Kingston st.	Public.	40	115	....
Thorpe	Highland ave. . . .	Southwesterly	Public.	30	468	....
Thurston	Broadway	Richdale ave.	Public.	40	1,660	....
Timmins pl. . . .	Dane st.	Westerly	Private.	3.5	....	97
Tower ct.	Tyler st.	Northeasterly	Private.	25	....	150
Tower	Crown st.	Highland ave.	Public.	40	559	....
Tremont pl. . . .	Tremont st.	Southeasterly	Private.	about 10	....	75
Tremont	Webster ave.	Cambridge line	Public.	40	589	....
Trull	Vernon st.	Medford st.	Public.	40	1,050	....
Trull lane	Highland ave. . . .	Oxford st.	Private.	15	....	200
Tufts parkway . .	College ave.	College ave.	Public.	22	900	....
Tufts	Washington st. . . .	Cross st.	Public.	40	982	....
Turner ct.	Franklin st.	Westerly	Private.	20	....	150
Tyler	Vine st.	Dane st.	Public.	40	404	....
Union	Broadway	Mystic ave.	Public.	40	345	.. .
Union pl.	Linwood st.	Southwesterly	Private.	10	....	100
Upland Park . . .	Main st.	Southwesterly	Private.	20	....	175
Vermont ave. . . .	Mystic ave.	Pennsylvania ave. . .	Public.	40	433	....
Vernon	Central st.	Glenwood road	Public.	40	764	....
Vernon	Glenwood road . . .	Partridge ave.	Public.	40 to 30	190	....
Vernon	Partridge ave. . . .	Lowell st.	Public.	30	434	....
Victoria	Broadway	Cambridge line	Public.	40	1,036	....
Villa ave.	Winslow ave.	Arlington Br. R. R. . .	Private.	35	....	200
Village	Dane st.	Vine st.	Private.	25	....	370
Vinal ave.	Summer st.	Highland ave.	Public.	45	1,425	....
Vinal	Richardson st. . . .	Northeasterly	Private.	20	....	200
Vine ct.	Vine st.	Northwesterly	Private.	25	....	140
Vine	Somerville ave. . . .	Fitchburg R. R.	Public.	40	540	....
Vine	Fitchburg R. R. . .	Hanson st.	Private.	40	....	222
Vine	Hanson st.	Beacon st.	Public.	30	662	....
Virginia	Aldrich st.	Jasper st.	Public.	40	405	....
Wade ct.	Cedar st.	Westerly	Private.	20	....	180
Waldo ave.	Beacon st.	Dimick st.	Public.	40	277	....
Waldo	Highland ave. . . .	Hudson st.	Public.	40	287	....
Walker	Broadway	Leonard st.	Public.	40	718	....
Wallace	Holland st.	Broadway	Public.	40	1,342	....
Walnut	Bow st.	Broadway	Public.	40	3,948	....
Walnut road . . .	Walnut st.	Kenneson road	Public.	40	270	....
Walter terrace . .	Walter st.	Southwesterly	Public.	40	222	....
Walter	Walnut st.	{ about 100 ft. N. } of Bradley st. }	Public.	40	548	....
Ward	Medford st.	Harding st.	Public.	30	433	....
Ware	Curtis st.	Russell rd.	Public.	40	749	....
Warner	Powder House sq. . .	Medford line	Public.	60	500	....
Warren ave.	Union sq.	Columbus ave.	Public.	40	663	....
Warren	Medford st.	Cambridge line	Public.	30 to 40	109	....
Warwick place . .	Warwick st.	Northeasterly	Private.	15	....	150
Warwick	Cedar st.	Warwick pl.	Public.	40	665	....
Washington ave. .	Washington st. . . .	Northerly	Private.	18	....	350
Washington pl. .	Washington st. . . .	Southerly	Private.	about 7.5	....	114

* Proposed.

Table Showing the Location, Length and Width of Public and Private Streets.—Continued.

STREET.	FROM.	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Washington . . .	Charlest'n line .	Franklin ave. . .	Public.	75	1,060	....
Washington . . .	Franklin ave. . .	Fitchburg R. R. .	Public.	60 to 100	3,977	....
Washington . . .	Fitchburg R. R.	Cambridge line .	Public.	60	2,344	....
Water	South st.	Northerly	Public.	25	366	....
Waterhouse . . .	Broadway	Cambridge line . .	Public.	40	987	....
Watson	Broadway	Fairmount ave. . .	Private.	40	....	236
Waverly	Washington st. . .	Roland st.	Private.	35	....	209
Webster ave. . . .	Union sq.	Cambridge line . .	Public.	49.5	1,955	....
Webster	Franklin st.	Cross st.	Public.	40	1,034	....
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	Pearl st.	Otis st.	Public.	40	515	....
West	Hawthorne st. . . .	Highland ave. . . .	Public.	30	192	....
West	Highland ave. . . .	Arlington Br. R. R.	Private.	30	....	266
West Adams	Conwell ave.	Medford line	Public.	40	710	....
Westminster	Broadway	Electric ave.	Public.	40	376	....
Weston ave.	Clarendon ave. . . .	Broadway	Private.	40	....	525
West Quincy	Bailey st.	Medford line	Private.	40	....	291
Westwood road . .	Central st.	Benton road	Public.	40	489	....
Wheatland	Broadway	Mystic ave.	Public.	40	1,364	....
Wheeler	Pinckney st.	Mt. Vernon st. . . .	Public.	40	269	....
Whipple	Highland ave.	Arlington Br. R. R.	Private.	30	....	318
† White	Elm st.	Cambridge line . . .	Public.	..	307	....
White St. pl. . . .	White st.	Southeasterly	Private.	20	....	260
Whitfield road . .	Packard ave.	Curtis st.	Public.	40	687	....
Whitman	Mason st.	Packard ave.	Private.	40	....	632
Wigglesworth . . .	Bonair st.	Pearl st.	Public.	40	744	....
William	Chandler st.	College ave.	Public.	40	381	....
William	Broadway	Medford line	Private.	50	....	50
Williams ct.	Porter st.	Northwesterly	Private.	30	....	154
Willoughby	Central st.	Sycamore st.	Public.	40	427	....
Willow ave.	Elm st.	Broadway	Public.	50	3,534	....
Willow pl.	Cambridge line	South st.	Public.	25	125	....
Wilson ave.	Broadway	B. & L. R. R.	Public.	20	307	....
Wilton	Lowell st.	Hinckley st.	Public.	35	470	....
Winchester	Broadway	Medford line	Private.	40	....	65
Windom	Elm st.	Summer st.	Public.	40	300	....
Windsor road	Willow ave.	Hancock st.	Public.	40	575	....
Windsor st.(Extn.)	Windsor st.,Camb.	Fitchburg R. R. . .	Private.	20	....	530
Winslow ave.	College ave.	Clifton st.	Public.	40	1,123	....
Winter	College ave.	Holland st.	Public.	30	402	....
Winter Hill cir. . .	Broadway	Northeasterly	Private.	25	....	177
Winthrop ave. . . .	(Extension.)	Mystic ave.	Private.	40	....	583
Wisconsin ave. . . .	Broadway	Pennsylvania ave. . .	Public.	50	490	....
Woodbine	Centre st.	Lowell st.	Private.	30	....	600
* Woods ave.	North st.	Powder House Blvd.	Private.	40	....	1,135
Woodstock	Victoria st.	Alewife brook	Public.	40 to 32	403	....
* Woodstock	(Extension.)	Victoria st.	Private.	40	....	920
Wyatt circle	Wyatt st.around to	Wyatt st.	Private.	20	....	315
Wyatt	Concord ave.	Lincoln parkway . . .	Public.	40	496	....
Yorktown	Cambridge line	{ N. E. line Mal- } { vern ave. }	Public.	40	294	....
Yorktown	{ N. E. line } { Malvern ave. }	Northerly	Private.	40	....	100

* Proposed.

† Sidewalk in Somerville.

Table Showing the Location, Length and Width of Public and Private Streets.—Concluded.

Street.	From	To	Public or Private.	Width in Feet.	Length.		
					Public.	Private.	
Court	39 Adams st. . .	Southeasterly . .	Private.	8	....	90
Court	Albion st. . . .	Central st. . . .	Private.	12	....	216
Court	11 Albion st. . .	Northeasterly . .	Private.	9	....	178
Court	21 Albion st. . .	Northeasterly . .	Private.	10	....	100
Court	292 Broadway . .	Southwesterly . .	Private.	15	....	90
Court	612 Broadway . .	Southwesterly . .	Private.	20	....	188
Court	Buena Vista rd.	Easterly	Private.	15	....	145
Court	Cambria st. . . .	Northerly	Private.	9	....	59
Court	12 Carlton st. .	Southeasterly . .	Private.	25	....	75
Court	112 Central st. .	Northwesterly . .	Private.	10	....	168
Court	113 Central st. .	Southeasterly . .	Private.	20	....	150
Court	227 Columbia st.	Northwesterly . .	Private.	10	....	117
Court	Conlon ct.	Windsor st. (Ext'n)	Private.	20	....	240
Court	36 Craigie st. . .	Westerly	Private.	25	....	126
Court	59 Craigie st. . .	Easterly	Private.	23.63	....	129
Court	58 Dane st. . . .	Easterly	Private.	10	....	70
Court	20 Dimick st. . .	Southwesterly . .	Private.	39.25	....	136
Court	91 Franklin st. .	Westerly	Private.	12	....	171
Court	66 Lowell st. . .	Westerly	Private.	25	....	101
Court	78 Lowell st. . .	Westerly	Private.	25	....	101
Court	101 Medford st.	Easterly	Private.	8	....	75
Court	Sacramento st. .	Southeasterly . .	Private.	25	....	318
Court	10 Stone ave. . .	Northwesterly . .	Private.	20	....	113
Court	Windsor st. (Ext'n)	East'ly and West'ly	Private.	20	....	370
Total						438,457	92,287

Public, 83.041 miles [includes 1.406 miles of City Boulevard and Park Roadways, 2,331 miles of State Boulevard (Metropolitan Park Commission), and 1,596 miles State Highway]; private, 17,479 miles.

Total length of streets in the city, 100.52 miles.

REPORT OF THE STREET COMMISSIONER.

OFFICE OF THE STREET COMMISSIONER, }
CITY HALL, SOMERVILLE, January 1, 1917. }

To His Honor, the Mayor, and the Board of Aldermen:—

Gentlemen,—I most respectfully submit the forty-first annual report, containing a brief summary of the principal work performed by the highway department, by day labor and contract during the year 1916, with recommendations for necessary additions for the coming year.

This department has charge of the construction, alteration, repair, maintenance and management of ways, streets, sidewalks and bridges; the setting out and care of shade trees; the suppression of gypsy and brown-tail moths and elm-leaf beetles; the watering and oiling of streets. The collection of ashes and garbage has been transferred to the Sanitary Department, a new department established in 1916.

Snow and Ice.

The city government should make a separate appropriation for the care of snow and ice. The department removes the snow and ice from sidewalks, and sands same when necessary, in front of public grounds and buildings. The bridges, made necessary by the abolition of the grade crossings, are also cared for. After a snow storm extra men are placed in the several squares and on the main streets, to keep the crossings opened for pedestrians and to level off the snow in front of business establishments.

Boxes filled with fine sand have been placed within easy access of the push cart men who care for the smoothly paved streets, squares and subways. No one regrets the expenditure of money for this branch of the work more than myself, but the streets and sidewalks must be kept in a safe condition for travel.

\$6,789.69 was expended for the care of ice and snow. 3,180 loads of snow and ice were removed. This department should be reimbursed for the care of snow and ice in front of public property and public grounds controlled by other departments.

Underground Wires.

Permits were issued to the New England Telephone and Telegraph Company to construct conduits on Cross street between Pearl street and Medford street. These conduits were constructed under the sidewalks so as not to disturb the asphalt street. This same company enlarged its conduits in Union square before the permanent paving was laid. The Edi-

son Illuminating Company constructed conduits on Willow avenue from Highland avenue to Elm street, on Elm street from Willow avenue to Somerville avenue and on Somerville avenue from Elm street to East Cambridge line, the highway department replacing the paving at the company's expense. These companies, gas companies and city departments laid their wires and pipes underground and made their connections, as far as possible, on all streets before the streets were constructed.

Whenever the different companies petition for new poles or poles to be replaced the city should compel these companies to construct conduits for their wires, thus doing away with the unsightly poles and wires which are dangerous to trees and property and a menace to life.

Crushed Stone.

The William J. McCarthy Company furnished 106 tons of crushed rock at \$1.00 per ton, at their crusher, and 7,738 tons at \$1.20 per ton on line of work. Coleman Brothers 141 tons at \$1.20 per ton, 2,576 tons trap rock at \$1.45 per ton and 1,436 tons pea stone at \$1.50 per ton, all delivered on the line of work.

The city crusher was in operation a few days crushing old cobbles, paving blocks and concrete.

A new school has been erected on the Holland street ledge lot, thereby making it necessary in the near future to abandon the ledge and remove the crusher.

Bridges.

The bridges are in good condition. The School street bridge has been repaired and some new girders installed.

As the through travel increases on Broadway the Willow bridge becomes more dangerous and should be widened.

Steam Rollers.

In my last year's report my recommendation to replace the old twelve-ton roller with a new fifteen-ton roller with scarifier attachment was approved by the Mayor, and the purchase authorized. This roller has done more and harder work than was specified by the Buffalo Steam Roller Company and I would recommend a similar roller to any city or town.

New forward rollers will be needed for the No. 2 roller the coming year.

No. 1 roller worked 156 days.

No. 2 roller worked 120 days.

No. 3 roller worked 20 days.

No. 4 roller worked 134 days.

HIGHWAYS MAINTENANCE.**Appropriations and Expenditures.**

Appropriations		\$39,000 00
Transferred from Interest Account		1,500 00
Salaries	\$4,133 33	
Office expenses	356 33	
Automobiles and maintenance of same	1,426 00	
City teams	3,583 41	
Tools and equipment	3,280 24	
Repairs of streets and bridges	5,403 74	
Care of parkways	15 95	
Care of subways	412 18	
Care of snow and ice	6,789 69	
Care of signs	683 95	
Care of highway property	1,285 08	
Paving stock, lumber, oil, fuel, etc.	3,683 67	
Emergency	39 45	
Sawing wood	25 73	
Holidays and vacations	4,661 86	
Expressing	18 87	
Taxes (City of Waltham)	185 40	
Accounts for collection	4,291 80	
All other	35 00	
	<u>\$40,311 68</u>	
Balance to Excess and Deficiency	188 32	
	<u>\$40,500 00</u>	<u>\$40,500 00</u>

SIDEWALKS MAINTENANCE.

The department could spend to good advantage twice the sum that is appropriated for Sidewalks Maintenance, which includes resetting edgestones, relaying brick, repairing granolithic, the care of police reports pertaining to sidewalks and the care of gravel and dirt sidewalks.

1,275 feet of edgestones were reset, 700 square yards of brick sidewalks were relaid.

Appropriations and Expenditures.

Appropriation		\$5,000 00
Transfer from Union Square Library		125 80
Labor	\$3,479 69	
Highway Maintenance, teams	868 49	
Highway Maintenance, equipment	16 00	
Highway Maintenance, supplies	691 15	
Materials	52 47	
Hired teams	18 00	
	<u>\$5,125 80</u>	<u>\$5,125 80</u>

STREET SPRINKLING.

The Mayor made a contract with the American Car Sprinkler Company at \$750 per month, twelve hours per day, seven days per week. The car was operated nights and flushed all

the paved streets and sprinkled the others wherever there was a car track. The car did very good work considering the way that time was lost in filling from hydrants on the sidewalks. If hydrants were installed between the car tracks the car could be used to better advantage in the daytime, thus saving several horse drawn sprinkling carts that are in operation throughout the day.

All the macadam streets were oiled or tarviated: The principal squares were watered early mornings.

A storage tank should be erected in the city yard for road oil. The assessment to each abutter for street sprinkling was five cents per linear foot.

Abutters wishing a private street sprinkled must first make a deposit with the City Treasurer. From what experience I have had with dust laying materials I would recommend a heavy asphaltic oil or tar covered with a light coat of fine gravel; these materials keep down the dust and save the streets from wear and disintegration.

Calcium chloride was used in freezing weather on the squares and on main streets with good results.

Dust layers used during the year:—

37,245 gallons of Standard "Socony."
3,600 gallons of Alden Speare's "Tasscoil."
38,478 gallons of Headley's No. 20.
3,800 gallons of Headley's No. 7.
8,114 gallons of Emerald Oil (Cosgroves).
32,225 gallons of Besco Oil.
52,446 gallons of Oilite (Lemery).
13,790 gallons of Emulsifying Oil (Sawyer).
24,055 gallons of Sawyerline Oil.
1,800 gallons of Water Gas Tar (Cambridge Gas Company).
55,018 gallons of Tarvia "B" (The Barrett Company).
3,608 gallons of Tarvia "A" (The Barrett Company).
17,100 pounds of Calcium Chloride.

Appropriations and Expenditures.

Appropriation		\$35,000 00
Transfer from Street Cleaning		8 86
Labor	\$4,655 22	
Highway Maintenance, city teams	2,763 73	
Highway Maintenance, equipment	89 25	
Highway Maintenance, supplies	699 78	
Hired teams	1,905 47	
Car sprinkler	3,152 41	
Dust layers	20,909 30	
Materials	833 70	
	<hr/>	<hr/>
	\$35,008 86	\$35,008 86

STREET CLEANING.

The night cleaning patrol has proved satisfactory not only by keeping the squares clean but also by attending to police reports and reports from citizens. The men keep in touch through-

out the night with the police and stable man and all reports are attended to at once. There is a day cleaning patrol in all the principal squares. All the streets were swept and cleaned before oiling.

I earnestly ask the co-operation of all citizens in helping to keep the streets clean by not throwing their papers and rubbish in the streets.

I give my endorsement to the Clean-up Week. This movement should appeal to the civic pride of all citizens and have the hearty co-operation of everybody.

10,186 loads of street sweepings were removed.

Appropriations and Expenditures.

Appropriation		\$25,000 00
Transfer to Street Sprinkling		8 86
Labor	\$18,914 61	
City teams	3,455 80	
Hired teams	2,349 89	
Materials	179 27	
	<hr/>	
	\$24,899 57	
Balance to Excess and Deficiency	91 57	
	<hr/>	
	\$24,991 14	\$24,991 14
	<hr/>	<hr/>

SUPPRESSION OF MOTHS.

By the continuous fighting every year the department has the moth situation under its control. After a careful investigation in the Fall I found very few nests, and I think this is partly due to the spraying of trees. All the street and private trees were cared for and inspected. I did not receive any complaints that the moths had not been properly cared for. The work is inspected by an inspector sent by the State Forester, Frank William Rane.

- 7,119 street trees were inspected and cared for.
- 10,088 private trees were inspected and cared for.
- 31,000 brown-tail nests were gathered and destroyed.
- 22,419 gypsy nests were painted with creasote.
- 6,932 trees were sprayed by the gasoline spraying machine to exterminate the elm-leaf beetle.

Appropriations and Expenditures.

Appropriation		\$4,000 00
Appropriation and transfers		20 10
Labor	\$3,433 51	
Highway Maintenance, city teams	199 79	
Highway Maintenance, supplies	1 80	
Insecticides	220 49	
Materials	164 51	
	<hr/>	
	\$4,020 10	\$4,020 10
	<hr/>	<hr/>

SHADE TREES.

We are losing many of our shade trees on account of the new methods of constructing streets and sidewalks and by the leopard moth or borer.

Whenever trees are to be trimmed, to allow the passage of electric wires, the work is done by the Public Service Companies under highway supervision, or by the highway department. In the latter case, the city is reimbursed by the companies.

273 trees were set out.
129 trees were cut down.
173 trees were trimmed.
303 tree-guards and supports installed.

Appropriations and Expenditures.

Appropriation		\$3,200 00
Transferred to Suppression of Moths		20 10
Labor	\$2,402 91	
City teams	583 77	
Equipment	19 25	
Materials	115 58	
Supplies from Highway Maintenance	24 01	
	<hr/>	
	\$3,145 52	
Balance to Excess and Deficiency	34 38	
	<hr/>	
	\$3,179 90	\$3,179 90
	<hr/>	<hr/>

HIGHWAYS CONSTRUCTION, NEW STREETS.

Part of this construction was done by the department and part by contract.

Three new streets, a length of 1,844 feet, were constructed by contract. The city furnished all the bituminous binder for these streets.

Six new streets, a length of 1,562 feet, were constructed by day labor.

The average cost of new streets by city labor was \$4.66 per linear foot.

The average cost of new streets by contract was \$5.34 per linear foot.

The streets constructed by the city were for the most part narrow and in one instance a great part of the edgestone had been previously laid.

Streets accepted in 1916:—

Dec. 29, 1916, Burnham street,	forty feet wide, from Broadway to Powder House boulevard.
Dec. 29, 1916, Electric avenue,	forty feet wide, from Packard avenue to Mason street.
Dec. 29, 1916, Hamilton road,	forty feet wide, from North street to Russell road.

Dec. 29, 1916, Harding street,	thirty feet wide, from Ward street northerly about seventy feet.
Dec. 29, 1916, Heath street,	forty feet wide, from Bond street to Edgar avenue.
Dec. 29, 1916, Mason street,	forty feet wide, from Broadway to Powder House boulevard.
Dec. 29, 1916, Mountain avenue,	twenty-two feet wide, from Porter street northwesterly about 280 feet.
Dec. 29, 1916, Michigan avenue,	forty feet wide, from Broadway to Pennsylvania avenue.
Dec. 29, 1916, New Hampshire avenue,	forty feet wide, from Pennsylvania avenue to Mystic avenue.
May 6, 1916, Vermont avenue,	Pennsylvania avenue to Mystic avenue.
Dec. 29, 1916, Walter terrace,	forty feet wide, from Walter street to its dead end.
Dec. 29, 1916, Willow place,	twenty-five feet wide, from South street to the Cambridge line.

New street construction consists of: Edgestone, concrete gutters and bituminous macadam. All work of regrading sidewalks is also charged to this account.

Appropriations and Expenditures.

Balance from 1915		\$81 77
Transfer from Macadam Pavement		200 00
Appropriation		20,000 00
Labor	\$2,597 76	
City teams	348 40	
Hired teams	195 25	
Tools and equipment	395 75	
Recording and advertising	170 15	
Materials	13,786 02	
Supplies from Highway Maintenance	430 49	
	<hr/>	
	\$17,923 82	
Balance to 1917	2,357 95	
	<hr/>	
	\$20,281 77	\$20,281 77
	<hr/>	<hr/>

STREETS CONSTRUCTED IN 1916.

STREET.	FROM	TO	MATERIAL.	LENGTH IN FEET.	COST.
Albion terrace	Albion street	Southerly end'	Bituminous macadam.	100	\$489 65
Auburn avenue	Cross street	Northwesterly end	Bituminous macadam.	606	1,517 31
Barton street	Broadway	Hamilton road	Bituminous macadam.	382	2,109 68
Gibbens street	Benton road	Westerly end	Bituminous macadam.	133	836 93
Illinois avenue	Broadway	Pennsylvania avenue.	Bituminous macadam.	427	2,820 91
Sacramento street.	Beacon street	Cambridge line	Bituminous macadam.	154	896 26
Stone place	Stone avenue	Southeasterly end	Bituminous macadam.	142	717 27
Walker street	Broadway	Leonard street	Bituminous macadam.	713	3,765 68
Ware street	Curtis street	Russell road	Bituminous macadam.	749	3,979 33
Recording and advertising	new streets	.	.		129 27
Fence at R. R., Davis	Square	.	.		211 53
Clark street land damage	.	.	.		450 00

Length in feet, and cost 3,406 \$17,923 82

HIGHWAYS CONSTRUCTION, MACADAM PAVEMENT.

All the macadam pavement constructed during the year was laid by the highway department under specifications approved by the Massachusetts Highway Commission.

Appropriations and Expenditures.

Balance from 1915		\$1,107 37
Appropriation		32,000 00
Receipts		25 60
		<hr/>
		\$33,132 97
Less transfers to New Streets		200 00
Labor	\$8,550 02	
City teams	1,075 28	
Hired teams	3,067 38	
City equipment (rollers, etc.)	2,249 13	
Materials and supplies	17,976 58	
Balance to 1917	14 58	
	<hr/>	<hr/>
	\$32,932 97	\$32,932 97

STREETS MACADAMIZED IN 1916.

STREET.	FROM	To	MATERIAL.	LENGTH IN FEET.	COST.
Chester street	Herbert street	Cambridge line	Bituminous macadam.	667	\$1,442.38
Crocker street	Highland avenue	Crown street	Bituminous macadam.	528	1,275.71
Day street	Herbert street	Cambridge line	Bituminous macadam.	688	1,445.44
Greene street	Summer street	Laurel street	Bituminous macadam.	555	1,093.80
Hancock street	Summer street	Elm street	Bituminous macadam.	778	1,948.15
Kidder avenue	College avenue	Liberty avenue	Bituminous macadam.	624	1,143.82
Lowell street	{ Vernon street } { Highland avenue }	{ Medford street } { Albion street }	Bituminous macadam.	1,565	2,747.04
Mansfield street	Washington street	Somerville avenue	Bituminous macadam.	735	1,705.11
Marshall street	Broadway	Pearl street	Bituminous macadam.	1,650	3,526.40
North street	Broadway	Powder House blvd.	Bituminous macadam.	552	1,317.29
Perkins street	Pinckney street	Franklin street	Bituminous macadam.	632	1,468.93
Summer street	near Central street	Willow avenue	Bituminous macadam.	4,367	11,863.54
Warren avenue	Union square	Sanborn avenue	Bituminous macadam.	315	839.60
Willoughby	Sycamore street	Central street	Bituminous macadam.	427	1,101.18
				14,083	\$32,918.39
	Length in feet, and cost				
	Average cost of bituminous macadam per square yard \$0.767				

HIGHWAYS CONSTRUCTION, PERMANENT PAVEMENT.

Permanent pavements were laid by the following named contractors:—

James H. Fannon, Somerville, Mass.

“Shawmut” brick on a concrete base.

Bituminous macadam on a concrete base.

The Hassam Paving Company, Worcester, Mass.

“Topeka” top on old Hassam concrete paving.

Re-cut granite blocks grouted on a concrete base.

Simpson Brothers Corporation, Boston, Mass.

“Bicomac” on a Hassam concrete base.

The City laid, on a concrete base, “Shawmut” brick, granite block and bituminous macadam.

Brick paving on a concrete base was laid at an average cost of \$2.89 per square yard complete, where work was performed by contract and bricks furnished by the city.

Bituminous macadam on a concrete base was laid at an average cost of \$1.54 per square yard complete, where work was performed by contract and bituminous binder furnished by the city.

“Topeka” top on old Hassam concrete paving was laid at an average cost of \$1.35 per square yard complete, where work was performed by contract and the old Hassam was repaired at day labor by the contractor before top was applied.

Re-cut granite blocks grouted on a concrete base were laid at an average cost of \$2.35 per square yard where blocks were furnished by the city and cutting done by the contractor.

“Bicomac” was laid at a contract price of \$1.52 per square yard where all excavation was performed by the city, on Pearl and Medford streets from Cross street to School street and on Bow and Summer streets from Wesley square to School street. This pavement was laid to replace old bitulithic. In the excavation of the old bitulithic the Buffalo Pitts steam roller with scarifier attachment was used to break up the surface. The old pavement was so thoroughly broken up in this manner that it was conveniently handled and used for a base for streets resurfaced with bituminous macadam.

On all narrow streets where there are car tracks, paving should be done with granite paving blocks grouted on a concrete base. With a few more years of permanent paving our main streets will be in a first class condition.

Streets paved with granite blocks	4.56 miles
Streets paved with concrete	1.42 miles
Streets paved with asphaltic top	2.59 miles
Streets paved with brick	1.14 miles
Streets paved with Bicomac . . . . .	.77 miles
Streets paved with bitulithic . . . . .	.11 miles
Streets paved with concrete base and bituminous top	5.73 miles

Total length of permanent pavement 16.32 miles

PERMANENT PAVEMENT.**Appropriations and Expenditures.**

Balance from 1915		\$2,692 42
Appropriations		93,000 00
Receipts		864 60
Labor	\$6,226 07	
City teams	677 35	
Hired teams	1,084 63	
Equipment	649 12	
Materials and contract payments	67,220 30	
Supplies from Highway Maintenance	1,553 53	
	<hr/>	
	\$77,411 00	
Balance to 1917	19,146 02	
	<hr/>	
	<u>\$96,557 02</u>	<u>\$96,557 02</u>

HIGHWAYS CONSTRUCTION, PERMANENT PAVEMENT.

STREET.	MATERIAL.	FROM	TO	SQUARE YARDS
*Bow and Summer sts.	"Bicomac"	Wesley square	School street .	2,406
Broadway .	"Topeka" top, on old "Hassam"	Charlestown line	Cross street .	15,149.5
Chester street .	"Shawmut" brick, on concrete base	Elm street .	Herbert street .	663.8
Day street .	"Shawmut" brick, on concrete base	Elm street .	Herbert street .	737
Magoun square .	"Shawmut" brick, on concrete base	Dover street .	. . . . .	1,457
*Meacham road .	"Shawmut" brick, on concrete base	Cross street .	Railroad station .	623
Medford street .	"Topeka" top, on old "Hassam"	Cross street .	Highland avenue .	1,714
Mystic avenue .	Granite block on concrete base at .	Austin street .	. . . . .	235
North street .	Bituminous macadam, on concrete base	P. H. boulevard	Conwell avenue .	1,231.5
*Pearl and Medford sts.	"Bicomac"	Cross street .	School street .	8,372.5
Summer street .	Bituminous macadam, on concrete base	School street .	near Central street	1,983
*Union square .	Granite block on concrete base	. . . . .	. . . . .	5,237
*Washington street .	"Shawmut" brick, on concrete base	Union square.	Hawkins street .	1,239
*Washington street .	Bituminous macadam, on concrete base	Hawkins street .	Dane street .	6,499.8
Total				47,548.1

*Uncompleted or finals not paid.

SIDEWALKS CONSTRUCTION.

I most respectfully recommend that the uncompleted portions of sidewalks on the main streets be completed.

Length of edgestones	140.111 miles
Gravel sidewalks	25.467 miles
Brick sidewalks	71.736 miles
Granolithic sidewalks	47.162 miles

SIDEWALKS CONSTRUCTED WHERE THE MATERIALS WERE FURNISHED BY THE CITY AND ONE-HALF THE COST WAS ASSESSED UPON THE ABUTTING ESTATES.

STREET.	SIDE.	FROM	TO	FEET OF EDGESTONE.	YARDS OF GRANOLITHIC.	COST.
Ash avenue	Westerly	Meacham street	East Albion street . . . . .	....	377.7	\$573.11
Auburn avenue . . . . .	. . . . .	at No. 123 Cross street . . . . .	. . . . .	....	45.7	86.89
Beacon street . . . . .	. . . . .	Estate No. 362	No. 368 . . . . .	....	54.	77.22
Boston street	Easterly	Prospect Hill avenue	Washington street . . . . .	....	334.2	566.49
Broadway	Northerly	Burnham street	Leonard street . . . . .	....	277.2	407.96
Cedar street	Northerly	Estate No. 977	No. 983 . . . . .	....	105.1	156.89
Charles street	Northwesterly	Aberdeen road	Hall street	129	113.7	335.06
Craigie street	Easterly	Washington street	End . . . . .	....	68.3	119.40
Curtis street	Northwesterly	Somerville avenue	Craigie Terrace . . . . .	....	149.7	214.07
Eliot street	Southeasterly	Teele avenue	Whitfield road . . . . .	....	110.1	157.44
*Fellsway west	Northeasterly	Park street	Vine street . . . . .	....	198.9	341.06
Fountain avenue	Westerly	Work abandoned . . . . .	. . . . .	..	....	45.56
Greenville street	Both sides	Cross street	Glen street . . . . .	....	561.1	971.76
Hamlet street	Southerly	Medford street	Boston street . . . . .	....	324.5	560.99
Hinckley street	Both sides	Highland avenue	Boston street . . . . .	....	603.6	1,055.29
Jaques street	Both sides	Broadway	Sumner, Richardson sts. . . . .	....	490.5	724.52
Kidder avenue	Both sides	Temple street	Fenwick street	69.8	1,205.1	1,912.12
Langmaid avenue	Southwesterly	No. 66 Highland road . . . . .	. . . . .	....	64.2	91.81
Lesley avenue	Southwesterly	Broadway	Heath street . . . . .	....	171.5	292.39
Line street	Both sides	Highland avenue	Lexington avenue . . . . .	....	447.	839.37
Lovell street	Northeasterly	Washington street	Cambridge line . . . . .	....	813.1	1,218.57
*Maple and Poplar sts.. . . .	Both sides	Broadway to	Electric avenue . . . . .	....	516.1	733.68
Morrison avenue	Both sides	Bennett school . . . . .	. . . . .	....	140.8	242.87
	Southwesterly	Willow avenue	Highland road . . . . .	....	499.1	713.71
			Carried forward	198.8	7,671.2	\$12,443.23

*Not assessed.

SIDEWALKS CONSTRUCTED WHERE THE MATERIALS WERE FURNISHED BY THE CITY AND ONE-HALF THE COST WAS ASSESSED UPON THE ABUTTING ESTATES.—Continued.

STREET.	SIDE.	FROM	TO	FEET OF EDGESTONE.	VARDS OF GRANOLITHIC.	COST.
Morrison avenue	Northeasterly	Highland road	Brought forward	198.8	7,671.2	\$12,443.23
Mystic avenue	Northeasterly	Est. of Barney Price	Willow avenue	.....	393.1	576.08
Newbury street	Southesterly	Teele square	No. Union street	.....	271.2	460.30
*North street	Northwesterly	Broadway	Cambridge line	157.1	803.2	1,502.94
North street	Southesterly	Broadway	Powder House boulevard	403.7	410.5	1,092.96
Pearson road	Southwesterly	Broadway	Powder House boulevard	527.5	358.4	1,058.46
*Powder House blvd.	.....	Warner street	Old sidewalk	.....	54.8	78.36
*Powder House blvd.	.....	No. 189	No. 193	.....	121.4	211.33
*Powder House blvd.	.....	At Cutler School	.....	.....	244.	442.83
*Powder House blvd.	.....	No. 181	.....	.....	445.6	79.62
*Powder House blvd.	.....	No. 183	.....	.....	46.3	80.62
*Powder House blvd.	.....	No. 249	.....	.....	57.3	107.41
Powder House terrace.	Easterly and westerly	Tufts park, Liberty ave.	Kidder avenue	.....	576.7	832.31
Prospect street	Southesterly	Webster avenue	Cambridge line	.....	786.3	1,292.14
Simpson avenue	Northwesterly	Holland street	Broadway	.....	491.9	702.27
Simpson avenue	Southesterly	Broadway	Holland street	.....	597.7	873.40
Summer street	Northeasterly	Porter street	Linden avenue	.....	254.1	398.22
*Sycamore street	Northwesterly	R. R.	Southwesterly	.....	25.7	40.44
Teele avenue	Southwesterly	Curtis street	Lot No. 12	.....	173.9	248.68
Temple street	Southesterly	Sydney street	Mystic avenue	377.5	342.	1,165.59
Victoria street	Southesterly	Broadway	No. 54	.....	492.3	703.99
Victoria street	Southesterly	Estate No. 82	Woodstock street	.....	28.1	40.18
Victoria street	Northwesterly	Broadway	Woodstock street	.....	614.2	878.31
Victoria street	Southesterly	Estate No. 62-66.	.....	.....	67.8	96.95
Victoria street	Northwesterly	Woodstock street	Cambridge line	.....	64.1	91.66
			Carried forward	1,664.6	15,391.8	\$25,498.28

*Not assessed.

SIDEWALKS CONSTRUCTED WHERE THE MATERIALS WERE FURNISHED BY THE CITY AND ONE-HALF THE COST WAS ASSESSED UPON THE ABUTTING ESTATES.—Concluded.

STREET.	SIDE.	FROM	TO	FEET OF EDGESTONE.	YARDS OF GRANOLITHIC.	COST.
Washington street .	Southerly .	Estate No. 80 .	Brought forward .	1,664.6	15,391.8	\$25,498.28
Waterhouse street .	Southeasterly .	Broadway .	Woodstock street .	....	34.7	61.85
Wheatland street .	Southeasterly .	Mystic avenue .	Jaques street .	....	589.5	842.99
Willoughby street .	Southwesterly .	Sycamore street .	Old sidewalk .	....	559.3	809.15
Yorktown street .	Abatement to John La Chane .	Chane .	. . . . .	....	161.	259.93
					....	10.29
			Total .	1,664.6	16,736.3	\$27,482.49

MISCELLANEOUS.

Special repairs were made on the following streets:--

Stone avenue.

Washington street (Beacon street to Cambridge line).

Glen street (Broadway to Brook street).

Somerville avenue (Oak square to Cambridge line).

Cross street (Railroad bridge to Central square).

Broadway (at Alewife Brook parkway).

Joy street.

Park avenue.

Hall avenue.

Grove street at railroad.

Street openings were made at:—

Smith avenue at Line street.

Carter terrace at Summer street.

Magnus avenue at Washington street.

Driveways were constructed at the expense of the petitioners for:—

Lester C. Evans, 21 Claremon street.

A. L. Blondel, 82 Pearson avenue.

Judson B. Young, 50 Putnam street.

M. P. Gustin, 80 Benton road.

R. M. Rice, 33 Claremon street.

Gilmore H. Small, 16 Conwell avenue.

R. J. Elliot, 78 Liberty avenue.

L. J. Smith, 262 Willow avenue.

Sarah J. Steeves, 33 Cherry street.

Elmer S. Stack, 43 Hall avenue.

Joseph W. Lowell, 264 Willow avenue.

F. H. Newton Co., 2 on Elmwood street and 1 on Cameron avenue.

Frank W. Spear, Hamlet street.

John F. McTiernan, 51 Concord avenue.

Michael D. Bingham, 50 Pearl street (Florence street).

H. A. Oliver, 242 Willow avenue.

F. M. Drinkwater, Victoria street.

Mrs. Henry Hill, 315 Summer street.

Frank Larracey, 15 Morrison avenue (Boston avenue).

Louis Quazzaloca, 589 Somerville avenue.

Niles Nelson, 95 Temple street.

Dora C. Towle, 19 Cutter avenue (Hawthorne street).

G. E. Hobbs, 27 St. James avenue.

T. C. Cunningham, 22 Hancock street.

F. A. Teele, Guild Hall, Berkeley street.

Wickham and Row, 12 and 16 Garfield avenue.

A. J. Evenson, 114 Prospect street.

Nathan Robinson, 118 and 120 Prospect street.

Alice N. Smith, 2 driveways Oliver street near Glen street.

Alexander Small, 32 Franklin street.

M. Louise Ober Pride, 9 Browning road.

Louis B. Cadario, 79 Grant street.

Mansur Byam, 10 Josephine avenue.

Mrs. Julia Adams, 23 Rhode Island avenue.

Mrs. E. S. Simonds, 38 Robinson street.

John H. Mullen, 20 Willow avenue.

Emil Zacharian, 102 Electric avenue.

George T. Hunter, 77 Bay State avenue.

A. C. Michie, 183 Highland avenue.

Edward L. Morrison, 97 Rogers avenue.

Z. W. Weisz, 27 Ossipee road.
 Arthur D. Raymond, Albion street near Lowell street.
 Edgar R. Lyle, 37 Lowden avenue.
 Charles Berry, 109 Jaques street.
 Concezio Liberatore, 95 Jaques street.
 E. F. DeWitt, 15 Day street.
 Ethel A. Welsch, 49 Bromfield road.
 Vincent Prezioso, 40 Adams street.
 William F. Burns, 19 Illinois avenue.
 Florence Williams, 32 Fosket street.
 Nellie M. Perry, 9 Moore street.
 Frank L. Sibley, 48 Tennyson street.
 North Shore Express, Myrtle street.
 Peter Forg Manufacturing Co., 16 Vine street.
 Charles G. McGlone, 50 Conwell avenue.
 H. A. Walker, 464 Broadway.
 Thomas C. Griffiths, 39 Ames street.
 Ezra Andelman, 109 Prospect street.
 Sarah E. Hemenway, 145 Perkins street.
 Youlden, Smith & Hopkins, 85 Washington street.

Driveway discontinued:—

Samuel Berkowitz, 307 Broadway.

Length of public streets 83.041 miles

The department does its own painting, carpentering, blacksmithing, horseshoeing and harness repairing at the city stables, maintaining shops for the different lines of work.

Seven horses were killed and one died during the year.

I have attended meetings of the different committees of the Board of Aldermen for consultation regarding work and petitions.

The employees had two weeks' vacation and five months' Saturday half holidays without loss of pay. The city does its own insurance for injured laborers and accepted the act providing for pensioning of laborers.

There were during 1916:—

- 202 permits issued to the Cambridge and Charlestown Gas Companies.
- 290 permits issued to occupy streets and sidewalks.
- 93 permits issued to cross sidewalks.
- 11 permits issued to feed horses.
- 37 streets watering complaints and requests.
- 241 notifications to other departments and corporations.
- 35 accident reports.
- 1,073 police reports.
- 202 brick and granolithic sidewalks repaired.
- 299 miscellaneous reports and requests.
- 0 requests to care for moths.
- 303 poles and guards for trees.
- 159 drain layers' permits.
- 557 water department openings.
- 3,180 loads of ice and snow removed.
- 150 permits to open streets and sidewalks.
- 30 new signs erected.
- 38 danger signs erected.
- 66 signs re-painted.

2,134 cubic yards sand and gravel used.
9,794 cubic yards dirt removed.
10,186 cubic yards scarifying removed from streets.
3,557 cubic yards old macadam used.
3,091 cubic yards of ashes used.
8,776 bags of Portland cement used.

RECOMMENDATIONS.

I most respectfully recommend:—

That traffic rules and regulations be established the coming year.

That all the uncompleted paving on the main streets be completed.

Newton street and Concord avenue from Webster avenue to Springfield street be paved with granite paving blocks, grouted on a concrete base.

Gasoline and kerosene storage tanks, with a suitable fire-proof building over the same, be erected at the city stable lot.

I wish to extend my sincere thanks to all for their support and hearty co-operation.

Respectfully submitted,

ASA B. PRICHARD,

Street Commissioner.

REPORT OF COMMISSIONER OF PUBLIC BUILDINGS.

OFFICE OF COMMISSIONER OF PUBLIC BUILDINGS, }
CITY HALL, SOMERVILLE, January 1, 1917. }

To the Honorable, the Mayor, and the Board of Aldermen of the City of Somerville:—

Gentlemen,—In accordance with the provisions of the City Charter, I submit herewith the annual report of the public buildings department for the year ending December 31, 1916.

The total valuation of the public property which is in the custody of the public buildings department is \$2,575,112.66.

The total expenditure for the year 1916 for the care and maintenance of this property was \$129,518.66.

This amount was expended as follows:—

Janitor service	\$41,369 74
Fuel and light	43,816 46
Care and repairs	44,332 46

Inspection of Buildings.

The Commissioner of Public Buildings is also the inspector of buildings according to the terms of the charter and as such during the past year has made 1,580 formal inspections of buildings in the process of construction.

The following table shows the number of permits issued for building operations during the year 1916:—

Buildings.	WARDS.							Totals.
	1	2	3	4	5	6	7	
Dwellings	23	17	11		26	22	93	192
Stores	2	3	3	1	3	2	4	18
Dwelling & Stores		1	2					3
Bank and Stores .							1	1
Stables	2	8			1	3		14
Shops	1	2			1			4
Manufactories . .	4	1		1		3	2	11
Garages	17	4	6	15	15	22	56	135
Offices	2	1		2		1		6
Storage	6	5	3			3	2	19
Churches					2		2	4
Foundations . . .		2	3					5
Miscellaneous . . .	5	4	1	1	1	1	2	15
Totals	62	48	29	20	49	57	162	427

The following table shows the number of permits issued for fire-resisting buildings during the year 1916. This is an increase of fifty more than last year or an increase of thirty-four per cent. in relation to the number of permits of this kind issued.

Buildings.	WARDS.							Totals.
	1	2	3	4	5	6	7	
Brick	4	5	2		2	7	4	24
Cement	10	2	6	13	6	13	42	92
Concrete	5	3		2	7	6	7	30
Stucco		1						1
Terra Cotta				1	1			2
Steel							1	1
Brick and Wood		1	2					3
Brick and Concrete	2					1		3
Brick and Cement					3		2	5
Brick and Stone							2	2
Steel and Wood	3	1	1					5
Stucco and Wood	10		3	1			6	20
Galv. Iron and Wood	1		1					2
Concrete and Wood					1			1
Wood, Fireproofed	2				1		1	4
Terra Cotta and Wood		1						1
Totals	37	14	15	17	21	27	65	196

	Wood.	Fire Resisting.	Total.
New buildings	131	177	308
Alterations	100	19	119
Totals	231	196	427

The number of plumbing permits issued during the year 1916 was 373
 Permits for plumbing in new buildings 198
 Permits for plumbing in old buildings 175
 Number of buildings in which soil pipes were tested 346

The total number of permits issued during the year 1916, viz., 427, was fifty-three less than during the year 1915, when 480 permits for new buildings and alterations were issued.

The total estimated cost of the new buildings and alterations during the year 1916 was \$1,498,932, while the cost in 1915 was \$1,854,236, showing a decrease of \$355,304. This decrease can largely be attributed to the high cost of materials

and to the fact that the available land for building construction in our city is decreasing very rapidly, and this department expects that in the future the number of permits issued for alterations and for the tearing down and construction of larger and better buildings will show a gradual increase each year. The figures this past year show a tendency in this direction, there being 119 permits issued for alterations against eighty-six in 1915.

The Commissioner of Public Buildings has under his charge and direction the work of maintenance and keeping in repair all of the public buildings of the city and the grounds in connection therewith, the direction of all janitors in the city's employ, the inspection of all new building construction, the inspection of the installation and care of all elevators, the supervision of the construction of all new municipal buildings, the maintenance of the public bathing beach and the public municipal baths in the Bennett and Bingham Schools and Lincoln Park.

The various activities in connection with the department work require a vast amount of time and attention in order to keep the property in proper condition for occupancy.

School Buildings.

The maintenance and care of the school buildings has as formerly demanded the most vigilant attention from this department and the appropriation made for that purpose has, I believe, been expended carefully and judiciously.

Additional Accommodations.

During the year provision has been made for additional seating capacity in the schools for 434 pupils. This has been accomplished by the completion of the nine-room Junior High School in Ward 1, known as the Prescott School Annex.

Owing to the formation of a Junior High School system it became necessary to make changes in the arrangement of 1,228 desks and seats in seven schools at a considerable outlay of time and money.

The contract has been let and the work started on a new Junior High School in Ward 7.

Work was started on this building during August, 1916, and it will be ready for occupancy next September.

The building is located on the "old ledge lot," situated on Holland street, and is to contain fifteen classrooms, which will accommodate 600 pupils.

The equipment will be modern in every respect. The heating will be by the fan system automatically controlled. The sanitary system will include the required number of fixtures and there is to be in the basement four rooms fitted up

for instruction in machine shop work, carpenter work, cooking and sewing. The end stairways are to be absolutely fire-proof and so located as to be protected in the case of fire from all other sections of the building.

A new addition has been started at the Boys' Vocational School which should be completed by next fall.

This addition is attached to the present building and will contain a large machine shop and tool room and a room for the repairing of automobiles.

The foundations, framing and roofing were done by contract and the school boys are to put on the clapboards and any finish on the inside.

It will be necessary the coming year to install a new heating system, furnish new equipment, and fix up the grounds around these two buildings.

At the Brown and Burns School buildings new assembly halls have been constructed during the past summer with a seating capacity of 200 in each to the great appreciation of the respective principals and the inhabitants of these localities.

The concrete yards of ten school buildings have been renewed or repaired in various parts of the city.

Three of our school buildings were entirely repainted on the outside and in fact such necessary painting, repairs, alterations and additions were made as the appropriation would permit.

New sprinkler systems were installed in the basements of the Cummings and Burns Schools during the past summer and two new heaters were installed in the Cummings School.

The most pressing needs this year will be the following:—

That the policy of yard resurfacing be continued so that the school yards may be kept sanitary and free from dust.

That the policy of painting as many schools as possible during the year be continued.

Additional windows in the Edgerly School.

Electric lighting in all buildings with one side lighted rooms.

Outside enclosed fire escapes on the Edgerly, Morse and Highland School buildings. These buildings are three stories high and the old style type of construction with very little distance between stairways.

New heating and ventilating plant in the Morse School, doing away with the present seven furnaces which are in bad condition.

New floors should be installed in both Edgerly and Highland Schools.

New heating and ventilating plant in the Boys' and Girls' Vocational Schools as the old furnaces are cracked and in fact worn out and the gas leaks badly.

The installation of electric program clocks in the Junior High Schools.

Installing direct steam coils thermostatically controlled in the new wing of the Brown School, also the Glines and Pope Schools and the High School Annex. This would mean a great saving of coal and would eventually pay for itself.

Extending the heat control system in the High School to the remainder of the building.

The third story of the Pope School to be fitted up for a hall.

Installing a motor and doing away with the present engine used to run the ventilating fan at the Bell School as this engine is in bad shape and would cost as much to be repaired as a new motor.

Removing the partitions between the fire rooms and coal bins in the Bingham, Durell, Morse and Highland School buildings and the central heating plant and replacing same with an eight-inch brick wall.

Continuation of the policy of installing sprinkler systems, doing as many buildings as possible during the coming year.

Fire Department Buildings.

The new fire alarm building, the construction of which was started in 1915, was completed this fall at a cost of \$38,246.18, and this building is soon to be dedicated and opened for service. It is a beautifully equipped building of its kind and it would well repay any of our citizens to visit it.

Upon the completion of the fire alarm building the old apparatus was removed from the Central fire station. This leaves a large amount of work to be done to fix up the rooms thus made available for drill and recreation purposes.

The most pressing needs for this year will be the following:—

Engine Two, improved sanitary accommodations.

Hose Eight, improved sanitary accommodations.

Ladder Two, improved sanitary accommodations.

Hose Five, improved sanitary accommodations.

Municipal Buildings.

The municipal buildings consisting of City Hall and City Hall Annex are in good condition generally. It will be necessary, however, to remodel the men's toilet on the first floor. Several of the department offices should be renovated by wall and ceiling painting and new floor coverings.

At the present time the Mayor's office is being refinished and the aldermanic chamber is being equipped with new desks for the president of the Board of Aldermen, city clerk and city messenger.

During the past year the vault in the auditor's office was remodeled and a new safe furnished the clerk of committees office.

Some new furniture and metal filing cabinets were purchased for the different departments and all necessary repairs made.

Libraries.

The Central Library and its branches are well provided for except the Union Square Branch, which is being extended into the quarters formerly occupied by the Boys' Club. This additional space properly fitted up will provide additional

room which is much needed and I know will be greatly appreciated.

The roof of the West Somerville Branch needs extensive repairing and the building needs repainting.

The contract for the construction of a new East Somerville Branch Library has been awarded and the work is to be started as soon as the weather will permit.

Water, Highway and Refuse Buildings.

Quite extensive repairs have been made to the water buildings by the installation of additional heating apparatus, the repairing of doors, repainting, etc., while the highway, refuse and incinerator buildings and fences have had the necessary repairs made as far as the appropriation would permit.

There are quite a few alterations and repairs necessary to be made on these buildings this year.

Hospital Buildings.

The hospital buildings were quite extensively renovated during 1915 and only such repairs were made during 1916 as were necessary.

This year the roof of the Tuberculosis Camp needs repairing, also new screens are needed here.

City Home Buildings.

The most important work at the City Home buildings during the year was the thorough installation of a wet sprinkler system through the home and hospital and the reconstruction of that portion of the stable occupied by the horses and cows, which is now in a thoroughly sanitary condition.

These buildings are now in good condition with the exception of the fence along North street and the Boulevard, and a few alterations to be made to the heating system.

Police Buildings.

The yard or drive around the police buildings has been relaid with tarvia bound macadam, the court room refinished throughout and a few other minor repairs made. However, the interior and exterior need repairing and repainting and a new heating apparatus is badly needed in the stable.

Bathhouse.

The bathhouse and bathing beach have been operated during the past season and were as popular an attraction as in the preceding years.

The expense of maintenance was kept as low as possible owing to the fact that a new and more commodious bathhouse is being constructed on another location, and I feel sure

that this new building together with its increased bathing facilities will prove to be a very popular institution.

A considerable appropriation will be needed, however, to construct a suitable beach this coming spring and also to equip the building.

Park Buildings.

There has been an addition made to the shower bath facilities at the Lincoln Park building which has doubled the efficiency there.

The other park buildings have been kept in repair.

The new building at the Somerville Recreation Field was to have been started early in December, but the weather interfered. The work will be started, however, as soon as the frost leaves the ground.

This appropriation will need an additional amount in order to complete the contemplated project.

In General.

The Commissioner of Public Buildings has had the cooperation of all branches of the City Government, including his honor, the Mayor, the honorable members of the Board of Aldermen and all the city officials, and desires to thank them for their kindly consideration.

Respectfully submitted,

GEORGE L. DUDLEY,

Commissioner of Public Buildings.

REPORT OF THE COMMISSIONER OF ELECTRIC LINES AND LIGHTS.

OFFICE OF COMMISSIONER OF ELECTRIC LINES AND LIGHTS, }
January 1, 1917. }

To the Honorable, the Mayor, and the Board of Aldermen of
the City of Somerville:—

Gentlemen,—I most respectfully submit my eighth annual report as Commissioner of Electric Lines and Lights for the year ending December 31, 1916.

Inspection of Wiring in Buildings.

The number of inspections of electrical work in buildings is greater than any previous year owing to the general demand for electric current for light, heat and power.

Electric ranges, motors, lights, etc., are used more than formerly and constant supervision of new wiring is necessary to ensure a proper installation of such electrical equipment and to guard against possible danger to life and property.

The state license law has helped to some extent to improve construction as no one but a licensed man can install electric wires for light, heat or power in a building.

After such wiring or equipment has been installed an inspection is made, and if the rules governing such installations are complied with, permission is given the electric company supplying current to connect its wires to the building and install meters.

The danger from fire and liability of accidents to persons is thereby reduced to a minimum and every one having electrical work done should insist that it is inspected and approved before accepting the same.

Considerable delay and annoyance can be avoided if attention is paid to this rule and having only experienced men do the work, and a satisfactory and safe installation is the result.

Number of notifications of new work	1,278
Number of inspections of new work	1,278
Number of re-inspections of new work	2,535
Number of inspections of old work	140
Number of defective installations of old work	10
Number of defective installations remedied	10
Number of re-inspections of old work	19
Total number of inspections	3,972
Number of permits issued to the Edison Electric Illuminating Company for installing meters, lamps, etc.	1,888

Fire Alarm System.

The new fire alarm central office equipment which has been purchased is being installed in a new fireproof building

built for the fire alarm headquarters and will be in operation very soon.

This central office is the latest and best that can be had and will be a credit to the city.

The alarms will be sent out on tappers in the different fire stations at much faster time than before and then will be sent out on the outside bells at the present time.

A branch telephone exchange is being installed whereby all telephone calls for fire are received and duly transmitted to the different fire houses.

Operators will be on duty day and night and will handle all fire alarms and telephone calls.

This central office is in line with the recommendations of the underwriters and should be a help towards reducing the insurance rates.

The present fire alarm system consists of the following:—

128 signal boxes, one eight-circuit automatic repeater, eight tower strikers, thirty-nine gongs, nine punch registers, forty-three tappers, one automatic steam whistle, twelve private telephones, 530 cells of storage batteries, about 132 miles of overhead wires and 65,761 feet of underground cable.

There has been run 25,200 feet of new overhead wire and 2,300 feet of old has been removed.

2,440 feet of lead-covered cable have been placed underground on Cedar street, Elm street and Prospect Hill avenue, and preparations made to remove overhead wires in Walnut street, Bow street and Union square, and place same underground.

Police Signal System.

The police signal system has been given constant attention and is giving excellent service.

Boxes have been thoroughly tested and all found to be in perfect working order.

Supervision of Poles and Wires on the Streets.

The same attention has been given to the condition of poles and wires on the streets as in previous years.

A large number of defective poles have been replaced by companies owning the same.

New poles have been placed in locations granted for the purpose of supplying light and telephone service, and abandoned poles have been removed.

	New poles.	Re-placed.	Re-moved.	Re-set.
New England Telephone & Telegraph Co.	17	14	29	6
Edison Electric Illuminating Co.	37	239	22	2
Beston Elevated Railway Co.	9	2	2	1
Permits given to the New England Telephone & Telegraph Co. for attachments to Edison Co.'s poles			367	
Permits given to the Edison Electric Illuminating Co. for attachments to New England Telephone Co.'s poles				39

Street Lighting.

The matter of street lighting has had the same attention as in previous years and a number of additional lights have been placed in various parts of the city.

	Jan. 1, 1916.	Jan. 1, 1917.
Magnetites	128	129
Nitrogen incandescents 600 c. p.	362	367
Incandescents 100 c. p.	91	100
Incandescents 40 c. p.	898	912

Recommendations.

I respectfully recommend that:—

Additional ordinances be made to further govern the installation of electric wires and appliances in the city.

An assistant inspector be employed to be able to thoroughly cover all old installations in the city.

Conclusion.

I wish to thank his honor, the Mayor, the members of the Board of Aldermen, and the several departments for the courtesies received.

Respectfully submitted,

WALTER I. FULLER,
Commissioner of Electric Lines and Lights.

SOMERVILLE WATER WORKS.

SOMERVILLE, MIDDLESEX CO., MASSACHUSETTS.

Location: Somerville City Hall (near centre of the city) is $2\frac{3}{4}$ miles northerly from State House in Boston.

Greatest extent of the City north and south about 4.2 miles.

Greatest extent of the City east and west about 2.1 miles.

Elevation Highland avenue at City Hall 105 feet above mean low water.

Lowest building elevation in the city 13 feet.

Highest building elevation in the city 145 feet.

Area of city, including land and water, about 4.22 square miles.

Land, 2,461.50 acres; water and marsh, 238.50 acres.

Population 1915, census, 86,854.

Present population, estimated, 90,000.

Entire population on line of pipe and supplied with water.

Water works owned by City of Somerville.

Construction commenced in 1868.

Source of supply: Metropolitan system, taking water of the Nashua river at Clinton, Mass.

Range of pressure on street mains:

Low service 35 to 65 pounds.

High service 45 to 100 pounds.

Mayor.

HON. ZEBEDEE E. CLIFF.

Water Commissioner.

FRANK E. MERRILL.

Office of the Water Department.

Room 10, City Hall.

Department Buildings and Yard.

Cedar street, near Broadway.

REPORT OF THE WATER COMMISSIONER.

OFFICE OF THE WATER COMMISSIONER, }
January, 1917. }

To His Honor, the Mayor, and the Board of Aldermen:—

I present herewith my report for the year ending December 31, 1916, this being the forty-third annual report of the water department and my seventeenth as water commissioner:—

Revenue and Expenditures.

Water bills have been issued as follows:—

“Annual” water charges, amounting to			\$53,903 00
“Additional” water charges, amounting to			2,115 50
“Metered” water charges, amounting to			187,588 46
			\$243,606 96
	Annual and Additional.	Metered.	
Abatements on above charges	\$1,422 96	\$468 01	
		\$1,890 97	
Income from sale of water			\$241,715 99
Receipts from water service assessments		\$3,837 53	
Receipts for labor and materials sold:—			
Miscellaneous accounts		2,873 77	
		6,711 30	
Total income of water works			\$248,427 29
This amount was used as follows:—			
For water works purposes:—			
Water works maintenance	\$50,102 33		
Water works extension	17,087 84		
Miscellaneous accounts	2,873 77		
		\$70,063 94	
Interest on water loan bonds		840 00	
Maturing water loan bonds		5,000 00	
Metropolitan water works assessment		110,468 29	
Maintenance water works buildings		1,346 06	
		\$187,718 29	
For other municipal purposes:—			
Surplus to general revenue account		\$60,709 00	
		60,709 00	
		\$248,427 29	

In addition to the appropriations from water income to other municipal purposes enumerated above, water has been furnished without charge to all the city departments that have required its use and it is paid for out of the income from sale of water.

Department Receipts and Disbursements.**WATER MAINTENANCE ACCOUNT.**

	Dr.	Cr.
Amount appropriated by board of aldermen from estimated sales of water and operating receipts of the water department		\$44,000 00
Amount transferred from the Water Works Extension account		10,000 00
Department accounts		836 25
Materials furnished for extension of the water works		11,779 03
Amount expended for labor and materials for operation, maintenance, and renewal of the water works	\$50,102 33	
Amount expended for materials used in extension of the water works	11,779 03	
Miscellaneous accounts	2,873 77	
Labor and materials furnished municipal departments	836 25	
Amount transferred to Water Works Extension account	950 00	
Unexpended balance	73 90	
	<hr/> \$66,615 28	<hr/> \$66,615 28

WATER WORKS EXTENSION ACCOUNT.

	Dr.	Cr.
Amount appropriated by board of aldermen from estimated sales of water and operating receipts of the water department		\$23,000 00
Amount transferred from Water Maintenance account		950 00
Amount transferred from other municipal departments		2,300 00
Labor and materials furnished other municipal departments		852 10
Amount expended for labor and materials used in extension of the water works	\$17,087 84	
Amount transferred to Water Maintenance account	10,000 00	
Unexpended balance	14 26	
	<hr/> \$27,102 10	<hr/> \$27,102 10

Cost of Water Works.

The total cost of the water works on December 31, 1915, as represented by the expenditures from appropriations for water works extension was	\$1,021,574 45
Expended during the year 1916, on extension account	17,087 84
Total expenditures, December 31, 1916	<hr/> \$1,038,662 29

Water Debt.

Water loan bonds have been issued on funded debt account to the amount of \$1,017,000; this has been reduced by \$1,101,000, leaving the water debt on December 31, 1916, \$16,000.

The outstanding bonds mature as follows:—

YEAR.	AMOUNT.	YEAR.	AMOUNT.
1917	\$5,000	1919	\$4,000
1918	5,000	1920	2,000

Water Works Income from 1898 and its Distribution.

The water income and its distribution from 1898 to 1916, inclusive, is shown in the following table:—

Total water income, years 1898 to 1916, inclusive . . . \$4,349,956 71
Distribution:—

Water Works Account.

Water Works Construction, Renewal, Maintenance and Operation	\$1,079,265 23	
Water bonds	258,000 00	
Interest	85,175 00	
Metropolitan Water Assessments	1,644,427 04	
Maintenance Water Works buildings (1916)	1,346 06	
	<hr/>	\$3,068,213 33

Other Municipal Accounts.

Various municipal departments through specific appropriations and general revenue account		\$1,281,743 38
		<hr/>
		\$4,349,956 71

STREET MAINS, GATES, HYDRANTS, ETC., LAID, SET AND REMOVED IN 1916.

STREET.	DESCRIPTION.	PIPE.				GATES.				HYDRANTS.				BLOW-OFFS.			
		LAIN.		ABANDONED.		SET.		REMOVED.		SET.		REMOVED.		SET.		REMOVED.	
		Size	Feet.	Size.	Feet.	Size.	No.	Size.	No.	Size.	No.	Size.	No.	Size.	No.	Size.	No.
Auburn avenue	Hydrant; 481 feet west from Cross street.									6"	1	4"	1				
Bow street	Gate on hydrant branch; 13 feet east from west line of Bow street and 102 feet north from Warren avenue.					6"	1										
	Main gate; 20 feet east from the west line of Bow street and on the south line of Walnut street.					10"	1										
	Gate on hydrant branch; 74 feet north from Walnut street.					6"	1										
Broadway, opp. Cross st.	Hydrant; 23 feet west from Wesley park.									6"	1	6"	1				
Broadway	Blow-off; 31 feet south from the north line of Broadway and 17 feet 6 inches west from the east line of Cross street.	6"	16			6"	1							6"	1		
	Hydrant; 90 feet east from Mt. Pleasant street (removed from 50 feet east from Mt. Pleasant street).									6"	1	6"	1				
Carter terrace	Street main; from connection with main pipe in Summer street, to point on south line of Summer street and 13 feet 4 inches out from east line of Carter terrace.	6"	32			6"	2										
Chetwynd road	Street main; from connection with main pipe in Hillsdale road to connection with main pipe in West Adams street and 13 feet, 4 inches north from the south line of Chetwynd road.	8"	238			8"	2										
Cummings street	Street main; from connection with 12 inch main pipe in Mystic avenue to point 238 feet north from the south line of Mystic avenue and 13 feet, 4 inches east from the west line of Cummings street.	8"	230			8"	2										
	Hydrant; 238 feet north from the south line of Mystic avenue.	6"	7			6"	1			6"	1						
Day st. opp. Herbert st.	Gate on hydrant branch; 8 feet, 6 inches south from the north line of Day street.					6"	1										
Darham street	Hydrant; 5 feet west from Hanson street.									6"	1	4"	1				
Dykeman Circle (N. end)	Street main; from connection with main pipe in Marshall street to 6 inch gate set on the east line of Marshall street and 2 feet north from the south line of private way.	6"	12			6"	1										
(S. end)	Street main; from connection with main pipe in Marshall street to 6 inch gate set on the east line of Marshall street and 2 feet south from the north line of private way.	6"	12			6"	1										
Line street	Hydrant; 272 feet west from the west line of Cooney street.					6"	1			6"	1	4"	1				
Lowell street	Street main; from connection with main pipe in Hudson street, to point 118 feet north from the north line of Hudson street and 13 feet, 4 inches east from the west line of Lowell street.	6"	128			6"	1										
	Hydrant; 118 feet north from the north line of Hudson street.	6"	8							8"	1						
Maine avenue	Hydrant; 83 feet north from Pennsylvania avenue.	6"	7							6"	1						
	Hydrant; 66 feet south from Mystic avenue.	6"	7							6"	1						
Maine terrace	Street main; from connection with main pipe in Maine avenue to point 168 feet east from the east line of Maine avenue and 10 feet, 8 inches north from the south line of Maine terrace.	6"	195			6"	1										
Medford street	Main gate; 13 feet east from the west line of Medford street and on the south line of Greenville street.					12"	1										
	Hydrant; 13 feet north from Prospect Hill avenue.					8"	1			6"	1	8"	1				
	Gate on hydrant branch; 8 feet south from Greenville street.					8"	1										
	Gate on hydrant branch; opposite Chester avenue.					6"	1										
	Hydrant; 171 feet north from Marshall street.					6"	1			6"	1	6"	1				
	Gate on hydrant branch; 50 feet north from Hennessey court.					6"	1										
Michigan avenue	Street main; from connection with 12 inch main pipe in Broadway opposite Glen street to connection with 12 inch main pipe in Broadway (in sidewalk) at Michigan avenue, 13 feet, 4 inches west from the west line of Michigan avenue.	12"	54			12"	1										
Middlesex avenue	Street main; from connection with main pipe in Middlesex avenue at point 23 feet north from the north line of Mystic avenue to point 293 feet north from the north line of Mystic avenue and 11 feet east from the west line of Middlesex avenue.	12"	265			8"	1			6"	1						
	Hydrant; 70 feet north from the north line of Mystic avenue.	6"	4														
Mystic avenue	Street main; from 12 inch main pipe in Mystic avenue at connection with Fellsway West main, crosses Fellsway West diagonally from starting point to point in sidewalk 5 feet north from the south line of Mystic avenue, thence continuing in sidewalk in that location to connection with 8 inch main pipe in Cummings street at point 290 feet east from the east line of Fellsway West.	12"	3.0														
	Main gate; 21 feet north from the south line of Mystic avenue and on the west line of Fellsway West.					12"	1										
Osgood street	Street main; from connection with main pipe in Osgood street at point 13 feet, 4 inches east from the west line of Loring street, to point 32 feet west from the west line of Loring street and 13 feet, 4 inches south from the north line of Osgood street.	2"	43			2"	1										
Parkdale street	Street main; from connection with main pipe in Washington street to point 25 feet south from the south line of Washington street and 13 feet, 4 inches west from the east line of Parkdale street.	10"	63			10"	1										
	Gate on hydrant branch; 6 feet west from Walnut street.					6"	1										
	Gate on hydrant branch; 72 feet east from Bradley street.					6"	1										
	Hydrant; 108 feet east from Marshall street.					6"	1			6"	1	6"	1				
Pinckney place	Street main replaced; from connection with main pipe in Pinckney street to point 126 feet east from the east line of Pinckney street.	4"	155	4"	155	4"	1										
Pinckney place	Hydrant; 126 feet east from the east line of Pinckney street (for blow-off purposes.)									6"	1						
	Hydrant; 255 feet north from Morrison avenue.					6"	1			6"	1	6"	1				
Rogers avenue	Street main; from connection with main pipe in Washington street to point 25 feet south from the south line of Washington street and 13 feet, 4 inches west from the east line of Rose street.	8"	63			8"	1										
Rose street																	
Somerville avenue	Gate on hydrant branch; 76 feet east from Hawkins street and 14 feet north from the south line of Somerville avenue.					6"	1										
Stone avenue	Hydrant; 275 feet south from Columbus avenue.					6"	1			6"	1	6"	1				
Summer street	Hydrant; 53 feet west from Harvard street.					6"	1			6"	1	6"	1				
	Gate on hydrant branch; 8 feet east from School street.					6"	1										
	Gate on hydrant branch; 191 feet west from School street.					6"	1										
	Gate on hydrant branch; 52 feet west from Preston road.					6"	1										
	Gate on hydrant branch; 19 feet west from Laurel street.					6"	1										
	Gate on hydrant branch; 59 feet east from Central street.					6"	1										
Union square	Gate on hydrant branch; 267 feet east from Webster avenue and 17 feet north from the south line of Union square.					6"	1										
Ware street	Street main; from connection with main pipe in Russell road to connection with main pipe in Ware street at point 43 feet west from the west line of Dow street and 13 feet 4 inches south from the north line of Ware street.	6"	138			6"	1										
	Hydrant; 258 feet west from Curtis street.									6"	1	4"	1				
Washington street	Gate on hydrant branch; 156 feet west from Bonner avenue.					6"	1			6"	1	6"	1				
	Hydrant; 6 feet east from Kingman road.					6"	1			6"	1	6"	1				
	Street main; from connection with main pipe in Washington street at point 13 feet west from the east line of Hawkins street and 21 feet north from the south line of Washington street.	8"	33														
	Hydrant; 7 feet west from the west line of Hawkins street (projected).	6"	11			6"	1			6"	1						
	Gate on hydrant branch; 243 feet east from Parker street and 15 feet south from the north line of Washington street.					6"	1										
	Hydrant; 50 feet east from Bowdoin street.					6"	1			6"	1	4"	1				
	Gate on hydrant branch; opposite Perry street and 17 feet south from the north line of Washington street.					6"	1										
	Hydrant; 9 feet east from Leland street.					6"	1			6"	1	4"	1				
	Gate on hydrant branch; 13 feet, 6 inches south from the north line of Washington street and 112 feet east from Dane street.					6"	1										
	Main gate; 20 feet south from the north line of Washington street and on the west line of Parkdale street.					10"	1										

2,041 155 51 0 22 15 1 0

WATER DISTRIBUTION SYSTEM—CONSTRUCTION.

STREET MAINS.

Approximate number of feet of street mains in the city, January 1, 1916, (including hydrant branches and blow-offs)	534,658
Feet of street mains laid in 1916	1,981
Feet of hydrant branches laid in 1916	44
Feet of blow-off branches laid in 1916	16
<hr/>	
Total feet of pipe laid	2,041
Feet of street mains abandoned	155
<hr/>	
Net increase in feet of pipe	1,886
<hr/>	
Total approximate feet of pipe in the city	536,544
Total pipe mileage, approximately	101.63

The sizes and lengths of pipe laid and abandoned are as follows:—

Size.	Feet Laid.	Feet Aband.	Size.	Feet Laid.	Feet Aband.
1"	0	155	8"	564	0
2"	43	0	10"	63	0
4"	155	0	12"	639	0
6"	577	0			

The street mains laid during the year are as follows:—

Street.	Size of Pipe.	Feet Laid.	Feet Aband.	Size Aband.
Carter terrace	6"	32		
Chetwynd road	8"	238		
Cummings street	8"	230		
Dykeman circle	6"	24		
Lowell street	6"	128		
Maine terrace	6"	195		
Michigan avenue	12"	54		
Middlesex avenue	12"	265		
Mystic avenue	12"	320		
Osgood street	2"	43		
Parkdale street	10"	63		
Pinckney place	4"	155	155	1"
Rose street	8"	63		
Ware street	6"	138		
Washington street	8"	33		
Hydrant branches and blow-off pipes		60		
<hr/>				
Total		2,041	155	

Hydrants, Gates, Etc.

Number of fire hydrants in city, January 1, 1916	1,153
Number set during the year	22
Number removed during the year	15
<hr/>	
Net increase in number of hydrants	7
<hr/>	
Total number of public fire hydrants	1,160

Number of private fire hydrants, January 1, 1916		61
Number set by private companies during the year		3
In yard of the Vacuum Company, Mystic avenue, 3		
		<hr/>
Total number of private fire hydrants receiving their supply from the city mains		64
Number of gates in city, January 1, 1916.....	1,682	
Number set during the year for new streets	16	
Number of section gates set.....	4	
Number set on hydrant branches	30	
Number set on blow-off branches	1	
	<hr/>	51
		<hr/>
Total number of gates in city.....		1,733
Number of check-valves in city January 1, 1916		8
Number set or removed during the year.....		0
		<hr/>
Total number of check-valves.....		8
Number of blow-offs in city January 1, 1916..	173	
Number added during the year.....	1	
	<hr/>	
Total number of blow-offs.....		174
Number of waterposts in city January 1, 1916	79	
Number set or removed during the year.....	0	
	<hr/>	
Total number of waterposts.....		79
Number of drinking fountains in city, January 1, 1916.....	9	
Number set or removed during the year.....	0	
	<hr/>	
Total number of drinking fountains in city		9

Water Services.

Number of services in city January 1, 1916, (approximately)		13,233
Number laid during the year.....	202	
Number permanently discontinued.....	15	
	<hr/>	
Net increase in services.....		187
		<hr/>
Total number of water services in city..		13,420
Amount received for services laid in 1916....		\$4,689 63
Number feet service pipe in city January 1, 1916		457,427
Number feet laid during the year.....	6,995	
Number feet discontinued.....	740	
	<hr/>	
Net increase in feet of service pipe.....		6,255
		<hr/>
Total feet service pipe in city (approximately)		463,682

The meters installed in 1916 were classed as follows:—

Applications of property owners	159
New services	203
General installation	275
Reset	65
Total	702

Meters were removed for the following causes:—

Vacancies and temporary non-use of water	67
Services permanently discontinued	7
Replaced by other meters	20
Total	94

Under the provisions of the Metropolitan Water Act it is necessary that there be installed in this city at least 411 meters each year on services previously unmetered, and meters on all new services when they go into regular use. The number of meters set during the year in excess of the actual requirements of the state law was twenty-three.

The following table gives a summary of the pipes and fixtures of the water system December 31, 1916:—

Summary of Pipes and Fixtures.

Feet of main pipe (approximately)	536,544
Feet of service pipe (approximately)	463,682
Service connections (approximately)	13,420
Public fire hydrants	1,160
Private fire hydrants	64
Gates	1,733
Check valves	8
Meters	9,758
Motor registers	5
Waterposts	79
Blow-offs	174
Drinking fountains and troughs	9

WATER DISTRIBUTION SYSTEM—MAINTENANCE.

Street Mains.

Nine leaks have appeared in the street mains, which were speedily repaired.

Examinations were made of sections of pipe which have been cut from the mains in several streets, for evidences of tuberculation. Very little was found in the pieces removed and it is not felt that the distributing pipes are noticeably affected by this condition.

No evidences of electrolytic destruction of the mains has appeared during the year.

The 1" main supplying houses in Pinckney place was found of insufficient capacity for further use and was replaced with a 4" cast iron main.

Hydrants and Gates.

In addition to the usual inspection of hydrants during the winter season, a general examination is being made of all city hydrants; such repairs as are necessary are given them and a record is kept of their condition.

Plans are under way for a survey of the city for data enabling us to make a complete and accurate record of all street mains, hydrants, gates, etc., connected with the distribution system.

Services.

Special attention has again been given to the renewal of house services in streets where the highway department has undertaken paving and sidewalk work.

Service troubles are on the increase with advancing numbers and age of the pipes and require our constant attention. We note from the jobbing records, as one item only, that during the past year 1,066 service pipes were cleaned out on account of poor pressure due to clogging of the pipes and fittings.

Water Assessments and Consumption.

The annual assessments paid by this city as its proportionate part of the cost and operation of the Metropolitan water works are given below:—

Year.	Sinking Fund.	Maintenance.	Interest.	Maturing Bonds.	Total.
1898	No division	made			\$14,250 19
1899	"	"			20,975 58
1900	"	"			28,689 24
1901	\$12,491 73	\$12,033 79	\$32,291 24		56,816 76
1902	19,014 85	12,955 64	30,427 40		62,397 89
1903	15,748 56	12,763 10	48,776 77		77,288 43
1904	16,404 42	15,393 87	54,938 64		86,736 93
1905	21,358 11	13,666 71	55,535 91		90,560 73
1906	22,345 50	17,412 51	57,402 07		97,160 08
1907	25,365 30	18,880 01	62,089 30		106,334 61
1908	24,865 73	15,221 12	68,604 23		108,691 08
1909	24,812 23	21,220 56	66,540 41		112,573 20
1910	25,018 52	18,212 28	66,825 45		110,056 25
1911	25,424 55	19,573 82	69,849 26	\$246 66	115,094 29
1912	24,469 82	16,111 70	68,205 16	445 46	109,232 14
1913	24,930 94	20,691 19	70,206 83	491 92	116,320 88
1914	14,190 98	22,488 71	73,138 81	180 63	109,999 13
1915	14,164 65	21,376 97	74,111 12	1,129 50	110,781 34
1916	13,249 71	21,643 98	74,058 98	1,515 62	110,468 29
					\$1,644,427 04

There has been credited to the city by the commonwealth as its proportion of the amounts received from entrance fees, water supplied outside the district, and water furnished to water companies the sum of \$9,056.10.

The daily consumption of water in Somerville, as recorded by the Venturi meters, operated by the Metropolitan water works, is shown below by months for the year 1916:—

Month.	Gallons per day.	Gallons per capita	Month.	Gallons per day.	Gallons per capita
January	6,228,300	71	July	6,031,900	68
February	6,509,400	74	August	6,440,900	72
March	6,217,000	70	September	6,202,600	69
April	5,628,700	63	October	6,335,100	71
May	5,873,800	66	November	6,247,000	70
June	5,904,800	66	December	6,580,700	73

The consumption for the year was:—

Low-service system	1,733,507,000	gallons
High-service system	529,702,000	gallons
Total consumption	2,263,209,000	gallons
Average daily consumption	6,183,600	gallons
Average daily consumption, per capita, for Somerville		69 gallons
Average daily consumption, per capita, for Metropolitan district		89 gallons

The following table shows the daily per capita consumption of water in the cities and towns in the Metropolitan Water District for the year 1916, as registered by the Metropolitan meters:—

City or Town.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Arlington	50	49	50	52	57	57	67	79	74	68	55	55	59
Belmont	45	47	49	51	53	52	54	63	60	57	50	47	52
Boston	112	114	111	100	102	102	104	106	104	104	101	106	105
Chelsea	69	74	71	66	66	63	66	70	69	69	67	68	68
Everett	77	82	80	74	75	71	72	72	72	73	72	74	74
Lexington	58	60	62	64	69	71	73	81	76	75	69	65	69
Malden	45	46	48	47	48	49	50	53	54	53	49	47	49
Medford	43	44	46	44	47	45	46	51	48	47	47	48	46
Melrose	43	43	44	43	46	46	45	49	49	47	45	44	45
Milton	42	43	45	49	51	40	35	37	41	43	42	37	42
Nahant	49	49	57	72	106	166	230	211	160	103	63	58	110
Quincy	58	58	58	58	62	60	64	64	64	59	55	54	59
Revere	55	59	57	53	57	61	71	72	65	56	53	54	59
Somerville	71	74	70	63	66	66	68	72	69	71	70	73	69
Stoneham	51	55	57	51	54	55	58	56	56	62	65	72	58
Swampscott	48	50	49	48	57	66	79	84	73	59	48	45	59
Watertown	59	60	61	60	64	65	63	65	67	73	70	76	65
Winthrop	46	46	48	49	50	54	65	70	60	51	48	44	53
Met. Dist.	93	95	93	85	87	87	89	91	89	89	86	89	89

The district, in order of consumption, beginning with the lowest, stands as follows for the year 1916:—

City or Town.	GALLONS.		Per Cent of Services Metered.
	Total per Day.	Per Capita per Day.	
Milton	371,300	42	100
Melrose	781,800	45	100
Medford	1,487,000	46	100
Malden	2,460,200	49	96.11
Belmont	447,800	52	100
Wintthrop	707,800	53	100
Stoneham	437,900	58	98.59
Arlington	929,400	59	100
Revere	1,591,200	59	73.57
Swampscott	445,400	59	100
Quincy	2,499,400	59	91.42
Watertown	1,125,500	65	100
Chelsea	3,070,900	68	99.77
Lexington	389,400	69	94.44
Somerville	6,183,600	69	73.47
Everett	2,891,400	74	54.67
Boston	80,358,800	105	58.35
Nahant	159,000	110	69.26
Total District	106,337,800	89	70.81

INTER-SYSTEM CONNECTIONS.

There are numerous connections between the Metropolitan water system and our local distribution system, some of which are continually open and equipped with Venturi meters through which our supply is obtained; others are closed, but equipped with meters, which may be opened and become operative in case of need from increased consumption; still others are closed and not metered but may be opened to bring in an additional quantity of water in case of an emergency.

Arrangements have been made with the Metropolitan Water Board so that should a conflagration or other emergency cause a need of more water, connections normally closed may be speedily opened by their men.

Following is a list of the connections between our local distribution system and the mains controlled by the Metropolitan water works:—

Low-service—Connections that are kept open to supply the low-service district of Somerville:—

Webster avenue at Tremont street: Size 24"; Venturi meter operating; throat diameter 8.00".

Walnut street at Pearl street: Size 16"; Venturi meter operating; throat diameter 5.00".

Broadway at Willow avenue: Size 16"; Venturi meter operating; throat diameter 5.25".

Low-service—Connections normally closed that may be opened in case of emergency:—

Elm street at Willow avenue: Size 16"; Venturi meter closed; throat diameter 5.75".

Medford street at Central street: Size 12"; Venturi meter closed; throat diameter 3.75".

Broadway at Temple street: Size 12"; Venturi meter closed; throat diameter 4.25".

Broadway at Cedar street: Size 12"; unmetered.

Medford street at Magoun square: Size 12"; unmetered.

Heath street at Edgar avenue: Size 12"; unmetered.

Pearl street at Marshall street: Size 10"; unmetered.

Pearl street at Cross street: Size 12"; unmetered.

High-service—Connections that are kept open to supply the high-service district of Somerville:—

Boston avenue at Dearborn street: Size 12"; Venturi meter operating; throat diameter 3.75".

Broadway at Cedar street: Size 16"; Venturi meter operating; throat diameter 5.75".

Local High- and Low-Service Connections.

A number of check-valves are installed between the high- and low-service systems of the city, which open automatically if the high pressure is for any reason cut off and allow the low-service water to enter the high-service pipes.

While this affords a supply of water to all portions of the system, the normal pressure on the mains would be considerably reduced and the more elevated districts would have a very inefficient service. This situation was formerly controlled by our auxiliary pump, now out of commission.

Location and size of inter-system check-valves:—

Packard avenue near Mystic reservoir	12"
Dearborn road at Boston avenue	12"
Holland street at Gorham street	12"
Summer street, east side of Cedar street	12"
Edgar avenue at Heath street	8"
Broadway opposite Temple street	12"
Medford street, north side of Washington street	12"
Washington street at Bonner avenue	10"

HIGH-PRESSURE AUXILIARY SUPPLY.

Specifications and figures were submitted with the yearly department estimates for an auxiliary high-service pump, and an appropriation was requested to cover the installation of a unit in a proposed development scheme for a satisfactory pumping plant to provide for any emergency that might arise in our high-service district through temporary failure of the Metropolitan main to deliver water to us or through insufficiency of our own mains to deliver a needed quantity in case of extraordinary demands, as that of a large fire.

No appropriation, however, was granted for the purpose and we have, therefore, been unable to take any steps toward providing this auxiliary supply.

I feel that my official duty is not fully performed without again bringing this matter to your attention and asking for it your thoughtful consideration and action, for without your

approval and the necessary funds I am unable to make even a beginning on this protective measure.

The National Board of Fire Underwriters in their survey of this city in May last were so impressed with the city's needs in this respect that they made the installation of a new pumping equipment a recommendation of first importance and urged its early adoption, and in their supplementary bulletin of October 6th they reiterated that it was of vital importance that such equipment be provided for at the earliest possible date.

Respectfully submitted,

FRANK E. MERRILL,

Water Commissioner.

GATES SET IN NEW LOCATIONS, 1916.

- Bow street, 6-inch gate, set 13 feet east from the west line of Bow street and 102 feet north from Warren avenue, on hydrant branch.
- Bow street, 10-inch gate, set 20 feet east from the west line of Bow street and on the south line of Walnut street.
- Bow street, 6-inch gate, set 74 feet north from Walnut street, on hydrant branch.
- Broadway, opposite Cross street, 6-inch gate, set 31 feet south from the north line of Broadway and 17 feet 6 inches west from the east line of Cross street, on blow-off branch.
- Broadway at Michigan avenue, 12-inch gate, set 2 feet east from the east line of Glen street and 37 feet north from the south line of Broadway.
- Carter terrace, 6-inch gate, set on south line of Summer street, 13 feet 4 inches out from east line of Carter terrace.
- Carter terrace, 6-inch gate, set near main, 13 feet 6 inches south from north line of Summer street and 13 feet 4 inches west from east line of Carter terrace extended.
- Chetwynd road, 8-inch gate, set 13 feet 4 inches north from the south line of Chetwynd road and on the west line of Hillsdale road.
- Chetwynd road, 8-inch gate, set 13 feet 4 inches north from the south line of Chetwynd road and on the east line of West Adams street.
- Cummings street, 8-inch gate, set 13 feet 4 inches east from the west line of Cummings street and 8 feet north from the south line of Mystic avenue.
- Cummings street, 8-inch gate, set 13 feet 4 inches east from the west line of Cummings street and 121 feet north from the south line of Mystic avenue and on northerly line of Fellsway boulevard sidewalk.
- Cummings street, 6-inch gate, set 283 feet north from the south line of Mystic avenue and 4 feet out from hydrant, on hydrant branch.
- Day street, opposite Herbert street, 6-inch gate, set 8 feet 6 inches south from the north line of Day street, on hydrant branch.
- Dykeman circle (north end), 6-inch gate, set 2 feet north from the south line of private way and on the east line of Marshall street.
- Dykeman circle (south end), 6-inch gate, set 2 feet south from the north line of private way and on the east line of Marshall street.
- Line street, 6-inch gate, set 272 feet west from west line of Cooney street and 4 feet out from hydrant, on hydrant branch.

- Lowell street, 6-inch gate, set 13 feet 4 inches east from the west line of Lowell street and on the north line of Hudson street.
- Maine terrace, 6-inch gate, set 10 feet 8 inches north from the south line of Maine terrace and on the east line of Maine avenue.
- Medford street, 12-inch gate, set 13 feet east from the west line of Medford street and on the south line of Greenville street.
- Medford street, 8-inch gate, set 13 feet north from Prospect Hill avenue, on hydrant branch.
- Medford street, 8-inch gate set 8 feet south from Greenville street, on hydrant branch.
- Medford street, 6-inch gate, set opposite Chester avenue, on hydrant branch.
- Medford street, 6-inch gate, set 171 feet north from Marshall street, on hydrant branch.
- Medford street, 6-inch gate, set 50 feet north from Hennessey court, on hydrant branch.
- Middlesex avenue, 6-inch gate, set 70 feet north from Mystic avenue and 8 feet east from the west line of Middlesex avenue, on hydrant branch.
- Mystic avenue, 12-inch gate, set 21 feet north from the south line of Mystic avenue and on the west line of Fellsway west.
- Osgood street, 2-inch gate, set 13 feet 4 inches south from the north line of Osgood street and on the west line of Loring street.
- Parkdale street, 10-inch gate, set 13 feet 4 inches west from the east line of Parkdale street and on the south line of Washington street.
- Pearl street, 6-inch gate, set 6 feet west from Walnut street, on hydrant branch.
- Pearl street, 6-inch gate, set 72 feet east from Bradley street, on hydrant branch.
- Pearl street, 6-inch gate, set 108 feet east from Marshall street, on hydrant branch.
- Pinckney place, 4-inch gate, set 12 feet north from the south line of Pinckney place and on the east line of Pinckney street.
- Rose street, 8-inch gate, set 13 feet 4 inches west from the east line of Rose street and on the south line of Washington street.
- Somerville avenue, 6-inch gate, set 76 feet east from Hawkins street and 14 feet north from the south line of Somerville avenue, on hydrant branch.
- Stone avenue, 6-inch gate, set 275 feet south from Columbus avenue and 4 feet out from hydrant, on hydrant branch.
- Summer street, 6-inch gate, set 8 feet east from School street, on hydrant branch.
- Summer street, 6-inch gate, set 191 feet west from School street, on hydrant branch.
- Summer street, 6-inch gate, set 52 feet west from Preston road, on hydrant branch.
- Summer street, 6-inch gate, set 19 feet west from Laurel street, on hydrant branch.
- Summer street, 6-inch gate, set 59 feet east from Central street, on hydrant branch.
- Union square, 6-inch gate, set 267 feet east from Webster avenue and 17 feet north from the south line of Union square, on hydrant branch.
- Ware street, 6-inch gate, set 13 feet 4 inches south from the north line of Ware street and on the east line of Russell road.
- Washington street, 6-inch gate, set 156 feet west from Bonner avenue, on hydrant branch.
- Washington street, 6-inch gate, set 6 feet east from Kingman road, on hydrant branch.

- Washington street near Hawkins street, 6-inch gate, set 12 feet north from the south line of Washington street, on hydrant branch.
- Washington street, 6-inch gate, set 243 feet east from Parker street and 15 feet south from the north line of Washington street, on hydrant branch.
- Washington street, 6-inch gate, set 50 feet east from Bowdoin street and 13 feet south from north line of Washington street, on hydrant branch.
- Washington street, 6-inch gate, set 17 feet south from the north line of Washington street opposite Perry street, on hydrant branch.
- Washington street, 6-inch gate, set 13 feet 6 inches south from the north line of Washington street, corner of Leland street, on hydrant branch.
- Washington street, 6-inch gate, set 13 feet 6 inches south from the north line of Washington street and 112 feet east from Dane street, on hydrant branch.
- Washington street, 10-inch gate, set 20 feet south from the north line of Washington street and on the west line of Parkdale street.

GATES—RECAPITULATION.

GATES.	2"	4"	6"	8"	10"	12"	14"	16"	20"	Total.
Set	1	1	36	7	3	3	—	—	—	51
Removed or Discontinued	—	—	—	—	—	—	—	—	—	—

Net increase in number of gates in 1916 51
 Total number of gates in the city December 31, 1916 1,733

FIRE HYDRANTS.

Construction—Renewal—Removal, 1916.

- Auburn avenue, 6-inch Corey hydrant set and 4-inch Boston Machine hydrant removed, at 481 feet west from Cross street.
- Bow street, 6-inch Corey hydrant set and 6-inch Holyoke hydrant removed, at 23 feet west from Wesley park.
- Broadway, 6-inch Holyoke hydrant, set 90 feet east from Mt. Pleasant street.
- Broadway, 6-inch Holyoke hydrant, removed from 50 feet east from Mt. Pleasant street.
- Cummings street, 6-inch Corey hydrant, set 238 feet north from the south line of Mystic avenue.
- Durham street, 6-inch Chapman hydrant set and 4-inch Bigelow hydrant removed, at 5 feet west from Hanson street.
- Line street, 6-inch Corey hydrant set and 4-inch Boston Machine hydrant removed, at 272 feet west from west line of Cooney street.
- Lowell street, 6-inch Corey hydrant, set 118 feet north from the north line of Hudson street.
- Maine avenue, 6-inch Corey hydrant, set 83 feet north from Pennsylvania avenue.
- Maine avenue, 6-inch Corey hydrant, set 66 feet south from Mystic avenue.
- Medford street, 6-inch Chapman hydrant set and 8-inch Chapman hydrant removed, at 13 feet north from Prospect Hill avenue.
- Medford street, 6-inch Chapman hydrant set and 6-inch Mathews hydrant removed, at 171 feet north from Marshall street.

- Middlesex avenue, 6-inch Corey hydrant, set 70 feet north from the north line of Mystic avenue.
- Pearl street, 6-inch Chapman hydrant set and 6-inch Holyoke hydrant removed, at 108 feet east from Marshall street.
- Pinckney street, 6-inch Holyoke hydrant, set 126 feet east from the east line of Pinckney street, for blow-off purposes.
- Rogers avenue, 6-inch Corey hydrant set and 6-inch Coffin valve hydrant removed, at 255 feet north from Morrison avenue.
- Stone avenue, 6-inch Corey hydrant set and 6-inch Coffin hydrant removed, at 275 feet south from Columbus avenue.
- Summer street, 6-inch Corey hydrant set and 6-inch Boston Machine hydrant removed, at 53 feet west from Harvard street.
- Ware street, 6-inch Corey hydrant set and 4-inch Boston Machine hydrant removed, at 253 feet west from Curtis street.
- Washington street, 6-inch Corey hydrant set and 6-inch Holyoke hydrant removed, at 6 feet east from Kingman road.
- Washington street, 6-inch Corey hydrant, set 7 feet west from the west line of Hawkins street (projected).
- Washington street, 6-inch Corey hydrant set and 4-inch Boston Machine hydrant removed, at 50 feet east from Bowdoin street.
- Washington street, 6-inch Corey hydrant set and 4-inch Boston Machine hydrant removed, at 9 feet east from Leland street.

HYDRANTS—RECAPITULATION.

HYDRANTS.	4"	6"	8"	Total.
Set	—	22	—	22
Removed	6	8	1	15

Net increase in number of hydrants in 1916 7
 Total number of hydrants in the city December 31, 1916 1,160

Summary of Statistics.

FOR THE YEAR ENDING DECEMBER 31, 1916.

In form recommended by the New England Water Works Association

SOMERVILLE WATER WORKS.

SOMERVILLE, MIDDLESEX COUNTY, MASS.

GENERAL STATISTICS.

Population, census 1915, 86,854; present, estimated 90,000.

Date of construction: commenced in 1868.

By whom owned: City of Somerville.

Source of supply: Metropolitan water system.

Mode of supply: Water is delivered into the city's mains, under both high and low pressures, by the Metropolitan Water Works.

STATISTICS OF CONSUMPTION OF WATER.

Estimated total population at date, 90,000.

Estimated population on lines of pipe, 90,000.

Estimated population supplied, 90,000.

Total consumption for the year, 2,263,209,000 gallons.

Average daily consumption, 6,183,600 gallons.

Gallons per day to each inhabitant, 69.

STATISTICS RELATING TO DISTRIBUTION SYSTEM, 1916.**MAINS.**

Kind of pipe, cast-iron.

Sizes, from 4-inch and under to 20-inch.

Laid 2,041 feet; discontinued 155 feet; net extension, 1,886 feet.

Total now in use, 101.63 miles.

Number of leaks per mile, .11.

Number of hydrants added during year (public, 7; private, 3), 10.

Number of hydrants (public and private) now in use, 1,224.

Number of stop gates added during year, 51.

Number of stop gates now in use, 1,733.

Number of blow-offs, 174.

Range of pressure on mains, 35 pounds to 100 pounds.

SERVICES.

Kind of pipe: Lead; wrought iron—lead-lined; wrought iron—cement-lined; cast iron.

Sizes, one-half to eight inches.

Extended less discontinued, 6,255 feet.

Total now in use, 87.82 miles.

Number of service taps added, 202; discontinued, 15; net increase, 187.

Number now in use, 13,420.

Number of meters added, 702; discontinued, 74; net increase, 608.

Number now in use, 9,763.

Percentage of services metered, 72.75.

Percentage of receipts from metered water, 77.

Number of motors and elevator registers added, 0; removed, 0.

Number now in use, 5 (included in number of meters).

FINANCIAL STATISTICS.

REVENUE.		EXPENDITURES.	
From Water Rates:—		Water Works Maintenance:—	
Fixture rates	\$54,595.54	Operation (management, repairs and renewals)	\$50,102.33
Meter rates	187,120.45	Special:—	
Total from consumers	\$241,715.99	Miscellaneous accounts	2,873.77
From other sources:—	3,837.53	Total maintenance	\$52,976.10
Water service assessments	2,873.77	Interest on bonds	840.00
Labor and materials		Payment of bonds	5,000.00
		Water Works Buildings	1,346.06
		Water Works Construction:—	
		Mains	\$6,822.51
		Services	5,704.57
		Meters	4,560.76
		Total construction	\$17,087.84
		Unclassified expenses:—	
		Metropolitan water assessment	110,468.29
		Balance:—	
		Ordinary	60,709.00
		Total balance	60,709.00
Total	\$248,427.29	Total	\$248,427.29

Disposition of balance: applied to municipal purposes.
 Cost of works to date \$1,038,662.29
 Bonded debt at date 16,000.00
 Average rate of interest, 4 per cent.

REPORT OF CHIEF ENGINEER OF FIRE DEPARTMENT

OFFICE OF CHIEF OF FIRE DEPARTMENT, }
Somerville, Mass., February 23, 1917. }

To His Honor, the Mayor, and the Board of Aldermen:—

Gentlemen,—I have the honor of presenting to you for your consideration the annual report of the fire department for the year ending December 31, 1916:—

Alarms of Fire.

Number of bell alarms	245
Number of still alarms	333
	578
Total alarms	578
Number less than 1915	66
Value of buildings at risk	\$645,370 00
Insurance on buildings	439,075 00
Damage to buildings	56,551 25
Value of contents	200,434 37
Insurance on contents	118,670 00
Damage to contents	55,903 51
Total value at risk	845,804 37
Total insurance	557,745 00
Total damage	112,454 76

List of Probable Causes.

Accidental	3
Automobiles and trucks	4
Bonfires	7
Carelessness with matches	10
Cigars, cigarettes and pipes	22
Children playing with matches	18
Clothing near stove	2
Closet fires	2
Combustion	11
Defective chimneys	14
Drying plaster	2
Dump fires	9
Electric car	1
Electric wires	2
Fire in Cambridge	6
Fire in Charlestown	1
Fire in Medford	2
False alarms	29
Filling gasoline tank	1
Gas jet improperly placed	5
Grass fires	11
Hot ashes	10
Incendiary	21
Kerosene lamps and stoves	8
Leaking gas tube	1
Leaking gas meter	1
Light mistaken for fire	2
Lace curtain in contact with gas	6
Overheated oven in bakery	1
Overheated furnaces and stoves	13
Rats and matches	3

Smoking in bed	2
Spark from locomotive	3
Thawing water pipes	3
Unknown	5
Using paint remover	1
Wick in cup of oil	1
Wire in tree	1
Wooden spittoon	1

245

Service of Companies in Fire Department, Year 1916.

COMPANIES.	Engine 1.	Engine 2.	Engine 4.	Engine 6.	Hose 3.	Hose 5.	Hose 7.	Hose 8.	Ladder 1.	Ladder 2.	Ladder 3.	Totals.
Bell alarms responded to	204	147	88	24	134	77	77	79	130	74	45	245
Still alarms responded to	70	18	18	51	51	22	30	39	16	3	15	333
Miles traveled	420	298	179	86 $\frac{1}{4}$	163 $\frac{1}{2}$	248	163 $\frac{1}{2}$	300	133 $\frac{1}{2}$	124	65	2,180 $\frac{3}{4}$
Feet of 2 $\frac{1}{2}$ inch hose used	27,800	10,550	7,400	5,200	18,400	9,100	7,100	3,700	.	.	.	89,250
Feet of chemical hose used	18,300	.	.	3,350	12,750	11,300	9,000	3,000	.	.	4,200	61,900
Feet of ladders used	60	.	180	.	.	280	.	35	2,970	2,431	993	6,899
Chemical extinguishers used	11	7	15	1	.	.	9	10	12	.	4	69
Gallons of chemical used	3,120	.	.	665	1,375	2,100	1,827	270	.	.	709	10,066
Times on duty at other stations . . . . .	.	.	.	2	.	1	1	.	.	.	1	5
Times responded out of town	12	8	.	24	18	2	.	12	3	.	.	79
Rubber covers used	2	.	.	.	.	.	.	.	10	18	5	35

Manual Force.

During the year two (2) men have been placed upon the retired list and one (1) is on an indeterminate leave; one (1) permanent man has been appointed from the eligible list of the classified service, and one (1) callman has been promoted to the permanent force under Chapter 487, Acts 1913. The force of the department now consists of seventy-seven (77) permanent and fifteen (15) callmen, as follows:—

- 1 Chief Engineer.
- 1 First Assistant Engineer.
- 1 Second Assistant Engineer.
- 7 Captains.
- 11 Lieutenants.
- 1 Master Mechanic.
- 3 Enginemen.
- 4 Assistant Enginemen.
- 48 Permanent men.
- 15 Callmen.

Apparatus.

The department apparatus consists of the following:—

- 1 Second size, horse drawn steam fire engine.
- 1 Third size, horse drawn steam fire engine.
- 2 Horse drawn combination chemical engine and hose wagons.
- 1 Horse drawn hose wagon.
- 1 Horse drawn combination ladder truck and chemical engine.
- 1 Horse drawn ladder truck.
- 1 Motor driven ladder truck.
- 4 Motor driven combination chemical engine and hose wagons.
- 1 Second size tractor drawn steam fire engine.
- 1 Motor driven 900 gallon pumping engine and hose wagon.
- 1 Motor driven supply and wrecking car.
- 1 Automobile Chief's car.
- 1 Automobile Assistant Chief's car.
- 2 Four wheel buggies for Assistant Chiefs.
- 2 Horse drawn relief hose wagons.
- 1 Horse drawn relief ladder truck.
- 5 Exercising wagons.
- 1 Supply wagon.

Horses.

There are twenty-one (21) horses in the department, seven (7) having been disposed of during the year, five (5) horses were transferred to the Highway department, and two (2) sold at private sale.

Hose.

The amount of serviceable hose in the department is 10,000 feet of two and one-half inch rubber lined cotton hose and 2,150 feet of three-quarter inch chemical hose.

There has been purchased 600 feet of new hose, and 600 feet condemned.

Brief Resume.

The fire loss in January was more than one-half the total loss of the year as shown by the following table giving the losses by months:—

January	\$59,697 51
February	12,279 15
March	4,903 00
April	3,232 50
May	4,423 00
June	6,785 00
July	1,990 00
August	3,572 00
September	642 50
October	1,497 00
November	3,427 00
December	10,006 10
	\$112,454 76

There have been but fifteen fires with an insurance loss exceeding \$1,000, as follows:—

January 16, (Sunday) 10.20 A. M. Box 443 was sounded followed by a general alarm; the department was called upon to fight a fire in the Sprague-Hathaway Co. building, 56-62 Day street; this is one of the city's large commercial enterprises. The insurance loss totalled \$57,177.51; this was one of the most disastrous fires that has visited our city for more than twenty-five years; falling walls more or less seriously injured ten members of the department, but fortunately with no fatal results.

January 29, 12.43 P. M. Box 411, 6 Acadia park, three-apartment house owned by Mrs. Katherine Podguiski; occupants, Charles E. Emerson, Walter R. Dolliver and Henry Gartland. Damage to building, \$964; to contents, \$235. Cause, defective chimney.

February 11, 5.20 P. M. Box 435, 594 Broadway, store and dwelling owned by Edward Ronan; occupants, Joseph B. Siggins and Andrew Ross. Damage to building, \$1,000; to contents, \$450. Cause, leaky gas tube.

February 13, 9.37 A. M. Box 38, 29 Warwick street, dwelling owned by Herrick heirs; occupied by Frederick Baldwin. Damage to building, \$710; to contents, \$400. Cause, defective chimney.

February 16, 10.22 P. M. Box 225, 295 Somerville avenue, periodical store in the Hill building owned by Herbert Jay; occupied by Jacob Eidelson et al. Damage to building, \$502; to contents, \$1,519.15. Cause, probably incendiary.

February 24, 6.57 P. M. Box 42 was sounded followed by general alarm, corner Beacon and Sacramento streets, wood and coal yard owned and occupied by the J. Adams Coal and Wood Co. Damage to building, \$1,000; to contents, \$981. Probable cause, spark from locomotive.

February 27, 3.13 A. M. Box 46, Kent street, brick building owned and occupied by the Fertilizer Manufacturing Corporation. Damage to building, \$725; to contents, \$2,200. Cause, overheated boiler.

March 22, 12.40 P. M. Box 424, 33-33-A Hancock street, three-apartment house owned by E. R. Porter; occupants, Frank McNamara, Pearl Hass and Henry T. Keene. Damage to building, \$1,495; to contents, \$811.50. Cause, accidental.

March 26, 8.46 P. M. Box 115, 6 Flint street, dwelling owned and occupied by C. Sapisnoza. Damage to building, \$775; to contents, \$260. Probable cause, thawing water pipes.

April 30, 12.50 A. M. Box 28, a second alarm was sounded for this fire, 474 Somerville avenue, Cooper shop and barrel storage; building owned by Berry and Creelman; occupied by S. Armstrong Co. Damage to building, \$1,500; to contents, \$500. Cause, defective brick fireplace.

June 30, 6.46 A. M. Box 23, brick macaroni factory at 45-47 South street owned and occupied by Michele Capodilupo. Damage to building, \$2,670; to contents, \$2,420. Cause, careless smoker.

August 31, 11.35 P. M. Box 425, 22 St. James avenue, dwelling owned by Albert Ober; occupants, F. J. Dowd and Mrs. Mary Hallett. Damage to building, \$949; to contents, \$433.50. Cause, accidental.

November 14, 8.40 P. M. Box 117, 3 Cutter street, stable owned by Joseph Cohen; occupied by Charles L. O'Neil. Damage to building, \$700; to contents, \$800. Cause, unknown.

December 24, 8.43 A. M. A second alarm was sounded for this fire, Box 213, 74 Walnut street; a six-family apartment owned by Mrs. Mary F. Stevens, trustee; occupants, E. M. Gorman, E. Spaulding, W. S. Wiggin, W. J. Willard, Mrs. Nelson and Mrs. Stevens. Damage to building, \$5,280; to contents, \$1,570. Cause, careless janitor.

December 27, 4 A. M. Box 436, 10-12 Pearson road, dwelling owned by George Ohse; occupants, Herbert Ericson and A. G. King. Damage to building, \$1,500; to contents, \$461. Cause, combustion, oily rags.

There has been no diminution in the number of false alarms, there being twenty-nine (29), the same as last year. This is all too many, taking into consideration that but eleven were sounded on June 17 and July 4, thereby leaving eighteen (18) at other times when deliberation rather than deviltry prevails. As stated in my previous reports every effort should be put forth to apprehend this class of criminals and the heaviest penalties imposed.

Users of cigars, cigarettes and pipes and incendiaries

divide the doubtful honor of causing a like number of fires; the only difference in the responsibility is that the smoker accomplishes the same result from carelessness that the incendiary does through design.

On January 22, at 2 P. M., Hose No. 2 on Marshall street was replaced by a motor-driven double tank combination chemical engine and hose wagon. This piece of apparatus should have been ready for service the latter part of last year, but the chassis was not delivered until the last week in December. The construction, assembling and attachment of the body and equipment were most admirably done by the joint work of Captain John T. Coneeny and George W. Tripp, to whom too much commendation cannot be given. Having this work done in the department workshop made a saving to the city of upwards of \$1,700. On the installation of this piece of apparatus the number was changed from Hose No. 2 to Hose No. 8; this was done to carry out the numerical arrangement of the department in regard to houses and equipment. The maintenance expense of this piece of apparatus for the year has been but \$79 as against \$370 for a horse-drawn machine of like capacity.

In my recommendations of last year I suggested the replacement of the steam fire engine at Engine No. 2 Station with a motor pumping engine. Such an engine was ordered from the Ahrens-Fox Fire Engine Co. of Cincinnati, Ohio. On September 2 this engine was tested at the corner of Temple street and Mystic avenue and delivered 945 gallons of water per minute at 120 pounds pressure, this being 145 gallons in excess of the contract. This machine was immediately accepted and put into service September 6 at 3 P. M.

The very general agitation against the increased insurance rates in this city, which have been so materially raised in the past two or three years, was fully recognized by his honor, the Mayor, and at his request the National Board of Fire Underwriters made a resurvey of the city, beginning in May, the last having been made in 1906, ten years ago.

Engineers Barker and Charnock spent several weeks going over the general conditions of the city and particularly its fire-fighting facilities. Their report was exhaustive, elaborate and complete; relative to the number of fires and losses, their statement was that the average number of fires per 1,000 population was moderate and the average loss per capita was \$1.34, a low figure. On September 18-19 Engineer Howland followed up with a supplementary report recommending early and favorable action with reference to the following recommendations, which were emphasized as being of special urgency: "Auxiliary supply to the high ser-

vice water supply; more permanent men and additional motor apparatus for the fire department, and improved building ordinances."

Recommendations.

In the past five years ten of the sixteen pieces of apparatus in the department have been motorized at a cost of \$43,953. A complete motorization of the department is needed and desired and can be fully accomplished with the expenditure of not more than \$29,000. In event of an appropriation for new apparatus this year, the most important is the equipping of the Teele Square Station with a triple combination pump, hose and chemical engine, and the attaching a tractor to Ladder 3 located in Engine No. 2 Station, thereby completing the motorization of this station as well as the Teele Square Station; eight horses would be released from service and without doubt could be disposed of at a minimum price of \$2,000. The result would be that six of the eight stations in the city would be fully motorized.

The discontinuance of the call force, consisting now of but fifteen members, should be given serious, and, if possible, immediate attention and placing the department upon a full-paid and permanent footing. With the adoption of motor apparatus the manual force must of necessity be ever present to respond with the apparatus. Stopping while responding to an alarm to pick up callmen, as has been the practice in the past with horse-drawn apparatus, is out of the question if the full benefit and efficiency of motor apparatus is to be obtained.

The re-enactment of the so-called "Shingle Ordinance" prohibiting the replacement of more than twenty-five per cent. of any existing combustible roof covering that may hereafter be repaired, is a long stride in the right direction in the reduction of our city's conflagration hazard. Our building ordinances should be immediately amended, in fact a new building code should be adopted to lessen the congestion of frame construction. The urgency of immediate establishment of fire limit districts is imperative in order that suitable fire barriers may be set up to aid in cutting off any serious fire that may visit us and thereby preserve our city from ever being classed with our immediate neighbors, Chelsea and Salem.

In Conclusion.

I wish to express my thanks and appreciation for the universal courtesy and good will shown me by his honor, the Mayor, and the Board of Aldermen. I also thank the police department for the assistance given us at fires, and last,

but not least, I fully recognize the loyalty and the cheerful and helpful co-operation given me by my officers and men, and commend them for the very able and efficient manner in which they performed their duties.

Respectfully submitted,

SEWALL M. RICH,

Chief Engineer.

REPORT OF THE CHIEF OF POLICE.

OFFICE OF THE CHIEF OF POLICE, }
CITY OF SOMERVILLE, February 10, 1917. }

To the Honorable, the Mayor, and Board of Aldermen of the City of Somerville:—

Gentlemen,—I respectfully submit the annual report of the Somerville police department for the year ending December 31, 1916:—

Financial Statement.

Appropriation		\$109,500 00
Transfer from Maintenance Electrical Department Building account		271 84
Transfer from Interest account		225 00
		\$109,996 84
Expenditures:—		
Salaries to December 31, 1916	\$107,007 91	
Departmental expenses	2,683 40	
Transfer, Highway Maintenance account	274 00	
		\$109,965 31
Balance		\$31 53

Arrests.

Whole number of arrests made		1,759
With and without warrants	1,375	
On summons and notification	384	
		1,759
Males	1,656	
Females	103	
		1,759
Americans	1,131	
Foreign born	628	
		1,759
Residents	1,120	
Non-residents	639	
		1,759

1.—Crimes and Offenses Against the Person.

Assault		1
Assault on officers		5
Assault with dangerous weapon		9
Assault with intent to murder		2
Assault and battery		114
Manslaughter		4
Murder		2
Murder, witness to		1
Rape (fugitive from justice)		1
Robbery		2
Threats		5
		146

2.—Crimes and Offenses Against Property.

Breaking and entering	92
Breaking and entering, attempt	2
Breaking and entering railroad car	2
Breaking glass, wantonly	9
Burning a building	1
Injury to personal property	5
Larceny	90
Larceny, attempt	16
Larceny in building	1
Larceny from person	4
Malicious mischief	7
Receiving stolen goods	2
Setting fire in the open	1
Trespass	102
Unlawful appropriation of horse	6
Unlawfully interfering with water meter	3
Unlawfully riding on freight cars	7

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3.—Crimes and Offenses Against Public Order, etc.

Abandonment of minor child	2
Adultery	1
Bail surrender	8
Bastardy	22
Capias	8
Carrying revolver without license	2
City ordinances, violation of	85
Contempt of court	1
Cruelty to animals	5
Default	7
Desertion of wife	4
Disturbing the peace	10
Disturbing public assembly	15
Drunkenness	618
Drunkenness, common	22
Escape from custody of State Board of Charity	2
Escape from temporary home of State Board of Charity	1
Escaped prisoner	1
Gaming implements, present where found	62
Giving false alarm of fire	3
Idle and disorderly	3
Indecent exposure of person	6
Interrupting funeral procession	1
Lewd cohabitation	2
Neglected children	21
Neglect of family	114
Neglect to support illegitimate children	2
Obstructing street railway car	1
Offering for sale tainted meat	1
Parole, revoke of	6
Polygamy	2
Promoting lottery	6
Safe keeping, demented	10
Safe keeping, feeble minded	7

 Carried forward 1,061

Brought forward	1,061	
Safe keeping, inebriates	2	
Safe keeping, infirm	1	
Safe keeping, insane	8	
Safe keeping, pauper	1	
Safe keeping, runaway boys	11	
Safe keeping, runaways from Lyman School for Boys	3	
Safe keeping, sick person	1	
Selling adulterated food	2	
Selling potatoes other than by weight	1	
Sodomy	1	
Stubbornness	15	
Unsealed dry measure, in possession of	1	
Vagrancy	9	
Violation of health regulation	1	
Violation of labor law	1	
Violation of liquor laws	6	
Violation of Lord's Day	44	
Violation of milk laws	27	
Violation of motor vehicle laws	46	
Violation of plumbing law	1	
Violation of rules of Middlesex County Training School	1	
Violation of school laws	3	
Violation of terms of probation	15	
Violation of traffic rules	1	
		1,263

Recapitulation.

(1) Crimes and Offenses Against the Person	146	
(2) Crimes and Offenses Against Property	350	
(3) Crimes and Offenses Against Public Order, etc.	1,263	
		1,759
Whole number of arrests made		1,759
Bailed to appear at other courts	14	
Cases in which nolle prosequi was entered	18	
Contempt of court	1	
Delivered to jail at East Cambridge, bail surrender, indictment, etc.	7	
Delivered to police court, Somerville, vio- lation of probation, capias, default, etc.	18	
Delivered to superior court, bail surren- der, capias, etc.	8	
Defaulted in police court, Somerville	8	
Discontinued and dismissed in police court, Somerville	9	
Released by probation officer, drunkenness	109	
Released by probation officer, larceny	1	
Surrendered to other officers, institu- tions, etc.	100	
		293
Number of cases held for trial		1,466

Note.—Three hundred and fifty of the above number of cases were juveniles and delinquents.

Miscellaneous Reports.

Abandoned automobiles, found	7
Accidental poisoning	1
Accidents reported	357
Amount of stolen property recovered	\$9,434 25
Amount of abandoned automobile found	700 00
Amount of property damaged and destroyed	128 00
Amount of property lost	1,065 77
Amount of lost property recovered	504 67
Assaults	43
Assault with dangerous weapon	1
Attempts to break and enter	47
Attempts to commit larceny	8
Attempts to commit suicide	4
Attempts to rob	2
Automobiles, unlawfully using	7
Bank call, false alarm of	1
Bridge steps dangerous from snow and ice	1
Breaking and entering, false alarm of	11
Buildings broken and entered, nothing stolen	40
Buildings found open	398
Burglar call, false alarm of	1
Cat killed	1
Child rescued from fire in building	1
Cruelty to animals	4
Cruelty to children	3
Dead animals found	9
Dead body found	1
Defective bridges	7
Defective buildings	6
Defective catch basins	18
Defective drinking fountains	5
Defective electric lights	5
Defective fences	10
Defective fire alarm box	1
Defective fire alarm tappers	2
Defective gas gate boxes	2
Defective hydrants	3
Defective lamp post	1
Defective manhole covers	7
Defective poles and posts	10
Defective police signal boxes	8
Defective sidewalks	409
Defective sidewalk, lighted	1
Defective signs and sign posts	51
Defective stone wall	1
Defective streets	224
Defective tree protectors	4
Defective voting list boards	5
Defective water gate boxes	69
Defective wires	52
Demented persons	5
Destitute families	7
Disturbances	28
Disturbances suppressed	9
Dogs killed	18
Dogs, vicious	7
Electric lamps broken	13
False report of attempt to burn building	1

Fatal burning accident	1
Fire, alarms given for	4
Fire, needless alarm for	1
Fires, extinguished without alarm	3
Fires, false alarms of	32
Fires reported	229
Fraud	4
Gas pipes leaking	3
Gas poisoning	4
Heat prostrations	6
Horse shot and killed	1
Houses unoccupied	75
Indecent exposure of person	16
Infirm persons	2
Insane person	1
Larcenies, no value given	103
Larcenies	476
Lost children	292
Lost children found	292
Lottery reported	1
Malicious mischief	63
Missiles thrown at railroad trains	4
Missing persons	72
Missing persons found	49
Murder	1
Murder, attempt	1
Needy families	2
Neglected children	6
Nuisance	1
Obstructions on railroad track	1
Obstructions on sidewalks	10
Obstructions on sidewalks, lighted	2
Obstructions on sidewalks, removed	1
Obstructions in streets	33
Obstructions in streets, lighted	19
Obstruction in street, removed	1
Panes of glass broken	196
Permits to labor on Lord's Day	168
Persons bitten by dogs	17
Persons helped home	4
Pheasant captured	1
Poisoning cases	2
Property damaged and destroyed	23
Property lost, no value given	48
Property found, no value given	59
Robbery	3
Runaway children	14
Runaway children found	34
Runaway horse	1
Runaway horses stopped	2
Runaway teams	3
Runaway teams stopped	3
Sidewalks dangerous from snow and ice	222
Stray Angora cats	2
Stray Angora cats found	2
Stray bullets fired	5
Stray cows found	3
Stray deer	1
Stray dogs	69
Stray dogs found	55

Stray donkey	1
Stray donkey found	1
Stray horses	4
Stray horses found	7
Stray Persian cat	1
Stray teams	18
Stray teams found	25
Stray tiger cat	1
Streets dangerous from snow and ice	7
Streets and sidewalks flooded	23
Street lights reported	2,870
Streets littered	2
Strike	1
Subway flooded	1
Sudden deaths	4
Suicide	1
Summonses served for witnesses and defendants to appear in court at other places	231
Suspicious persons	69
Threats	2
Trees dangerous	32
Trees defective	3
Trespass	61
Unlawful appropriation of teams	5
United States letter box found open	1
Violation of board of health rules	18
Violation of building laws	5
Violation of city ordinances	134
Violation of fire laws	2
Violation of Lord's Day	10
Violation of Metropolitan Park rules	1
Violation of motor vehicle laws	5
Violation of pool room laws	1
Water pipes leaking	107
Windows broken	44

Official Roster of Department.

CHIEF OF POLICE.

Charles A. Kendall

LIEUTENANTS.

Eugene A. Carter	John A. Ray
Charles E. Woodman	Thomas Damery
James M. Harmon	Michael T. Kennedy

SERGEANTS.

William G. Kenney	James M. Lynch
Frank H. Graves	Ernest Howard

PATROLMEN.

1—Edward M. Carter	7—Daniel G. Simons
2—George L. Smith	8—Samuel Burns
3—Francis A. Perkins	9—Jothan Chisholm
4—Jacob W. Skinner	10—William J. Davidson
5—Theodore E. Hieron	11—Elmer E. Drew
6—Charles W. Stevens	12—John A. Dadmun

- | | |
|-------------------------|-----------------------------|
| 13—George L. Rice | 41—Joseph A. Dwyer |
| 14—Myron S. Gott | 42—Thomas P. Walsh |
| 15—Charles W. Reick | 43—Clyde W. Steeves |
| 16—Frank C. Hopkins | 44—Augustine J. Fitzpatrick |
| 17—Charles W. Allen | 45—Patrick McGrath |
| 18—Hudson M. Howe | 46—Bernard McCabe |
| 19—Ernest S. Goff | 47—Harry C. Young |
| 20—Sanford S. Lewis | 48—Robert D. Dewar |
| 21—Henry A. Sudbey | 49—Peter Moore |
| 22—Thomas F. McNamara | 50—Albert C. Hawes |
| 23—Louis F. Arnold | 51—Walter C. Oesting |
| 24—Charles S. Johnston | 52—John L. Cameron |
| 25—Robert T. Blair | 53—Francis P. Higgins |
| 26—Claude L. Crossman | 54—Arthur S. Walsh |
| 27—John J. Cummings | 55—John J. McCahey |
| 28—Edmund J. Keane | 56—Alexander Morrison |
| 29—Denis Neylon | 57—Daniel J. Powers |
| 30—Denis Downey | 58—Jeremiah O'Connor |
| 31—Edward M. Davies | 59—James P. Higgins |
| 32—George A. C. Peters | 60—Charles E. Wilson |
| 33—James E. Phillips | 61—William J. Warner |
| 34—Louis J. Belzarini | 62—Timothy Buckley |
| 35—Walter Reed | 63—John J. Killourhy |
| 36—Dennis G. Mulqueeney | 64—Charles J. Sharry |
| 37—Patrick J. Doolin | 65—Thomas M. Sharry |
| 38—Edward J. Hopkins | 66—Michael J. O'Loughlin |
| 39—Walter L. Groves | 67—Charles W. Shepherd |
| 40—Frederick G. Jones | |

RESERVEMEN.

- | | |
|-----------------------|-------------------------|
| 68—John F. Cruise | 73—Alfred E. Robitaille |
| 69—Edward G. Butman | 74—Allan S. Burns |
| 70—John P. L. O'Keefe | 75—William H. Donovan |
| 71—John J. Shay | 76—George R. Ailan |
| 72—Thomas F. J. Long | 77—Jeremiah Keniry |

CHAUFFEURS AND PATROL DRIVERS.

- | | |
|--------------------|----------------|
| Charles J. Fulton | James H. White |
| James W. Lundergan | |

MATRON.

Mrs. Mina T. Weeks

ASSISTANT MATRON.

Mrs. Bridget A. Fitzpatrick

PENSIONERS, RETIRED ON HALF PAY.

- | | | | |
|------------------------|---------------|----------------------|---------------|
| Albion L. Staples, | Mar. 24, 1905 | Herbert Hilton, | Dec. 21, 1911 |
| John E. Fuller, | Mar. 23, 1906 | Ezra A. Dodge, | Mar. 14, 1914 |
| Ira S. Carleton, | May 9, 1907 | George H. Carleton, | Mar. 27, 1914 |
| James J. Pollard, | Feb. 27, 1908 | Fred'r'k H. Googins, | Mar. 12, 1915 |
| Melville C. Parkhurst, | Oct. 31, 1908 | Robert R. Perry, | Apr. 14, 1916 |

Changes in the Force.**DEATHS.**

- George W. Bean, ex-patrolman, retired, died January 6, 1916.
 Edward McGarr, ex-sergeant, retired, died February 17, 1916.

APPOINTMENTS.

William H. Donovan, appointed reserveman, June 7, 1916.
 George R. Allan, appointed reserveman, June 7, 1916.
 Jeremiah Keniry, appointed reserveman, June 10, 1916.

PROMOTIONS.

Reserveman Thomas M. Sharry, promoted to patrolman, May 13, 1916.
 Reserveman Michael J. O'Loughlin, promoted to patrolman, May 13, 1916.
 Reserveman Charles W. Shepherd, promoted to patrolman, May 13, 1916.

RETIREMENT.

Captain Robert R. Perry, placed on pension roll, April 14, 1916.

Location of Police Signal Boxes.**CIRCUIT NO. 1.**

Box No. 12—Highland avenue, corner School street.
 " " 13—Central street, at R. R. bridge.
 " " 14—Evergreen avenue, near Thurston street.
 " " 112—Magoun square.
 " " 113—Highland avenue, corner Lowell street.
 " " 114—Cedar street, corner Summer street.
 " " 121—Cedar street, at R. R. crossing.
 " " 122—Elm street, near Willow avenue.
 " " 123—Highland avenue, corner Willow avenue.
 " " 124—Dover street, near Davis square.
 " " 131—Powder House square.
 " " 132—Broadway, corner Rogers avenue.
 " " 133—Gorham street, at Carr's Factory.
 " " 134—Teele square.
 " " 141—Curtis street, opposite Professors Row.
 " " 142—Broadway, opposite City Home.
 " " 143—Conwell avenue, corner West Adams street.

CIRCUIT NO. 2.

Box No. 21—Walnut street, opposite Munroe street.
 " " 22—Highland avenue, corner Medford street.
 " " 23—Medford street, at Gilman square.
 " " 24—Dana street, near Pearl street.
 " " 211—Broadway, corner Walnut street.
 " " 212—Broadway, corner Cross street.
 " " 213—Broadway, corner Franklin street.
 " " 214—Lincoln street, corner Perkins street.
 " " 221—Broadway, corner Mt. Pleasant street.
 " " 222—Mystic avenue, corner Mystic street.
 " " 223—Mystic avenue, corner Fellsway West.
 " " 224—Mystic avenue, corner Temple street.
 " " 231—Temple street, near Broadway.
 " " 232—Broadway, opposite Main street.
 " " 233—Meacham street, corner Fremont street.

CIRCUIT NO. 3.

Box No. 31—Somerville avenue, corner Allen street.
 " " 32—Somerville avenue, corner Medford street.
 " " 33—Medford street, corner Warren street.
 " " 34—South street, corner Water street.

- Box No. 311—Washington street, corner Linwood street.
 “ “ 312—Linwood street, corner Poplar street.
 “ “ 313—Linwood street, at R. R. bridge.
 “ “ 314—Somerville avenue, near Cambridge line.
 “ “ 321—Tufts street, corner Cross street.
 “ “ 322—Washington street, opposite Franklin street.
 “ “ 323—Washington street, opposite Mt. Vernon street.

CIRCUIT NO. 4.

- Box No. 41—Somerville avenue, near Dane street.
 “ “ 42—Park street, at R. R. Crossing.
 “ “ 43—Central street, corner Summer street.
 “ “ 44—Somerville avenue, near Kent street.
 “ “ 411—Kent street, corner Beacon street.
 “ “ 412—Somerville avenue, at Oak square.
 “ “ 413—Beacon street, opposite Oxford street.
 “ “ 414—Clark street, at Lincoln park.
 “ “ 421—Union square.
 “ “ 422—Webster avenue, corner Prospect street.
 “ “ 423—Columbia street, corner Conlon court.
 “ “ 424—Springfield street, opposite Houghton street.
 “ “ 431—Beacon street, opposite Concord avenue.
 “ “ 432—Washington street, near Beacon street.

SPECIAL CALLS.

- Box No. 52—Circuit No. 3, Somerville Co-operative Bank, Union sq.
 “ “ 53—Circuit No. 3, Somerville Savings Bank, Union square.
 “ “ 54—Circuit No. 1, City Hall.

Police Signal Service.

Number of on duty calls made by the patrolmen . . .	253,621
Telephone calls made by the officers and patrolmen . . .	37,781

Combination Automobile Service.

Number of runs made in conveying prisoners to station	783
Number of prisoners conveyed	940
Number of sick and injured conveyed	491
Number of miles run in conveying prisoners to station	1,653.9
Number of miles run in conveying sick and injured	1,584.6
Number of miles run in conveying prisoners to and from jail	600.7
Number of miles run elsewhere	1,212.5
	<hr/>
Total number of miles run during the year	5,051.7

Horse Drawn Patrol Wagon and Horse Drawn Ambulance Reports.

Number of runs made in conveying prisoners to station	24
Number of prisoners conveyed	24
Number of miles run in conveying prisoners to station	31½
Number of sick and injured conveyed	464
Number of miles run in conveying prisoners to and from jail	351
Number of miscellaneous runs	19

REPORT OF POLICE MATRON.

January 1, 1917.

To Charles A. Kendall, Chief of Police.

Dear Sir:—

I herewith submit my report as matron for the year ending December 31, 1916. The following females and minor children have been committed to my care during the year who were arrested or brought to police station.

Abandonment of minor child	2
Assault and battery	10
Attempted larceny	2
Contempt of court	1
Default warrant	1
Demented	4
Disturbing the peace	1
Drunkenness	38
Failure to send child to school	1
False alarm of fire	1
Insane	2
Keeping open shop on Lord's Day	2
Larceny	8
Lewd and lascivious cohabitation	1
Lost children	36
Neglected children	15
Neglect of minor child	2
Polygamy	1
Receiving stolen property	1
Selling intoxicating liquor	1
Stubbornness	7
Trespass	1
Violation of milk law	1
Violation of probation	2
Witness	1
Total	142

I have attended to the regular duties each day at the station and have remained in court on Saturdays through the juvenile sessions.

Respectfully submitted,

MRS. MINA T. WEEKS,

Matron.

Conclusion.

To the Mayor, Honorable Zebedee E. Cliff, members of the Board of Aldermen, heads of departments, court officials, all members of the police department and newspaper representatives I wish to extend my sincere thanks for their kindly support and assistance rendered to me in the discharge of my duties.

Respectfully submitted,

CHARLES A. KENDALL,

Chief of Police.

REPORT OF SEALER OF WEIGHTS AND MEASURES.

OFFICE OF SEALER OF WEIGHTS AND MEASURES, }
City Hall Annex, Somerville, January 1, 1917. }

To His Honor, the Mayor, and the Board of Aldermen:—

The following report of the sealer of weights and measures for the year 1916 is respectfully submitted:—

Chapter 62 of Revised Laws:—

Section 21. Sealers of weights and measures shall annually give public notice by advertisement, or by posting, in one or more public places in their respective cities and towns, notices to all inhabitants or persons having usual places of business therein who use weights, measures or balances for the purpose of selling goods, wares, merchandise or other commodities or for public weighing, to bring in their weights, measures and balances to be adjusted and sealed. Such sealers shall attend in one or more convenient places, and shall adjust, seal and record all weights, measures and balances so brought in.

Section 23. Said sealers shall go once a year, and oftener if necessary, to every hay and coal scale and to every platform balance within their respective cities and towns which cannot be easily or conveniently removed, and shall test the accuracy of, adjust and seal the same.

Section 34. Each sealer of weights and measures, including the county treasurers, shall receive a fee of one dollar for sealing each platform balance if weighing five thousand pounds or more, and fifty cents if weighing less than that amount, and three cents each for sealing all other weights, measures, scales, beams or balances. He shall also have a reasonable compensation for all necessary repairs, alterations and adjustments made by him.

When weights and measures are sealed as provided in Section 21 (that is, brought to the office) no fees are charged for sealing.

In compliance with the foregoing Section 21, the customary notice was given by advertising in the Somerville papers in March, 1916.

During the year all places where goods were bought or sold were visited and all scales, weights and measures were tested, and all found correct were sealed and all found not correct were tagged for repairs or condemned. One hundred ninety-two scales, weights and measures were adjusted before sealing, fifty-one scales were tagged for repairs, twenty-seven of which were repaired as ordered and the remaining twenty-four put out of use. Two hundred and eighty-one scales, weights and measures were condemned, and non-seals

labels placed on seventy-two others that were not used for selling or buying.

Work of weights and measures department for year 1916:—

	No. of Tests Made in Office.	No. of Tests Outside of Office.	
Number of scales sealed	538	1,608	
Number of weights sealed	717	4,030	
Number of dry measures sealed	106	57	
Number of tin liquid measures sealed	6,550	970	
Number of glass liquid measures sealed	471	0	
Number of yard sticks sealed	0	155	
Number of reweighing in stores and street	0	2,450	
	<hr/>	<hr/>	
Total of all kinds sealed	8,382	9,270	17,652
Number of scales adjusted and sealed	30	21	
Number of weights adjusted and sealed	53	84	
Number of liquid measures adjusted and sealed	3	0	
	<hr/>	<hr/>	
Total number adjusted and sealed	86	105	191
Number of scales tagged for repairs	24	27	
Number of scales repaired as ordered	17	10	
	<hr/>	<hr/>	
Total number tagged and repaired	41	37	78
Number of scales condemned	23	5	
Number of weights condemned	22	8	
Number of dry measures condemned	6	0	
Number of liquid measures condemned	210	7	
Number of non-sealed labels	0	72	
	<hr/>	<hr/>	
Total number condemned	261	92	353
			<hr/>
Total			18,274
Receipts for year 1916:—			
Appropriation	\$2,700 00		
Fees received for adjusting and sealing	547 71		
	<hr/>		\$3,247 71
Expenditures for year 1916:—			
Salary of sealer	\$1,100 00		
Salary of deputy sealer	1,000 00		
Equipment	134 52		
Auto maintenance	437 85		
Telephone service and helper	27 38		
	<hr/>		\$2,699 75
			<hr/>
Unexpended balance			\$547 96

JOHN H. DUSSEAUT,
Sealer of Weights and Measures.

REPORT OF THE CITY SOLICITOR.

To the Honorable, the Mayor, and the Board of Aldermen of the City of Somerville:—

The annual report of the law department for the year ending December 31, 1916, is as follows:—

On the petition of the mayor an act was passed by the legislature providing that members of police departments in cities seventy years of age or more might be pensioned without the right of appeal to the courts. (Chapter 113 of the General Acts of 1916.) The town of Reading was given authority by the legislature to enter the North Metropolitan sewerage district on terms which are expected to cause little or no expense to the district. (Chapter 159 of the General Acts of 1916.) An attempt by the city of Boston to secure by legislation a change in the method of apportioning expenses in the Metropolitan water district, whereby that city would pay less than at present and Somerville and some other municipalities would pay more, was successfully opposed. An attempt by the city of Cambridge to secure legislation requiring contribution by Somerville and other cities and towns toward the expense of constructing and maintaining bridges over the Charles river between Cambridge and Boston was successfully opposed. The legislature repealed Chapter 227 of the Acts of 1915, which was causing expense and inconvenience in making assessments for public improvements.

A petition was brought by Joseph Linhares against the city clerk to require that the petitioner's name be placed on the official ballot as a candidate for the board of aldermen in Ward 6. The case involved the construction of Section 201 of Chapter 835 of the Acts of 1913. The chairman of the board of registrars of voters acted with me in this matter. The name was ordered to be placed on the ballot and the order was complied with. Through a misunderstanding on the part of counsel and the justice who heard the case there was no opportunity to carry it before the full bench of the supreme court.

An action was brought by the city against the Commonwealth of Massachusetts to recover expenses incurred by the poor department for the care of certain paupers. The case involved the construction of Chapter 386 of the Acts of 1907, relating to aid furnished in consequence of a disease dangerous to the public health. A finding against the city was made by a justice of the superior court and the case was reported to the full bench of the supreme court, by which since the first of the year a decision has been rendered in favor of the city.

An action is pending against the city by the contractor who constructed the S. Newton Cutler Schoolhouse in West Somerville. The case was referred to an auditor, before whom several hearings have been held.

A petition for abatement of taxes on a large tract of land in West Somerville was brought in the superior court and referred to a commissioner and hearings have been held before him.

An action for injuries received by falling into a trench opened by the water department was tried in the Somerville police court and a finding made in favor of the city.

The action brought by the Union Glass Company for damages to its real estate resulting from the abolition of the railroad grade crossing at Webster avenue is still pending.

The adjustment of claims by the railroad company for damages to its real estate at various crossings has been delayed by reason of receivership proceedings affecting the company.

For violation of the milk laws twenty-five cases have been prosecuted in the Somerville police court by the milk inspector and myself.

A petition for alterations of the Beacon street bridge was brought before the Middlesex county commissioners by the Boston & Maine railroad. After a hearing the company decided to make repairs instead of alterations and the petition has been dismissed.

Settlements of claims for injuries received by reason of defects in public ways have been made in a number of cases.

The general work of this department has been of the usual nature and seems to have increased considerably in recent years.

Very respectfully,

FRANK W. KAAN,

City Solicitor.

REPORT OF THE CITY CLERK.

OFFICE OF THE CITY CLERK, }
 January 1, 1917. }

To the Honorable, the Mayor and the Board of Aldermen:—

Gentlemen:—The following is respectfully submitted as the forty-fifth annual report of the City Clerk of the City of Somerville, and is for the year ending December 31, 1916.

The receipts and payments were as follows:—

Receipts.

Balance from year 1915, being for dog licenses issued in December, 1915:—		
8 males at \$2.00	\$16 00	
Less city clerk's fees paid to the city treasurer in December, 1915, 8 at \$.20	1 60	
		\$14 40
For dog licenses issued in 1916:—		
959 males at \$2.00	\$1,918 00	
197 females at \$5.00	985 00	
86 spayed at \$2.00	172 00	
1 breeder's license at \$25.00	25 00	
		3,100 00
Recording mortgages, assignments, etc., 1,004 papers	\$595 20	
Certificates of marriage intentions, 1,044 at \$1.00	1,044 00	
Furnishing copies of records	184 55	
Licenses:—		
Auctioneers, 22 licenses at \$2.00	44 00	
Billiard and pool tables and bowling alleys, 32 licenses for 92 tables and 77 alleys at \$2.00	338 00	
Cry goods and calling, 96 licenses at \$1.00	\$96 00	
1 license granted in 1915, paid in 1916	1 00	
1 refused and money not called for	1 00	
1 applied for and not returned	1 00	
		99 00
Drain layers, 5 licenses at \$1.00	5 00	
Drivers, 2 licenses at \$1.00	2 00	
Engines and motors, 15 licenses for 21 motors, 1 steam engine and 1 boiler, at \$1.00	\$15 00	
2 paid for in 1915	2 00	
		13 00
Gasoline tanks, 16 licenses at \$1.00	16 00	
		\$2,340 75
Amounts carried forward		\$3,114 40

Amounts brought forward		\$2,340 75	\$3,114 40
Garages, 169 licenses at \$2.00	\$338 00		
5 licenses granted in 1915, paid for in 1916	10 00		
	<u>\$348 00</u>		
1 refund on 1915 license	2 00		
	<u> </u>	346 00	
Hackney carriages, 4 licenses for 4 carriages at \$1.00	\$4 00		
1 refund on 1915 license	1 00		
	<u> </u>	3 00	
Innholders and common vic- tuallers, 43 licenses for 1 innholder and 42 victual- lers at \$2.00	\$86 00		
1 petition not returned	2 00		
	<u> </u>	88 00	
1 refund on 1915 license	2 00		
	<u> </u>	86 00	
Intelligence offices, 6 licenses at \$2.00		12 00	
Junk and second-hand li- censes, 32 licenses at \$10.00	\$320 00		
1 license granted in 1915, paid for in 1916	10 00		
4 licenses at \$25.00	100 00		
3 licenses granted in 1915, paid for in 1916	75 00		
	<u> </u>	505 00	
Lord's Day, sale of ice cream, confec- tionery, soda water and fruit on, 61 licenses at \$5.00		305 00	
Private detectives, 6 licenses at \$10.00		60 00	
Ring bells in streets, 5 licenses at \$1.00		5 00	
Slaughtering, 7 licenses at \$1.00		7 00	
Street musicians, 4 licenses for 4 per- sons at \$.50		2 00	
Wagons, 46 licenses for 84 wagons at \$1.00	\$84 00		
1 license granted in 1915, paid for in 1916	1 00		
	<u> </u>	85 00	
Wagon stands, 3 licenses at \$1.00		3 00	
Permits for projections over sidewalks, 18 permits for 15 signs and 3 awnings at \$1.00		18 00	
Permits to transport liquors, 17 permits at \$1.00		17 00	
Filing certificates, under Acts of 1908, Chap. 502, 3 at \$.50		1 50	
Cable of record		4 75	
Repairing and sale of junk badges		1 50	
Sale of old ballots		35 30	
Interest on deposits		11 48	
Witness fees		2 25	
Notices of hearings (public service cor- porations)		14 15	
Revenue tax stamps		26 20	
		<u> </u>	3,891 88
Total receipts			<u>\$7,006 28</u>

Payments.

To Joseph O. Hayden, county treasurer, June 1 and December 1, receipts for dog licenses from December 1, 1915, to November 30, 1916, both inclusive:—			
947 males at \$2.00		\$1,894 00	
191 females at \$5.00		955 00	
85 spayed at \$2.00		170 00	
1 breeder's at \$25.00		25 00	
		<hr/>	
		\$3,044 00	
Less city clerk's fees, 1,224 at \$.20		244 80	
		<hr/>	\$2,799 20
To the city treasurer, monthly:—			
City clerk's fees for issuing and recording dog licenses, 1,243 at \$.20		\$248 60	
All the receipts above specified, except for dog licenses		3,891 88	
		<hr/>	4,140 48
			<hr/>
Total payments			\$6,939 68
Balance, January 1, 1917, being for dog li- censes issued in December, 1916:—			
20 males at \$2.00		\$40 00	
6 females at \$5.00		30 00	
1 spayed at \$2.00		2 00	
		<hr/>	
		\$72 00	
Less city clerk's fees paid to the city treasurer, 27 at \$.20		5 40	
		<hr/>	\$66 60
			<hr/>

There have been issued during the year 316 resident hunters' certificates at one dollar each, the fees for which have been paid monthly to the commissioners on fisheries and game of the commonwealth; total, \$316.00.

Licenses and Permits.

Besides the licenses mentioned in the foregoing list of receipts, licenses and permits have been granted by the Board of Aldermen, without charge, as follows:—

Auctioneers (to veterans of the Civil War)	2
Children under fifteen to take part in entertainments	11
Newsboys	23
To hold open-air political meetings	2
To parade in streets, with music, etc.	2
To hold religious services in streets and squares	4
To suspend campaign banners across streets	3
To erect grand stand in street for flag raising	1
To erect stable 3 feet from line	1
To give band concerts (one permit for ten concerts)	1
To move buildings through streets	4
To construct coal pocket under sidewalk	1
To erect posts for church directional signs	2

Births.**1916.**

Number of births reported by physicians and midwives for 1916:—

Males	1,023
Females	945

A canvass of the city is at present being made under the direction of the city clerk as required by section 5, chapter 29, of the Revised Laws, to ascertain the facts required for record relative to all children born therein during the year.

As the information derived from such canvass will not be available in time sufficient for its incorporation in this report, a statement in full of the births of 1916 will be given in the city clerk's report for the year 1917.

1915.

The following is a statement in full of the births for 1915:—

Number of births (exclusive of still births) in Somerville in 1915 registered	1,898
Less than previous year	94
Males	980
Females	918
	<hr/>
	1,898
Born of American parents	764
Born of foreign parents	717
Born of American father and foreign mother	181
Born of foreign father and American mother	205
Born of American mother and father of unknown nationality	22
Born of foreign mother and father of unknown nationality	8
Born of American father and mother of unknown nationality	1
	<hr/>
	1,898
Number of still-births in Somerville in 1915 as registered	68
Number of births in other places in 1915 registered	422
	<hr/>
	2,388
Number of cases of twins	17

Marriages.

Number of intention certificates issued in 1916	1,044
More than previous year	34
Marriages registered	1,079
More than previous year	49
Both parties American	612
Both parties foreign	227
American groom and foreign bride	125
Foreign groom and American bride	115
	<hr/>
	1,079 couples

First marriage of	1,909	
Second marriage of	232	
Third marriage of	16	
Fourth marriage of	1	
	—	1,079 couples

Deaths.

(Exclusive of still-births.)

Number of deaths in Somerville in 1916		1,081
More than previous year		78
Males	491	
Females	590	
	—	1,081
Under ten years of age	215	
10 and under 20 years of age	24	
20 and under 30 years of age	52	
30 and under 40 years of age	81	
40 and under 50 years of age	84	
50 and under 60 years of age	139	
60 and under 70 years of age	199	
70 and under 80 years of age	190	
80 and under 90 years of age	88	
90 years of age and over	9	
	—	1,081
Age of oldest person deceased	98 years	
Born in Somerville	215	
Born in other places in the United States	459	
Of foreign birth	406	
Birthplace unknown	1	
	—	1,081
Number of deaths in January	129	
Number of deaths in February	120	
Number of deaths in March	106	
Number of deaths in April	98	
Number of deaths in May	93	
Number of deaths in June	67	
Number of deaths in July	48	
Number of deaths in August	63	
Number of deaths in September	86	
Number of deaths in October	89	
Number of deaths in November	84	
Number of deaths in December	98	
	—	1,081

The number of still-births during the year was seventy-two. In addition to the above, 235 deaths which occurred elsewhere and three removals were recorded in Somerville, almost the entire number of persons deceased having been residents of this city.

Assessed Polls and Registered Voters.

MEN'S LISTS.

WARD.	PRECINCT.	As- sessed Polls, April 1, 1916.	REGISTERED VOTERS.							
			Nov. 24, 1915.	Re- vised Lists of July 5, 1916.	Added in Sept. and Oct., 1916.	Oct. 18, 1916.	Added in Nov., 1916.	Nov. 22, 1916.	Voted Nov. 7, 1916.	Voted Dec. 12, 1916.
Ward 1	Precinct 1 . . .	1,375	725	649	75	724	8	732	609	432
" 1	" 2	858	411	384	58	442	15	457	383	265
" 1	" 3	486	287	258	33	291	4	295	251	173
" 1	" 4	656	294	268	14	282	..	282	253	187
		3,375	1,717	1,559	180	1,739	27	1,766	1,496	1,057
Ward 2	Precinct 1 . . .	1,187	441	404	33	437	1	438	376	152
" 2	" 2	1,706	736	665	81	746	9	755	636	113
" 2	" 3	783	392	348	21	369	8	377	324	83
		3,676	1,569	1,417	135	1,552	18	1,570	1,336	328
Ward 3	Precinct 1 . . .	1,300	794	760	99	859	..	859	766	383
" 3	" 2	1,191	691	673	38	711	1	712	634	306
		2,491	1,485	1,433	137	1,570	1	1,571	1,400	689
Ward 4	Precinct 1 . . .	1,313	731	665	72	737	1	738	631	212
" 4	" 2	1,233	690	624	70	694	2	696	609	211
		2,546	1,421	1,289	142	1,431	3	1,434	1,240	423
Ward 5	Precinct 1 . . .	1,324	787	748	79	827	2	829	747	275
" 5	" 2	1,055	637	587	78	665	..	665	577	200
" 5	" 3	1,018	616	575	48	623	2	625	536	142
		3,397	2,040	1,910	205	2,115	4	2,119	1,860	617
Ward 6	Precinct 1 . . .	1,884	916	865	92	957	3	960	816	367
" 6	" 2	1,478	783	717	129	846	1	847	763	383
" 6	" 3	1,164	750	689	115	804	..	804	731	406
		4,526	2,449	2,271	336	2,607	4	2,611	2,310	1,156
Ward 7	Precinct 1 . . .	987	684	655	95	750	..	750	698	283
" 7	" 2	1,229	735	670	97	767	8	775	702	313
" 7	" 3	1,417	801	732	133	865	5	870	779	283
" 7	" 4	1,553	904	861	172	1,033	1	1,034	936	380
		5,186	3,124	2,918	497	3,415	14	3,429	3,115	1,259
City . . . . .	. . . . .	25,197	13,805	12,797	1,632	14,429	71	14,500	12,757	5,529

WOMEN'S VOTING LISTS.

WARD.	PRECINCT.	Nov. 24, 1915.	Revised Lists of July 5, 1916.	Added in Sept. Oct. and Nov., 1916.	Nov. 22, 1916.	Voted Decem- ber 12, 1916.
Ward 1	Precinct 1 .	58	51	13	64	36
" 1	" 2 .	24	21	17	38	31
" 1	" 3 .	26	26	2	28	4
" 1	" 4 .	70	62	..	62	8
		178	160	32	192	79
Ward 2	Precinct 1 .	4	2	4	6	..
" 2	" 2 .	6	6	7	13	..
" 2	" 3 .	9	9	2	11	..
		19	17	13	30	..
Ward 3	Precinct 1 .	178	145	7	152	16
" 3	" 2 .	136	122	7	129	9
		314	267	14	281	25
Ward 4	Precinct 1 .	70	59	3	62	5
" 4	" 2 .	113	99	1	100	5
		183	158	4	162	10
Ward 5	Precinct 1 .	243	220	1	221	33
" 5	" 2 .	176	154	4	158	8
" 5	" 3 .	245	225	5	230	5
		664	599	10	609	46
Ward 6	Precinct 1 .	275	251	2	253	4
" 6	" 2 .	88	83	2	85	4
" 6	" 3 .	101	84	..	84	..
		464	418	4	422	8
Ward 7	Precinct 1 .	41	35	8	43	8
" 7	" 2 .	116	101	3	104	5
" 7	" 3 .	66	60	8	68	1
" 7	" 4 .	28	26	2	28	1
		251	222	21	243	15
City . . . . .	. . . . .	2,073	1,841	98	1,939	183

Elections.

The following is a statement of the votes cast, in the several wards of the city, for the candidates for the various offices, and on various questions, at the state election held November 7, 1916:—

CANDIDATE.	PARTY.	WARDS.							TOTAL.
		1	2	3	4	5	6	7	
PRESIDENTIAL ELECTORS.									
Louis F. Weiss, et als.	Socialist,	21	16	15	7	21	39	35	154
William Shaw, et als.	Prohibition,	8	0	20	11	6	13	24	82
George v. L. Meyer, et als.	Republican,	610	268	764	774	1,054	1,304	2,146	6,920
Oscar Kinsalas, et als.	Socialist Labor,	0	0	0	3	0	9	3	15
David I. Walsh, et als.	Democratic,	799	1008	574	422	732	832	858	5,275
Blank,		58	44	27	23	47	63	49	311
GOVERNOR.									
James Hayes,	Socialist Labor,	8	5	2	5	2	6	13	41
Chester R. Lawrence,	Prohibition,	16	2	11	20	12	50	47	158
Samuel W. McCall,	Republican,	682	276	860	798	1,117	1,391	2,327	7,451
Frederick W. Mansfield,	Democratic,	713	977	486	361	665	771	621	4,594
Dan A. White,	Socialist,	13	13	10	11	17	32	28	124
Blank,		64	63	31	45	47	60	79	389
LIEUTENANT-GOVERNOR.									
Calvin Coolidge,	Republican,	724	279	872	836	1,148	1,468	2,361	7,688
Alfred H. Evans,	Prohibition,	17	3	15	16	14	21	47	133
Sylvester J. McBride,	Socialist,	22	16	11	21	27	42	39	178
Thomas J. Maher,	Socialist Labor,	6	7	2	19	10	8	12	64
Thomas P. Riley,	Democratic,	586	908	425	263	559	654	510	3,905
Blank,		141	123	75	85	102	117	146	789
SECRETARY.									
Thomas F. Brennan,	Socialist Labor,	14	11	6	13	13	20	15	92
Leon R. Eyges,	Democratic,	536	842	408	249	529	604	477	3,645
Louise Adams Grout,	Socialist,	23	13	16	22	31	44	48	197
Albert P. Langtry,	Republican,	730	285	872	829	1,140	1,473	2,355	7,684
Willard O. Wylie,		1	.....	.....	.....	.....	.....	.....	1
Blank,		192	185	98	127	147	169	220	1,138
TREASURER.									
Charles L. Burrill,	Republican,	721	287	876	847	1,154	1,478	2,370	7,733
Frederick E. Oelcher,	Socialist Labor,	7	2	3	7	7	9	17	52
Elam K. Sheldon,	Socialist,	27	14	20	16	34	42	45	198
Henry N. Teague,	Democratic,	557	857	400	248	533	614	482	3,691
Wm. E. Marks,		1	.....	.....	.....	.....	.....	.....	1
Blank,		183	176	101	122	132	167	201	1,082
AUDITOR.									
Joseph Bearak,	Socialist,	20	16	14	15	31	44	48	188
Frank Bohmbach,	Socialist Labor,	11	2	4	10	5	6	7	45
Alonzo B. Cook,	Republican,	718	295	873	833	1,137	1,466	2,353	7,675
John B. N. Soulliere,	Democratic,	542	833	396	242	534	598	469	3,614
Myron T. Smith,		1	.....	.....	.....	.....	.....	.....	1
Blank,		204	190	113	140	153	196	238	1,234

CANDIDATE.	PARTY.	WARDS.							TOTAL.
		1	2	3	4	5	6	7	
ATTORNEY-GENERAL.									
Henry C. Attwill,	Republican,	719	285	872	854	1,140	1,465	2,363	7,698
Joseph Joyce Donahue,	Democratic,	559	869	405	286	544	622	477	3,712
Joseph Jiskra,	Socialist Labor,	6	3	8	8	3	5	9	42
John Weaver Sherman,	Socialist,	27	15	20	20	38	54	59	233
Frank Auchter,		1	.....	.....	.....	.....	.....	.....	1
Blank,		184	164	95	122	135	164	207	1,071
SENATOR IN CONGRESS.									
John F. Fitzgerald,	Democratic,	729	990	492	373	682	816	720	4,802
Henry Cabot Lodge,	Republican,	627	256	838	778	1,082	1,341	2,181	7,103
William N. McDonald,	Socialist,	42	15	19	24	38	59	66	263
Russell Atwood,		1	.....	.....	.....	.....	.....	.....	1
Blank,		97	75	61	65	58	94	148	588
REPRESENTATIVE IN CONGRESS.									
Alvan T. Fuller,	Independent,	709	742	620	518	829	1,033	1,300	5,751
Ernest W. Roberts,	Republican,	605	300	650	617	874	1,079	1,638	5,763
Martin Ryan,		.....	.....	1	.....	.....	.....	.....	1
Henry Rowland,		.....	.....	.....	.....	.....	1	.....	1
Leroy D. Peavey,		.....	.....	.....	.....	.....	.....	1	1
Blank,		182	294	129	105	157	197	176	1,240
COUNCILLOR, FOURTH DISTRICT.									
Herbert P. Wasgatt,	Republican,	770	357	936	844	1,175	1,450	2,273	7,805
Blank,		726	979	464	396	685	860	842	4,952
SENATOR, 3RD MIDDLESEX DIST.									
Charles W. Eldridge,	Republican,	739	285	869	873	1,173	1,523	2,368	7,830
John J. Murphy,	Democratic,	553	843	398	239	531	585	438	3,587
Blank,		204	208	133	128	156	202	309	1,340
REPRESENTATIVES, 23RD DIST. (3)									
William Fleming,	Republican,	864	.....	974	870	1,263	.....	.....	3,971
Harvey E. Frost,	Republican,	807	.....	952	840	1,179	.....	.....	3,778
William W. Kennard,	Republican,	779	.....	924	816	1,156	.....	.....	3,675
William Reardon,		.....	.....	.....	1	.....	.....	.....	1
Arthur Richardson,		.....	.....	.....	1	.....	.....	.....	1
Blank,		2,038	.....	1,350	1,192	1,982	.....	.....	6,562
REPRESENTATIVES, 24TH DIST. (3)									
William P. French,	Republican,	.....	400	.....	.....	.....	1,539	2,472	4,411
Arthur D. Healey,	Democratic,	.....	864	.....	.....	.....	678	501	2,043
Joseph O. Knox,	Republican,	.....	339	.....	.....	.....	1,501	2,283	4,123
Walter E. Marden,	Prohibition,	.....	72	.....	.....	.....	120	134	326
Joseph H. Perry,	Republican,	.....	282	.....	.....	.....	1,328	2,153	3,763
Albert Rankin,	Prohibition,	.....	49	.....	.....	.....	86	104	239
Percy C. Smith,	Prohibition,	.....	77	.....	.....	.....	112	141	330
Blank,		.....	1,925	.....	.....	.....	1,566	1,557	5,048
COUNTY COMMISSIONER.									
Erson B. Barlow,	Republican,	821	395	930	870	1,245	1,549	2,372	8,182
John Kilmartin,		.....	.....	.....	.....	1	.....	.....	1
Blank,		675	941	470	370	614	761	743	4,574

CANDIDATE.	PARTY.	WARDS.							Total.
		1	2	3	4	5	6	7	
ASSOCIATE COMMISSIONERS (2)									
Frederic P. Barnes,	Republican,	791	372	915	834	1,196	1,509	2,309	7,926
H. Harding Hale,	Republican,	697	317	823	760	1,093	1,328	1,984	6,992
Joseph T. Cotter,	Blank,	.....	.....	.....	.....	.....	1	.....	1
Blank,		1,504	1,983	1,062	896	1,431	1,782	1,937	10,595
DISTRICT ATTORNEY.									
William R. Scharton,	Democratic,	501	741	380	224	496	550	449	3,341
Nathan A. Tufts,	Republican,	762	362	877	862	1,165	1,516	2,385	7,929
Blank,		233	233	143	154	199	244	281	1,487
CLERK OF COURTS.									
William C. Dillingham,	Republican,	798	392	924	852	1,221	1,551	2,349	8,087
Blank,		698	944	476	388	639	759	766	4,670
REGISTER OF DEEDS.									
Thomas Leighton, Jr.,	Republican,	805	400	916	846	1,218	1,557	2,346	8,088
Blank,		691	936	484	394	642	753	769	4,669
REGISTER OF PROBATE AND INSOLVENCY (to fill vacancy)									
Frederick M. Esty,	Republican,	668	272	815	779	1,092	1,388	2,208	7,222
Timothy E. Quinn,	Democratic,	488	722	360	213	489	539	403	3,214
Blank,		340	342	225	248	279	383	504	2,321
"SHALL THERE BE A CONVENTION TO REVISE, ALTER OR AMEND THE CONSTITUTION OF THE COMMONWEALTH?"									
Number of "Yes" votes,		629	552	601	547	874	1,097	1,477	5,777
Number of "No" votes,		298	201	376	280	451	534	730	2,920
Blank,		569	583	423	413	535	679	858	4,060
"SHALL AN ACT PASSED BY THE GENERAL COURT IN THE YEAR NINETEEN HUNDRED AND SIXTEEN, TO MAKE THE FIRST DAY OF JANUARY, KNOWN AS NEW YEAR'S DAY, A LEGAL HOLIDAY, BE APPROVED AND BECOME LAW?"									
Number of "Yes" votes,		919	878	928	745	1,229	1,520	2,089	8,308
Number of "No" votes,		252	124	273	273	346	423	575	2,266
Blank,		325	334	199	222	285	367	461	2,183
"SHALL AN ACT PASSED BY THE GENERAL COURT IN THE YEAR NINETEEN HUNDRED AND SIXTEEN, ENTITLED 'AN ACT TO PREVENT THE VOTERS OF ONE POLITICAL PARTY FROM VOTING IN THE PRIMARIES OF ANOTHER POLITICAL PARTY' BE APPROVED AND BECOME LAW?"									
Number of "Yes" votes,		597	341	635	534	859	1,060	1,520	5,546
Number of "No" votes,		400	451	409	346	516	656	814	3,592
Blank,		499	544	356	360	485	594	781	3,619

	WARDS.							TOTAL.
	1	2	3	4	5	6	7	
"SHALL THE REPRESENTATIVE OR REPRESENTATIVES FROM THIS DISTRICT BE INSTRUCTED TO SUPPORT THE ADOPTION OF AN AMENDMENT TO THE CONSTITUTION OF THE COMMONWEALTH, PROVIDING FOR SOME FORM OF THE INITIATIVE AND REFERENDUM WHICH SHALL GIVE TO THE VOTERS THE POWER TO ACCEPT OR REJECT STATUTES AND CONSTITUTIONAL AMENDMENTS PROPOSED TO THE LEGISLATURE BY PETITION OF A SUBSTANTIAL NUMBER OF CITIZENS BUT REJECTED BY IT, AND ALSO THE POWER, UPON SUCH PETITION, TO REJECT MEASURES PASSED BY THE LEGISLATURE?"								
23RD DISTRICT.								
Number of "Yes" votes,	791		759	681	1,043			3,274
Number of "No" votes,	157		203	138	270			768
Blank,	548		438	421	547			1,954
24TH DISTRICT.								
Number of "Yes" votes,		671				1,361	1,832	3,864
Number of "No" votes,		82				297	407	786
Blank,		583				652	876	2,111
"SHALL AN ACT, PASSED BY THE GENERAL COURT IN THE YEAR NINETEEN HUNDRED AND SIXTEEN, TO AUTHORIZE CITIES TO MAINTAIN SCHOOLS OF AGRICULTURE AND HORTICULTURE AND TO MAKE PROVISION, IN CERTAIN INSTANCES, FOR THE TEMPORARY HOUSING OF PERSONS ATTENDING THE SCHOOL, BE ACCEPTED?"								
Number of "Yes" votes,	755	594	708	624	988	1,224	1,673	6,566
Number of "No" votes,	199	151	263	206	322	404	544	2,089
Blank,	542	591	429	410	550	682	898	4,102

The following is a statement of the votes cast in the several wards of the city for the candidates for the various offices, and on the questions of granting licenses for the sale of intoxicating liquors in this city, and of tenure of office of Chiefs of Fire Departments, at the city election held December 12, 1916:—

CANDIDATE.	PARTY.	WARDS.							TOTAL.
		1	2	3	4	5	6	7	
MAYOR.									
Zebedee E. Cliff,	Republican,	800	179	597	373	555	1,005	1,162	4,671
Teddy Diehl,	.....	.....	.....	.....	.....	.....	1	.....	1
Ralph Aubin,	.....	.....	.....	1	.....	.....	.....	.....	1
Frederick White,	.....	.....	.....	1	.....	.....	.....	.....	1
William Fleming,	.....	.....	.....	1	.....	.....	.....	.....	1
William McCarthy,	.....	.....	.....	.....	1	.....	.....	.....	1
Leonard C. Spinney,	.....	.....	.....	.....	.....	2	.....	.....	2
Jessie Pomery,	.....	.....	.....	.....	.....	.....	1	.....	1
Blank,	.....	257	149	89	49	60	149	97	850
ALDERMAN-AT-LARGE, WARD 1.									
Wallace E. Loveless,	Republican,	695	93	498	342	476	714	942	3,760
Maud Ballington Booth,	.....	.....	.....	.....	.....	.....	1	.....	1
Blank,	.....	362	235	191	81	141	441	317	1,768
ALDERMAN-AT-LARGE, WARD 2.									
George W. Pratt,	Republican,	586	151	514	335	474	720	937	3,712
Prof. Eliot,	.....	.....	.....	.....	.....	.....	1	.....	1
Blank,	.....	471	177	175	93	143	435	322	1,816
ALDERMAN-AT-LARGE, WARD 3.									
Charles M. Austin,	Republican,	580	100	560	335	473	696	921	3,665
Blank,	.....	477	228	129	88	144	460	338	1,864
ALDERMAN-AT-LARGE, WARD 4.									
Arthur N. Richardson,	Republican,	570	98	490	371	470	697	925	3,621
Blank,	.....	487	230	199	52	147	459	334	1,908
ALDERMAN-AT-LARGE, WARD 5.									
Hermon A. Fleming,	Republican,	577	98	498	334	515	691	911	3,624
Patrick H. Ryan,	.....	.....	.....	.....	.....	3	.....	.....	3
William J. Harrigan,	.....	.....	.....	.....	.....	1	.....	.....	1
Blank,	.....	480	230	191	89	98	465	348	1,901
ALDERMAN-AT-LARGE, WARD 6.									
James A. Butler,	Republican,	566	102	489	328	459	868	905	3,717
John F. Burke,	.....	.....	.....	.....	.....	.....	1	.....	1
Blank,	.....	491	226	200	95	158	287	354	1,811
ALDERMAN-AT-LARGE, WARD 7.									
Warren C. Daggett,	Republican,	546	100	462	309	457	668	1,021	3,563
Blank,	.....	511	228	227	114	160	488	238	1,966

CANDIDATE.	PARTY.	WARDS.							TOTAL.
		1	2	3	4	5	6	7	
WARD ALDERMEN (2) WARD 1.									
John F. Barr,	Democratic,	329	....	...	....	....	....	....	329
Walter D. Flynn,	Democratic,	308	....	....	....	....	....	....	308
Ralph H. Hosmer,	Republican,	470	....	....	....	....	....	....	470
John A. Mack,	Independent,	302	....	....	....	....	....	....	302
Justin P. Nowell,	Republican,	481	....	....	....	....	....	....	481
Blank,		224	....	....	....	....	....	....	224
WARD ALDERMEN (2) WARD 2.									
Maurice F. Ahearn,	Democratic,	...	260	....	....	....	....	....	260
Robert C. Harris,	Democratic,	...	236	....	....	....	....	....	236
Blank,		....	160	....	....	....	....	....	160
WARD ALDERMEN (2) WARD 3.									
Carl F. Ashton,	Republican,	....	....	452	....	....	....	....	452
Herbert C. Hight,	Independent,	....	....	278	....	....	....	....	278
John M. Webster,	Republican,	....	....	461	....	....	....	....	461
Blank,		....	....	187	....	....	....	....	187
WARD ALDERMEN (2) WARD 4.									
Charles H. Manzer,	Republican,	..	...	....	347	....	....	....	347
Walter H. Snow,	Republican,	....	....	....	359	....	....	....	359
Blank,		....	....	....	140	....	....	....	140
WARD ALDERMEN (2) WARD 5.									
William J. Bell,	Republican,	....	....	....	....	490	....	....	490
Arthur R. Corwin,	Republican,	....	....	....	....	483	....	....	483
Patrick H. Ryan,		....	....	....	....	8	....	....	8
William H. McKenna,		....	....	....	....	1	....	....	1
P. J. McLaughton,		....	....	....	....	1	....	....	1
Milo R. Whitaker,		....	....	....	....	1	....	....	1
Blank,		....	....	....	....	250	....	....	250
WARD ALDERMEN (2) WARD 6.									
Waldo E. Dodge,	Republican,	....	....	....	....	....	525	....	525
Joseph Linhares,	{ Independent	....	....	....	....	....	145	....	145
	{ Democrat,	....	....	....	....	....	....	....	....
Joseph J. Pincus,	{ Republican In-	....	....	....	....	....	627	....	627
	{ dependent,	....	....	....	....	....	....	....	....
Enoch B. Robertson,	Republican,	....	....	....	....	....	648	....	648
Blank,		...	....	....	....	....	367	....	367
WARD ALDERMEN (2) WARD 7.									
Wilbur F. Lewis,	Republican,	....	....	....	....	....	1,055	1,055	1,055
D. Wilson Moffatt,	Independent,	....	....	....	....	....	231	231	231
Austin M. Pinkham,	Republican,	....	....	....	....	....	913	913	913
Blank,		....	....	....	....	....	319	319	319
SCHOOL COMMITTEE (2 yrs.) WARD 1.									
Winnifred P. Davis,	Republican,	633	..	....	....	....	....	....	633
John J. Hayes,	Democratic,	359	....	....	....	....	....	....	359
Blank,		144	....	....	....	....	....	....	144
SCHOOL COMMITTEE (2 yrs) WARD 2.									
Christopher Muldoon,	Democratic,	....	220	....	....	....	....	....	220
Blank,		....	108	....	....	....	....	....	108

CANDIDATE.	PARTY.	WARDS.							TOTAL.
		1	2	3	4	5	6	7	
SCHOOL COMMITTEE (2 yrs.) WARD 3.									
Oscar W. Coddington, Blank,	Republican,	....	....	557	....	....	....	....	557
		....	....	157	....	....	....	....	157
SCHOOL COMMITTEE (2 yrs.) WARD 4.									
Frank H. Holmes, Martin Hogan, Blank,	Republican,	....	....	....	353	....	....	....	353
		....	....	....	1	....	....	....	1
		....	....	....	79	....	....	....	79
SCHOOL COMMITTEE (2 yrs.) WARD 5									
Julia R. Aldrich, Patrick H. Ryan, William J. Harrigan, C. W. Rugg, Blank,	Republican,	....	....	....	....	548	....	....	548
		....	....	....	....	1	....	....	1
		....	....	....	....	1	....	....	1
		....	....	....	....	1	....	....	1
		....	....	....	....	112	....	....	112
SCHOOL COMMITTEE (2 yrs.) WARD 6.									
George E. Wardrobe, Blank,	Republican,	....	....	....	....	....	826	....	826
		....	....	....	....	....	338	....	338
SCHOOL COMMITTEE (2 yrs.) WARD 7.									
Herbert Cholerton, Blank,	Republican,	....	....	....	....	....	....	1,059	1,059
		....	....	....	....	....	....	215	215
SHALL LICENSES BE GRANTED FOR THE SALE OF INTOXICATING LIQUORS IN THIS CITY?									
Number of "Yes" votes,		319	159	125	42	112	214	129	1,100
Number of "No" votes,		648	139	525	374	492	879	1,101	4,158
Blank,		90	30	39	7	13	63	29	271
SHALL CHAPTER 291 OF THE GENERAL ACTS OF THE LEGISLATURE FOR THE YEAR 1916. ENTITLED "AN ACT RELATIVE TO THE TENURE OF OFFICE OF CHIEFS OF FIRE DEPARTMENTS IN THE METROPOLITAN FIRE PREVENTION DISTRICT," BE ACCEPTED BY THIS CITY?									
Number of "Yes" votes,		401	93	232	149	211	379	465	1,930
Number of "No" votes,		226	117	204	126	204	286	290	1,453
Blank,		430	118	253	148	202	491	504	2,146

Liquor License Question.

The following is a statement of the votes, during the several years of its submission to the people, on the question of granting licenses for the sale of intoxicating liquors, in this city, together with the number of registered voters and the estimated population for each year:—

YEAR.	YES.	NO.	BLANK.	REGISTERED VOTERS.	ESTIMATED POPULATION.
1881	979	1,222		3,678	26,000
1882	627	1,159		3,778	26,500
1883	767	1,343		4,407	27,000
1884	806	1,709		4,470	28,000
1885	428	1,604		3,969	*29,992
1886	214	1,321		4,089	32,000
1887	555	2,427		4,574	34,000
1888	744	2,456		5,399	36,000
1889	635	1,706	335	5,286	39,000
1890	999	2,282	409	5,556	*40,117
1891	1,054	2,598	279	5,938	43,000
1892	1,427	3,288	347	7,587	46,000
1893	1,547	2,654	218	7,943	48,000
1894	1,098	2,869	246	8,007	50,000
1895	1,854	4,708	459	8,410	*52,200
1896	1,466	3,680	332	9,379	54,000
1897	1,626	3,815	486	8,925	56,000
1898	1,595	3,501	486	8,657	57,500
1899	1,892	3,340	374	8,838	60,000
1900	1,660	3,427	321	9,620	*61,643
1901	1,579	3,295	374	9,499	63,500
1902	1,645	3,242	360	10,100	65,000
1903	2,248	4,410	550	11,346	67,000
1904	2,022	4,338	447	11,682	69,500
1905	2,483	4,660	531	11,340	*69,272
1906	2,193	5,204	582	11,571	70,000
1907	1,735	4,591	459	11,558	74,000
1908	1,780	4,760	491	12,777	75,500
1909	1,830	4,601	530	12,479	75,500
1910	1,544	3,968	365	12,522	*77,236
1911	2,193	4,841	492	13,226	80,000
1912	2,421	6,182	546	13,854	81,000
1913	2,348	6,431	550	13,417	82,000
1914	2,178	5,535	488	13,404	85,000
1915	1,705	5,262	379	13,805	*86,854
1916	1,100	4,158	271	14,500	88,000

*Census.

ORDINANCES.

Somerville, January 1, 1917.

The following ordinances have been adopted since the printing of the annual reports for the year 1915:—

No. 69.**An Ordinance Concerning the Planning Board.**

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. The planning board of the City of Somerville shall consist of five members. Said members shall be appointed by the Mayor, subject to confirmation by the Board of Aldermen. Women as well as men shall be eligible for appointment. The first appointments after this ordinance takes effect shall be made, one for a term ending the first Monday of January, 1917, one for a term ending the first Monday of January, 1918, one for a term ending the first Monday of January, 1919, one for a term ending the first Monday of January, 1920, and one for a term ending the first Monday of January, 1921; and beginning with the year 1917 one member shall be appointed annually for a term of five years from the first Monday of January. Any vacancy that may occur shall be filled in like manner for the balance of the unexpired term.

Section 2. The board shall, as soon as practicable after the appointments of the members have become operative, meet and organize by the selection of a chairman and a secretary.

Section 3. The planning board shall have the power and authority and perform the duties set forth in chapter 494 of the Acts of the year 1913, and Acts in amendment thereof and in addition thereto relative to local planning boards. The board shall serve without pay.

Section 4. Ordinance number 51 and Ordinance number 59 are hereby repealed.

Section 5. This ordinance shall take effect upon its passage.

Approved March 15, 1916.

No. 70.**An Ordinance Concerning the Sanitary Department.**

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. There shall be appointed by the Mayor, subject to confirmation by the Board of Aldermen, to serve for one year and until the appointment and qualification of his successor, a superintendent of the sanitary department.

Section 2. The superintendent of the sanitary department shall attend to and have charge of the collection, carrying away, sale and disposal of the house offal and the ashes and house dirt of the city. He shall immediately turn over to the city treasurer the cash proceeds received by him from sales of offal.

Section 3. The Mayor and said superintendent shall have similar powers and duties in relation to said department as are given the Mayor and heads of other departments by the city charter and city ordinances in relation to other departments.

Section 4. Section 2 of Ordinance No. 45 is hereby repealed.

Section 5. This ordinance shall take effect upon its passage.

Approved April 14, 1916.

No. 71.**An Ordinance Relative to the Clerk of Committees.**

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. The Mayor shall annually appoint, subject to confirmation by the Board of Aldermen, a clerk of committees. He shall hold his office for one year and until another shall be appointed and qualified in his stead, and may be removed and his place for the unexpired term filled, at the pleasure of the Mayor and Aldermen. He shall act as a clerk of committees of the Board of Aldermen, shall make a proper record in books kept for the purpose of all their proceedings and transactions, keep a calendar of all meetings of said committees, and notify the members thereof. He shall perform such other duties and services in making estimates and computations, drawing orders and reports, and rendering assistance, as said committees shall require and shall perform such other duties as may from time to time be required by order of the Board of Aldermen.

Section 2. The Mayor may annually appoint, subject to confirmation by the Board of Aldermen, one or more assistants to the clerk of committees, whose compensation shall be fixed by the Board of Aldermen.

Section 3. Ordinance No. 58 is hereby repealed.

Section 4. This ordinance shall take effect upon its passage.

Approved May 11, 1916.

No. 72.**An Ordinance Relative to Filing Contracts.**

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. Section 8 of Chapter IV of the Revised Ordinances of 1911 is hereby amended by striking out the word "contracts" in the sixth line.

Section 2. Said Chapter IV is hereby further amended by adding the following section thereto: Section 9. All contracts shall be kept in the custody of the city auditor.

Section 3. This ordinance shall take effect upon its passage.

Approved June 14, 1916.

No. 73.**An Ordinance Concerning Master Mechanic in the Fire Department.**

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. The first paragraph of Section 1 of Chapter XVIII of the Revised Ordinances of 1911 is hereby amended by inserting therein after the word "captain" the words "master mechanic," so that said paragraph shall read as follows:—

"Section 1. The Fire Department shall consist of a chief engineer and a first assistant engineer, and a second assistant engineer who shall also perform the duties of a captain, a master mechanic, a driver for the chief engineer, and as many engine, hose, hook and

ladder and other companies, and relief drivers, as the Board of Aldermen shall from time to time determine."

Section 2. This ordinance shall take effect upon its passage.

Approved September 15, 1916.

No. 74.

An Ordinance Concerning Roof Coverings.

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. Every roof hereafter constructed shall be covered with a non-combustible roof covering.

Section 2. Whenever a non-combustible roof covering is hereafter replaced in whole or in part the new roof covering shall be non-combustible.

Section 3. Whenever a roof covering other than non-combustible is hereafter replaced in whole or in part, the new roof covering shall be non-combustible if as much as one-quarter of the superficial area of the entire roof is replaced during any period of not more than six months.

Section 4. Whoever violates any provision of this ordinance shall be liable to a penalty of not more than one hundred dollars for each offense.

This ordinance shall take effect upon its passage.

Approved September 25, 1916.

No. 75.

An Ordinance Relative to Pedlers and Hawkers.

Be it ordained by the Board of Aldermen of the City of Somerville, as follows:—

Section 1. The chief of police, the sealer of weights and measures and the inspector of animals and provisions shall ex-officio constitute the pedlers license commission.

Section 2. No person, except itinerant vendors, wholesalers or jobbers having a permanent place of business in this commonwealth and selling to dealers only, and commercial agents or other persons selling at wholesale by sample, lists, catalogues or otherwise for future delivery, shall go from place to place in this city carrying for sale or barter or exposing for sale or barter, fish, fruit or vegetables without a license therefor from the commission. This ordinance shall not apply to any person who peddles only fruit and vegetables or other farm products raised or produced by himself or family.

Section 3. The commission shall have authority to grant such license to any person of good reputation for morals and integrity who is a citizen of the United States or has formally declared his intention to become a citizen. Licenses shall bear date of the day on which they are issued and unless sooner revoked shall expire on the first day of May next following.

Section 4. No hawker or pedler shall sell, or offer or expose for sale, any of the articles enumerated in section 15 of chapter 65 of the Revised Laws of Massachusetts, or in any acts in amendment thereof or in addition thereto, unless he has registered his name and residence with the commission and received a certificate of said registration nor unless such registration and certificate are in force. Such registration and certificate shall be in force only until the first day of May next following his registration. Every person

licensed under the provisions of the preceding section shall register his name and residence in like manner with the commission.

Section 5. No person, unless duly licensed by the commission so to do, shall ring a bell or cry his wares or calling in a street, for the purpose of giving notice of the exercise of a business or calling, or for the sale of an article; and no person shall use in a public street for said purpose a horn or other noise-making instrument, except a bell as aforesaid. No person so licensed shall cry his wares or calling in a street earlier in the day than eight o'clock a. m., nor later in the day than seven o'clock p. m., and no person so licensed shall ring a bell in a street earlier in the day than eight o'clock a. m., nor later in the day than nine o'clock p. m.

Section 6. Every vehicle used by a hawker or pedler as a conveyance for articles offered or exposed for sale by him shall have the name and number of the hawker or pedler painted thereon in letters and figures at least two inches in height in a conspicuous place on each side. The vehicle shall be kept clean and neat within and without and shall be submitted to the commission for inspection whenever it shall request.

Section 7. No person shall be licensed or registered under this ordinance until he presents the commission a statement from the sealer of weights and measures that all weighing and measuring devices intended to be used by such person have been duly inspected and sealed as required by law.

Section 8. Any hawker or pedler who fails, neglects or refuses to exhibit his license or certificate of registration when the same is demanded of him by a commissioner or sealer or deputy sealer of weights and measures or member of the police department of the city shall be subject to the penalty provided in section 13 of this ordinance.

Section 9. No person under sixteen years of age shall receive a license or be registered under this ordinance.

Section 10. Any license granted under this ordinance or any ordinance amendatory or additional thereto, may be revoked by the commission at any time in its discretion.

Section 11. Nothing in this ordinance shall be construed as conflicting with any license duly issued under the laws of the Commonwealth of Massachusetts.

Section 12. The fee for a license under section 2 of this ordinance shall be one dollar.

Section 13. Whoever violates any provision of this ordinance shall be punished by a fine not exceeding twenty dollars for each offense.

Section 14. Chapter XXIX of the Revised Ordinances of 1911 and all other ordinances and parts of ordinances inconsistent herewith are hereby repealed.

Section 15. This ordinance shall take effect upon its passage.

Approved December 19, 1916.

FREDERIC W. COOK,
City Clerk.

CITY GOVERNMENT AND OFFICERS FOR 1916.

Mayor.

Zebedee E. Cliff,
29 Powder House Terrace.

Board of Aldermen.

President, William Fleming.
Vice-president, Warren C. Daggett.

WARD ONE.

William Fleming, Alderman-at-large	73 Florence street
Wallace E. Loveless	91 Perkins street
John A. Mack	29½ Alston street

WARD TWO.

George W. Pratt, Alderman-at-large	35 Clark street
Robert C. Harris	12 Dimick street
Maurice F. Ahearn	21 Linden street

WARD THREE.

Robert J. Farrell, Alderman-at-large	21 Avon street
Charles M. Austin	23 Berkeley street
John M. Webster	246 Medford street

WARD FOUR.

William H. Andrews, Alderman-at-large	18 Walnut road
Arthur N. Richardson	68 Bonair street
Walter H. Snow	42 Derby street

WARD FIVE.

Fred E. Durgin, Alderman-at-large	52 Albion street
Hermon A. Fleming	51 Heath street
William J. Bell	380 Medford street

WARD SIX.

James A. Butler, Alderman-at-large	286 Highland avenue
Warren C. Blair	26 Tower street
Joseph J. Pincus	41 Lexington avenue

WARD SEVEN.

Warren C. Daggett, Alderman-at-large	28 Belknap street
Almon W. Preble	28 Francesca avenue
Austin M. Pinkham	34 Liberty avenue

City Clerk—Frederic W. Cook.

Assistant City Clerk—Jason M. Carson.

City Messenger—Fred E. Hanley.

Regular meetings, second and fourth Thursday evenings of each month, at 8 o'clock, except when such Thursday is a holiday, in which case the meeting is held on the preceding Tuesday evening.

Standing Committees of the Board of Aldermen.

ELECTRIC LINES AND LIGHTS—Aldermen Blair, Durgin, Andrews, Farrell and Pratt.

FINANCE—The President, Aldermen Richardson, Butler, Harris, Webster, Pinkham and Bell.

LEGISLATIVE MATTERS—Aldermen Ahearn, Pinkham, Bell, Pincus and Mack.

LICENSES AND PERMITS—Aldermen Austin, Fleming of Ward 5, Daggett, Pratt, Snow, Pincus and Mack.

PUBLIC PROPERTY—Aldermen Preble, Fleming of Ward 5, Snow, Harris and Webster.

PUBLIC SAFETY—Aldermen Andrews, Preble, Austin, Loveless and Butler.

PUBLIC WORKS—Aldermen Durgin, Daggett, Blair, Richardson, Loveless, Farrell and Ahearn.

School Committee.

Chairman.—GEORGE E. WHITAKER.

Vice-Chairman.—HERBERT CHOLERTON.

(Term, two years, except members ex-officiis.)

ZEBEDEE E. CLIFF, Mayor (ex-officio), 29 Powder House terrace.

WILLIAM FLEMING, President Board of Aldermen (ex-officio),
73 Florence street.

WARD ONE.

THOMAS KELLEY (elected 1914), 39 Pennsylvania avenue.

JAMES J. RUDD (elected 1915), 46-A Franklin street.

WARD TWO.

CHRISTOPHER MULDOON, JR., (elected 1914), 88 Concord avenue.

DANIEL H. BRADLEY (elected 1915), 19 Concord avenue.

WARD THREE.

ALBERT C. ASHTON (elected 1914), 33 Columbus avenue.

GEORGE E. WHITAKER (elected 1915), 75 Walnut street.

WARD FOUR.

FRANK H. HOLMES (elected 1914), 22 Walter street.

HARRY A. STONE (elected 1915), 254 Broadway.

WARD FIVE

JULIA R. ALDRICH (elected 1914), 262 School street.

HARRY M. STOODLEY (elected 1915), 283 Highland avenue.

WARD SIX.

MARY R. BREWER (elected 1914), 170 Summer street.

GUY E. HEALEY (elected 1915), 38 Cambria street.

WARD SEVEN.

HERBERT CHOLERTON (elected 1914), 94 College avenue.

FRANK E. PORTER (elected 1915), 43 Ossipee road.

Superintendent and Secretary—CHARLES S. CLARK.

Office, City Hall Annex.

Hours: 8 A. M. to 5 P. M., except Saturdays;
Saturdays, 8 to 10 A. M.

Regular meetings, last Monday evening of each month, except July and August, when none are held, and December, when meetings are on the fourth Friday, and on the Friday preceding the first Monday in January.

Assessors.

(Term, three years.)

GEORGE E. ELLIOTT, Chairman (term expires 1917).

WINSOR L. SNOW (term expires 1918).

HARRY VAN IDERSTINE (term expires 1917).

J. ROBERT FENELON (term expires 1919).

DAVID B. ARMSTRONG (term expires 1918).

Assistant Assessors.

(Term, one year.)

FRED B. CLAPP.

JOHN FRANKLIN STACKPOLE.

GEORGE I. CANFIELD.

JAMES WILSON.

JOHN J. MCCARTHY.

WILLIAM H. WALLIS.

Office open: 8 A. M. to 4 P. M., Saturdays, 8 A. M. to 12 M.

Board of Health.

(Term, two members, two years; one member, one year.)

JACKSON CALDWELL, Chairman (term expires 1917).

RALPH F. HODGDON, M. D. (term expires 1918).

ROBERT M. LAVENDER (term expires 1917).

Clerk—LAURENCE S. HOWARD.

Agent—CALEB A. PAGE (Resigned October 21, 1916).

GEORGE I. CANFIELD (Appointed October 23, 1916).

Medical Inspector.—FRANK L. MORSE, M. D.

Inspector of Animals and Provisions.—CHARLES M. BERRY.

Inspector of Milk and Vinegar.—HERBERT E. BOWMAN.

Office open: 8 A. M. to 4 P. M., Saturdays, 8 A. M. to 12 M.

Overseers of the Poor.

Office, City Hall Annex.

(Term, three years.)

HENRY F. CURTIS, M. D., Chairman (term expires 1919).

ALBERT W. EDMANDS (term expires 1917).

PHILIP KOEN (term expires 1918).

Agent.—CHARLES C. FOLSOM.

Secretary.—CORA F. LEWIS.

Warden City Home—J. FOSTER COLQUHOUN.

Matron City Home—CATHERINE COLQUHOUN.

Office open: 8 A. M. to 4 P. M., Saturdays, 8 A. M. to 12 M.

Planning Board.

(Term, five years.)

CHARLES W. HODGDON (term expires 1917).
 CLARENCE D. WATERHOUSE (term expires 1918).
 DAVID J. KELLEY (term expires 1919).
 OSCAR W. CODDING (term expires 1920).
 WALDO E. DODGE (term expires 1921).

Registrars of Voters.

(Term, three years.)

EDWIN D. SIBLEY, Chairman (term expires 1918).
 DOUGLASS B. FOSTER (term expires 1917).
 CHARLES LEO SHEA (term expires 1919).
 FREDERIC W. COOK, City Clerk (term expires 1917).

Public Library Trustees.

(Term, three years.)

THOMAS M. DURELL, Chairman (term expires 1919).
 J. FRANK WELLINGTON (term expires 1917).
 FREDERICK W. PARKER (term expires 1918).
 WILLIAM L. BARBER (term expires 1919).
 CHARLES L. NOYES (term expires 1917).
 HERBERT E. BUFFUM (term expires 1917).
 GILES W. BRYANT (term expires 1918).
 DAVID H. FULTON (term expires 1918).
 HERMON C. BUMPUS (term expires 1919).
Librarian and Secretary.—DREW B. HALL.

City Clerk.

FREDERIC W. COOK.

Assistant City Clerk.—JASON M. CARSON.

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

City Treasurer and Collector of Taxes.

JOSEPH S. PIKE.

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

City Messenger.

FRED E. HANLEY.

Mayor's Secretary.

FRED E. WARREN.

City Solicitor.

FRANK W. KAAH,
 50 State street, Boston.

City Auditor.

HOWARD E. WEMYSS,

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

City Engineer.

ERNEST W. BAILEY.

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

Commissioner of Streets.

ASA B. PRICHARD.

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

Commissioner of Public Buildings and Inspector of Buildings.

WALTER T. LITTLEFIELD (Resigned June 1, 1916).

GEORGE L. DUDLEY (Appointed June 8, 1916).

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

Commissioner of Electric Lines and Lights.

WALTER I. FULLER.

Office, Central Fire Station, 261 Medford street.

Water Commissioner.

FRANK E. MERRILL.

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

Clerk of Committees and Departments.

RICHARD A. KEYES.

Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

Chief of Police.

CHARLES A. KENDALL.

Office, Police Building, Bow street.

Chief Engineer of the Fire Department.

SEWALL M. RICH.

Office, Central Fire Station, 261 Medford street.

City Physician.

C. CLARK TOWLE, M. D.

24 Prospect Hill avenue.

Inspector of Plumbing.

DUNCAN C. GREENE.

Office hour: 8 to 9 A. M.

Inspector of Milk and Vinegar.

HERBERT E. BOWMAN.

Office hours: 9 A. M. to 12 M., except Saturdays.

Inspector of Animals and Provisions.

CHARLES M. BERRY,
60 Prescott street.

Inspector of Petroleum.

SEWALL M. RICH.
Office, Central Fire Station, 261 Medford street.

Sealer of Weights and Measures.

JOHN H. DUSSEAULT.
Deputy Sealer, BENJAMIN S. ABBOTT.
Office, City Hall Annex.
Office open: 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.

Registration Clerk, City Laborers.

FORREST D. COOK.

Fence Viewers.

CHARLES M. BERRY,
60 Prescott street.
HOWARD LOWELL,
46 Gilman street.

Burial Agent.

UNDER REVISED LAWS, CHAPTER 79, SECTION 2.
JOHN H. DUSSEAULT,
42 Sargent avenue.

Constables.

CHARLES M. AUSTIN.	CHARLES C. FOLSOM.
HENRY T. BATES.	FRED E. HANLEY.
CHARLES W. F. BENNETT.	JAMES M. HARMON.
GEORGE H. CARLETON.	CHARLES A. KENDALL.
EUGENE A. CARTER.	JOHN J. MCCARTHY.
WINSLOW W. COFFIN.	EDWARD E. MARSH.
FORREST D. COOK.	CHARLES B. PALMER.
WILLIAM E. COPITHORNE.	JOHN F. SCANNELL.
ALBION B. CROCKER.	MALCOLM E. STURTEVANT.
THOMAS DAMERY.	HERBERT WILSON.
CHARLES L. ELLIS.	CHARLES E. WOODMAN.

Measurers of Wood and Bark.

CHARLES A. HARDY.
JOSEPH F. TYTER.
F. FULLER WHITING.

Measurer of Grain.

EVERETT C. EMERY.

Public Weigher in Charge of City Scales at City Ledge.

WILLIAM H. WHITCOMB.

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