



## MEDFORD HISTORICAL SOCIETY AND MUSEUM

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### CITY OF MEDFORD.

THE  
MAYOR'S ADDRESS  
TO  
THE CITY COUNCIL,  
JANUARY 3, 1898.

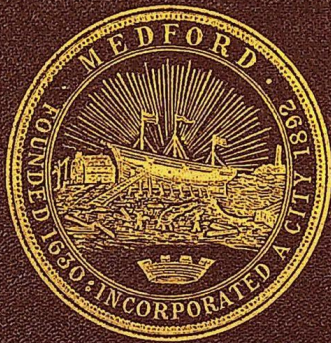
THE  
CITY GOVERNMENT,  
THE  
FINANCIAL STATEMENTS,  
AND THE  
ANNUAL REPORTS,  
For the year ending January 31, 1898.

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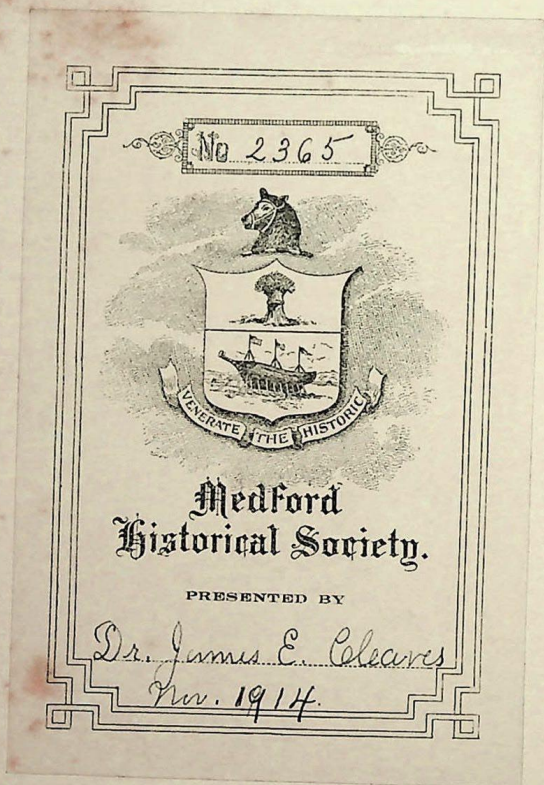
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CITY OF MEDFORD.

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THE MAYOR'S ADDRESS  
TO  
THE CITY COUNCIL,

JANUARY 3, 1898.

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THE  
CITY GOVERNMENT,  
THE  
FINANCIAL STATEMENTS,  
AND THE  
ANNUAL REPORTS,

For the Year Ending January 31, 1898.

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PUBLISHED BY THE CITY AUDITOR, AS DIRECTED BY THE MAYOR.

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1898

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ADDRESS  
OF  
HON. LEWIS H. LOVERING,  
MAYOR OF MEDFORD,

DELIVERED JANUARY 3, 1898.

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*Gentlemen of the City Council:*

We meet here today to organize, to take the oaths of office, and to assume the management of the city for another year. To those of you with whom I have had the pleasure of being associated in city affairs during the past year, I wish to extend my most earnest gratitude for the manner and spirit of fairness with which you have met and assisted me in solving the many problems that have beset us. To those of you who remain in office another year, and to those of you who have been returned to the City Council by the suffrages of the people, I wish to say that it is a pleasure to know that I still have your judgment and advice upon which to rely. To the members now assuming municipal duties for the first time, I shall look for counsel and assistance, and shall expect the same loyal support which those more experienced in city work have given. We are all here to discharge a public trust, and it behooves us to assume the responsibilities with a firm and steadfast resolution to merit the confidence thus placed in us, and to discharge these obligations as faithful servants of the people. Let us, then, each see to it that every act of ours shall be for the greatest good of Medford and her people.

We have made many improvements since Medford became a city, and consequently the debt has been increased. There are yet other necessary improvements, and to obtain them will increase our debt still more. An increase in this

direction must be met by long-term obligations, the added burden of which will not be seriously felt. A low tax rate is acceptable to our citizens, and, if fairly arrived at, it is a credit to an administration; but it is not a credit to any administration to secure low tax rates by allowing an accumulation of debts to be paid by those who follow us. I believe that all running expenses that come to us annually should be met by the tax levy of the current year; if this theory, carried out as it should be, results in a high tax rate, it will serve to call the attention of the citizens to the fact that we are making improvements too fast. The people have a right to know the expenses which we incur. Large public improvements, such as schoolhouses, other buildings, and parks, which are expenses not for one year, but for many, and incurred for the benefit of many, cannot possibly be paid for out of the yearly income, but it must be a debt the burden of which must be borne by the years that receive the benefit. We must exercise the greatest care and give the closest scrutiny to our expenditures if we expect to obtain results satisfactory to our people. And even then it will be necessary that all departments exercise the same care, or else our efforts, in a measure, will be of no avail, as several of these departments under our charter have almost unlimited powers, so that bills contracted by them must be paid by the city.

You are all well aware that the tax rate increased quite materially during the past year. The principal cause for this increase from \$13.60 per thousand in 1896 to \$17.00 in 1897, was due to the fact that the Special Commissioners failed to assess our city in 1896 for its share of the expense in building the Metropolitan Sewer; so that this year we had to pay two years' assessment. This alone added  $\$1.45\frac{6}{10}$  per thousand to the rate; then again the city had not raised enough to pay its running expenses in the last few years by a very large amount, as will appear more fully in the Special Auditor's Report, which will appear in the annual report of the city.



At the commencement of last year I found the amount unprovided for, including unpaid bills, together with the notes falling due in 1897, amounting to \$283,872.28, and other notes due before 1900. This seemed to me too much for the city to carry by assessment and the renewal of notes. I therefore thought it best to bond \$300,000 of the floating debt, and attempt to meet the balance of the notes, to the amount of \$112,000 falling due on or before 1900, by adding to the tax levy for the next four or five years. If this policy is pursued for a few years we shall be where it will be only necessary to raise by taxation the regular running expenses of the city, and the sinking fund requirements. By issuing these bonds the city debt was not increased. The total amount was placed upon a four per cent. basis, with over \$13,000 in premiums placed in the sinking fund to be applied to the payment of the bonds when matured. I did not ask to have these bonds exempt from the tax limit, for I feared with a borrowing capacity of \$300,000 or \$400,000 the temptation to increase the floating debt would be to great in the future. I am confident that we are perfectly safe with a borrowing capacity of \$100,000 or a little more.

I submit a brief statement of the finances of the city:—

The funded debt of the city is \$1,321,000 00

It consists of:

Medford Water Bonds . . .	\$200,000 00
City of Medford Water Fund Bonds . . . . .	300,000 00
Medford Public Building Loan Bonds . . . . .	250,000 00
City of Medford Public Play- ground Loan . . . . .	21,000 00
Medford Sewerage Loan . . .	350,000 00
City of Medford Municipal Loan	200,000 00
	—————\$1,321,000 00

The permanent debt, representing trust funds, is . . .	\$14,609 42	
Perpetual care fund, is . . .	19,020 00	
	<hr/>	\$33,629 42
The unfunded debt, consisting of notes, is . . .		112,000 00
Amounts to be reimbursed to the treasury on account of balances brought over from 1896 . . .		54,500 00
		<hr/>
The total city debt is . . .		\$1,521,129 42
The sinking fund (December 1, 1897), amounts to . . .		208,004 00
		<hr/>
The net debt January 1, 1898, is . . .		\$1,313,125 42
The Assessors' valuation, May 1, 1897, was :—		
Real estate, buildings . . .	\$7,851,850 00	
Land . . .	8,314,200 00	
Personal estate . . .	2,182,450 00	
		<hr/>
Total valuation . . .		\$18,348,500 00

We have \$100,000 in municipal bonds to sell this month, the proceeds of which will be applied to the payment of \$45,500 in notes falling due this year, and the balance will be used in the payment of the balances brought over from the year 1896. This will show an increase of \$100,000 in the bonded debt, but the unfunded debt will be decreased by the same amount.

I shall only touch briefly upon the several departments. Their reports will be forthcoming very soon, and will speak for themselves. I think, generally speaking, the departments are as well managed as can be expected.

The schools are in a flourishing condition, and will require, as usual, a very large appropriation. I learn from the School Committee that they see no way to curtail expenses,



but, instead, they will always be on the increase, as new houses and more teachers will be needed. We have but little to say in this department except to make the appropriations asked for by the Committee. After the house at West Medford is completed we can get along for a few years without any more new houses. The city owns a lot for school purposes on Central Avenue, and will be called upon to build there whenever more school buildings are required.

The Assessors' Department, Public Library, and City Clerk's Department are all in satisfactory condition, and need no comment. There has just been completed a thorough and complete examination of the accounts of the City Collector, City Treasurer, and City Auditor from the time Medford became a city to February 1, 1897, and all have been found to be honestly and correctly kept. Some miscalculation relating to the method of levying assessment and applying the uncollected taxes has caused the large increase in the floating debt. This you will find given in detail in the special auditor's report. I see no reason for future trouble in this direction.

Our Fire Department still keeps up its good record, and is sufficient to safely protect the city from serious loss by fire. The department should have a new fire-house in ward two, as the one now in use is wholly unfit for the place. It is my intention to present plans and recommendations for something to be done there. These plans and recommendations I hope submit early in the year.

I have found the Police force always ready and willing to enforce the laws, and to attend to their duties faithfully. We have the no-license vote, prohibiting the sale of intoxicating liquors, and this law will be enforced to its extent. Persons knowing of liquor being sold will be responsible for its continuance, for if they will notify the officers, I assure them it shall be stopped at once.

We have been obliged to enforce laws that seem to be a hardship to some, but let me say it is not the fault of the

Mayor or the police force ; if any laws that seem unjust have been enforced, the legislature that enacted the laws is responsible, and the remedy for it is at the State House, and not in Medford.

The Police Department keep the patrol team in a rented stable hardly suitable for the purposes for which it is used. I think we should give this matter our attention and, if possible, secure better stable accommodations for it.

The Health Department has looked well to the wants of the city, and while the work is quite arduous, and at times perplexing, the Board have kept the sanitary condition such that no serious sickness has prevailed.

The poor have been well looked after, and although the calls are many, the Overseers are equal to the occasion, and permit no one to suffer.

The Inspector of Buildings reports 264 permits issued within the last eleven months, at an estimated cost of \$450,-000 which is considerably less than last year.

The Inspectors of Plumbing, Milk and Vinegar, and Wires, Sealer of Weights and Measures, and Trustees of Oak Grove Cemetery, all make their reports in detail, to which I respectfully call your attention when they are presented.

I understand the Water Department will require only the ordinary appropriations, and will pay into the sinking fund \$24,725 this year. The receipts of the department during the past year show an improvement where formerly we were obliged to raise by taxation the sinking fund requirements. The Water Commissioners kindly furnished me with a tabulated statement of expenses, which I have not the time to use now. Our rights in Spot Pond have been taken by the Commonwealth, and the Metropolitan Water Board will hereafter furnish our water supply. It remains to be seen whether this will increase or diminish the expense of water.

We have a highly creditable Military Company, which should have suitable quarters at once. While located as at present, the city loses the rent from the State, as the authori-

ties refuse to pay any rent for the quarters now occupied. Inspector General J. L. Carter, in his recent report under date of December 10th, 1897, referring to this subject, says: "The armories now occupied by Companies D, E, H, and M are reported as unsuitable; particularly as to Companies E and H. If proper accommodations are not furnished them, I recommend the disbandment of the former (Companies D and E) and the removal of the latter (Company H) to one of the large State armories."

I hardly think Medford would sanction the disbandment of Company E, and I therefore hope this matter will receive your early attention.

The Engineering Department will require about the same amount to run it as last year. There will be no appropriation asked for in the Sewer Department except for maintenance, which will be about \$1,000. This department has laid  $2\frac{6}{10}\frac{5}{10}$  miles of sewer the past year, making a total now complete of  $43\frac{1}{8}$  miles; there have been 514 house connections made in 1897, making a total of 1,482. 3,300 feet of surface drain have been laid the past season; 2,200 of this in Maple and Cherry streets, varying in size from 24 to 42 inches; this is sufficient to drain this section and provides a way to dispose of the drainage from the boulevard now being built through Valley street. The State has paid \$2,000 towards the cost of this drain. All of this work has been done by the day, and only Medford men have been employed, and the result both in the quality and cost of the work has been very satisfactory.

The needs of the Highway Department are great, and it is impossible for the city to make any appropriation to be paid from the tax levy of the current year that will put the streets in a condition satisfactory to the people. However, I believe it best to make as liberal an appropriation for this work as possible; and at the expiration of four or five years we will see the streets improved so as to compare favorably with those of other cities.

I believe more strongly than I did one year ago, that it is the best policy to only do the necessary repairs to keep the streets safe, and put all other money into permanent construction of the principal streets. By this I do not mean that the outlying districts should be neglected, but when anything is done, the poorest piece in that section should be taken and made into a good street. If this course were pursued for a few years we should soon see better roads throughout our entire city. Over one mile has been constructed in this manner the past year, and the expense has been paid from the appropriation for general repairs. I had hoped to see Salem and Main streets put in as good repair as High street, but owing to the delay in re-laying of tracks in these streets, it has been impossible to make these needed improvements. From the \$20,000 appropriation for special construction, \$2,000 have been transferred to the credit of the School Department; the balance has been expended principally on High street, from Medford square to the railroad crossing at West Medford, on Spring street, Daisy street, at Glenwood, and a small amount on Quincy street at Medford Hillside, and Hicks avenue at South Medford. If the new rails had been laid in Main and Salem streets, this money would have been expended there. A full and detailed report will soon be printed where all can see just where this appropriation has been expended.

Another much needed improvement is at the city stables, where, if we had the suitable stable room a city should have, we could keep all the city teams at a greatly reduced cost. As it is now, we are boarding several of the driving teams of the different departments, when they could be more economically kept in one building, if we had such a suitable structure.

The petition by the West End Street Railway Company for laying double tracks in Main and Salem streets has been referred to the present City Council. Should you deem it wise to grant this petition, it will be necessary to appropriate about \$22,000 to build the streets; but if a single track

is relaid, the cost will be increased from six to eight thousand dollars by reason of there being from eight to nine more feet in width to be built, which in the event of double tracks being laid, would be paved by the railroad company. I am of the opinion the petition should be granted under as favorable conditions to the city as it is possible to obtain.

The city has entered into an agreement with the Metropolitan Park Commissioners whereby we have put in good repair  $2\frac{3}{4}$  miles of roads leading to the Fells, including a part of Forest and Elm streets and Highland avenue. These roads are to be taken and hereafter maintained by the Commonwealth, it paying the sum of \$3,000 towards the cost of repairing the same. This, with one-half mile of Valley street now being built for the boulevard, will relieve us from keeping about  $3\frac{1}{4}$  miles of road in repair.

The appropriation for Middlesex avenue bridge will be slightly overdrawn on account of the continual wear by the teams at work upon the boulevards, and also by reason of having to move the draw-tender's house to make room for the boulevard, as well as some incidental repairs to the bridge itself. It is important that some action should be taken relative to this bridge during the coming season, in connection with the Metropolitan Park Commissioners.

The City Engineer reports that the Boston avenue, Auburn and Winthrop street bridges will need some repairs during the present year, to put them in a suitable and safe condition. College avenue bridge, which was built and heretofore always kept in repair by the city, has been disposed of by being taken by the Boston & Maine Railroad, and it is being rebuilt in a very satisfactory manner, the city agreeing to pay \$500 toward its reconstruction, and the railroad is to hereafter keep it in repair.

The appropriation for street lighting will necessarily have to be increased as several petitions for new lamps were granted last year, but were not set, as the appropriation would not allow of any additional expense. These must be provided for early in the year as well as for others that may



be requested. We have tried all-night lighting with our arc lamps, and find the results to be satisfactory to our citizens and Police force. I think this plan of all-night lighting should be continued; and if so, this will add something to the lighting appropriation.

One other improvement that I wish to mention at this time is that of the Mystic River. The Metropolitan Park Commissioners have taken great interest in the sanitary condition of the rivers emptying into Boston Harbor. Already they have made lasting improvements along the banks of the Charles River, and are now directing their attention to the Mystic and Neponset. All improvements made by the Commonwealth will depend largely upon the co-operation and support given by the cities and towns through which these improvements are being made. During the past year, several meetings have been held by a committee from Somerville, Medford, and Arlington, and quite an interest has been manifested in these improvements along the Mystic. You will find this fully explained in the report of our committee to the City Council under date of December 28th, 1897. I feel that this is the year to encourage and forward this improvement, and I would recommend such action as will be in harmony with the views and plans of the Metropolitan Park Commissioners, so as to secure this lasting improvement to Medford. It is an opportunity which we cannot afford to allow to slip from our grasp, and permit to go to other localities through our own indifference.

I have endeavored to lay before you briefly as possible these facts and figures so that you may grasp the situation and understand more fully the demands that will be made upon us during the present year. Let us assume this task with the spirit and purpose to devote our best energies and abilities to the work that is before us, confidently hoping that, with a firm determination to keep ever in view the welfare of the city, we may not err in judgment, and that we may be able to close our labors with the conviction that we have sought to be faithful.

GOVERNMENT  
OF THE  
CITY OF MEDFORD,  
1898.

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Mayor.

HON. LEWIS H. LOVERING,  
*5 Bowers Street.*

*Mayor's Clerk, JOHN F. LIBBY.*

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Board of Aldermen.

(ELECTED AT LARGE.)

*President.*

WILLIAM A. THOMPSON.

* THOMAS J. BRYANT	. . . .	85 Park street.
* WILLIAM A. THOMPSON	. . . .	19 Magoun avenue.
* NAHUM E. WILBER	. . . .	1 Irving street.
† LEWIS A. DODGE	. . . .	Highland avenue.
† GEORGE O. FOSTER	. . . .	17 Walnut street.
† FULTON H. PARKER	. . . .	86 Winchester street.

*Clerk.*

ALLSTON P. JOYCE . . . . 46 Garfield avenue.

[Who is also the City Clerk.]

\*Term expires first Monday in January, 1899.

†Term expires first Monday in January, 1900.

## Common Council.

*President.*

CHARLES S. BAXTER.

## WARD ONE.

Charles G. Browne	. . .	42 Otis street.
Charles L. Fitzhenry	. . .	18 Abbott street.
J. William Williams	. . .	23 Otis street.

## WARD TWO.

Charles H. Brewer	. . .	69 Washington street.
Caleb K. Sullivan	. . .	135 Park street.
John H. Turner	. . .	7 Pleasant street.

## WARD THREE.

Nathaniel Atwood	. . .	4 Garden street.
Harry B. Leavitt	. . .	147 Woburn street.
William I. Parker	. . .	7 Hastings lane.

## WARD FOUR.

Edward J. Doherty	. . .	21 Touro avenue.
Frederick A. Folsom	. . .	35 College avenue.
George B. Means	. . .	134 Summer street.

## WARD FIVE.

Myron G. Curtis	. . .	47 Wareham street.
George S. T. Fuller	. . .	7 Alfred street.
George B. Perkins	. . .	11 Emery street.

## WARD SIX.

Charles S. Baxter	. . .	48 Irving street.
Daniel W. Johnson	. . .	16 Boston avenue.
Elisha G. Pierce	. . .	89 Monument street.

*Clerk.*

Everard I. Langell	. . .	102 Brooks street.
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*Clerk of Committees.*

Irvin E. Peak	. . .	38 Thatcher street.
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**School Committee.***Elected at Large.*

Rosewell B. Lawrence, <i>Chairman</i> . . . . .	Term exp. 1900.
Charles N. Jones, <i>Secretary</i> . . . . .	Term exp. 1899.
William Cushing Wait . . . . .	Term exp. 1901.

*Elected by Wards.*

<i>Ward 1</i> —Mrs. Amanda H. Plummer . . . . .	Term exp. 1901.
<i>Ward 2</i> —George E. Davenport . . . . .	Term exp. 1900.
<i>Ward 3</i> —Sidney Gleason . . . . .	Term exp. 1899.
<i>Ward 4</i> —Gustavus F. Guild . . . . .	Term exp. 1900.
<i>Ward 5</i> —William H. Hodgman . . . . .	Term exp. 1899.
<i>Ward 6</i> —William H. Couch . . . . .	Term exp. 1901.

*Superintendent of Schools.*

Charles H. Morss.

**City Officers and Boards.**

<i>City Clerk</i> . . . . .	Allston P. Joyce.
<i>City Treasurer</i> . . . . .	Parker R. Litchfield.
<i>City Collector</i> . . . . .	Edward W. Hayes.
<i>City Auditor</i> . . . . .	George D. Cummings.
<i>City Solicitor</i> . . . . .	Benjamin F. Hayes.
<i>City Engineer</i> . . . . .	T. Howard Barnes.
<i>City Physician</i> . . . . .	Charles R. Draper, M.D.
<i>City Messenger</i> . . . . .	James B. Simpson.
<i>Street Commissioner</i> . . . . .	Alonzo H. Kimball.
<i>Inspector of Buildings</i> . . . . .	Calvin H. Clark.
<i>Inspector of Plumbing</i> . . . . .	Gustavus F. Andrews.
<i>Inspector of Wires</i> . . . . .	Harry P. Horton.
<i>Sealer of Weights and Measures</i> . . . . .	Henry F. Moore.
<i>Inspector of Milk and Vinegar</i> . . . . .	Henry F. Moore.
<i>Inspector of Animals and Provisions</i> . . . . .	Henry F. Moore.

**Board of Assessors.**

Henry Withington, <i>Chairman</i> . . . . .	Term exp. 1901.
Edward S. Randall . . . . .	Term exp. 1899.
Warren T. Morse . . . . .	Term exp. 1900.

**Board of Health.**

Walter L. Hall, M.D., <i>Chairman</i> . . . . .	Term exp. 1900.
James E. Cleaves, M.D. . . . .	Term exp. 1899.
J. Walter Bean, M.D. . . . .	Term exp. 1901.
William P. Clark . . . . .	Term exp. 1902.
Alvin R. Reed, <i>Clerk</i> .	

**Overseers of the Poor.**

Calvin H. Clark, <i>Chairman</i> . . . . .	Term exp. 1899.
John Crowley . . . . .	Term exp. 1900.
William C. Craig . . . . .	Term exp. 1901.
Edward W. Hayes, <i>Clerk</i> .	

**Park Commissioners.**

Benjamin C. Leonard, <i>Chairman</i> . . . . .	Term exp. 1902.
Charles H. Loomis . . . . .	Term exp. 1898.
Rosewell B. Lawrence . . . . .	Term exp. 1899.
Walter F. Cushing . . . . .	Term exp. 1900.
Henry Dunster . . . . .	Term exp. 1901.
Alvin R. Reed, <i>Clerk</i> .	

**Commissioners of Sinking Funds.**

Samuel C. Lawrence, <i>Chairman</i> . . . . .	Term exp. 1899.
Benjamin C. Leonard . . . . .	Term exp. 1899.
Daniel W. Lawrence, <i>Treasurer</i> . . . . .	Term exp. 1900.
William Cushing Wait . . . . .	Term exp. 1900.
Edmund H. Pennell . . . . .	Term exp. 1901.
J. Gilman Waite, <i>Secretary</i> . . . . .	Term exp. 1901.

**Commissioners of Sewers.**

Charles H. Parker, <i>Chairman</i> . . . . .	Term exp. 1901.
James L. Work . . . . .	Term exp. 1899.
John William Rockwell . . . . .	Term exp. 1900.

**Water Commissioners.**

Frank E. Chandler, <i>Chairman</i>	. . .	Term exp. 1901.
Eli Ayers	. . . . .	Term exp. 1899.
Allston H. Evans	. . . . .	Term exp. 1900.
Fred L. Cushing, <i>Water Registrar.</i>		
Frederick W. Gow, <i>Superintendent.</i>		

**Trustees of Oak Grove Cemetery.**

John Hutchins, <i>Chairman</i>	. . .	Term exp. 1903.
Asa Law	. . . . .	Term exp. 1899.
Edward S. Randall	. . . . .	Term exp. 1900.
Edward C. Ellis	. . . . .	Term exp. 1901.
Barker B. Howard	. . . . .	Term exp. 1902.
Allston P. Joyce, <i>Clerk.</i>		

**Trustees of Public Library.**

Samuel C. Lawrence, <i>Chairman</i>	. . .	Term exp. 1899.
James A. Hervey	. . . . .	Term exp. 1901.
Henry C. DeLong	. . . . .	Term exp. 1900.

**Registrars of Voters.**

Henry B. Nottage, <i>Chairman</i>	Term exp. May 1, 1898.
Thomas Crockwell	Term exp. May 1, 1900.
<hr/>	Term exp. May 1, 1899.
Allston P. Joyce, <i>City Clerk, ex-officio.</i>	

**Engineers of Fire Department.**

Charles E. Bacon, <i>Chief.</i>
Jude C. Clark, <i>First Assistant.</i>
Frank O. Waterman, <i>Second Assistant.</i>

**Police.**

Emery D. Holmes, <i>Chief.</i>	William G. Ewell, <i>Sergeant.</i>
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## Meetings.

*Board of Aldermen.* Alternate Tuesdays at 7:45 o'clock P. M., beginning January 4.

*Common Council.* Alternate Mondays at 8 o'clock P. M., beginning January 10.

*School Committee.* Second and fourth Monday in each month, at the School Committee room, High School, Forest street, at 7:30 P. M.

*Water Commissioners.* Second and last Mondays of each month, at 7:30 o'clock P. M., at room 2, No. 13 High street.

*Trustees of Oak Grove Cemetery.* Second and fourth Mondays of each month at 8 o'clock P. M., at room 5, No. 13 High street.

*Overseers of the Poor.* Second and last Tuesdays of each month, at 7:30 o'clock P. M., at room 9, No. 13 High street.

*Board of Health.* Last Monday of each month at 8 o'clock P. M., at room 6, No. 13 High street.

*Park Commissioners.* Last Thursday of each month at 7:30 o'clock P. M., at room 5, No. 13 High street.

*Commissioners of Sewers.* Last Monday of each month at 7:30 o'clock P. M., at No. 7 High street.

## SALARIES OF CITY OFFICERS,

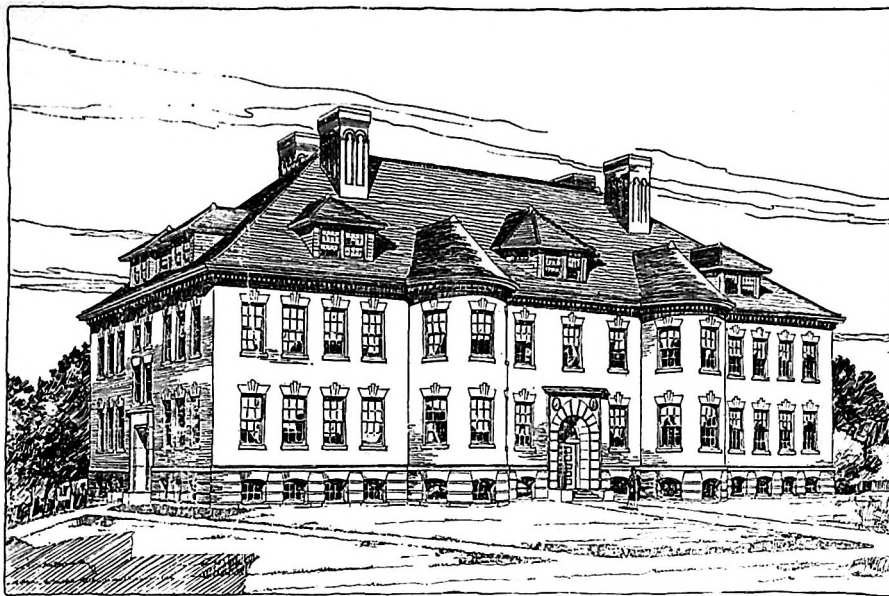
AS ESTABLISHED BY ORDINANCE PASSED DECEMBER 31, 1897.

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Mayor . . . . .	\$1,000
Clerk of the Mayor . . . . .	700
City Treasurer . . . . .	1,650
City Clerk . . . . .	1,500
City Auditor . . . . .	1,200
City Solicitor . . . . .	800
City Collector . . . . .	1,350
City Physician . . . . .	300
Assessors, each . . . . .	650
Clerk of Assessors . . . . .	400
City Messenger and Janitor of City Hall . . . . .	1,000
Clerk of Committees . . . . .	450
Clerk of Common Council . . . . .	250
Registrars of Voters, each . . . . .	100
Clerk of Registrars . . . . .	125
Treasurer of Sinking Funds . . . . .	50
Public Weigher . . . . .	25
Pound Keeper . . . . .	25
Fish Committee, each . . . . .	10
Inspector of Wires . . . . .	200
Inspector of Buildings . . . . .	700
Inspector of Plumbing . . . . .	1,000
Inspector of Animals and Provisions . . . . .	200
Inspector of Milk and Vinegar . . . . .	100
Sealer of Weights and Measures . . . . .	150
Secretary of Commissioners of Sinking Funds . . . . .	50
City Engineer . . . . .	2,400
Overseers of the Poor, each . . . . .	50
Chairman of Overseers of Poor . . . . .	500

Secretary of Overseers of Poor . . . . .	150
Water Commissioners, each . . . . .	50
Commissioners of Sewers . . . . .	50
Trustees of Oak Grove Cemetery, each . . . . .	25
Chief of Police and Superintendent of Street Lights	1,200
Sergeant of Police . . . . .	1,000
Patrolmen, each . . . . .	900
Street Commissioner . . . . .	1,600
School Committee, each . . . . .	50
Secretary of School Committee . . . . .	200
Board of Health, each . . . . .	50
Chief Engineer and Superintendent of Fire Alarm	900
Assistant Engineers, each . . . . .	150
Drivers, each . . . . .	800
Engineer steam fire engine and Assistant Superintendent of fire alarm . . . . .	900
Engineer and driver of chemical engines, each . . . . .	850
Firemen, each . . . . .	98
Clerk of Engineers . . . . .	50

MEDFORD HISTORICAL SOCIETY.  
*ac. 2365.*



*Wales & Holt, Architects.*

**BROOKS SCHOOLHOUSE.**

1000

MEDFORD HISTORICAL SOCIETY.  
*no. 2365*

CITY OF MEDFORD.

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REPORT

OF THE

SCHOOL COMMITTEE

FOR THE

YEAR ENDING JANUARY 31, 1898.



## SCHOOL COMMITTEE.

1898.

ROSEWELL B. LAWRENCE, <i>Chairman</i>	15 Salem street.
CHARLES N. JONES, <i>Clerk</i>	352 Salem street.
WILLIAM C. WAIT	194 Forest street.
SIDNEY GLEASON	375 High street.
AMANDA H. PLUMMER (Mrs.)	36 Lawrence street.
GUSTAVUS F. GUILD	31 College avenue.
WILLIAM H. HODGMAN	53 Wareham street.
GEORGE E. DAVENPORT	67 Valley street.
WILLIAM H. COUCH	104 Jerome street.

CHARLES H. MORSS, *Superintendent*, 3 Boylston terrace.

OFFICE HOURS 4 to 5 P. M. Mondays and Tuesdays, 12 to 1 P. M. Thursdays and Fridays (school days). Office, High School Building. Telephone Call, "Medford, 32."

### SUB-COMMITTEES.

High School	Mr. Lawrence
Washington and Curtis	Mr. Jones.
Brooks and Gleason	Mr. Gleason.
Cradock and Centre	Mr. Guild.
Lincoln and Tufts	Mr. Hodgman.
Osgood and James	Mrs. Plummer.
Everett and Swan	Mr. Davenport.
Cummings and Hillside	Mr. Wait.
Hall and Hervey	Mr. Couch.

### STANDING COMMITTEES.

Appropriations,	Mr. Lawrence, Mr. Jones, Mr. Gleason, Mr. Wait.
Rules and Regulations	Mr. Lawrence, Mr. Jones, Mr. Wait.
Course of Study	Mr. Lawrence, Mr. Guild.
Fuel and Accounts	Mr. Jones, Mr. Davenport.
Text-Books and Supplies	Mr. Lawrence, Mr. Jones.
Evening School	Mr. Davenport, Mrs. Plummer, Mr. Jones.
Music	Mr. Wait, Mr. Gleason; Mr. Couch.
Drawing	Mr. Gleason, Mr. Hodgman, Mr. Couch.
Penmanship	Mr. Hodgman, Mr. Davenport.
Kindergarten,	Mr. Guild, Mrs. Plummer, Mr. Couch, Mr. Hodgman.
Manual Training	Mr. Lawrence, Mr. Guild, Mrs. Plummer.

The Superintendent is a member of all standing committees.

REPORT  
OF THE  
SCHOOL COMMITTEE.

---

CITY OF MEDFORD, January 24, 1898.

*To his Honor, Lewis H. Lovering, Mayor:*

SIR:— In accordance with the report presented a year ago, the School Committee, in June last, recommended the erection of a twelve-room brick schoolhouse upon the Brooks school lot in West Medford. The Board selected as architects, Wales & Holt, of Boston, who had served the city efficiently in planning the Hillside school, and in repairing several old buildings. With directions from the Board as to general plan of the building and the materials to be used, the architects prepared working drawings and specifications upon which estimates by reliable contractors were obtained. The total estimated cost was \$80,700. Although the Board believed that this amount was too large and that competition would reduce the cost, yet it seemed only fair to the City Council that the original estimates should be presented. After much discussion an appropriation of \$65,000 was made for "the erection and completion of a twelve-room brick schoolhouse upon the Brooks School lot at West Medford, in accordance with plans and estimates as submitted by the School Committee." This made it impossible for the School Committee to reduce the cost by any material alterations in the plans. The Mayor, however, proceeded to let the contracts, and, owing to the influence of competition, was able to let them all within the amount of the appropriation. It is needless to say that the School Committee were highly gratified at the favorable solution of a serious and important

problem. We feel assured that the city will obtain a commodious, substantial and creditable building at a very reasonable cost.

The illustration which accompanies the report shows the general design of the building. The material is waterstruck brick with limestone trimmings, and the interior partitions are of brick and iron. The main entrance is in the centre of the front, facing High Street. There are also entrances at the ends, facing Allston and Auburn Streets, and two basement entrances in the rear. On one side of the main entrance is the principal's office, and on the other a teacher's room. The spaces corresponding to the two bays are occupied on both floors by the wardrobes, special ventilation for which has been provided. There are six classrooms, 28 x 32 feet, on each floor, four having a southern exposure. Over the main entrance are a library and a teacher's room. On the third floor, in the centre of the building, is an assembly hall, 65 x 70 feet, capable of seating the 600 scholars which the classrooms are designed to accommodate. On this floor at the four corners, are also spaces which in the distant future may be used as recitation rooms or laboratories. The sanitariums for the scholars are in the basement, where are also the boilers and rooms for bicycle storage. The interior finish is in ash and the blackboards are slate. The heating and ventilation, the indirect gravity system with supplementary coils in the classrooms, have been planned by Prof. H. S. Woodbridge, of the Massachusetts Institute of Technology. The Mayor let the contracts as follows: the main contract to Gooch and Pray, for \$49,874.00; the steam fitting to Braman, Dow & Co., for \$5,860.73; the plumbing to Page & Curtin, for \$2,300.00; the wiring to James E. Potter, for \$970.00. The cost of moving and temporarily fixing the old building has been \$1,250.00, and the iron stairs will cost \$1,170.00. A small balance, after allowing usual commissions, will be left, but an additional appropriation, as was understood in the beginning, will be needed for grading and furnishing. The cellar walls have already been laid and

covered for the winter, and the contract calls for the completion of the building December 1, 1898.

The report of the School Committee seems to offer a suitable opportunity for a few words concerning the effort now being made to have the city charter amended, so as to take from the School Committee and give to the City Council "the power and authority to select and purchase lands for school purposes, to determine the plans of all buildings to be erected, to order all additions, alterations and repairs to school buildings, etc." Those who argue in favor of the change seem to forget, if they ever knew, that this "power" in the School Committee is subject to the approval of the Mayor, and also to the appropriating power of the City Council, and that, since funds for such purposes must usually be borrowed, a two-thirds vote of each branch of the City Council becomes necessary. What more effective check could there be upon possible extravagance of the School Board, and why should not the City Council itself be charged with extravagance in passing a measure which requires the support of two-thirds of each branch? The School Committee have nothing to do with the *construction* of new buildings except to see that the plans adopted are carried out. It is according to the most enlightened opinion of students of modern municipal government that no Board is so competent to select the sites of new schoolhouses and determine plans as the School Committee. It is their duty to study the school needs of the community and to see that modern improvements are provided for, and the statutory requirements fulfilled.

During the last few years it has been the policy of the Committee in planning new buildings to study the needs, not merely of the present, but of the future. Hence a large High School building was erected in which are accommodated, beside the High School classes, nearly two hundred pupils of the ninth grade, for whom there is at present no room in the Grammar Schools. The new Brooks School also will be large enough to provide for some years of future

growth. This policy, unfortunately, was not adopted when the Lincoln school was erected in 1894, and we therefore find the building outgrown in less than three years. The hall is now being used as a schoolroom, and all the rooms, together with those in the Tufts, are occupied by large classes. The Committee have been unable to find stores or dwellings suitable for overflow schools. Another new building in South Medford, so soon after the Lincoln, appears to be out of the question, until the pressing needs of the eastern part of the city are met. The Committee therefore renew their recommendation of last year, that the Tufts be enlarged by building out the four gable ends, thus making eight rooms out of the present four, and further, that this be done during the summer vacation. It should be added that the furnaces in the Tufts are worn out, and the present ventilation is not up to the present requirements of the State Inspectors.

The overflow of pupils in the east district is so great that a class has been placed in the hall of the Washington, and two stores have been hired on Dudley and Spring Streets. It is time, therefore, to erect a new building on the Central Avenue lot, and the School Committee recommend that a brick grammar school building be erected in the present year, similar in size to the Lincoln School, but so planned and constructed that it may be enlarged when future needs shall require.

Under the power, given by Chapter 313 of Act of 1886, the School Committee, in May last, voted to make the tenure of the school teachers permanent. This provision takes effect for all "who have served as teachers in the public schools of Medford for a period of not less than one year." We believe this to be a wise measure, conducive of better work and continued loyalty on the part of the teachers. The Statutes and the decisions of the Supreme Court give the School Committee "the power to fix the compensation of the teachers." Certainly the financial condition of the city, and the burden of the taxpayer should be considered,

but the efficiency of the schools is of vital importance, and the competition of neighboring municipalities must be met. It has accordingly seemed wise, and appropriate action has already been taken, to restore the maximum salary of teachers in the first eight grades to \$600, the amount paid in 1875 and previous years. This action places our salaries on a level with those of Malden, Somerville, Chelsea, Salem, Watertown and New Bedford, but they are still below those of Cambridge, Brookline, Newton and Boston. Grammar and primary teachers in Boston receive a maximum of \$936, while teachers of similar grades in Medford receive \$600.

During the past two or three years, instruction in cooking has been seriously considered, the Committee believing that its educational, as well as its practical value would be great. Chapter 320 of the Acts of 1894 provides "that use of tools and the art of cooking shall be taught, by lectures or otherwise, in all public schools in which the School Committee deem it expedient." Although the decision thus rests with the Committee, it has not seemed wise to spend public money for such instruction without the approval of the City Council or the evident support of public opinion. Cooking, however, has been introduced, but without cost to the city. Lessons are given to about eighty girls of the ninth grade, one lesson of two hours and a half each week. Mr. James W. Tufts generously contributed the tables and utensils; the Magee Furnace Company presented the range; Abram French & Company the dinner set, and a number of interested citizens have subscribed money for the salary of the teacher. The work having been commenced, it is practicable to continue it at an expense of \$400 per year, and as great interest has been manifested by the girls, their mothers and other citizens, the School Committee believe that its continuance would meet with public approval.

March 12, 1897, the Medford Education Society was formed, and subsequently Rosewell B. Lawrence was elected President, and Martha C. Wilcox Secretary and Treasurer. Through the courtesy of the School Board the use of the



assembly hall in the High School building has been granted for the meetings, and several prominent speakers have addressed the society on subjects of vital interest to public education. The object of the society is to promote a broader knowledge of the science of education, a better understanding of methods now employed, and a closer sympathy and co-operation between the home and the school.

### APPROPRIATIONS.

The following appropriations are recommended for the year, beginning February 1, 1898:

Salaries . . . . .	\$65,825 00
Stewardship . . . . .	6,600 00
Fuel . . . . .	6,400 00
Water . . . . .	800 00
Text-books and supplies . . . . .	7,000 00
Contingent . . . . .	7,000 00
Evening School . . . . .	1,200 00
Transportation . . . . .	600 00
Salaries of School Committee and Secretary . . . . .	650 00
Special repairs . . . . .	1,000 00
	<hr/>
	\$97,075 00

Respectfully submitted,

ROSEWELL B. LAWRENCE.  
 CHARLES N. JONES.  
 AMANDA H. PLUMMER.  
 SIDNEY GLEASON.  
 GUSTAVUS F. GUILD.  
 WILLIAM H. HODGMAN.  
 GEORGE E. DAVENPORT.  
 WILLIAM C. WAIT.  
 WILLIAM H. COUCH.

## REPORT OF THE SUPERINTENDENT OF SCHOOLS.

—

*To the School Committee of the City of Medford:*

The following annual report of the Superintendent is respectfully submitted for your consideration :

### I. POPULATION.

1897, Assessors' census . . . . .	15,601
Number of pupils, May census, 1897, 5 to 15 years of age . . . . .	2,678
Number of pupils, May census, 1896, 5 to 15 years of age . . . . .	2,524
Increase . . . . .	154

### II. SCHOOLS.

High school . . . . .	1
Grammar schools, Grades IV-VIII. . . . .	32
Primary, Grades I-III. . . . .	23
Kindergartens . . . . .	4
Total . . . . .	60

### III. SCHOOLHOUSES.

High . . . . .	1
Grammar . . . . .	3
Grammar and primary . . . . .	9
Primary (1 rented) . . . . .	5
Kindergarten (rented) . . . . .	2
	20

## IV. TEACHERS.

Number of teachers in high school, grades X- XIII (male 5, female 11) . . . . .	14
Number of teachers in high school, grade IX (male 2, female 4) . . . . .	6
Grammar schools (masters 4, assistants VI- VIII, 18) . . . . .	22
Grammar, grades IV and V . . . . .	11
Primary, grades I, II and III . . . . .	23
Kindergarten . . . . .	8
<hr/>	
Total regular teachers . . . . .	84

Increase of 11.

Special teachers: Music, 1; drawing, 2; sew- ing, 2; manual training, 2; military in- structor, 1 . . . . .	8
Evening schools . . . . .	6
<hr/>	
Total . . . . .	98

## V. PUPILS.

Number enrolled, 1897 . . . . .	3,666
Number enrolled, 1896 . . . . .	3,319
Increased enrolment . . . . .	347
Average number belonging, 1897 . . . . .	2,801.5
Average number belonging, 1896 . . . . .	2,650.8
Increase . . . . .	150.7
Average daily attendance, 1897 . . . . .	2,616.4
Average daily attendance, 1896 . . . . .	2,454.5
Increase . . . . .	161.9
Number half days' truancy, 1897 . . . . .	155
Number half days' truancy, 1896 . . . . .	225
Number different truants, 1897 . . . . .	59
Number different truants, 1896 . . . . .	75
Number habitual truants, 1897 . . . . .	9

The enumeration made last spring gives 2,678 children between the ages of 5 and 15 years, an increase of 154 over the census of 1896. In addition to this number there were found to be 53 children in the schools who, in some way, were overlooked in the Census list, which really makes our increase in enumeration 207, a number more nearly corresponding to the increase of children actually in school.

That we may have before us, for convenient consultation, a means of knowing the rate of growth, the statistics for the last ten years are given in the following table:

	Enrolment.	Average Number.	Average Attendance.
1897	3,666	2,802	2,651
1896	3,319	2,651	2,455
1895	3,241	2,557	2,392
1894	2,913	2,390	2,249
1893	2,717	2,148	2,007
1892	2,583	2,066	1,930
1891	2,428	1,898	1,773
1890	2,299	1,849	1,732
1889	2,186	1,693	1,575
1888	1,838	1,556	1,455

The average number belonging, and the average attendance for the year give us a basis for comparison with previous years, but they do not represent the conditions existing at the present time. The great increase comes with the opening of the fall term, then there is a gradual growth from October to June. The actual number of pupils for December, 1897, was 3,038; for December, 1896, 2,842, an increase of 196. For the same month, the year 1896 showed a gain of 197 over 1895. The total enrolment shows an increase in the number of different pupils, that have been in the schools during the year, of 347. This means that there has been a larger number graduated from school, as well as a larger number of new pupils entering.

There are only a few school-rooms in the city that can receive additions to their present numbers without greatly overcrowding. These few rooms are in the Cummings,

Hillside and Osgood buildings. Any considerable increase in the other schools must be met by opening more rooms, and therefore by employing more teachers. The indications are that one more teacher will be needed at West Medford, one at the Centre, and one at South Medford. The increase in the eastern section will have to be accommodated by transfer to the Centre. When the new Brooks building is completed, those now attending the Centre but belonging to West Medford, can give place to others from the Washington, in this way affording some relief to that crowded district. But in view of the fact that at least a year to a year and a half must elapse between the first conferences on plans and the completion of a building ready for occupancy, I would suggest the expediency of taking up at once the consideration of plans for a new building on the Central Avenue lot, and also the consideration of additional accommodations at South Medford. The Lincoln and Tufts schools both need immediate relief.

Our lack of room for overflow classes results in a very unsatisfactory grading, and also a confusion of grades which is still further increased by the large number of small buildings. In several rooms we are obliged to have a very unequal division of classes, for instance, forty children of grade four are associated with ten of grade five. Such a division is prodigal of time and energy. Forty, as a single division, are too many for a recitation, while the presence of the ten of the fifth grade prevents a division of the forty, because such a division would multiply classes beyond the limit of profitable instruction. We have been obliged to make this unequal division of grades in many schools in the city because of the impossibility of opening other rooms. With from thirty to forty pupils of a single grade, it is very poor economy to place ten or fifteen more of another grade to make up a school of forty-five. There are fourteen rooms in the city that suffer from this unequal division. In rooms of a single grade there are always two divisions, so that the slow and the quick need not be hampered; the one

by the other, but in rooms where there are two grades, as we have said, such division is unwise, and the pupils suffer accordingly.

Our grades are now arranged with intervals of one year between them. It often happens that some pupils at the June promotions are pushed forward to the grade above, because the teachers feel that it would be as much of an injury to keep them back one whole year as it is to put them ahead, even though they are not qualified for the higher work. With only one grade in the rooms it would be possible to divide these into grades only a half year apart, and make promotions semi-annually, but when there are two and sometimes more years of work represented in one room it is evident that the difficulties are increased. It would be unwise for the children to change teachers semi-annually, and, indeed, if we could make it possible for the children to be with one teacher for two years we should strengthen the work greatly, for a teacher becoming well acquainted with her pupils during the year, understands their needs, and therefore is of greater service to them a second year than a new teacher who must learn their habits, their strength and their weakness.

The table following, which gives the number of children in each grade for the last nine years, shows how much the classes we now have to handle have increased in size.

## NUMBER OF CHILDREN BY GRADES IN SEPTEMBER, 1889-1897.

Grade.	1889	1890	1891	1892	1893	1894	1895	1896	1897
Kindergarten						35	105	118	183
I.	298	284	270	341	311	344	418	403	421
II.	176	193	207	206	217	250	277	333	340
III.	185	215	227	247	219	202	254	258	275
IV.	212	192	238	247	271	280	259	269	292
V.	203	205	191	191	216	266	285	244	266
VI.	193	188	179	188	191	207	214	239	235
VII.	193	184	180	206	169	180	200	226	257
VIII.	138	173	175	184	206	187	195	202	209
IX.	89	148	156	150	177	207	160	169	192
X.	57	49	107	103	116	126	150	134	112
XI.	32	57	36	66	70	81	90	105	102
XII.	30	41	42	28	48	68	56	70	75
XIII.	16	9	18	26	8	21	24	34	35
Post-Graduate	7	3	4	1	4	7	6	4	1

## HOME CO-OPERATION.

While the school is responsible for much in the building of character, the flaws in those who leave our instruction are not all to be attributed to the school's lack of strength or of influence. Parents are not wholly blameless when a boy or a girl develops undesirable traits, which become fixed in character. There is one evil influence, which strangely enough many parents do not recognize, that the schools find it hard to counteract, and that is the influence of the streets, especially in the evening. I feel that more harm results to our children from the habit of allowing them to be on the streets in the evening, whether they are playing or lounging about, than from any other influence. Most of those who give trouble in school will be found among those who do not spend their evenings at home. This carelessness of parents is not confined to those in the humbler walks of life, or to those whose poverty prevents making home attractive, but it pervades all classes. The children whom the truant officer has to look up are generally found to spend their evenings, up to nine o'clock, elsewhere than in their own homes. With young children at active play in the early evening many feel that there can little harm come morally, but, as the children grow older, these simple plays cease to attract; we find them wandering farther away, and their plays becoming less innocent, till suddenly the parent awakens to the sad fact that his boy is a common street "loafer." Several parents, with whom I have been obliged to confer on this subject, have acknowledged their inability to keep their boys at home in the evening. Laws similar to the curfew laws that are enforced in Denver, Omaha and several other western cities, that forbid children under the age of fifteen years to be on the street after eight o'clock in the winter, and nine o'clock in the summer, would do much toward remedying this evil, and would prevent many of the youths of today from developing into criminals. But even without this law, parents could, if they would only see the necessity, help their children to build nobler characters for themselves, by seeing



to it that the education of the street did not have a chance to counteract the influence of the schools.

The multiplication of boys' clubs and other organizations holding evening meetings is an injury to the children by preventing quiet evenings at home, by increasing the nervous tension and by taking time that should be given to sleep.

#### TEACHERS.

There have been eight resignations of regular teachers, besides six temporary teachers who have served us from one to five months. Nineteen new teachers have been appointed, eight to the vacancies, two on account of opening a new kindergarten and nine additional teachers, the number estimated in our last report. The list of changes is given below:—

#### *Resignations.*

Helen L. Burr,	High,	February 19.
Amy W. Watkins,	Gleason,	March 15.
Eugene Averell,	High,	June 30.
Susan L. Cushman,	High,	June 30.
Mabel L. Thayer,	Brooks,	June 30.
Laura W. Davenport,	Curtis,	June 30.
Caroline Lowe,	Cummings,	June 30.
P. T. Campbell,	High,	October 1.

#### *Transfers.*

Alice L. Bryan,	{ W. Kindergarten to Dudley St. Kinder. }	{ April 12.
Bertha C. Brown,	James to Wash.,	June 30.
Helen G. Cutter,	Tufts to Lincoln,	June 30.
Elizabeth A. Lufkin,	Hall to Cummings,	June 30.
Isabelle A. Nauss,	Cradock to Centre,	June 30.

*Temporary Assistants.*

Sarah P. Williams,	High,	{ February 23 to April 2.
Laura B. Drake,	High,	{ April 12 to June 1.
Russell T. Greene, Jr.,	High,	{ June 1 to June 30.
Mary A. Hogan (Mrs.),	{ Lincoln, Brooks,	{ February 3 to June 30. September 1 to October 1.
Mary F. Duncan,	Brooks,	{ October 1 to November 5.
Mary B. Smith,	Brooks,	{ November 8 to Nov. 22.

*Leave of Absence.*

Henry B. Doland,	Lincoln,	{ February 3 to June 30.
Elizabeth A. Lufkin,	Cummings,	{ Sep. 1, '97 to June 30, '98.

*Appointments.*

Sarah M. Smith,	Gleason,	March 15.
Marion Stanwood,	West Kindergarten,	April 12.
Lillian S. Knight,	Dudley St. Kind'n,	May 1.
Charles S. Downes,	High,	June 1.
Nina E. Church,	High,	September 1.
Ambrose C. Dearborn,	High,	September 1.
George L. Jones,	High,	September 1.
Mary B. Lippincott,	High,	September 1.
Laura P. Patten,	High,	September 1.
Mary K. Tibbits,	High,	September 1.
Nellie M. Baker,	James,	September 1.
M. Agnes Firmin (Mrs.),	Curtis,	September 1.
Helen A. Mitchell,	Cradock,	September 1.
Annie W. Hubbard,	Cummings,	September 1.
Eliza M. Maxwell,	Cummings,	September 1.
Elizabeth Watt,	Hall,	September 1.
Frank S. Gilkey,	High,	October 1.
Mary I. Phemister,	James (annex),	October 1.
Katherine M. Soule,	Brooks,	December 1.

The adoption of the provisions of the Tenure of Office Act, Chapter 313, Laws of 1886, will undoubtedly tend to place the teaching force on a more permanent basis. According to the amendment to the Standing Rules of the Committee, Chapter V, Section 1 now reads, "At the meeting of the Board on the fourth Monday in May, an election, by ballot, of teachers in day schools and of janitors shall take place; and appointments thus made shall hold during the pleasure of the Committee, provided that the person so appointed shall have served as a teacher in the public schools of Medford for a period of not less than one year." At the same meeting that this rule was adopted, the following resolution was also unanimously adopted:—

*Resolved*, That it be the future policy of the School Committee that when teachers are elected to fill positions, their tenure of office shall be considered permanent as long as there be mutual agreement between teachers and committee; teachers being subject to dismissal only for reasonable cause, and they guaranteeing that they will not resign within the school year (unless through absolute necessity) and that they will give as early notice as possible of their intention at any time to resign."

#### KINDERGARTENS.

That these schools, now numbering four with eight teachers, are accomplishing a very valuable work, is very clearly shown in the primary schools that have the good fortune to receive pupils with this training. If these schools could be established in connection with every first grade the whole school system would be greatly strengthened. At present, with our inadequate accommodations, this is not possible, but the time is near at hand when these conditions will not afford us the excuse. The financial problems which the city has to meet will undoubtedly postpone the general establishment of these schools for several years. But will it not be possible at once, by making other arrangements, to extend this part of our system to some districts not now favored? By

changing somewhat the organization of the four schools already established, it would be possible to double our number without greatly increasing the expense. All four kindergartens have two classes, one for advanced pupils and the other for beginners, the latter being in charge of the assistant. By making the hours of the session the same as for the first grade primary, three hours in the morning and two in the afternoon, we could have the advanced pupils for the same time we now do, and the beginners for the two hours in the afternoon, thus obviating the necessity of employing assistants; so that instead of four kindergartens employing eight teachers, we might have eight such schools with one teacher each. Such an arrangement might solve the difficulty for us at present, and enable us to establish new kindergartens as fast as accommodations can be provided.

#### HIGH SCHOOL AND GRADE IX.

In my last report, attention was called to the fact that this school needed additional teaching force adequately to accomplish its work. These having been supplied, we have been able, since the opening of the fall term, to see the beneficial results that were sure to follow, both in the better work done by the pupils in their studies, and in their more manly and womanly bearing throughout. This is brought about by the more intimate contact between teachers and pupils, a relation that is impossible with an insufficient corps. Were the aim of the school instruction only, this might be reached with a smaller force; but all recognize that our schools have a higher purpose. The development of a nobler character is the aim of every department of instruction, the acquirement of knowledge being incidental merely to this broader end. To teach self-reliance, the steady pursuit of a noble purpose, to give our pupils the power and the desire to go on to higher phases of thought and action when they leave our schools, these are of far more value than the power to recall the facts of history, of science, or of any subject

studied. "The one and the whole work of education," said Herbert, "may be summed up in the concept—Morality."

The number of pupils has increased from five hundred sixteen, the number one year ago, to five hundred thirty-eight, a gain of thirty-two for the year. The growth has been wholly within the ninth grade, as grades ten to thirteen contain three hundred forty-six pupils, while last year the number in these grades was three hundred forty-seven. The reason that these grades did not increase in the same proportion as in previous years is due doubtless to the decision that it was for the best interests of the school that pupils who could, but would not work, should not be promoted with their classes, but if they wished to continue in the school, they must repeat the work of the last year which they had done so imperfectly. This decision resulted in a number of withdrawals which greatly benefited the school. Boys and girls from fourteen to eighteen years of age, who have not any ambition to do good work in school, are better employed in some gainful occupation, and in accordance with this, we have recommended to several parents that their children would spend their time more profitably at some manual work. The increasing opportunity to secure employment for boys has also had its effect in withdrawing several more pupils.

To show the growth of the different grades in this school, the following table giving the statistics for ten years is inserted.

	XIII.	XII.	XI.	X.	IX.
1897 . . .	35	78	107	126	192
1896 . . .	34	70	105	134	169
1895 . . .	24	56	90	150	160
1894 . . .	21	68	81	126	207
1893 . . .	8	48	70	116	177
1892 . . .	26	28	66	103	150
1891 . . .	18	42	36	107	156
1890 . . .	9	41	57	49	148
1889 . . .	16	30	32	57	89
1888 . . .	0	29	37	41	0

The distribution of pupils in our five courses of study is shown in the following table :

	Classical.	Technology.	Latin-Scientific.	Modern Language.	English.
XIII.	13	1	12	9	0
XII.	14	6	19	22	17
XI.	23	11	13	25	35
X.	12	16	26	46	26
Totals	62	34	70	102	78
Classical	.	.	.	.	18 per cent.
Technology	.	.	.	.	10 "
Latin-Scientific	.	.	.	.	20 "
Modern Language	.	.	.	.	29 "
English	.	.	.	.	23 "

It will be seen from these figures that the Modern Language course is the popular one, containing twenty-nine per cent of the school, whereas last year it enrolled twenty-four per cent. The Technology course has also gained in numbers, while the English, the Latin-Scientific and the Classical courses have lost.

The library of the school is of increasing value as the methods of laboratory work in history and literature come into more general use. Just here is one of the great needs of the building,—an increase in the equipment of the library. There are at present 776 bound volumes and 138 pamphlets, a total of 914. The average daily attendance in the library during school hours is sixty pupils. At the close of school hours pupils are allowed to take books home for use in the preparation of lessons, and this privilege we find is largely used. With only nine hundred fourteen volumes in the library, our circulation last year was over eight thousand, or an average of a little over eight hundred a month. With a larger library this use of books would be greatly increased.

Through the kindness of the Librarian of the Public Library, we have the privilege of keeping at the school

while needed a number of volumes. These are not included in the statement of our circulation.

Next June the last class in the three years' course of study will be graduated, and hereafter four years of work are required for a diploma. This seems to me a favorable time to bring forward for consideration another matter in connection with the administration of the course of study. I refer to further extension of the elective idea. At present we require the choice to be made between five courses on entrance, and then give a small amount of freedom thereafter. If, at the end of a year or two years, a parent wishes to have his child change to another course, it is always difficult and inconvenient to bring it about, for there are subjects to be made up, and various difficulties to be met in fitting the pupil for the new course. The parent should have a considerable voice in his child's education, and he is no more likely to make unwise choice when he has the opportunity to select the subjects yearly, than when, at the beginning of the course, he is asked to select one of five parallel courses.

Another reason for giving greater freedom in selection is that under the present arrangement pupils are obliged to study subjects for which they have no aptitude, and the result is poor work on their part, and on the part of the teacher discouragement from the vain effort to force an understanding and an appreciation where these are impossible. The training such a pupil gets in a distasteful subject is an immoral one, he learns to shirk a duty, if he is not trained to direct dishonesty. Then there are pupils of slow mental habit who could perhaps do well in two subjects, but who are incapable of carrying more. These ought to receive our consideration, and are entitled to it. At present, we try to carry them through the whole course at the same speed and in the same time with their quick, bright companions. Many of this class leave school in utter discouragement. There are also those who are of delicate constitution, whose health is good enough to allow some work, but

not so much as is required in any one year of our course. They are not invalids, but the attempt to do all the work of the course in four years is likely to make them so. There is a provision in the rules of the school as follows:—  
“ Pupils who are unable to take a full course may, upon application of parent or guardian, take a partial course of not less than ten prepared exercises a week.” The number of parents who apply for this privilege is small. There is quite a different feeling in asking permission to *drop* one or two studies, and in deciding as a right what studies one will *take*. Putting the choice on this last basis seems to me to bring the parent closer to the school, and wins his interest. The old New England academies filled a large place in the communities where they existed, and our high schools, their successors, ought to fill an equal place, and be the object of the patronage and cordial support of the people. A pupil entered one of these earlier institutions and took two, three or more subjects as he chose, and he was expected to take only so many as he could do well. It is far better for a boy or girl to do good work in two subjects, than poor work in four. In the one case he is trained in the habit of accuracy and thoroughness, in the other to inaccuracy and carelessness. The one habit is a blessing throughout life, the other a great hindrance.

I submit a tabulation of the subjects at present taught in our school but arranged as an elective course. English should be required of all students no matter what lines of work they pursue, and if the method of teaching Latin is the best in the college course it ought to be the method used for all others taking this subject. There should be no distinction in the quality of work required between those having different destinations. Good work should be expected and required of all. The choice of studies by those going to college, technical and normal schools is, of course, made by the authorities of these schools, and pupils who intend to enter higher institutions must be guided by the requirements of the school for which they are preparing.



A SUGGESTED RE-ARRANGEMENT OF STUDIES  
TAUGHT IN THE HIGH SCHOOL.

GRADE.	REQUIRED STUDIES.	School Periods a Week.	Relative Value.
X	English . . . . .	4	4
	Music . . . . .	1	
	Gymnastics and Military Drill . . . . .	1	
XI	English . . . . .	4	4
	Music . . . . .	1	
	Gymnastics and Military Drill . . . . .	1	
XII	English . . . . .	4	4
	Music . . . . .	1	
	Gymnastics and Military Drill . . . . .	1	
XIII	English . . . . .	4	4
	Music . . . . .	1	
	Gymnastics and Military Drill . . . . .	1	

	Length of Course in Years.	School Periods a Week.	Grade of first Election.	Relative Value.
Latin . . . . .	5	4	9	4
Greek . . . . .	3	4	11	4
French . . . . .	4	4	10	4
German . . . . .	4	4	10	4
Botany . . . . .	1	*3(6)	10	3
Zoölogy . . . . .	1	*3(6)	11	3
Biology . . . . .	1	*2(4)	12	2
Physiology . . . . .	1	2	10	2
Physics, Elementary . . . . .	1	*3(6)	10	3
"    Advanced . . . . .	1	*4(8)	12	4
Chemistry, Elementary . . . . .	1	*8(8)	11	4
"    Advanced . . . . .	1	*3(6)	12	3
Geology . . . . .	1	*3(6)	12	3
Astronomy . . . . .	1	2	12	2
History, England . . . . .	1	3	10	3
"    Greek . . . . .	1	3	11	3
"    Roman . . . . .	1	3	10	3
"    Med. and Mod. . . . .	1	4	11	4
"    United States . . . . .	1	3	12	3
Bookkeeping and Com. Arithmetic . . . . .	1	2	11	2
Algebra . . . . .	1	4	10	4
Algebra, Advanced . . . . .	1	2	12	2
Geometry . . . . .	1	4	11	4
Geometry, Advanced . . . . .	1	2	12	2
Trigonometry . . . . .	1	2	12	2
Stenography . . . . .	1	4	12	4
Manual Training . . . . .	2	*1(3)	10	1
Drawing . . . . .	4	*1(3)	10	1

\*In Laboratory work 2 periods are equivalent to 1 period of recitation and may be substituted for it.

It would also be necessary to adopt some measures regulating the number of courses necessary for a diploma, and to prevent unwise and wasteful election. The few restrictions necessary would in no wise hamper the judicious parent in selecting a suitable course for his child, but would simply serve as a restriction on the thoughtless and careless. A diploma should be given for the number of courses pursued rather than for the time spent in the school. Pupils should be required to select during the course for a diploma at least one year of mathematics, one year of science, two years of history, and when a foreign language is taken up it should be pursued for at least two years in order to be counted.

With a course administered on such a liberal plan, the needs of the community would be better met than by a prescribed course. Parents feel the great waste of energy that exists when children are compelled to study subjects for which they have neither fondness nor aptitude, and teachers know that this waste results in many withdrawals from school.

#### READING.

The development of reading has perhaps done more than any other one factor in the curriculum to improve the general intelligence of the work in all the schools. We not only must teach the mechanics of reading, but, if we do our whole duty, we must teach the children *what* to read as well as *how*. The mere ability to read amounts to but very little unless there goes with it some discrimination in the material chosen. The outline prepared for the guidance of teachers in developing reading and literature is an appendix to this report. In the primary grades, while the mechanics of reading are being acquired, the materials read by the children are of little literary merit, yet we have aimed to give them a wholesome class of literature in the works indicated to be read by the teacher to the class. This part of the instruction we consider very valuable, not only does the teacher's reading serve as a model of good expression, clear enunciation and

refined feeling, but it puts into the mind of the child noble thoughts, ideas of a higher class than he himself can take in from the printed page.

Beside this twofold division of the reading, the selections to be memorized have been carefully chosen. Children's memories are very active and retentive, and the school age seems to be the favoring time to store the mind with a goodly amount of choice literature that will be an inspiration to them through life. When the mind is well filled with good thoughts there is little room for evil to enter.

The first book read that may be called good literature is "Fables and Folk Stories," edited by Horace E. Scudder, which is used in the second grade; this, on account of its value, is read several times in order that the stories may make an impression, and, as a secondary but not an unimportant consideration, that the child's vocabulary may be enlarged. From this grade on through the entire course many of the authors read are studied, portions only being read at sight.

The course as given does not indicate all the reading the children do, for much supplementary material is given in connection with geography and history. In all our selections we have endeavored to give only those that will exert a strong influence for good, those that "purify the taste, elevate the character, make low pleasures unattractive, and carry the soul up into a region of noble aims and generous purposes."

#### TRAINING OF TEACHERS.

The importance of special training for the work of teaching and the need for provisions to secure such training is more and more emphasized each year. This is a tendency that will greatly enhance the value of our schools. The increase in the number of the State Normal Schools, and the establishment of courses for teachers in our colleges promises to place the teaching force upon a higher professional plane.

Harvard University has recently requested the privilege of sending some of its students in the pedagogical course to

our schools to observe our work and to teach for practice. The agreement entered into by the Committee, giving a plain statement of our relation to the University, is as follows :

“ By an agreement made between the City of Medford and Harvard University, a certain number of properly qualified students, not exceeding ten in any one year, from the courses in Education and Teaching, will be admitted to the schools in Medford, to teach for practice, under the general direction of the Superintendent of Schools of Medford, and Professor Hanus of Harvard University, and the special direction of the principals and teachers in the schools to which the students may be assigned.

It is understood that this agreement covers the cases of students in the courses in Education and Teaching in Radcliffe College.

The students entitled to avail themselves of this privilege will be selected by Professor Hanus, and in making the selection, preference will be given to graduate students without experience in teaching.

It is further agreed that as many Medford teachers shall be admitted without charge to a course in Harvard University or Radcliffe College as there are students teaching in the schools of Medford, as long as this agreement remains in force. The teachers who are entitled to avail themselves of this privilege will be appointed by the Superintendent of Schools in Medford. The course or courses to which these teachers may be admitted are either courses given during term time or in the Summer School.”

#### EVENING SCHOOL.

The statistics of this school for the present term are given in the report of the Principal which is appended. The school maintains its good reputation for vigorous, enthusiastic work which should win it as high a place in the interest of the people as any of our day schools.

It should be considered one of the important parts of the school system and not simply a compliance with the law. It is regarded in its proper light by those who know its usefulness; but its possibilities have not yet begun to be developed. A more extended course, allowing greater range of subjects to be selected would vastly enhance its usefulness. The elementary class which heretofore has been taught reading through the old method of using a graded reading book, has this year used a history instead, so that its pupils while acquiring the art of reading are also receiving some instruction in history. The work of this elementary class is of an unusually high order, and the teachers have felt the inspiration that comes from a responsive and hard-working class.

If an opportunity were offered for a course in history, American or general, such as our pupils in the High School enjoy, it seems to me that there would be a good patronage and a larger field of usefulness for the school. To realize the full benefit of this school we should offer additional advantages to those who patronize it, and make it more than a place for teaching the merest rudiments of reading, writing and arithmetic by giving an opportunity to those possessing these acquirements, to study along more advanced lines. There should be classes in connection with the school pursuing studies of higher grade, and there are doubtless many young men and women employed through the day in gainful occupations who would like to spend two hours, two or three evenings a week, in such study.

There is one serious difficulty we meet with in holding our sessions in the Washington School building. The desks and chairs are of a size suitable for children of grades six to eight, and during the day are used by children from eleven to thirteen years of age. Men and women find it somewhat uncomfortable to use them for two hours in the evening. We should provide the school as soon as possible with other accommodations. I would recommend that the first floor of the High School building be used for this purpose. The

rooms are wired for electric lighting, and the expense of making the change would be very little.

In conclusion I wish to express my thanks to the teachers for their hearty coöperation, and for the faithful and efficient manner in which they have carried out our plans for elevating the school work. Whatever good results to the children is reached through the earnest labors of the teaching force.

Respectfully submitted,

CHARLES H. MORSS,  
*Superintendent.*

Medford, Mass., January 24, 1898.

## REPORT OF THE EVENING SCHOOL.

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MEDFORD, MASS., January 27, 1898.

MR. C. H. MORSS, *Superintendent of Schools*:

DEAR SIR:— I beg to submit the following report of the condition of the Evening School. School opened Monday, October 18th, and up to this date, has been in session thirty-eight evenings. The total registered attendance shows 185, 110 boys and 75 girls. The average attendance for the four months has been a little short of 80; the largest number present, 107; the smallest number present, 43.

Six teachers were employed during the months of October, November and December, but the present number is five. The subjects taught are:—bookkeeping and kindred commercial branches; mechanical drawing, shorthand, and elementary English subjects. The attendance in the advanced commercial class has been more regular than in any class in the school, the average attendance showing about 75 per cent of the present enrolment. The elementary commercial class, after two months, completely disappeared. I have tried to find out what became of them but have had little success in bringing them back to school. The elementary English class shows up much better than last year, and I attribute it largely to the earnest work and excellent teaching of Mrs. Reidy, who has charge of that department this year. In no school does good teaching count for more than in an evening school. At best, the attendance is irregular, and the time being short, little progress can be made, unless the teaching is practical and well directed. It seems to me that with the number of young mechanics living in Medford, we should have a better attendance in the drawing class.

Miss Tibbetts took the shorthand class when it was all but dismembered, and has today an earnest, diligent and punctual class of eight pupils.

I would very strongly urge the advisability of introducing a wider range of subjects in the evening school than has heretofore been taught. With a good, bright History and English teacher, I feel very sure that we could attract and hold a class of pupils that do not now attend the evening school.

I wish to thank you for your frequent visits to the school, and the encouragement given us in the work.

Respectfully submitted,

C. W. D. COFFIN,  
*Principal Evening School.*



## REPORT OF TRUANT OFFICER.

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MEDFORD, MASS., February 1, 1898.

MR. CHARLES H. MORSS, *Superintendent of Schools*:

DEAR SIR:— The undersigned respectfully submits his report as Truant Officer from October 1, 1897, to February 1, 1898.

I have investigated eighty-four cases of unexplained absence, and reported the same to the teachers. Of this number, twenty were found to be cases of truancy. I have made one hundred seventy visits to the schools, visited two factories in which minors were employed, and found four boys at work, with labor certificates properly vouched for.

I wish to thank the Superintendent, the Secretary, and the teachers for their kind assistance, and the courtesy which has been shown me, during my term of office.

Respectfully submitted,

HENRY F. MOORE,  
*Truant Officer.*

## STATISTICS.

## PUBLIC DAY SCHOOLS.

Whole number of different pupils enrolled during the year: boys, 1,816; girls, 1,850; total, 3,666.

SCHOOLS.	Average Membership.	Average Attendance.	No. of Cases of Tardiness.	No. of Dismissals.	No. of Half Days of Truancy
High . . . . .	497.7	486.5	432	685	20
Washington . . . . .	278.	263.1	200	284	69
Everett . . . . .	188.5	153.	110	156	18
Swan . . . . .	192.2	177.2	142	133	
Osgood . . . . .	59.6	53.9	94	78	6
James . . . . .	146.7	136.1	287	166	8
Curtis . . . . .	77.7	71.9	69	33	
Brooks . . . . .	175.8	165.7	288	242	
Gleason . . . . .	83.1	78.1	262	84	
Hall . . . . .	78.	72.5	128	103	
Hervey . . . . .	80.7	74.3	128	73	2
Kindergarten . . . . .	44.5	37.2			
Centre . . . . .	97.8	91.6	88	156	16
Cradock . . . . .	164.1	147.	160	91	3
Hillside . . . . .	121.2	113.8	142	99	4
Cummings . . . . .	61.	58.	258	61	
Lincoln . . . . .	286.1	266.6	414	326	10
Tufts . . . . .	188.8	169.9	240	50	
	2,801.5	2,616.4	3,442	2,820	155

## LIST OF TEACHERS.

CHARLES H. MORSS, A. M., SUPERINTENDENT, Harvard, 1895.

## HIGH SCHOOL AND GRADE IX.

Teachers.	Grade.	Where Educated.	When Elected.
Lorin L. Dame, S. D.,	{ Principal, Botany, Greek,	Tufts,	1876.
Leonard J. Manning, A. B.,	Physics, Chemistry,	Harvard,	1877.
Walter H. Cushing, A. B.,	History,	Harvard,	1893.
Ambrose C. Dearborn, A. B.,	Latin, English,	Harvard,	1897.
Frank S. Gilkey, A. B.,	Greek, Latin,	Harvard,	1897.
Caroline E. Swift,	English Literature,	Private Instruction,	1877.
Josephine E. Bruce,	Mathematics,	Wheaton Seminary,	1892.
Sara A. Clapp,	French, German,	Paris,	1894.
Annie E. Boardman, A. B.,	Latin,	Boston University,	1895.
Marion N. Wilcox, S. B.,	Mathematics,	Wellesley,	1895.
Carolyn F. Swett, S. B.,	Biology,	Smith,	1895.
Laura P. Patten,	Physics, Chemistry,	Boston University,	1897.
Mary B. Lippincott, A. B.,	History,	Radcliffe,	1897.
Mary K. Tibbits, A. B.,	English, French,	Univ. of New Brunswick,	1897.
Mary C. Adams, A. B.,	English, History,	Wellesley,	1896.
George L. Jones, A. B.,	{ Sub-master IX. grade, Mathematics, Latin,	Haverford,	1897.
Charles S. Downes, S. B.,	Geology, Mathematics,	Cornell,	1897.
Emma F. Gill,	History,	Boston Normal,	1880.
Catherine E. Walters,	English, Mathematics,	Bridgewater Normal,	1896.
Nina E. Church, A. B.,	English,	Dalhousie,	1897.

## WASHINGTON SCHOOL.

B. F. Morrison, A. B.,	VIII.,	Bowdoin,	1866.
Winifred L. Evans,	VIII., VII.,	Gorham Normal,	1892.
Annie E. Durgin,	VII.,	Medford High,	1877.
E. Alice Sills,	VII., VI.,	Provincial Normal, N. B.,	1892.
Martha S. Hayes,	VI.,	Bangor High,	1876.
Jennie M. Kempton,	VI., V.,	Bridgewater Normal,	1895.
Bertha C. Brown,	V.,	New Britain Normal,	1896.

## EVERETT SCHOOL.

Ida L. Hartsborn,	IV.,	Medford High,	1872.
Jessie M. Dinsmore,	III.,	Medford High,	1875.
Adelaide S. Herriott,	II.,	Medford High,	1878.
C. May Holland,	I.,	Medford High,	1890.

## SWAN SCHOOL.

Rose A. Plunkett,	IV.,	Salem Normal,	1880.
Alice G. Davenport,	III.,	Salem Normal,	1895.
Alice C. Reed,	II.,	Medford High,	1891.
Jennie S. Archibald,	I.,	Medford High,	1890.
Alice L. Bryan,	Kindergarten,	Miss Symond's Training School,	1895.
Lillian S. Knight,	Assistant,	Miss Symond's Training School,	1897.

## OSGOOD SCHOOL.

Louise W. Lasell,	VI., V., IV.,	Salem Normal (partial),	1888.
Emma A. Davis,	III., II., I.,	Medford High,	1885.

## JAMES SCHOOL.

Nellie M. Baker,	V., IV.,	Gorham Normal,	1896.
Marietta T. Fernald (Mrs.),	IV., III.,	Medford High,	1893.
Madge Johnson,	II.,	Frammingham Normal,	1896.
Hetty F. Wait,	I.,	Medford High,	1852.
Mary I. Phemister,	I.,	Chelsea High,	1897.

## CURTIS SCHOOL.

Amy W. Jones,	III., II.,	Medford High,	1882.
M. Agnes Firmin (Mrs.),	I.,	Miss Symond's Training School,	1897.

## BROOKS SCHOOL.

Lewis F. Hobbs,	VIII.,	Phillips Exeter Academy,	1876.
Gertrude S. Light,	VII.,	Girls' High, Boston,	1884.
Katherine M. Soule,	VII., VI.,	Gorham Normal,	1897.
Alice F. Wilbur,	VI., V.,	Bridgewater Normal,	1889.

## GLEASON SCHOOL.

Catharine W. Billings,	IV., III.,	Quincy High,	1892.
Sarah M. Smith,	II., I.,	Mt. Holyoke College,	1897.

## HALL SCHOOL.

Ella L. Alden,	V., IV.,	Medford High,	1883.
Elizabeth Watt,	IV., III.,	Bridgewater Normal,	1897.

## HERVEY SCHOOL.

Ellen M. Lane,	II.,	Medford High,	1866.
Helen G. Frye,	I.,	Somerville High,	1892.

## HARVARD AVENUE KINDERGARTEN.

Dora I. Gay,	Kindergarten,	Miss Symond's Training School,	1894.
Marion Stanwood,	Assistant,	Miss Symond's Training School,	1897.

## CENTRE SCHOOL.

George W. Parsons, A. M.,	VIII.,	Rowdoin,	1890.
Harriet E. Brooks,	VII.,	Dudley Academy,	1887.
Isabelle A. Naus,	VI., V.,	Salem Normal,	1894.

## CRADOCK SCHOOL.

Mary E. Crowley,	IV., III.,	Salem Normal,	1893.
Jennie W. Waterman,	II.,	Medford High,	1871.
Helen A. Mitchell,	I.,	Bridgewater Normal,	1897.
Mary W. Smith (Mrs.),	Kindergarten,	Miss Symond's Training School,	1895.
Mabel L. Bride,	Assistant,	Miss Symond's Training School,	1896.

## HILLSIDE SCHOOL.

Ella A. Leighton,	VI., V.,	Lincoln Acad., Newcastle, Me.,	1885.
Elizabeth A. Carty,	IV., III.,	Girls' High, Boston,	1895.
Bertha M. Lawrence,	II., I.,	Miss Symond's Training School,	1895.

## CUMMINGS SCHOOL.

Annie W. Hubbard,	IV., III.,	Bradford Academy,	1897.
Eliza M. Maxwell,	II., I.,		1897.

## LINCOLN SCHOOL.

Henry B. Doland,	VIII.,	Bridgewater Normal,	1886.
Mary E. Carlton,	VII.,	Framingham Normal,	1894.
Laura M. Dunsmoor,	VI.,	Bradford Academy,	1894.
Helen M. Johnson,	V.,	Malden High,	1896.
Jennie Q. Bucknam,	V., IV.,	Bridgewater Normal,	1896.
Alice G. Hosmer,	IV., III.,	Bridgewater Normal (partial),	1893.
Helen G. Cutter,	III.,	Bridgewater Normal,	1896.

## TUFTS SCHOOL.

Nora M. Cragin,	III., II.,	Salem Normal,	1896.
Inez H. Libbey,	II., I.,	Bridgewater Normal,	1895.
Emma F. Whitney (Mrs.),	I.,	Framingham Normal,	1894.
Helen L. Arnold,	Kingdergarten,	Miss Wheelock's Training School,	1894.
Jane Barnard,	Assistant,	Miss Symond's Training School,	1896.

## MUSIC.

Elizabeth H. Dunham,	New England Conservatory,	1891.
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## DRAWING.

Louise MacLeod,	Normal Art, Boston,	1891.
Stella May, Assistant,	Normal Art, Boston,	1896.

## SEWING.

Cora L. Russell (Mrs.),	Salem Normal,	1895.
Charlotte E. Adams (Mrs.), Assistant,	Packer Institute, Brooklyn,	1896.

## MANUAL TRAINING.

Joseph T. Whitney,	Institute Technology,	1894.
Abbie A. Hoyt, Assistant,	Farmington Normal,	1896.

## MILITARY INSTRUCTOR.

Colonel J. H. Whitney.

TABLE I.  
NUMBER OF PUPILS BY GRADE AND AGE, SEPTEMBER, 1897.

Years . . . . .	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Totals.
Kindergarten . . . . .	69	91	15		8															183
Grade I . . . . .		103	178	102	30	7	1													421
" II . . . . .			63	126	104	39	4	3	1											340
" III . . . . .				36	111	70	39	11	4	4										275
" IV . . . . .				2	42	107	83	31	20	3	4									292
" V . . . . .					5	38	104	67	27	18	4	2	1							266
" VI . . . . .						3	32	77	62	29	26	4	1	1						235
" VII . . . . .						2	4	40	82	69	40	18	1	1						257
" VIII . . . . .							3	9	35	82	48	20	9	3						209
" IX . . . . .								2	7	46	54	56	22	4	1					192
" X . . . . .										9	26	43	24	9						112
" XI . . . . .											11	22	34	23	10	1			1	102
" XII . . . . .												3	22	35	11	4				75
" XIII . . . . .													2	10	16	7				35
" XIV . . . . .														1						1
Totals . . . . .	69	194	266	266	300	266	270	240	238	260	213	168	116	86	39	13			1	2,995

TABLES II AND III.  
NUMBER BY AGES AND NUMBER BY GRADES.

Grades . . . . .	PRIMARY.			GRAMMAR.						HIGH.						Totals.		
	Kindergarten.	1	2	3	4	5	6	7	8	9	10	11	12	13	14			
September . . . . . 1889	298	176	185	212	203	193	193	138	89	57	32	30	16	7				1,829
September . . . . . 1890	284	204	215	192	207	188	184	173	148	49	37	45	25	3				1,944
September . . . . . 1891	270	207	227	238	191	179	180	175	156	107	36	42	18	4				2,030
September . . . . . 1892	341	206	247	247	191	188	206	184	150	103	66	28	26	1				2,184
September . . . . . 1893	311	217	219	271	216	191	169	206	177	116	70	48	8	4				2,223
September . . . . . 1894	35	344	250	202	280	266	207	180	187	126	81	68	*21	7				2,461
September . . . . . 1895	105	418	277	254	239	283	214	200	195	160	150	90	56	24	6			2,673
September . . . . . 1896	118	403	333	258	269	244	239	226	202	169	134	105	70	34	4			2,808
September . . . . . 1897	183	421	340	275	292	266	235	257	209	192	112	102	75	35	1			2,995

Ages . . . . .	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Totals.
September . . . . . 1889	117	159	177	179	189	175	179	167	162	180	93	61	27	11	3					1,829
September . . . . . 1890	105	160	182	170	185	187	166	167	160	165	134	80	58	15	3					1,944
September . . . . . 1891	105	174	178	192	212	201	183	157	159	149	141	88	55	27	5					2,030
September . . . . . 1892	131	180	149	163	252	215	220	225	187	157	123	83	63	23	13					2,184
September . . . . . 1893	134	181	206	207	206	179	198	210	208	170	155	105	50	14						2,223
September . . . . . 1894	35	156	231	205	209	195	219	203	211	198	209	152	113	68	37	16	4			2,461
September . . . . . 1895	105	162	266	258	208	228	212	207	230	215	185	159	113	73	34	6	5	1	1	2,673
September . . . . . 1896	27	199	252	277	260	251	252	196	252	219	199	167	134	75	37	10			1	2,808
September . . . . . 1897	69	194	256	266	300	266	270	240	238	260	213	168	116	86	39	13			1	2,995

Ages are taken from half year to half year; i. e., 6 years 6 months to 7 years 6 months are called 7.

**COURSE OF STUDY.**  
**READING AND LITERATURE.**

---

**GRADE I.**

**CLASS READING.** — Interstate Primer; Cyr's Primer and First Reader; Fairy Tales and Fables, Thompson; Franklin, Munroe, Stickney and several other First Readers; Nature's By Ways, Ford; Lane's Stories for Children (selections); Riverside Primer and First Reader (selections).

**READING TO THE CLASS, AND STORY TELLING.**—Poulsson's, In the Child's World; Æsop's Fables; Lang's Red and Blue Fairy Books; Mrs. Jackson's Letters from a Cat; Little Folks in Feathers and Fur, Olive Thorne Miller; The Anxious Leaf, Beccher; The Fir Tree, Andersen; The Discontented Pine Tree.

**SELECTIONS FOR MEMORIZING.** — The Brown Thrush, Lucy Larcom; Spring, Celia Thaxter; The Baby, George MacDonald; Little White Lily, George MacDonald; Thanksgiving Day, Lydia Maria Child; Stop, Stop, Pretty Water, Mrs. Follen; Lady Moon, Lord Houghton; The Night Before Christmas, Clement C. Moore; The Village Blacksmith, Paul Revere's Ride, Longfellow.

**GRADE II.**

**CLASS READING.** — Riverside First Reader; Stories for Children, Mrs. Lane; Stickney's First; Fables and Folk Stories, Scudder; Stories of Plant Life, Bass; Stories of Animal Life, Bass; Cyr's Second Reader; Franklin's Second Reader; Munroe's Second Reader.

**READING TO THE CLASS, AND STORY TELLING.**—Story Hour, Kate Douglas Wiggin; Queer Little People, Mrs. Stowe; Stories from Hiawatha; Hawthorne's Wonderbook; The Bird's Christmas Carol, Mrs. Wiggin; Stories from



American History; Mayflower and Pilgrims; Stories of Columbus.

SELECTIONS FOR MEMORIZING.—Marjorie's Almanac, T. B. Aldrich; Do All That You Can, Mrs. Sangster; The Sandpiper, Celia Thaxter; Mountain and the Squirrel, Emerson; Robert of Lincoln, Bryant; The Children's Hour, From My Arm Chair, Hiawatha's Childhood (selections), Village Blacksmith, Longfellow; In School Days, Whittier; All Things Beautiful, Mrs. C. F. Alexander.

### GRADE III.

CLASS READING.—Interstate Second Reader; Franklin's Third; Munroe's Third; Cyr's Third; Miss Andrew's Seven Little Sisters; Fifty Famous Stories Retold, Baldwin; Grimm's Fairy Tales.

READING TO THE CLASS, AND STORY TELLING.—Stories from American History; Columbus; John Smith and Pocahontas; George Washington; Bryant's Little People of the Snow; Alcott's Flower Fables; Fables from Æsop and LaFontaine; Story of Patsy, Mrs. Wiggin; Kipling's Jungle Book.

SELECTIONS FOR MEMORIZING.—Somebody's Mother, Anon.; Nobility, Alice Cary; We Are Seven, Wordsworth; A Child's Thought of God, Mrs. E. B. Browning; September, H. H.; Barefoot Boy, The Corn Song, Barbara Frietchie, Whittier; March, Lucy Larcom; Wreck of the Hesperus, Children, Longfellow; One by One, Adelaide Procter.

### GRADE IV.

CLASS READING.—Hawthorne's Wonder Book; Hans Andersen's Stories; Longfellow;—Riverside Literature Series, Nos. 11 and 63; Dodge's Stories from American History; Andrew's Story Mother Nature Told; Swiss Family Robinson; Black Beauty.

READING TO CLASS AND STORY TELLING.—Stories from American History; Baldwin's Old Greek Stories; Baldwin's

Old Stories of the East; Pied Piper of Hamelin, Browning; Dickens's Christmas Carol; Stories from Arabian Nights.

SELECTIONS FOR MEMORIZING.—The May Queen, Tennyson; Snow Flakes, Longfellow; The First Snow Fall, Lowell; The Brook, Tennyson; Fiftieth Birthday of Agassiz, Longfellow; Abou Ben Adhem, Leigh Hunt; Good Cheer, Charlotte Bronte; The Leak in the Dike, Phoebe Cary.

#### GRADE V.

CLASS READING.—Longfellow's *Hiawatha*; Ruskin's *King of the Golden River*; *Robinson Crusoe*; *Our World*, Miss Hall; *Scudder's Primary History*; *Moore's Pilgrims and Puritans*.

READING TO CLASS AND STORY TELLING.—(See *History Outline*); *Maria Edgeworth's Waste Not, Want Not*; *Stories of Greece*, Guerber; *Stories of the Romans*, Guerber; *Alcott's Little Men*; *Alcott's Little Women*.

SELECTIONS FOR MEMORIZING.—*Duty (Voluntaries III.)*, Emerson; *The Kitten and Falling Leaves*, Wordsworth; *The Battle of Blenheim*, Southey; *The Mayflowers*, Whittier; *Old Clock on the Stairs*, Longfellow; *The Arrow and the Song*, Longfellow; *Pegasus in Pound*, Longfellow; *Landing of the Pilgrims*, Mrs. Hemans; *Horatius*, Macaulay.

#### GRADE VI.

CLASS READING.—*Hawthorne's Grandfather's Chair*, and *Riverside Literature Series*, Nos. 29 and 10; *Kingsley's Water Babies*; *Holmes's Grandmother's Story of Bunker Hill*, *Riverside Literature Series*, No. 6; *Andrew's Ten Boys*; *Beginner's American History*, Montgomery, or *Scudder's Short History of the United States*.

READING TO THE CLASS AND STORY TELLING.—(See *History Outline*); *Kingsley's Madam How and Lady Why*; *Gulliver's Travels*.

SELECTIONS FOR MEMORIZING.—*Today*, Carlyle; *The Shell (from Maud)*, Tennyson; *To the Rhodora*, Emerson;

Excelsior, Longfellow; Ladder of St. Augustine, Longfellow; Santa Filomena, Longfellow; Christmas Bells, Longfellow; The Sea, B. W. Procter.

### GRADE VII.

**CLASS READING AND STUDY.**—Longfellow's *Evangeline*; Longfellow's *Miles Standish*; Hawthorne, *Riverside Literature Series*, Nos. 40 and 69; Martineau's *Peasant and Prince*; Kingsley's *Greek Heroes*; Dickens's *Christmas Carol*; Dickens's *Child's History of England*.

**READING TO CLASS.**—Franklin's *Autobiography*; Abbott's *Marie Antoinette*; Hale's *A Man Without a Country*.

**SELECTIONS FOR MEMORIZING.**—*Flower in the Crannied Wall*, Tennyson; *Concord Hymn*, Emerson; *Psalm of Life*; *The Rainy Day*, Belfry of Bruges, *The Day is Done*, Gasper Becerra, *Bells of San Blas*, Longfellow; *Marco Bozzaris*, Halleck; *Destruction of Sennacherib*, Byron.

### GRADE VIII.

**CLASS READING AND STUDY.**—*Snow Bound*, Among the Hills, Whittier; *Merchant of Venice*, Shakespeare; *Sketch Book*, Irving.

**READING TO THE CLASS AND STORY TELLING.**—*Idylls of the King*, *Enoch Arden*, Tennyson; *Boys Who Became Famous*; *Girls Who Became Famous*; Hughes's *Tom Brown's School Days*.

**SELECTIONS FOR MEMORIZING.**—*The Snow Storm*, Selections from *Wood Notes*, Selections from *May Day*, Emerson; *The Arsenal at Springfield*, *Curfew*, *The Builders*, Longfellow; *Wind and Stream*, *The Gladness of Nature*, *To a Waterfowl*, Bryant; *The Chambered Nautilus*, Holmes; *The Cloud*, Shelley; *Lincoln's Gettysburg Speech*; Patrick Henry's *Appeal to Arms*.

## GRADE IX.

AUTHORS FOR STUDY.—Scott, Shakespeare.

Read *Lady of the Lake*, *Marmion*, *Ivanhoe*, *Julius Cæsar*. *Memorize*, fifteen to twenty lines each week from the above, selections to be chosen by pupils or indicated by the teacher.

## GRADE X.

AUTHORS FOR STUDY.—Burns, Addison, Gray, Tennyson, Coleridge, Goldsmith, Dickens, Shakespeare.

Burns :—*The Cotter's Saturday Night*, *The Twa Dogs*, *Tam O'Shanter*, *To a Mouse*, *To a Louse*, *Epistle to a Young Friend*. *Memorize*, *Afton Water*, *Bannockburn*, *To Mary in Heaven*, *The Banks of Doon*, *John Anderson My Jo*, *Honest Poverty*.

Addison :—*The Sir Roger de Coverly Papers*. *For Sight Reading*, Papers 7, 159, 102, 98, 275, 281, 558, 559, 391. Selections from *Thackeray's Essay on Addison*.

Gray :—*Elegy in a Country Churchyard*.

Tennyson :—*The Coming of Arthur*, *The Passing of Arthur*. *Memorize*, twenty-five lines a week. *Sight Reading in Class*, *Elaine*.

Coleridge :—*The Ancient Mariner*. *For Sight Reading*, *Christabel*.

Goldsmith :—*The Deserted Village*. *Memorize*, the first two hundred and eighteen lines. *Sight Reading*, *She Stoops to Conquer*.

Dickens :—*David Copperfield*.

Shakespeare :—*The Tempest*. *Memorize*, selections.

## GRADE XI.

College Course begins on College Requirements.

Regular Course, Authors :—Tennyson, Lowell, Emerson, Hawthorne, Pope, Shakespeare.

Tennyson :—*The Princess*. *Memorize*, thirty lines each week.

Lowell :—*My Garden Acquaintance*, *A Good Word for Winter*, *Vision of Sir Launfal*, *Commemoration Ode*, *Beaver*

Brook, The Present Crisis. *Memorize*, Two Preludes of Sir Launfal, Aladdin, The First Snow Fall, A Parable, "Said Christ our Lord," The Heritage, Ambrose, The Oak. *Sight Reading*, Selections from Biglow Papers, and Fable for Critics.

Emerson :—The American Scholar, Behavior, Culture.

Hawthorne :—House of the Seven Gables.

Pope :—Rape of the Lock.

Shakespeare :—As You Like It.

## GRADE XII.

College Class follows College Requirements.

Regular Course, Authors :—Milton, Webster, Carlyle, Thackeray, Shakespeare.

Milton :—L'Allegro, Il Penseroso, Comus, Lycidas, Paradise Lost, books I. and II. *Memorize*, L'Allegro, Il Penseroso, Selections from Lycidas and Paradise Lost.

Webster :—Bunker Hill Orations.

Carlyle :—Essay on Cromwell.

Thackeray :—Henry Esmond.

Shakespeare :—Macbeth.

## GRADE XIII.

College Class follows College Requirements.

Regular Course, Authors :—Burke, Macaulay, Wordsworth, Shakespeare.

Burke :—Conciliation of American Colonies.

Macaulay :—Essay on Milton.

Wordsworth :—The Prelude.

Shakespeare :—Henry V. *Memorize*, selections from all the authors studied.

A résumé of English Literature and special study of the Reign of Queen Anne.

REPORT  
OF THE  
BOARD OF HEALTH.

---

MEDFORD, Mass., January 31, 1898.

*To His Honor the Mayor:*

In compliance with the requirements of the Public Statutes, the Board of Health respectfully submits the following report for the year ending January, 1898.

Forty-seven meetings of the Board have been held during the year.

Ninety-six permits have been granted for attending school and for keeping cows and pigs.

Ninety-eight peddlers have been licensed, and in accordance with the requirements of City Ordinances, Chapter 26, their vehicles have been duly inspected.

Eight petitions for permits for stables for more than four horses have been referred to the Board of Health, and five public hearings have been held by the Board.

One hundred and eleven nuisances have been reported and abated.

## DEATHS FOR THE YEAR 1897.

DISEASE.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Apoplexy . . . . .	1	2					1						4
Asthma . . . . .		1										1	2
Abdomen, Malignant growth			1									1	1
Accident . . . . .			1	1		1	1					1	5
Anæmia . . . . .			1			1							3
Angina Pectoris . . . . .					1					1			1
Asphyxia . . . . .						1							1
Appendicitis . . . . .								1					1
Bronchitis . . . . .	2	1	1				2					1	7
Bullet Wound . . . . .			1										1
Bright's . . . . .				1				1			1	1	4
Cystitis, chronic . . . . .		1										1	2
Cancer . . . . .					1	2		1	1			1	6
Cerebral Congestion . . . . .						1							1
Cholera Infantum . . . . .							3	9					13
Catarrh, Intestinal . . . . .								1			1		1
Childbirth . . . . .										1			1
Convulsions, Infantile . . . . .	2		1		1	1	1	1	1	1		1	10
Convulsions . . . . .		1			1			3			1	1	8
Drowning . . . . .									1				1
Dysentery . . . . .									1				1
Diabetes . . . . .	1					1			1				3
Enterocolitis . . . . .								1				1	2
Endocarditis . . . . .					1								1
Growth of Esophagus . . . . .								1					1
Gastritis . . . . .			1	1				1					3
Hemorrhage, Cerebral . . . . .		1		1				1			1		4
Heart Disease . . . . .	2		3	5	1	2	1	3				2	19
Intestinal Perforation . . . . .	1												1
Meningitis . . . . .	1	1			1	2	4		3				12
Measles . . . . .			1	1									2
Marasmus . . . . .			1				1	1	1		1		5
Nephritis, chronic . . . . .	2	1						1					5
Old Age . . . . .	3		2	1		3	2		2			1	17
Ovarian Cyst . . . . .			1								3		1
Peritonitis . . . . .						1	1						2
Premature Birth . . . . .			1			1	1						4
Paralysis . . . . .	1											3	4
Phthisis . . . . .	1	2	1		3	1	1		1		1		13
Pneumonia . . . . .	5	2	3	5	1		1		1	2	3	3	26
Rachetis . . . . .		1			1								2
Rheumatic Fever . . . . .		1											1
Rheumatism . . . . .					1								1
Still Born . . . . .		1		1		5			3	1	2	1	14
Tuberculosis, acute . . . . .		1	1	1					1				4
Tumor, abdominal . . . . .												1	1
Tumor, cerebral . . . . .												1	1
Typhoid Fever . . . . .											1	1	1
Uræmia . . . . .					1		1		1		1	1	5
Whooping Cough . . . . .					1								1
Totals . . . . .	22	19	19	29	15	23	22	26	17	7	16	25	230

The number of cases of Zymotic diseases reported during the year has been much smaller than during the preceding year.

	1896.	1897.
Diphtheria . . . . .	109	41
Scarlet Fever . . . . .	32	37
Measles . . . . .	217	93
Typhoid Fever . . . . .	23	11
	<hr/>	<hr/>
	381	182

The number of deaths caused by Meningitis (12) would indicate that our city, in common with neighboring cities and towns, felt the increased prevalence of this disease, during the summer of 1897.

The Board wishes to repeat its statements in regard to the urgent need of early and carefully made microscopical examinations in cases suspected to be diphtheritic. The State Board of Health continues to make these examinations at very small expense to the city, and during the year culture tubes and supplies of anti-toxine have been obtained from the State Board and have been kept in readiness at Howard's drug store, Medford square, and at Highley's drug store, West Medford. Similar arrangements should during be in force the coming year.

#### SEWERAGE.

During the year the value of the public sewers has been proved in the abatement of nuisances which had long been sources of annoyance, if not of disease. The premises in the neighborhood of Royal and Summer streets, which formerly drained across Summer street and private property to the river, have been connected with the sewer, and the drain has been cut off and abandoned. A long standing nuisance on Fourth street, Wellington, was remedied in the early summer, by abolishing cesspools and by cutting off underground drains leading from them into the street. The Board wishes to emphasize again the importance of an early and



general use of the public sewerage system which is being provided for the city.

During the year the attention of the Board has been called to several vacant lots where excavations have been made for cellars and then abandoned, to be filled with water and rubbish. It may become expedient to make special appropriation for the filling of these lots, the expense to be included in the next taxes of the owners of the premises.

### REPORT OF THE BOARD OF EXAMINERS FOR PLUMBER'S LICENSES.

For the Year Ending February 1, 1898.

MEDFORD, Mass., January 20, 1898.

Frank J. McMahon, of Morton avenue, was examined for a journeyman plumber's license April 12, and failed to pass.

Fred A. Whitman, 14 Canal street, was examined for a journeyman plumber's license April 12, when it was voted that the examination was very satisfactory and the Board of Health be recommended to grant him a license.

J. E. Lafrenier, 273 Riverside avenue, was examined for a journeyman plumber's license May 1, and failed to pass.

Meredith W. Palmer, 25 Newton avenue, was examined for a master plumber's license September 14, and failed to pass.

Bartholomew J. Driscoll, 42 Dudley street, was examined for a master plumber's license September 30. Mr. Driscoll passed a very satisfactory examination and the Board of Health was so notified and recommended to grant a license.

Thomas P. Collins, 32 Lincoln street, Somerville, applied to this Board for an examination for a master plumber's license January 8, 1898, saying it was his intention to open a shop on Harvard avenue this city. The examination proved very satisfactory and the Board of Health was recommended to grant the same.

Signed, CALVIN H. CLARK,  
*Chairman Board of Examiners for Plumbers' Licenses.*

## REPORT OF INSPECTOR OF PLUMBING.

MEDFORD, January, 1898.

*To the Board of Health, Medford, Mass.:*

GENTLEMEN,—I herewith submit my fourth annual report as Inspector of Plumbing for the year ending December 31, 1897:

Permits issued for plumbing in new buildings	189
Permits issued for plumbing in old buildings	412
Total number of permits issued	601

Of this number, 2 were cancelled, leaving 599 covering 585 buildings.

The plumbing in 534 of these buildings was subjected to the water test, 3 were subjected to the water and peppermint test, 30 are for slight alterations and repairs where a test was impracticable, and 16 as yet incompleated. The plumbing in 21 of the buildings not completed January 31, 1896, have also this year been subjected to the water test.

I have had much less trouble from violation of the ordinance and defective work during the past year than at any time previous. This pleasing condition of affairs I attribute to the new ordinance and to the ready and willing assistance I have received from the Board of Health.

I would again call attention to the vital importance of a final inspection of all completed work. Property owners would assist in obtaining better sanitary conditions by requiring the plumbers in all cases to obtain a certificate of approval at this office at the satisfactory completion of the work.

In compliance with the ordinance, I have located 568 house connections with the sewers, of which 520 have been connected with the plumbing system, added to those previously connected, gives a total of 1,400 now tributary to the Metropolitan system.

Respectfully submitted,

Signed,

G. F. ANDREWS,  
*Inspector of Plumbing.*

## FINANCIAL STATEMENT FOR 1897.

Appropriation . . . . .	\$2,640 00
Extra Appropriation . . . . .	150 00
	<hr/>
	\$2,790 00
Salary of Members and Clerk . . . . .	\$650 00
Salary of Inspector of Plumbing . . . . .	1,000 00
Salary of Health Inspector . . . . .	100 00
Diphtheria Examinations, etc. . . . .	187 60
General Expenses { Plumbing Dept. \$515 77 } . . . . .	786 07
{ Health Dept. 270 30 }	
Balance . . . . .	66 33
	<hr/>
	\$2,790 00

We recommend that the sum of \$2,690 be appropriated for the use of this Board for the ensuing year, as follows:—

Salary of Inspector of Plumbing . . . . .	\$1,000 00
Salary of Members and Clerk . . . . .	650 00
Salary of Inspector of Health Department . . . . .	100 00
General Expenses of Plumbing Department . . . . .	415 00
General Expenses of Health Department . . . . .	325 00
Diphtheria Examinations, etc. . . . .	200 00
	<hr/>
	\$2,690 00

JAMES E. CLEAVES, M.D.,	} <i>Board of Health.</i>
WALTER S. HALL, M.D.,	
WM. P. CLARK,	
J. WALTER BEAN, M.D.,	

REPORT  
OF THE  
The Trustees of the Public Library.

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*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—The Trustees of the Public Library respectfully submit the following report:

The changes in the Library building were practically completed in April last, under the appropriation made by the city for its enlargement and improvement. Through the liberality of the Chairman of the Board, Gen. Samuel C. Lawrence, a good deal of work, not included in the original plans and specifications, was done upon the building and its grounds, without expense to the city; and we avail ourselves of the opportunity afforded by his absence from the state, and consequent inability to join in this report, to mention the fact—a privilege which we should not have otherwise enjoyed.

The building as it now stands completed is admirably suited to its purposes, furnishing ample conveniences for the practical work of the library, the storage of the books and the comfort of its officers and the public. Great credit is due to the architect, Mr. Frank I. Cooper, for the tasteful, thorough, and economical manner in which the work of reconstruction was carried out.

During the past year the library received a gift of \$500 under the will of Mrs. Adeline A. Munroe, formerly, with her husband, the late Mr. Charles Munroe, a resident of this city. The bequest is made in the following terms:

“I give and bequeath in the name and by the request of my husband, Charles Munroe, deceased, to Tufts (Medford .

Public) Library of Medford, Massachusetts, a Cheshire Railroad bond of five hundred dollars numbered 113. This he wished given in consideration of the benefit and pleasure derived from said library by him."

The gift thus made has something added to its pecuniary value in such an expression of appreciation of the privileges which a public library affords. The example of Mr. Munroe deserves imitation.

The library has also been fortunate in the receipt of six portfolios of architectural drawings, comprising 374 plates, the gift of His Highness the Maharajah of Jeypore, India. These drawings are compiled chiefly from old buildings at or near Delhi, Agra, and parts of Rajputana, and they give us the exquisite forms and patterns invented by the great artists of the Mogul Empire, serving "as working drawings of separate details for the student, the architect, the decorator, the artisan, to study, copy, and apply to his work." We cannot sufficiently praise the enlightened liberality which prompted the Maharajah to incur the expense involved in the production of these drawings and their free distribution among the public institutions of the world.

In spite of many interruptions occasioned by the repairs upon the building, the issue of books during the past year has amounted to 76,604 volumes, an increase of more than 22 per cent over the circulation of the previous year.

We refer to the report of the Librarian for further details touching the transactions of the last year :

MEDFORD, MASS., February 1, 1898.

*To the Trustees of the Medford Public Library:*

GENTLEMEN,—The year just closed has been, in many respects, one of unusual activity. In May of last year, the work of remodelling the old part of the library was completed; the books moved back into the Reference and Children's Rooms and the usual work of the library resumed under more favorable conditions than the preceding years

had afforded. The more generous accommodations, the easier access to the heretofore hidden treasures of the library seems to be quite as much appreciated by the patrons of the library as by the attendants. The meeting, in Medford, of the Massachusetts Library Club in October last, brought nearly two hundred guests from the principal libraries of Massachusetts, who were unanimous in praise of the library and the hospitality received.

The secretary of the Club, W. H. Tillinghast of the Harvard College Library, in his report of the meeting to the *Library Journal*, says of our library, "A new stack has just been added, which struck all for its simplicity and light and cheerful aspect as an ideal book room."

As an example of what it is now considered a model library should be, I cannot refrain from quoting a few words of Professor Charles Eliot Norton's address on that occasion:— "Finally, the public library should always be made a delightful place, adorned with engravings or photographs of the best works of art. Its books should be beautifully bound, for a good book should be treated with respect. Following that rule, we may be able to exclude a mass of worthless books. Above all make the younger people feel that the library is a pleasant place to come to."

#### CHILDREN'S ROOM.

The Children's Room, which it was thought was all that could be afforded at the time of the alterations, has proved to be much too small for the many young people who appreciate what has been done for them, and it has been necessary to move their books into the hall above. By doing this we are obliged, much to our regret, to sacrifice the class room, which is considered so important in all the new and up-to-date libraries.

#### EXHIBITIONS OF PICTURES.

In this hall which is now given up to the children, we have had exhibitions of pictures, to which the public had free

admission. A collection of foreign photographs of Venice and Rome proved very attractive, also a series of views of Norway. On the pictures of Norway a discount was allowed on those that were sold, which has enabled us to start a collection of photographs of our own, which will be very useful in school work. It has been proposed by Miss Alice G. Chandler, the present president of the Massachusetts Library Club, that twenty libraries unite, contributing five dollars each, in starting a travelling picture gallery, which shall be on exhibition at each of the twenty libraries in turn. The choice of the first subject is Venice, illustrating the Grand Canal and the Piazza and Piazzetta di San Marco; showing, also, photographs of the most famous pictures and decorations in some of the principal buildings.

#### CANDIDATES FOR LIBRARY POSITIONS.

An examination for library positions was held in June, 1897. A copy of the examination paper will be found in the appendix to this report. The questions given were not intended to be puzzles, but were only a fair sample of the inquiries that are made every day at the library, and which it is quite necessary that the attendants should be able to answer, or, at least, know something about. There were six applicants, but only three appeared to take the examination.

Other qualifications than the mere ability to keep a record of the books taken out are found to be very essential in a library attendant in order to satisfy the demands of the present days of progress. We have had a number of applicants to learn library methods; but anything less than a year's service is a perfect waste of time on our part. For we are obliged to be responsible for all errors that must inevitably occur in their work and it takes all of that time to make them acquainted with the mere routine and to understand the necessity of accuracy in the slightest details of the work.

#### SCHOOL WORK.

The same gratifying results as last year are observed in the work with the schools; the interest on the part of the

children seems unabated and the results nearer what we are hoping to attain as by a comparison recently made it was ascertained that the percentage of useful books selected by the young people is much higher than that of the adults. The per cent of fiction in the circulation of the children's books being only 49 against 54 for the adults. The fiction charged to the children includes, also, all of the illustrated books which are given to the very youngest. The majority of the teachers are apparently much interested in the work, and feel willing to accept the additional labor it entails for the sake of the good results that follow. The one great trouble with which we have to contend is the use of the books by the children with soiled hands. A book mark, designed by Rev. H. D. Maxon, has been given with the books sent to the schools. This book mark, in story form, calls the attention of the reader to the proper care of books and has accomplished much; but there is still much more to be desired. We hope, another year, to follow the example of the Cleveland library and form a children's league which will have for its object the better care of books. "A mission of soap" has much to commend it.

#### CATALOGUE.

Through the energy and diligence of the attendant in charge of the classifying, the classification of the library has been completed and a card catalogue of fiction and juvenile literature made. I would suggest that finding lists be issued by subjects, as soon as possible, beginning with the two divisions above mentioned.

#### CIRCULATION.

The circulation of books the past year from February, 1897, to February, 1898, was 76,604, which is over 14,000 more than the year previous. An increase of nearly 50,000 since 1890. This increase, one can easily see, involves a corresponding increase of labor, especially in the reference work of the library, which has been cheerfully accepted and performed on the part of all.



## ADDITIONS.

Some of the most important books added by purchase are as follows, viz: Audubon and his journals, Bartlett's Concordance to Shakespeare, Lübke's Ecclesiastical art in Germany, Mahan's Life of Nelson, Nansen's Farthest North, 2 vols.; Palgrave's Dictionary of Political Economy, Life of Tennyson, 2 vols.; Tyler's Literary History of the American Revolution, 2 vols.; Justin Winsor's Westward Movement, Lyddeker's Royal Natural History, 4 vols.; Rimmer's Ancient Streets and Homesteads of England, Berenson's Venetian Painters of the Renaissance, Flügel-Schmidt-Taugier, Wörterbuch, 2 vols.; Henry-Thompson, Manuscript Journals, 1799-1814, and Kuenen's Religion of Israel, 3 vols..

## DONATIONS.

In the list of donations appended to this report it will be found that the library has received 113 books, 177 pamphlets, 10 volumes and 625 numbers of periodicals, all of which have been gratefully acknowledged. Among the most important of these are as follows, viz.: Massachusetts Soldiers and Sailors of the Revolutionary War, 2 vols., from the Secretary of the Commonwealth; from Leonard Thompson of Woburn, Woburn Men in the Indian Wars; Le Morte d'Arthur, 3 vols., from H. M. Begien; from the author, Edward Whympier, A Guide to Chamonix; Memoirs of Robert C. Winthrop, from Robert C. Winthrop, Jr.; The fifth series of the Old South Leaflets, from Miss Katherine Stone; Plant Studies, from Mrs. S. R. Ranney; The Art and Science of Ship Building, 2 vols., from the compiler, W. H. Webb of New York; and 6 portfolios of Jeypore Architectural Details, from His Highness, the Maharajah of Jeypore, India.

## REGISTRATION.

Since the commencement of the new registration in 1894, 5,194 persons have signed; there being 90 new applicants last month.

## LIBRARY STAFF.

Monthly meetings of the library staff have been organized, at which questions relating to the best interests of the library are discussed; reviews of books, best methods of administration, current events, bibliographies of authors, and book binding are some of the topics which have thus far been considered. All the attendants at different times have visited book binderies, and were shown the different processes and learned what constituted a well-bound book. The attendance at these meetings is optional, but none are willingly absent.

Respectfully submitted,

MARY E. SARGENT,

*Librarian.*

## GENERAL STATISTICS.

Number of books in the library Feb. 1, 1897,	18,297
Volumes added by purchase. Fiction, . . . . .	334
General literature, . . . . .	230
Fine and useful arts, . . . . .	104
Natural science, . . . . .	108
Social sciences, . . . . .	45
Geography and travel, . . . . .	72
History, . . . . .	63
Biography, . . . . .	73
Philosophy and religion, . . . . .	42
Miscellaneous, . . . . .	35
Volumes added from the Reading Room, . . . . .	92
"    donated . . . . .	113
	<hr/>
	19,608
Volumes condemned, . . . . .	54
	<hr/>
	19,554

### PERIODICALS IN THE READING ROOM.

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American Architect.	Life.
American Coöperative News.	Literary News.
American Kitchen Magazine.	London Illustrated News.
Arena.	McClure's Magazine.
Art Amateur.	Medford Mercury.
Atlantic Monthly.	Nation.
Birds.	New England Magazine.
Blackwood.	Nineteenth Century.
Bookman.	North American Review.
Boston Cooking School.	Outing.
Century.	Outlook.
Citizen.	Pat. Office Gazette. Donated.
Cong'l Record. Donated.	Political Science Quarterly.
Contemporary Review.	Popular Science Monthly.
Cosmopolis.	Public Libraries.
Cosmopolitan.	Publisher's Weekly.
Critic.	Quart'ly Jour. of Economics.
Current Literature.	Review of Reviews.
Edinburgh Review.	Saint Nicholas.
Educational Review.	Scientific American.
Engineering Magazine.	Scientific Amer. Bldr.'s Ed.
Forest and Stream.	Scientific Amer. Supplement.
Fortnightly Review.	Scribner's Magazine.
Forum.	Somerville Jour. Donated.
Good Housekeeping.	Spectator.
Good Roads. Donated.	Spirit of '76. Donated.
Great Round World.	Studio, International.
Harper's Magazine.	Tuftsian.
Harper's Weekly.	Tufts Weekly.
Harper's Round Table.	Westminster Review.
International Jour. of Ethics.	Woman's Jour. Donated.
Johns Hopkins Univ. Studies.	Yale Review.
Land of Sunshine. Donated.	Youth's Companion.
Library Journal.	

## GIFTS TO THE LIBRARY.

	Books.	Pamphlets.	Periodicals. Vols.	Nos.
Aborn, M. L. . . . .			3	74
Amherst College . . . . .		1		
Arlington Mills, Lawrence . . . . .	1			
Barker, Mrs. George G. . . . .	6			
Barrows, Rev. S. J. . . . .		1		
Batchelder, Fannie E. . . . .		2		
Begien, H. M. . . . .	3			
Bemis, Dr. C. V. . . . .	1			
Berkshire Athenæum . . . . .		1		
Beverly Public Library . . . . .		1		
Blanchard, Miss S. J. . . . .			2	9
Boston Book Co. . . . .		2		
Bowdoin College Library . . . . .		2		
Brookline Public Library . . . . .		1		
Builders' Iron Foundry, Prov., R. I. . . . .		1		
Boston Public Library . . . . .		1		12
Cambridge Public Library . . . . .	5	3		
City of Medford . . . . .	2			
Civil Service Commission . . . . .		5		
Concord Public Library . . . . .		2		
Dayton Public Library, Ohio . . . . .	1			
Dean, John W. . . . .		1		
Dutton, Miss Carrie . . . . .				22
Enoch Pratt Free Library, Baltimore . . . . .		1		
Essex Institute, Salem . . . . .		1		
Fitz Public Library, Chelsea . . . . .		1		
Forbes' Library, Northampton . . . . .		1		
Green, Dr. Charles M. . . . .		1		
Greene, Dr. S. A. . . . .		1		
Hallowell, Richard P. . . . .	1			
Hallowell, Mrs. Richard P. . . . .	11			
Harlow, Miss Ellen G. . . . .				39
Hartford Public Library, Conn. . . . .		1		

Harvard University . . . .	1	1	
Hervey, James A. . . . .	8		36
*His Highness, the Maharajah of Jeypore			
Hoar, Hon. George F. . . . .		1	
Ipswich Public Library . . . .		6	
Irish Nat'l Federation, N. Y. . .		1	
King, H. F. . . . .	1		
Lamson, Mrs. Grace . . . . .	1		1
Lancaster Town Library . . . .		1	
Lane, Mrs. John M. . . . .	10		
Lawrence Public Library . . . .		1	
Lincoln, Miss A. W. . . . .		1	
Lodge, Hon. H. C. . . . .	1		
Lowell City Library . . . . .		1	
Lynn Public Library . . . . .		1	
McCall, Hon. S. W. . . . .	2	1	
McCormack, Cyrus H. . . . .	1		
Malden Public Library . . . . .		1	
Manchester, Rev. Alfred . . . .	1		
Manchester (N. H.) Public Library		1	
Mass. State Library . . . . .		1	
Mass. Charitable Mech's Assoc. .		1	
Mass. Institute of Technology . .		1	
Medford Historical Society . . . .		1	
Metropolitan Park Commission . .	1		
Metropolitan Water Board . . . .	1		
Minneapolis Public Library . . . .		1	
New Bedford Public Library . . . .		1	
New York Free Circulating Library		1	
North Adams Public Library . . . .		1	
Omaha Public Library . . . . .		1	
Parsons J. Russell . . . . .	1		
Perry, Mrs. Baxter E. . . . .		75	340
Public Reservations Trustees . . .		1	
Ranney, Mrs. S. R. . . . .	2		

\* 6 Portfolios of Jeypore Architectural details.

St. Louis Mercantile Library Assoc.	1			
Salem Public Library . . . . .	1			
Secretary of the Commonwealth . . . . .	12	4		
Smiley, Albert R. . . . .	1			
Somerville Public Library . . . . .	1			
Springfield City Library Assoc. . . . .	1			
Stone, Miss Katherine H. . . . .	1	9	5	42
Swift, Miss C. E. . . . .	1			
Syracuse Central Library, N. Y. . . . .	1			
Thompson, Leonard . . . . .	1			
Tufts College . . . . .	1		29	
U. S. Bureau of American Republics . . . . .	1			
U. S. Bureau of Education . . . . .	5	1		
U. S. Department of Agriculture . . . . .	1			
U. S. Department of Foreign Affairs . . . . .	1			
U. S. Department of Interior . . . . .	7	1		
U. S. Department of Labor . . . . .	3	5		
U. S. Department of State . . . . .	6			
U. S. Fish Commission . . . . .	4			
U. S. Navy Department . . . . .	1			
U. S. Smithsonian Institution . . . . .	6	1		
U. S. Supt. of Documents . . . . .	2			
University of Pennsylvania . . . . .	1			
Waite, J. Gilman . . . . .	1			
Walker, Mrs. J. W. . . . .	1			
Waters, William E. . . . .	1			
Watertown Public Library . . . . .	1			
Webb, W. H., New York . . . . .	2			
Whympcr, Edward, London, Eng. . . . .	1			
Winchester, Town of . . . . .	1			
Winchester Public Library . . . . .	1			
Winthrop, R. C., Jr. . . . .	1			
Woburn Public Library . . . . .	1			
Wright Walter C. . . . .	1			
Young, Miss Sarah . . . . .	2			21
	<u>113</u>	<u>177</u>	<u>10</u>	<u>625</u>

## EXAMINATION QUESTIONS.

1. What war furnished the incident that is the subject of "Charge of the light brigade?" Between what powers was it fought and how long did it last?

2. Give the date of the Franco-Prussian war? What was the result to France?

3. Name the three most important nationalities that took part in the explorations in America? By what motives were each influenced?

4. Who wrote the "Star-Spangled banner?" During what war was it written?

5. What event does the legal holiday, 19th of April, commemorate? What day did it supercede as a legal holiday? What governor signed the bill that made the change, and how long did he hold office?

6. What powers constitute the "Triple alliance?"

7. With what wars are the following battles connected? Marathon, Bannockburn, Hastings, Waterloo, New Orleans, Sedan, Roncesvalles, Gettysburg, Montreal, Saratoga?

8. Give the name of the President of the French Republic, and name the reigning monarchs of the following countries, Russia, Germany, Italy, England, Greece, Turkey, Austria-Hungary.

9. Name the members of McKinley's cabinet, and the office each holds.

10. How many states form the Union? Which was the last added?

11. What is suggested by the following terms? White City; Brook Farm; Junior Republic; Transvaal; Lorelei?

12. Give briefly some statement regarding affairs in Crete and in Cuba.

13. What is meant by the "Lexow Committee?"

14. What constitutes the legislative body of Massachusetts? Name the Representative from Medford to the General Court.

15. State what you can of the origin of Medford.

16. Mention two objects of historical interest in Boston ; New York ; Washington ; London ; Paris.

17. What "Exposition" is now in progress?

18. Name two famous English novels which have been written about the Norman Conquest. Give the author of each.

19. Name five books of reference which you consider essential in a library.

20. In what works are the following characters? Meg Merrilles, Little Nell, Maggie Tulliver, Hilda, Sancho Panza, Becky Sharp, Goliath, Hosea Bigelow, Desdemona, Holofernes, Old Man of the Sea, Brunhilde, Ichabod Crane, Maid Murian, Sir Roger de Coverly, Dr. Primrose.

21. Name five American periodicals ; five English ; six German ; one French.

22. Give the author of each of the following works : Harold, the first of the Saxon kings ; Westward, ho ! Romola ; Locksley Hall ; Paradise Lost ; Les Miserables ; American Commonwealth ; Lorna Doone ; Stones of Venice ; Wallenstein ; Vision of Sir Launfal ; Rime of the Ancient Mariner ; Holy Grail.

23. Name a standard work treating of each of the following subjects : English literature, history of Rome, political economy, the civil war.

24. Write a brief criticism of any book (not fiction) which you have recently read.

25. Mention as many works as you can of the following authors : Francis Parkman ; Hawthorne ; Schiller ; Victor Hugo ; John Fiske ; George W. Cable ; John L. Motley ; Charles Kingsley ; George Eliot ; Tolstoi ; Tennyson ; Darwin ; Ruskin.

26. Write a note in library hand, asking for material for an essay on the Dingley tariff bill.

27. Mention five important inventions or discoveries of the past fifty years.

28. In Westminster Abbey, May, 1897, what bust was unveiled, a duplicate of which is to be given to the Boston Public Library?



29. Give the name of 1 American botanist; 1 geologist; 1 evolutionist; 1 Greek dramatist; 1 Latin historian; 1 electrician; 1 explorer; 2 German authors; 2 French writers; the U. S. senators from Massachusetts.

30. Who designed the Robert Gould Shaw memorial? Name other of his works and tell where they are placed.

31. What famous artists painted the decorations in the Boston Public Library?

32. Who designed the statue of the "Minute man"? Where is it placed and what event does it commemorate?

33. Name two famous pictures, giving the author of each.

34. Have you had any practice in type-writing?

35. What languages besides English have you studied?

#### LIBRARY ACCOUNTS, STATEMENT 1897-98.

Salary of librarian, . . . . .	\$1,000 00
Salary of assistants . . . . .	1,710 00
Books . . . . .	1,081 32
Rebinding books, . . . . .	327 07
Gas . . . . .	171 24
Electric . . . . .	223 18
Coal . . . . .	512 57
Periodicals . . . . .	380 66
Janitor, care of grounds and furnace . . . . .	253 60
Agent, Glenwood . . . . .	35 00
Agent, West Medford . . . . .	30 00
Agent, express, West Medford . . . . .	66 00
Agent, Wellington . . . . .	35 00
Extra help . . . . .	31 93
Bulletins of new books . . . . .	34 75
Typewriter and supplies . . . . .	65 75
Advertising and printing . . . . .	26 70
Care of building . . . . .	140 00
Charging cards, etc. . . . .	33 47
Catalogue cards . . . . .	4 78
Registration boxes and paper . . . . .	1 05

## REPAIRS ON BUILDING AND GROUNDS.

Protecting trees . . . . .	\$4 50	
Supplies : Dusters, brushes, etc. . . . .	16 57	
Ladders, rakes, etc. . . . .	9 31	
Picture hooks, etc. . . . .	2 57	
Adjusting shelves . . . . .	6 75	
Lumber for winter steps . . . . .	17 34	
Labor on winter steps . . . . .	27 73	
Set bowl, labor, etc. . . . .	18 82	
Screens, etc. . . . .	16 13	
Work in cellar, etc. . . . .	15 41	
		<hr/>
		\$135 13
Sewers . . . . .		86 74
Express . . . . .		22 83
Stationery . . . . .		43 26
Postage . . . . .		16 00
Paper for covering books, etc. . . . .		18 49
Water rates . . . . .		8 00
Ice . . . . .		8 40
Savogran . . . . .		8 59
Movable book rack . . . . .		12 65
Waste paper baskets . . . . .		3 79
Towels, etc. . . . .		4 43
Steps . . . . .		2 70
Repairing chairs . . . . .		13 75
Repairing clock . . . . .		6 25
Freight from Bombay . . . . .		8 16
Date stamps . . . . .		1 90
Accessions book . . . . .		5 00
Desk pads and rulers . . . . .		2 65
Photographs of library . . . . .		3 75
Shelf labels . . . . .		7 60
Picture hooks . . . . .		3 50
Rubber bands, twine, etc. . . . .		1 68
Shelf lists, cards, etc. . . . .		1 45
		<hr/>
		\$6,590 77

Appropriation for the library . . . . .	\$5,100 00
Money received from the dog tax of 1896 . . . . .	1,324 68
Income of the Tufts fund . . . . .	30 00
Income of the Osgood fund . . . . .	120 57
Income of the Munroe fund . . . . .	15 00
Ginn & Co., overcharge . . . . .	1 00
	<hr/>
	\$6,591 25
Expended . . . . .	6,590 77
	<hr/>
	\$ .48

The Librarian has received the following sums :

Cash unexpended February 1, 1897 . . . . .	\$ 91
Cash for duplicates . . . . .	15 26
Cash for catalogues . . . . .	2 75
Cash for fines . . . . .	158 77
	<hr/>
	\$177 69

The expenditures have been as follows :

Cleaning, \$6.07; messenger, \$14.90; postage, \$31.96; extra help, \$32.79; express, \$17.91; magazines, \$6.52; books, \$32.14; sundries, \$32.73; . . . . .	\$175 02
	<hr/>
Balance unexpended . . . . .	\$2 67

We recommend an appropriation of \$5,100 to meet the expenses of the Public Library the ensuing year.

HENRY C. DELONG,

JAMES A. HERVEY,

*Trustees.*

Medford, Feb. 8, 1898.

REPORT  
 OF THE  
 Commissioners of Sinking Funds.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—The Commissioners of the Sinking Funds submit the following statements of their accounts for the last year:

WATER LOAN SINKING FUND.

RECEIPTS.

Balance deposited in the Howard National Bank, as per report of 1897 . . . . .	\$30,093 05
P. R. Litchfield, City Treasurer, premium on \$16,000 bonds sold . . . . .	1,388 80
Fitchburg Railroad Company, for one year's interest on \$8,000 of its bonds, at 5 per cent to Sept. 1, 1897 . . . . .	400 00
City of Quincy, for one year's interest on \$2,000 of its bonds, at 4 per cent, to Dec. 1, 1897 . . . . .	80 00
City of Haverhill, for one year's interest on \$5,000 of its bonds, at 4 per cent, to Oct. 1, 1897 . . . . .	200 00
Portland & Ogdensburg Railroad Company, for one year's interest on \$8,000 of its bonds, at 6 per cent, to Jan. 1, 1898. . . . .	480 00
City of Brockton, for one year's interest on \$4,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	160 00
City of Lowell, for one year's interest on \$2,500 of its bonds, at 4 per cent, to Nov. 6, 1897 . . . . .	100 00
City of Medford, for one year's interest on \$74,- 000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	2,960 00
Howard National Bank, for interest on deposit . . . . .	179 31
<i>Carried forward . . . . .</i>	<u>\$36,041 16</u>

<i>Brought forward</i> . . . . .	\$36,041 16
Howard National Bank, for interest on deposit, P. R. Litchfield, City Treasurer, surplus from water receipts for twelve months ending Jan. 31, 1898 . . . . .	24,857 01
Total received . . . . .	<u>\$60,898 17</u>

## DISBURSEMENTS.

Commonwealth of Massachusetts, for \$29,000 Town of Medford 4 per cent water bonds, due July 1, 1910 at \$105.254 . . . . .	\$30,523 66
3 mos. 13 days' accrued interest on above bonds	331 89
Balance deposited in the Howard National Bank	30,042 62
Total disbursed . . . . .	<u>\$60,898 17</u>

The Water Loan Sinking Fund consists of the following property :

Town of Medford 4 per cent water bonds, due July 1, 1900 . . . . .	\$45,000 00
Town of Medford 4 per cent water bonds, due July 1, 1910 . . . . .	29,000 00
Portland & Ogdensburg Railroad Company 6 per cent bonds, due July 1, 1900 . . . . .	8,000 00
City of Brockton 4 per cent bonds, due July 1, 1900 . . . . .	4,000 00
City of Quincy 4 per cent bonds, due Dec. 1, 1900 . . . . .	2,000 00
City of Haverhill 4 per cent bonds, due Oct. 1, 1899 . . . . .	5,000 00
Fitchburg Railroad Company 5 per cent bonds, due March 1, 1899 . . . . .	8,000 00
City of Lowell 4 per cent registered bond, due May 6, 1900 . . . . .	2,500 00
Cash deposited in the Howard National Bank, at 2½ per cent interest . . . . .	30,042 62
Total . . . . .	<u>\$133,542 62</u>

PUBLIC BUILDING LOAN SINKING FUND.

RECEIPTS.

Balance deposited in the Howard National Bank, as per report of 1897 . . . . .	\$1,336 04
P. R. Litchfield, City Treasurer, city appropriation for 1897 . . . . .	12,665 00
City of Medford, for one year's interest on \$3,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	120 00
City of Medford, for one year's interest on \$6,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	240 00
City of Medford, for one year's interest on \$12,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	480 00
City of Medford, for one year's interest on \$1,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	40 00
City of Medford, for six months' interest on \$11,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	220 00
City of Somerville, for one year's interest on \$1,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	40 00
Fitchburg Railroad Co., for one year's interest on \$4,000 of its bonds, at 5 per cent, to Sept. 1, 1897 . . . . .	200 00
Howard National Bank, for interest on deposit . . . . .	29 56
Total received . . . . .	<u>\$15,370 60</u>

DISBURSEMENTS.

Commonwealth of Massachusetts, for \$1,000 town of Medford 4 per cent water bond, due July 1, 1910, at \$105.254 . . . . .	\$1,052 54
3 mos. 13 days' accrued interest on above bond . . . . .	11 44
Commonwealth of Massachusetts, for \$5,000 town of Medford 4 per cent water bonds, due July 1, 1900, at \$101.302 . . . . .	5,065 10
<i>Carried forward</i> . . . . .	<u>\$6,129 08</u>

<i>Brought forward</i> . . . . .	\$6,129 08
4½ months' accrued interest on above bonds . . . . .	75 00
Commonwealth of Massachusetts, for \$2,000 city of Medford 4 per cent water bonds, due Jan. 1, 1903, at \$102.44 . . . . .	2,048 80
4½ months' accrued interest on above bonds . . . . .	30 00
Commonwealth of Massachusetts, for \$4,000 city of Medford 4 per cent water bonds, due Jan. 1, 1906, at \$103.675 . . . . .	4,147 00
4½ months' accrued interest on above bonds . . . . .	60 00
Balance deposited in the Howard National Bank . . . . .	2,880 72
	<hr/>
Total disbursed . . . . .	\$15,370 60

The Public Building Loan Sinking Fund consists of the following property :

Town of Medford, 4 per cent water bonds, due July 1, 1900 . . . . .	\$17,000 00
Town of Medford, 4 per cent water bond, due July 1, 1910 . . . . .	1,000 00
City of Medford, 4 per cent water bonds, due Jan. 1, 1903 . . . . .	2,000 00
City of Medford, 4 per cent water bonds, due Jan. 1, 1906 . . . . .	4,000 00
City of Medford, 4 per cent public building bonds, due July 1, 1908 . . . . .	6,000 00
City of Medford, 4 per cent public building bonds, due July 1, 1913 . . . . .	3,000 00
City of Somerville, 4 per cent bond, due July 1, 1913 . . . . .	1,000 00
Fitchburg Railroad Company, 5 per cent bonds, due March 1, 1899 . . . . .	4,000 00
Cash deposited in the Howard National Bank at 2½ per cent interest . . . . .	2,880 72
	<hr/>
Total . . . . .	\$40,880 72

SEWERAGE LOAN SINKING FUND.

RECEIPTS.

Balance deposited in the Medford Savings Bank; as per report of 1897 . . . . .	\$861 65
P. R. Litchfield, City Treasurer, city appropriation for 1897 . . . . .	10,040 00
City of Medford, for one year's interest on \$2,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	80 00
Town of Stoughton, for one year's interest on \$1,000 of its bonds, at 4 per cent, to Dec. 1, 1897 . . . . .	40 00
City of Medford, for one year's interest on \$12,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	480 00
City of Woburn, for one year's interest on \$1,000 of its bonds, at 4 per cent, to Oct. 1, 1897 . . . . .	40 00
City of Malden, for one year's interest on \$1,850 of its bonds, at 4 per cent, to Dec. 1, 1897 . . . . .	74 00
City of Malden, for one year's interest on \$1,750 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	70 00
Town of Wakefield, for one year's interest on \$1,000 of its bonds, at 4 per cent, to Oct. 1, 1897 . . . . .	40 00
City of Medford, for one year's interest on \$13,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	520 00
City of Medford, for six months' interest on \$7,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	140 00
Medford Savings Bank, dividends . . . . .	36 05
<b>Total received . . . . .</b>	<b>\$12,421 70</b>



## DISBURSEMENTS.

Commonwealth of Massachusetts, for \$7,000	
Town of Medford 4 per cent water bonds, due	
July 1, 1910, at \$105.316 . . . . .	\$7,372 12
Four and one-half months' accrued interest on	
above bonds . . . . .	105 00
Jose, Parker & Co., for \$3,000 City of Malden,	
4 per cent bonds, due Aug. 1, 1906, at \$103.74	3,112 20
Three and one-half months' accrued interest on	
above bonds . . . . .	35 00
Balance deposited in the Medford Savings Bank	1,797 38
	<hr/>
Total disbursed . . . . .	\$12,421 70

The Sewerage Loan Sinking Fund consists of the following property :—

City of Medford 4 per cent sewerage bonds,	
due July 1, 1905 . . . . .	\$2,000 00
Town of Stoughton 4 per cent bond, due June	
1, 1905 . . . . .	1,000 00
City of Medford 4 per cent public building	
bonds, due July 1, 1908 . . . . .	12,000 00
City of Woburn 4 per cent bond, due April 1,	
1905 . . . . .	1,000 00
City of Malden 4 per cent bond, due June 1,	
1905 . . . . .	1,850 00
City of Malden 4 per cent bond, due July 1,	
1905 . . . . .	1,750 00
Town of Wakefield 4 per cent bond, due Oct.	
1, 1905 . . . . .	1,000 00
Town of Medford 4 per cent water bonds, due	
July 1, 1900 . . . . .	13,000 00
Town of Medford 4 per cent water bonds, due	
July 1, 1910 . . . . .	7,000 00
City of Malden 4 per cent bonds, due Aug. 1,	
1906 . . . . .	3,000 00
Cash deposited in the Medford Savings Bank .	1,797 38
	<hr/>
Total . . . . .	\$45,397 38

PUBLIC PLAYGROUND LOAN SINKING FUND.

RECEIPTS.

Balance deposited in the Medford Savings Bank, as per report of 1897 . . . . .	\$1,663 84
P. R. Litchfield, City Treasurer, city appropriation for 1897 . . . . .	1,120 00
City of Malden, for one year's interest, on \$1,750 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	70 00
City of Medford, for six months' interest on \$2,000 of its bonds, at 4 per cent, to Jan. 1, 1898 . . . . .	40 00
Medford Savings Bank, dividends . . . . .	53 08
Total received . . . . .	<u>\$2,946 92</u>

DISBURSEMENTS.

Commonwealth of Massachusetts, for \$2,000 City of Medford, 4 per cent water bonds, due Jan. 1, 1903, at \$102.44 . . . . .	2,048 80
4½ months' accrued interest on above bonds . . . . .	30 00
Balance deposited in the Medford Savings Bank . . . . .	868 12
	<u>\$2,946 92</u>

The Public Playground Loan Sinking Fund consists of the following property :

City of Malden 4 per cent bond, due July 1, 1904 . . . . .	\$1,750 00
City of Medford 4 per cent water bonds, due Jan. 1, 1903 . . . . .	2,000 00
Cash deposited in the Medford Savings Bank . . . . .	868 12
Total . . . . .	<u>\$4,618 12</u>

## MUNICIPAL LOAN SINKING FUND.

## RECEIPTS.

P. R. Litchfield, City Treasurer, premium on \$200,000 bonds sold . . . . .	\$13,846 00
P. R. Litchfield, City Treasurer, premium on \$100,000 bonds sold . . . . .	9,089 00
City of Medford, for six months' interest on \$12,000 of its bonds, at 4 per cent, to Nov. 1, 1897 . . . . .	240 00
Medford Savings Bank dividend . . . . .	9 64
	<hr/>
Total received . . . . .	\$23,184 64

## DISBURSEMENTS.

Blodgett, Merritt & Co., for \$12,000 City of Medford, 4 per cent Municipal bonds, due May 1, 1917, at \$107.15 . . . . .	\$12,858 00
18 days' accrued interest on above bonds . . . . .	24 00
Cash deposited in the Howard National Bank . . . . .	9,089 00
Cash deposited in the Medford Savings Bank . . . . .	1,213 64
	<hr/>
Total disbursed . . . . .	\$23,184 64

The Municipal Loan Sinking Fund consists of the following property :

City of Medford 4 per cent municipal bonds, due May 1, 1917 . . . . .	\$12,000 00
Cash deposited in the Howard National Bank, at 2½ per cent interest . . . . .	9,089 00
Cash deposited in the Medford Savings Bank . . . . .	1,213 64
	<hr/>
Total . . . . .	\$22,302 64

In compliance with the provisions of Section 9 of Chapter 29 of the Public Statutes, and Section 8 of Chapter 6 of the City Ordinances, the Commissioners find the amounts to be raised the coming year for the sinking fund are as follows :

*Medford Water Bonds.*

Ten per cent of \$75,000, issued  
 July 1, 1890, and payable July 1,  
 1900 . . . . . \$7,500 00

Four per cent of \$125,000, issued  
 July 1, 1890, and payable July 1,  
 1910 . . . . . 5,000 00

*City of Medford Water Fund Bonds.*

Ten per cent of \$24,000, issued  
 Jan. 1, 1894, and payable \$4,000  
 each year from Jan. 1, 1899, to Jan.  
 1, 1904 . . . . . 2,400 00

Four per cent of \$76,000 issued  
 Jan. 1, 1894, and payable \$4,000  
 each year from Jan. 1, 1905, to Jan.  
 1, 1923 . . . . . 3,040 00

Four per cent of \$25,000, issued  
 Oct. 1, 1894, and payable Oct. 1,  
 1914; and \$25,000 issued Oct. 1,  
 1894, and payable Oct. 1, 1919 . . 2,000 00

Four per cent of \$63,000, issued  
 July 1, 1895, and payable between  
 July 1, 1916, and July 1, 1923 . . 2,520 00

Three per cent of \$45,000, issued  
 Dec. 1, 1894, and payable Dec. 1,  
 1922 . . . . . 1,350 00

Three per cent of \$26,000, issued  
 July 1, 1896, and payable July 1,  
 1923 . . . . . 780 00

*Carried forward . . . . . \$24,590 00*

<i>Brought forward</i> . . . . .	\$24,590 00	
Three per cent of \$16,000, issued July 1, 1897, and payable July 1, 1923 . . . . .	480 00	
	<u>480 00</u>	
	\$25,070 00	
Surplus earnings of the Water Works for twelve months ending Jan. 31, 1898 . . . . .	24,857 01	
	<u>24,857 01</u>	\$212 99

*Medford Public Building Loan Bonds.*

Four per cent of \$45,000, issued July 1, 1893, and payable July 1, 1913; and \$56,000, issued Nov. 1, 1894, and payable Nov. 1, 1914 . . . . .	\$4,040 00	
Eight per cent of \$28,000, issued July 1, 1895, and payable between July 1, 1899, and July 1, 1904 . . . . .	2,240 00	
Five and one-half per cent of \$103,000, issued July 1, 1895, and payable between July 1, 1907, and July 1, 1912 . . . . .	5,665 00	
Four per cent of \$18,000, issued July 1, 1895, and payable July 1, 1915 . . . . .	720 00	
	<u>720 00</u>	12,665 00

*Medford Sewerage Loan Bonds.*

Eight per cent of \$10,000, issued Oct. 1, 1894, and payable Oct. 1, 1905 . . . . .	800 00	
Three and one-half per cent of \$54,000, issued July 2, 1894, and payable, \$20,000 July 1, 1905, \$12,000 July 1, 1906, \$12,000 July 1, 1907, and \$10,000 July 1, 1915, . . . . .	1,890 00	
	<u>1,890 00</u>	
<i>Carried forward</i> . . . . .	\$2,690 00	

<i>Brought forward</i>	\$2,690 00	
Two and one-half per cent of \$10,000, issued July 2, 1894, and payable July 1, 1924, and \$10,000 issued Oct. 1, 1894, and payable Oct. 1, 1924	500 00	
Three and one-half per cent of \$20,000, issued Oct. 1, 1894, and payable, \$10,000 Oct. 1, 1906, and \$10,000 Oct. 1, 1915	700 00	
Two and one-half per cent of \$185,000, issued Aug. 1, 1895, and payable between Aug. 1, 1916, and Aug. 1, 1923	4,625 00	
Two and one-half per cent of \$20,000, issued July 1, 1896, and payable July 1, 1925; and \$41,000 issued July 1, 1896, and payable July 1, 1926	\$1,525 00	
	<hr/>	10,040 00
<i>Public Playground Loan Bonds.</i>		
Eight per cent of \$7,000, issued July 2, 1894, and payable July 1, 1904	\$560 00	
Four per cent of \$14,000, issued Dec. 1, 1894, and payable Dec. 1, 914	560 00	
	<hr/>	1,120 00
<i>Medford Municipal Loan Bonds.</i>		
Four per cent of \$200,000, issued May 1, 1897, and payable May 1, 1917	8,000 00	
Four per cent of \$100,000 issued Jan. 1, 1898, and payable Jan. 1, 1918	4,000 00	
	<hr/>	12,000 00
<b>Total</b>		<hr/> <b>\$36,037 99</b>

And the Commissioners have certified to the City Auditor that this amount of \$36,037.99 is required to be raised by taxation for the sinking funds, and is to be put into the yearly appropriations for the ensuing year.

Respectfully submitted,

SAMUEL C. LAWRENCE,  
 B. C. LEONARD,  
 DANIEL W. LAWRENCE,  
 J. GILMAN WAITE,  
 WILLIAM CUSHING WAIT,  
 J. HENRY NORCROSS,

*Commissioners of the Sinking Funds.*

Medford, February 7, 1898.

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REPORT  
 OF THE  
 INSPECTOR OF WIRES.

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MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—I submit to you my annual report as Inspector of Wires:

Installations reported to this office	. . . . .	68
Installations inspected	. . . . .	70
Dead and dangerous wires removed	. . . . .	4
Dead and dangerous wires reported to owners and remedied	. . . . .	3

Yours respectfully,

WILLIAM E. OBER,  
*Inspector of Wires.*

# REPORT

OF THE

## CHIEF OF POLICE.

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FEBRUARY 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,— I have the honor of submitting to you my annual report of the Police Department for the year ending January 31, 1898.

### ORGANIZATION.

The organization of the police is as follows:

#### *Chief.*

Emery D. Holmes, appointed patrolman 1881, Chief 1887.

#### *Sergeant.*

William G. Ewell, appointed patrolman, 1887, Sergeant, 1893.

#### *Patrolmen.*

John Grady,	appointed	1870
Alfred Haskell,	“	1884
Daniel K. Richardson,	“	1885
Francis C. Thieler,	“	1887
George H. Lenox,	“	1889
Charles H. Watson,	“	1891
Frederick J. Lewis,	“	1892
James H. Kane,	“	1892
James H. Brewster,	“	1893
P. Frank Ward,	“	1893
William G. Golding,	“	1894
Charles H. Ewell,	“	1894
Thomas F. Connors,	“	1897
John B. A. Buffum,	“	1897
J. Everett Pierce,	“	1897



*Special Police.*

Benjamin F. Lenox (janitor),                      John H. Fitzgerald,  
 William H. Cowing,                                      Thomas F. McGuine,  
 Paul G. Bickford,                                        Daniel J. Fitzpatrick.

These men have passed the civil service examination and do duty when called upon.

Total number of arrests from February 1, 1897, to January, 1898 :	367
Males . . . . .	340
Females . . . . .	27
Adults . . . . .	308
Minors . . . . .	59
Residents . . . . .	152
Non-residents . . . . .	215
Arrested without warrants . . . . .	264
Arrested on warrants . . . . .	103
Held for trial . . . . .	364

*Arrested for the following offenses :*

Assault and battery . . . . .	19
Assault with intent to commit rape . . . . .	2
Abandoning a child . . . . .	1
Adultery . . . . .	1
Breaking and entering . . . . .	5
Bastardy . . . . .	1
Bigamy . . . . .	1
Being present at a prize fight . . . . .	20
Cruelty to animals . . . . .	2
Default . . . . .	11
Disturbing the peace . . . . .	3
Disturbing a meeting . . . . .	1
Drunkenness . . . . .	143
Embezzlement . . . . .	2
Escape . . . . .	1
False pretences . . . . .	3
Forgery . . . . .	2

Fornication . . . . .	1
Gaming . . . . .	11
Idle and disorderly . . . . .	1
Illegal fishing . . . . .	7
Interfering with an officer . . . . .	1
Insanity . . . . .	4
Larceny . . . . .	24
Larceny (felonious) . . . . .	1
Lewd and lascivious conduct . . . . .	1
Murder . . . . .	1
Non-support . . . . .	2
Peddling without a license . . . . .	1
Riding bicycle on the sidewalk . . . . .	5
Safe keeping . . . . .	3
Selling mortgaged property . . . . .	3
Threats . . . . .	1
Trespass . . . . .	1
Vagrancy . . . . .	44
Violation of the liquor law . . . . .	10
Violation of the City Ordinances . . . . .	11
Violation of the Park rules . . . . .	9
Violation of the Lord's Day . . . . .	5
Violation of the boiler law . . . . .	1
Violation of the milk law . . . . .	1
Total . . . . .	367

*Disposed of as follows:*

Bound over to Superior Court . . . . .	19
Committed to House of Correction . . . . .	23
Committed to House of Correction for non-payment of fine . . . . .	65
Committed to Danvers Insane Hospital . . . . .	2
Committed to Westboro Insane Hospital . . . . .	1
Committed to Mass. Dipsomaniac Hospital . . . . .	1
Committed to Mass. Reformatory . . . . .	4
Committed to State Farm at Bridgewater . . . . .	16

Committed to Lyman School . . . . .	1
Committed to Women's Prison . . . . .	3
Committed to McLean Insane Hospital . . . . .	1
Committed to State Board of Lunacy and Charity . . . . .	1
Defaulted . . . . .	18
Discharged . . . . .	37
Nol-prossed . . . . .	11
Now pending in court . . . . .	8
Paid fines in court . . . . .	106
Placed on file . . . . .	34
Turned over to other officers . . . . .	16
<b>Total . . . . .</b>	<b>367</b>

*Nativity of Prisoners.*

American . . . . .	188	Ireland . . . . .	79
British Provinces . . . . .	40	Italy . . . . .	16
Canada . . . . .	14	Russia . . . . .	8
England . . . . .	10	Sweden . . . . .	4
France . . . . .	2	Scotland . . . . .	4
Germany . . . . .	2		
<b>Total . . . . .</b>			<b>367</b>

Total number of lodgers from February 1, 1897, to January 31, 1898, 531, of the following nationalities :

American . . . . .	264	Germany . . . . .	4
Belgium . . . . .	2	Ireland . . . . .	149
British Provinces . . . . .	22	Italy . . . . .	1
Canada . . . . .	13	Russia . . . . .	1
England . . . . .	52	South America . . . . .	1
France . . . . .	3	Scotland . . . . .	15
Finland . . . . .	1	Sweden . . . . .	3
<b>Total . . . . .</b>			<b>531</b>

## MISCELLANEOUS WORK DONE.

Amount of property reported stolen . . .	\$1,861 70
Amount of property recovered by police . . .	564 50
Accidents reported . . . . .	26
Buildings found open and secured . . . . .	154
Cases investigated . . . . .	587
Defective water pipes reported . . . . .	103
Defective streets and sidewalks reported . . . . .	294
Dead bodies cared for . . . . .	8
Disturbances suppressed . . . . .	37
Dogs killed . . . . .	29
Extra days' duties done by officers . . . . .	228
Fire alarms reported . . . . .	28
Fires extinguished without alarm . . . . .	35
Gas turned off in buildings . . . . .	8
Horses found cast in stables . . . . .	29
Horses killed by officers . . . . .	2
Lanterns placed on defects in streets . . . . .	225
Lost children returned home . . . . .	20
Notices posted and delivered . . . . .	588
Number of runs of patrol wagon . . . . .	291
Number of miles run . . . . .	849½
Sick and injured persons assisted . . . . .	42
Stray teams cared for . . . . .	17
Street obstructions removed . . . . .	184
Street lights reported out . . . . .	318
Search warrants served . . . . .	9
Seizures made . . . . .	6
Wires reported dangerous . . . . .	82
Water running to waste . . . . .	3

## FINANCIAL.

Amount of fines imposed in court . . . . .	\$2,345 00
Amount of fines paid in court . . . . .	1,090 00
Amount of fines and fees received and turned over to City Collector and Treasurer . . . . .	1,049 80
Amount of money taken from prisoners and returned to them . . . . .	774 51

The expenditures of the department have been as follows :

Appropriation . . . . .	\$20,430 00
Amount received from E. Tainter . . . . .	10 00
	<hr/>
Total . . . . .	\$20,440 00
Salaries of officers . . . . .	\$16,129 70
Salaries of special police . . . . .	1,156 25
Miscellaneous bills . . . . .	3,148 58
	<hr/>
	\$20,434 53
	<hr/>
Leaving a balance of . . . . .	\$5 47

For a more detailed statement see report of the City Auditor.

#### RECOMMENDATIONS.

I repeat my recommendations of the past two years of building a stable on the land at the rear of the police station, for the patrol team and for the chief's team. I also think that the city would save money and secure much better service by placing the police signal system in at the same time.

I also think that there should be an officer of rank on duty both day and night at the station, as, by the Ordinance the Chief is required to attend all cases in court, he is away almost every forenoon and sometimes all day, and he is obliged to take a patrolman from the street, thus depriving the citizens on that route of an officer a large portion of the time. I therefore recommend that the rank of Lieutenant of Police be established.

#### CONCLUSION.

In closing this report, I wish to return thanks to your Honor for kind advice and hearty support rendered during the past year; to Sergeant Ewell and the officers of the

police department for their assistance and coöperation, and to all others who have assisted in the discharge of my official duties.

Respectfully submitted,

EMERY D. HOLMES,  
*Chief of Police.*

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## REPORT

OF THE

# Inspector of Milk and Vinegar.

---

MEDFORD, December 31, 1897.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—I have the honor to submit the following report of the work of the Department for the Inspection of Milk for the twelve months ending December 31, 1897 :

Number of licenses issued to dealers conveying milk by carriages or otherwise for purposes of sale . . . . .	101
Number of new registrations of storekeepers engaged in the sale of milk . . . . .	22
Whole number of licenses and registrations . . . . .	123
Amount of money received and delivered to the City Collector . . . . .	\$61 50
Number of samples of milk taken for analysis from wagons . . . . .	29
Number of samples taken for analysis from stores . . . . .	16

Respectfully submitted,

HENRY F. MOORE,  
*Inspector of Milk.*

# REPORT

## OF THE

### SUPERINTENDENT OF STREET LIGHTS.

---

MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—I have the honor of submitting herewith my annual report as Superintendent of Street Lights for the year ending January 31, 1898 :

Amount of appropriation . . . . .	\$14,000 00
Amount expended . . . . .	14,000 00

*Number of Lights.*

Arc . . . . .	67
Incandescent . . . . .	479

There is now an unpaid bill of the Malden Electric Co. of \$85.33 which will have to go over to this year on account of the all-night lighting of the arc lights, that I think have given satisfaction to the many people that have to be out late nights and early mornings. There are a number of lights authorized by the City Council to be placed in different streets, but on account of there being no money they were not put in. There are also a number of new streets that will have to be lighted this year. I would therefore recommend that the sum of \$15,500.00 be appropriated for the current year.

Respectfully submitted,

EMERY D. HOLMES,  
*Superintendent of Street Lights.*

# REPORT

OF THE

## CITY MESSENGER.

---

February 1, 1898.

*Hon. Lewis H. Lovering, Mayor:*

DEAR SIR,— I have the honor to submit herewith the fifth annual report of this department:

### GENERAL WORK.

During the past year the work performed by the City Messenger has been the care and cleaning of the City Hall, supervising the care and cleaning of the City Hall Annex, attendance at the meetings of both branches of the City Council and their committees, also the meetings of the different departments and boards, and the performance of the duties of Messenger for the heads of the different departments.

### MEETINGS OF THE CITY COUNCIL.

The number of meetings of the City Council and its committees attended by the City Messenger is as follows:

Board of Aldermen . . . . .	37
Common Council . . . . .	27
Joint Meetings of City Council . . . . .	5
Committee Meetings . . . . .	152
<b>Total . . . . .</b>	<b>221</b>



## PROPERTY.

The following named property is in charge of this department: Six flags (three large and three small), town and city reports, sundry documents of the old Town of Medford, copies of the Acts and Resolves of the Legislature of Massachusetts.

## EXPENDITURES.

The expense of this department for the year commencing February 1, 1897, and ending February 1, 1898, has been as follows:

## CITY HALL.

Electric light	.	.	.	.	\$161 92
Gas light	.	.	.	.	108 63
Fuel	.	.	.	.	217 73
Incidentals	.	.	.	.	284 70
Watchman	.	.	.	.	730 00
Water tax	.	.	.	.	18 00
Ice	.	.	.	.	20 00
					<hr/>
					\$1,540 98

## CITY HALL ANNEX.

Rent	.	.	.	.	\$1,000 00
Janitor	.	.	.	.	364 00
Gas light	.	.	.	.	55 31
Fuel	.	.	.	.	233 56
Ice	.	.	.	.	20 00
Water tax	.	.	.	.	13 00
Incidentals	.	.	.	.	7 95
					<hr/>
					\$1,693 82
					<hr/>
Total	.	.	.	.	\$3,234 80
					<hr/>
Amount appropriated	.	.	.	.	3,235 25
					<hr/>
Unexpended balance	.	.	.	.	\$0.45

## REMARKS.

I take this opportunity to tender my thanks to the Highway department for prompt removal of ice and snow from the sidewalks about the city buildings. I also tender my thanks to the Chief of Police for assistance rendered in furnishing details of Police on important occasions. I wish to express my obligations to His Honor the Mayor and to the heads of the different departments for many favors extended to me.

Respectfully submitted,

JAMES B. SIMPSON,

*City Messenger.*

Perhaps a fair estimate of the cost of the buildings erected with the additions and alterations may be placed at \$550,000, against \$879,265 as the estimated cost of the same for last year. In 1896 about \$100,000 were expended for the erection of public buildings that were not taxable, while during the past year less than \$10,000 have been expended on the same class of buildings, increasing the taxable amount on buildings alone for the year at \$540,000. A better class of buildings have been erected than in previous years.

The ordinance for the inspection and construction of buildings has been carefully revised and amended in many particulars, within the past few weeks as you are aware. It has been printed and bound in a convenient form for reference, and a copy has been sent to every carpenter in the city.

Quite a good many points in the old ordinance were vague and indefinite, making it difficult to enforce if one were disposed to build as cheaply as possible regardless of all other considerations.

These points have all been carefully considered and have been put in language too plain to be misunderstood.

I believe the ordinance as revised is as good as any of those of neighboring cities, and better work and more substantial buildings may be expected than ever before.

The following violations have been noted :

Buildings where timbers were under size.....	10
Buildings where timbers were too far apart.....	4
Buildings where fire stops were left out.....	3
Buildings where wood was too near chimneys.....	12
Buildings where chimneys were unsafe and taken down and rebuilt .....	15
Buildings where foundations were not properly built, taken down and rebuilt .....	13
Buildings in process of erection without permit .....	11
Piers of unsuitable brick .....	2
Buildings where furnace pipes were in contact with wood.....	11
Buildings where frames were poorly constructed.....	5
Cellars below grade 13, and filled up .....	1

It will be noticed that there has been a large number of poorly constructed and defective chimneys. After many years of experience and careful observation it is my opinion that more fires are caused from defective chimneys than from all other causes combined, and too much care cannot be taken in their construction. Some ten chimneys have been taken down and rebuilt. In many cases men are undertaking this kind of work who know nothing about the business, and the only way to deal with this class is to insist upon having the work safely and properly done even if it has to be done over and over again. But it is getting to be understood that a fair quality of work of all kinds must be done, and I anticipate less trouble in the future. I would here express my thanks to the members of boards and city officials who have at all times kindly given me any information that I have had occasion to ask for and other courtesies extended.

Respectfully submitted,

CALVIN H. CLARK,  
*Inspector of Buildings.*

# REPORT

OF THE

## INSPECTOR OF BUILDINGS.

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MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—Agreeably to the requirements of the city charter, I herewith submit this, the third annual report of this department for the year ending January 31, 1898 :

The whole number of building permits issued for the year is 275, a considerably less number than for last year (the number last year being 356). Of the number 153 are for dwelling houses and stores. The remaining 122 are for stables and buildings for quite a large variety of uses. They may be classified as follows :

	Wards.						Total.
	1	2	3	4	5	6	
Dwellings of one tenement.....	24	3	13	13	31	12	96
"    two tenements....	8	2	3	14	16		43
"    three tenements...	3			1	4	1	9
Stores and tenements.....		1			4		5
Additions and alterations.....	11	4	13	9	10	7	54
Stables.....	11	1	3	1	11	5	32
Repairs after fire .....	1	3	1				5
Carriage houses and wagon sheds	1			3	5	4	13
Storehouses.....	2			1	2		5
Stores.....	1					2	3
Four tenements.....						1	1
Church building .....					1		1
Greenhouses .....	1					1	2
Dry house for lumber.....					1		1
Temporary lodging houses.....	2						2
Offices .....					2		2
Highland Coal Co.'s building...					1		1

# REPORT

OF THE

## TRUSTEES OF OAK GROVE CEMETERY.

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MEDFORD, February 1, 1896.

*Hon. Lewis H. Lovering, Mayor:*

DEAR SIR,—The Board of Trustees of Oak Grove Cemetery respectfully submits the following as its annual report:

During the year ending December 31, 1897, the number of interments in the cemeteries under its charge was as follows:

Oak Grove Cemetery . . . . .	115
Cross Street Cemetery . . . . .	1

No interments have been made in Salem Street Cemetery. This as compared with the previous year is a decrease of thirty.

The work of preparation of the part of Oak Grove Cemetery purchased by the town of Edward Brooks, has been carried on during the past year, and in its progress has developed unexpected difficulties. The price paid for this land was \$1,000 per acre, and much of it is proving to be entirely unsuitable for burial lots except after great expense, one obstacle recently disclosed being an immense boulder, or ledge, which it is necessary to remove, at an estimated expense of about \$1,000.

It is desired by the Trustees to have a portion of this section completed, and some of the lots therein ready for sale before the expiration of the present year if possible, as

the increasing demand for lots in Oak Grove cemetery is fast consuming all eligible ones now prepared.

The older part of the cemetery has received the usual careful attention, and maintains its reputation as one of the most beautiful spots for the resting place of those who pass from among our midst.

The Trustees feel that a mistake was made in not taking some action toward securing the lot of land recommended by the board for purchase, one year ago, as without a question the present limits of the cemetery will within a few years be too small for the needs of our growing City. It will be but a short time before accommodations must be had near the cemetery for a residence for the Superintendent, as well as for some arrangements for the care of the large number of plants now purchased annually, and it seems as though from these reasons, as well as for others, a golden opportunity has been lost.

Cross Street Cemetery has by the ravages of time become in such condition as to demand immediate attention. Had the appropriation asked for last year been granted it was the intention to expend a portion of it in trying to improve the appearance of this cemetery. It is absolutely necessary to fill and grade the same at once, it being uneven and unsightly, and by the raising of the grade of Cross Street on the rebuilding of the railroad bridge a few years ago, it made the lot considerably below the level of the street. The requirements of public health have a bearing upon the importance of this action also.

Salem Street Cemetery has received its usual care and the wall of the same has been repaired during the past year. The interest being developed in historical and genealogical matters makes this spot a resort for strangers as well as of our own citizens, and many of the headstones therein have been frequently studied by the visitors.

On account of surrounding conditions, and in consideration of the facilities and accommodations offered in

connection with the use of Oak Grove Cemetery, the board believing it necessary to discontinue further burials in Cross Street and Salem Street Cemeteries as far as possible with justice to all concerned, and as the town by vote, as shown by the records, and as previous boards of trustees have done before, has taken action during the past year tending to such a result, by passing a vote restricting all future interments in these cemeteries to those only who have the body of a deceased husband or wife interred therein.

The following is an account of the receipts and disbursements during the year just closed :

Received from appropriation . . . . .	\$1,350 00
Received from sale 15 lots and three exchanged,	1,822 00
Received from sale 37 single graves, . . . . .	222 00
Received from care of lots, sale of flowers, etc.	1,083 75
Received from interest, Perpetual Care Fund . . . . .	696 23
	<hr/>
Total, . . . . .	\$5,173 98
Expended for labor, material, manure, etc. . . . .	5,145 22
	<hr/>
Balance unexpended . . . . .	\$28 76

There are about one hundred lots of various sizes at Oak Grove Cemetery now prepared and ready for sale, the disposal of which at present rate of demand will take but comparatively a short time, after which the only ones that will be available for use will be those now being prepared in the part last acquired by the town from Mr. Brooks.

The Perpetual Care Fund now amounts to \$19,020.00, it being an increase since last report of \$947.50. The interest unused that has accumulated on this, is deposited in the Charlestown Five Cents, and Medford Savings Banks.

The Treasury of the City has benefited during the past year to the amount of \$274.50 which has been received as an income from the sale of lots, in accordance with the provisions of the ordinance, in addition to the amount credited to the account of "Care of Cemeteries."



In closing, the board would recommend an appropriation for the ensuing year for "Care of Cemeteries," of \$1,500, and for reasons specified in the foregoing report, a special appropriation for "Cross Street Cemetery" of \$300.

Respectfully submitted,

JOHN HUTCHINS,  
B. B. HOWARD,  
EDWARD S. RANDALL,  
EDWARD C. ELLIS,  
ASA LAW,

*Trustees of Oak Grove Cemetery.*

REPORT  
OF THE  
PARK COMMISSIONERS.

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MEDFORD, February 1, 1898.

*To the Hon. Lewis H. Lovering, Mayor of the City of Medford:*

The Park Commissioners herewith present their fifth annual report for the financial year ending January 31, 1898.

The amount appropriated for the year did not allow of any substantial extension of the park system. Work was commenced on the Brooks Playstead, and the public parks of the city were given the necessary care.

Following the suggestion of last year's report concerning the treatment of Hastings Park, which still remains in its unsatisfactory condition, the Board desiring a topographical map of the grounds, which would be a necessary preliminary to any improvement, secured the same through the City Engineer.

The record of work upon the various parts of the Park System and certain suggestions for the future will be found in the following report of the Landscape Architect:—

BOSTON, January 13, 1898.

*Benjamin C. Leonard, Esq., Chairman of the Park Commissioners, Medford, Mass.:*

SIR,—I respectfully submit the following report for the year 1897:

At the beginning of the year a partial planting plan with list of trees and their location was made for Brooks Play-

stead. On May 1, most of the trees to be set out in the park were selected in the nursery, and a few days later thirty-nine elms were set along the Playstead Road, where it borders the park, and forty-eight trees of various kinds were set within the park itself. At the same time, about a third of the shrubbery planned for Logan Grove was set out. This was mostly along the northern side of the park.

Advantage was taken of the opportunity to get gravel close at hand for filling, and considerable grading at the northwest corner of the Playstead, also in and near the athletic field, was done under the direction of the City Engineer. A part of the running track was brought to grade and smoothly surfaced with gravel.

Magoun Park and Logan Park were taken care of by a gardener, but no arrangements have yet been made for the care of Brooks Playstead, where in consequence, weeds grew rankly during the late summer and fall, being mowed down but once.

Even if it is not thought advisable this coming year to construct the walks and plant the shrubs planned for Brooks Playstead, the place should be properly taken care of throughout the year, but especially during the growing season. The grass should be mowed frequently to kill out weeds and make a good turf, the brook cleaned out in places, the trees dug out and mulched during winter and the heat of summer. Either a good man should be engaged to work upon the park from April to October, with extra help when needed, or a contract made with a reliable contractor, used to such work, to furnish the labor as needed,—to keep the park in good condition in every way throughout the year. I am inclined to think that in the present condition of the grounds the latter way would be more economical and as satisfactory in results as the other.

At Magoun Park a few trees should be planted for shade, which appears much needed there.

The planting at Logan Grove should be completed this coming spring. As the plan did not call for as close group-

ing as at Magoun Park, much of the ground dug up by the gardener last summer should be re-seeded, and the turf dug up only close to the new shrub groups, to show as much green grass as possible.

My suggestions in regard to both Hastings Park and the Common, made in my report of last year, hold good today. It would be desirable to find a new playground very soon, not far from the centre of the city,—but not so conspicuous as the Common, and then make the dreary Common into a pleasing park,—as might be easily done.

A few groups of shrubs at the corner of Brooks Park would be a decided improvement there. At the little delta where Boston Avenue meets High Street, a granite curb with curving edge, more loam and shrubbery properly arranged would make an attractive and pleasing feature.

Respectfully submitted,

Signed,

EDWARD P. ADAMS.

The question of the improvement of the banks of the Mystic River is one of especial interest to our city. The work would be taken up by the Commonwealth through its Metropolitan Park Commission, and by the municipalities directly concerned. It is the belief of this Board that Medford can be depended upon for its share of this work, not only for the greater attractiveness the improvements will bring to our city, but more for the sanitary benefits which will be received.

While the Board would be glad to make a substantial addition to our parks along the lines suggested last year, it hesitates to make any recommendation of an appropriation for this purpose in view of the large demands which may be made upon the city for necessary improvements in other directions. It is deemed wise to restrict the appropriations for the present year to an amount which, with the exercise of a rigid economy, promises to suffice for the proper care

of the grounds under the charge of the Board, and for necessary trees and shrubs.

We, therefore, recommend the following appropriations :

For general expenses on all public parks	. \$1,300 00
For trees and shrubs . . . . .	300 00

Respectfully submitted,

B. C. LEONARD,  
R. B. LAWRENCE,  
CHARLES H. LOOMIS,  
HENRY DUNSTER,  
WALTER F. CUSHING,

*Park Commissioners.*

# REPORT

## OF THE

# CITY PHYSICIAN.

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MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—I herewith respectfully submit the following report for the eleven months ending February 1, 1898:

Whole number of patients . . . . .	130
Whole number of calls . . . . .	728
Number of patients at almshouse . . . . .	16
Number of calls at almshouse . . . . .	72
Number of calls at police station . . . . .	12
Civil service examinations for police force . . . . .	9
Civil service examination for mail service . . . . .	1
Obstetrical cases . . . . .	3
Number of vaccinations . . . . .	8

There were during the eleven months, seven cases of contagious diseases. Diphtheria 3, scarlatina 4.

There were six deaths. Brights disease, one; convulsions, one; cholera infantum, two; growth in esophagus, one; rheumatism, one.

Respectfully submitted,

C. R. DRAPER, M. D.

MEDFORD HISTORICAL SOCIETY.  
a. c. 23657

REPORT  
OF THE  
STREET COMMISSIONER.

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STREET COMMISSIONER'S OFFICE,  
CITY HALL ANNEX,

MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR:—In accordance with section 33, "City Charter" of the city of Medford, I respectfully submit my second annual report as Street Commissioner for the year 1897.

I shall endeavor to make full and clear all items of interest, and point out for consideration some of the important and urgent needs of this department.

The inability of the West End Street Railway Co. to come to some agreement with our City Government in the matter of double tracking Main and Salem streets, caused an entire change as to the expenditure of the "Special Construction" appropriation, and enabled us to undertake and complete much valuable and necessary work, which we would have found it impossible to do had this appropriation been expended as contemplated.

It is to be hoped that the managers of the Boston Elevated Railroad Co. may come to some terms with our City Government the coming year, as the streets where double tracks are proposed are in urgent need of thorough renovation which should be no longer delayed, and yet it would be unwise to undertake to make any repairs other than those absolutely necessary to make these streets safe and passable, until some definite disposition is made of this matter.

## STREET WATERING.

A new 2-horse Studebaker sprinkler was purchased early last season, giving us six double and two single carts for the season's work.

It would seem that in the interests of economy an electric sprinkler for our thoroughfares occupied by the street railroads should be investigated and carefully considered, for the work would be greatly facilitated and simplified as there are now 25,045 linear feet to be watered on streets occupied by the street railways, out of a total of 70,285 linear feet watered.

By direction of the Mayor, 63,345 linear feet of watering was done as follows :

High street . . . . .	9550 feet
Forest street to "Kidder Hill" . . . . .	3670 "
Salem street . . . . .	6250 "
Washington street . . . . .	3000 "
Spring street from Hamlin avenue to Centre avenue . . . . .	3670 "
Myrtle street from Spring street to Pinkert street	1180 "
Park street from Salem street to Magoun avenue	1640 "
Dudley street . . . . .	1670 "
Cross street . . . . .	860 "
Riverside avenue from Medford square to Abbott street . . . . .	3185 "
Main street . . . . .	8705 "
Mystic avenue from Main street to Swan street	300 "
Union street from Mystic avenue to City Pound	270 "
Summer street . . . . .	2295 "
South street from Main street to Curtis street .	1750 "
Harvard avenue from High street to Sharon street	1270 "
Boston avenue from High street to Mystic river	2230 "
Bowers street from Harvard avenue to Holton street . . . . .	520 "
Canal street from High street to Prescott street	540 "
Oakland street . . . . .	990 "
Walnut street from South street to southerly line of A. B. Moorhouse . . . . .	550 "



Winthrop street from Winthrop square to Wyman street . . . . .	1250 feet.
Otis street . . . . .	1890 "
Water street from Forest street past easterly line of J. H. Norcross . . . . .	860 "
Holton street from Bowers street to Boston avenue . . . . .	330 "
Ashland street . . . . .	1180 "
Emerson street . . . . .	325 "
Sharon street from High street to Harvard avenue	1440 "
Lawrence street from Spring street to opposite No. 70 . . . . .	635 "
By petition of two-thirds of the abutting owners	6940
linear feet were watered as follows ;	
Monument street . . . . .	2140 feet.
Vernon street . . . . .	900 "
Allston street . . . . .	1070 "
Linden street from Monument street to Sharon street . . . . .	280 "
Royal street . . . . .	670 "
Florence street . . . . .	520 "
College avenue from Summer street to George street . . . . .	1360 "

#### CARE OF TREES.

The manifest interest taken by the citizens in the matter of shade trees in the past few years is steadily increasing and the appropriation for this work is wholly inadequate to meet the demands made upon it.

As early as July the amount appropriated was expended, in consequence of which it was impossible to properly care for the trees which were set out in the spring, nor were we able to adequately protect the trees from the canker worm which requires prompt attention late in the fall as well as early in the spring.

There were 172 trees set out during the year; 25 more than were set out in 1896.

There were 195 protectors placed, six more than in 1896.

The following specifies where the foregoing work was done :

	Trees.	Protectors.
Arlington street - - - - -		2
Almont street - - - - -	6	6
Abbott street - - - - -		12
Allston street - - - - -	5	6
Boston avenue - - - - -	2	10
Court street - - - - -	1	1
Cushing street - - - - -		4
College avenue - - - - -	5	17
Dudley street - - - - -		4
Everett street - - - - -		5
Forest street - - - - -	2	2
Garfield avenue - - - - -	25	32
George street - - - - -	10	10
Harvard avenue - - - - -	3	3
Holton street - - - - -	2	
High street - - - - -	2	2
Jerome street - - - - -	3	3
Lawrence street - - - - -	3	4
Logan avenue - - - - -	10	10
Manning street - - - - -	5	2
Magoun avenue - - - - -	26	7
Mystic street - - - - -	2	
Monument street - - - - -	3	3
Main street - - - - -		7
Otis street - - - - -		8
Posey street - - - - -	3	
Sharon street - - - - -	8	
Salem street - - - - -	3	9
Spring street - - - - -	1	3
Tainter street - - - - -	4	3
Vernon street - - - - -	11	14
Washington street - - - - -	6	6
Wyman street - - - - -	3	2
Warren street - - - - -	5	5

## STREET SIGNS.

There were 17 new street signs erected, exclusive of those repainted.

Allston street	-	-	-	-	-	-	-	-	2
Almont street	-	-	-	-	-	-	-	-	1
Boston avenue	-	-	-	-	-	-	-	-	1
Cottage street	-	-	-	-	-	-	-	-	1
Grand View avenue	-	-	-	-	-	-	-	-	1
Hicks avenue	-	-	-	-	-	-	-	-	1
Holton street	-	-	-	-	-	-	-	-	2
Monument street	-	-	-	-	-	-	-	-	2
Royal street	-	-	-	-	-	-	-	-	1
Swan street	-	-	-	-	-	-	-	-	1
Sharon street	-	-	-	-	-	-	-	-	2
Truro avenue	-	-	-	-	-	-	-	-	1
Union street	-	-	-	-	-	-	-	-	1

There were also 23 "Private-way" signs placed on unaccepted streets.

## PERMITS.

There were issued from this office 138 permits, as follows :

To occupy sidewalks for building purposes	-	-	-	-	-	-	-	-	10
To cross sidewalks	-	-	-	-	-	-	-	-	3
To erect canopy over sidewalk	-	-	-	-	-	-	-	-	1
To open street to connect houses with gas main	-	-	-	-	-	-	-	-	55
To open street to lay gas main	-	-	-	-	-	-	-	-	16
To open street to lay water main	-	-	-	-	-	-	-	-	2
To open street to lay telephone wire conduit	-	-	-	-	-	-	-	-	1
To open street to lay drain pipe	-	-	-	-	-	-	-	-	3
To move buildings	-	-	-	-	-	-	-	-	2
To move post for letter-box	-	-	-	-	-	-	-	-	1
To place letter-boxes	-	-	-	-	-	-	-	-	3
To place guy ropes across sidewalks	-	-	-	-	-	-	-	-	1
To move telephone pole	-	-	-	-	-	-	-	-	1
To remove lamp post	-	-	-	-	-	-	-	-	1
To blast rock	-	-	-	-	-	-	-	-	16

To allow steam roller to pass through city	-	10
To allow organizations to parade	- - - -	7
To put gravel on street	- - - -	1
To construct and use bulkhead in sidewalk	- -	1
To lay street railway track, Playstead Road	- -	1
To relay single tracks on Main and Salem streets	-	1

## CITY STABLES.

We are sadly in need of a stable and coverings for the carts and appliances used by the department. It would be hard to conceive a place less destitute of even ordinary buildings for the proper protection and preservation of property. The stable is old, out of repair, and wholly unadapted for the accommodation of so many horses, that it would be very unwise to do anything in the way of remodeling. If a stable could be built to accommodate the sewer department and teams of the several inspectors, the amount saved in rent and board would be considerable, as with little expense suitable storage space for sewer pipe could be prepared, as the area is ample.

## STONE SUPPLY AND CRUSHING PLANT.

The city was never in a position to so economically quarry, crush, and deliver stone; for in every way possible the cost has been reduced to a minimum, and a sufficient supply is visible, to meet the demands for the construction and repair of our streets for a number of years to come.

The Valley street ledge is hardly adapted for surfacing, but its adaptability as ballast is all that could be required. With a very small expense a temporary crushing plant could be constructed at this ledge for preparing ballast, thus considerably reducing the expense of hand breaking. The city already owns an engine and boiler which was formerly used to furnish power to the small crusher which was replaced by the crusher now in use. This original crusher could be put

in reasonably good condition with but little outlay, and I think that the results of such a course would be very gratifying.

At the almshouse ledge there were drilled 3,438 feet; 1,506 pounds of dynamite were used, and 19,017 single loads of stone were crushed. There were 1,207 single loads of material taken from the top of the ledge and put on the almshouse land to be utilized as filling.

Necessary repairs, caused by natural wear and usage, have been made to engine and machinery during the winter and the plant is ready to resume work the coming season.

#### BRIDGES.

The Auburn street and Winthrop street bridges are not in a safe condition, and it is urgently suggested that consideration be given for the building of new structures in each case. Much of the heavy teaming to Winchester and beyond passes over the Winthrop street bridge, and it is hoped that some action may be taken towards the replacing of this bridge with a steel structure before any accident happens. The other bridges are in good or fair condition and will require no special attention at present.

#### MIDDLESEX AVENUE BRIDGE.

Considerable was done about the draw and pier at this bridge during the year. The bridge was subjected to an unusual amount of traffic last season, owing to the work of constructing the new boulevard, in consequence of which it may be necessary to do considerable in the way of repairs the coming season. The draw was opened as follows:

Vessels going up stream	-	-	-	-	-	335
Vessels going down stream	-	-	-	-	-	332
Returning tugs,	-	-	-	-	-	144

The vessels had as cargoes: Coal 21,865 tons; gravel 34,050 tons; lumber 770,000 feet; molasses 500 bbls.

## PAVING GUTTERS.

Much attention has been given during the year to this work, and as a result we have added to our paved gutters more than double the amount done in any previous year, and the saving in street repairs caused by washouts will considerably more than pay the interest on the cost of the work.

The following work has been done the past season :

## GRANITE PAVING.

Winthrop street	-	-	-	-	-	350 sq. yds.
Mystic street, west side	-	-	-	-	-	170 "

## COBBLE PAVING

Highland avenue	-	-	-	-	-	325 sq. yds.
High street	-	-	-	-	-	3,142.2 "
Mystic street (east side)	-	-	-	-	-	38 "
Governors avenue (west side)	-	-	-	-	-	137 "

Total paving 4162.2 square yards.

## SIDEWALKS AND EDGESTONES.

Every year there has been an increase of applications for sidewalks and edgestones, and with the waking up of the citizens to the realization of the fact that good sidewalks are essential to the general welfare of the city, both for service and appearance, it will be necessary to increase the appropriation proportionally for their construction.

Many of the residents of Otis street made application to have work done and estimates were accordingly furnished; but with a single exception no deposits were made, in consequence of which it was not advisable to commence this work.

I would recommend that, in future, more brick and less concrete sidewalk work be put down, for while the first cost of brick is greater, its permanency and the facility with which repairs can be made, make them preferable to all others.

Where it is necessary for the sewer and water departments and the gas companies to make house connections, the side-

walks can be repaired cheaper, neater and quicker when made of brick, and any subsequent settling can be very readily adjusted.

The following work has been done :

#### EDGESTONES.

The following were set by petition of the abutters :

	Edgestone, feet.	Circle, feet.
F. H. Lovering, 42 Harvard avenue	- 55.28	7
E. E. Baldwin, 48 Harvard avenue	- 67.	
L. H. Lovering, Harvard avenue	- 69.34	
G. F. Spaulding, Boston and Harvard avenues	- - - - - 252.05	
J. K. Ricker, Hicks avenue	- - 78.81	19.8
Ellis, Coddling & Higgins, Hicks avenue	255.93	74.75
Combination Park Ass'n, Hicks avenue	420.	77.9
Mary W. Knapp	- - - - 410.17	35.25
Thomas Leyland, Sharon street	- - 84.97	7.10
Priscilla C. Phinney, Mystic and High streets	- - - - - 380.6	32.04
Methodist church, Holton and Bowers streets	- - - - - 172.95	
G. A. Young, 35 Lawrence street	- 52.58	
R. Gibson, 39 Lawrence street	- 57.4	
W. H. Batchelder, 111 Spring street	149.61	12.60
J. H. Archibald, 121 Spring street	- 48.09	
Elizabeth C. Plunkett, 119 Spring street	47.84	
Joseph N. Leach, Boston avenue	- 51.47	7.2
A. H. Evans, 64 Boston avenue	- 55.68	3.55
G. D. Evans, 68 Boston avenue	- 56.42	3.55
R. B. Lawrence, Spring street	- - 48.	
D. I. McIntire, 65 Dudley street	- 60.65	7.3
W. S. McIntire, Dudley street	- - 150.64	16.5
J. J. Parry, 61 Dudley street	- - 70.	
Totals, Edgestone, 3,095.48 feet.		
Circle,		304.54 feet.

By order of the Board of Aldermen the following edgestone was set :

	Edgestone, feet.	Circle, feet.
Mrs. Laura A. Holton, High street and Harvard avenue - - - -	220.76	11.
West Medford Congregational church	80.	10.71
Mrs. M. B. Wood, Bowers street and Harvard avenue - - - -	49.92	12.6
Mrs. Laura A. Holton, Boston avenue	73.75	
Totals, Edgestone, 524.43 feet.		
Circle,	34.31	"

The following brick sidewalk with edgestone was set by petition of abutter :

	Brick, Sq. yds.	Edgestone, feet.
C. H. Barnes, 37 Oakland street -	49	66

By order of the Board of Aldermen the following brick sidewalks with edgestones were set.

	Brick, sq. yds.	Edgestone, feet.	Circle, feet.
Mrs. Hepsey Bradlee, Forest street	118.5	167.5	16.3
Mrs. Emma Cleaves, Forest street	74.1	99.8	15.3

The following concrete sidewalks without edgestones were laid :

W. P. Martin, 6, 10 and 14 Garfield avenue - - - - -	155.8 sq. yds.
M. J. Coughlin, 18 Garfield avenue -	32.3 "
Mrs. M. Wagner, 22 Garfield avenue -	33.33 "
W. P. Martin, 26 Garfield avenue -	33.33 "
Albert Mason, 30 Garfield avenue -	34.7 "
J. S. Sturtevant, Chester avenue -	52.1 "
W. F. Bartlett, 17 College avenue -	32.8 "
F. B. Blodgett, 21 College avenue -	32.1 "
A. W. Teel, 49 College avenue - -	33.3 "
F. W. Bartlett, 53 College avenue -	41.2 "
Total	480.96 square yards.



Concrete sidewalks, with edgestones, were laid by petition of the abutters as follows :

	Concrete, sq. yds.	Edgestone, feet.	Circle, feet.
Jas. P. Abbott, 20 Central avenue	57.1	77.56	
L. H. Lovering, Boston avenue .	168.4	280.70	15.4
W. Medford Baptist church, Boston avenue - - - - -	67.9	194.7	15.4
L. E. Shattuck, 44-46 Brooks street	44.7	66.	
E. M. Bartlett, 25 Dudley street -	40.1	55.	
Sarah F. Patch, 31 Dudley street -	47.1	70.	
Sarah D. Hobby, 41 Dudley street	55.	69.6	.6.
Geo. C. Leach, 49 Dudley street -	40.1	55.	
W. H. Warren, 45 Dudley street -	40.1	56.3	
T. H. Bird, 53 Dudley street -	38.6	55.	
A. C. Chaney, 57 Dudley street -	39.9	55.	
J. P. Abbott, cor. Dudley street -	65.4	76.3	
J. M. Grout, 91 Dudley street -	51.3	70.	
Edwin E. Stevens, Boston avenue	31.1	40.	
B. & M. R. R., High street - -	52.9	23.83	
Totals, Concrete,	839.7	sq. yards.	
Edgestone,	1,172.99	feet.	
Circle,	21.4	feet.	

By order of the Board of Aldermen the following concrete sidewalks with edgestones were laid :

	Concrete.	Edgestone.	Circle.
N. A. Johnson, Dudley street -	41.7	66.41	
Mrs. E. E. Clark, Dudley street -	33.9	75.	
G. L. Sleeper, Dudley street -	104.7	114.	4.15
Mrs. Emma M. Kellum, Dudley st.	92.6	131.1	
G. Billings & A. Sargent, Tr., Dudley street - - - - -	85.	125.	
Frederick Hall, Dudley street -	42.	60.	
Chas. Larned, Boston avenue -	45.1	58.	
Totals, Concrete,	445	sq. yards.	
Edgestone,	629.51	feet.	
Circle,	4.15	feet.	

## CONCRETE SIDEWALKS RELAID.

Irving street	-	-	-	-	-	9.	sq. yds.	
Central avenue	-	-	-	-	-	6.	"	
Oakland street	-	-	-	-	-	6.3	"	
Harvard avenue	-	-	-	-	-	11.4	"	
Cor. Bowers and Holton streets	-	-	-	-	-	164.8	"	
Oakland street, Day's court	-	-	-	-	-	7.6	"	
Canal street (Engine House)	-	-	-	-	-	62.4	"	
Total, 267.5 sq. yards.								

## CONCRETE SIDEWALKS TOP-DRESSED.

College avenue	-	-	-	-	-	10.2	sq. yds.	
Pearl street	-	-	-	-	-	86.7	"	
Washington street	-	-	-	-	-	159.4	"	
Franklin street	-	-	-	-	-	119.6	"	
Oakland street	-	-	-	-	-	283.1	"	
Boston avenue	-	-	-	-	-	82.9	"	
High street	-	-	-	-	-	74.5	"	
Harvard avenue	-	-	-	-	-	399.4	"	
Bowers street	-	-	-	-	-	13.1	"	
Sharon street	-	-	-	-	-	63.9	"	
Warren street	-	-	-	-	-	4.6	"	
Riverside avenue	-	-	-	-	-	141.	"	
Middlesex avenue and Fifth street	-	-	-	-	-	537.3	"	
Fourth street	-	-	-	-	-	41.5	"	
Fifth street	-	-	-	-	-	144.1	"	
Highland avenue	-	-	-	-	-	413.	"	
South and Manning streets	-	-	-	-	-	386.5	"	
High street	-	-	-	-	-	690.1	"	
Brooks street	-	-	-	-	-	49.8	"	
Canal street	-	-	-	-	-	22.4	"	
Central avenue and Dudley street	-	-	-	-	-	226.4	"	
Riverside avenue	-	-	-	-	-	38.	"	
Park street	-	-	-	-	-	73.	"	
High and Cottage streets	-	-	-	-	-	86.	"	
Brooks street	-	-	-	-	-	12.	"	
Total, 4,158.5 sq. yards.								

## CONCRETE CROSSINGS (NEW).

Dudley street and Central avenue	-	-	-	-	3.6 sq. yds.
Harvard avenue	-	-	-	-	207.2 "
Monument street	-	-	-	-	67. "
Total, 277.8 sq. yds.					

## CONCRETE CROSSINGS TOP-DRESSED.

Washington street and West line of Dudley street	-	-	-	-	54.2 sq. yds.
Middlesex avenue	-	-	-	-	47.5 "
Riverside avenue	-	-	-	-	68.3 "
Fifth street	-	-	-	-	43.3 "
Total, 213.3 sq. yards.					

## CONCRETE GUTTERS TOP-DRESSED.

Irving street	-	-	-	-	129. sq. yds.
Brooks street	-	-	-	-	58. "
Total, 187 sq. yards.					

## BROWN-STONE CORNER LAID.

Winthrop street, corner Emery street	-	-	-	-	1
Winthrop street, corner Capen street	-	-	-	-	2
High street, corner Hastings Lane	-	-	-	-	2
Total, 5.					

The following granite crossings were laid :

Mystic street at High street	-	-	-	-	1
Allston street at High street	-	-	-	-	1
High street at Hastings lane	-	-	-	-	1
Total, 3.					

## SURFACE DRAINAGE.

The drain work that has been done the past year was urgently needed, and there are numerous places equally important which should receive early attention.

Not only is a large amount of money saved on street repairs by suitable gutters and drainage but the convenience and safety of pedestrians is assured in wet weather.

It is hoped that amounts may be each year devoted to the extension and improvement of our system.

In this way the money spent for these improvements will not be materially burdensome, and in a few years we will have a practical and efficient system in all important locations.

The following tables show where and what has been done in this line of work the past year :

TABLE OF SURFACE DRAINAGE.

STREET.	Main pipe.		Connection pipe.		Box Drains.		Catch Basins.	Manholes.
	Length Feet.	Size In.	Length Feet.	Size In.	Length Feet.	Size In.	No.	No.
Dexter street . . . . .	263.	10						
Governors avenue . . . . .	40.	10						
Harvard avenue . . . . .	1204.6	10	70.6	8	16.	24x19	1	1
High street . . . . .			55.	10			6	
Main street . . . . .	683.	24						3
	88.	20						
Summer street . . . . .	251.	8					1	
High street . . . . .	659.	12	90.	8			4	
(W. Medford)			25.	10				2
George street . . . . .	*42.3	20					2	
Forest street . . . . .		18	6.	8			1	

\* Culverts.

## REPAIRS AND MATERIALS USED ON THE FOLLOWING STREETS.

	Crushed Stone.	Gravel.	Ashes.	Filling.	Building Stone.	Ballast.	Sand.	Loam.	Rubble.	Clay.	Bricks.	Paving Blocks.
Allston street	27	32	212	34								
Adams street	10	14										
Albion street	17											
Auburn street	145		80									
Arlington street	179	35		157								
Abbott street	8	8										
Ashland street	38											
Almont street	13		20									
Bradshaw avenue			74	44								
Boston avenue	960	24	1	24								
Brooks street	14	3										
Bowers street	36											
Bingham street	12											
Brookings street	30	2										
Benham street	50											
Cherry street	7		102									
City Yard	16	220	1283	119			9					450
Central avenue	6											
Cottage street	4		20									
College avenue	35	4		50								
Canal street	277	20										
Cotting street	62		6									
Curtis street	1											
Chester avenue	466	75	1									
Cross street	4	2										
Cushing street	10											
Dexter street	23											
Dudley street	105	139										
Daisy street	672	87	230			306						*8
Edward street	4		41									
Everett street	29											
Emerson street												
Emory street			8									
Elm street	131	69										
Forest street	321	1484	147				56					
Fulton street	12	4										
Fourth street	8		7									
Fifth street	16						8					
Florence street	10											
Fountain street			1									
Franklin street	6											
Farragut avenue	18		12			737						
Foster court												
George street	168		104	18							600	11
Governors avenue		117						4				
Grand View avenue		4										
Gleason street	2											
Henry street	6		32									
Harvard street	26											
Harvard avenue	62	20	3				2					12
High street	3980	791					1				9668	17
Hicks avenue	390	236										
Holton street	168	16					42					
Hall avenue	94			38			88					
Highland avenue	5						30					31
Hillside avenue			3									
Hastings lane		32										
Highland avenue }												
Middlesex Fells }	78	115										
Irving street	4	28										
Joseph street			189									
James street				85								
Jerome street	8	130	100									
King avenue	28		5									

\* Building stone. † Barrel Cement and 2 Catch Basin Stones. ‡ Barrels Cement.

	Crushed Stone.	Gravel.	Ashes.	Filling.	Building Stone.	Ballast.	Sand.	Loam.	Rubble.	Clay.	Bricks.	Facing Blocks.
Lawrence street	12											
Lincoln street	4											
Linden street	13			644								
Laurel street						6						
Logan avenue	44					921						
Main street	427	10	389								1500	15
Mystic street	48	388	406	13								
Marion street	51											
Middlesex avenue	263		1									
Mystic avenue	226	2	86			2		8				
Myrtle street	65											
Madison street	3											
Medford street	39			7								
Manning street	10			2								
Monument street	28											
Marshall street	6	221										
Magoun avenue	4											
Manning street	2											
Maverick street			40	50								
Newton street				10								
North street				6								
Newbern avenue	4		58									
Oakland street	2											
Orchard street		42		7			2					
Osis street	8											
Paris street	3		31									
Park street	51		459									
Prescott street	16		2	30								
Pleasant street	16											
Pearl street	2											
Park street Court	1											
Pembroke street	2											
Playstead Road	57											
Quincy street	330			88			20					
Riverside avenue	413	44	251									
Royal street	2											
Second street			1									
Sidewalks	311	424	316	154			56					
Spring street	2106	316	8								250	*1.
South street	109		4									
Salem street	262		2									
Sheridan avenue							47					
Summer street	58		4									
Sharon street	9											
Ship avenue			313									
Sherman street		12										
Swan street	30	595	23									
Schoolhouse lot				1091								
Thatcher street	2											
Tontine street	91	16										
Temple street	70											
Tufts street		14	1									
Taylor street			35									
Tainter street	2											
Union street	8		10									
Vernon street	3			19								
Valley street	2											
Winthrop street	139	70	19				100					150.
Wareham street	18											
Wyman street	12	177	110									
Washington street	62		1									
West street	64		8									
Winchester street	10											
Walnut street	35		8									
Woburn street	17	48		10			116					
Warren street	20		15									
Woodlawn avenue	50			14								
Water street	8	9										
Webster street	2											

† Barrels Cement. \* Barrel of Cement and two 21 in. grates.

As Mr. Bryne, the Street Commissioner, resigned in January, it has been necessary for me, as clerk, to finish his report. This I have done, and the tables as compiled are an exact copy of the books in this office.

M. E. LAURIAT,  
*Clerk.*

# MEDFORD HISTORICAL SOCIETY,

ae. 23657

## REPORT OF THE CHIEF ENGINEER OF FIRE DEPARTMENT.

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*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—In accordance with the requirements of the city ordinance I herewith present the report of the work of the Medford Fire Department for the year ending January 31, 1898, which will include a list of the fires and alarms, amount of insurance, value of property at risk, and loss as near as can be ascertained; also a list of officers and members, a list of the apparatus, recommendations, etc.

### FORCE OF DEPARTMENT.

The force of the department consists of two classes, namely, permanent men who are employed all the time, and call men who are on duty upon alarm of fire only, the total membership of the department being fifty-six men.

### PERMANENT FORCE.

The permanent force is the same as last year, and is as follows: Chief of department, who is also superintendent of fire alarm, one engineman of steamer, who is also assistant superintendent of fire alarm, and eight drivers, making a total of ten permanent men.

### CALL FORCE.

The call force consists of first and second assistant engineers; Hose Company 1, ten men; Hose 3, six men; Hose 4, six men; Chemical A, four men; Chemical B, five men; hook and ladder company, twelve men, and one stoker of steamer, making a total of forty-six call men.



## BUILDINGS.

The Central engine house will have to have some painting done the coming year, the woodwork outside of building will need painting, the apparatus rooms will need oiling; outside of this the building is in good repair. At the present time we are putting in a heater and hose rack to dry hose, which will give us an appliance needed for a long time. Hose 4 house will need a new floor in the apparatus room, and the walls and ceiling need to be fixed up in some way, either oiled or painted. Chemical B house, South Medford, is in good repair, but the walls in the halls and rooms on the second floor should be painted. Chemical A house, Canal street, is in good repair, except the hall and one or two rooms in the tenement over the apparatus room, which will need painting and papering. Of Hose 3 house the less said the better; but, as your honor has been instructed in regard to same, we hope for a change in the near future.

## APPARATUS.

The apparatus is the same as last year and is as follows: One second-class Amoskeag steam fire engine, one hook and ladder truck, carrying 305 feet of ladders, hooks, etc.; one two-horse hose wagon, carrying 1,500 feet of two and one-half inch hose and two pony chemical extinguishers; one one-horse hose wagon, carrying 1,000 feet two and one-half inch hose, and two pony chemical extinguishers; one two-horse hose reel, carrying 1,000 feet of two and one-half inch hose, and two pony chemical extinguishers; one two-horse fifty-gallon, double tank, Babcock chemical engine, carrying forty-two feet of ladders, 300 feet of chemical hose, plaster hook, door opener, etc.; and one two-horse combination chemical and hose wagon, carrying 750 feet of two and one-half inch hose, and 200 feet of chemical hose; also twenty feet of ladders. We also have one two-horse hose reel which is past doing fire duty, and two old hand reels. The department also owns five exercise or supply wagons, four hose pungs and one light depot pung, used by chief. The past year I have had all the exercise wagons

overhauled, either varnished or painted. Hose 1 wagon has been varnished, the machinery of steamer has been overhauled and the engine is now in first-class condition as far as working is concerned, but will have to be painted as soon as possible, and the combination wagon at South Medford will have to be overhauled this coming year.

#### HORSES.

We have at the present time sixteen horses in the department, located as follows: Nine at Central Station, two at West Medford, one at Park street, two at South Medford, and two at Spring street. We have made some changes this past year, sold one outright and exchanged two.

#### FIRE ALARM.

The fire alarm is in first-class condition at present, and consists of one four-circuit repeater, four large bells and strikers, one eighteen-inch gong at Hose 3, three five-inch gongs, one six-inch gong and one eight-inch gong, one indicator at Central Station, one indicator at chemical house at West Medford; thirty-five street boxes, one at Combination Park being a private box. We have twenty-three miles of wire, two miles being added the past year. I again call your attention to the storage battery which has been put in in a great many cities the past year, and is quite a saving in expense of running after you once get the battery installed. I respectfully recommend that the sum of \$800 be appropriated for purchase of same.

#### HOSE.

We have now on hand 9,400 feet of hose in good condition, and 950 feet of poor hose. Unless some unforeseen accident happens we will not need new hose for two or three years.

#### SALARIES.

The pay of the permanent men remains the same as last year, with one exception. The pay of the call men has been increased to \$98 each per year.

## FIRES IN THE WOODS.

I most respectfully recommend that the sum of \$200 be appropriated for fires in the woods.

## MEMBERS OF THE DEPARTMENT.

Charles E. Bacon, Chief Engineer and Superintendent of Fire Alarm.

Jude C. Clark, First Assistant Engineer and Clerk.

Frank O. Waterman, Second Assistant Engineer.

## HOSE Co. No. 1.

Rank.	Name.	Age.	Occupation.	Residence.
Captain	George A. Hooker	49	Blacksmith	47 Cotting st.
Lieut.	Adam G. Clark	44	Mason	16 Tufts st.
Clerk	James Ingraham	29	Sewer Dept.	46 Main st.
Hoseman	John F. Chick	48	Blacksmith	6 Simonds ct.
Hoseman	John Payne	38	Carpenter	9 Main st.
Hoseman	Edgar H. Babcock	30	Barber	74 South st.
Hoseman	Charles Bourque	28	Horseshoer	72 Main st.
Hoseman	Fred W. Mahoney	38	Painter	5 Salem st.
Hoseman	Henry James	42	Printer	32 Everett st.
Hoseman	Arthur Randall	21	Grocer	67 Ashland st.

Judson A. Hanson, *Driver*.

Frank P. Dutton, Charles Blake, *Substitutes*.

## ENGINE Co. No. 1.

Arthur Morse, *Driver*.

Geo. H. Gillard, *Engineman*.

Harry M. Smith, *Stoker*.

## HOSE No. 3.

Rank.	Name.	Age.	Occupation.	Residence.
Captain	Joshua Brewster	28	Blacksmith	273 Park st.
Lieut.	Wm. S. Richards	22	Plumber	257 Salem st.
Clerk	Charles S. Burrell	41	Highway Dept.	5 Revere pl.
Hoseman	Hartwell Melvin	27	Engineer	183 Salem st.
Hoseman	Oliver C. Nicoll	26	Blacksmith	9 Main st.
Hoseman	Mont Oliver	23	Highway Dept.	Swan st.

Benjamin F. Samson, *Driver*.

Charles Curtis, George Bell, *Substitutes*.

## HOSE NO. 4.

Rank.	Name.	Age.	Occupation.	Residence.
Captain	B. W. Colburn	28	Carpenter	Riverside ave.,
Lieut.	John Antrobus	22	Painter	49 Cushing st.
Clerk	Wm. L. Clifford	27	Clerk	58 Myrtle st.
Hoseman	J. B. Barnes	39	Cloth Cutter	50 Spring st.
Hoseman	I. T. Hamm	47	Print Works	50 Spring st.
Hoseman	T. H. Kieley	28	Artist	2 Sprague ct.

William Ordway, *Driver*.

J. G. Antrobus, *Substitute*.

## HOOK AND LADDER NO. 1.

Rank.	Name.	Age.	Occupation.	Residence.
Captain	Frank Hathaway	45	Machinist	32 Union st.
Lieut.	C. H. Hartshorn	43	Harnessmaker	35 College ave.
Clerk	Sam'l G. Jepson	65	U S. Inspector	237 Park st.
Ladderman	James H. Chase	37	Expressman	6 College ave.
Ladderman	C. Ernest Larkin	25	Expressman	} Cor. Ashland { and Salem sts.
Ladderman	W. B. Hervey	23	Clerk	
Ladderman	Geo. L. Newhall	33	Public Carriage	102 Summer st.
Ladderman	Herbert Etter	47	Blacksmith	66 South st.
Ladderman	Fred D. Gould	34	Machinist	7 Abbott st.
Ladderman	Joseph Perham	27	Public Carriage	Forest st.
Ladderman	F. R. Waterman	21	Machinist	9 Main st.
Ladderman	Amos D. Haskell	24	Gardener	121 Summer st.

Hugh Fraser, *Driver*.

## CHEMICAL A.

Rank.	Name.	Age.	Occupation.	Residence.
Captain	Otto J. C. Neilson	26	Plumber	37 Sharon st.
Clerk	Fred Whitman	22	Plumber	14 Canal st.
Hoseman	J. Curtis Wiswell	21	Clerk	40 Canal st.

Frank H. Walker, *Driver*.

## CHEMICAL B.

Rank.	Name.	Age.	Occupation.	Residence.
Captain and Driver	} Thomas A. Qualey			
Lieut.		Thomas D. Collins	34	Grocer
Hoseman	J. Smith	24	Machinist	53 Medford st.
Hoseman	Geo. B. Collins	22	Painter	Mystic pk. ent.
Hoseman	C. Morrin	27	Milkman	Sunnyside ter.
Hoseman	John Qualey		Clerk	Engine House

## FIRES FOR THE YEAR ENDING JANUARY 31, 1898.

Date.	Box.	LOCATION.	Time.	Loss.	Insurance.	Value of prop- erty at risk.
Mar. 13	51	House of M. Griffen, 17 Canal st.	8.25 a.m.		\$1,200	\$1,500
13	Still	Woods off Valley st.	3.50 p.m.			
18	No alarm	Usher's Brick Block	7.45 p.m.	\$ 16 50	1,200	1,500
26	74	House, Jane A. McDonald, 30 Henry street	6.25 p.m.	463 25	3,700	5,000
23	25	Fire in Winchester	2.16 a.m.			
29	Still	Grass fire between Mystic and Allston	5 p.m.			
30	Still	Woods, Middlesex Fells	9 a.m.			
31	Still	Woods off Fulton street	1.45 p.m.			
April 3	Still	Brush, East Spring street	3.05 p.m.			
4	Still	Willow tree on Adam street	9.30 a.m.			
6	Still	Woods on Valley street	11.45 a.m.			
13	Still	Tree on J. Maxwell Estate, Med- ford street	8 p.m.			
14	Still	Woods, Middlesex Fells	11.30 a.m.			
18	Still	Brush on East Spring street	1.30 p.m.			
19	27	House of J. Archibald, 15 Pleas- ant street	12.01 p.m.	15 00	4,500	7,500
23	Still	Grass, Myrtle street	7.10 p.m.			
24	28	Factory of C. H. Spear, Tainter st.	10.10 a.m.	12 00	4,500	5,600
27	Still	Woods off Fulton street	3.47 p.m.			
30	31	Barn, No. 7 Valley street	1.10 a.m.	458 00	500	1,200
May 8	Still	Barber Shop of M. Russell, Main street	10.15 p.m.		300	350
23	Still	Pile of Railroad Sleepers below Spring street	6.30 p.m.			
June 5	34	House of C. B. Delavergne, 20 Foster court	12.27 a.m.	1,187 80	3,400	4,600
6	No alarm	Two Houses on Hancock st.	2.45 p.m.	30 00	4,000	6,600
13	43	House of G. Magee, 322 Boston avenue	4.58 p.m.	8 00	2,000	4,000
17	Still	Test of High Water Service	10.30 a.m.			
28	Still	Rubbish on land, Mr. Dyer, Park street	3.40 p.m.			
July 3	72	Bonfire off Adam street	11.15 p.m.			
11	Still	Fence, K. Atherton Estate, Med- ford street	8.10 p.m.			
15	28	Barn of H. James, 32 Everett st.	8.28 p.m.			
26	Still	House of J. Dinsmore, 29 Canal st.	4.03 a.m.	50 00	1,800	4,600
Aug. 8	Still	Tree on Elm st., n. Pumping Sta.	6.45 p.m.			
12	Still	Rubbish on land, Mr. Dyer, Park street	5.50 p.m.			
19	Still	House of K. Atherton, Medford st.	5.35 p.m.			
27	28	Barn of Jerry Paul, 384 Salem st.	12.40 a.m.	210 00	300	1,250
Sept. 1	41	House of F. E. Chandler, 33 Touro avenue	6.02 p.m.	3 00	1,600	1,600
10	Still	Hay Stack at Wellington	4.45 p.m.	10 00		10
28	18	House of M. White, 15 Emerson st.	11.24 p.m.	78 25	3,500	6,000
Oct. 22	25 and 28	House of M. Severens, 2 Fulton place	12.23 p.m.	750 00	900	1,300
6	36	Hay Stack at Wellington	5 p.m.			
7	Still	Rubbish on land, Mr. Dyer, Park street	5.30 p.m.			
10	18	Coal Sheds of J. Hellen, Riverside avenue	2.10 a.m.	5,505 00	3,900	15,155
16	51	J. Usher Block, High st., W. Med.	7.37 p.m.	5 00	7,100	10,975
19	Still	Peat Fire, between Salem and Valley streets	1.05 p.m.			
20	Still	Grass Fire on R. R. off Grove st.	6.41 p.m.			
20	51	Pitman's Dancing Acad., Harvard avenue	8.01 p.m.	5 00	4,500	5,800
23	Still	Peat Fire, bet. Valley and Salem streets	11.45 a.m.			
Nov. 4	51	House of A. W. Bryne, 28 Canal st.	3.63 p.m.	70 00	27.50	7,750

Date.	Box.	LOCATION.	Time.	Loss.	Insurance.	Value of property at risk.
Nov. 7	51	House owned by M. Griffen, Canal street				
		House and Stable owned by James Dinsmore	11.40 p.m.	1,895 00	\$3,140	\$7,300
24	31	Stable of D. Hook, 491 Salem st.	6.02 p.m.	650 00	7,100	7,500
27	28	Barn of Mrs. Sullivan, Earl ave.	7.30 p.m.	150 00		200
28	51	House of Henry Dunster, 52 Canal street	8.54 p.m.	119 00	4,000	6,000
30	42	House of W. B. Nelson, Marshall street	12.30 a.m.	277 00	2,500	3,000
Dec. 13 1898.	18	House of Mrs. H. B. Parry, 10 Chestnut street	8.30 a.m.	60 00	3,500	5,000
Jan. 1	Still	Dr. C. V. Bemis' House, High st.	6 p.m.			
11	51	Kindergarten Schoolhouse Harvard avenue	12.05 p.m.	200 00	5,000	5,200
22	37	House owned by W. Martin, Far- rigut avenue	8.02 p.m.	400 00	3,000	2,500
26	72	House owned by O. R. Chaplin, Granville avenue		200 00	2,000	4,000

There have been the past year 54 alarms,— 28 bell and 26 still; also report on two fires investigated where no alarm was given.

Chemical B at South Medford has also answered 12 alarms in Somerville.

Following is the estimate of appropriation necessary for the ensuing year:

Chief Engineer and Supt. of Fire Alarms	\$902 00
Two Assistant Engineers at \$152	304 00
Clerk of Engineers	50 00
Engineman and Asst. Supt. of Fire Alarms	902 00
Two Engineers and Drivers of Chemical Engines	1,704 00
Six Drivers at \$802 each	4,812 00
44 Call Members at \$100 each	4,400 00
Ordinary running expenses	6,000 00
Telephones, rental and tolls	365 00
Fires in woods	200 00
Storage Battery	800 00

Respectfully submitted,

CHARLES E. BACON,  
*Chief Engineer.*

Medford, Feb. 1, 1898.

# REPORT

OF THE

## COMMISSIONERS OF SEWERS.

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*To His Honor, the Mayor, and the City Council:*

GENTLEMEN,—We beg to submit the fifth annual report of this Board. We have constructed the past year  $2\frac{650}{1000}$  miles of sewers at a cost of \$30,292.69, the cost per mile being \$11,431.60, all as shown in the Appendix to the City Engineer's report. This makes a total construction to date of  $43\frac{141}{1000}$  miles at a total cost of \$419,773.76, to which should be added the cost of unsettled land damages, now, of course, indeterminate.

The construction during the last year is fully set forth in the report of the City Engineer. All sewers constructed have been ordered after being petitioned for, and a hearing held, of which hearing all interested parties were notified.

The work has been scattered, excepting that done in section thirteen, tributary to an outlet at the junction of Madison street and Playstead Road. The region on the north slope of Flagstaff Hill and region toward Oak Grove Cemetery is included in this district.

Hearings upon petitions for sewers during the year have been held as follows, those marked with a star having been ordered:

March 15, 1897,—\*Eliot, \*Kenway, \*Hancock streets.

April 12,—\*Playstead Road, \*Madison street, \*Gorham, \*Chardon, \*Wheelwright Roads, and the northerly end of Warren street.

May 17,—College avenue, from Stearns avenue to George street.

May 24.— \*Riverside avenue, Stearns avenue.

June 2,—Proposed street east of Forest street.

July 6,— \*Woburn, \*Mystic, \*Allston, Vernon, \*Brooks and proposed street.

July 26,— \*Governors avenue, \*Hall avenue.

Oct. 18,— \*Forest street from Webster street, north.

Several petitions were received, signed by all the interested parties. Also some, in regard to which all interested parties had either signed or communicated with this Board. Upon all such the Board passed without ordering any hearing. One petition to which the Board gave extended consideration was for a sewer in College avenue from George street to Stearns avenue. The hearing showed that only three or four property owners were anxious for the sewer to be built.

The work involved the building of a long line of sewer connecting with an outlet at Eliot street. Several alternative measures were investigated for relief, but none were found feasible.

The statement of accounts will show that our prediction of last year has held good, that the income from sewer assessments will prove ample for all future construction.

#### SEWER ASSESSMENTS.

There have been levied to date assessments amounting to \$214,678.35, upon which there has been collected \$134,584.77.

#### SEWER MAINTENANCE.

The sewers are in good sanitary condition. The time of one man has been employed in flushing.

#### DAY WORK vs. CONTRACT WORK.

All of the construction this year has been done by day labor. It was found last year that the work so done was at as great advantage to the city financially as the contract work. This year there was a considerable portion of the work which was in water and fairly deep cutting. These



conditions were absent in the work done last year. The cost on these lines has exceeded that for which contractors have been willing to take work, hitherto, although the lighter and drier work is as cheaply done as that secured by the City heretofore under the contract system. We think that it is worth something to the city on the score of public convenience, quality of work, as well as in keeping the money disbursed at home, that the day-labor system should be adopted.

#### HOUSE CONNECTIONS.

There have been made 524 house connections, aggregating  $4\frac{6}{100}$  miles, at the average cost to the abutter of \$0.452 per foot. For further details in regard to this work, we would refer to the report of the City Engineer's assistant in charge of this department.

#### BROOKS AND STREAMS.

The various water-courses have been cleaned out as far as needed. The board has received petitions for brook improvements and held hearings thereon as follows:

For improvement of Playstead Brook, from Mystic River to Irving street, hearing held April 16.

For improvement of West Branch of Gravelly Creek, from Forest street to Governors avenue, held June 23.

For improvement of Gravelly Creek from Webster street to Valley street, held July 12.

Efforts were made, unsuccessfully, to get the owners of the land along Playstead Brook, beginning at the River, to designate a route along which a permanent location for the brook might be made. In absence of any coöperation in this effort, further action on the petition was suspended.

The hearing on Gravelly Creek improvement augured well for further improvements being made possible north of Webster street by the coöperation of the property owners, but a failure on their part to make their position definite has left the city in a position of inaction.

The hearing on the matter of improvement of the West Branch of Gravelly Creek showed that the owners were ready to complete their part of the agreement with the city in 1893, by which upon furnishing the pipe, the city should cover in the water-course. The work was therefore ordered and done and the owners contributed \$319.69, being the cost of an equivalent length of 15-inch pipe.

Upon request of the Metropolitan Park Commission, the district in the vicinity of the Fells Parkway west, from Almont street easterly, has been dealt with by building a drain from Spring street through Maple street, etc., and affording outlets to the Parkway drains at the junctions of Cherry and Almont streets. The Park Commission have paid \$2,000 toward this expense, as per agreement. A short piece of 15 inch pipe was laid in Park street, replacing the wooden box drain laid some years ago from near Valley street to the East Branch of Gravelly Creek; by this construction it was made possible that a further piece of drain, laid by the Park Commission in Park street, might be laid at a permanent depth.

The language of last year's report in regard to Creek Head is apt at the present time, and if nothing may be done in a comprehensive scheme, a new culvert at Middlesex avenue should be built at once.

“In regard to Creek Head, we are sorry to report that no material encouragement has been offered by Malden, looking toward united action in this improvement. Our City Council has taken favorable action authorizing the Mayor to petition the Legislature for authority to regulate the city line now following the course of the creek.”

The City Engineer makes report that he has given considerable attention, during the past year, to the completion of a map and estimate of cost of a system of surface drainage. The city should not, however, wait for a period of years to get this work completed, but should have the same pushed to a speedy conclusion.

## OFFICE, ETC.

The conclusion of another year's work shows more plainly than ever the wisdom of taking early steps to consolidate the office and construction work of this department.

## RECOMMENDATIONS.

The balance in the hands of the Board, available for brooks and streams is \$1,532.49. By the report here submitted, it is seen that several important schemes are being urged, and we recommend that the sum of \$7,500 be made available for work liable to come up during the coming year.

We beg, in conclusion, to acknowledge our appreciation of the uniform courtesy as shown to this Board by all the other boards and officers of this city.

Respectfully submitted,

C. H. PARKER,  
J. W. ROCKWELL,  
J. L. WORK,

*Commissioners of Sewers.*

Medford, February 1, 1898.

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*To the Commissioners of Sewers, Medford, Mass. :*

GENTLEMEN,— Herewith I present my annual report as assistant in charge of house connections for the year ending February 1, 1898 :

There have been made 524 connections with the main sewer, of which 20 had underdrain connections also, and one independent connection with the underdrain. The length of excavation is 24,378 feet or  $4\frac{6}{10}$  miles.

The cost has been \$11,039.22 or  $45\frac{2}{10}$  cents per foot. Of this sum \$5,558.64 was paid for labor and \$5,480.58 for material, tools, office work and superintendent. The labor performed is the excavation and refilling of 18,163 yards of earth and  $482\frac{6}{10}$  yards of rock, the building of 3 manholes,

emptying, disinfecting and filling 29 cesspools, cutting through and rebuilding 377 foundation walls and laying 876 feet of underdrain.

Of materials there have been used 7 feet of 8-inch sewer pipe, 7, 8x5 Y's; 260 feet of 6-inch sewer pipe; 8, 6x5 Y's; 2, 6-inch bends; 17,275 feet of 5-inch sewer pipe; 876 feet of 5-inch underdrain; 28, 5x5 Y's; 630, 5-inch bends; 3,030 yards of cloth; 125 bbls. Portland cement; 2 manhole covers; 450 brick; 3,855 feet of 4-inch double thick soil pipe; 354 lbs. chloride of lime; 135 1-2 lbs. dynamite; 145 exploders; 78 feet of fuse; 30 bushels of coke; 6 loads crushed stone.

## Connections.

46,	2,370	feet in length, cost between \$0.20 and \$0.30		
170,	8,585	“ “	.30	“ .40
159,	7,104	“ “	.40	“ .50
86,	3,394	“ “	.50	“ .60
32,	1,256	“ “	.60	“ .70
16,	787	“ “	.70	“ .80
10,	407	“ “	.80	“ .90
2,	195	“ “	.90	“ 1.00
4,	280	“ cost over		1.00
<hr/>	<hr/>			
525,	24,378			

We now have 1,493 connections, 68,314 feet, or 12.93 miles in length, costing \$31,350.29, or \$0.458 per foot.

Respectfully submitted,

W. G. STEARNS.

Medford, Mass., February 1, 1898.

# REPORT

## OF THE

# CITY ENGINEER.

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*To His Honor, Lewis H. Lovering, Mayor, Medford, Mass. :*

DEAR SIR,—The annual report of the City Engineer for the year ending January 31, 1898, is hereby presented.

### ORGANIZATION.

The personnel of the office has not been changed, excepting that the force now employed is less and will remain so unless there should be more new construction than during the past year. The names and positions of assistants are given in the Appendix.

The appropriations under direct charge of the City Engineer have been as follows: City Engineer's expense \$1,850, and Map of Medford \$1,000. The cost for services of men in this department rendered for work outside of these two heads has been paid for out of the special appropriations under which the men have been employed.

### CITY ENGINEER'S EXPENSE.

Appropriation . . . . .	\$1,850 00
Pay-rolls, on account of:	
Highways, lines, grades and records . . . . .	\$513 03
Water works, ordinary . . . . .	9 75
Public property . . . . .	25 27
Public parks . . . . .	120 83
Surface drains, miscellaneous . . . . .	138 26
Surface drains, special study . . . . .	142 94
Street watering . . . . .	34 50
Miscellaneous city officers . . . . .	19 79

Office, including copying plans of record, etc. . . . .	\$137 30	
Clerical services . . . . .	52 00	
Additions to city map . . . . .	128 00	
Vacations . . . . .	57 62	
Setting bounds (labor) . . . . .	25 06	
	<hr/>	\$1,404 35
Bills :		
Office equipment and furniture . . . . .	\$166 95	
Stationery, postage and printing . . . . .	69 64	
Draughting materials . . . . .	53 23	
Stakes, etc. . . . .	8 50	
Car-fares, lights, heating, water rates, etc. . . . .	147 33	
	<hr/>	445 65
		<hr/>
Total . . . . .		\$1,850 00

## MAP OF MEDFORD.

Appropriation . . . . .	\$1,000 00	
Pay-rolls . . . . .	\$969 62	
Bills, draughting material . . . . .	30 38	
	<hr/>	\$1,000 00
Pay-rolls from special appropriations :		
Sewer construction, including inspectors . . . . .	\$2,004 22	
House connection, superintendence . . . . .	889 14	
Sewer assessment . . . . .	170 88	
Sewer maintenance . . . . .	65 00	
Brooks and streams, miscellaneous . . . . .	30 21	
Street numbering . . . . .	30 37	
Surface drains . . . . .	39 00	
Water works record plans . . . . .	375 10	
W. Branch Gravelly Creek . . . . .	38 91	
Maple street system . . . . .	60 88	
	<hr/>	\$3,703 71

The salary of the City Engineer has been charged as follows :

Sewer construction and assessment . . . . .	\$1,333 30
Brooks and streams, miscellaneous . . . . .	66 66
Maple street system . . . . .	66 67
Salaries and fees . . . . .	933 33
	\$2,399 96

#### OFFICE.

The indexing and classifying of plans has been kept up. As stated last year, this department is anxious to secure copies of any and all plans pertaining to conveyances of land within the city, and any persons having unrecorded plans are solicited to bring them to the office, that copies may be made.

There are now on file in this office 1,553 plans and 718 profiles.

#### HIGHWAY WORK.

The establishing and staking of lines and grades for street and sidewalk construction and for the grading of lawns and properties have constituted one of the chief items in the work of the office. According to the revised ordinances all persons building adjacent to the line of public highways must obtain line and grade. A form of application and of record of such work rendered has been prepared in permanent book form.

The usual measures for sidewalk pavements and gutter pavements, for the making out of bills by the Highway department, have been taken.

The laying out of a new thoroughfare from the terminus of Warren street to Woburn street has been accomplished. This work was in answer to needs of the Sewer Department for a route for main line of sewer from the region back of Flagstaff Hill, also to meet the need of an easier highway route from West Medford Square to Oak Grove Cemetery region, via Warren street, a petition for which had

been on file for some time. Warren street was extended about two hundred feet, and thence a new street called Century street, laid to Woburn street. The route was according to plans by Mr. Peter C. Brooks, over whose land the entire route was laid. Mr. Brooks, in consideration of having the street graded to sub-grade, released the land as stated.

The following streets have been accepted during the past year, and plans of same are on file in this office :

Name.	Extent.	Length	Width.	Order Approved.	Date of Plan.	Engineer.
Liberty Avenue.	Main Street to Park Ave.	380	40	1897.	1897.	G. E. Sherry.
Summer Avenue.	Liberty Ave. to Hicks Ave.	277	40	Sept. 28.	Mar. 15.	G. E. Sherry.
Playstead Road.	High St. to Clewley Road.	1460	40	"	July 12.	City Engineer.
Century Street.	Warren St. to Woburn St.	350	40	"	"	City Engineer.
Warren Street.	Clewley Rd. to Century St.	150	53	"	"	City Engineer.
		895	40	"	"	City Engineer.
		209	50	"	"	City Engineer.

#### HIGHWAY IMPROVEMENTS.

The time has come when the public expect rightfully that public highways shall be built in thorough manner, and maintained clean and dry. These demands are also strictly in the line of economy. The saying so, however, will not build our streets and drains, pave our gutters, and keep them clean. To obtain this result, so desired by all, requires, first of all, a *definite plan of operations* based upon an estimate of what there is to do, and how the cost thereof may be met. Such a plan should provide, (1) For operations covering a series of years, (2) as free as possible from interference by subsequent City Governments, (3) and inclusive enough so as not to neglect the interests of any locality of the city.

We have  $49\frac{6}{10}$  miles of accepted streets, of which 20 per cent are in good condition, and 32 per cent in bad condition. The remaining 48 per cent are in various stages between these extremes.



An estimate of the cost of thorough construction on these streets, together with the cost of drains, would reveal what there is to meet. Then a plan of operations, based upon the time over which to extend the work, and upon the resources at hand, may be formed. If the expense can be met entirely from taxation, a resolution setting forth the annual amount required and that the same be recommended each year for expenditure, would make the matter plain, although in nowise binding any succeeding government. If an issue of improvement bonds, covering drainage, street widening, bridge and permanent street reconstruction items be obtained, there should be a stipulation limiting the amount to be expended in any single year.

When once a given volume of work can be reasonably assured for a series of years, then may the most economical methods be inaugurated to execute such work. The city is now in the enviable position of having road material as cheaply and readily obtainable as any city in these suburbs. That the maintenance of roads well built and drained is less than poor ones, is well known.

#### MAP OF MEDFORD.

The map of the city has been completed within the past year, and corrections for new subdivisions and houses are now in progress.

Surveys aggregating 6.54 miles in woods and fields, since the date of the last report have been made. Many new houses and miscellaneous division fences and other boundaries have been measured. About one hundred and twenty acres of topography have been taken for the study of surface drainage.

An accurate map of the city on a scale  $\frac{1}{5000}$  was made for W. A. Greenough and Company, for reproduction in the 1897 directory, in consideration of copies of the map. An atlas of the city is now in preparation by George W. Stadly & Co., of Boston, they having been given access to the maps in this office.

**STREET WATERING.**

The usual measurements of frontages for street watering assessments have been made and certified to.

**STREET NUMBERING.**

Numbers are assigned in this office and certified to the Street Commissioner.

**SURFACE DRAINS.**

Line and grade have been given for the construction of surface drains as enumerated in the table herein given. These drains have all been constructed by day labor, under charge of the Street Commissioner, generally under inspection from this department. These drains are constructed, in each case, to form part of a system. In order to determine the proper sizes, depth, and grade, a study is made of the district within which each piece of construction lies. Studies have also been made for other portions of the city at request of the Mayor, Street Commissioner, Commissioners of Sewers, or other executive boards of officers. Record plans of the work are being prepared.

Considerable attention has been given to the study of the surface drainage, especially to determine what collection of rainfall to provide for. Medford is favorably situated, in having several open water courses and the river itself running through its entire length. In many cases it is permissible to provide for not over  $\frac{4}{10}$  of an inch running off per hour, estimating that any greater amount will flow on the surface to an outlet into an open water course. The inconvenience will be entirely on the surface, and that only for a short period at rare intervals. The question of materials has also been carefully studied. A drain of forty-two inch diameter and having but two feet cover has been laid this year with one ring of brick laid in Portland cement for the arch, backed at the haunches by spandrels of Portland concrete. Some twenty-four inch pipe of standard thickness

has also been laid in shallow trenches. But the most extreme care has been taken in supporting the invert. Where clay soil was found at grade, sand was hauled and used as packing under the pipe, so as to give a full and uniform bearing. Even should some of this pipe crack it cannot give way. By economical uses of material, and proper attention in securing a good foundation, the cost of work may be so reduced that improvements can be carried out which otherwise would be financially impossible. It is not to be understood that insecure construction is recommended, but that the material used in our structures should not be wasted, and that an unduly large factor of safety be allowed simply to cover defects in workmanship.

Intimately connected with the surface drainage is the care of brooks and streams, which is committed to the Commissioners of Sewers.

#### BROOKS AND STREAMS.

The following watercourses have been cleaned out during the year: Maple Street Brook from Almont street to the head of Spring street drain; and Granville Avenue Brook from the clay-pits to east of Main street, cleaned three times; Gravelly Creek from Salem street to the East Branch; Playstead Brook from Prescott to Warren street; East Branch of Gravelly Creek; Tannery Brook.

Regular inspection has been made and care taken of the screen at the entrance of the covered portion of Gravelly Creek at Salem street; also of the Granville Avenue Brook tide gates. The water-course near Valley street, running west across Paris street, has been cleaned and obstructions in the culvert removed.

The portion of Playstead Brook from Irving street to Warren street has been stoned and the banks sloped back, loamed and seeded. The portion of the water course completed last year has worked satisfactorily. The city makes no mistake in dealing with all its principal water-courses while property is low in value.

For use on Brooks' and Streams' work, August 28, an order was placed with W. G. Nash for 650 feet of 24-inch, and 300 feet of 18-inch standard pipe, at 79 per cent off, after obtaining informal bids from several dealers. On October 12, a further order for 850 feet of 24-inch, and 300 feet of 15-inch standard pipe was placed with W. G. Nash at 79 per cent off the list.

#### WEST BRANCH OF GRAVELLY CREEK.

This water-course was covered in by the laying of 616 feet of 24-inch, and 466 feet of 18-inch main pipe, extending from Forest street to Governors avenue. Two new concrete catch-basins were built and connected at Forest street, and one of brick built at the branch water-course entering 163.5 feet west of Forest street. Three old catch-basins at Governors avenue were connected by 8-inch pipe, and eight blind connections made with ditches along the course, by placing bodies of small field-stone about branch connections and filling with same to the surface of the ground. The work comprised five manholes and 117 feet of 8-inch connecting pipe.

#### MAPLE STREET DRAINAGE.

The study mentioned in the last report has been executed by constructing a portion of the system needed for the vicinity of the Fells Parkway West (along Valley street). By arrangements with the Metropolitan Park Commission, that Board contributed \$2,000 toward the completion of the drainage system east of Almont street. The work was not arranged for until late in the season, but by vigorous pushing, it was completed before the occurrence of any seriously cold weather, excepting some interior plastering. This will be attended to at the time of another dry season. The work comprised  $506\frac{4}{10}$  feet of  $42\times 44$  inch, and  $373\frac{4}{10}$  feet of  $30\times 32$  inch drains of concrete and brick masonry; 891 feet of 24-inch pipe and  $309\frac{3}{10}$  feet of 15-inch pipe, together with seven manholes, also five catch-basins with 8-

inch pipe connections. The masonry drain, as stated, was nearly circular in form, being two inches higher than wide, to permit drawing of arch centers. The invert was built of Portland cement concrete, mixed 1: 2½: 6, in which the stone was bank gravel from pea size to about two inches in diameter, although some few stone, not over five per cent, were from two and one-half to four inches in diameter. The invert was shaped by placing zinc-covered arch centers in inverted position at the correct grade. Forms were drawn after about sixteen hours setting. This was a less period than was desirable, but was unavoidable, if progress needed to finish in time were made, the result being, that more plastering was requisite to make good such blemishes as occurred in the soft concrete. The arches were of one ring brick, reinforced by a spandrel of concrete carried to the solid bank on the side. An underdrain was required on a portion of the route. This was given a permanent outlet into the drain at a suitable point. The 24-inch pipe was substituted for some 42-inch masonry drain planned for in Maple street. This was done because that size was sufficient for the immediate future, provided the remaining portion of the system were laid to full size as planned. The pipe being obtainable at a low price, and the cost of laying in that locality slight, the interest on the difference in cost of construction between the temporary and the permanent sizes would amount to more than the present expense by the time an enlargement would be demanded. The catch-basins were built of concrete with curbs having ample throats.

The State has not yet made all the connections from and across the Parkway, but they expect to us soon as the ground opens in the spring. A depth of drainage five feet greater than that formerly existing at Almont street was obtained by this new construction. The route of the drain from Cherry street to Almont street is through what is now known as Blossom street, the same having been outlined and

a drain location therein ten feet wide, granted the city by the owners, Michael O'Brien and Arthur G. Fogg. In return the owners secure relief from a water-course and obtain for their land a depth of drainage which is equivalent, under former conditions, to raising the grade of the surface several feet. Several more catch-basins will be needed whenever Cherry and Almont street shall be properly graded and built.

A short piece of 15-inch pipe was laid in Park street, extending from the portion built in 1895 to the old stone culvert, near (Valley street) Fells Parkway West, terminating in a manhole, built to take the waters formerly entering this old culvert, also the waters delivered through the main pipe laid by the State to drain basins in the Parkway near the head of Park street. By building the drain at this time an outlet at a permanently lower elevation was afforded the Parkway drain, to the advantage in drainage of both the street and the abutting land.

The outlet for the Park street drain is into the ditch dug in 1870 by the town, which outlet is temporarily two feet above the grade at which the new drain is laid. This latter grade is the one established in the study for the improvement of the drainage along the East Branch of Gravelly Creek, and the work now done conforms to the design for this system.

#### PARKS.

The preliminary grading of Brooks Playstead has been completed, and some planting of trees and shrubs done, the latter under direction of the Landscape Architect, Mr. E. P. Adams. A topographical survey has been made, and contour plan prepared of Hastings Park. Survey plans and sketches have also been made for various localities for the Park Board.

#### *Mystic Valley Improvement.*

At request of the Park Board, survey maps have been made of the marshes and property adjacent, between Cradock and Winthrop street bridges.

## BRIDGES.

(See Report of Street Commissioner for details as to minor repairs.)

*Middlesex Avenue Bridge*

Remains in as good condition as last year, excepting for natural ageing of wood and iron work. Adjustable end rests for the draw span are needed, but in view of the demands for something quite different from an ordinary County bridge, by the Fells Parkway improvement, it is not advisable to spend money now for the purpose, nor for the dolphins and repairs to piles, although the same are much needed.

*Cradock Bridge.*

This bridge remains intact.

*Winthrop Street Bridge.*

“This bridge should be allowed to remain no longer in its present condition, and, as recommended a year ago, should be closed and immediately put in repair. A heavy freshet with floating ice is likely to carry the entire structure away by reason of lack of good and sufficient spurshores,” was the report of one year ago, and is applicable today.

*Auburn Street Bridge.*

The rebuilding of this bridge cannot and should not be put off much longer. The plans for Mystic Valley improvement will have a hearing, however, in the matter of a new bridge both here and at Boston and Harvard avenue bridges.

The Boston Avenue bridge has much weakened since a year ago. The piles need attention.

*Harvard Avenue Bridge*

Is in fair condition.

*Weir Bridge.*

The scraping and painting of the iron-work should not longer be neglected.

*College Avenue Bridge.*

The Boston and Maine Railroad Company are rebuilding and will henceforth maintain this bridge. The city has agreed to pay \$500 in consideration thereof.

*Water Department.*

The ordinary calls from this department have been as usual, such as grades for pipe in ungraded streets, advice as to size of mains, etc.

The record maps are nearly complete, requiring but little more than the addition of locations of the past year's work.

The 12-inch Venturi meter on the gravity supply at Wright's Pond, has been tested and the records certified to the Water Board. The record was very satisfactory, showing a sensitiveness to variation in amounts passing through, as well as accuracy in recording apparatus. The method of testing was by shutting off the supply into the gate-house and recording the time of lowering of the water therein each half foot, at the same time taking integrations from the recording apparatus connected with the meter every minute.

The results of eight observations were, average measured flow, 79.11 cubic feet per minute; average recorded flow 78.03 cubic feet per minute, or 1.37 per cent less than the actual flow. The range of differences was from 3.65 per cent less to .77 per cent greater.

Considerable attention has been given to the securing and locating of convenient connections of our pipe system with the distribution system of the Metropolitan Water Works. During the year the latter Board has taken the rights at Spot Pond in which Medford owns a one-third share. Settlement is yet to be made.

*Sewer Construction.*

The tabulated work of sewer construction, by streets, will be found in the Appendix.



The contract made in 1896 with the Portland Stoneware Co., for furnishing sewer pipe, was completed early in the season.

Bids for furnishing 20,000 feet of 5-inch pipe and 400, 5-inch  $\frac{1}{8}$  bends f. o. b. Medford, were received March 1, 1897, as follows :

George D. Goodrich, 70 per cent ; Perrin, Seamans & Co., 74 per cent ; Portland Stoneware Co., 70 per cent, Waldo Brothers, 68 per cent ; off the list for pipe with standard corrugated sockets.

The bid of Perrin, Seamans & Company was accepted and the order placed March 2, to which was added an order for 1400 feet of 10-inch and 40 branches, at the same discount.

On April 14, an additional order for 1140 feet of 15-inch and 1500 feet of 10-inch standard pipe in three feet lengths at 73 per cent was placed with Perrin, Seamans & Company, to which was added Sept. 20, one carload of 15-inch pipe and twelve 15-inch branches at 74 per cent discount.

On December 13, bids for 20,000 feet of 5-inch pipe and 800 5-inch  $\frac{1}{8}$  bends were opened as follows :

George D. Goodrich, 75 $\frac{1}{4}$  per cent ; Waldo Brothers, 75 per cent ; Portland Stoneware Co., 75 per cent ; Perrin, Seamans & Co., 73 $\frac{1}{2}$  per cent off the list. The bid of George D. Goodrich was accepted, the pipe to be delivered between March 1, and June 1, 1898.

#### GENERAL OBSERVATIONS.

All work done this year has been done by the day. The volume thereof has been small and the jobs scattered. The expense in wet jobs where sheeting has been required has been more than as if contracted out at obtainable prices. All pipe laying has received the most careful attention and with results most gratifying. The leakage has been practically stopped, none being had on even very wet trenches.

The practice of with-holding doing the back-filling until the joint mortar should become set has been pursued. The

inspector has then examined every joint, and caused those showing any cracks to be gone over again. The writer believes that only care and attention when added to proper foundation can prevent discouraging leaks. These he believes can be prevented by this method of double inspection. The pipe used has been new standard of 1895, in three feet lengths.

#### SEWER ASSESSMENT.

Plans for sewer assessment have been made and bills prepared and issued for all of the construction of 1897, done.

The total of bills sent out at date is \$214,678.35. On August 9, 1897, apportioned accounts were certified to the Assessors to the amount of \$30,438.34, out of a total committed to the collector at that date of \$203,046.10, or 34 per cent. The total collections to date from all accounts, whether apportioned or not, are \$136,565.01.

The sewer assessment and record plans have been completed showing the work for the season.

#### ACCIDENTS.

Several minor accidents have occurred, and have been settled by the United States' Casualty Company, in which the city has been insured. Suit has been entered in one case. Final settlement for accident in one case, occurring in 1895, has been made in the sum of \$600.

#### SEWER MAINTENANCE.

The working of the system proves satisfactory. The system is kept flushed by means of the flushing manholes at dead ends, excepting on long flat lines. It is intended to flush the system once in three weeks; many portions require flushing much oftener in summer. In winter, periods of five or six weeks are not considered too long. A record of flushing is kept in the office. Each regulator and each flushing manhole is given a number. Opposite this number and along a line across a double page in the book, is entered the

date when flushed. A cross index of the localities and man-holes is kept, both by numbers and by locations. The maintenance employé returns on a slip each day the numbers of the manholes which he visits, together with a statement of condition, if otherwise than good. One man covers the entire city on a system of 43 miles.

#### HOUSE CONNECTIONS.

Full information as to work in this department is given in report of the assistant in charge. As an evidence of the thoroughness of the manner in which the pipe-laying portion is done may be cited the fact that there have been but two stoppages on the work, which occurred or were in any way attributable to the portion done by the city. In one case the stoppage was by a wad of newspapers and the other caused by freezing at the trap in the basement, said to have been started by the cold air entering an aperture beside the pipe, through the house wall.

It is furthermore probable that the use of 5-inch pipe rather than a smaller size is also accountable for the freedom from stoppage.

#### MISCELLANEOUS.

Plans have been made for various Boards, Officers and Committees of the City Government, in matters relating to Highway improvements, widenings and extensions, sewer and drain rights-of-way.

Many of these matters, especially the last named have involved many interviews with the owners, sketches showing how proposed rights-of-way would affect their property, etc., etc. In fact the functions of a city engineer in a municipality of this size are as varied as the weather.

#### RECOMMENDATIONS.

There is but little to offer in addition to those stated last year. I repeat the words of last year relating to private streets :

“ I trust the day is not distant when no private street can be opened, or even a plan thereof accepted for record at the Registry of Deeds, unless the same shall bear the approval of the government of the city or town wherein the street is located. This approval to be given by the City Council, Selectmen, Street Commissioners, or some special Board of Commission.”

I renew the recommendation for the early completion of plans for, and estimate of cost of a system of surface drainage.

#### ACKNOWLEDGMENTS.

I beg to acknowledge the courtesies received from other city officers and boards, also state my indebtedness to my assistants, who have shown so great attention to their duties, and pride in doing the work assigned them.

Respectfully submitted,

T. HOWARD BARNES.

Medford, February 1, 1898.

## APPENDIX.

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Assistants of City Engineer, who have served at any time during the year :

### ASSISTANT ENGINEERS.

\*Charles Temperley, in charge of surveys, mapping and highway work. Willis T. Knowlton.

\*W. G. Stearns, in charge of house connections with sewers.

\*H. A. Peakes and W. I. Johnson in charge of sewer construction and record plans.

W. G. Taylor, assistant engineer and draughtsman, sewer construction and record plans, etc.

### DRAUGHTSMEN.

O. J. Shaw, H. G. Menges, G. H. Archibald, A. E. Franklin.

### LEVELLER, SURVEY AND CONSTRUCTION.

\*E. A. Manton.

### RODMEN.

D. F. Crowley, A. F. F. Haskell, \*N. H. Wait.

### SEWER MATERIAL.

T. H. Pearce, superintendent of yard.

### CLERICAL.

\*E. Gertrude Littlefield, clerk, bookkeeper and stenographer.

\*J. J. Crathorne, janitor and rodman.

\* Those in employ February 1, 1898.

## SCHEDULE OF SURFACE DRAINS LAID IN 1897.

LOCATION.	Size. Inches.	Length.	No. of Catch Basins.	Length of Connecting Pipe.	No. of Manholes.	Paid from Appropriation.	Remarks.
Dexter street, from near Bow to Main street . . . . .	10	263				Highways	
Governors avenue at High street . . . . .	10	40	1		1	"	
Medford square at No. 11 High street . . . . .	10			55		"	
Harvard avenue, from Mystic river to Sharon street	10	1220.6	6	70.6		"	
Main street, from near Swan street to South of Thomas court . . . . .	24	683.1			3	"	Replacing old stone drain Includes 16 feet of 24x19 in. box drain
Summer street, from No. 15 Westerly . . . . .	8	251	1			"	
High street, from near Allston to Mystic street . . . . .	12	659	4	90	2	"	
George street at Tannery brook . . . . .	20	42.3	2			"	Replacing stone drain
Forest street at No. 22 . . . . .	18	42	1	0		"	" " "
Gravelly creek, West branch, Forest street to Gov- ernors avenue . . . . .	24	605.2			5	Brooks and Streams	
*Maple street, from near Salem to Cherry street . . . . .	24	891			1	" "	
Cherry and Blossom sts., from Maple to Almont sts.	42x44	501.4	4	110	4	" "	Brick and concrete masonry
Almont st., from Blossom st. to Fells Parkway, W.	30x32	371.4	1	26	1	" "	" " "
*Cherry st., from Blossom st. to Fells Parkway, W.	15	369.3			1	" "	
Park street, from No. 300, Northerly . . . . .	16	161			1	" "	
<b>TOTALS . . . . .</b>		6,695.2	23	472.6	19		

\* Metropolitan Park Commission paid \$2,000 of cost.

\* Cost of units on Maple street system: Excavation and backfill, \$6.51; brick masonry, \$10.39 per cubic yard in Portland cement; concrete masonry, \$8.13 per cubic yard; per foot of 42x44 inch drain, \$3.18; per foot of 30x32 inch drain, \$2.23.

TABLE SHOWING SIZES, LENGTHS,

Sections.	Location.	From.	To.	Size and Length.				
				6 inches.	8 inches.	10 inches.	12 inches.	15 inches.
3	Fells parkway	First street	Myrtle street			1,395.1		
17	Hancock street	Mystic avenue	Eliot street				620.4	
17	Hancock street	Eliot street	Near Main street		441.7			
17	Eliot street	Hancock street	Main street				749.7	
17	Kenway street	Eliot street	Near Hancock street	217.5				
5	Walker court	Almont street	End		172.2			
4	Riverside avenue	Locust street	Easterly		146.4			
11	Mystic street	High street	Laurel street		904.0			
11	Mystic street	Woburn street	Vernon street	114.0	195.9			
11	Wyman street	Mystic street	Easterly		327.3			
11	Laurel street	Allston street	Easterly	177.7				
13	Playstead road and private land	Madison street	Angle					1,347.8
13	Private land and Century street	Angle	Woburn street		347.9	851.0		
13	Madison street	Playstead road	Near Warren street	188.9	330.0			
13	Gorham road	Playstead road	Near Warren street	162.3	330.0			
13	Chardon road	Playstead road	Near Warren street	125.0	275.0			
13	Wheelwright road	Playstead road	Near Warren street	100.0	300.0			
13	Woburn street	Century street	W. of Mystic street	123.7	1,403.7			
13	Brooks street	Woburn	Southerly		716.4			
13	Allston street	Woburn	Near Vernon street	177.0	288.0			
7	Governors avenue	Hall avenue	Northerly		284.3			
7	Hall avenue	Terminus	Governors avenue		106.7			
7	Forest street	Webster	Northerly		525.0			
5	Sheridan ave. ext.	Salem	End		236.6			
7	Bradlee road	Hall avenue	Southerly		310.4			
				1,386.1	7,641.5	2,246.1	1,370.1	1,347.8

COST, ETC., OF SEWERS BUILT IN 1897.

Built By.	Number of Manholes.	Number of Inlets.	Sub-drain.		Average Cut.	Rock Excavation.	Cost.	Cost per Foot.	Cost of Lumber.	Soil.	Remarks.
			Size.	Length							
			In.	Feet.	Fl.	Cub. Yds.					
Sewer Dep't	5	27	6	1,333.4	8.8		\$3,364.66	\$2.41	\$ 71.58	Sand and Clay	Wet. Railroad Crossing
"	2	22	6	591.0	14.3	53.6	2,943.81	4.74	56.24	Clay	Wet. Steam Pump
"	2	14			9.5		713.84	1.62	5.11	Hard Pan	Dry
"	3	20	5	567.0	10.8	59.7	2,084.78	2.78	46.02	Clay	Wet. Steam Pump
"	1	12	6		7.0	1.9	258.39	1.19	5.11	"	Dry
"	0	9			5.2		78.15	.45		Sand	"
"	1	4			13.3		*1,193.98	8.15	15.34	Clay	"
"	4	46			6.9	93.1	1,309.56	1.44	10.23	Hard Pan	"
"	2	20			7.1	23.2	368.20	1.19	5.11	"	"
"	2	18			6.7	151.2	910.32	2.78	10.23	"	"
"	1	6	6	14.1	6.2	14.1	318.09	1.79		"	"
"	7	36	6	11,347.8	10.2		*5,688.82	4.22	92.03	Sand	Wet. Some Quick-sand. Steam Pump
"	5	44	5	11,198.9	9.1	19.2	2,658.79	2.22	61.35	Hard Pan and Sand	Wet and Dry
"	2	32	6		7.5		467.74	.90	10.23	Sand	Dry
"	2	28			7.6		558.48	1.19	10.23	"	"
"	2	28			7.3		428.21	1.07	10.23	"	"
"	2	23	5	135.0	8.4		715.50	1.79	15.33	"	Some Quick-sand
"	7	101	4	227.5	7.7	82.3	2,397.52	1.56	20.45	Hard Pan	Wet and Dry
"	3	42	5		8.9		936.82	1.33	10.23	"	Dry
"	2	31	3	215.0	9.0	23.2	757.01	1.62	10.23	"	Wet and Dry.
"	1	9			7.4	59.7	572.85	2.01	10.23	Gravel	Dry
"	1	2			7.4	41.0	275.99	2.58	5.11	"	"
"	2	32	3	29.0	7.6	40.0	667.25	1.27	10.23	Clay and Hard Pan	Wet and Dry
"	1	14			9.6		262.71	1.11	10.23	Sand	Dry
"	2	17			7.5		350.22	1.13	10.23	Clay	"
	62	637		5,661.7		662.2	\$30,292.69		\$511.31		

\*Includes cost of regulator at Metropolitan sewer.

Total length built in 1897, 13,991.6 feet equals 2.650 miles. Cost per foot \$2.16½; cost per mile \$11,431.00.

Total length built to date 227,835.6 feet, equal 43.151 miles.

Total cost \$49,773.76; cost per foot \$1.842; cost per mile \$9,728.24.

†Subdrain has discharge.



# REPORT

## OF THE

# CITY CLERK.

---

MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor:*

SIR,—I hereby submit the annual report of this department, in accordance with the requirements of the City Charter:

### BIRTHS.

Whole number born in 1897	507
Increase over previous year	48
Number of males	243
Number of females	264
Number of twin births	4

### BIRTHS BY MONTHS.

	1896.	1897.		1896.	1897.		1896.	1897.
January,	38	47	May,	40	36	September,	31	36
February,	38	41	June,	47	42	October,	30	33
March,	42	34	July,	43	58	November,	28	39
April,	30	45	August,	48	56	December,	41	40

The increase of the number born during the year 1897 over the number born in 1896 was ten and one-half per cent, which is about the average increase annually for the past six years. From the improvement in the system of obtaining the returns from the physicians, and the manner of the taking of the annual census, it has become possible to keep more satisfactory and complete records of the births which occur in this city than has been done in years gone by.

## MARRIAGES.

Number of intentions filed 1897 . . . . .	160
Increase over the previous year . . . . .	1
Both parties residents of Medford . . . . .	60
But one party a resident of Medford . . . . .	95
Neither party a resident of Medford . . . . .	5
Number of marriages registered . . . . .	170
Increase over previous year . . . . .	1
Both parties residents of Medford . . . . .	60
But one party a resident of Medford . . . . .	93
Neither party a resident of Medford . . . . .	17
First marriage of . . . . .	302
Second marriage of . . . . .	34
Third marriage of . . . . .	4
Age of oldest groom . . . . .	67
Age of oldest bride . . . . .	67
Age of youngest groom . . . . .	18
Age of youngest bride . . . . .	16

Marriages occurred by months as follows :—

	1895.	1896.	1897.		1895.	1896.	1897.
January,	15	12	14	July,	7	13	9
February,	9	15	10	August,	8	14	15
March,	6	4	6	September,	21	19	23
April,	12	13	12	October,	27	20	20
May,	15	3	8	November,	19	14	15
June,	20	23	28	December,	4	19	10

## DEATHS.

Whole number of deaths in 1897 . . . . .	245
<i>Decrease</i> over previous year . . . . .	40
Number of males . . . . .	125
Number of females . . . . .	120
Number of deaths of persons under 1 year of age	73
Number of deaths of persons from 1 to 5 years of age . . . . .	22

Number of deaths of persons from 5 to 10 years of age . . . . .	11	4
Number of deaths of persons from 10 to 20 years of age . . . . .	12	14
Number of deaths of persons from 20 to 30 years of age . . . . .	19	15
Number of deaths of persons from 30 to 40 years of age . . . . .	23	21
Number of deaths of persons from 40 to 50 years of age . . . . .	18	17
Number of deaths of persons from 50 to 60 years of age . . . . .	22	22
Number of deaths of persons from 60 to 70 years of age . . . . .	28	21
Number of deaths of persons from 70 to 80 years of age . . . . .	37	30
Number of deaths of persons from 80 to 90 years of age . . . . .	20	16
Number of deaths of persons over 90 years of age	0	5
Oldest male, 94 years 9 months 17 days.		
Oldest female, 97 years 1 month 13 days.		

## DEATHS BY MONTHS.

	1896.	1897.		1896.	1897
January,	24	22	July,	40	22
February,	15	21	August,	37	27
March,	16	20	September,	23	19
April,	21	20	October,	17	7
May,	29	16	November,	23	18
June,	27	26	December,	13	27

The healthy condition of this city is evidenced by the unusually low death rate, the number of deaths for 1897 as compared with those of 1896 showing a *decrease* of fourteen per cent, which statement is still further emphasized when it is taken in consideration with the fact that the population is rapidly increasing each year.

## ASSESSED POLLS AND VOTERS.

The number of assessed polls and voters in the various wards of the city is as follows :

	Assessed Polls.	Voters.
Ward 1 . . . . .	951	569
“ 2 . . . . .	676	500
“ 3 . . . . .	563	446
“ 4 . . . . .	717	459
“ 5 . . . . .	1,109	631
“ 6 . . . . .	692	495

There is on the voting list also the names of 212 women.

## STATE AID.

The number of persons now receiving aid under the provisions of Chapter 301 of the Acts of 1894 is fifty-two; this being the same as reported last year, although in the meantime the list has varied in number.

Only one person is now receiving aid under the provisions of Chapter 279 of the Acts of 1894.

The total amount paid out for State Aid (Chapter 301) during the year was \$2,669.50, which amount will be reimbursed by the State.

The total amount paid out for Military Aid (Chapter 279) during the year was \$312, *one-half* of which will be reimbursed by the State.

## RECEIPTS.

The receipts for licenses and fees during the past year have been as follows :

*Dog Licenses.*

618 males at \$2 each . . . . .	\$1,236 00
83 females at \$5 each . . . . .	415 00
3 females (spayed) at \$2 each . . . . .	6 00
	----- \$1,657 00
Paid to City Collector fees on 704 licenses at 20 cents each . . . . .	\$140 80
Paid to Joseph O. Hayden, County Treasurer . . . . .	1,516 20
	----- \$1,657 00

*Miscellaneous.*

Amusement licenses . . . . .	\$54 00	
Auctioneers licenses . . . . .	20 00	
Carriage and express licenses . . . . .	63 00	
Fireworks licenses . . . . .	18 00	
Intelligence office license . . . . .	2 00	
Junk Dealers licenses . . . . .	65 00	
Liquor licenses (6th class) . . . . .	9 00	
Marriage licenses . . . . .	80 00	
Mortgages and papers recorded . . . . .	113 75	
Pool Room licenses . . . . .	10 00	
	<hr/>	\$434 75
Paid City Collector . . . . .		\$434 75

During the past year much has been accomplished in this department to further systematize the work and place records in such a condition as to be of benefit to the public.

The index of births, marriages and deaths which has been in process of construction for some time has been completed, and now contains about 45,000 cards, by which any entry on the vital statistics recorded, from the earliest date (1673) up to the present time can be readily referred to. This index also contains much other information, not on the town or city records, as has been described in previous reports.

An index of every action ever taken by Medford in town meeting from the earliest times up to its incorporation as a city has been made, the items being referred to under the subject matter, so that all enquiries in relation to the action of the town on any question, whether it be the laying out of a street, the removal of the "big elm," or any other subject, whether important or otherwise, can be easily and quickly found.

The question of insurance of public buildings has been settled during the past year and removed the supervision of the same from this department.

I would again respectfully call attention to the benefits which would be derived were our old town records to be

copied and published, the interest in such matters is increasing every year, and it has received a great impetus since the institution of the Medford Historical Society. About twenty of the towns and cities of the Commonwealth have published the whole or part of their old records, and the receipts from the sale of such volumes have frequently gone a long ways towards paying the expense of the work. Medford being one of the oldest towns in the state, its records are replete with interesting and curious data and information, and such a publication would never be regretted, aside from its unquestionable usefulness in preserving that important matter of which we now have only a single copy, which is of course kept in the excellent vault with which the city building is now provided, but which is liable to destruction from unforeseen accidents, or causes beyond control.

I wish to express my appreciation to those who have so ably assisted me in the work of systematizing the condition of the records and other matter in this department, and regret that circumstances have made it necessary to dispense with the valuable services of one who has been a most careful helper in what has been done in that line.

Respectfully submitted,

ALLSTON P. JOYCE,

*City Clerk.*

# JURY LIST.

As Revised by the Board of Registrars, February 10, 1898.

(Acts of 1897. Chapter 515.)

Name	Age	Address	Occupation
Ackerman Herbert N	44	110 Adams	Clerk
Adams Clarence B E	27	11 Monument	Salesman
Adams Levi W Jr	37	425 Main	Jeweller
Allen Alfred M	43	45 Central av	Clerk
Allen William M	49	19 Edward	Paper ruler
Ambler William N	43	54 Auburn	Clerk
Amory Henry F	40	24 North	Com traveller
Arnold Edgar B	46	366 Salem	
Atwood Nathaniel	57	16 Garden	Commission
Balcom Edward H	60	354 Salem	Painter
Baldwin Edward E	48	48 Harvard av	Merchant
Batchelder Charles L	46	119 Monument	Contractor
Belcher Walter H	23	28 Gleason	Clerk
Benet Lorenzo P Jr	29	109 Summer	Cigar manufacturer
Bennett William	45	65 Lincoln	Mason
Blackmer James L	55	121 Park	Sign painter
Blodgett Frank B	37	21 College av	Builder
Bloom Charles A T	62	25 Logan av	Cutter
Boles George D	42	15 Ashland	Window shades
Booker George D	58	22 Franklin	Carpenter
Bradlee Dudley H	48	Forest	Hardware
Bradlee Horace H	23	Forest	Clerk
Brittain James F	56	297 Main	Carpenter
Brooks Edward C	43	309 High	Agent
Burbank Manning S	23	33 Forest	Clerk
Byron James E	38	69 Sharon	Mason
Byron John H	36	30 Curtis	Mason
Clark George H	33	15 Hancock av	Brass founder
Casey Thomas	59	26 Marion	Brickmaker
Casey William H	36	7 Albion	Brickmaker

Name	Age	Address	Occupation
Child William S	52	67 Washington	Clerk
Clifford Henry A	46	10 Brooks	Mgr Security Co
Coburn Charles F	54	63 Forest	Leather
Cofran George E	50	492 Salem	Union Market
Collins Jerome E	57	50 Allston	Cutter
Collins Thomas D	33	Main	Grocer
Couch William H	40	104 Jerome	Insurance
Coulson John	48	134 Washington	
Cowin J Howard	24	114 South	Clerk
Coyne Luke	43	75 Cotting	Horse shoer
Craven T Frank	40	43 Dudley	Barber
Crockwell John J	43	11 Manning	Carpenter
Crockwell Thomas	48	35 West	Carpenter
Crosby George E	57	590 High	Printer
Crosby Isaac W	34	188 Middlesex av	Clerk
Crowell Samuel P	42	422 High	Clerk
Crowley John	53	16 West	Provisions
Cunningham Nason B	56	75 Warren	Carpenter
Curtis Elisha B	61	11 Pleasant	Clerk
Curtis Myron G	45	47 Wareham	Expressman
Cushing Henry H D	55	30 Otis	Packer
Daly Daniel W	44	5 Myrtle	Upholsterer
Dartnell William T	22	585 Main	Clerk
Davis Joseph	49	27 Edward	Iron worker
Dawson Charles R	44	19 Emerson	Painter
Desmond John	54	21 Manning	Engineer
Doe J Wesley	45	616 Main	Com traveller
Donahue Peter E	56	47 Court	Contractor
Drew Albert B	39	180 Salem	Clerk
Dudley George H	61	42 Otis	Bookkeeper
Dunbar James W	60	4 Allston ter	Salesman
Dunham Charles B	27	24 Fulton	Architect
Dunster Henry	63	90 Boston av	Real estate
Dutton George E	32	Oakland	Salesman
Dyer Everett B	55	22 Fulton	Machinist
Eames Charles O	59	46 Dudley	Carpenter
Farnham Adelbert W	24	72 Dexter	Clerk
Fay Wilton B	31	Hastings lane	Accountant
Fenton Edward F	43	95 Magoun av	Paper hanger



Name	Age	Address	Occupation
Fifield Winslow W	55	220 Salem	Real estate
Flynn Thomas H J	44	18½ Union	Lather
Foster J Manning	30	10 Manning	Clerk
Frazar George B	44	46 Monument	Mineralogist
Forbes Edward B	37	20 Wheeler av	Salesman
Fowle Charles H	44	43 Magoun av	Bank clerk
Gaffey John A	39	19 Curtis	Contractor
Gill George B	38	15 Ashland	Travelling salesman
Gillis John C	46	9 Emerson	Undertaker
Gilmore John F	41	79 Warren	Printer
Goodale George L	53	122 Park	Clerk
Gordon Lysson	35	21 Maple av	Clerk
Grace Robert H	44	109 Monument	Bookkeeper
Graves Lewis T	45	68 Ashland	Upholsterer
Green Herman R	52	10 Almont	Real estate
Grover Charles A	56	16 Paris	Piano maker
Hall Samuel R	56	91 Park	Bookkeeper
Han Frank W	52	534 High	Carpenter
Hanscom Charles D	42	12 Pleasant	Bookkeeper
Hatch Edmund T	53	87 Mystic	Bank clerk
Hellen William B	32	21 Summer	Station agent
Hilton William M	59	14 Park	Painter
Hodgkins John S	49	51 Fulton	Paper hanger
Holland George A	37	144 Park	Printer
Hopkins Jonathan	59	32A Orchard	Builder
Howard Barker B	30	18 Cottage	Bookkeeper
Howe William	61	84 Dudley	Cabinet maker
Hunter Robert B	42	300 Main	Cableman
Hurd Frederick O	40	Riverside av	Real estate
Jackson Henry C Jr	28	9 Cottage	Bank clerk
Jenney William T	30	168 High	Rubber
Johnston George E	45	3 Edward	Carpenter
Jones James E	49	46 Cushing	Manufacturer
Joyce Edwin L	30	16½ Cross	Captain
Joyce Frank	49	5 Cushing	Bookkeeper
Joyce Fred A	37	16½ Cross	Carpenter
Joyce Winslow	53	222 Riverside av	Clerk
Keay Alfred H	48	10 Foster ct	Machinist
Kellum George D	52	52 Dudley	Real estate

JURY LIST.

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Name	Age	Address	Occupation
Kempton J Gordon	59	8 Temple	Rubber stamp
Kummer Charles E Jr	25	119 Forest	Salesman
Lake Walter	44	35 Ashland	Clerk
Lane George H	50	165 Brooks	Bell founder
Larrabee Allen C	57	397 Main	
Lawless William	33	133 Union	Laborer
Leach Joseph N	55	72 Boston av	Shoes
Leahy John M	37	35 Cotting	Janitor
Lothrop Horace M	38	8 Lapham	Insurance
Lovering George W	51	29 Franklin	Clerk
Lunt C Frederick	46	19 Cottage	Clerk
Marvel Louis H	51	19 Brooks	Teacher
Mason Albert	55	30 Garfield av	Thermometers
McDonald Peter J	35	41 Garfield av	Steamfitter
Menard John H	56	21 Glenwood av	Stair builder
Moore Edmund W	60	101 Magoun av	Sign painter
Moore Ernest B	31	5 Rural av	Bookkeeper
Morrison John	40	101 Magoun av	Agent
Mosman Elmer W	29	569 Main	Teamster
Murphy James	43	379 Main	Hostler
McGowan Patrick	58	154 Winthrop	Carrier
Newcomb Charles J	64	114 Washington	Shoemaker
Nolte Martin H	61	114 Allston	Corsets
Noyes Frederick W	49	15 Vine	Express
Ober Joseph E	63	44 Sharon	Grocer
Ober William E	29	43 Monument	Electrician
Overton William F	36	36 Jerome	Gardener
Parker George E	61	113 Allston	Brushmaker
Parker William H H	56	12 Grove	Dry goods
Parker William I	53	Hastings lane	Asst treasurer
Parry Joseph J	53	61 Dudley	Bank clerk
Parsons Henry	63	81 Summer	Machinist
Partington William E	30	67 George	Con traveller
Perham Myrick	59	Forest	Express
Perkins George B	26	11 Emery	Electrical engineer
Perkins William O	50	21 Almont	Photographer
Pierce Elisha G	30	89 Monument	Clerk
Plummer James M G	54	36 Lawrence	Clerk
Poland George L	34	8 Logan av	Carpenter

## JURY LIST.

Name	Age	Address	Occupation
Porter George	53	140 Allston	Carpenter
Porter Theodore C	37	3 Forest	Bookkeeper
Potter James E	47	172 Park	Builder
Pratt Irving W	38	11 Logan av	Broker
Preeper William C Jr	23	45 Otis	Clerk
Prescott George W	54	27 Magoun av	Salesman
Preston John M	35	32 Magoun av	Salesman
Purdy Arthur M	29	27 Park	Provisions
Puffer Harrison	38	7 Bennett	Carpenter
Ratliffe Thomas	41	25 Edward	Cabinet maker
Reagan John F	33	15 Manning	Plumber
Record Edwin A	46	112 Otis	Oil
Redding Ralph W	29	Harvard av	Real estate
Reece George E	27	11 Centre av	Ice
Richardson Alvarez E	53	20 Fountain	Clerk
Robinson Benjamin F	56	7 Henry	Blacksmith
Ruggles Henry P	57	8 Pleasant	Scale builder
Sache William C	46	149 Forest	Manufacturer
Savage Walter W	41	190 Spring	Stair builder
Sawyer Charles H	34	30 Wyman	Oil clothing
Sayre John W	51	83 Spring	Clerk
Scammon Everett	29	57 Central av	Bookkeeper
Sheehan Dennis F	39	5 Arlington	Clerk
Shepard Eugene E	43	43 Boston av	Shipper
Skinnell David F	36	76 Fountain	Coachman
Sleeper George L	52	13 Dudley	Baggage master
Smith Edward F	50	70 Tainter	Goldbeater
Smith Herman P	40	500 Main	Bookkeeper
Smith John W	60	402 Salem	Cutter
Smith Joseph C	32	43 Fifth	Editor
Smith William O	47	161 Park	Mill supplies
Spear Herbert C	36	2 Allen ct	Mineral water
Spellman John J	32	23 North	Brass finisher
Spencer Mendall C	61	86 Main	Painter
Sproul Augustus C	22	59 George	Asst cashier
Stetson George W	49	47 Ashland	Real estate
Stimson William E	38	128 Winthrop	Metal spinner
Stinson Martin F	55	17 Manning	Cork dealer
Sturtevant James S	60	5 Chester av	Clerk

JURY LIST.

183.

Name	Age	Address	Occupation
Sullivan John A	40	56 Tainter	Contractor
Summers Charles S	31	46 Martin	Steamfitter
Symmes Charles F	35	22 Park	Boots and shoes
Tainter Albert H	34	132 Salem	Asst supt
Tay Samuel B	46	Forest	Farmer
Towle Edwin	47	61 Bow	Salesman
Tucker Fred A	45	223 Main	Bookkeeper
Vye Albert W	45	86 Newbern av	Plasterer
Ward George L	26	11 North	Plumber
Warren William H	53	66 Dudley	Hardware
Wellington George A	30	22 Fourth	Insurance
Wells Thomas B	34	30 Martin	Mason
Wenys Charles C	53	25 College av	Cabinet maker
Weston George M	45	160 Salem	Musician
Whitehead Thomas G	49	407 Main	Tinsmith
Whorf John G	48	120 Winthrop	Millinery
Willis George L	34	Hastings lane	Salesman
Wood William H	49	1 Hammond pl	Painter
Woodbine Abel J	44	38 Sprague ct	Painter
Wyatt Henry M	57	96 Allston	Advertising agent

# REPORT

OF THE

## OVERSEERS OF POOR.

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*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR:—The Overseers of the Poor submit this their annual report for the year ending January 31, 1898:

During the past year matters at the almshouse have continued very much the same as through the previous year, and but little change in the conditions is to be noted. At the present time there are seventeen inmates, a larger number by two than one year ago. A large proportion are very old and infirm, the average age being more than seventy years. Many of them require a great deal of care, while others are very helpful in doing the work necessary in an institution of this kind. The new building which has now been in use for the past year, and the old part, with its alterations and improvements, prove to be very convenient and well adapted for the purpose intended.

Three inmates have died during the year. The expense has been just about the same as the previous year. There has been no change in the management, Mr. and Mrs. Newcomb still filling the positions of Superintendent and Matron.

We quote from the reports of the visitors of Almshouses, of the State Board of Lunacy and Charity:

“Quite extensive and important repairs and additions have been made in this almshouse since the last report, its capacity being greatly increased, and modern sanitary appliances introduced. Provision is made for separation of sexes, and a good hospital room is provided, and rooms for isolation in cases of contagious diseases. The place is in a clean and orderly condition, and the management is good.”

We ask for the same appropriation as last year, and while we think that the number of inmates is likely to be increased before the close of the year, a few more or less will not materially alter the running expenses.

We cannot report so satisfactory a condition regarding Outside Relief. The expense of this class has been greater than ever before, and the past year is the first since Medford became a city that this department has expended a larger amount than was appropriated. But at the close of this year, we find that we have exceeded the appropriation by about six hundred dollars. It will be noticed, however, that the sum appropriated was one thousand dollars less than that for the previous year, and the same amount less than recommended by the Overseers as necessary.

On account of the continued depression in business, and the consequent inability of many to find constant employment, the number of the unemployed is larger than ever before. There are many worthy and deserving poor in our community, a considerable number being hard-working widows, with families of small children who do all they can towards their own support; there are cases, and not a few, where the husband and father is wholly responsible for the poverty and destitution of his family; there are instances that come under our notice where both father and mother are intemperate, and the children are growing up under influences that can hardly fail to make them worse than their parents. It is always difficult in these cases to decide what is the best course to pursue, and while it seems to us a serious matter to take the children from their parents, yet in some cases, we fully believe that they should be taken away from their parents, and placed where they will be surrounded by good home influences, and thereby given an opportunity for education and training to fit them to be useful members of society.

An examination of the annexed tables will show the various amounts expended. It will be noticed that the sum paid for the support of the insane in the various asylums is

twenty-eight hundred sixty-one dollars and nine cents, (\$2,861.09), a large proportion of the whole cost of this department. The number of insane at the present time is seventeen, one more than a year ago.

We would suggest for the consideration of the members of the City Council, the advisability of purchasing an ambulance to be used in connection with the police department, as we find one to be much needed. The sum of nearly sixty dollars (\$60.00) has been paid for this purpose alone during the past year. When the City Physician considers it safe to remove a sick person, it is our duty to do so, and in such a manner as he may determine advisable. At two different times during the past year, we have been obliged to pay the sum of eighteen dollars (\$18.00) for the use of an ambulance. It seems to us that it would not only be a great convenience if the city owned such a vehicle, but a wise thing in the way of economy.

Radical changes are likely to be made in the settlement laws during the present session of the Legislature, as the whole question of the pauper laws is being considered by a commission appointed some two years ago by the Governor, and a bill is now before the Legislature, and hearings are being held on the same.

We cannot estimate with any degree of certainty, the amount that will be needed for the coming year, but we recommend that the sum of forty-five hundred dollars (\$4,500) together with the amounts that may be received from the sale of produce, be appropriated for the expense of the Almshouse, and also that the sum of sixty-five hundred dollars (\$6,500), and such amounts as may be received from the Commonwealth and other cities and towns, be appropriated for Outside Relief.

#### ALMSHOUSE.

*Inmates Feb. 1, 1898.*

Names.	Age.	When admitted.
Peter Wait . . . . .	84	Feb. 8, 1884
Daniel Richardson . . . . .	87	Jan. 12, 1893

Names.	Age.	Where admitted.
Turell Tufts . . . .	67	Oct. 2, 1895
Robert Dowling . . . .	44	Sept. 13, 1893
George Connell . . . .	65	Aug. 9, 1893
Thomas Miskell . . . .	78	Dec. 13, 1893
Frank Pratt . . . .	36	Jan. 9, 1897
John Richmond . . . .	51	Dec. 23, 1892
Prescott Whitcomb . . . .	77	May 22, 1897
Terrence Kelly . . . .	48	Jan. 8, 1898
Elijah B. Smith . . . .	84	Jan. 29, 1898
Alice Dowling . . . .	70	Sept. 13, 1893
Abbie Whitcomb . . . .	57	May 22, 1897
Mary A. Richmond . . . .	40	Dec. 23, 1892
Mary A. McKernan . . . .	92	Aug. 5, 1893
Mary A. Brazzell . . . .	72	June 19, 1893
Mary A. Stone . . . .	70	May 10, 1894

*Admitted During the Year.*

William Connors . . . .	39	Sept. 11, 1897
Gilbert Sherman . . . .	59	Sept. 11, 1897
Elizabeth Walters . . . .	80	April 29, 1897
Abigail Strang . . . .	30	Sept. 7, 1897
Nora Daily . . . .	42	July 30, 1897
Hannah Casey . . . .	26	June 29, 1897
Willie Casey . . . .	5	June 29, 1897
Prescott Whitcomb . . . .	77	May 22, 1897
Abbie Whitcomb . . . .	56	May 22, 1897
Terrence Kelly . . . .	48	Jan. 8, 1898
Elijah B. Smith . . . .	84	Jan. 29, 1898
John Smith . . . .	38	May 22, 1897
W. J. Waterhouse . . . .	70	Sept. 8, 1897

*Discharged During the Year.*

Names.	When discharged.
William Connors . . . .	Dec. 27, 1897
Gilbert Sherman . . . .	Nov. 12, 1897
Abigail Strang . . . .	Sept. 8, 1897
Nora Daily . . . .	Aug. 5, 1897
Hannah Casey . . . .	July 2, 1897



Names.	When discharged.
Willie Casey . . . . .	July 2, 1897
John Smith . . . . .	June 1, 1897
W. J. Waterhouse . . . . .	Oct. 25, 1897

*Died During the Year.*

Name.	Age.	Date of death.
Isaac Newton . . . . .	74	April 10, 1897
Elizabeth Walters . . . . .	80	May 29, 1897
Anthony Plant . . . . .	83	Aug. 2, 1897

The total expenditure for almshouse

for the year ending January 31,

1898, . . . . . \$4,615.67

Unexpended . . . . . 104 74

Appropriation . . . . . \$4,500 00

Received for produce . . . . . 84 38

Received from B. W. Waterhouse for  
board of W. J. Waterhouse . . . . . 24 50

Received from C. H. Clark account  
of Arthur Reagan . . . . . 111 53

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\$4,720 41 \$4,720 41

Cost per week for each person has been \$4.23.

The expenditures have been for the following purposes :

Salary of superintendent and matron . . . . .	\$700 00
Labor . . . . .	595 67
Fuel . . . . .	489 84
Repairs to buildings . . . . .	142 97
Tools and repairs . . . . .	144 85
Grain and hay . . . . .	197 53
Gas . . . . .	116 12
Telephone . . . . .	70 50
Water rates . . . . .	32 00
Wagon . . . . .	120 00
Expressing . . . . .	12 90
Ice . . . . .	35 00
Drugs . . . . .	142 41

Dry goods . . . . .	\$9 21
Clothing . . . . .	174 38
Groceries and provisions . . . . .	1,491 00
Sundries . . . . .	51 29
	<hr/>
	\$4,615 67

## OUTSIDE RELIEF.

*Insane in Hospitals.*

William E. Hatch . . . . .	\$169 47
Thomas Manning . . . . .	169 47
Lydia W. Hitchings . . . . .	146 00
Emma J. Withington . . . . .	146 00
Mary McGillicuddy . . . . .	169 47
Ann McKernan . . . . .	146 00
Mary Hawkins . . . . .	169 45
Mary E. Bates . . . . .	169 48
Margaret Durgin . . . . .	169 46
Frank Divol . . . . .	169 46
Wilbur S. Holmes . . . . .	146 00
William H. Conuor . . . . .	3 43
Charles F. Lennis . . . . .	46 88
Mary Coughlin . . . . .	169 46
Augusta Spillane . . . . .	146 00
Elmira L. Tryon . . . . .	18 11
Michael T. O'Brien . . . . .	76 60
Helen Goldsmith . . . . .	151 00
Louisa E. Newcomb . . . . .	154 61
Charles W. Wade . . . . .	95 25
Charles W. Ball . . . . .	129 07
Edward Loeffler . . . . .	76 14
Grace Bellefontain . . . . .	24 28
	<hr/>
	\$2,861 09

The expenditure for the poor outside of the Almshouse, including the insane in the several asylums, has been as follows :

Persous given partial support in and having a settlement in Medford . . . . .	\$2,473 97
Insane in hospitals . . . . .	2,861 09
Out-door poor in other cities and towns having a Medford settlement. . . . .	708 22
Out-door poor, living in Medford, but having a settlement in some other town or city . . . . .	824 76
Out-door poor having no settlement in the Commonwealth . . . . .	962 03
Incidentals . . . . .	170 69
	<hr/>
Total expenditures . . . . .	\$8,000 76
Appropriation . . . . .	\$5,000 00
Received from Commonwealth . . . . .	1,105 09
Received from other cities and towns . . . . .	537 66
Received from Daniel Spillane . . . . .	146 00
Received from Mary E. Ballou . . . . .	30 96
Received from W. S. Tryon . . . . .	43 18
Received from C. H. Clark, guardian of Mary Coughlin . . . . .	361 29
Of orders issued for supplies, bills unpaid amount to . . . . .	132 34
Expended in excess of appropriation . . . . .	644 24
	<hr/>
	\$8,000 76

The number of persons given outside relief, including insane :

In 1893 was 345, at an expense of \$7,881.87.

In 1894 was 383, at an expense of \$8,366.18.

In 1895 was 308, at an expense of \$6,416.39.

In 1896 was 352, at an expense of \$6,525.56.

In 1897 was 408, at an expense of \$8,000.76.

Respectfully submitted,

WILLIAM C. CRAIG,

CALVIN H. CLARK,

JOHN CROWLEY,

*Overseers of the Poor.*

Medford, February 1, 1898.

# REPORT

## OF THE

# BOARD OF ASSESSORS.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—The Board of Assessors respectfully submit the following report for the year ending Jan. 31, 1898:

State tax . . . . .	\$10,902 50
Middlesex County tax . . . . .	14,753 88
Metropolitan sewer tax . . . . .	26,686 79
City tax . . . . .	263,578 27
Overlay and abatement . . . . .	5,415 06
Total . . . . .	\$321,336 50
Amount of poll taxes . . . . .	\$9,412 00

### VALUATION OF THE CITY.

	Polls.		Pers. Est.	Real Est.	
				Houses.	Land.
Ward 1,	845.	Res.	\$55,000	\$909,900	\$650,000
		Non-res.	10,800	522,150	603,050
Ward 2,	782.	Res.	65,250	856,950	574,150
		Non-res.	6,300	156,650	166,900
Ward 3,	564.	Res.	1,337,000	1,370,000	2,043,700
		Non-res.		151,000	303,000
Ward 4,	715.	Res.	99,700	727,200	764,650
		Non-res.	5,300	135,250	115,000
Ward 5, 1,108.		Res.	143,800	916,400	800,400
		Non-res.	3,250	792,650	747,000
Ward 6,	692.	Res.	434,200	1,062,850	1,034,300
		Non-res.	1,850	250,850	512,050
Malden Electric Co.			8,000		
Malden & Melrose Gas Co.			20,000		
Totals,			\$2,182,450	\$7,851,850	\$8,314,200

Total valuation May 1, 1897 . . . . .	\$18,348,500
Rate per \$1,000, \$17.00.	
Amount of taxes committed to the Collector	\$321,336 50
Added taxes, polls, personal and real estate . . . . .	\$729 70
Abated taxes, polls, personal and real estate :	
Abatements certified to the Collector	\$2,900 46
Abatements certified to the Treasurer	31 45
Total . . . . .	<u>\$2,931 91</u>
Re-assessed taxes, personal and real estate . . . . .	\$1,182 35
Number of residents assessed on property :	
Individuals . . . . .	2,058
All others (firms and corporations)	183
Total . . . . .	<u>2,241</u>
Number of non-residents assessed on property :	
Individuals . . . . .	783
All others (firms and corporations)	146
Total . . . . .	<u>929</u>
Number of persons assessed :	
On property . . . . .	3,170
For poll tax only . . . . .	3,560
Total . . . . .	<u>6,730</u>
Militia (between 18 and 45 years) . . . . .	3,397
Number of polls . . . . .	4,706
Tax on each poll . . . . .	\$2 00
Number of horses assessed . . . . .	934
Number of cows assessed . . . . .	296
Number of neat cattle other than cows assessed . . . . .	7
Number of dogs . . . . .	688
Number of dwelling houses assessed . . . . .	3,074
Number of acres of land assessed (about) . . . . .	5,521.28

**SEWER APPORTIONMENTS.**

On the 18th day of August, 1896, the Sewer Commissioners of the City of Medford certified to this Board that Sewer Assessments to the amount of \$48,012.32 had been apportioned by them, and that the first instalment of said apportionments amounted to \$10,204.27 and accrued interest on same to September 1, 1896, \$87.74.

Said first instalment was committed to the Collector, August 14, 1896.

On September 1, 1897, the second instalment of these apportionments was committed to the Collector, \$9,199.76, and accrued interest on same to September 1, 1897, \$665.45.

On August 9, 1897, the Sewer Commissioners certified that sewer assessments to the amount of \$30,438.34 had been apportioned, and the first instalment had been committed to the Collector, \$6,083.76, and accrued interest on same to September 1, 1897, \$150.65.

Aug. 18, 1896, certified to this board	\$48,012 32
Aug. 9, 1897, " " "	30,438 34
	\$78,450 66
Feb. 1, 1898, correction No. 1949 . . . . .	\$16 39
First instalment committed to Collector, appor.	
1896 . . . . .	10,204 27
Second instalment committed to Collector, appor.	
1896 . . . . .	9,199 76
First instalment committed to Collector, appor.	
1897 . . . . .	6,083 76
Balance to be committed to Collector . . . . .	52,946 48
	\$78,450 66

**SIDEWALK APPORTIONMENTS.**

The following sidewalk apportionments have been certified to this Board by the Board of Aldermen in compliance with the requirements of Section 9, of the Highway Ordinance, and committed to the Collector :

Mary D. Dodge, second instalment . . . .	\$17 27
Laura A. Holton, three instalments . . . .	27 66
Laura A. and Edward C. Holton, three instal- ments . . . . .	87 46
Eliza E. Clark . . . . .	44 30

Respectfully submitted,

HENRY WITHINGTON,  
EDWARD S. RANDALL,  
WARREN T. MORSE,

February 1, 1898.

*Assessors.*

# REPORT

## OF THE

# CITY COLLECTOR.

*Hon. Lewis H. Lovering, Mayor of the City of Medford :*

SIR, — I respectfully submit the following report of collections made in this department during the year ending January 31, 1898 :

### TAXES OF 1894.

Uncollected Feb. 1, 1897 . . .	\$23 08	
Abated March, 10, 1897 . . .		\$23 08

### TAXES OF 1895.

Uncollected Feb. 1, 1897 . . .	\$3,109 15	
Poll added . . . . .	2 00	
Corrections for abatements paid . . .	14 30	
Balances paid Collector . . . . .	26 65	
Abatements allowed . . . . .		\$1,437 90
Collected and paid Treasurer . . . .		1,713 55
Uncollected Feb. 1, 1898 . . . . .		65

### TAXES OF 1896.

Uncollected Feb. 1, 1897 . . . . .	\$55,518 30	
Reassessed . . . . .	48 28	
Abated . . . . .		\$86 24
Collected and paid Treasurer . . . .		43,008 90
Uncollected Feb. 1, 1898 . . . . .		12,471 44

### TAXES OF 1897.

Warrant . . . . .	\$321,336 50	
Added . . . . .	729 70	
Reassessed . . . . .	1,182 35	
Abated . . . . .		\$2,900 46
Collected and paid Treasurer . . . .		245,101 69
Uncollected Feb. 1, 1898 . . . . .		75,246 40



## INTEREST.

On taxes of 1895 . . . .	\$120 87	
On taxes of 1896 . . . .	1,608 37	
On taxes of 1897 . . . .	432 17	
On sewer assessments . . . .	811 48	
On sidewalk apportionments . . . .	1 28	
Paid Treasurer . . . .		\$2,974 17

## COSTS AND FEES.

On taxes 1895 . . . .	\$139 90	
On taxes 1896 . . . .	249 90	
On taxes 1897 . . . .	154 40	
On sewer assessments . . . .	74 10	
Paid Treasurer . . . .		\$618 30

## SIDEWALK ASSESSMENTS.

Uncollected Feb. 1, 1897 . . . .	\$238 43	
Amount committed during the year . . . .	776 40	
Abated . . . . .		\$4 89
Apportioned . . . . .		159 42
Collected and paid Treasurer . . . .		337 38
Uncollected Feb. 1, 1898 . . . .		513 14

## SIDEWALK APPLICATIONS.

Amount committed during the year	\$2,236 04	
Collected and paid Treasurer . . . .		\$2,010 16
Uncollected Feb. 1, 1898 . . . .		225 88

## SIDEWALK APPORTIONMENTS.

Second Instalment 1896 . . . .	\$17 27	
First Instalment 1897 . . . .	53 15	
Paid Treasurer . . . .		\$17 27
Uncollected Feb. 1, 1898 . . . .		53 15

## STREET WATERING ASSESSMENTS.

Uncollected Feb. 1, 1897 . . .	\$1,160 18	
Amount committed for 1897 . . .	3,439 62	
Abated on account 1894. . . .		\$1 44
Collected and paid Treasurer . . .		2,843 37
Uncollected Feb. 1, 1898 . . .		1,754 99

## SEWER HOUSE CONNECTIONS.

Balance on hand Feb. 1, 1897 . . .	\$224 63	
Amount committed during the year	11,009 58	
Collected and paid Treasurer . . .		\$10,385 93
Balance on hand Jan. 25, 1898 . . .		848 28

## SEWER ASSESSMENTS.

Balance Feb. 1, 1897 . . . . .	\$57,065 39	
Committed, schedules 77 and 78 . . .	11,632 25	
Correction, assessment No. 1949 . . .	16 39	
Credited to apportionment account . .	5,577 36	
Apportioned, as per certificate Aug. 9, 1897 . . . . .		\$30,438 34
Collected and paid Treasurer . . . .		27,705 22
Uncollected Feb. 1, 1898 . . . . .		16,147 83

## SEWER APPORTIONMENTS.

Balance Feb. 1, 1897 . . . . .	\$8,131 65	
Second instalment of 1896 apportionments . . . . .	9,199 76	
First instalment of 1897 apportionments . . . . .	6,083 76	
Correction No 2240 . . . . .	8 51	
Correction No. 2258 . . . . .	2 14	
Correction No. 1949 . . . . .		\$8 39
Correction No. 2284 . . . . .		6 42
Correction No. 2493 . . . . .		5 72
Charged to assessment account . . . .		5,577 36
Collected and paid Treasurer . . . .		8,911 16
Uncollected Feb. 1, 1898 . . . . .		8,916 77

## ACCRUED INTEREST ON SEWER APPORTIONMENTS.

Balance uncollected Feb. 1, 1897, .	\$44 23	
Committed Sept. 1, 1897 on second instalment of 1896 apportionments	665 45	
Committed Sept. 1, 1897 on first instalment of 1897 apportionments	150 65	
Collected and paid Treasurer . . .		\$514 39
Uncollected Feb. 1, 1898 . . .		345 94

## MISCELLANEOUS.

Water Department . . . . .	\$57,953 97	
Highways . . . . .	3,863 71	
Sidewalks and Edgestones . . . . .	427 31	
Street numbering . . . . .	34 17	
Public Library . . . . .	1,491 25	
State and Military Aid . . . . .	2,619 00	
Sewer Construction . . . . .	1,026 51	
Care of Cemeteries . . . . .	1,779 98	
Almshouse . . . . .	220 41	
Outside Relief . . . . .	2,224 18	
Collection house offal . . . . .	380 00	
Fire Department . . . . .	106 20	
Middlesex Avenue Bridge . . . . .	668 91	
Miscellaneous Credits . . . . .	26,445 85	
Special Police . . . . .	10 00	
Public Schools . . . . .	17 86	
Telephone City Hall . . . . .	35	
Setting Out Trees . . . . .	2 40	
Salaries of Engineers and men . . . . .	2 00	
Brooks and Streams . . . . .	2,319 69	
Interest on Deposits . . . . .	63 61	
Interest on Bradbury Fund . . . . .	454 58	
	<hr/>	
	\$102,111 94	
Paid Treasurer . . . . .		\$102,111 94

There remains in my hands for collection :

Taxes for 1895 . . . . .	\$0 65
Taxes of 1896 . . . . .	12,471 44
Taxes of 1897 . . . . .	75,246 40
Sidewalk Assessments . . . . .	513 14
Sidewalk Applications . . . . .	225 88
Sidewalk Apportionments . . . . .	53 15
Street Watering . . . . .	1,754 99
Sewer House Connections . . . . .	848 28
Sewer Assessments . . . . .	16,147 83
Sewer Apportionments . . . . .	8,916 77
Accrued Interest on Sewer Apportionments . . . . .	345 94
Sidewalks and Edgestones Account . . . . .	802 90
Sewer Construction . . . . .	54 56
Miscellaneous Credits . . . . .	473 78
Collection of House Offal . . . . .	102 50
Outside Relief . . . . .	622 01
	<hr/>
	\$118,527 07

Respectfully submitted.

EDWARD W. HAYES,  
*City Collector.*

Medford, February 1, 1898.

# REPORT

OF THE

## CITY TREASURER.

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MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR,—I herewith submit my fifth annual report, covering the year ending January 31, 1898:—

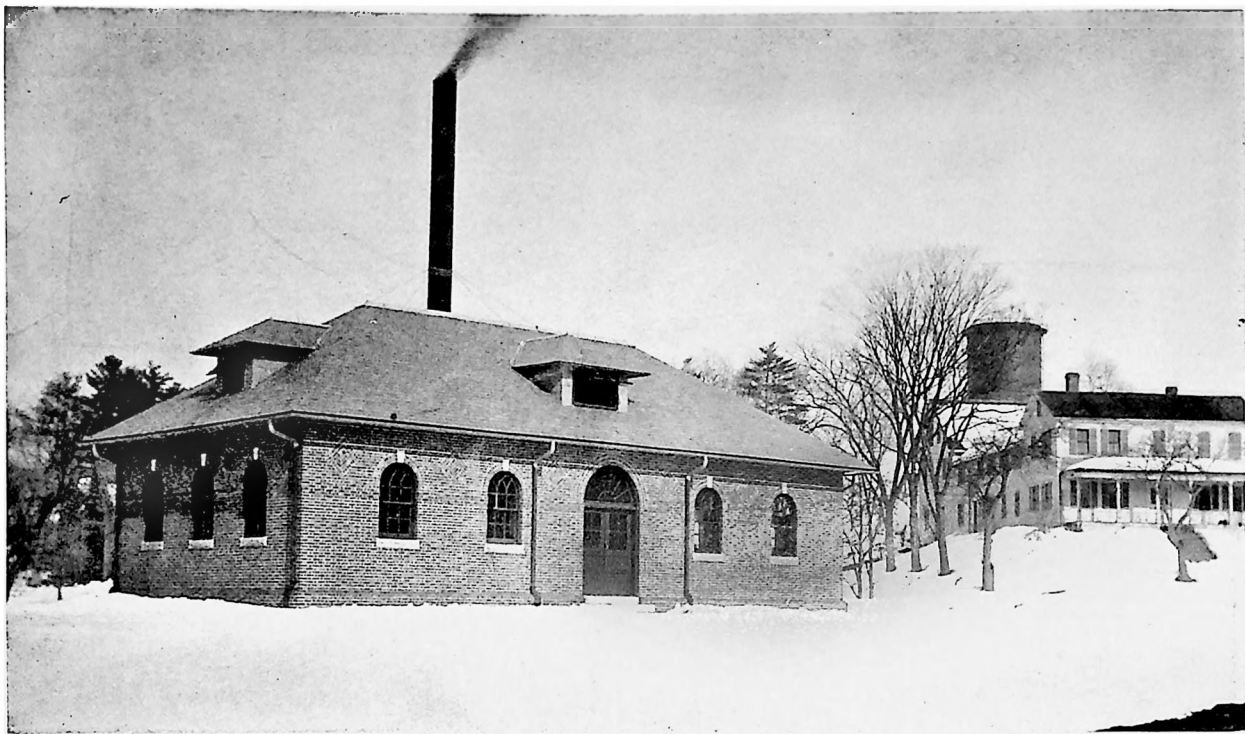
Cash balance in the city treasury February 1,	
1897 . . . . .	\$43,871 22
Amount received in the treasury during the	
year ending January 31, 1898 . . . . .	794,221 71
	<hr style="width: 100%;"/>
Total . . . . .	\$838,092 93
The disbursements during the year amount to	759,352 53
	<hr style="width: 100%;"/>
Leaving a balance in the treasury January 31,	
1898 . . . . .	\$78,740 40

Respectfully submitted,

PARKER R. LITCHFIELD,

*City Treasurer.*

MEDFORD HISTORICAL SOCIETY.  
*ae. 2365.*



PUMPING STATION, Near Wright's Pond.

MEDFORD HISTORICAL SOCIETY.  
no. 23657.

REPORT  
OF THE  
WATER COMMISSIONERS.

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WATER COMMISSIONERS' OFFICE.

MEDFORD, February 1, 1898.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

SIR, — The Water Commissioners herewith submit, for your consideration, their twenty-eighth annual report for the fiscal year ending January 31, 1898.

On December 31, 1897, the Metropolitan Water Board took formal possession of Spot Pond; thus Medford, as well as Malden and Melrose, has been obliged to surrender this source of supply that has been of so great advantage to the citizens of our municipality during the past twenty-eight years. We, as Water Commissioners, regret the taking, and well may every citizen of Medford share our feelings, now that this old-time source is no longer at our command. For many years it served us well. Other reasons, aside from sentiment, prompt us to say this.

Now that we have entered upon a new era, in which no responsibility rests upon your Commissioners for the supply of water, we attending simply to the maintenance of the department, a little recapitulation may be in order, confined chiefly to the period of the present incumbents in office.

The Spot Pond Water Company was incorporated in 1867, composed of three citizens from each of the three towns, Malden, Melrose and Medford, for the purpose of obtaining the franchise of Spot Pond, to be deeded later by them to



these towns. This deed being passed by them on October 22, 1869. It then fell upon the above named towns, acting jointly, to pay the land and mill damages consequent upon taking the pond. In 1870, we are unable to find the exact date, water was first supplied to the inhabitants of Medford through cement-lined pipes laid by Mr. George H. Norman of Newport, R. I., a contract having been made with him to lay the supply pipes in the streets, as well as the main from Spot Pond.

The supply received from this source was adequate to meet the wants of the citizens until the year 1837,—being supplied to them most of the time by gravity, but later by erecting a pumping plant to pump the water from the pond during the dry season—when the Water Commissioners commenced to agitate the question of purchasing what was known as Wright's Pond, and all of the land located between Spot Pond, Fulton, Elm and Forest streets, first recommending this in their report of February 1, 1888. At the town meeting held March 11, 1889, the first money was appropriated for carrying through this project. To the Water Commissioners of that day is due much credit for suggesting the purchase and aiding in the acquirement of this property; not only for the benefit to be derived from its water supply, but the advantage it is destined to be to future generations for park purposes, adjoining as it does land owned by the state designed for a public reservation. It was also acquired at a time when the amount paid for it was small, compared with its actual value today. In carrying out this plan, the city has acquired possession of about 228.88 acres.

Under the first year of City Administration, owing to the scarcity of water, the question of an additional supply forced itself upon the attention of the citizens. This period in years to come may be regarded as the "dark ages" in the history of our water supply. The use of hand hose had to be abandoned entirely and the streets watered from the Mystic river, and every available means used to save the

water. Our citizens felt the situation keenly, and by their every endeavor assisted your Commissioners in obtaining an additional supply, appropriating money more freely than at any time in the past.

A test was made with driven wells near Fulton and Webster streets, which encouraged a sufficient number of the Board for them to recommend an appropriation of a large amount of money for the purpose of establishing a permanent pumping plant, without any further experiments. When the Board organized in 1894, the members were not all in accord with regard to this project, although public sentiment rather favored the driven wells system. The people realized that something must be done, and to many this seemed the most feasible project that had been presented. After a number of meetings of the Board, it was agreed, on account of the urgent necessity for more water, to sink more wells in the given locality, erect a temporary plant, and pump direct into the pipes on Webster street. The free use of the land being acquired through the courtesy of the Mayor, Gen. S. C. Lawrence, who showed a marked interest by aiding and encouraging the Board in every possible way. The water thus obtained was of good quality, and enabled us to tide over a dry season by increasing the pressure, thereby benefiting the residents on the high lands. The maximum amount obtained by pumping twenty-four hours daily averaged 210,000 gallons per day. This quantity was not considered sufficient, especially as the plant promised to be very expensive both to establish and maintain.

It was then thought advisable to abandon the driven wells system entirely, though various other places for wells had been considered, and one undoubtedly would have furnished us all of the water required. We refer to a section of land owned by Mr. Peter C. Brooks, and located on the easterly side of Mystic pond; had we resorted to this source, Boston undoubtedly would have placed an injunction on our work. The manner in which the driven wells system was handled, we think, saved the city some \$60,000 or \$70,000.

Meanwhile the services of the late M. M. Tidd, civil engineer, had been employed and quite an elaborate plan was furnished by him, proposing numerous storage basins, located on land that has since been taken by the State of Massachusetts, being known as the Metropolitan Park Reservation. This would have required a large expenditure of money, exclusive of land damages, and was not considered advisable to follow to any extent.

The Board then decided to develop Wright's Pond, erecting a new dam to an elevation of 145 feet above city base, having a reservoir capacity of 79,500,000 gallons of water, covering an area of about twenty-four acres, and with an extreme depth of thirty feet. Connected with that a catch basin was built on the westerly side of Forest street, which enables us to retain the water on the east and west arms of this supply. This has proved most beneficial to Medford, furnishing us with an abundant supply of water, in connection with the amount we were entitled to from Spot Pond; thus permitting our citizens to indulge in unrestrained use of water during the past four years.

In purchasing Wright's Pond and the land before mentioned, we secured a supply yielding about 100,000,000 gallons of water in even a dry year, and about as much more could be obtained from the east and west arms if desired. It can be supplied to the city by gravity, and is of a purity unexcelled by any water in this vicinity as is shown by a comparison of its analysis with that of Spot Pond water. Report of the State Board of Health as follows

CHEMICAL EXAMINATION OF WATER FROM SPOT POND,  
STONEHAM.

(Parts per 100,000 )

Average.	Date of Collection.	Color.	RESIDUE ON EVAPORATION.		AMMONIA.				Chlorine.	NITROGEN AS		Oxygen Consumed.	Hardness.
			Total.	Loss on Ignition.	Free.	Albuminoid.				Nitrates.	Nitrites.		
						Total.	Dissolved.	Suspended.					
1893	.29	5.70	1.71	.0085	.0197	.0162	.0035	.49	.0105	.0003	.3486	2.4	
1894	.23	5.90	1.68	.0029	.0210	.0160	.0050	.57	.0039	.0001	.3616	2.4	
1895	.25	5.92	2.02	.0058	.0219	.0196	.0023	.61	.0096	.0000	.4376	2.4	

CHEMICAL EXAMINATION OF WATER FROM WRIGHT'S POND,  
MEDFORD.

Average.	1895	.50	5.55	2.15	.0064	.0214	.0194	.0020	.47	.0050	.0002	.5850	2.1
	1896	.46	5.30	1.87	.0011	.0241	.0172	.0068	.44	.0026	.0000	.5295	2.2
	1897	.41	5.63	1.15	.0030	.0352	.0254	.0098	.54	.0046	.0001	.5611	2.2

All the water we can furnish ourselves the Metropolitan Board is to give us credit for, by the provisions of the act creating it, at the rate of \$12 per million gallons. It is estimated that the city will receive \$1,600 or more from the Metropolitan Water Board, as the amount due them for water furnished from Wright's Pond this year. Could we be credited at the same rate for this water, that we will be obliged to pay the state for the amount supplied by it, the income derived therefrom would be represented by entirely different figures, much in our favor. In addition, the pond is capable of yielding twenty thousand tons or more of ice annually, except during an occasional off year. We believe it is possible to derive from this source a sufficient amount

to pay the entire maintenance account of the department. This matter we tried to have the City Council look upon as a business proposition, and to treat it as such. Could this have been done we think the future generation, if not the present, would thank us for the interest manifested in this direction.

The city will acquire within a very short time a deed of about 15,702 square feet of land, that is located at the catch-basin opposite the pumping station on Forest street. This is really the key to about 73.8 acres of water-shed located on the westerly side of Forest street.

In the portion of land deeded by Mr. Walter C. Wright to the Park Commissioners in 1895, he very thoughtfully reserved the right for the city of Medford to build a storage basin thereon, if at any time it should be thought advisable, and though at the present time we have no reason to suppose that the city will derive any benefit therefrom, when that conveyance was made it was regarded by the water commissioners as a very favorable grant to our city.

With the additional supply came the opportunity for greater efficiency in distribution. The city was divided into two systems, the low lands being supplied by gravity and the high land by water pumped into a standpipe, located near the pumping station on the land before mentioned. During the past year tests were made of the pressure obtained with the high service for fire purposes. We were able to throw water upon the top of the steeple of the Mystic Church on Salem street, the old Catholic Church on High street, the Congregational Church at West Medford, or to throw ten fire streams in the square without reducing the pressure more than eleven pounds. We regret not being able to show by a photographic illustration the tests made.

Of the \$300,000 that has been used by the water department during the past five years we can state that between \$1,500 and \$2,000 was expended by Mr. Tidd in seeking for a supply, as referred to in our report of February 1, 1894,

\$6,419.32 for experimenting with the driven wells—a portion of this plant is in use at our pumping station. The temporary station at Wright's Pond cost \$6,502.38. The standpipe and connections cost \$7,794.98, and the pumping station \$18,726.54. There has been about \$30,000 expended for the purchase of land, \$16,202 for Wright's Pond dam, \$14,491.65 for the water works building and shed at the junction of Swan and James streets. The balance of the money has been well invested in iron pipe, replacing the weakest of the cement-lined pipe. It will be remembered that when we first became a city, the merits of cement-lined and cast-iron pipe were receiving a great deal of attention. Up to that period cement-lined pipe had been used almost exclusively. It had given the town good service. It was introduced at a time when the cost of iron pipe was so great, that it would have made it inadvisable for the town to introduce a water-works system at as early a date. When the water was first introduced into our town iron pipe cost \$53 per gross ton, while our last purchase was made for a little over \$19. Like the wooden axle carriage of our ancestors, it tided us over a period when apparently no other means could be procured. Though the present commissioners were criticised by some of our citizens for using nothing but iron pipe, we feel that these people must have met with a change of heart, when they observe that in addition to the saving in its first cost, iron pipe is much cheaper to maintain than cement-lined pipe. Not only our city, but many other places in our Commonwealth have entirely discontinued the use of the latter.

Our total department debt is now \$500,000. The Sinking Fund amounts to \$133,000, which will be materially increased by the amount—as yet unknown—to be received from the Commonwealth in settlement for the takings of the Metropolitan Water Board previously referred to.

With all due regard to the Metropolitan Water System that is destined to be of such benefit to future generations, we, as water commissioners believe, that could Medford

have been allowed to provide for herself for twenty years, as some of our neighbors were, and not have been included in the Metropolitan Water System, many thousands of dollars could have been saved our city. Though we respect the enterprise highly, and realized at the time the great benefit it would be to some localities, we did urge that a little different understanding be arrived at, before the city of Medford accepted its provisions. There are other cities that had no more than twenty years' supply that kept aloof from the enterprise.

Proper recompense may be received from the state's taking of Medford's interest in Spot Pond, but it is our opinion that a different reading of the Metropolitan Water Act, applying more directly and advantageously to ourselves, could and should have been obtained. Could we even have had the privilege of supplying ourselves, and forming a temporary alliance with Winchester, the department would, we think, have been benefited enough therefrom to have built a monument in the shape of a City Hall. We think also that it would have been reasonable for us to have demanded the same amount for water that we furnished, as we are obliged to pay for what we receive. We believe that had a little activity been shown in the right direction, on the part of the powers that were, they would have prevented the passage of the Act, that debarred us, without special legislation, from establishing a pumping station at Meeting-house Brook.

We desire especially to call your attention to the maintenance account, and would respectfully refer you to the predictions made by us in our former reports, with regard to the expense of running the department. We can see no reason for any material increase in the expense account, even though the revenue should double.

The cost of repairing breaks during the past year amounted to only \$696.12. This, we regard as a barometer showing that our pipe system is in excellent condition at the present time. The cost of maintenance for the year

was \$9,634.81. This includes \$2,369.28 expended for maintaining the pumping station, an expense which will in the future be borne by the Metropolitan Water Board.

We present herewith a table showing the cost of maintenance each year since the beginning of the works.

Statement of Receipts and Expenditures of the Town and City of Medford on account of Water Works as shown by the accounts from 1869 to date :

## PAID.

	For Maintenance.	For Interest.	For Sinking Fund.	For Construction.	For Land and Water Rights.
1870	\$113 25	\$2,650 00		\$102,910 45	\$322 00
1871	731 18	10,450 00		97,397 08	810 00
1872	3,488 91	13,470 00		36,840 28	200 00
1873	1,749 72	14,207 00		16,866 83	2,000 00
1874	6,407 32	15,750 88		14,471 10	23,104 58
1875	9,180 77	17,354 33		5,616 62	6,600 00
1876	3,067 56	16,890 00		4,529 89	700 00
1877	2,718 88	19,110 00	\$5,000 00	3,185 61	550 00
1878	5,204 48	17,940 00	6,000 00	1,059 84	16 67
1879	4,319 63	18,060 00	7,000 00	285 00	
1880	4,138 52	18,000 00	5,000 00	2,272 15	42 50
1881	3,409 90	16,800 00	5,000 00	2,672 00	
1882	3,888 38	19,170 00	5,000 00	3,026 75	
1883	5,531 34	18,030 00	5,000 00	7,282 38	
1884	4,144 37	18,030 00	7,000 00	4,043 49	
1885	5,305 05	17,790 00	10,000 00	3,727 04	
1886	4,698 94	17,970 00	5,000 00	5,314 17	
1887	6,770 92	17,970 00	5,000 00	5,052 63	
1888	6,418 21	18,120 00	5,000 00	5,572 62	
1889	7,087 36	17,850 00	5,000 00	7,930 78	28,176 75
1890	6,968 33	14,710 00	17,080 00	8,457 29	1,347 80
1891	7,806 40	10,214 18	7,666 02	10,571 20	10,201 35
1892	15,086 42	10,452 74	13,327 51	25,139 32	13,659 75
1893	16,185 82	12,059 49	16,602 88	31,127 72	14,166 66
1894	14,504 13	11,260 81	33,970 47	111,459 16	8,105 60
1895	14,974 58	15,239 67	25,120 96	104,614 14	
1896	10,908 01	17,354 80	32,581 10	36,439 87	2,796 65
1897	9,634 81	19,204 02	26,245 81	16,544 38	1,500 00
Totals	\$184,443 19	\$436,107 42	\$247,594 75	\$674,409 79	\$114,300 31



## RECEIVED.

	Proceeds of Bonds.	Raised by Taxation.	From Water Rates, etc.	From Services, etc.	From Rents and Ice.
1870	\$104,908 01		\$638 00	\$ 1,087 69	
1871	94,925 00	\$6,000 00	3,096 71	3,926 63	
1872	35,942 29	5,500 00	10,236 62	1,645 86	
1873	11,700 00	11,542 92	10,359 00	1,918 17	
1874	38,198 75	8,800 00	12,869 75	1,055 20	
1875	10,433 90	13,200 00	14,287 98	441 77	
1876		12,750 00	14,762 60	512 30	
1877		14,400 00	15,027 59	1,220 95	
1878		13,560 00	15,451 47	5,274 47	
1879		9,120 00	15,509 19	833 98	
1880		9,810 00	16,287 32	1,081 31	
1881		12,300 00	16,566 18	777 16	
1882		12,500 00	17,469 95	1,446 57	
1883		15,500 00	19,579 73	1,696 21	
1884		11,500 00	19,720 13	812 38	
1885		15,700 00	20,457 43	1,520 99	
1886		14,700 00	21,332 01	1,332 01	
1887		10,500 00	23,955 76	1,154 69	
1888		10,500 00	25,020 19	834 19	
1889	44,100 00	11,773 50	24,979 68	1,112 90	
1890	12,080 00	12,496 92	27,139 54	1,396 42	\$598 39
1891	5,900 00	11,500 00	29,900 42	880 39	830 83
1892	20,000 00	8,000 00	32,193 80	1,103 47	657 42
1893	52,389 27	13,500 00	34,999 21	1,294 22	1,184 62
1894	141,505 74	14,052 58	40,495 11	1,388 42	253 62
1895	73,671 97	12,234 04	48,897 24	2,554 77	535 73
1896	9,268 75	13,790 96	51,234 31	3,465 63	3,240 72
1897	7,444 30		53,264 05	3,428 72	431 79
Totals,	\$662,462 98	\$305,230 92	\$635,730 97	\$45,697 47	\$7,733 12

## RECAPITULATION.

Dr.			Cr.
Maintenance . . .	\$184,443 19	Proceeds of Bonds	\$662,462 98
Interest . . .	436,107 42	Raised by Taxation	305,230 92
Sinking Fund . . .	247,594 75	Water Rates, etc.	635,730 97
Construction . . .	674,409 79	Services, etc.	45,697 47
Land and Water Rights	114,300 31	Rents and Ice . . .	7,733 12
Total Expense . . .	\$1,656,855 46	Total Receipts	\$1,656,855 46

## STATEMENT OF SINKING FUND.

	Amount of Fund February 1.	Received from Tax Levy.	Received from Water Dept. as Surplus.	Increase by Ac- cumulations and Premiums on Bonds Sold.
1877		\$5,000 00		
1878	\$5,000 00	6,000 00		\$379 52
1879	11,379 52	7,000 00		*
1880	17,973 78	5,000 00		899 68
1881	23,873 46	5,000 00		196 15
1882	29,069 61	5,000 00		*
1883	33,729 38	5,000 00		678 25
1884	39,407 63	5,000 00	\$2,000 00	1,308 49
1885	47,716 12	10,000 00		1,381 32
1886	59,097 44	5,000 00		2,450 92
1887	66,548 36	5,000 00		3,559 48
1888	75,107 84	5,000 00		4,344 93
1889	84,452 77	4,680 00	320 00	4,700 81
1890	94,153 58	5,000 00		17,611 52
1891	16,765 10		7,666 02	983 30
1892	25,414 42		13,327 51	698 04
1893	39,439 97		†15,386 08	3,434 01
1894	58,260 06	5,353 40	‡23,378 75	5,923 79
1895	42,916 00	1,962 85	19,218 72	5,407 36
1896	69,504 93	4,591 28	26,212 72	4,284 12
1897	104,593 05		24,857 01	4,092 56
1898	133,542 62			
Totals,		\$89,587 53	\$132,366 81	\$62,334 25

\*In 1879 and 1882 there was an apparent decrease of \$745.97 caused by premiums on Bonds purchased.

†Surplus of 1892 and sundry other years.

‡Surplus of 1893 and 1894.

In 1890 there were \$100,000 in Bonds retired from this fund.

In 1894 there were \$50,000 in Bonds retired from this fund.

By referring to the above table it will be seen that the cost of the maintenance, compared with the water income, has been reduced from about  $\frac{46.86}{100}$  per cent the last year of our town government, to  $\frac{13.85}{100}$  per cent for the past year, exclusive of the expense connected with the pumping station.

With such a showing, and considering the opportunity that the city has of deriving a revenue, by properly disposing of the ice that forms on Wright's Pond, which will nearly cover the anticipated cost of maintenance, it is difficult for us, as water commissioners, to understand why those to whom

the welfare of the city has been entrusted, should apparently disregard the source of income to which we refer.

A few years ago the advisability of increasing the water rates was urged upon us, but, as the policy of the Board has always been to give the consumers the benefit of low rates, we maintained the rates as originally established in town meeting in 1871. By referring to the before mentioned table, it will be seen that we were justified in so doing.

During the past year nothing has been raised by taxation for the water department. This has not occurred before since the works were established.

Should the street railway be allowed to double track Main street it will be advisable to replace the cement lined water main with iron pipe, though it would be very much cheaper not to do so for many years, as the interest money on the cost of relaying the main, would undoubtedly be more than enough to repair the breaks that may occur in the old main. But due regard should be paid to our street department, and we can say that during the past season we have kept in advance, and in no case followed after it.

At Wright's Pond a certain amount of grading ought to be done where the old buildings have been removed, and if the ice business is to be continued, new buildings should be erected in place of the old ones now standing.

The store-house and sheds at the department headquarters are now completed, and we think will compare favorably with any building of the kind in this section in point of durability, convenience or cost. The yard and a portion of the shed require a certain amount of filling, that will probably be obtained in a short time without any material expense.

We are pleased to state that all bills for annual water rates for the past year have been settled, and all bills against the department are paid. This was also true of the previous year.

We here wish to thank the City Council for the confidence placed in us in granting each and every appropriation for which we have asked.



**WATER DEPARTMENT SHOP AND STABLE, Swan and James Streets.**



We recommend that the cash collected for interest, service, rents and maintenance accounts, be appropriated for those accounts, and that any surplus income be paid over at the end of the year to the Commissioners of the Sinking Fund, in pursuance of the requirements of the act of the General Court in this regard.

We refer you to the accompanying annual reports of the Superintendent and Water Registrar, for further particulars relative to the work of the department.

Respectfully submitted,

FRANK E. CHANDLER,

ELI AYERS,

A. H. EVANS,

*Water Commissioners.*

SUPERINTENDENT'S REPORT.

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*To the Medford Water Commissioners:*

GENTLEMEN,— I herewith submit the annual report of the Superintendent for the year ending January 31, 1898 :

## SUPPLY.

Wright's Pond water was used from the beginning of the year until June 3, when it was turned off and the supply taken from Spot Pond.

This supply was continued until December 16, when Wright's Pond was again turned on and has been in use since that time.

Early in the fall, the water remaining in Wright's Pond was drawn off and the pond allowed to refill.

## PUMPING STATION.

The machinery at the pumping station is in good condition with the exception of pump No. 1, which will need a new set of plungers.

The boilers are in good condition and have been regularly inspected by the Hartford Insurance Co.

The total amount of water pumped between January 1, 1897, and January 1, 1898, was 173,032,480 gallons.

Pump No. 1 was run 2,796 hours 35 minutes.

Pump No. 2 was run 94 hours 40 minutes.

Total hours pumping, 2,891 hours and 15 minutes.

Total coal consumed 634,745 pounds.

Total cost of pumping \$2,369.28.

The total consumption for the year 1897 from high and low service combined was 401,195,868 gallons.

The standpipe has been drawn off during the season and thoroughly cleaned.

MAIN PIPE LAID.

The new mains laid during 1897 were as follows :

	12-inch.	10-inch.	8-inch.	6-inch.
Brookings street . . . . .				44 feet
Crescent avenue . . . . .				109
Cushing street . . . . .				110
Curtis street . . . . .				35
Fulton street . . . . .	39 feet			
Fairfield street . . . . .				225
George street . . . . .			267 feet	
Madison street . . . . .				454
Morton avenue . . . . .		912 feet		
Orchard street . . . . .			359	273
Off Adams street . . . . .				475
Pembroke street . . . . .			60	
Sheridan avenue . . . . .				252
Valley street . . . . .			174	
Walker court . . . . .				185
West street . . . . .				262
Williams street . . . . .				96
Totals	39	912	860	2,520

Total new mains laid, 4,331 feet.

Total miles of main pipe in use, 54 and 3,156 feet.

MAIN PIPE RELAID.

The following main pipe has been relaid :

	12-inch.	10-inch.	8-inch.	6-inch.
Arlington street . . . . .				42 feet
Adams street . . . . .		29 feet	40 feet	
Boston avenue . . . . .			258	
College avenue . . . . .			178	
Cotting street . . . . .		525	915	
George street . . . . .				37
Grant avenue . . . . .				628
Hall avenue . . . . .				12
Harvard avenue . . . . .		1,959	451	



	12-inch.	10-inch.	8-inch.	6-inch.
Lincoln street . . .				18
Locust street . . .				24
Lawrence street . . .				49
Monument street . . .				66
Myrtle street . . .			36	
Middlesex avenue . . .			25	
Main street . . .	520 feet			
North street . . .				14
Pearl street . . .				30
Riverside avenue . . .		1,327		
Sharon street . . .				45
Summer street . . .		30		
Washington street . . .		245		
Totals	<u>520</u>	<u>4,115</u>	<u>1903</u>	<u>965</u>

Total main pipe relaid 1897, 7,503 feet.

One hundred and four leaks have been repaired on main pipe, fourteen of which were caused by contractors or other departments.

#### SERVICE PIPES.

One hundred and eighty-seven new services have been put in during the year, using three thousand eight hundred and seventy-five feet of pipe on the street, and three thousand two hundred and fifty-eight feet inside of the property line.

Sixty service leaks have been repaired.

Two standpipes for street watering have been added during the year, one on Mystic street at Hastings park, and one on Middlesex avenue near Seventh street, making twenty-six in present use.

#### HYDRANTS.

There are four hundred and twenty hydrants connected with the mains at the present time.

These have all been inspected and oiled during the past fall.

## METERS.

The number of meters in use February 1, 1898, is seventy-nine, sizes and makes as follows:

	12-in.	10-in.	4-in.	3-in.	2-in.	1½-in.	1-in.	¾-in.	½-in.	
Venturi . . .	1									1
Crown . . .			1	1		5	9	2	19	37
Nash . . .								2		2
Empire . . .								1	1	2
Gem . . .		1								1
Hersey . . .						5	3		1	9
Trident . . .							4	2	14	20
Thompson Bee					1				2	3
Lambert . . .									1	1
Union . . .						1		1		2
Columbia . . .									1	1
	—	—	—	—	—	—	—	—	—	—
	1	1	1	1	1	11	16	8	39	79

Appliances for testing all meters have been added to our equipment at the shop, and a considerable saving has been made by throwing out or repairing meters which were badly worn, having been in use a long while, and passing from ten to fifty per cent more water than was registered.

## BUILDINGS.

A wagon shed, with enclosed wash-stand, blacksmith shop and tool house, has been erected in the rear of the department building, and the grounds have been fenced in.

Respectfully submitted,

FREDERICK W. GOW,

*Superintendent.*

## HEIGHT OF WATER IN SPOT POND FOR YEAR 1897.

Jan.	10.	66 1-8	inches below high water mark.				
	20.	68 1-2	"	"	"	"	"
	30.	68 3-4	"	"	"	"	"
Feb.	10.	69 1-4	"	"	"	"	"
	20.	68 1-4	"	"	"	"	"
	30.	66 5-8	"	"	"	"	"
Mar.	10.	57 1-2	"	"	"	"	"
	20.	52 3-8	"	"	"	"	"
	30.	45 3-4	"	"	"	"	"
Apr.	10.	39	"	"	"	"	"
	20.	35	"	"	"	"	"
	30.	36	"	"	"	"	"
May	10.	36	"	"	"	"	"
	20.	36	"	"	"	"	"
	30.	35 3-4	"	"	"	"	"
June	10.	34	"	"	"	"	"
	20.	28 1-2	"	"	"	"	"
	30.	30	"	"	"	"	"
July	10.	37 3-4	"	"	"	"	"
	20.	42 1-2	"	"	"	"	"
	30.	46 1-4	"	"	"	"	"
Aug.	10.	52 3-4	"	"	"	"	"
	20.	57 1-2	"	"	"	"	"
	30.	62	"	"	"	"	"
Sept.	10.	68	"	"	"	"	"
	20.	75	"	"	"	"	"
	30.	80 1-4	"	"	"	"	"
Oct.	10.	88 1-2	"	"	"	"	"
	20.	95	"	"	"	"	"
	30.	104 3-4	"	"	"	"	"
Nov.	10.	106 1-4	"	"	"	"	"
	20.	104	"	"	"	"	"
	30.	96	"	"	"	"	"
Dec.	10.	96	"	"	"	"	"
	20.	97 1-2	"	"	"	"	"
	30.	106 1-2	"	"	"	"	"

Comparative record showing the lowest points to which Spot Pond has been drawn each year since 1874 :

(High-water mark in Spot Pond is el. 153.8)

Dec. 7, 1874,	the lowest point reached was	43	inches.
Feb. 22, 1875,	" " "	61	" "
Nov. 6, 1876,	" " "	37	" "
Sept. 30, 1877,	" " "	33	" "
Nov. 13, 1878,	" " "	27 1-2	" "
Dec. 20, 1879,	" " "	45	" "
Dec. 30, 1880,	" " "	63 1-4	" "
Jan. 8, 1881,	" " "	65	" "
Dec. 21, 1882,	" " "	37 1-2	" "
Dec. 30, 1883,	" " "	82 1-2	" "
Nov. 20, 1884,	" " "	39 1-4	" "
Oct. 13, 1885,	" " "	41 1-2	" "
Nov. 10, 1886,	" " "	55	" "
Dec. 10, 1887,	" " "	41 3-4	" "
Feb. 20, 1888,	" " "	36	" "
Oct. 20, 1889,	" " "	14	" "
Oct. 16, 1890,	" " "	39 1-2	" "
Dec. 22, 1891,	" " "	80 3-4	" "
Dec. 30, 1892,	" " "	133 1-4	" "
Jan. 30, 1893,	" " "	146 1-4	" "
Oct. 30, 1894,	" " "	98	" "
Oct. 12, 1895,	" " "	80 1-2	" "
Dec. 30, 1896,	" " "	64 3-4	" "
Dec. 30, 1897,	" " "	107	" "

## REPORT OF WATER REGISTRAR.

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MEDFORD, Feb. 1, 1898.

*To the Water Commissioners, City of Medford:*

GENTLEMEN,—The organization of the Medford Board of Water Commissioners from the time the works were established in 1869 to the present time has been as follows :

Daniel A. Gleason, elected Sept. 20, 1869, served until Jan. 1, 1893.

Benjamin F. Hayes, elected Sept. 20, 1869, term expired March, 1874.

Daniel W. Wilcox, elected Sept. 20, 1869, resigned April 4, 1870.

James O. Curtis, elected April 25, 1870, term expired March, 1873.

William B. Thomas, elected March, 1873, died Jan. 19, 1892.

Francis E. Foster, elected March, 1874, resigned Jan. 20, 1893.

Thomas B. Dill, elected March, 1892, resigned April 24, 1893.

Frank E. Chandler, elected Jan. 19, 1893, now in office.

Henry Dunster, elected March 1893, resigned Jan. 8, 1895.

Eli Ayers, elected May 8, 1893, now in office.

Allston H. Evans, elected Jan. 22, 1895, now in office.

### CLERKS AND WATER REGISTRARS.

Parker R. Litchfield, elected May 2, 1870, resigned April, 1873.

Darius A. Green, elected March 20, 1874, resigned Sept. 30, 1876.

Charles B. Buss, elected Sept. 30, 1876, resigned Oct. 1, 1890.

Edward W. Hayes, elected Oct. 1, 1890, resigned June 15, 1894.

Fred L. Cushing, elected May 8, 1894, now in office.

#### SUPERINTENDENTS.

Robert M. Gow, elected Oct. 7, 1871, died June 6, 1892.

Frederick W. Gow, elected June 10, 1892, now in office.

Following is a statement of the accounts of this office for the past year :

#### AGGREGATE EXPENSE ACCOUNT.

##### CR.

Reappropriation of balances in hands of City Treasurer, February 1, 1897, (in part)	\$8,560 16
Appropriation for new construction and service pipes	5,000 00
Appropriation for Water Commissioners' salaries,	150 00
Appropriation for high service and renewing mains	9,500 00
Receipts, water rates, Feb. 1, 1897, to Feb. 1, 1898	53,264 05
Receipts, service pipes, Feb. 1, 1897, to Feb. 1, 1898	3,428 72
Receipts, rents, etc., Feb. 1, 1897, to Feb. 1, 1898, including revenue from ice	723 00
Receipts, interest on deposits	538 20
Receipts, interest accrued on bonds sold	257 78
	<hr/>
	\$81,421 91

##### DR.

Maintenance (net)	\$9,634 81
Interest on bonds	20,000 00
New construction and service pipes	9,269 64
Repairs and expense on buildings, etc.	291 21

Shed and fence, Swan and James streets . . . . .	763 65
Improving and enlarging water supply . . . . .	812 24
High service and renewing mains . . . . .	5,698 85
Purchase of land for department yard . . . . .	1,500 00
Water Commissioners' salaries . . . . .	150 00
Sinking fund, 1898 . . . . .	24,857 01
Balance unexpended January 31, 1898 . . . . .	8,444 50
	<hr/>
	\$81,421 91

The balance unexpended is in the following accounts :

New construction and service pipes . . . . .	\$2,159 08
High service and renewing mains . . . . .	4,729 17
Improving and enlarging water supply . . . . .	1,556 25
	<hr/>
Total . . . . .	\$8,444 50

The amount paid the Sinking Fund as the surplus earning for the year ending January 31, 1898, was as follows :

From water rates, fines, etc. . . . .	\$24,425 22
From rent of buildings, sale of ice, etc. . . . .	431 79
	<hr/>
	\$24,857 01

Six hundred and sixty-nine people paid for the use of hand hose during 1897, being a decrease of fifty from the number of the previous year, which is no doubt to be accounted for by the wet weather during the past season.

Orders were given from this office for "shutting off" and applying seal locks to fixtures for the year to the number of 310; for "turning on" and removing seal locks, 502.

Cost of water works February 1, 1898, compiled from town and water board records :

Construction and extensions . . . . .	\$399,352 71
Winter Hill main . . . . .	5,373 78
Improvements at Spot Pond . . . . .	2,087 49
Pumping plant at Spot Pond . . . . .	10,765 70
Reservoir No. 1 and Gatehouse, Spot Pond . . . . .	1,585 62

Reservoir No. 2 at Spot Pond . . . . .	12,457	90
“Gem” Meter set in 12-inch main . . . . .	1,423	79
“Venturi” Meter . . . . .	665	00
Twenty-inch main, Spot Pond to Wright’s Pond	23,379	13
Pumping plant, Elm and Forest streets . . . . .	18,726	54
Piping and connections between Wright’s Pond, Forest and Elm streets . . . . .	9,346	86
High service standpipe . . . . .	6,840	74
Driven wells experiment . . . . .	6,419	32
Experiment station, Wright’s Pond . . . . .	6,502	38
Investigations by engineers, additional supply	1,794	22
Dam at Wright’s Pond . . . . .	16,201	79
High service and renewing mains . . . . .	132,404	68
Cleaning and clearing Wright’s Pond . . . . .	3,986	20
Pumping plant for street watering . . . . .	604	29
Water Department building, shed, fence and sidewalk . . . . .	14,491	65
<b>Total . . . . .</b>	<b>\$674,409</b>	<b>79</b>
Added to this is the amount paid for land and for water rights . . . . .	114,300	31
<b>Grand total,</b>	<b>\$788,710</b>	<b>10</b>

Following is a list of the real estate owned by the City of Medford, paid for from water funds.

Property bordering Spot Pond in Stoneham, taken or purchased by the Joint Water Board of Melrose, Malden and Medford, under their Water Acts, from whom acquired and their area, Medford owning an undivided third:—

A. V. Lynde . . . . .	about	30.92	acres
Charles J. Teele . . . . .	“	23.62	“
Town of Stoneham . . . . .	“	21.19	“
E. I. and I. E. Wadsworth . . . . .	“	20.80	“
J. W. Wilson . . . . .	“	13.66	“
Mantie Cora Belcher . . . . .	“	12.00	“
Roxanna Wilson . . . . .	“	11.94	“



Charles A. Frost . . . . .	“	9.52 acres
Henry Ames, Trustee . . . . .	“	9.22 “
Heirs William Foster . . . . .	“	7.55 “
Sherman J. Cass . . . . .	“	7.30 “
B. F. Hayes . . . . .	“	6.30 “
Adeline Wilson . . . . .	“	5.96 “
Ezra Sprague . . . . .	“	5.91 “
Elbridge Gerry . . . . .	“	5.34 “
Dennis Daly . . . . .	“	4.22 “
A. N. McGeough . . . . .	“	2.89 “
J. D. Loftus . . . . .	“	2.42 “
Susan W. Deane . . . . .	“	1.46 “
L. F. Wheildon . . . . .	“	1.41 “
E. A. L. Bottume . . . . .	“	1.40 “
L. L. Phinney . . . . .	“	1.38 “
S. C. Lawrence . . . . .	“	1.00 “
C. A. Loud . . . . .	“	.76 “
H. E. Mackechine . . . . .	“	.70 “
Jonathan Munyan et. al. . . . .	“	.31 “
Charles F. Churchill . . . . .	“	.28 “
J. P. Coleman . . . . .	“	.26 “
Zimri Barnes . . . . .	“	.25 “
Francis Caraher . . . . .	“	.18 “
Total . . . . .		210.15 acres

Property taken or purchased by the City of Medford under its Water Act, alone :

Heirs Frederic Tudor, land, about 62 acres of which are within the Spot Pond watershed, the balance in Wright's Pond watershed ; in all . . . . .	about 112.06 acres
Francis Wood, land, about 7.3 acres of which are within the Spot Pond watershed, and 4 acres in the Wright's Pond watershed. Lying east of Forest street are 9.7 acres and west of Forest street 1.6 acres ; in all . . . . .	“ 11.3 “

Thaddeus and Caroline J. Malley, land on the westerly side of Forest street, 7 acres of which are within the Spot Pond watershed, the balance in Wright's Pond watershed; in all	about 11.	acres
Sarah A. Blackwood, land on the easterly side of Forest street and a small piece on the west side of Forest street; in all	"	.75 "
State of Massachusetts, land on the westerly side of Forest street, now partly used as a small basin; near Elm street	"	.36 "
P. G. Wright, E. F. W. and W. C. Wait, land on the easterly side of Forest street	"	2.43 "
G. W. W. and Helen E. Saville, land at the junction of Forest and Elm streets	"	29.60 "
C. S. and Hannah Smith, land on the westerly side of Fulton street	"	.97 "
Minerva H. Howe, land on the easterly side of Forest street	"	1.55 "
George S. Hatch, land on the easterly side of Forest street	"	.46 "
Samuel C. Lawrence, land known as lots 2, 5 and 7 on a plan by J. O. Goodwin, 1889, all lying between Forest and Fulton streets; in all	"	58.67 "
Heirs F. E. Foster, land adjoining Swan street, containing 32,750 square feet.		
City of Medford Highway Department land, adjoining Swan and James streets and Mystic River, containing 43,320 square feet.		
Total purchased by Medford alone for protection of the water supply, 228.88 acres, for Shop and Yard, 76,070 square feet.		

All of the above-mentioned lands, together with the water rights abolished in taking Spot Pond originally, cost Medford a total of \$114,300.31, as shown in the table accompanying this report.

The State, through the Metropolitan Water Board, has taken the lands mentioned as purchased by the Joint Water Board and 7.29 acres purchased by the City of Medford alone.

#### CONSUMPTION OF WATER 1897.

1897.	By Gravity.	Pumped into Standpipe.	Total Consumption.
January,	17,614,124	14,255,495	31,869,619
February,	14,780,716	13,170,309	27,951,025
March,	16,341,124	14,658,044	30,999,168
April,	15,907,417	15,256,702	31,164,119
May,	18,504,772	14,142,588	32,647,360
June,	20,903,833	14,648,990	35,552,823
July,	23,902,408	15,389,206	39,291,614
August,	22,151,272	14,791,742	36,943,014
September,	21,285,088	15,067,108	36,352,196
October,	21,823,648	14,114,478	35,938,126
November,	17,596,700	12,613,364	30,210,064
December,	19,582,640	12,694,100	32,276,740
Total,	230,393,742	170,802,126	401,195,868
Daily average pumped	.	.	467,951 gallons
“ “ by gravity	.	.	631,215 “
“ “ used, whole city	.	.	1,099,166 “

Respectfully submitted,

FRED L. CUSHING,

*Water Registrar.*

# MEDFORD HISTORICAL SOCIETY.

ae. 2365.

## REPORT OF THE CITY AUDITOR.

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MEDFORD, February 21, 1898.

*To the Honorable the Mayor and the City Council :*

GENTLEMEN,—In compliance with the requirements of Section 7, Chapter XI, of the City Ordinances, I present the following report.

Respectfully submitted,

GEO. D. CUMMINGS,

*City Auditor.*

The cash in the treasury February 1, 1897, was . . . . .	\$43,871 22
The receipts for the year ending January 31, 1898, were . . . . .	794,221 71
	<hr/>
	\$838,092 93
During the year, 53 drafts were drawn on the Treasurer, calling for an expenditure of . . . . .	759,431 72
	<hr/>
Cash in the treasury, as shown by the books in this office, February 1, 1898, is . . . . .	\$78,661 21
	<hr/> <hr/>

On February 21, 1898, at the close of business, there was on deposit at the Howard National Bank of Boston, to the credit of this city	\$74,266 18
Deduct amount of outstanding checks . . . . .	193 42
	<hr/>
And the true balance in the bank is	\$74,072 76
The cash in the treasury on the same date, was . . . . .	803 86
	<hr/>
Total . . . . .	\$74,876 62
From February 1 to February 21, coupons were paid amounting to	\$3,660 00
The expenditure since February 1, includes all items on drafts Nos. 1 and 2, and amounts to . . . . .	1,375 56
	<hr/>
	5,035 56
	<hr/>
	\$79,912 18
The city has been trusteeed for the following amounts, viz. :	
Giacomo Cenedella (1894) . . . . .	\$1,171 78
Hartwell Melvin (1897) . . . . .	12 50
A. W. Bryne (1897) . . . . .	66 69
	<hr/>
And this amount is reserved for the payment of these bills . . . . .	\$1,250 97
	<hr/>
The balance in the treasury is . . . . .	\$78,661 21
	<hr/> <hr/>

The certificate of the cashier of the Howard National Bank is on file with the other vouchers.

There are no other bills remaining unpaid at this office.

The detailed statement of the receipts and the expenditures of the city for the year ending Jan. 31, 1898, is as follows :

## RECEIPTS.

FOR THE YEAR ENDING JANUARY 31, 1898.

## ALMSHOUSE.

Received from:

Estate of Arthur Regan, board . . . .	\$111 53
Perry N. Waterhouse, board of J. P. Waterhouse, September 26 to November 15 . . . .	24 50
Richard B. Newcomb, Supt., sale of produce . .	84 38
	<hr/>
	\$220 41

## BROOKS AND STREAMS.

Received from:

Commonwealth of Massachusetts, for drain in Maple street, etc., to drain Fells Parkway, West	2,000 00
Harry Dutton, 593 feet drain pipe . . . .	185 31
George F. Manning 430 feet drain pipe . . . .	134 38
	<hr/>
	\$2,319 69

## CARE OF CEMETERIES.

Received from:

Allston P. Joyce, clerk, care, extra work, etc.	\$1,083 75
Trustees of Oak Grove Cemetery, interest on perpetual care fund . . . . .	696 23
Sundry persons, lots . . . . .	1,822 00
Sundry persons, single graves . . . . .	222 00
	<hr/>
	\$3,823 98

## CITY COLLECTOR.—SEWER APPORTIONMENTS.

Received from:

Edward W. Hayes, for 1896 . . . . .	\$1,192 83
Edward W. Hayes, for 1897 . . . . .	7,718 33
	<hr/>
	\$8,911 16

## CITY COLLECTOR.—SEWER ASSESSMENTS.

Received from :

Edward W. Hayes . . . . . \$27,705 22

## CITY COLLECTOR.—SEWER CONNECTIONS.

Received from :

Edward W. Hayes . . . . . \$10,385 93

## CITY COLLECTOR.—SIDEWALK ACCOUNT.

Received from :

Edward W. Hayes . . . . . \$2,010 16

## CITY COLLECTOR.—SIDEWALK APPORTIONMENTS.

Received from :

Edward W. Hayes . . . . . \$17 27

## CITY COLLECTOR.—SIDEWALK ASSESSMENTS.

Received from :

Edward W. Hayes, for 1896 . . . . . \$57 04

Edward W. Hayes, for 1897 . . . . . 280 34

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\$337 38

## CITY COLLECTOR.—TAX ACCOUNT.

Received from :

Edward W. Hayes, for 1895 . . . . . \$1,713 55

Edward W. Hayes, for 1896 . . . . . 43,008 90

Edward W. Hayes, for 1897 . . . . . 245,101 69

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\$289,824 14

## CITY COLLECTOR.—WATERING ASSESSMENTS.

Received from :

Edward W. Hayes, for 1894 . . . . . \$3 33

Edward W. Hayes, for 1895 . . . . . 215 76

Edward W. Hayes, for 1896 . . . . . 588 96

Edward W. Hayes, for 1897 . . . . . 2,035 32

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\$2,843 37

## COLLECTION OF HOUSE OFFAL.

Received from :

Charles Cummings & Co., house offal, one year to October 1, 1897 . . . . .	\$380 00
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## FUNDED DEBT.

Received from :

Blodgett, Merritt & Co., par value of 200 City of Medford 4 per cent Municipal Loan 20- year bonds . . . . .	\$200,000 00
Estabrook & Co., par value of 100 City of Med- ford 4 per cent Municipal Loan 20-year bonds	100,000 00
Blodgett, Merritt & Co., par value of 16 City of Medford 4 per cent Water Fund bonds, due 1923 . . . . .	16,000 00
	<hr/>
	\$316,000 00

NOTE.— For premiums on above bonds see Miscellaneous Credits Account.

## HIGHWAY DEPARTMENT.—GENERAL REPAIRS.

Received from :

City of Medford, Collection of House Offal ac- count, care of horses . . . . .	\$547 50
City of Medford, Sewer Department, crushed stone, etc. . . . .	158 40
City of Medford, Sewer Department, sharpening tools, etc. . . . .	157 60
City of Medford, Special Construction account, use of teams . . . . .	2,386 25
City of Medford, Brooks and Streams account, crushed stone . . . . .	12 00
City of Medford, Ashes account, care of teams .	576 00
John H. McKenna, old iron . . . . .	11 70
J. M. Gleason, crushed stone . . . . .	2 50
Eleazar Boynton, crushed stone . . . . .	5 00
S. Glidden, rubber boots . . . . .	3 38
C. Ellis, rubber boots . . . . .	3 38
	<hr/>
	\$3,863 71



## INTEREST.

Received from :	
Edward W. Hayes, City Collector, on taxes of 1895 . . . . .	\$120 87
Edward W. Hayes, City Collector, on taxes of 1896 . . . . .	1,608 37
Edward W. Hayes, City Collector, on taxes of 1897 . . . . .	432 17
Edward W. Hayes, City Collector, on sewer apportionments, 1896 . . . . .	203 46
Edward W. Hayes, City Collector, on sewer apportionments, 1897 . . . . .	310 93
Edward W. Hayes, City Collector, on sewer assessments . . . . .	811 48
Edward W. Hayes, City Collector, on sidewalk apportionments . . . . .	1 28
Howard National Bank, on deposits 1 year . . . . .	1,565 14
Blackstone National Bank, on deposits 2 months . . . . .	63 61
Medford Savings Bank, on Bradbury Fund, 1 year to November 1, 1897 . . . . .	454 58
Blodgett, Merritt & Co., on \$200,000 for 17 days at 4 per cent . . . . .	377 78
Estabrook & Co., on \$100,000 for 16 days at 4 per cent . . . . .	177 78
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	\$6,127 45

## MAINTENANCE AND INTEREST ON BONDS.

Received from :	
Fred L. Cushing, Water Registrar, water rates 1 year to February 1, 1898 . . . . .	\$53,264 05
Fred L. Cushing, Water Registrar, interest on average balance of \$21,528.17, 1 year to February 1 at 2½ per cent . . . . .	538 20
Blodgett, Merritt & Co., interest on \$16,000, 4 months 25 days, at 4 per cent . . . . .	257 78
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	\$54,060 03

## MIDDLESEX AVENUE BRIDGE.

Received from :

City of Somerville, one-half cost of maintenance, 1 year to February 1, 1897 . . . . .	\$668 91
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## MISCELLANEOUS CREDITS.

Received from :

Edward W. Hayes, City Collector, costs on taxes of 1895 . . . . .	\$139 90
Edward W. Hayes, City Collector, costs on taxes of 1896 . . . . .	249 90
Edward W. Hayes, City Collector, costs on taxes of 1897 . . . . .	154 40
Edward W. Hayes, City Collector, costs on sewer assessments . . . . .	74 10
Henry F. Moore, Inspector of Milk and Vinegar, licenses . . . . .	61 50
Calvin H. Clark, Inspector of Buildings, licenses Mrs. Emily Warren Rugg, difference in ex- change of lot . . . . .	2 50
Miss Zipporah Sawyer, difference in exchange of lot . . . . .	10 00
Sundry persons, lots in Oak Grove Cemetery .	18 00
City of Medford, highway dep't, hay horse .	246 50
Board of Health, plumbers licenses and renewals	40 00
Daniel N. Howard, liquor licenses, 6th class .	4 00
Weed Drug Co., liquor license, 6th class .	2 00
Charles W. Smith, liquor license, 6th class .	1 00
Samuel Highley, liquor license, 6th class .	1 00
John A. Morgan, liquor license, 6th class .	1 00
Edward Farrar, liquor license, 6th class .	1 00
J. W. Enright, liquor license, 6th class .	1 00
First District Court, Eastern Middlesex, fines and fees . . . . .	1,049 80
John R. Fairbairn, master of House of Correc- tion, fines and fees . . . . .	235 00
W. G. Nash, barrel cement . . . . .	1 10

Lewis H. Lovering, ashes . . . . .	\$7 00
Estate of Henry W. Bigelow, sand . . . . .	1 60
John F. Libby, release of tax title . . . . .	2 00
Patrick Connors, stone (in 1895) . . . . .	54 50
H. A. Hanscom & Co., refund of amount of bill . . . . .	24 75
Luther W. Puffer, costs paid by B. F. Hayes . . . . .	9 75
Allston P. Joyce, fees and dog licenses . . . . .	575 55
Estabrook & Co., premium on 100 Municipal Loan, 4 per cent bonds sold at 109.089 . . . . .	9,089 00
Blodgett, Merritt & Co., premium on 16 Water Fund, 4 per cent bonds sold at 108.68 . . . . .	1,388 80
Blodgett, Merritt & Co., premium on 200 Municipal Loan, 4 per cent 20-year bonds, sold at 106.923 . . . . .	13,846 00
Commonwealth of Massachusetts, bank tax . . . . .	3,491 72
Commonwealth of Massachusetts, corporation tax . . . . .	20,737 08
Commonwealth of Massachusetts, burial of soldiers and sailors, for one year to Feb. 1, 1897 . . . . .	140 00
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	\$51,662 45

## NEW CONSTRUCTION AND SERVICE PIPES.

Received from :

Fred L. Cushing, Water Registrar, account of service pipes . . . . .	\$3,428 72
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## ORDINARY EXPENSES, FIRE DEPARTMENT.

Received from :

Charles H. Symmes, bay horse . . . . .	\$50 00
H. Cohen, zinc . . . . .	35 00
Merrimac Chemical Co., carboy returned . . . . .	1 50
City of Medford, sewer dep't, 197 feet hose . . . . .	19 70
	<hr/>
	\$106 20

## OUTSIDE RELIEF.

Received from :	
Commonwealth of Massachusetts, aid rendered	\$1,105 09
City of Boston, aid rendered . . . . .	178 48
City of Gloucester, aid rendered . . . . .	295 22
City of Somerville, aid rendered . . . . .	3 20
City of Newton, aid rendered . . . . .	12 70
City of Woburn, aid rendered . . . . .	3 68
Town of Lexington, aid rendered . . . . .	40 66
Town of Medfield, aid rendered . . . . .	3 72
Daniel Spillane, refund of amount charged to Outside Relief . . . . .	146 00
W. S. Tryon, board of Elmira L. Tryon at hospital . . . . .	43 18
Calvin H. Clark, guardian, board of Mary Coughlin at hospital . . . . .	361 29
Relatives of Mary E. Ballou, aid rendered . . . . .	30 96
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	\$2,224 18

## PERPETUAL CARE FUND.

(For Care of Lots in Oak Grove Cemetery.)

Received from :	
Estate of John F. Sanborn . . . . .	\$200 00
Estate of Eliza A. Spaulding . . . . .	50 00
Estate of D. A. Field . . . . .	50 00
Levi F. Cole . . . . .	50 00
William Herbert Way . . . . .	50 00
J. Nelson Cowin . . . . .	50 00
Mrs. Julia A. Dearborn . . . . .	50 00
Mrs. Ada M. Whitcomb . . . . .	50 00
Mrs. Martha W. Herriott . . . . .	50 00
Mrs. Emma Stowell and Abbie M. Hunt . . . . .	50 00
Mrs. Hannah A. Lane . . . . .	25 00
Mrs. Emma E. Dinsmore . . . . .	25 00
Mrs. Jennie M. Winn . . . . .	25 00
Mrs. Ellen M. Brooks . . . . .	25 00

Mrs. Lydia M. McFall . . . . .	\$25 00
Mrs. Emily Warren Rugg . . . . .	25 00
Mrs. Frances M. French . . . . .	25 00
Mrs. Nellie M. Guild . . . . .	22 50
Miss Zipporah Sawyer . . . . .	25 00
William T. Debbins . . . . .	25 00
Peter Youngman, Jr. . . . .	25 00
John D. Campbell . . . . .	25 00
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	\$947 50

## PUBLIC LIBRARY.

Received from :

J. O. Hayden, County Treasurer, 95 per cent of \$1,394.40 . . . . .	\$1,324 68
City of Medford, interest account on Osgood Fund, one year to January 1, 1898 . . . . .	150 57
Cheshire R. R. Co., interest on bond . . . . .	15 00
Ginn & Co., to rectify error in bill . . . . .	1 00
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	\$1,491 25

## PUBLIC SCHOOL CONTINGENT.

Received from :

George W. Green, agent, adjustment of loss by fire at Tufts schoolhouse . . . . .	\$17 86
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## RENTS AND REPAIRS OF BUILDINGS.

Received from :

Fred L. Cushing, Water Registrar, rent . . . . .	\$173 00
W. J. Wood Ice Co., ice privilege at Wright's Pond, as per contract . . . . .	550 00
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	\$723 00

## SALARIES OF ENGINEERS AND MEN.

Received from :

Austin W. McLean, refund of amount allowed for poll tax . . . . .	\$2 00
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## SETTING OUT TREES.

Received from :

A. C. Green, trees . . . . .	\$2 40
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## SEWER CONSTRUCTION.

Received from :

John Nolan, pipe . . . . .	\$5 04
Joseph K. Manning, labor, cement, etc. . . . .	2 33
Page & Curtin, cement . . . . .	2 30
Michael F. Dwyer, pipe . . . . .	4 65
H. A. Emerson & Co., pipe . . . . .	8 10
George H. Rendall, chestnut horse . . . . .	50 00
J. A. McCoy, privilege of connecting with Medford sewer . . . . .	39 00
City of Medford, Water Department, cement . . . . .	50 80
City of Medford, Brooks and Streams account, frames, covers, pipes, etc. . . . .	383 99
City of Medford, High Schoolhouse account, labor, cement and sand . . . . .	26 04
City of Medford, Middlesex Avenue Bridge account, pipe . . . . .	3 89
City of Medford, Board of Health, labor, etc. . . . .	29 57
City of Medford, Highway Department, frames, covers, pipes, teams, etc. . . . .	95 66
City of Medford, Sewer Maintenance account, paving, etc. . . . .	115 04
Metropolitan Water Department, pipe, cement, and labor . . . . .	69 84
Boston & Maine R. R. Co., payment for loss of pipe . . . . .	1 25
Blaney & Robinson, frames and covers, and cleaning drains . . . . .	39 01
T. Howard Barnes, transit . . . . .	100 00
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	\$1,026 51

## SIDEWALKS AND EDGESTONES.

Received from :

Wesley P. Dutton, $\frac{1}{2}$ cost of sidewalk . . . . .	\$48 93
Daniel W. Hogan, $\frac{1}{2}$ cost of sidewalk . . . . .	70 15
Horace D. Hall, $\frac{1}{2}$ cost of sidewalk . . . . .	109 45
Abby D. Brown, $\frac{1}{2}$ cost of edgestones . . . . .	35 50

William L. Smith, $\frac{1}{2}$ cost of edgestones . . .	\$15 00
Sarah R. Baker, $\frac{1}{2}$ cost of edgestones . . .	63 00
Herbert Etter, $\frac{1}{2}$ cost of edgestones . . .	62 25
Emily J. Elliot, $\frac{1}{2}$ cost of edgestones . . .	23 03
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	\$427.31

## SPECIAL POLICE.

Received from:

Edwin Tainter, to correct error in pay roll . . .	\$10 00
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## STATE AID.

Received from:

Commonwealth of Massachusetts, military aid, one year to Feb. 1, 1897 . . . . .	\$262 00
Commonwealth of Massachusetts, State Aid, one year to Feb. 1, 1897 . . . . .	2,332 00
T. F. Mayo, amount refunded . . . . .	4 00
David S. Hooker, amount refunded . . . . .	12 00
Allston P. Joyce, City Clerk, return of amount for Hercules Smith . . . . .	9 00
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	\$2,619 00

## STREET NUMBERING.

Received from:

Andrew W. Bryne, Street Commissioner, sale of numbers . . . . .	\$32 25
Charles B. Buss, numbers . . . . .	1 44
J. M. Doherty, numbers . . . . .	48
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	\$34 17

## TELEPHONE — CITY HALL.

Received from:

Thomas P. Parsons, tolls . . . . .	\$0 35
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## RECAPITULATION

OF THE RECEIPTS FOR THE YEAR ENDING JAN. 31, 1898.

Almshouse . . . . .	\$220 41
Brooks and Streams . . . . .	2,319 69
Care of Cemeteries . . . . .	3,823 98
City Collector, sewer apportionments . . . . .	8,911 16
City Collector, sewer assessments . . . . .	27,705 22
City Collector, sewer connections . . . . .	10,385 93
City Collector, sidewalk account . . . . .	2,010 16
City Collector, sidewalk apportionments . . . . .	17 27
City Collector, sidewalk assessments . . . . .	337 38
City Collector, tax account . . . . .	289,824 14
City Collector, watering assessments . . . . .	2,843 37
Collection of house offal . . . . .	380 00
Funded Debt . . . . .	316,000 00
Highway Department, general repairs . . . . .	3,863 71
Interest . . . . .	6,127 45
Maintenance and interest on bonds . . . . .	54,060 03
Middlesex Avenue Bridge . . . . .	668 91
Miscellaneous credits . . . . .	51,662 45
New construction and service pipes . . . . .	3,428 72
Ordinary expenses, Fire Department . . . . .	106 20
Outside relief . . . . .	2,224 18
Perpetual Care Fund . . . . .	947 50
Public Library . . . . .	1,491 25
Public Schools, Contingent . . . . .	17 86
Rents and repairs of buildings . . . . .	723 00
Salaries of engineers and men . . . . .	2 00
Setting out trees . . . . .	2 40
Sewer construction . . . . .	1,026 51
Sidewalks and Edgestones . . . . .	427 31
Special Police, etc. . . . .	10 00
State Aid . . . . .	2,619 00
Street numbering . . . . .	34 17
Telephone, City Hall . . . . .	35
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	\$794,221 71



**EXPENDITURES**  
**OF THE CITY OF MEDFORD**  
**FOR THE YEAR ENDING JANUARY 31, 1898.**

RESERVE.

From which to pay contested bills. (See page 246, Report of 1897.)

Paid :

Patrick Connors, teaming for sewer department, June, 1895 . . . . .	\$54 18
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**ABATED TAXES AND ESTATES BOUGHT AT SALE FOR TAXES :**

Paid :

E. W. Hayes, City Collector, 18 tax deeds, sale of Jan. 9, 1897 . . . . .	\$118 34
Arthur W. Wellington and Frank O. Woodruff, on real estate . . . . .	3 25
Julia Lewis, on real estate . . . . .	8 50
Henry Ruggles, on real estate . . . . .	8 16
Daniel S. McLeod, on real estate . . . . .	6 80
Otis Wentworth, on real estate . . . . .	8 50
Almira J. Stetson, on real estate, for 1896-1897 . . . . .	4 59
Willard Welsh, release of tax title . . . . .	27 12
Alonzo V. Lynde, release of tax titles . . . . .	24 76
Heirs of Joseph Manning, sewer dep't bld'gs . . . . .	10 20
	\$220 22
By appropriation, \$300.	

**ADVERTISING.**

Paid :

Medford Mercury, advertising . . . . .	\$116 19
Journal Newspaper Co., advertising . . . . .	52 80
Investor Pub. Co., advertising . . . . .	16 40
The Boston Herald Co., advertising . . . . .	60 00
The Boston Traveler, advertising . . . . .	15 00
Boston Daily Advertiser, advertising . . . . .	22 50
Boston Transcript Co., advertising . . . . .	28 00
	\$310 89
By appropriation, \$700.	

## ARMORY.

Paid :

Heirs of John D. Small, rent of armory . . .	\$360 00
F. O. Waterman, services as armorer . . .	150 00
Pettingill & Pear, mattresses and chairs . . .	36 50
Malden and Melrose Gas Light Co., gas . . .	39 36
City of Medford, Water Dep't, water . . .	15 00
Joseph Helen, coal . . . . .	21 14
Otto Neilson & Co., labor and stock . . .	21 05
James Bean, coal and wood . . . . .	19 82
F. O. Waterman, extra work and cash expended	59 50
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	\$722 37

By appropriation, \$800.

## BROOKS SCHOOLHOUSE.

Paid :

Wales & Holt, architectural services . . .	\$1,500 00
C. L. Batchelder, on architect's certificate to Gouch & Pray . . . . .	2,700 00
C. L. Batchelder, lumber and labor . . .	631 22
A. M. Ellis, moving and lowering schoolhouse	400 00
Page & Curtin, stock and labor . . . . .	200 60
F. E. Foster & Co., lumber . . . . .	22 28
Andrew Kennedy, teaming stone . . . . .	18 00
J. F. Emerson, salt hay . . . . .	8 64
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	\$5,480 74

By appropriation, \$65,000.

## CANVASSING BIRTHS.

Paid :

Winslow Joyce, canvassing . . . . .	\$57 40
William S. Childs, canvassing . . . . .	37 00
J. C. Miller, Jr., cards for birth census . . .	4 50
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	\$98 90

By appropriation, \$100.

## CITY COLLECTOR, TAX ACCOUNT.

Paid :	
Willard Welsh, Trustee, tax title of 1895 released . . . . .	\$37 70
Edward W. Hayes, to correct error on 1895 tax cash-book . . . . .	26 65
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	\$64 35

## CITY COUNCIL CONTINGENT.

Paid :	
G. Leslie Nichols, services rendered Committee on Electric Lighting . . . . .	\$100 00
H. W. Kibbe, engrossing testimonials . . . . .	60 00
E. H. Pennell, printing and binding city manuals . . . . .	92 44
E. H. Pennell, cash paid for framing testimonials . . . . .	7 00
J. C. Miller, Jr., printing . . . . .	30 75
George H. Duncklee, carriage hire . . . . .	8 00
Lothrop Pub. Co., copies of Acts and Resolves . . . . .	5 00
Greenough, Adams & Cushing, gavel, stationery, etc. . . . .	22 98
J. R. Young, spread January 4, . . . . .	18 00
Perham & Larkin, carriage hire . . . . .	2 00
Little, Brown & Co., book . . . . .	6 00
Horgan, Robey & Co., oak frame . . . . .	8 00
Allston P. Joyce, expense of silver plate and inscription . . . . .	3 00
A. Stowell & Co., silver plate and inscription . . . . .	2 65
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By appropriation, \$651.96.	\$365 82

## CITY HALL.

Paid :	
Malden & Melrose Gas Light Co., fixtures and gas . . . . .	\$173 44
Malden Electric Co., light . . . . .	161 92
J. Henry Hemphill Coal Co., coal . . . . .	\$306 44
E. B. Moore, agent, rent of Annex No. 1 . . . . .	1,000 00

## EXPENDITURES.

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E. B. Moore, agent, janitor service, City Hall Annex . . . . .	364 00
A. C. Frost, services as night watchman . . . . .	730 00
Leavens & Co., furniture . . . . .	37 50
F. A. Folsom, electric shades . . . . .	3 55
William E. Ober, electrical supplies . . . . .	1 72
Medford Steam Carpet Co., cleaning carpet . . . . .	2 66
Medford Steam Laundry, laundry work . . . . .	1 38
C. Williams, laundry work . . . . .	9 45
Sarah B. Simpson, laundry work . . . . .	7 56
Marion R. Dalgleish, repairing flag . . . . .	3 50
M. C. Vinal, mason work . . . . .	6 07
D. J. Decker & Co., recovering awnings . . . . .	57 00
James Bean, wood . . . . .	7 60
Charles R. Dawson, painting . . . . .	2 43
William Eccles, repairing chair . . . . .	1 00
F. E. Foster & Co., lumber . . . . .	60
Murphy, Leavens & Co., feather dusters, etc. . . . .	12 07
Charles D. Tucker, stationery . . . . .	15
John A. Morgan, insect powder and bellows . . . . .	35
Michael F. Dwyer, hardware . . . . .	3 25
M. Perham, carriage hire . . . . .	2 50
McClellan's M. & B. Express, expressing . . . . .	30
Mendall C. Spencer, cleaning furniture . . . . .	4 50
Dinsmore & Baker, disinfectant . . . . .	2 50
Joseph Hellen, coal . . . . .	139 95
Frank Hervey, supplies . . . . .	8 38
Medford Ice Co., ice . . . . .	40 00
Page & Curtin, hardware, labor, etc. . . . .	23 06
Sarah Bickers, cleaning . . . . .	39 60
John A. Smith, expressing . . . . .	3 80
James B. Simpson, cash paid for sundries . . . . .	1 25
City of Medford, Water Department, water . . . . .	31 00
Greenough, Adams & Cushing, stationery . . . . .	2 00
T. O. H. Mitchell, repairing brackets, etc. . . . .	14 76
William S. Richards, stock and labor . . . . .	27 56
By appropriation \$3,235.25.	<u>\$3,234 80</u>

## CLAIMS.

## Paid :

Charles S. Vincent, damages incurred on Main street near Hicks avenue . . . . .	\$50 00
Frances E. Hartlen, damages incurred corner of Temple street and Boston avenue . . . . .	425 00
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By transfer \$475.00.	\$475 00

## DECORATION AND CARE OF SOLDIERS' GRAVES.

## Paid :

Henry Parsons, Quartermaster Post 66 G. A. R. amount appropriated for decoration and care of soldiers' graves . . . . .	\$300 00
By appropriation, \$300.00.	

## ELECTION EXPENSES.

## Paid :

Ward officers, as per pay rolls . . . . .	\$699 00
J. C. Miller, Jr., registration blanks, printing, etc.	
John A. Smith, posting notices, expressing, etc.	15 95
Mendall C. Spencer, posting notices . . . . .	28 50
Medford Mercury, advertising . . . . .	72 60
Page & Curtin, glue and tacks . . . . .	1 00
Belknap & Co., repairing stamp . . . . .	1 35
Allston P. Joyce, cash paid for meals . . . . .	2 50
William N. Curtis, candles . . . . .	1 80
T. O. H. Mitchell, repairing . . . . .	5 38
William W. Pitman, use of hall . . . . .	3 50
Leavens & Co., tables . . . . .	7 00
Charles D. Tucker, stationery . . . . .	1 55
E. J. Robinson, rent of hall . . . . .	37 00
John Crockwell, fitting up voting precincts . . . . .	63 00
J. E. Ober & Son, rent of hall . . . . .	40 50
A. W. Brewster, cleaning ward-room . . . . .	2 00
W. R. Ordway, cleaning ward-room . . . . .	15 00
Thomas A. Qualey, cleaning ward-room . . . . .	15 00
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By appropriation, \$1,400.00.	\$1,269 48

## HIGH SCHOOLHOUSE.

Paid:

James Tucker & Sons, on account of plumbing contract . . . . .	\$397 60
Hartwell, Richardson & Driver, architects, on account of professional services . . . .	1,112 54
A. A. Sanborn, on account of contract for heating apparatus . . . . .	1,350 21
S. Homer Woodbridge, professional services . . . . .	229 50
Otto Neilson & Co., estimates on plumbing. . . . .	5 00
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	\$3,094 85

By appropriation, \$601 92

By balance, 2,492 93

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\$3,094 85

Total cost of building . . . \$157,101 92

Total cost of land (126,013 ft.) 15,122 55

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\$172,224 47

## HILLSIDE SCHOOLHOUSE.

Paid:

Ham & Hopkins, building fence . . . . .	168 00
George S. Perry & Co., desk and tables . . . . .	45 00
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	\$213 00

By balance, \$213.16.

## HYDRANTS (INCLUDING STANDPIPES.)

Paid:

City of Medford, Water Department, use of water for 405 hydrants, and 24 standpipes (as per superintendent's report actual count) at \$15 . . . . .	6,435 00
By appropriation, \$6,765.00.	

## INSURANCE.

## Paid :

Charles B. Buss, on stone-crusher . . . . .	52 50
J. O. Goodwin, on Everett schoolhouse . . . . .	45 00
J. G. Goodwin, on Brooks schoolhouse . . . . .	135 00
J. E. Ober, mechanics' permit on Public Library building . . . . .	3 00
J. E. Ober, on furniture at Almshouse . . . . .	19 00
J. E. Ober, on Public Library building . . . . .	90 00
George W. Green, on James schoolhouse . . . . .	45 00
George W. Green, on City Hall . . . . .	187 50
George W. Green, on Centre Grammar schoolhouse . . . . .	28 13
George W. Green, on Brooks schoolhouse . . . . .	67 50
George W. Green, on Tufts schoolhouse . . . . .	33 75
George W. Stetson, on Osgood schoolhouse . . . . .	22 50
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	\$728 88

By appropriation, \$1,500.00.

## INTEREST.

## Paid :

F. S. Moseley & Co., on \$61,000, 60 days to June 7, 1897 . . . . .	\$361 75
Medford Savings Bank, on \$16,000, 1 year to September 14, 1897 . . . . .	640 00
Medford Savings Bank, on \$6,000, 1 year to September 14, 1897 . . . . .	240 00
Medford Savings Bank, on \$12,000, 1 year to November 22, 1897 . . . . .	480 00
Medford Savings Bank, on \$8,000, 1 year to December 6, 1897 . . . . .	320 00
Medford Savings Bank, on \$8,500, 1 year to January 17, 1898 . . . . .	340 00
Medford Savings Bank, on \$22,000, 2 months, 1 day to November 15, 1897, at 3½ per cent . . . . .	130 45
Commonwealth of Massachusetts, on \$19,000, 1 year to December 9, 1897 . . . . .	712 50

## EXPENDITURES.

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Commonwealth of Massachusetts, on \$24,500, 1 year to October 18, 1897 . . . . .	980 00
Commonwealth of Massachusetts, on \$41,500, 1 year to January 14, 1898 . . . . .	1,660 00
Commonwealth of Massachusetts, on \$75,000, 9 months, 14 days to November 13, 1897, at 3½ per cent . . . . .	1,922 91
Howard National Bank, on \$10,000, 4 months 18 days to May 19, 1897 . . . . .	140 00
Boston Commandery, K. T., on \$5,000, 1 year to December 1, 1897 . . . . .	200 00
Warren Institution for Savings, on \$12,000, 1 year to January 12, 1898 . . . . .	480 00
Willard Welsh, Trustee, on taxes of 1895, released . . . . .	6 05
Protestant Churches, Hall Church Fund: Mystic, \$86.92; Baptist, \$57.07; Episcopal, \$54.25; Methodist, \$49.03; Unitarian, \$27.24; Universalist, \$25.49 . . . . .	300 00
Allston P. Joyce, City Clerk, income from Bradbury fund, 1 year to November 1, 1897 . . . . .	454 58
Allston P. Joyce, City Clerk, income from Secomb fund, 1 year to January 1, 1898 . . . . .	348 00
Allston P. Joyce, City Clerk, income from Simonds fund, 1 year to January 1, 1898 . . . . .	78 00
Trustees of Public Library, income from Osgood fund, 1 year to January 1, 1898 . . . . .	150 57
City of Medford, Water Department, on average balance of \$21,528.17, for 1 year to January 31, 1898 . . . . .	538 20
Trustees of Oak Grove Cemetery, interest on average balance of \$18,575, Perpetual Care fund, 1 year to February 1, 1898 at 4 per cent . . . . .	743 00
20 coupous due Jan. 1, 1897, Public Buildings Loan . . . . .	400 00
56 coupous due May 1, 1897, Public Buildings Loan . . . . .	1,120 00



193 coupons due July 1, 1897, Public Buildings Loan . . . . .	3,860 00
56 coupons due Nov. 1, 1897, Public Buildings Loan . . . . .	1,120 00
140 coupons due Jan. 1, 1898, Public Buildings Loan . . . . .	2,800 00
185 coupons due Feb. 1, 1897, Sewerage Loan	3,700 00
40 coupons due April 1, 1897, Sewerage Loan	800 00
125 coupons due July 1, 1897, Sewerage Loan	2,500 00
185 coupons due Aug. 1, 1897, Sewerage Loan	3,700 00
40 coupons due Oct. 1, 1897, Sewerage Loan	800 00
109 coupons due Jan. 1, 1898, Sewerage Loan	2,180 00
14 coupons due June 1, 1897, Public Playground Loan . . . . .	280 00
7 coupons due July 1, 1897, Public Playground Loan . . . . .	140 00
14 coupons due Dec. 1, 1897, Public Playground Loan . . . . .	280 00
7 coupons due Jan. 1, 1898, Public Playground Loan . . . . .	140 00
200 coupons due Nov. 1, 1897, Municipal Loan	4,000 00

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\$39,046 01

By appropriation, \$35,000 00

By receipts, 6,127 45

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\$41,127 45

#### LINCOLN SCHOOLHOUSE.

Paid :

Fuller & Warren Warming and Ventilating Co., balance on contract for warming, ventilating and sanitary apparatus . . . . .	\$266 67
Oliver Whyte & Co., gates . . . . .	33 00
Carlisle, Ayer & Co., outside windows . . . . .	45 00
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	\$344 67

By balance, \$366.99.

## METROPOLITAN SEWER TAX.

Paid :

Commonwealth of Massachusetts, Metropolitan Sewer Loan Sinking fund for 1896 . . . . .	\$1,672 70
Interest on Metropolitan Sewer Loan Sinking fund for 1896 . . . . .	8,109 60
Cost of maintenance for 1896 . . . . .	3,641 70
Metropolitan Sewer Loan Sinking fund for 1897 . . . . .	1,712 09
Interest on Metropolitan Sewer Loan Sinking fund for 1897 . . . . .	7,869 20
Cost of maintenance for 1897 . . . . .	3,681 50
	<hr/>
	\$26,686 79

By warrant, \$26,686.79.

## MIDDLESEX COUNTY TAX.

Paid :

J. O. Hayden, County Treasurer . . . . .	\$14,753 88
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By warrant, \$14,753.88.

## MISCELLANEOUS ACCOUNT.

Paid :

John Tutten, services in Nicholas White case . . . . .	\$20 00
Carrie L. Goodale, clerical services . . . . .	366 00
Frank C. Litchfield, clerical services . . . . .	146 25
Parker R. Litchfield, cash paid for car-fares and postage stamps . . . . .	23 00
Mary L. Howard, clerical services . . . . .	89 00
Agnes Goodale, clerical services . . . . .	2 63
Edward W. Hayes, cash paid for travelling expenses and sundries . . . . .	32 29
Edward W. Hayes, cash paid for recording tax deeds . . . . .	15 30
George D. Cummings, cash paid for recording deed . . . . .	77
Leavens & Co., letter press stand, desk and chair . . . . .	37 00

Derby Desk Co., oak standing desk . . .	\$22 60
W. A. Greenough & Co., directories . . .	14 00
Henry F. Moore, services as Inspector of Ice, 1 year to April 1, 1897 . . . . .	25 00
Allston P. Joyce, cash paid for sundries . .	37 85
George W. Lovering, services weighing coal .	32 40
A. R. Andrews, repairing typewriters, etc., .	18 25
L. H. Lane, extra copies City Clerk's report .	10 00
J. M. Perham, carriage hire . . . . .	8 50
Charles H. Day, carriage hire . . . . .	111 00
American Bank Note Co., printing bonds . .	160 00
J. B. Mahoney, M. D., examining and reporting case, and reporting births . . . . .	23 75
Joseph S. Lockhart, M. D., reporting birth . .	25
Edwin P. Stickney, M. D., reporting birth . .	25
P. Wadsworth, M. D., reporting birth . . . .	25
H. C. Haché, M. D., reporting births . . . .	1 75
J. Nelson St. Dennis, M. D., reporting births .	9 25
Norman F. Chandler, M. D., reporting births .	9 75
George W. Mills, M. D., reporting births . .	12 50
J. W. Bean, M. D., reporting births . . . .	18 75
James E. Cleaves, M. D., reporting births . .	10 75
Frederick G. Smith, M. D., reporting births . .	50
Albert C. Aldrich, M. D., reporting births . .	2 25
Charles R. Draper, M. D., reporting births . .	2 25
P. F. Gahan, M. D., reporting births . . . .	2 75
A. C. Lane, M. D. reporting births . . . . .	3 50
G. W. W. Whitney, M. D., reporting births . .	1 50
A. W. Follett, M. D., reporting births . . . .	2 50
J. B. Curtis, M. D., reporting births . . . .	2 25
George W. Nichols, reporting deaths . . . .	43 50
H. M. Marvel, ringing bells on holidays . . .	3 00
Thomas F. Blackinton, ringing bells on holidays	6 00
John G. Hall, ringing bells on holidays . . .	3 00
Israel H. Kelley, ringing bells on holidays . .	6 00
R. A. Rogers, ringing bells on holidays . . .	6 00

## EXPENDITURES.

251

A. L. Perry, ringing bells on holidays . . .	\$6 00
T. O. H. Mitchell, stock and labor . . .	8 73
Medford Mercury, subscription . . .	6 00
Page & Curtin, hardware and labor . . .	4 15
M. C. Spencer, posting notices . . .	2 50
Charles H. Hillman, serving notices . . .	19 35
Fred W. Montague, serving notices, collecting, etc. . . . .	20 00
William S. Childs, delivering tax bills . . .	100 00
Edwin O. Childs, recording plans . . .	7 25
George F. Smiley, cash paid for posting notices at fish-way . . . . .	3 00
Malden Electric Co., light . . . . .	18 84
The W. J. Wood Ice Co., ice . . . . .	30 00
Security Safe Deposit Co., rent of safe . . .	20 00
Harvey C. Derby, pads and stamps . . .	2 20
H. W. Marden, lettering firemen's certificates	4 00
Chase's M. & B. express, expressing . . .	30
McClellan's M. & B. express, expressing . .	2 75
Perbam & Larkin, carriage hire . . . . .	3 00
Globe Stamp Works, repairing stamps, etc. .	60
Walter Bates & Sou, concreting . . . . .	13 50
Charles R. Dawson, painting City Hall . . .	100 00
Charles R. Dawson, painting and glazing . .	4 97
Morse Bros., document books . . . . .	6 00
City of Boston, subscription to City Record .	2 00
Sampson, Murdock & Co., Boston directory .	5 00
F. S. Blanchard & Co., Mass. Year Book 1897	1 50
Oliver Whyte & Co., wirework Treasurer's office . . . . .	46 70
F. E. Foster & Co., lumber for Treasurer's office . . . . .	1 43
Joel Goldthwait & Co., oil cloth . . . . .	5 13
E. W. Graves, carpentry . . . . .	9 67
Charles H. Hartshorn, strap . . . . .	35
John A. Smith, moving scales, weights, etc. .	5 00

The Fairbanks Co., repairing and moving scales, etc. . . . .	\$115 25
William H. Cowing, expenses investigating residence and attendance at court . . .	51 89
Henry F. Moore, grading and expressing city scales . . . . .	6 00

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\$1,973 15

By appropriation, \$2,000.

MISCELLANEOUS CREDITS.

Paid :

Benj. C. Leonard cash, paid William H. Lenox for teaming . . . . .	\$136 20
Thomas P. Parsons, examining and auditing city accounts . . . . .	760 00
B. F. Hayes, costs paid in Puffer case . . .	9 75
Willard Welsh, Trustee, costs on taxes, release and recording . . . . .	9 50
George Nichols, burial of soldier . . . . .	35 00
Patrick Connors, teaming stone for Highway department in 1895 . . . . .	32 10
H. A. Hanscom & Co., teaming loam to Brooks schoolhouse . . . . .	24 75
Middlesex County Truant School, board of truants . . . . .	102 57
Commonwealth of Massachusetts, 25 per cent of amount received for liquor licenses . . .	2 00
Commissioners of sinking funds, premium on 200 Municipal Loan Bonds, sold May 11, to Blodgett, Merritt & Co., at 106.923 . . .	13,846 00
Commissioners of sinking fund, premium on City of Medford water fund bonds, sold November 12, to Blodgett, Merritt & Co., at 108.68 . . . . .	1,388 80

Commissioners of sinking funds, premium on 100 City of Medford Municipal Loan bonds sold January 10, 1898, to Estabrook & Co., at 109.089 . . . . .	\$9,089 00
Workmen, as per payrolls . . . . .	194 78
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	\$25,630 45
Transfers to other accounts . . . . .	28,127 42
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	\$53,757 87
By Balance from almshouse building . . . . .	\$1,748 77
By Balance from Watering streets . . . . .	1,164 57
By receipts . . . . .	51,662 45
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	\$54,575 79

## NOTES IN ANTICIPATION OF TAXES.

Paid:

Howard National Bank, note of August 22, 1896	\$10,000 00
Commonwealth of Massachusetts, note of Janu- ary 29, 1897 . . . . .	75,000 00
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	\$85,000 00

## PRESERVATION OF PUBLIC DOCUMENTS.

Paid:

E. Adelaide Black, clerical services . . . . .	\$480 00
Greenough, Adams & Cushing, blank indexes and binding . . . . .	16 50
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By appropriation, \$500.	\$496 50

## PRINTING AND STATIONERY.

Paid:

John F. Libby, cash paid for sundries . . . . .	\$8 05
George E. Crosby, stationery . . . . .	4 50
Charles D. Tucker, stationery . . . . .	32 76
Greenough, Adams & Cushing, stationery . . . . .	147 75
M. R. Warren Co., blanks . . . . .	1 62
American Bank Note Co., printing letter heads . . . . .	12 50

A. B. Morss, printing . . . . .	\$59 00
J. C. Miller, Jr., printing . . . . .	193 05
A. R. Andrews, office supplies . . . . .	8 47
Francis Doane & Co., book . . . . .	4 00
Medford Post Office, stamps and envelopes . . . . .	183 90
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By appropriation, \$700.	\$655 60

## \*PUBLIC LIBRARY BUILDING.

Paid:

H. D. Cummings & Co., on contract for addition and alteration . . . . .	\$2,087 67
Library Bureau, extra furniture, and to complete contract . . . . .	1,703 50
Library Bureau, ledger rest and alterations in cases . . . . .	88 50
Boston Furnace Co., balance due on contract, extra work, changing boilers, etc. . . . .	529 90
R. Hollings & Co., gas and electric fixtures . . . . .	357 14
Page & Curtin, plumbing and extra work . . . . .	432 10
Joel Goldthwait & Co., carpets and rug . . . . .	457 95
Frank Irving Cooper, services as architect . . . . .	336 71
John Farquhar's Sons, repairs on roof old building . . . . .	250 00
Charles R. Dawson, painting as per contract . . . . .	545 74
The E. T. Burrowes Co., window screens and doors . . . . .	103 00
Woodbury & Driscoll, shades . . . . .	46 00
William H. Snowdon, paper hanging . . . . .	60 00
A. J. Wilkinson & Co., door checks, etc. . . . .	17 85
The Building Care Co., cleaning windows and glass . . . . .	17 50
J. A. Glass & Co., portieres . . . . .	12 00
F. Bryant & Co., repairing fixtures . . . . .	5 00
F. E. Foster & Co., pests . . . . .	250 00
Adams & Gilbert, reading glass . . . . .	2 00
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By Balance, \$7,055.61.	\$7,055 06

\*Cost of addition to date, \$18,999.45.

## REVISION OF ORDINANCES.

Paid :	
Medford Mercury, advertising . . . . .	\$368 63
Allston P. Joyce, services as Clerk of Committee on Revision of ordinances . . . . .	100 00
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	\$468 63
By appropriation, \$900.	

## RIFLE RANGE.

Paid :	
Frank T. Hook, rent of range from Sept. 1, 1896 to Sept. 1, 1897 . . . . .	\$75 00
Edmund R. Dearborn, care of range from Nov. 31, to May 31, 1897, . . . . .	25 00
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	\$100 00
By appropriation, \$125.	

## SALARIES.

(For 1 year to February 1, unless otherwise specified.)

Paid :	
Lewis H. Lovering, 1 year to January 1, 1898	\$1,000 00
Parker R. Litchfield, City Treasurer . . . . .	1,650 00
Allston P. Joyce, City Clerk . . . . .	1,223 40
Edward W. Hayes, City Collector . . . . .	1,211 69
James B. Simpson, City Messenger . . . . .	1,000 00
T. Howard Barnes, City Engineer, part of salary	933 37
Benjamin F. Hayes, City Solicitor . . . . .	800 00
John F. Libby, Mayor's Clerk . . . . .	976 57
Calvin H. Clark, Inspector of Buildings . . . . .	700 00
Ella S. Hinckley, City Clerk's assistant . . . . .	600 00
Irvin E. Peak, Clerk of Committees . . . . .	450 00
John B. Mahoney, City Physician, 1 month . . . . .	25 00
Charles R. Draper, City Physician, 11 months	275 00
Everard I. Langell, Clerk of Common Council . . . . .	250 00



William E. Ober, Inspector of Wires . . . . .	\$200 00
Henry F. Moore, Inspector of Animals and Provisions . . . . .	292 20
Henry F. Moore, Sealer of Weights and Measures . . . . .	150 00
Henry F. Moore, Inspector of Milk and Vinegar	146 10
Henry B. Nottage, Registrar of Voters . . . . .	100 00
Thomas Crockwell, Registrar of Voters . . . . .	100 00
Horace D. Hadley, Registrar of Voters . . . . .	100 00
Allston P. Joyce, Registrar of Voters and Clerk	125 00
J. Gilman Waite, Secretary of Commissioners of Sinking Funds . . . . .	50 00

(For 1 year to March 1.)

Edward W. Hayes, Secretary of Overseers of the Poor . . . . .	150 00
Daniel W. Lawrence, Treasurer of Sinking Funds . . . . .	50 00
Frank Hathaway, Public Weigher . . . . .	25 00
Peter Lenox, Pound Keeper . . . . .	25 00
Harry J. Newhall, member of Fish Committee	10 00
George F. Smiley, member of Fish Committee	10 00
Sidney F. Dean, member of Fish Committee . . . . .	10 00
By appropriation, \$13,400.	<u>\$12,638 33</u>

## SINKING FUNDS.

Paid :

Commissioners of Sinking Funds, amount of assessments included in tax levy of 1897 . . . . .	\$23,825 00
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By appropriation, \$23,825.

## SOLDIERS' RELIEF.

Paid :

Daniel R. Briggs, cash allowance . . . . .	\$192 00
Josiah G. Fuller, cash allowance . . . . .	180 00
Margaret E. McDonald, cash allowance . . . . .	180 00
Cutler D. Sauborn, cash allowance . . . . .	144 00

## EXPENDITURES.

257

James L. Colburn, cash allowance . . .	130 00
George W. Emery, cash allowance . . .	130 00
William Johns, cash allowance . . .	120 00
John Simpson, cash allowance . . .	120 00
Henry F. Reed, cash allowance . . .	72 00
Mrs. George C. Foster, cash allowance . . .	72 00
Sarah A. Pooley, cash allowance . . .	72 00
John McCowan, cash allowance . . .	60 00
Harriet L. W. Potter, cash allowance . . .	38 00
Joseph Harrington, cash allowance . . .	26 00
Edmund T. Perkins, cash allowance . . .	26 00
Augustus Bailey, cash allowance . . .	6 00
O. S. Foster, rent . . . . .	72 00
Edward W. Hayes, clerical services, 2 years to January 1, 1898 . . . . .	72 00
Edward W. Hayes, cash paid for sundries . . .	1 35
Malden Hospital, board and treatment . . .	40 00
Edward S. Randall, groceries and provisions . . .	5 00
Frank Hervey, groceries . . . . .	2 45
Charles D. Tucker, record book and index . . .	1 25
Joseph Hellen, coal . . . . .	1 25
Allston P. Joyce, expenses to Beverly . . .	1 10
John A. Morgan, medicines . . . . .	50
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	\$1,764 90

By appropriation, \$1,800.

## STATE AID.

Paid :

Sundry persons as per pay-rolls . . . . .	\$2,993 00
Greenough, Adams & Cushing, record book . . .	6 75
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	\$2,999 75

By appropriation, \$700

By receipts, 2,619

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\$3,319

## STATE TAX.

Paid :  
Commonwealth of Massachusetts . . . \$10,902 50

By warrant, \$10,902.50.

## STREET LIGHTS.

Paid :  
Malden Electric Co., lighting, per contract . \$14,000 00

By appropriation, \$14,000.

## TELEPHONES (OLD CITY HALL).

Paid :  
New England Tel. & Tel. Co., rental and tolls . \$118 98

By appropriation, \$150 00

By receipts, 35

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\$150 35

## UNFUNDED DEBT.

Paid :  
Bay State Trust Co., notes dated Oct. 7, 1896 \$61,000 00  
Medford Savings Bank, notes dated Sept. 14,  
1895 . . . . . 22,000 00  
Medford Savings Bank, note dated Nov. 22,  
1892 . . . . . 12,000 00  
Medford Savings Bank, note dated Dec. 6, 1892 8,000 00  
Boston Commandery, K. T., note dated Dec. 1,  
1890 . . . . . 5,000 00

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\$108,000 00

## ASSESSING DEPARTMENT.

## COMPENSATION OF ASSESSORS AND CLERK.

Paid :  
Ellen R. Sampson, clerk . . . . . \$700 00  
Henry Withington, assessor, to Feb. 1, 1898 . 618 84  
Edward S. Randall, assessor, to Feb. 1, 1898 618 84

## EXPENDITURES.

259

Warren T. Morse, assessor from March 1, 1897 to Feb. 1, 1898 . . . . .	595 84
Edward W. Hayes, to adjust salary to March 1, 1897 . . . . .	23 00
Carrie L. Goodale, clerical services . . . . .	77 50
William S. Child, street clerk . . . . .	170 00

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 \$2,804 02

By appropriation, \$2,900.

## ASSESSORS' EXPENSES.

Paid :

Greenough, Adams & Cushing, stationery and record books . . . . .	\$199 75
J. C. Miller, Jr., printing . . . . .	402 60
A. R. Andrews, office supplies . . . . .	9 85
Orpin Bros., book-case and desk . . . . .	58 00
Kern & McCloud, use of index . . . . .	10 70
George H. Duncklee, carriage hire . . . . .	57 50
John R. Chafey, carriage hire . . . . .	40 75
Medford Mercury, advertising . . . . .	20 00
T. O. H. Mitchell, making case . . . . .	7 42
Charles D. Tucker, pens, ink, etc. . . . .	7 20
McClellan's M. & B. Express, expressing . . . . .	3 65
Henry Withington, cash paid for stamps, etc. . . . .	16 43
Ellen R. Sampson, travelling expenses . . . . .	17 20
George H. Pearson, certificate of death . . . . .	50

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 \$851 55

By appropriation, \$900.

## AUDITING DEPARTMENT.

Paid :

George D. Cummings, salary as City Auditor, one year to February 1 . . . . .	\$1,200 00
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By appropriation, \$1,200.

## AUDITING DEPARTMENT EXPENSES.

## Paid :

Edward B. Dennison, clerical services . . .	\$96 25
Eliza M. Gill, clerical services . . .	63 00
J. C. Miller, Jr., printing and stationery . .	19 00
Charles D. Tucker, stationery . . .	1 95
George D. Cummings, cash paid for numbering machine, etc. . . . .	9 50
J. Henry Norcross, P. M., stamps . . .	15 00
Globe Stamp Works, rubber stamps . . .	60
Malden Electric Co., lamp . . . . .	40
Adolph A. Kuehl, framing map . . . . .	35
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	\$206 05

By appropriation, \$400.

## PRINTING REPORTS.

## Paid :

L. H. Lane, printing annual reports . . .	\$494 96
J. M. Perham, expressing . . . . .	2 50
American Express Co., expressing . . . . .	4 01
Chase's M. & B. Express, expressing . . . . .	15
McClellan's M. & B. Express, expressing . . . . .	25
George D. Cummings, cash paid for expressing, etc. . . . .	3 38
Robert Burlen, binding and lettering . . . . .	22 15
Medford Mercury, advertising . . . . .	3 00
Greenough, Adams & Cushing, envelopes . . . . .	4 50
George Watson, binding reports . . . . .	9 60
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	\$544 50

By appropriation, \$650.

## CEMETERY DEPARTMENT.

## SALARIES TRUSTEES OF OAK GROVE CEMETERY.

## Paid :

Asa Law, one year to February 1 . . . .	\$25 00
Edward S. Randall, one year to February 1 . .	25 00
Barker B. Howard, one year to February 1 . .	25 00
John Hutchins, one year to February 1 . . .	25 00
Charles W. Jacobs, 3 months, 18 days . . .	7 50
Edward C. Ellis, 8 months, 12 days . . . .	17 50
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	\$125 00

By appropriation, \$125.

## CARE OF CEMETERIES.

## Paid :

Workmen, as per pay-rolls . . . . .	\$3,906 38
Allston P. Joyce, salary as Clerk of Trustees of Oak Grove Cemetery to Jan. 1, 1898 . .	100 00
Allston P. Joyce, cash paid for stamped envelopes . . . . .	10 75
N. F. McCarthy & Co., plants . . . . .	100 19
Ellen M. Gill, plants . . . . .	52 89
John Duane, plants . . . . .	34 00
William A. Bock, plants . . . . .	25 75
George H. Bean, plants . . . . .	24 50
W. C. Stickel & Co. . . . .	7 50
Joseph Breck & Sons, grass-seed . . . . .	8 71
H. W. Biggs, manure and teaming . . . . .	231 98
William Casey, manure . . . . .	40 47
Orvid M. Fowler, manure . . . . .	50 00
George W. Nichols, manure . . . . .	14 62
George H. Bean, manure . . . . .	43 31
William H. Lenox, manure . . . . .	158 38
John A. Smith, measuring . . . . .	8 05
Fred W. Montague, measuring . . . . .	1 25

City of Medford, Water Department, water, labor and stock . . . . .	88 38
New England Telegraph and Telephone Co. tolls . . . . .	11 00
A. R. Andrews, stationery . . . . .	2 88
J. C. Miller, Jr., stationery and printing . . . . .	4 60
J. T. Bassett, whitewashing and painting . . . . .	37 00
F. E. Foster, lumber and cement . . . . .	9 05
Joseph Breck & Sons, machine parts . . . . .	2 00
P. H. Kirwan, sharpening tools . . . . .	4 30
Patrick Howley, sharpening picks . . . . .	3 45
Arthur C. Symmes, repairing picks, etc. . . . .	27 25
Cleopas B. Johnson, filing saws . . . . .	1 50
Page & Curtin, tools, etc. . . . .	4 15
William S. Richards, tools and labor . . . . .	10 02
Frank Hervey, forcite and fuse . . . . .	6 01
Fred D. H. Thomas, stock and labor on sign . . . . .	2 75
Chase's M. & B. Express, expressing . . . . .	1 15
Bubier & Co., markers . . . . .	34 00
John Hutchins, cash paid for expenses . . . . .	22 50
Harriet W. Brown, care of flowers in Cross Street Cemetery . . . . .	2 50
Thomas F. McGuine, police duty . . . . .	2 00
Edward C. Walkling, services as gate tender . . . . .	50 00

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\$5,145 22

By appropriation, \$1,350 00

By receipts, 3,823 98

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\$5,173 98

## ENGINEERING DEPARTMENT.

## EXPENSES OF CITY ENGINEER.

Paid :

Engineer's assistants, as per pay-rolls . . .	\$1,404 35
James J. Shannon & Co., record files . . .	13 85
A. R. Andrews, paper . . . . .	10 05
Frost & Adams Co., tracing cloth and ink . . .	11 53
E. G. Soltmann, office supplies . . . . .	31 45
Charles D. Tucker, stationery . . . . .	4 43
Spot Cash Pen Co., pens . . . . .	1 00
Aaron R. Gay, stationery . . . . .	3 50
L. H. Lane, extra copies annual report . . .	17 55
Spaulding Print Paper Co., copies of plans . .	1 21
J. C. Miller, Jr., printing . . . . .	30 90
Malden & Melrose Gas Light Co., gas . . . .	33 36
Malden Electric Co., light . . . . .	17 57
City of Medford Water Department, water . .	10 00
Charles H. Day, team hire . . . . .	15 50
Ernest B. Moore, agent, extra heat . . . . .	12 50
Library Bureau, desk . . . . .	141 00
T. Howard Barnes, incidental expenses, self and assistants . . . . .	35 76
J. E. Ober & Son, rakes and pails . . . . .	1 14
Conants' Photograph Studio, photographs . . .	6 95
L. A. Hall & Co., bicycle pump and stand . . .	1 50
W. P. Treet, mosquito netting and cloth . . .	1 70
W. A. Greenough & Co., map of Medford . . .	5 00
Adolph A. Kuehl, frames . . . . .	15 25
E. A. Carlisle, Pope & Co., outside window . .	2 35
Page & Curtin, feather duster . . . . .	1 10
Charles W. Jacobs, rubber boots . . . . .	6 50
Pittsburg Plate Glass Co., glass . . . . .	10 00
Smith's M. & B. Express, expressing . . . . .	1 00
Thomas H. O'Connell, labor ou granite boundary post . . . . .	2 00
By appropriation, \$1,850.00.	\$1,850 00



## MAP OF MEDFORD.

## Paid :

Engineer's assistants, as per pay-rolls . . .	\$969 62
Frost & Adams, office supplies . . .	22 63
E. G. Soltmann, scales . . . . .	3 25
Buff & Berger, repairing . . . . .	4 50
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	\$1,000 00

By appropriation, \$1,000.

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## FIRE DEPARTMENT.

## SALARIES OF ENGINEERS AND MEN.

(For year, to February 1, 1898.)

## Paid :

Charles E. Bacon, chief engineer . . . . .	\$902 00
Jude C. Clark, first assistant engineer . . . . .	102 00
Frank O. Waterman, second assistant engineer . . . . .	102 00
Jude C. Clark, clerk . . . . .	50 00
Harry M. Smith . . . . .	52 00
Hook & Ladder Co. No. 1, as per pay-rolls . . . . .	619 55
Chemical Co. A, as per pay-rolls . . . . .	153 00
Chemical Co. B, as per pay-rolls . . . . .	260 00
Hose Co. No. 1, as per pay-rolls . . . . .	508 04
Hose Co. No. 3, as per pay-rolls . . . . .	309 50
Hose Co. No. 4, as per pay-rolls . . . . .	311 55
Engineman and driver . . . . .	7,206 13
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	\$10,575 77

By appropriation, \$10,812 00

By receipts, 2 00

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\$10,814 00

## ORDINARY EXPENSES.

Paid :

Chase's M. & B. Express, expressing . . .	\$9 70
American Express Co., expressing . . .	1 65
Smith's M. & B. Express, expressing . . .	3 15
Savage's Express, expressing . . .	2 75
Charles E. Larkin, expressing . . .	25
McClellan's M. & B. Express, expressing . . .	80
John A. Smith, expressing . . .	1 50
Boston & Maine R. R. Co., freight . . .	64
Malden Electric Co., light and lamps . . .	118 50
Malden & Melrose Gas Light Co., gas . . .	139 74
Beattie Zinc Works Co., electrical supplies . . .	80 00
Charles L. Bly, electrical supplies . . .	110 47
Henry A. Earsy, electrical supplies . . .	6 45
William E. Ober, electrical supplies . . .	1 98
New England Gamewell Co., fire alarm box magnets . . . . .	48 50
U. S. Fire and Police Tel. Co., gong and fuse . . .	67 50
Frank E. Sampson, ringing fire alarm bell . . .	6 25
William E. Bentley, repairing clocks . . .	2 00
Henry K. Barnes, belting and rubber supplies . . .	23 90
Hopkins & Wright, fire hats . . . . .	84 25
Hose Co. 4, fire hats . . . . .	27 00
W. A. Snow & Co., engine truck and mangers, . . .	61 70
The Gutta Percha & Rubber Mfg. Co., hose . . .	10 00
Edgar H. Babcock, services as extra driver, etc. . . .	142 75
Frank P. Dutton, extra labor . . . . .	4 50
Firemen, extra labor, as per pay-rolls . . .	101 14
James Murphy, clipping horses . . . . .	\$15 00
William Nokes, exchange of two horses . . .	225 00
J. J. Bowen, shoeing horses . . . . .	38 50
Herbert Etter, shoeing horses . . . . .	160 45
Arthur C. Symmes, shoeing horses, etc. . . .	556 19
William H. Grothe, shoeing horses . . . . .	16 25
J. C. Cutting, D. V. S., veterinary services . . .	8 00

J. F. Welch, boarding horses . . . .	\$14 29
Charles H. Day, horse hire . . . .	1 00
Walter Bates and Son, use of horses and man .	50 00
Charles H. Allen, stable supplies and repairing	3 10
Chester J. Pike, sleigh . . . .	40 00
Harvey Wright, blacksmithing . . . .	16 50
Samuel Highley, medicines . . . .	50
Daniel N. Howard, medicines . . . .	3 60
Edward Farrar, medicines . . . .	1 30
J. E. Ober & Son, wood, straw, oil, etc. . .	57 53
James Bean, hay and grain . . . .	598 89
J. N. Cowin & Co., hay and grain . . . .	365 69
A. Fitch & Co., grain . . . .	208 50
G. L. Stone & Co., seed meal . . . .	7 50
J. Henry Hemphill Coal Co., coal . . . .	680 42
Joseph Hellen, coal . . . .	80 81
E. Teel & Co., use of wagon, repairing, etc. .	88 25
Arthur C. Symmes, new hose pung . . . .	125 00
Samuel Perrins, Jr., supplies and repairing harnesses . . . .	3 80
Charles H. Hartshorn, supplies and repairing harnesses . . . .	216 45
F. E. Foster & Co., lumber . . . .	76 63
Crockwell Bros., stock and labor . . . .	128 76
Charles E. Curtis, carpentry . . . .	15 00
Otto Neilson & Co., stock and labor . . . .	6 19
Page & Curtin, stock and labor . . . .	194 02
Clark Bros., mason work . . . .	15 00
John H. Byron, mason work . . . .	25 00
Louis G. Bragdon, concreting . . . .	45 00
Frederick A. Blakeslee, painting . . . .	5 00
Bride & Ames, stock and labor . . . .	17 23
Charles R. Dawson, painting and glazing . .	53 68
Fred Whitman, stock and labor . . . .	1 50
C. M. Kimball, metal polish . . . .	22 40
McPhail & Traves, dust preparation and can .	5 25

## EXPENDITURES.

267

Charles A. Clafin, oil pump, etc. . . . .	\$14 41
Manchester Locomotive Works, pump leathers .	4 00
Walworth Mfg. Co., oiler, blocks, etc. . . . .	2 99
Snow Flake Axle Grease Co., salt bricks and feeders . . . . .	9 07
Merrimac Chemical Co., oil vitriol . . . . .	3 49
Bradlee, Hastings & Co., washers and tags . . . . .	1 54
Combination Ladder Co., nozzle . . . . .	25 00
Weiler & Smith Mfg. Co., jack . . . . .	5 00
Revere Copper Co., copper . . . . .	3 84
C. W. H. Moulton, ring snaps and locks . . . . .	21 50
William P. Butterfield, Sons & Co., chamois skins . . . . .	12 00
Houghton & Dutton, blanket, shades, etc. . . . .	9 92
William Baldwin, repairing engine . . . . .	92 50
Broad Gauge Iron Works, floor . . . . .	10 50
A. S. Jackson, supplies and repairing pipe . . . . .	122 43
Wellman Sole Cutting Machine Co., repairing . . . . .	2 40
City of Medford, Water Dept., water pipe, etc. . . . .	105 13
Medford Mercury, advertising . . . . .	2 25
Fred W. Montague, oil, etc. . . . .	21 68
William N. Curtis, oil, etc. . . . .	10 36
John L. Brockway, six kegs of soda . . . . .	19 32
Sanborn-Perris Map Co., map of Medford . . . . .	21 00
W. A. Greenough & Co., Medford Directory . . . . .	2 00
Frank H. Peak, stationery . . . . .	1 50
Charles D. Tucker, stationery . . . . .	70
Leander Barker, brooms . . . . .	4 00
E. Caldwell, chairs and mirror . . . . .	17 00
Mystic Hose Co., furniture and fixtures . . . . .	27 75
Austin F. Crocker, paper and shades . . . . .	5 44
William H. Wood, waxing floor . . . . .	5 00
N. B. Cunningham, screen doors and repairing floor . . . . .	23 70
Greenwood & Co., dusters and sponges . . . . .	18 00
George S. Delano, mattresses . . . . .	24 00

John Pace, window screens . . . . .	\$3 75
Frank Hervey, seeds . . . . .	70
William S. Richards, hardware . . . . .	46 54
J. A. Hanson, rubber mitts . . . . .	75
Herman B. Jones, cleaning rugs . . . . .	50
M. M. Grimes, P. M., stamps . . . . .	5 06
M. M. Dyer, damage to plastering and window . . . . .	6 00
James W. Brogan, loam . . . . .	6 00
R. M. Johnson, removing night soil . . . . .	10 00
Conants' Photograph Studio, photographs of water test . . . . .	1 50
Charles E. Bacon, cash expended . . . . .	1 00
Mendall C. Spencer, hanging paper . . . . .	6 50
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	\$5,987 97
Transfer . . . . .	100 00
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	\$6,087 97
By appropriation, \$6,000 00	
By receipts, 106 20	
	<hr/>
	\$6,106 20

## FIRES IN THE WOODS.

## Paid:

Workmen as per pay-rolls . . . . .	\$139 75
Leander Barker, brooms . . . . .	4 00
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	\$143 75
By appropriation, \$100 00	
By transfer, 100 00	
	<hr/>
	\$200 00

## NEW HOSE.

## Paid:

A. S. Jackson, 600 feet hose . . . . .	\$300 00
By appropriation, \$300.	

## TELEPHONES.

Paid :	
New England Telegraph and Telephone, rentals and tolls . . . . .	\$335 60
By appropriation, \$365.	

## HEALTH DEPARTMENT.

## SALARIES OF MEMBERS OF THE BOARD OF HEALTH.

*(For One Year, to March 1, 1898.)*

Paid :	
James E. Cleaves, M. D. . . . .	\$50 00
Walter L. Hall, M. D. . . . .	50 00
J. Walter Bean, M. D. . . . .	50 00
William P. Clark . . . . .	50 00
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	\$200 00

By appropriation, \$200.

## SALARY OF INSPECTOR OF PLUMBING.

Paid :	
Gustavus F. Andrews, salary as inspector, one year to Feb. 1, 1898 . . . . .	\$1,000 00
By appropriation, \$1,000.	

## GENERAL EXPENSES.

Paid :	
Alvin R. Reed, salary as clerk, 13 months, to Feb. 1, 1898 . . . . .	\$487 50
Gustavus F. Andrews, services as inspector, 15 months to Feb. 1, 1898 . . . . .	124 96
Fred W. Montage, services as constable . . . . .	71 00
J. C. Cutting, D. V. S., veterinary services . . . . .	12 50
Henry F. Moore, fumigating and burying animals . . . . .	77 25

Charles H. Day, boarding and team hire . . . . .	\$319 63
Herbert Etter, horse-shoeing . . . . .	29 38
Cornelius O'Leary, burying dog . . . . .	1 00
William H. Chamberlain, burying dogs . . . . .	2 00
Reuben W. Smith, burying cat . . . . .	50
R. M. Johnson, removing night soil . . . . .	2 50
Arthur S. Crowell, bag for fumigating material . . . . .	1 75
J. F. Welch, sleigh . . . . .	25 00
Arthur C. Symmes, painting buggy and repairing . . . . .	21 25
Charles H. Hartshorn, repairing harness, etc. . . . .	14 65
J. C. Miller, printing and stationery . . . . .	123 50
Charles D. Tucker, stationery . . . . .	10 32
Medford Mercury, advertising . . . . .	34 76
L. H. Laue, extra copies annual report . . . . .	7 00
Greenough, Adams & Cushing, stationery . . . . .	2 75
J. Henry Norcross, P. M., stamped envelopes . . . . .	10 90
New England Tel. & Tel. Co., rentals and tolls . . . . .	3 80
City of Medford, Sewer Department, labor and supplies . . . . .	29 57
City of Medford, Water Department, labor . . . . .	89
Daniel N. Howard, druggists' sundries . . . . .	64 55
Edward B. Dennison, typewriting . . . . .	1 25
Mrs. Theresa N. Thomas, claim for damages . . . . .	50 00
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	\$1,530 16

By appropriation, \$1,590.

## HIGHWAY DEPARTMENT.

### SALARY OF STREET COMMISSIONER.

Paid :

Andrew W. Bryne, salary from Feb. 1, 1897, to January 15, 1898 . . . . .	\$1,533 34
By appropriation, \$1,600.	

## EXPENDITURES.

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## ASHES.

## Paid :

Workmen as per pay-rolls . . . . .	\$2,375 35
City of Medford, Highway Dept., use of teams	576 00
Luke Coyne, horse shoeing . . . . .	87 77
John S. Williams, covers . . . . .	9 35
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	\$3,048 47
Transferred to another account . . . . .	200 00
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	\$3,248 47

By appropriation, \$3,250.

## BRIDGES.

## Paid :

Workmen, as per pay rolls . . . . .	\$103 75
Page & Curtin, files and nails . . . . .	2 85
J. E. Ober & Son, nails . . . . .	6 00
E. & F. King & Co., lead and oil . . . . .	18 40
F. E. Foster & Co., lumber . . . . .	122 93
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	\$253 93

By appropriation, \$500.

## CARE OF TREES.

## Paid :

Workmen, as per pay rolls . . . . .	\$247 63
Oliver Whyte & Co., tree guards . . . . .	247 00
Page & Curtin, hardware, etc. . . . .	19 32
P. H. Byron & Son, labor and material . . . . .	85 13
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	\$599 08

By appropriation, \$600.

## COLLECTION OF HOUSE OFFAL.

## Paid :

Workmen, as per pay rolls . . . . .	\$3,256 63
City of Medford, fire department, bay horse . . . . .	40 00
City of Medford, highway department, care of horses . . . . .	547 50



P. H. Kirwan, horse shoeing . . . . .	\$62 73
Herbert Etter, horse shoeing . . . . .	17 25
F. E. Foster & Co., lumber . . . . .	2 06
E. Teel & Co., stock and labor . . . . .	3 68
E. & F. King & Co., blue paint . . . . .	19 20
Page & Curtin, brooms and hardware . . . . .	2 40
Charles H. Hartshorn, harness supplies . . . . .	60
C. W. Lerner & Co., disinfectant . . . . .	126 00
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	\$4,078 05

By appropriation, \$3,500.

By receipts, 380.

By transfer, 200.

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\$4,080.

#### GENERAL REPAIRS OF HIGHWAYS.

Paid :

Workmen, as per pay rolls . . . . .	\$11,926 36
Mrs. Mary E. Lauriat, clerical services . . . . .	520 00
Frank E. Chandler, hay . . . . .	656 45
James Beau, hay, straw, coal and grain . . . . .	327 33
Joseph Helen, hay, grain and coal . . . . .	2,331 78
J. N. Cowin & Co., hay, grain and coal . . . . .	339 73
J. Henry Hemphill Coal Co., wood, coal, oats and hay . . . . .	1,295 82
J. E. Ober, coal and grain . . . . .	313 65
J. E. Ober & Son, hay, coal and grain . . . . .	1,267 61
Frank E. Chandler, two horses and set of har- ness, purchased the previous year . . . . .	440 00
Herbert Etter, horse shoeing . . . . .	263 88
Luke Coyne, horse shoeing . . . . .	14 38
Harvey Wright, horse shoeing . . . . .	3 20
Patrick Howley, blacksmithing . . . . .	2 25
A. H. D. French, harness supplies . . . . .	3 00
Samuel Perrins, Jr., harness supplies and re- pairing . . . . .	16 96

Charles H. Hartshorn, harness supplies and repairing . . . . .	\$289 70
John S. Williams, harness, fittings, etc. . . . .	141 98
William H. Hitchings, veterinary services . . . . .	70 00
James E. Cleaves, M. D., professional services . . . . .	14 00
John B. Mahoney, M. D., professional services . . . . .	8 00
Daniel N. Howard, horse medicine and sundries . . . . .	45 86
John A. Morgan, medicines and sundries . . . . .	43 50
Esau Cooper, horse liniment . . . . .	4 50
Perrin, Seamans & Co., supplies . . . . .	321 54
Good Roads Machinery Co., parts for steam roller . . . . .	16 00
Taylor Iron & Steel Co., jaws for stone crusher, etc. . . . .	270 81
Concord Foundry Co., castings . . . . .	5 75
Farrel Foundry & Machine Co., machine parts . . . . .	31 50
William Churchill Oastler, castings . . . . .	5 45
Rawson & Morrison Mfg. Co., machine supplies and labor . . . . .	44 48
Park, Brother & Co., tools . . . . .	24 30
James McCusker, hammer handles . . . . .	3 00
Walworth Mfg. Co., piping . . . . .	6 40
Charles A. Schieren & Co., belting, cement, etc. . . . .	4 53
J. H. Houghton, oiling device, etc. . . . .	24 30
Braman, Dow & Co., Babbitt's metal and valves . . . . .	20 31
Charles River Iron Works, repairing stone crusher . . . . .	57 90
Wellman Sole Cutting Machine Co., lathe work, etc. . . . .	32 78
William E. Ober, electrical supplies and labor . . . . .	3 44
George H. Sampson, blasting powder, etc. . . . .	453 59
Frank Hervey, blasting powder, etc. . . . .	13 28
City of Medford, Water Department, water, piping and labor . . . . .	63 72
New England Tel. & Tel. Co., rentals and tolls . . . . .	159 40
Malden Electric Co., light and lamps . . . . .	85 37

E. Teel & Co., stock, labor and repairs . . .	\$220 34
Arthur C. Symmes, stock and labor . . .	320 15
F. E. Foster & Co., lumber . . . . .	273 89
A. M. Wood Co., hardwood . . . . .	12 55
Anthony S. Morss, hardware . . . . .	1 30
Page & Curtin, hardware . . . . .	119 71
Michael F. Dwyer, cement, zinc and labor . . .	11 90
Moses C. Vinal, mason work . . . . .	5 38
Oliver Whyte & Co., screen . . . . .	7 00
M. F. Whiton & Co., canvas coverings . . . .	22 10
Walter Bates & Son, gravel . . . . .	57 00
E. & F. King, paint . . . . .	8 00
Charles R. Dawson, stock and labor . . . . .	20 77
H. W. Johns Mfg. Co., varnish, etc. . . . .	3 70
C. W. Holden Insurance Agency, insurance on employees . . . . .	225 00
United States Casualty Co., premium . . . .	361 92
W. A. Wood & Co., oil . . . . .	3 50
William N. Curtis, oil . . . . .	29 82
Fred W. Montague, oil, salt, etc. . . . .	34 45
George E. Downes, salt . . . . .	3 00
Yerxa & Yerxa, salt and pail . . . . .	65
West Medford Post Office, stamps . . . . .	5 00
Greenough, Adams & Cushing, record books and stationery . . . . .	14 75
A. E. Martell & Co., stationery . . . . .	4 00
Charles D. Tucker, stationery . . . . .	5 38
J. C. Miller, Jr., printing . . . . .	23 75
L. H. Lane, extra copies annual report . . .	12 00
E. A. Carlisle, Pope & Co., window . . . .	1 40
G. W. Ladd, food . . . . .	12 00
Charles W. Jacobs, rubber boots . . . . .	3 25
A. W. Chesterton & Co., bristle brush . . .	2 50
Andrew W. Bryne, cash paid for sundries . .	3 25
American Express Co., expressing . . . . .	5 35
A. W. Robinson, expressing . . . . .	3 50

## EXPENDITURES.

275

Savage's Express, expressing . . .	\$5 70
Smith's M. & B. Express, expressing . . .	2 70
Boston & Maine R. R. Co., freight . . .	7 34

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 \$23,841 79

By appropriation, \$20,000 00

By receipts, 3,863 71

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 \$23,863 71

## GUIDE BOARDS AND STREET SIGNS.

Paid :

Workmen, as per pay rolls . . . .	\$21 00
Charles R. Dawson, signs . . . .	29 50
C. Henry Adams, signs . . . .	8 50
E. Teel & Co., signs . . . .	8 00
F. E. Foster & Co., lumber . . . .	28 52
Page & Curtin, lead, screws, etc. . . .	3 35
Perrin, Seamans & Co., stencil brush . . . .	39

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 \$99 26

By appropriation, \$100.

## MIDDLESEX AVENUE BRIDGE.

Paid :

Workmen, as per pay rolls . . . .	\$210 01
Thomas Leahy, salary as draw tender . . . .	540 00
Reed Bros. & Sawin, rent of draw tender's house . . . .	15 00
F. E. Foster & Co., lumber . . . .	273 28
Charles L. Batchelder, stock and labor . . . .	9 70
Joseph Ross, stock and labor . . . .	249 39
E. A. Carlisle, Pope & Co., door and window . . . .	4 65
Page & Curtin, hardware, etc. . . .	21 57
Fred W. Montague, oil and wicks . . . .	7 60
William N. Curtis, oil . . . .	9 75
City of Medford, Sewer Department, pipe . . . .	3 89
Michael F. Dwyer, pipe . . . .	17 50
J. E. Ober & Son, nails . . . .	42

George E. Downes, rock salt . . . . .	\$6 30
Perrin, Seamans & Co., lantern globes and yard pump . . . . .	8 55
A. W. Robinson, expressing . . . . .	1 50
Boston & Maine R. R., rent of land one year to Jan. 1, 1898 . . . . .	12 00

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\$1,391 11

By appropriation, \$600 00

By receipts, 668 91

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\$1,268 91

#### PAVING GUTTERS.

Paid :

Workmen, as per pay-rolls . . . . .	\$680 69
S. & R. J. Lombard, paving blocks . . . . .	499 50
Louis G. Bragdon, concreting . . . . .	83 10
Page and Curtin, hardware . . . . .	35

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\$1,263 64

Transferred to another account . . . . . 736 36

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\$2,000 00

By appropriation, \$2,000.

#### SETTING OUT TREES.

Paid :

Workmen, as per pay-rolls . . . . .	62 00
Kennebec Nurseries, trees . . . . .	156 48
Hiram H. Gurney & Co., trees . . . . .	78 45
Boston & Maine R. R. Co., freight . . . . .	5 07

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\$302 00

By appropriation, \$300 00

By receipts, 2 40

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\$302 40

## SIDEWALKS AND EDGESTONES.

Paid:

Workmen, as per pay-rolls . . . . .	\$987 64
S. & R. J. Lombard, paving and edgestones . . . . .	3,344 07
Louis G. Bragdon, concreting . . . . .	1,196 61
Walter Bates & Son, concreting . . . . .	1,641 66
Thomas Casey, brick . . . . .	100 10
William R. Maxwell, brick . . . . .	79 00
Page & Curtin, tools, etc. . . . .	4 35
City of Medford, Sewer Dept., team hire and labor . . . . .	23 26
Moses C. Vinal, labor . . . . .	116 04
John Rafferty, cutting sod . . . . .	32 25
J. C. Miller, Jr., printing . . . . .	4 00
Richard Gibson, $\frac{1}{2}$ cost sidewalk estimated on basis of brick sidewalk . . . . .	33 98
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	\$7,562 96

By appropriation, \$4,000 00

By assessments, 3,103 83

By receipts, 427 31

By transfer, 736 36

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 \$8,267 50

## SNOW (REMOVAL OF).

Paid:

Workmen, as per pay-rolls . . . . .	676 88
J. F. Emerson, snow-plowing . . . . .	7 50
City of Medford, Sewer Dept., removing snow . . . . .	5 67
Page & Curtin, shovels, etc. . . . .	6 62
F. E. Foster & Co., lumber . . . . .	23 14
John S. Williams, harness supplies . . . . .	67 75
E. Teel & Co., repairing . . . . .	3 75
Michael F. Dwyer, repairing shovels . . . . .	50
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	\$791 81

By appropriation, \$1,200.

## SPECIAL CONSTRUCTION.

Paid :	
Workmen, as per pay-rolls . . . . .	\$12,172 18
City of Medford, Highway Dept., use of teams and crushing stone . . . . .	1,180 25
City of Medford, General Repairs account, use of teams . . . . .	1,206 00
City of Medford, Sewer Dept., pipe, frames and covers . . . . .	66 73
James F. Dwyer, teaming stone . . . . .	37 60
W. G. Nash, pipe and cement . . . . .	1,140 48
A. W. Bryne Const. Co., brick and pipe . . . . .	64 43
William R. Maxwell, brick . . . . .	68 00
Osgood & Hart, castings . . . . .	240 35
S. & R. J. Lombard, edgestones . . . . .	131 89
H. Gore & Co., laying cobble . . . . .	942 66
David Lynch, mason work . . . . .	5 67
Moses C. Vinal, mason work . . . . .	14 00
H. Riley's Sons, roofing supplies and labor . . . . .	88 40
Oliver Whyte & Co., wire netting and coal screen . . . . .	16 20
George H. Sampson, blasting material . . . . .	\$264 20
Frank Hervey, blasting material . . . . .	33 42
City of Newton, six Concord grates . . . . .	23 40
J. E. Ober & Son, coal . . . . .	121 54
J. Henry Hemphill Coal Co., coal . . . . .	92 73
J. N. Cowan & Co., coal . . . . .	5 31
James Bean, coal . . . . .	8 00
Page & Curtin, hardware . . . . .	7 51
Richard Gibson, stock and labor . . . . .	24 03
Simon White, paints, oils, etc. . . . .	10 76
Wellman Sole Cutting Machine Co., boiler bolts . . . . .	1 40
Boston & Maine R. R. Co., freight . . . . .	236 98
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	\$18,204 12
Transferred to other accounts . . . . .	2,000 00
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By appropriation, \$20,000.	\$20,204 12

## STREETS IN MIDDLESEX FIELDS.

Paid:

Workmen, as per pay rolls . . . . .	\$2,464 77
Perrin, Seamans & Co., road rakes, shovels, etc.	28 50
F. E. Foster & Co., lumber . . . . .	70 19
Page & Curtin, hardware . . . . .	1 30
A. P. LaChapelle, rakes . . . . .	1 15
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	\$2,565 91

## STREET NUMBERING.

Paid:

Workmen as per pay rolls . . . . .	\$175 76
James W. Vinal & Co., metal numbers . . . . .	29 23
Henry McConnell, metal numbers . . . . .	65 28
Anthony S. Morss, metal numbers . . . . .	8 00
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	\$278 27

By appropriation, \$250 00

By receipts, 34 17

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 \$284 17

## WATERING STREETS.

Paid:

Workmen, as per pay rolls . . . . .	\$435 00
George H. Duncklee, watering streets . . . . .	479 00
Andrew Kennedy, watering streets . . . . .	472 50
Herbert W. Briggs, watering street . . . . .	453 25
Mitchell Aiel, watering streets . . . . .	400 00
Fred L. Putnam, watering streets . . . . .	400 00
J. Henry Hemphill Coal Co., watering streets . . . . .	320 00
Coleman Bros., watering streets . . . . .	232 50
Joseph Hellen, watering streets . . . . .	80 00
Jacob F. Emerson, watering streets . . . . .	55 00
J. L. & H. K. Potter, watering carts, etc. . . . .	376 05
City of Medford, Water Department, pipes, cement, etc. . . . .	152 31
E. Teel & Co., repairing . . . . .	19 90



Arthur C. Symmes, repairing . . . .	\$19 65
William S. Child, delivering bills . . . .	19 51
E. & F. King & Co., varnish . . . . .	9 00
J. C. Miller, Jr., stationery . . . . .	7 50
Almira J. Stetson, abatement of street watering assessment for 1896 . . . . .	4 53
Charles H. Hartshorn, supplies and labor . . . .	3 75
William H. Grothe, blacksmithing . . . . .	80
Herbert Etter, blacksmithing . . . . .	50

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\$3,940 75

By appropriation, \$1,000 00

By assessment, 3,438 18

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\$4,438 18

### INSPECTION DEPARTMENT.

Paid :

Charles H. Day, boarding horse . . . . .	\$263 38
Herbert Eiter, horse shoeing . . . . .	20 25
F. Ivers & Son, repairing sleigh . . . . .	6 75
Charles H. Hartshorn, repairing harness, etc. . . .	3 00
E. Teel & Co., repairing wagon . . . . .	30 30
Edward Kakas & Son, fur robe . . . . .	15 00
Houghton & Dutton, blanket . . . . .	2 39
Samuel Perrins, Jr., horse cover . . . . .	1 50
Austin F. Crocker, cloth for sleigh cover . . . .	1 98
H. L. Alderman, D. V. S., horse medicine . . . .	2 00
J. C. Miller, Jr., printing . . . . .	48 00
Greenough, Adams & Cushing, stationers' sup- plies . . . . .	10 83
Charles D. Tucker, stationery . . . . .	50
Calvin H. Clark, cash paid for stamps, fares, re- pairs, etc. . . . .	17 74

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\$423 62

By appropriation, \$425.

## PARK DEPARTMENT.

## BROOKS PLAYSTEAD.

Paid :

Workmen, as per pay rolls . . . . .	\$408 66
Shady Hill Nursery Co., trees, etc. . . . .	80 60
Edward P. Adams, architectural services . . . . .	59 75
Frank Hervey, seed . . . . .	34 79
J. W. Hutchinson, planting trees . . . . .	15 00
Sewell & Day Cordage Co., rope . . . . .	80
Ames Plow Co., plow points . . . . .	40

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 \$600 00

By appropriation, \$600.

## PUBLIC COMMONS.

Paid :

Workmen, as per pay rolls . . . . .	\$143 14
City of Medford, Water Dept. use of water and pipe fittings . . . . .	145 01
Edward P. Adams, architectural services . . . . .	30 52
Shady Hill Nursery Co., shrubs, etc. . . . .	81 77
Nathaniel B. Durkee, labor . . . . .	223 50
William H. Chamberlain, labor . . . . .	124 75
Edward Shaw, labor . . . . .	5 00
General Lee Chappel, labor . . . . .	7 00
Alvin R. Reek, salary as clerk, 1 year to Feb. 1, 1898 . . . . .	50 00
Frank Hervey, seed . . . . .	15 96
William S. Richards, lawn mover . . . . .	6 35
Frank Hathaway, sharpening and repairing lawn mowers . . . . .	5 00
Page & Curtin, tools . . . . .	4 65
Harvey Wright, iron work . . . . .	2 00
Nason B. Cunningham, repairing flag-pole . . . . .	10 00
Forbes Lithograph Mfg. Co., plates . . . . .	8 50

Charles D. Tucker, stationery . . . .	\$ 50
J. C. Miller, Jr., printing . . . .	1 75
A. W. Robinson, expressing . . . .	2 25
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By appropriation, \$875.	\$867 65

## POLICE DEPARTMENT.

## SALARIES OF POLICEMEN.

Paid :	
Emery D. Holmes, Chief of Police 1 year to Feb. 1, 1898 . . . . .	\$1,200 00
Police officers, as per pay rolls . . . .	14,929 70
	<hr/>
	\$16,129 70
Transferred to another account . . . .	300 00
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By appropriation, \$16,430.	\$16,429 70

## SPECIAL POLICE.

Paid :	
Special police officers, as per pay rolls . . . .	\$1,156 25
New England Tel. & Tel. Co., rental and tolls	509 64
Malden Electric Co., light . . . . .	382 75
Malden & Melrose Gas Light Co., gas . . . .	16 64
Charles H. Day, clipping horses and carriage hire	285 36
George L. Newhall, carriage hire . . . . .	4 00
John R. Chafey, use of team . . . . .	3 00
William F. Stevens, use of team . . . . .	3 00
John A. Smith, sawdust and use of team . . . .	3 05
Myrie Perham, hack hire . . . . .	50
John C. Gillis, rent of stable . . . . .	130 00
George H. Duncklee, difference in exchange of horses . . . . .	125 00
John F. Welch, storage and boarding horse . . .	19 35
Luke Coyne, horse shoeing . . . . .	29 91
Arthur C. Symmes, stock, labor and horse-shoe- ing . . . . .	153 50

Malden Veterinary Hospital, veterinary services	\$74 00
Snow Flake Axle Grease Co., stable supplies	2 00
J. C. Cutting, D. V. S., professional services and medicines . . . . .	26 00
Daniel N. Howard, medicines . . . . .	10 70
Herbert Etter, liniment . . . . .	1 00
Charles H. Hartshorn, stable supplies and re- pairing . . . . .	23 60
James Bean, coal, hay and grain . . . . .	328 58
Joseph Hellen, coal . . . . .	332 69
J. Henry Hemphill Coal Co., coal . . . . .	5 75
Adolph A. Kuehl, picture frame . . . . .	1 75
G. N. Cronk, photographs . . . . .	6 00
Mrs. S. G. Bullard, photographs . . . . .	1 00
J. C. Miller, Jr., stationery and printing . . . . .	17 25
Charles D. Tucker, stationery . . . . .	15 00
Edward B. Dennison, typewriting . . . . .	75
F. S. Blanchard & Co., book . . . . .	1 50
Little, Brown & Co., Mass. Statutes . . . . .	7 30
W. A. Greenough & Co., directory . . . . .	2 00
L. H. Lane, extra copies annual report . . . . .	7 00
Bride & Ames, glass . . . . .	14
Frederick A. Folsom, glass . . . . .	85
City of Medford, Water Dept., water . . . . .	25 00
W. J. Wood Ice Co., ice, one year to April 1, 1897 . . . . .	14 00
James H. Brewster, travelling expenses, etc. . . . .	6 50
Emery D. Holmes, cash paid for sundries . . . . .	22 30
William G. Golding, cash paid for car fares, etc. . . . .	4 84
John B. A. Buffam, cash paid for car fares . . . . .	1 28
George H. Lenox, cash paid for travelling expenses . . . . .	2 65
Patrick Sullivan, labor . . . . .	1 00
Annie Melonson, meals furnished . . . . .	5 05
William S. Barker & Son, crackers . . . . .	35 40
William G. Ewell, cash paid for insignia . . . . .	6 36
Benjamin F. Lenox, janitor service . . . . .	8 00

Wellman Sole Cutting Mch. Co., repairing . . . . .	75
William B. Emery, repairing chairs, padding cell, etc. . . . .	\$71 25
John Pace, stock and labor on doors . . . . .	6 75
W. G. Poole, repairing roof . . . . .	3 00
F. E. Foster & Co., lumber . . . . .	82
Page & Curtin, hardware, etc. . . . .	23 22
William Read & Sons, belts, etc. . . . .	35 94
Sulpo-Napthol Co., sulpho-napthol . . . . .	22 25
A. W. Mitchell Mfg. Co., police badges and supplies . . . . .	54 15
Albert B. Franklin, grate bars, etc. . . . .	100 00
Albert Hale & Co., rubber goods . . . . .	6 25
Oliver Whyte & Co., nickel plating . . . . .	10 00
C. M. Kimball, metal polish . . . . .	1 80
Underhill Oil Co., oil . . . . .	1 75
McPhail & Traves, dust preparation and can . . . . .	2 00
A. L. Babcock, flue cleaner . . . . .	2 75
Lothrop-Spooner Mfg. Co., S. G. finish . . . . .	4 00
Crockwell Bros., signal boxes and keys . . . . .	18 00
Frank Hervey, supplies . . . . .	22 51
George S. Delano, iron bed and springs . . . . .	36 00
Austin F. Crocker, shade roller . . . . .	20
William P. Treet, white gloves . . . . .	1 62
Mary Wall, washing and ironing . . . . .	55 03
Donoghue's Express, expressing, . . . . .	25
Smith, M. & B. Express, expressing . . . . .	25
Chase's M. & B. Express, expressing . . . . .	1 10
American Express Co., expressing . . . . .	25
G. A. Colman, conveying men to Mystic Park . . . . .	3 75
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	\$4,304 83
By appropriation, \$4,000 00	
By receipts, 10 00	
By transfer, 300 00	
	<hr/>
	\$4,310 00

## PUBLIC LIBRARY DEPARTMENT.

## GENERAL EXPENSES.

Library employees, as per pay-rolls . . . . .	\$3,201 00
Little, Brown & Co., books . . . . .	525 14
Lothrop Pub. Co., books . . . . .	21 60
J. B. Millet Co., books . . . . .	64 50
A. L. A. Pub. Section, books . . . . .	99 42
D. Appleton & Co., books . . . . .	13 29
Burrows Bros. Co., books . . . . .	14 00
Frank R. Gale, books . . . . .	7 50
Publisher's Weekly, books . . . . .	7 18
C. A. Koshler & Co., books . . . . .	9 76
Estes & Lauriat . . . . .	11 25
Ginn & Co., books . . . . .	6 42
Jordan, Marsh & Co., books . . . . .	23 26
Longmans, Green & Co., books . . . . .	13 00
Boston Book Co., books . . . . .	7 00
H. S. Inman, books . . . . .	22 50
D. H. Hurd & Co., books . . . . .	30 00
Mrs. B. E. Perry, books . . . . .	4 85
DeWolfe, Fiske & Co., books . . . . .	32 07
Houghton, Mifflin & Co., books . . . . .	15 10
Railroad Gazette, books . . . . .	5 00
Bradlee Whidden, books . . . . .	7 00
Bureau American Republics, books . . . . .	5 00
Zella Allen Dixson, books . . . . .	2 14
Charles F. Libbie & Co., books . . . . .	48 21
Balch Bros., books . . . . .	4 00
The Young Idea, books . . . . .	1 40
Oliver Ditson Co., books . . . . .	1 00
D. C. Heath & Co., books . . . . .	4 45
N. J. Bartlett & Co., books . . . . .	50 68
Samuel N. Rhoads, books . . . . .	1 00
J. T. Hosford, books . . . . .	3 50
Mrs. Sarah S. Smith, books . . . . .	5 00
William B. Harrison, books . . . . .	2 50
Lemcke & Buchner, books . . . . .	4 00

H. C. Cormack, books . . . . .	\$5 00
F. S. Blanchard & Co., books . . . . .	1 50
Journal of Commerce, books . . . . .	1 50
Sampson, Murdock & Co. . . . .	2 00
Raoul Renault . . . . .	3 00
Medford Mercury, subscription and advertising . . . . .	8 05
Frank H. Peak, periodicals and stationery for one year to January 1, 1898 . . . . .	360 76
L. H. Lane, extra copies Trustees Report . . . . .	9 00
Library Bureau, London, bookbinding . . . . .	57 54
George Watson, bookbinding . . . . .	67 05
W. T. Sadlier, rebinding . . . . .	7 92
Cleveland Public Library, subscription to Cumulative Index . . . . .	5 00
Susan C. B. Tillinghast, mending books . . . . .	8 00
Tuttle, Morehouse & Taylor, rebinding . . . . .	5 00
Boston Bookbinding Co., binding and repairing . . . . .	164 51
Frederick Eeles & Co., rebinding . . . . .	16 74
Charles D. Tucker, stationery . . . . .	32 21
J. C. Miller, Jr., printing, cards, etc. . . . .	72 57
A. B. Morse, printing . . . . .	3 75
Dennison Mfg. Co., supplies . . . . .	14 14
Library Bureau, index cards, slips, etc. . . . .	66 88
F. L. Sawtell, paper . . . . .	7 60
Hammond Typewriter Co., account of ex- change of typewriters . . . . .	48 00
Hammond Typewriter Co., charges on shuttle, etc. . . . .	10 75
Peabody-Whitney Co., baskets . . . . .	3 79
Thorp & Martin Co., office supplies . . . . .	2 70
H. P. Cummings, book rack and labor . . . . .	13 98
Gaylord Bros., adhesive parchment paper . . . . .	2 15
V. H. Hall & Co., twine . . . . .	6 99
J. F. Cabot & Brother, wire, moulding, hooks, etc. . . . .	2 57
Ethan A. Paddock, repairing tree protectors . . . . .	4 50
India Alkali Works, savogran . . . . .	8 59

Austin F. Crocker, towels and cloth . . .	\$4 43
William P. Treet, cloth . . . . .	1 50
Malden & Melrose Gas Light Co., gas . . .	127 00
Malden & Melrose Gas Light Co., Welsbach lights	36 45
Malden Electric Co., light . . . . .	221 18
Page & Curtin, hardware, etc. . . . .	60 11
Charles R. Dawson, stock and labor . . .	14 80
James H. Archibald, stock and labor . . .	27 73
L. T. Graves, repairing chairs . . . . .	13 75
Amos C. Lauriat, labor . . . . .	3 60
Joseph Hellen, coal . . . . .	315 34
James Bean, coal and wood . . . . .	197 23
F. E. Foster & Co., lumber . . . . .	17 34
George H. Rendall, ice . . . . .	8 40
City of Medford, sewer assessment . . . .	86 74
City of Medford, water department . . .	8 00
Albert Treadwell, photographs of library .	3 75
William E. Ober, repairing telephones, etc. .	2 00
Mary E. Sargent, cash paid for freight . .	8 16
American Express Co., expressing . . . .	8 83
Chase's M. and B. Express, expressing . . .	11 65
Smith's M. and B. Express, expressing . . .	2 35
Edward M. Peters, labor and messenger charges	31 93
Ralph Horton, messenger charges, etc . . .	3 79
Barclay Fernald, services in lighting . . .	4 00
Andrew P. Perry, services as agent at Wellington, 1 year to February 1, 1898 . . . . .	35 00
William H. Babb, services as agent at West Medford, 1 year to February 1, 1898 . . .	30 00
Allen Bros., stamps, etc. . . . .	4 00
Charles A. Brackett, cloth boxes . . . . .	1 05
J. L. Fairbanks, stationery, etc. . . . .	3 20
By appropriation, \$4,500 00	\$6,590 77
By receipts, 1,491 25	
By transfer, 600 00	
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	\$6,591 25



## RELIEF OF POOR DEPARTMENT.

## SALARIES OF OVERSEERS.

Paid :	
Calvin H. Clark, chairman, 1 year to March 1, 1898	\$500 00
William C. Craig, 1 year to March 1, 1898	50 00
John Crowley, 1 year to March 1, 1898	50 00
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	\$600 00
By appropriation, \$600.	

## ALMSHOUSE.

Paid :	
Richard B. Newcomb, salary as superintendent	\$700 04
Winnie Card, services	128 55
Agnes Johnson, services	85 73
Mary Reardon, services	17 14
Lilian Sterret, services	157 68
Mary Pooler, services	17 72
Sadie Watkins, services	34 86
Mary Sweeney, services	35 44
Mary Reynolds, services	17 72
Annie Hart, services	26 58
James Ray, labor	60 00
B. H. Parker, labor	4 00
Malden & Melrose Gas Light Co., gas	116 12
New England Tel. & Tel. Co., rental and tolls	70 50
F. A. Folsom & Co., electric supplies	2 15
Ames Plow Co., tools and supplies	13 88
Schlegel & Fottler, seeds	7 67
Joseph Breck & Sons, seeds	1 40
Henderson Bros., wagon	120 00
Charles H. Hartshorn, stable supplies and repairing	36 20
Harvey Wright, horse shoeing and repairing	15 65

## EXPENDITURES.

289

William H. Grothe, horse shoeing and repairing	\$20 78
Medford Ice Co., ice - - - - -	35 00
City of Medford, Water Dept., water for 1 year to February 1, 1898 - - - - -	32 00
Blodgett, Ordway & Webber, clothing - -	52 29
S. Vorenberg & Co., clothing - - -	72 25
Arthur S. Crowell, dry goods - - -	8 21
William P. Treet, dry goods - - -	18 15
Austin F. Crocker, dry goods - - -	34 89
J. Frank Twiss, dry goods - - - -	33 95
Marion R. Dalgleish, hat - - - -	50
Houghton & Dutton, rug and clothing - -	10 50
Daniel P. Cunningham, boots and shoes -	12 70
Charles W. Jacobs, boots and shoes - -	37 15
Yerxa & Yorxa, groceries - - - -	176 81
Fred W. Montague, groceries - - -	40 23
Frank Hervey, groceries - - - -	38 21
William N. Curtis, groceries - - -	62 27
Simpson, McIntire & Co., groceries - -	106 13
Charles D. Archibald, groceries - - -	43 60
Oriental Tea Co., tea and coffee - - -	24 00
Frederick C. Small, coffee - - - -	5 00
Small & Jones, coffee - - - -	9 00
Edward S. Randall, groceries and provisions -	238 61
Charles R. Drew, provisions - - - -	171 17
Thomas Hull, provisions - - - -	131 73
Frank E. Pierce, fish - - - -	50 91
Jewett & Frost, fish - - - -	50 38
John Crowley, provisions - - - -	58 49
Croudís & Larkiu, provisions - - -	46 14
George A. Croudís, provisions - - -	105 75
William H. McGowan, provisions - - -	103 64
Daniel N. Howard, medicines and sundries -	30 10
John A. Morgan, medicines and sundries -	38 03
Joseph P. Kerrigan, medicines and sundries -	5 95
Charles W. Smith, medicines and sundries -	20 40

S. W. Farwell, medicines and sundries . . .	-	\$10 80
The Weed Drug Co., medicines and sundries -	-	9 90
Samuel Highley, medicines and sundries . . .	-	50
Cottle & Pitcher, liquors for medicinal purposes		7 00
James Beann, hay, grain and coal - - -	-	107 20
J. E. Ober & Son, meal, hay and coal - -	-	302 34
J. N. Cowin & Co., meal, corn, etc. - -	-	92 39
Joseph Hellen, coal - - - - -	-	186 44
New England Soap Co., soap - - -	-	10 86
Crockwell Bros., stock and labor - - -	-	8 75
F. E. Foster & Co., lumber - - -	-	22 76
Richard Gibson, repairs on roof - - -	-	5 96
Page & Curtin, hardware, etc. - - -	-	37 22
Michael F. Dwyer, hardware, etc. - -	-	9 75
Brown & Mills, window seat - - -	-	3 00
J. W. Mann, window frame - - -	-	1 10
Moses C. Vinal, mason work - - -	-	1 50
Arthur C. Symmes, iron bar - - -	-	70
Willard B. Emery, labor and repairs - -	-	9 98
Charles Cummings, pigs - - - -	-	10 00
J. F. Carter, killing pigs - - - -	-	3 00
Frank Gibbs, service - - - -	-	3 00
Charles D. Tucker, stationery, etc. - -	-	2 40
Bride & Ames, paints, etc. - - - -	-	13 26
Charles R. Dawson, paints, etc. - - -	-	5 48
A. A. White & Co., paints, etc. - - -	-	18 30
H. Riley's Sons, repairs on gutter - -	-	4 35
C. W. Lerner & Co., disinfectant - - -	-	15 00
India Alkali Works, savogran - - -	-	4 73
Royal Cross Chemical & Odorless Cabinet Co., cabinet - - - - -	-	7 00
Quincy Market Cold Storage Co., storage -	-	8 15
William S. Barker, & Son, bakers' supplies -	-	9 92
Allston P. Joyce, City Clerk, dog license -	-	2 00
George S. Delano, mattresses - - -	-	13 25
William S. Richards, tinware, repairs, etc. -	-	36 69

## EXPENDITURES.

291

Cleopas B. Johnson, filing saws - - -	\$2 25
A. W. Robinson, expressing - - -	1 05
McClellan's M. & B. Express, expressing -	3 20
Chase's M. & B. Express, expressing - -	85
Smith's M. & B. Express, expressing - -	4 50
Welch's Express, expressing - - -	3 30
Richard B. Newcomb, cash paid for sundries -	21 89
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	\$4,615 67
By appropriation, \$4,500 00	
By receipts, 220 41	
	<hr/>
	\$4,720 41

## OUTSIDE RELIEF.

Paid :

Danvers Lunatic Hospital, board - - -	\$716 84
Worcester Insane Asylum, board - - -	338 93
Medfield Insane Asylum, board - - -	438 00
Westborough Insane Hospital, board - -	187 58
Taunton Lunatic Hospital, board - - -	338 92
Mass. Hospital for Dipsomaniacs and Inebriates board - - - - -	196 00
City of Haverhill, aid rendered - - -	54 15
City of Lowell, aid rendered - - -	128 45
City of Boston, aid rendered - - -	387 12
Town of Norwood, aid rendered - - -	121 00
Commonwealth of Massachusetts, support of sundry persons - - - - -	642 96
Mrs. H. B. Parker, board - - - -	104 00
Mrs. Lucia J. Curtis, board - - - -	130 00
Mrs. Catherine Martin, board - - -	3 00
Mrs. Emma J. Ordway, board - - -	27 15
Mrs. Laura Peak, board - - - -	3 00
Mrs. Catherine O'Brien, board and clothing -	130 81
Joseph E. Clark, M. D., attendance - -	5 00
Mrs. Ellen Murray, nursing - - - -	10 00

Annie Malony, nursing - - - - -	\$30 00
Mary J. Keen, washing - - - - -	2 00
George Nichols, burials - - - - -	50 00
John C. Gillis, burial - - - - -	15 00
Trustees Oak Grove Cemetery, grave - - - - -	6 00
Adeline Baker, cash allowance - - - - -	17 50
Catherine M. Clark, cash allowance - - - - -	108 00
Elizabeth Walter, cash allowance - - - - -	26 00
Caroline E. Shearer, cash allowance - - - - -	101 50
Bridget Hauley, cash allowance - - - - -	104 00
Mary Carroll, cash allowance - - - - -	43 00
Edward A. Hathaway, cash allowance - - - - -	62 00
John J. McCarty, cash allowance - - - - -	7 00
Martin B. Sloun, cash allowance - - - - -	57 00
Neil McGinnis, cash allowance - - - - -	40 00
Joseph Hellen, coal and wood - - - - -	193 23
James Bean, coal and wood - - - - -	13 00
J. E. Ober & Son, groceries, coal and wood - - - - -	198 06
J. Henry Hemphill Coal Co., coal - - - - -	3 20
J. N. Cowin & Co., wood - - - - -	4 40
Kerrigan & Gunning, medicines - - - - -	85
Daniel N. Howard, medicines - - - - -	179 08
Samuel Highley, medicines - - - - -	5 05
John A. Morgan, medicines - - - - -	45 60
Edmund S. Crawley, medicines - - - - -	3 60
Charles W. Smith, medicines - - - - -	3 00
Edward Farrar, medicines - - - - -	1 40
H. E. Bowman, medicines - - - - -	2 05
Joseph P. Kerrigan, medicines - - - - -	14 25
John W. Enright, medicines - - - - -	1 85
John H. McQuade, extracting teeth - - - - -	1 50
Charles W. Jacobs, boots and shoes - - - - -	44 20
Thomas C. Newcomb, boots and shoes - - - - -	9 30
Edward S. Randall, groceries and provisions - - - - -	305 50
Frank P. Kent, groceries and provisions - - - - -	97 00
Frank H. Lovering, groceries and provisions - - - - -	99 50

## EXPENDITURES.

293

Ford Bros., groceries and provisions	- -	\$42 50
Thomas H. Tomlinson, groceries and provisions		130 00
Hughson & Brown, groceries and provisions	-	42 50
Thomas D. Collins, groceries and provisions	-	7 50
William H. McGowan, provisions	- - -	49 50
Charles R. Drew, provisions	- - - -	20 50
Croudin & Larkin, provisions	- - -	14 00
George A. Croudin, provisions	- - -	52 25
John Crowley, provisions	- - - -	1 00
Fletcher Clark, groceries and fuel	- - -	27 00
Fred W. Montague, groceries	- - -	229 25
Frank Hervey, groceries	- - - -	182 25
Andrew P. Perry, groceries	- - - -	95 00
Yerxa & Yerxa, groceries	- - - -	90 00
Charles H. Brewer, groceries	- - - -	35 00
David J. Clark, groceries	- - - -	97 00
William N. Curtis, groceries	- - - -	96 50
Hugh F. Mellen, groceries	- - - -	30 00
Silas E. Baker, groceries	- - - -	2 50
Medford Branch, groceries and provisions	-	115 50
Samuel C. Goodwin, groceries and provisions	-	318 00
Nathan A. Johnson, groceries and provisions	-	62 50
John E. Tirrell, milk	- - - -	13 51
Frank A. Oxnard, milk	- - - -	7 00
James Dinsmore, carriage hire	- - -	6 00
Charles W. Dailey, use of ambulance	- -	35 00
Charles H. Day, use of buggy	- - -	1 00
Edward W. Hayes, cash paid for freight	-	11 32
Edward W. Hayes, cash paid for stamps	-	5 95
Edward W Hayes, extra services rendered	-	100 00
T. Moran, moving furniture	- - - -	6 00
Myric Perham, moving furniture	- - -	4 00
Calvin H. Clark, cash paid to Hannah Casey	-	2 10
Calvin H. Clark, cash paid for sundries	- -	25 09
Codman & Shurtleff, belt	- - - -	10 00
Eliza L. Wing, bed and mattress	- - -	6 50

Charles D. Tucker, alarm clock	-	-	-	\$1 50
J. C. Miller, Jr., printing and stationery	-	-	-	26 75
L. H. Lane, extra copies annual report	-	-	-	9 00
				<hr/>
				\$7,868 50
By appropriation, \$5,000 00				
By receipts,	2,224 18			
				<hr/>
				\$7,224 18

### SCHOOL DEPARTMENT.

#### SALARIES OF COMMITTEE AND SECRETARY.

##### Paid :

Charles N. Jones, member and secretary	-	-	-	\$250 00
Rosewell B. Lawrence, member	-	-	-	50 00
William Cushing Wait, member	-	-	-	50 00
George E. Davenport, member	-	-	-	50 00
Sidney Gleason, member	-	-	-	50 00
Gustavus F. Guild, member	-	-	-	50 00
William H. Hodgman, member	-	-	-	50 00
Amanda H. Plummer, member	-	-	-	50 00
Mary Inez Wood, member	-	-	-	50 00
				<hr/>
By appropriation, \$650.				\$650 00

#### SALARIES OF SUPERINTENDENT AND TEACHERS.

##### Paid :

Superintendent and teachers, as per pay-rolls	-	\$60,294 92
By appropriation, \$58,645 00		
By transfer,	1,652 42	
		<hr/>
		\$60,297 42

#### STEWARDSHIP.

##### Paid :

Stewards and engineer, as per pay-rolls	-	-	\$6,507 56
Transferred to another account	-	-	92 00
			<hr/>
By appropriation, \$6,600.			\$6,599 56

## CONTINGENT.

## Paid :

Richard Gibson, stock and labor	-	-	-	\$39	74
William F. Alden, stock and labor	-	-	-	16	81
Alexander P. LaChapelle, stock and labor	-	-	-	29	73
J. Everett Pierce, stock and labor	-	-	-	3	20
Otto Neilson & Co., stock and labor	-	-	-	40	13
Frederick A. Blakeslee, stock and labor	-	-	-	13	20
Nason B. Cunningham, stock and labor	-	-	-	82	77
Henry S. Bird, stock and labor	-	-	-	19	61
Moses C. Vinal, stock and labor	-	-	-	25	08
City of Medford, Sewer Dept., stock and labor	-	-	-	26	04
William S. Richards, stock and labor	-	-	-	180	96
James H. Archibald, stock and labor	-	-	-	71	32
Patrick Greaney, stock and labor	-	-	-	2	50
Charles L. Batchelder, stock and labor	-	-	-	20	45
Charles L. Batchelder, extra work at Everett schoolhouse	-	-	-	45	00
Ham & Hopkins, carpentry	-	-	-	21	85
Charles E. Curtis, carpentry	-	-	-	6	50
F. E. Foster & Co., lumber	-	-	-	56	98
Arthur C. Symmes, iron work	-	-	-	8	64
Page & Curtin, hardware, etc.	-	-	-	151	48
J. E. Ober, coal, oil, hardware, etc.	-	-	-	27	39
Alley & Littlefield, lumber	-	-	-		68
Burditt & Williams, hardware	-	-	-	12	00
J. O. Wetherbee, hard wood	-	-	-	4	62
M. C. Warren & Co., ash barrels and hardware	-	-	-	69	82
James W. Vinal & Co., hardware, etc.	-	-	-	8	42
Chelmsford Foundry Co., iron work	-	-	-	23	75
E. L. Fitzhenry & Co., machinists' tools	-	-	-	38	72
J. A. Cross & Son, slating	-	-	-	121	35
J. L. Hammett Co., slating	-	-	-	24	75
Blodgett Bros., electrical supplies	-	-	-	2	10
J. F. Bubert, electrical supplies	-	-	-	9	80
William E. Ober, electrical supplies	-	-	-	5	07



George W. Prowse, electrical work . . . . .	\$33 65
F. A. Folsom, electric and gas fixtures . . . . .	15 21
Johnson Electric Service Co., repairing heat regulating apparatus . . . . .	25 12
Malden Electric Co., light and lamps . . . . .	145 22
Malden & Melrose Gas Light Co., gas . . . . .	60 67
George S. Perry, flag and staff . . . . .	2 75
Albert Winslow, flags and repairing . . . . .	27 88
George L. Goodale, repairing flag . . . . .	29 65
Irving W. Wheeler & Co., repairing flag . . . . .	1 00
J. M. Brown, repairing flags . . . . .	4 00
J. A. Glass, window shades . . . . .	13 55
William J. Hixon, repairing shades . . . . .	50
Bride & Ames, setting glass . . . . .	2 50
Judson Dykeman, setting glass . . . . .	3 50
Henry A. Gates, painting . . . . .	2 00
William F. Merson, painting, glazing and extra work . . . . .	74 25
Reuben L. Gallup, painting . . . . .	3 50
Charles R. Dawson, painting and glazing . . . . .	51 42
William M. Hilton, painting . . . . .	4 65
Charles H. Walley, painting . . . . .	7 25
Charles C. Bartlett, glazing . . . . .	50
John E. Nickerson & Co., oil . . . . .	79 75
Vacuum Oil Co., oil . . . . .	16 25
John C. Ross, whitewashing . . . . .	17 00
Louis A. Siebers, plumbing . . . . .	13 50
A. M. Higgins & Co., plumbing . . . . .	12 70
William Howe, repairing desks, oiling floors, etc. . . . .	128 25
William H. Wood, oiling floors, etc., . . . . .	25 00
E. Boker, oiling floors . . . . .	5 00
Nicholas White, removing ashes . . . . .	6 00
R. M. Johnson, cleaning vaults . . . . .	20 00
J. W. Brogan, loam and teaming . . . . .	10 40
Frank E. Reed, sharpening mowers . . . . .	2 00

## EXPENDITURES.

297

C. E. Barrows, sharpening mowers . . .	\$1 75
Frank Hathaway, sharpening mowers . . .	3 00
Wellman Sole Cutting Mch. Co., repairing . . .	75
Michael F. Dwyer, repairing . . .	1 00
William H. Grothe, repairing . . .	1 85
L. R. Hall & Co., keys and repairing . . .	2 25
M. J. Cosgrove, labor . . .	3 60
Milton Barnes, labor . . .	3 00
M. Johnson, labor . . .	1 00
Andrew Carlson, labor . . .	3 25
Thomas Shine, labor . . .	4 00
Jacob W. Manning, plants . . .	5 75
Schlegel & Fottler, seeds, etc. . .	31 95
Frank Hervey, seeds . . .	7 00
Smith's M. & B. Express, expressing . . .	50
Donoghue's Express, expressing . . .	3 90
McClellan's M. & B. Express, expressing . . .	25 99
John A. Smith Express, expressing . . .	28 45
Myric Perham, carriage hire . . .	50
Derby Desk Co., oak table . . .	25 20
George S. Perry, school furniture and supplies	1,563 73
Franklin Educational Co., students' dissecting stands . . .	24 10
Morse Bros, document boxes . . .	9 00
Thomas Groom & Co., record books . . .	9 00
James J. Shannon & Co., typewriting supplies	12 45
Hill, Whitney Aluminum Co., drinking cups . . .	48 00
Estey Organ Co., piano . . .	50 00
John F. Perkins, tuning pianos, 1 year to Janu- ary 1, 1898 . . .	40 00
Library Bureau, index cards, etc. . .	8 05
William Read & Sons, equipment, etc. . .	42 60
Sulpho-Naphthol Co., sulpho-naphthol . . .	47 50
Murphy, Leavens & Co., brushes, dusters, etc.	124 29
Oak Hall Clothing Co., chevrons . . .	6 75
S. N. Ufford & Son, figure forms . . .	14 00

Isaac Coffin & Co., valves, etc. . . . .	\$1 70
P. P. Caproni & Bros., labor and moulding . . . . .	7 95
Putnam Machine Co., balance due for turning lathe . . . . .	20 00
Chandler & Barber, tools . . . . .	10 24
Jordan, Marsh & Co., oil cloth, etc. . . . .	11 96
Waldo Bros., fire clay . . . . .	75
Oliver Whyte & Co., wire goods . . . . .	119 60
A. J. Wilkinson, try squares . . . . .	4 02
A. A. Sanborn, washers . . . . .	70
H. T. Ball, glass . . . . .	75
Asa W. Brown, window seats . . . . .	3 50
Conants' Photographic Studio, frame . . . . .	4 00
H. L. Cobb, box for Kindergarten . . . . .	1 87
E. C. Paige, box for charts . . . . .	1 00
Charles H. Hartshorn, blanket . . . . .	1 00
Horace E. Baker, Jr., screens . . . . .	13 53
Carolyn Patten Swett, books, bottles, etc. . . . .	5 85
William E. Bentley, clocks . . . . .	3 00
Charles D. Tucker, clocks, cleaning and repair- ing clocks, etc. . . . .	101 31
Marion R. Dalglish, ribbon . . . . .	8 50
L. H. Lane, extra copies annual report . . . . .	40 00
Robert Burlen, binding annual report in cloth . . . . .	12 00
Thorp & Martin Co., stationery . . . . .	7 70
Greenough, Adams & Cushing, stationery . . . . .	6 00
Conn. State Board of Education, publications . . . . .	2 00
H. W. Kibbe, filling out diplomas, etc. . . . .	28 80
American Bank Note Co., engraving and print- ing diplomas . . . . .	316 25
Medford Mercury, advertising . . . . .	12 00
J. C. Miller, Jr., printing and stationery . . . . .	120 60
Charles H. Morss, cash paid for sundries . . . . .	28 20
Frank P. Pierce, cash paid for sundries . . . . .	6 00
Rosewell B. Lawrence, cash paid for sundries . . . . .	10 73
William S. Childs, taking census . . . . .	100 00

## EXPENDITURES.

299

George H. Lovering, services as truant officer	\$67 50
Henry F. Moore, services as truant officer to Feb. 1, 1898 . . . . .	90 00
Rev. William H. Ryder, address to High School graduates . . . . .	20 00
Rev. Henry C. DeLong, address to Grammar School graduates . . . . .	20 00
Dr. Charles M. Green, lecture . . . . .	25 00
Rev. John Barstow, rent of room 4 months to Jan. 27, 1898, inclusive . . . . .	60 00
Ralph W. Redding, rent of room 1 year to Feb. 1, 1898 . . . . .	240 00
George L. Sleeper, rent of room from April 5, 1897 to Feb. 5, 1898 . . . . .	275 00
New England Tel. & Tel. Co., rental and tolls	80 80
Frank Dowell, labor on windows . . . . .	7 50
Marvelous Compound Co., compound . . . . .	3 00
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	\$6,109 55
By appropriation, \$6,000 00	
By receipts, 17 86	
By transfer, 92 00	
	<hr/>
	\$6,109 86

## EVERETT SCHOOLHOUSE REPAIRS.

Paid :

James H. Archibald, for repairs as per contract	\$1,462 00
George S. Perry, furniture, stock and labor . . . . .	234 53
Page & Curtin, stock and labor . . . . .	28 36
Wales & Holt, architectural services . . . . .	75 00
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By appropriation, \$1,800.	\$1,799 89

## EVENING SCHOOL.

Paid :

Teachers and steward, as per pay rolls . . . . .	\$770 50
Malden Electric Co., light . . . . .	142 88
Charles H. Oliver, cash expended . . . . .	5 95

Medford Mercury, advertising . . . . .	\$5 00
J. C. Miller, Jr., printing . . . . .	3 75
William F. Alden, distributing posters . . . . .	2 50

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 \$930 58

By appropriation, \$1,200.

## FUEL.

Paid :

J. E. Ober & Son, coal . . . . .	\$1,464 26
Joseph Hellen, coal . . . . .	1,955 90
James Bean, wood and coal . . . . .	2,789 45
John McCarty, charcoal . . . . .	187 50

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 \$6,397 11

By appropriation, \$5,000.

By Transfer, 1,400.

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 \$6,400.

## TEXT BOOKS AND SUPPLIES.

Paid :

Thompson, Brown & Co., books . . . . .	\$293 74
Lee & Shepard, books . . . . .	43 09
Silver, Burdett & Co., books . . . . .	322 80
Houghton, Mifflin & Co., books . . . . .	374 49
Ginn & Co., books . . . . .	859 58
D. C. Heath & Co., books . . . . .	86 02
H. E. Holt, books . . . . .	58 25
Henry Holt & Co., books . . . . .	22 40
T. H. Castor & Co., books . . . . .	59 60
American Book Co., books . . . . .	163 04
Willard Small, books . . . . .	181 49
Bradlee Whidden, books . . . . .	5 40
Leach, Shewell & Sanborn, books . . . . .	84 00
William Ware & Co., books . . . . .	139 09
Lothrop Pub. Co., books . . . . .	31 00
Moynard, Merrill & Co., books . . . . .	35 05

Allyn & Bacon, books . . . . .	\$44 18
Edward E. Babb & Co., books . . . . .	69 63
The Macmillan Co., books . . . . .	92 35
D. Appleton & Co., books . . . . .	8 88
American Humane Education Society, books . . . . .	3 00
Frederick Eeles & Co., books . . . . .	7 50
University Publishing Co., books . . . . .	5 00
W. A. Greenough & Co., directory . . . . .	2 00
Board of Topographical Survey, atlas of Mass. . . . .	4 25
Popular Astronomy, subscription . . . . .	2 50
F. J. Barnard & Co., rebinding . . . . .	82 25
George F. King & Co., ledgers . . . . .	8 00
The Fairbanks Co., scales . . . . .	9 00
George F. King & Merrill, paper . . . . .	17 00
Greenough, Adams & Cushing, blank books, paper, etc. . . . .	378 38
Thorp & Martin Co., blank books, files, etc. . . . .	11 80
Thomas Groom & Co., blanks, etc. . . . .	18 50
J. C. Miller, Jr., stationery . . . . .	65 35
Mrs. Will C. Morse, note-book covers . . . . .	3 99
Allen Bros., rubber-type, etc. . . . .	5 75
C. S. Downes, topographical sheets . . . . .	2 00
A. J. Wilkinson & Co., tools, glue, etc. . . . .	24 52
Hammacher, Schlemmer & Co., sloyd knives . . . . .	48 60
Underhill Bros., sharpening tools, etc. . . . .	8 34
J. O. Wetherbee, hardwood . . . . .	24 28
P. P. Caproni & Bro., drawing models . . . . .	9 03
Franklin Educational Co., apparatus . . . . .	4 50
Frost & Adams Co., school supplies . . . . .	24 21
J. L. Hammett Co., school supplies . . . . .	334 55
George S. Perry & Co., school supplies . . . . .	1,332 29
Mrs. E. T. Curtis, supplies . . . . .	8 00
Samuel Ward Co., supplies . . . . .	24 46
Daniel N. Howard, chemistry supplies . . . . .	4 75
James J. Shannon & Co., typewriter supplies . . . . .	2 15
William Read & Sons, military supplies . . . . .	16 00

L. E. Knott Apparatus Co., laboratory supplies	\$209 72
E. M. Drury, natural history specimens, etc.	10 20
George F. Frazar, specimens . . . . .	4 10
Marine Biological Laboratory, specimens . . . . .	5 80
Horgan, Robey & Co., photographic supplies . . . . .	2 10
H. H. & C. S. Brimley, specimens . . . . .	4 00
The Morse Co., books and maps . . . . .	80 26
Suffolk Ink Co., ink . . . . .	2 75
Austin F. Crocker, spool cotton, cloth, etc. . . . .	3 48
F. E. Foster & Co., lumber . . . . .	18 38
Page & Curtin, hardware . . . . .	70
Charles H. Morse, cash paid for sundries . . . . .	19 20
Henry F. Moore, delivering parcels . . . . .	2 05
Chase's M. & B. Express, expressing . . . . .	84 85
Smith's M. & B. Express, expressing . . . . .	1 00
Welsh's Express, expressing . . . . .	3 80
American Express Co., expressing . . . . .	14 90
John A. Smith, delivering supplies . . . . .	63 10
Louis H. Ross, music . . . . .	2 24
C. L. Batchelder, barrel of sand . . . . .	1 00
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	\$5,999 66

By appropriation, \$6,000.

#### TRANSPORTATION OF PUPILS.

Paid:

Frank T. Hook . . . . .	600 00
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By appropriation, \$600.

#### WATER.

Paid:

City of Medford, Water Dept., water . . . . .	800 00
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By appropriation, \$800.

## RECAPITULATION — SCHOOL DEPARTMENT.

	Appropriations. Receipts and Transfers.	Amount Expended.
Salaries of committee and secretary	\$650 00	\$650 00
Salaries of superintendent and teachers	60,297 42	60,294 92
Stewardship . . . . .	6,600 00	6,507 56
Contigent . . . . .	6,109 86	6,109 55
Everett Schoolhouse repairs . . . . .	1,800 00	1,799 89
Evening school . . . . .	1,200 00	930 58
Fuel . . . . .	6,400 00	6,397 11
Text books and supplies . . . . .	6,000 00	5,996 66
Transportation of pupils . . . . .	600 00	600 00
Water . . . . .	800 00	800 00
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	\$90,457 28	\$90,086 27

## SEWER DEPARTMENT.

## SALARIES OF COMMISSIONERS.

Paid one year to February 1, 1898 :

Charles H. Parker . . . . .	\$50 00
James L. Work . . . . .	50 00
John W. Rockwell . . . . .	50 00
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	\$150 00

By appropriation, \$150.

## BROOKS AND STREAMS.

Paid :

Workmen, as per pay rolls . . . . .	\$2,935 60
T. Howard Barnes, proportion of salary . . . . .	133 33
City of Medford, Sewer Construction, pipe, cement, etc. . . . .	227 37
City of Medford, Highway Department, crushed stone . . . . .	12 00



City of Medford, Sewer Department, materials furnished . . . . .	\$156 62
City of Medford, Water Department, pipes, cocks, etc. . . . .	8 15
David Lynch, brick masonry . . . . .	191 95
Edward Movhille, brick masonry . . . . .	42 00
Parry Bros. & Co., brick . . . . .	401 25
W. G. Nash, pipe . . . . .	893 18
Waldo Bros., Portland cement . . . . .	531 75
Chelmsford Foundry Co., supplies . . . . .	63 56
F. E. Foster & Co., lumber . . . . .	85 93
Bunker Hill Iron Foundry, traps . . . . .	8 00
Page & Curtin, hardware, etc. . . . .	45 55
Medford Moulding & Mantel Co., band sawing . . . . .	1 80
Riverside Wood Works, centers and profiles . . . . .	38 09
Frank Hervey, seed . . . . .	1 00
J. Connors, teaming gravel . . . . .	200 70
Charles H. Day, team hire . . . . .	18 00
Boston & Maine R. R. Co., freight . . . . .	384 04
Smith's M. & B. Express, expressing . . . . .	1 15
American Express Co., expressing . . . . .	40
Patrick McKenna, repairing rubber boots . . . . .	1 85
Charles W. Jacobs, rubber boots . . . . .	60 45
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	\$6,443 72
By balance, \$5,656 52	
By receipts, 2,319 69	
	<hr/>
	\$7,976 21

## SEWER CONSTRUCTION.

## Paid :

Workmen, as per pay-rolls . . . . .	\$26,459 87
T. Howard Barnes, proportion of salary . . . . .	1,333 30
David Lynch, mason work . . . . .	732 38
T. H. Bryne & Co., balance on account of sewer construction . . . . .	247 21

## EXPENDITURES.

305

Craib & Trumbull, balance on account of contract . . . . .	\$539 99
John Marsden, balance on account of contract . . . . .	658 30
John Booth, balance on account of contract . . . . .	70 01
New England Telegraph & Telephone Co., rental and tolls . . . . .	139 30
Malden Electric Co., light . . . . .	10 65
Perrin, Seamans & Co., pipe and supplies . . . . .	1,818 42
Berry & Ferguson, pipe and cement . . . . .	463 69
Portland Stone Ware Co., pipe . . . . .	987 01
Braman, Dow & Co., pipe . . . . .	40 00
George D. Goodrich, pipe . . . . .	6 38
Walworth Mfg. Co., pipe and fittings . . . . .	4 35
William P. Clark, castings . . . . .	75 00
Osgood & Hart, castings . . . . .	3 40
Otto Neilson & Co., pipe and labor . . . . .	60
Patrick Howley, sharpening tools . . . . .	70 69
Patrick H. Kerwan, sharpening tools . . . . .	3 30
William R. Pierce, sharpening tools . . . . .	2 88
Arthur C. Symmes, repairing tools, etc. . . . .	103 85
Daniel J. Sullivan, sharpening saws . . . . .	13 20
Cleopas B. Johnson, sharpening saws . . . . .	4 00
The Crescent Tool Co., repairing picks . . . . .	64 75
The Hancock Inspirator Co., repairing inspirator . . . . .	2 50
Burrill & Dutton, repairing saws . . . . .	2 40
John S. Williams, saddle, blankets, etc. . . . .	25 30
Peter Darcy, clipping horses . . . . .	9 00
O'Neil Bros., chestnut horse . . . . .	60 00
William H. Hitchings, veterinary services . . . . .	4 00
Daniel N. Howard, medicines, etc. . . . .	2 05
Joseph P. Kerrigan, medicines . . . . .	4 20
Kerrigan & Gunning, medicines . . . . .	3 60
J. C. Cutting, D. V. S., veterinary services . . . . .	19 00
Charles H. Hartshorn, harness fittings, etc. . . . .	43 55
Charles H. Allen, harness strap . . . . .	25
Harvey Wright, horse shoeing . . . . .	5 35

Herbert Etter, horse shoeing . . . .	\$63 13
John E. Tirrell, use of team . . . .	15 75
Charles H. Day, carriage hire . . . .	20 25
Charles R. Drew, account of damage to team .	20 00
James Bean, coal, hay and grain . . . .	48 20
J. N. Cowin & Co., hay and grain . . . .	324 61
J. E. Ober & Son, coal, oil, etc. . . .	176 77
E. & F. King & Co., chloride of lime . . .	5 74
J. A. & W. Bird, chloride of lime . . . .	7 15
Frost & Adams Co., office supplies . . .	9 00
Aaron R. Gay, account books . . . .	3 50
L. H. Lane, extra copies annual report . .	17 55
W. A. Greenough, directory . . . .	2 00
D. W. Tibbets, shades . . . .	3 00
Austin F. Crocker, mirror . . . .	50
Charles D. Tucker, stationery . . . .	10 02
J. C. Miller, Jr., stationery and printing .	53 75
William P. Treet, cloth . . . .	3 15
Mrs. Leahy, laundry work . . . .	16 41
Louis G. Bragdon, concreting . . . .	7 00
Medford Mercury, advertising . . . .	85
Charles H. Walley, setting glass . . . .	1 10
Wellman Sole Cutting Mch. Co., lathe work, etc.	3 55
E. Teel & Co., repairing wagons, etc. . .	39 95
City of Medford, Water Department, water and repairing breaks . . . .	107 09
Higgins Bros., labor . . . .	50
George W. Prowse, electrical work . . .	28 46
Patrick Connors, teaming gravel . . . .	41 40
Metropolitan Sewer Commissioners, pumping water from drain of sewer . . . .	109 50
Boston & Maine R. R. Co., labor and material	69 19
A. W. Bryue Construction Co., use of boiler on Playstead Road, etc. . . .	101 50
Daniel P. Cunningham, rubber boots . . .	53 00
Charles W. Jacobs, rubber boots . . . .	125 25

## EXPENDITURES.

307

Chester J. Pike, rubber boots . . . . .	\$33 00
Alfred Hale & Co., rubber mittens . . . . .	2 50
C. W. Holden Ins. Agency, premiums for insurance on employees . . . . .	363 26
Bernard Travis, settlement of claim for damages	600 00
W. A. Brooks, Jr., M. D., attendance at court in case of B. Travis . . . . .	60 00
T. Howard Barnes, cash paid for travelling ex- penses for self and assistants, etc. . . . .	104 96
Charles B. Buss, insurance on stable, shed and contents . . . . .	29 25
Heirs of Joseph Manning, rent of land, 1 year to Nov. 1, 1897, including taxes . . . . .	479 90
E. B. Moore, agent, rent of annex, No. 2, 1 year to Feb. 1, 1898 . . . . .	500 00
Bay State Brick Co., brick . . . . .	139 50
W. G. Nash, pipe and cement . . . . .	614 44
Bradlee, Hastings & Co., tools and supplies . . . . .	153 57
Edson Mfg. Co., hose, bolts and couplings . . . . .	58 44
Parry Bros. & Co., brick . . . . .	918 26
Charles River Iron Works, sand dryer . . . . .	23 00
Troy C. & W. Mfg. Co., cloth . . . . .	204 87
Union Glass Co., lamps . . . . .	4 85
E. R. Cheney, use of engine, etc. . . . .	64 00
Coffin Valve Co., valves . . . . .	179 70
Ross Rue, sewer braces . . . . .	20 00
Chase, Parker & Co., iron . . . . .	25 30
Boston Belting Co., hose packing . . . . .	1 65
Waldo Bros., Portland cement . . . . .	402 02
John T. Scully, pile butts . . . . .	5 00
Medford Moulding & Mantel Co., posts . . . . .	2 50
The Fairbanks Co., moulders . . . . .	18 00
Malden & Melrose Gas Light Co., coke . . . . .	5 26
A. P. LaChapelle, stock and labor . . . . .	1 65
William N. Curtis, oil, etc. . . . .	22 99
Fred W. Montague, oil, etc. . . . .	30 71

Patrick Connors (Hancock street) gravel . . . . .	\$16 00
James McCusker, sledge handles . . . . .	7 40
William H. Grothe, poker . . . . .	1 00
Page & Curtin, pipe, hardware and repairing . . . . .	1,261 18
F. E. Foster & Co., lumber . . . . .	720 62
Frank Hervey, blasting material . . . . .	162 64
Samuel T. Ash, moulding . . . . .	5 00
Edward W. Bates, top dressing . . . . .	2 55
Charles R. Dawson, setting glass . . . . .	6 45
Samuel D. McLean, clamp blocks . . . . .	5 00
City of Medford, Highway Dept., crushed stone, sharpening tools, etc. . . . .	316 00
Boston & Maine R. R. Co., freight . . . . .	752 15
Smith's M. & B. Express, expressing . . . . .	8 95
Chase's M. & B. Express, expressing . . . . .	3 50
Chamber's Express, expressing . . . . .	50
Savage's Express, expressing . . . . .	1 25
John A. Smith, expressing . . . . .	3 00
American Express Co., expressing . . . . .	30
	<hr/>
	\$43,864 62

By balance from previous year, \$94,100 52	
By receipts, 1,026 51	
By assessments, apportionments, and house connections, 7,503 40	
	<hr/>
	\$102,630 43

## SEWER MAINTENANCE.

Paid :	
Workmen as per pay-rolls . . . . .	\$830 87
City of Medford, Sewer Const., labor on man- hole covers, etc. . . . .	115 04
City of Medford, Water Department, labor . . . . .	20 09
Medford Fire Department, hose . . . . .	19 70
J. N. Cowin & Co., coal, straw and oats . . . . .	56 28
Herbert Etter, horse shoeing . . . . .	8 50

## EXPENDITURES.

309

J. C. Cutting, D. V. S., veterinary services . . . . .	\$4 50
Joseph P. Kerrigan, medicines . . . . .	40
John S. Williams, harness supplies . . . . .	7 55
Charles H. Hartshorn, harness supplies and re- pairs . . . . .	7 65
E. Teel & Co., bolts, straps, etc. . . . .	2 05
Charles W. Jacobs, boots . . . . .	3 25
Austin F. Crocker, cloth . . . . .	1 50

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 \$1,077 38

By appropriation, \$1,500.

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 WATER DEPARTMENT.

## SALARIES OF COMMISSIONERS.

(For 1 year to January 1, 1898.)

Paid:

Frank E. Chandler . . . . .	\$50 00
Eli Ayers . . . . .	50 00
Allston H. Evans . . . . .	50 00

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 \$150 00

By appropriation, \$150.

## HIGH SERVICE AND RENEWING MAINS.

Paid:

Workmen, as per pay-rolls . . . . .	\$2,513 78
Fred W. Gow, proportion of salary . . . . .	133 18
Coffin Valve Co., water gates . . . . .	303 49
Anniston Pipe Foundry Co., pipe . . . . .	1,520 55
Builders Iron Foundry, pipe . . . . .	123 94
Walworth Mfg. Co., pipe fittings and supplies . . . . .	7 50
City of Somerville, pipe . . . . .	50 91
A. P. Smith Mfg. Co., main pipe connection and gate . . . . .	50 00
Perrin, Seamans & Co., supplies . . . . .	44 33

Davis & Farnum Mfg. Co., supplies . . . . .	\$65 46
Osgood & Hart, grate top . . . . .	8 12
Fitz, Dana & Co. . . . .	180 94
Malden & Melrose Gas Light Co., coke . . . . .	12 00
Fred W. Montague, oil . . . . .	21 76
William N. Curtis, oil . . . . .	9 76
Patrick Howley, sharpening picks . . . . .	17 27
Frank Hervey, blasting material . . . . .	90
Wellman Sole Cutting Machine Co., lathe work . . . . .	225 00
City of Medford, Sewer Department, cement . . . . .	1 90
Thomas C. Newcomb, rubber boots . . . . .	3 25
Fred L. Cushing, cash paid for telegrams . . . . .	1 60
Boston & Maine R. R. Co., freight . . . . .	625 96
	<hr/>
	\$5,698 85
By appropriation, \$9,500 00	
By balance, 928 02	
	<hr/>
	\$10,428 02

## IMPROVING AND ENLARGING WATER SUPPLY.

## Paid :

Workmen as per pay-rolls . . . . .	95 59
Fred L. Cushing, cash paid J. N. Briggs . . . . .	5 00
Page & Curtin, stock and labor . . . . .	3 75
Builders' Iron Foundry, machine parts . . . . .	595 00
City of Malden, assessments on lands around Spot Pond . . . . .	111 30
Walworth Mfg. Co., pipe fittings and supplies . . . . .	1 60
	<hr/>
	\$812 24
Transferred to another account,	3,000 00
	<hr/>
	\$3,812 24
By balance, \$5,368.49	

## LAND FOR WATER DEPARTMENT.

Paid:

Heirs of F. E. Foster, land adjoining water dept., building location . . . . .	\$1,500 00
By balance, \$1,500.	

## MAINTENANCE AND INTEREST ON BONDS.

Paid:

Workmen, as per pay-rolls . . . . .	\$4,299 38
Fred W. Gow, salary for two months . . . . .	200 00
Fred W. Gow, proportion of salary for ten months . . . . .	621 62
Fred L. Cushing, salary as water registrar . . . . .	1,450 00
William H. Herrick, services as expert accountant . . . . .	120 00
Charles B. Buss, agent, insurance . . . . .	145 00
Malden Electric Co., light . . . . .	22 75
New England Tel. & Tel. Co., rentals and tolls . . . . .	209 35
Eagle Oil and Supply Co., gaskets and packing . . . . .	25 61
Perrin, Seamans & Co., tools and supplies . . . . .	41 40
G. P. Anderson, packing waste, etc. . . . .	26 92
Dean Steam Pump Co., valve springs . . . . .	9 85
Builders' Iron Foundry, zinc, packing, etc. . . . .	8 04
Coffin Valve Co., hydrant parts and repairs . . . . .	50 55
Walworth Mfg. Co., pipe fittings, etc. . . . .	6 83
Chadwick Lead Works, lead . . . . .	12 00
Chapman Valve Mfg. Co., fittings . . . . .	70
Metropolitan Water Board, pipe . . . . .	32 40
Smith & Thayer Co., grate shaker . . . . .	2 90
Hersey Mfg. Co., Hersey clock . . . . .	1 86
Union Metallic Rod & Flange Packing Co., gasket . . . . .	71
The Fairbanks Co., truck . . . . .	2 50
Scrannage Bros., grinding gauge check . . . . .	30
James W. Vinal & Co., hardware . . . . .	07
William S. Richards, hardware . . . . .	70



Page & Curtin, hardware, etc. . . . .	\$11 77
A. P. LaChapelle, file . . . . .	30
Charles A. Claffin, metal polish . . . . .	7 73
William P. Treet, cloth . . . . .	1 45
James J. Shannon & Co., office supplies . . . . .	5 98
Crosby Steam Gage & Valve Co., engine supplies . . . . .	8 80
National Meter Co., repairing meter . . . . .	21 77
Malden & Melrose Gas Light Co., mantle . . . . .	50
Snow Flake Axle Grease Co., stable supplies . . . . .	13 25
Globe Stamp Works, inking stamp . . . . .	75
Sewall & Day Cordage Co., manilla bale . . . . .	8 80
Useful Novelty Co., salt brick . . . . .	2 40
Chase, Parker & Co., supplies . . . . .	8 00
Neptune Meter Co., meter disk . . . . .	75
The Draper Mfg. Co., charts . . . . .	3 17
William A. Carrie & Co., card index cabinet and cards . . . . .	39 05
Greenough, Adams & Cushing, stationery . . . . .	20 57
Charles D. Tucker, stationery . . . . .	2 65
J. C. Miller, Jr., stationery and printing . . . . .	71 35
Frank T. Spinney, stamped envelopes . . . . .	21 80
J. Henry Norcross, stamped envelopes . . . . .	21 80
Albert Treadwell, photographs . . . . .	18 00
George W. Prowse, electrical supplies . . . . .	5 65
Conants' Photographic Studio, Photographs, . . . . .	5 10
L. H. Lane, extra copies commissioner's report . . . . .	12 00
A. E. Martell & Co., books . . . . .	8 00
The Cross Pen Co., pencil pocket . . . . .	25
Leonard & Ellis, cylinder oil . . . . .	63 60
William N. Curtis, oil . . . . .	4 13
Fred W. Montague, oil . . . . .	4 13
Herbert Etter, horse shoeing . . . . .	17 88
Patrick H. Kirwan, horse shoeing . . . . .	19 00
Luke Coyne, horse shoeing . . . . .	26 26

## EXPENDITURES.

313

Arthur C. Symmes, horse shoeing and repairs . . . . .	\$30 20
Daniel N. Howard, drugs . . . . .	4 95
Malden Veterinary Hospital, veterinary services . . . . .	8 50
J. N. Cowin & Co., hay, grain and coal . . . . .	1,154 39
James Bean, grain and coal . . . . .	542 09
J. Henry Hemphill Coal Co., straw . . . . .	4 77
Crockwell Bros., carpentry . . . . .	6 00
Charles F. Churchill, police duty at Spot Pond . . . . .	40 00
Charles R. Dawson, stock and labor . . . . .	7 13
Bride & Ames, white lead . . . . .	1 50
Joseph Breck & Sons, repairing lawn mower . . . . .	1 50
Otto Neilson & Co., cutting threads . . . . .	10
Wellman Sole Cutting Machine Co., labor and material . . . . .	3 85
Charles H. Hartshorn, repairing, etc. . . . .	13 50
E. Teel & Co., repairing wagon . . . . .	16 60
Samuel Clark, making oak table . . . . .	3 50
M. Kuehl, brooms . . . . .	4 00
Charles W. Jacobs, rubber boots . . . . .	3 25
Medford Ice Co., ice . . . . .	6 75
City of Medford Sewer Dept., cement . . . . .	18 05
Frank Hervey, salt and polish . . . . .	1 10
Fred L. Cushing, cash paid for sundries . . . . .	6 82
Boston & Maine R. R. Co., freight . . . . .	1 28
American Express Co., expressing . . . . .	90
Chase's M. & B. Express, expressing . . . . .	2 95
McClellan's M. & B. Express, expressing . . . . .	1 75
Smith's M. & B. Express, expressing . . . . .	25
Chambers' M. & B. Express, expressing . . . . .	1 05
Commissioners of Sinking Funds, surplus earnings of Water Department from water rates, for 1 year to February 1, 1898 . . . . .	24,425 22
Coupons due April 1, 1896 . . . . .	40 00

Coupons due October 1, 1896 . . .	\$40 00
Coupons due January 1, 1897 . . .	240 00
Coupons due April 1, 1897 . . .	1,000 00
Coupons due June 1, 1897 . . .	900 00
Coupons due July 1, 1897 . . .	7,780 00
Coupons due October 1, 1897 . . .	980 00
Coupons due December 1, 1897 . . .	900 00
Coupons due January 1, 1898 . . .	7,920 00
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	\$53,860 03

By receipts, \$54,060 03.

#### NEW CONSTRUCTION AND SERVICE PIPES.

Paid :

Workmen, as per pay-rolls . . .	\$3,367 62
Fred W. Gow, proportions of salary for ten months . . .	245 20
Braman, Dow & Co., pipe & fittings . . .	321 84
Smith & Anthony, pipe fittings . . .	19 25
Walworth Mfg. Co., pipe fittings . . .	178 80
Davis & Farnum Mfg. Co., pipe fittings . . .	147 76
Lead Lined Iron Pipe Co., pipe . . .	553 84
Anniston Pipe & Foundry Co., pipe . . .	515 71
New England Water Pipe Co., pipe . . .	13 16
Scrannage Bros., brass pipe, etc. . . .	9 58
National Meter Co., meters, etc. . . .	195 00
Union Water Meter Co., meters, etc. . . .	96 25
Neptune Meter Co., meters etc. . . .	46 80
Rensselaer Mfg. Co., hydrants . . . .	327 54
Haydenville Mfg. Co., hydrants . . . .	14 85
R. D. Wood & Co., hydrants and pipe . . .	745 19
Brown & Wales, lead . . . .	204 73
Boston Lead Mfg. Co., lead . . . .	160 80
G. C. Whorf & Co., valves . . . .	15 00
Chapman Valve Mfg. Co., valves . . . .	97 73
Hersey Mfg. Co., meters, traps, etc. . . .	49 90

## EXPENDITURES.

315

Thomson Meter Co., meter and couplings,	\$8 90
R. Estabrook's Sons, gate box . . . .	17 00
The Fairbanks Co., scales . . . .	79 10
E. M. Dart Mfg. Co., stop cocks . . .	32 48
City of Malden, waste cock . . . .	94
City of Somerville, standards . . . .	2 70
Crosby Steam Gage and Valve Co., supplies .	4 80
F. Dooris, chisels . . . . .	3 60
Builders Iron Foundry, castings . . . .	374 84
Osgood & Hart, castings . . . . .	201 48
Coffin Valve Co., gates . . . . .	495 86
The Crescent Tool Co., tools . . . . .	38 65
Chadwick Lead Works, solder, etc. . . .	7 65
Henry McShane Mfg. Co., soldering irons .	6 08
Perrin, Seamans & Co., tools, lanterns, etc. .	123 49
Trimount Mfg. Co., pipe cutter . . . .	2 13
Arthur C. Symmes, tools, etc. . . . .	10 25
Wellman Sole Cutting Machine Co., repairing tools . . . . .	17 51
Patrick Howley, sharpening picks . . . .	7 95
William S. Richards, comb for water pipe .	75
City of Medford, Sewer Department, cement .	23 15
Page & Curtin, hardware, etc. . . . .	31 31
F. E. Foster & Co., lumber . . . . .	31 86
Crockwell Bros., carpentry . . . . .	10 50
William N. Curtis, oil . . . . .	13 13
Fred W. Montague, oil . . . . .	8 56
G. P. Anderson, oil . . . . .	2 40
Charles W. Jacobs, rubber boots . . . .	3 75
J. C. Miller, Jr., stationery . . . . .	8 90
Charles H. Hartshorn, harness repairs . . .	50
Medford Mercury, advertising . . . . .	2 75
C. S. Knowles, washers . . . . .	8 62
Malden & Melrose Gas Light Co., coke . . .	5 06
Boston & Maine R. R. Co., freight . . . .	349 29
Smith's M. & B. Express, expressing . . . .	15

Chase's M. & B. Express, expressing . . .	\$1 15
Donoghue's Express, expressing . . .	50
American Express Co., expressing . . .	4 15
Globe Gas Light Co., gasolene . . .	1 20

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\$9,269 64

By appropriation, \$5,000 00

By receipts, 3,428 72

By transfer, 3,000 00

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\$11,428 72

#### SHED AND FENCE.

Paid :

Workmen, as per pay-rolls . . . . .	\$33 66
F. E. Foster & Co., lumber . . . . .	426 17
Crockwell Bros., carpentry . . . . .	213 00
Emery Jordoin, painting . . . . .	29 67
Wood Bros., paints and oils . . . . .	17 84
James W. Vinal & Co., hardware . . . . .	10 69
Page & Curtin, hardware . . . . .	8 33
A. W. Hastings & Co., doors, windows, etc. . . . .	14 71
City of Medford, Sewer Department, cement . . . . .	7 70
Medford Mercury, advertising . . . . .	1 88

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\$763 65

By balance, \$763.65.

#### RENTS AND REPAIRS OF BUILDINGS.

Paid :

Workmen, as per pay-rolls . . . . .	\$68 67
Commissioners of Sinking Funds, surplus earnings of Water Department, from rents, sale of ice, etc., for one year to February 1, 1898 . . . . .	431 79
George W. Stetson, insurance policy on ice houses . . . . .	105 00

## EXPENDITURES.

317

Page & Curtin, stock and labor . . . .	\$43 71
Town of Stoneham, tax on real estate . . . .	26 01
Crockwell Bros., carpentry . . . . .	10 50
F. E. Foster & Co., lumber . . . . .	6 28
Walworth Mfg. Co., piping . . . . .	12 99
J. O. Goodwin, insurance on Tay house . . . .	6 00
Michael F. Dwyer, sale of ice at Wright's Pond	5 00
Daniel Lawrence & Sons, hogsheads . . . .	3 00
Patrick Howley, links, washers, etc. . . . .	3 00
Wellman Sole Cutting Machine Co., lathe work	1 05
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	\$723 00

By receipts, \$723.

## TABULAR STATEMENT.

*Showing Appropriations, Transfers, Receipts, Amounts Expended, Unexpended Balances, etc.*

NAMES OF ACCOUNT.	Appropriations, Balances and Assessments.	Transfers from other accounts.	Receipts.	Total amount credited.	Transfers to other accounts.	Expended to date.	Unexpended balance.	Excess.
Abated taxes and estates bought at sale for taxes . . . . .	App. \$300 00			\$300 00		\$220 22	\$79 78	
Advertising . . . . .	App. 700 00			700 00		310 89	389 11	
Armory . . . . .	App. 800 00			800 00		722 37	77 63	
Brooks Schoolhouse . . . . .	App. 65,000 00			65,000 00		5,480 74	59,519 26	
Canvassing births . . . . .	App. 100 00			100 00		98 90	1 10	
Claims . . . . .		475 00		475 00		475 00		
City Council contingent . . . . .	App. 651 96			651 96		365 82	286 14	
City Hall (fuel, light, watchman, etc.) . . . . .	App. 3,235 25			3,235 25		3,234 80	45	
Decoration and care of soldiers' graves, . . . . .	App. 300 00			300 00		300 00		
Election expenses . . . . .	App. 1,400 00			1,400 00		1,269 48	130 52	
High Schoolhouse . . . . .	App. 601 92							
	Bal. 2,492 93			3,094 85		3,094 85		
Hillside School . . . . .	Bal. 213 16			213 16		213 00	16	
Hydrants . . . . .	App. 6,765 00			6,765 00		6,435 00	330 00	
Insurance . . . . .	App. 1,500 00			1,500 00		728 88	771 12	
Interest . . . . .	App. 35,000 00		6,127 45	41,127 45		39,046 01	2,081 44	
Lincoln Schoolhouse . . . . .	Bal. 366 99			366 99		344 67	22 32	
Metropolitan sewer tax . . . . .	Warrant 26,686 79			26,686 79		26,686 79		
Middlesex County tax . . . . .	Warrant 14,753 88			14,753 88		14,753 88		
Miscellaneous account . . . . .	App. 2,000 00			2,000 00		1,973 15	26 85	
Preservation of public documents . . . . .	App. 500 00			500 00		496 60	3 50	
Printing and stationery . . . . .	App. 700 00			700 00		655 60	44 40	
Public Library Building . . . . .	Bal. 7,055 61			7,055 61		7,055 06	55	
Revision of Ordinances . . . . .	App. 900 00			900 00		468 63	431 37	

Rifle range (rent and repairs) . . . . .	App.	125 00		125 00		100 00	25 00
Salaries . . . . .	App.	13,400 00		13,400 00		12,638 33	761 67
Sinking funds . . . . .	App.	23,825 00		23,825 00		23,825 00	
Soldiers' Relief . . . . .	App.	1,800 00		1,800 00		1,764 90	35 10
State aid (and amount to be received from State) . . . . .	App.	700 00	2,619 00	3,319 00		2,999 75	319 25
State tax . . . . .	Warrant	10,902 50		10,902 50		10,902 50	
Street lights . . . . .	App.	14,000 00		14,000 00		14,000 00	
Telephones (for old City Hall only) . . . . .	App.	150 00	35	150 35		118 98	31 37
<i>Assessing Department:</i>							
Compensation of assessors and clerks . . . . .	App.	2,900 00		2,900 00		2,804 02	95 98
Assessors' expenses (including printing) . . . . .	App.	900 00		900 00		851 55	48 45
<i>Auditing Department:</i>							
Salary of city auditor . . . . .	App.	1,200 00		1,200 00		1,200 00	
Expenses (for books, printing, etc.) . . . . .	App.	400 00		400 00		206 05	193 95
Printing reports . . . . .	App.	650 00		650 00		544 50	105 50
<i>Cemetery Department:</i>							
Salaries of trustees . . . . .	App.	125 00		125 00		125 00	
Care of cemeteries . . . . .	App.	1,350 00	3,823 98	5,173 98		5,145 22	28 76
<i>Engineering Department:</i>							
Expenses of city engineer . . . . .	App.	1,850 00		1,850 00		1,850 00	
Map of Medford . . . . .	App.	1,000 00		1,000 00		1,000 00	
<i>Fire Department:</i>							
Salaries of engineers and firemen . . . . .	App.	10,812 00	2 00	10,814 00		10,575 77	238 23
Ordinary expenses . . . . .	App.	6,000 00	106 20	6,106 20	100 00	5,987 97	18 23
Fires in the woods . . . . .	App.	100 00	100 00	200 00		143 75	56 25
New hose . . . . .	App.	300 00		300 00		300 00	
Telephones . . . . .	App.	365 00		365 00		335 60	29 40



TABULAR STATEMENT.—CONTINUED.

NAMES OF ACCOUNT.		Appropriations, Balances and Assessments.	Transfers from other accounts.	Receipts.	Total amount credited.	Transfers to other accounts.	Expended to date.	Unexpended balance.	Excess.
<i>Health Department:</i>									
Salaries of Board of Health . . . . .	App.	200 00			200 00		200 00		
Salary of inspector of plumbing . . . . .	App.	1,000 00			1,000 00		1,000 00		
General expenses (incl. salary of clerk, Insp. and diph. ex.) . . . . .	App.	1,590 00			1,590 00		1,530 16	59 84	
<i>Highway Department:</i>									
Salary of street commissioner . . . . .	App.	1,600 00			1,600 00		1,533 34	66 66	
Ashes (collection of) . . . . .	App.	3,250 00			3,250 00	200 00	3,048 47	1 53	
Bridges . . . . .	App.	500 00			500 00		253 93	246 07	
Care of trees . . . . .	App.	600 00			600 00		599 08	92	
Collection of house offal . . . . .	App.	3,500 00	200 00	380 00	4,080 00		4,078 05	1 95	
General repairs of highways . . . . .	App.	20,000 00		3,863 71	23,863 71		23,841 79	21 92	
Guide boards and street signs . . . . .	App.	100 00			100 00		99 26	74	
Middlesex Avenue Bridge . . . . .	App.	600 00		668 91	1,268 91		1,391 11		\$122 20
Paving gutters . . . . .	App.	2,000 00			2,000 00	736 36	1,263 61		
Setting out trees . . . . .	App.	300 00		2 40	302 40		302 00	40	
*Sidewalks and edgestones (and f amount received from abutters) {	Assmt.&c.	3,103 83							
	App.	4,000 00	736 36	427 31	8,267 50		7,562 96	704 54	
Snow (removal of) . . . . .	App.	1,200 00			1,200 00		791 81	408 19	
Special Construction . . . . .	App.	20,000 00			20,000 00	2,000 00	18,204 12		204 12
†Streets in Middlesex Fells . . . . .							2,565 91		2,565 91
Street Numbering . . . . .	App.	250 00		34 17	284 17		278 27	5 90	
Watering streets . . . . .	{ Net. Assmt. App.	3,438 18 1,000 00			4,438 18		3,940 75	497 43	

<i>Inspection Department:</i>									
Expenses (printing, etc.) . . . .	App.	425 00						425 62	1 38
<i>Park Department:</i>									
Brooks Playstead . . . . .	App.	600 00						600 00	
Public commons . . . . .	App.	875 00						867 65	7 35
<i>Police Department:</i>									
Salaries of policemen (incl. janitor)	App.	16,430 00				16,430 00	300 00	16,129 70	30
Special police service, etc. . . .	App.	4,000 00	300 00	10 00		4,310 00		4,304 83	5 17
<i>Public Library Department:</i>									
General expenses . . . . .	App.	4,500 00	600 00	1,491 25		6,591 25		6,590 77	48
<i>Relief of Poor Department:</i>									
Salaries of overseers . . . . .	App.	600 00				600 00		600 00	
Almshouse . . . . .	App.	4,500 00		220 41		4,720 41		4,615 67	104 74
Outside relief . . . . .	App.	5,000 00		2,224 18		7,224 18		7,868 50	644 32
<i>School Department:</i>									
Salaries (of committee and secretary)	App.	650 00				650 00		650 00	
Salaries (of superintendent and teachers)	App.	58,645 00	1,652 42			60,297 42		60,294 92	2 50
Stewardship . . . . .	App.	6,600 00				6,600 00	92 00	6,507 56	44
Contingent . . . . .	App.	6,000 00	92 00	17 86		6,109 86		6,109 55	31
Everett Schoolhouse repairs . . . .	App.	1,800 00				1,800 00		1,799 89	11
Evening School . . . . .	App.	1,200 00				1,200 00		930 58	269 42
Fuel . . . . .	App.	5,000 00	1,400 00			6,400 00		6,397 11	2 89
Text books and supplies . . . . .	App.	6,000 00				6,000 00		5,999 66	34
Transportation of pupils . . . . .	App.	600 00				600 00		600 00	
Water . . . . .	App.	800 00				800 00		800 00	

TABULAR STATEMENT.—CONTINUED.

NAME OF ACCOUNT.	Appropriations, Balances and Assessments.	Transfers from other accounts.	Receipts.	Total amount credited.	Transfers to other accounts.	Expended to date.	Unexpended balance.	Excess.
<i>Sewer Department:</i>								
Salaries of commissioners . . . . .	App. 150 00			150 00		150 00		
Brooks and streams . . . . .	Bal. 5,656 52		2,319 69	7,976 21		6,443 72	1,532 49	
Sewer construction { house conn. and assmts. and	Bal. 101,603 92		1,026 51	102,630 43		43,864 62	58,765 81	
Sewer Maintenance . . . . .	App. 1,500 00			1,500 00		1,077 38	422 62	
<i>Water Department:</i>								
Salaries of commissioners . . . . .	App. 150 00			150 00		150 00		
High service and renewing mains . . . . .	{ App. 9,500 00 Bal. 928 02			10,428 02		5,698 85	4,729 17	
Improving and enlarging water supply	Bal. 5,368 49			5,368 49	3,000 00	812 24	1,556 25	
Land for Water Dept. . . . .	Bal. 1,500 00			1,500 00		1,500 00		
Maintenance and interest on bonds . . . . .			54,060 03	54,060 03		53,860 03	200 00	
New construction and service pipes . . . . .	App. 5,000 00	3,000 00	3,428 72	11,428 72		9,269 64	2,159 08	
Shed and fence . . . . .	Bal. 763 65			763 65		763 65		
Rents and repairs of buildings . . . . .			723 00	723 00		723 00		
Miscellaneous credits. Bal. almshouse building and watering streets	Bal. 2,913 34		51,662 45	54,575 79	28,127 42	25,630 45	817 92	
Appropriations . . . . .		26,000 00						
	\$592,368 94	\$34,555 78	\$135,239 58	\$736,164 30	\$34,555 78	\$566,367 37	\$138,777 70	\$3,536 55

Notes, in anticipation of taxes . . . . .		85,000 00		85,000 00
City Collector—Tax account . . . . .	289,824 14		64 35	
City Collector—Sewer assessments . . . . .	27,705 22			
City Collector—Sewer apportionments, . . . . .	8,911 16			
City Collector—Sewer connections . . . . .	10,385 93			
City Collector—Watering assessment, . . . . .	2,843 37			
City Collector—Sidewalk account . . . . .	2,010 16			
City Collector—Sidewalk assessments, . . . . .	337 38			
City Collector—Sidewalk apportionments, . . . . .	17 27			
Funded debt . . . . .	316,000 00			
Unfunded debt . . . . .			108,000 00	
Perpetual care fund . . . . .	947 50			
Cash in treasury Feb. 1, 1897 . . . . .	43,871 22			
Cash in treasury Feb. 1, 1898 . . . . .			78,661 21	
	<u>888,092 93</u>		<u>888,092 93</u>	

\* Apportionments made during the year \$44.30.

† By the agreement \$3,000 will be returned to the city when work is completed.

‡ Apportionments made during the year \$30,438.31.

§ Of the \$58,765.81 unexpended, \$32,843.05 has been collected.

¶ Appropriations \$404,621.13; balances \$121,350.23; assessments \$14,045.41; warrants \$52,343.17.

TABLE SHOWING THE SOURCES FROM WHICH EXPENDITURES WERE MADE,  
AND ALSO THE UNEXPENDED BALANCES.

	EXPENDITURES.			UNEXPENDED BALANCES.		
	Taxes, Receipts or Assessments.	Municipal Bonds.	Water Bonds.	Taxes, Receipts or Assessments.	Municipal Bonds.	Water Bonds.
Abated Taxes and Estates bought at sale for taxes . . . . .	\$ 220 22			79 78		
Advertising . . . . .	310 89			389 11		
Armory . . . . .	722 37			77 63		
Canvassing Births . . . . .	98 90			1 10		
Claims . . . . .	475 00					
City Council Contingent . . . . .	365 82			286 14		
City Hall . . . . .	3,234 80			45		
Decoration and Care of Soldiers' Graves . . . . .	300 00					
Election Expenses . . . . .	1,269 48			130 52		
High Schoolhouse . . . . .		3,094 85				
Hillside School . . . . .		213 00			16	
Hydrants . . . . .	6,435 00			330 00		
Insurance . . . . .	728 88			771 12		
Interest . . . . .	39,046 01			{ 1,660 00		
Lincoln Schoolhouse . . . . .		344 67		421 44		
Metropolitan Sewer Tax . . . . .	26,686 79				22 32	
Middlesex County Tax . . . . .	14,753 88					
Miscellaneous Account . . . . .	1,973 15			26 85		
Preservation of Public Documents . . . . .	496 50			3 50		
Printing and Stationery . . . . .	655 60			44 40		
Public Library Building . . . . .		7,055 06			55	
Revision of Ordinances . . . . .	468 63			431 37		
Rifle Range, rent and repairs . . . . .	100 00			25 00		
Salaries . . . . .	12,638 33			761 67		
Sinking Funds . . . . .	23,825 00					
Soldiers' Relief . . . . .	1,764 90			35 10		
State Aid . . . . .	2,999 75			319 25		

State Tax . . . . .	10,902 50	
Street Lights . . . . .	14,000 00	
Telephones, City Hall only . . . . .	118 98	31 37
Brooks Schoolhouse . . . . .	5,480 74	*
Compensation of Assessors and Clerks . . . . .	2,804 02	95 98
Assessors' Expenses . . . . .	851 55	48 45
Salary of City Auditor . . . . .	1,200 00	
Expenses for Books, Printing, etc. . . . .	206 05	193 95
Printing Reports . . . . .	544 50	105 50
Salaries of Trustees of Cemeteries . . . . .	125 00	
Care of Cemeteries . . . . .	5,145 22	28 76
Expenses of City Engineer . . . . .	1,850 00	
Map of Medford . . . . .	1,000 00	
Salaries of Engineers and Firemen . . . . .	10,575 77	238 23
Ordinary Expenses . . . . .	5,987 97	18 23
Fires in the Woods . . . . .	143 75	56 25
New Hose . . . . .	300 00	
Telephones, Fire Department . . . . .	335 60	29 40
Salaries of Board of Health . . . . .	200 00	
Salary of Inspector of Plumbing . . . . .	1,000 00	
General Expenses . . . . .	1,530 16	59 84
Salary of Street Commissioner . . . . .	1,533 34	66 66
Ashes, collection of . . . . .	3,048 47	1 53
Bridges . . . . .	253 93	246 07
Care of Trees . . . . .	599 08	92
Collection of House Offal . . . . .	4,078 05	1 95
General Repairs of Highways . . . . .	23,841 79	21 92
Guide Boards and Street Signs . . . . .	99 26	74
Middlesex Avenue Bridge . . . . .	1,391 11	†
Paving Gutters . . . . .	1,263 64	
Setting Out Trees . . . . .	302 00	40
Sidewalks and Edgestones . . . . .	7,562 96	704 54
Snow, removal of . . . . .	791 81	408 19
Special Construction . . . . .	18,204 12	‡
Street Numbering . . . . .	278 27	5 90
Watering Streets . . . . .	3,940 75	497 43
Expenses, Printing, etc., Inspectors' Department . . . . .	423 62	1 38
Brooks Playstead . . . . .	600 00	

	EXPENDITURES.			UNEXPENDED BALANCES.		
	Taxes, Receipts or Assessments.	Municipal Bonds.	Water Bonds.	Taxes, Receipts or Assessments.	Municipal Bonds.	Water Bonds.
Public Commons . . . . .	867 65			7 35		
Salaries of Policemen . . . . .	16,129 70			30		
Special Police Services, etc. . . . .	4,304 83			5 17		
Public Library, General Expenses . . . . .	6,590 77			48		
Salaries of Overseers of Poor . . . . .	600 00					
Almshouse . . . . .	4,615 67			104 74		
Outside Relief . . . . .	7,868 50			\$		
Salaries of Committee and Secretary . . . . .	650 00					
Salaries of Superintendent and Teachers . . . . .	60,294 92			2 50		
Stewardship . . . . .	6,507 56			44		
Contingent . . . . .	6,109 55			31		
Everett Schoolhouse Repairs . . . . .		1,799 89			11	
Evening School . . . . .	930 58			269 42		
Fuel . . . . .	6,397 11			2 89		
Text Books and Supplies . . . . .	5,999 66			34		
Transportation of Pupils . . . . .	600 00					
Water, School Department . . . . .	800 00					
Salaries of Commissioners, Sewer Department . . . . .	150 00					
Brooks and Streams . . . . .	2,319 69	4,124 03			1,532 49	
Sewer Construction . . . . .	15,185 77	28,678 85		58,765 81		
Sewer Maintenance . . . . .	1,077 38			422 62		
Salaries of Water Commissioners . . . . .	150 00					
High Service and Renewing Mains . . . . .		928 02	4,770 83			4,729 17
Improving and Enlarging Water Supply . . . . .		812 24			1,556 25	
Land for Water Department . . . . .			1,500 00			
Maintenance and Interest on Bonds . . . . .	53,860 03			200 00		
New Construction and Service Pipes . . . . .	3,428 72	3,000 00	2,840 92			2,159 08
Shed and Fence . . . . .		763 65				
Rents and Repairs of Buildings . . . . .	723 00					
Notes in Anticipation of Taxes . . . . .		85,000 00				
City Collector, Tax Account . . . . .	64 35					

Miscellaneous Credits . . . . .	22,717 11	2,913 34		817 92		
Unfunded Debts, Notes Paid . . . . .		108,000 00				
Streets in Middlesex Fells . . . . .	2,565 91			**		
Overlay and Abatement . . . . .				2,995 85		
Perpetual Care Fund . . . . .				947 50	18,072 50	
Permanent Debt . . . . .					14,609 42	
Unapplied Proceeds of Municipal Bonds . . . . .					17,478 60	
<b>Totals . . . . .</b>	<b>\$503,592 37</b>	<b>\$246,727 60</b>	<b>\$9,111 75</b>	<b>\$73,201 66</b>	<b>\$53,272 40</b>	<b>\$6,888 25</b>
<b>Total Expenditure . . . . .</b>			<b>\$759,431 72</b>			
<b>Total Unexpended . . . . .</b>			<b>133,361 46</b>			
<i>Deduct balances carried forward:</i>						
Maintenance Interest on Bonds . . . . .			\$ 200 00			
Sewer Construction . . . . .			58,765 81			
Interest . . . . .			1,660 00			
Perpetual Care Fund . . . . .			947 50			
				<b>61,573 31</b>		
Perpetual Care Fund . . . . .			18,072 50			
Brooks and Streams . . . . .			1,532 49			
Improving and Enlarging Water Supply . . . . .			1,566 25			
Permanent Debt . . . . .			14,609 42			
					<b>85,770 66</b>	
New Construction and Service Pipes . . . . .			2,159 08			
High Service and Renewing Mains . . . . .			4,729 17			
						<b>6,888 25</b>
<i>Deduct amounts overdrawn:</i>						
Middlesex Avenue Bridge . . . . .			122 20	\$11,628 85	\$17,501 74	
Special Construction . . . . .			204 12			
Outside Relief . . . . .			644 32			
<i>Also amounts expended for:</i>						
Brooks Schoolhouse . . . . .			5,480 74			
Streets in Middlesex Fells . . . . .			2,565 91			
				<b>9,017 29</b>		
<b>Balance available for current expenses from Taxes, Receipts and Assessments</b>				<b>\$2,611 06</b>		



		UNEXPENDED BALANCES.	
		Taxes, Receipts or Assessments.	
Balance available for Current Expenses, from Taxes, Receipts and Assessments . . . . .		\$2,611 06	
Balance available from Municipal Bonds . . . . .		17,501 74	
<i>The following amounts are also available :</i>			
†Taxes of 1895 and 1896 collected since July 27, 1897 . . . . .		11,581 51	
††Taxes of 1895 and 1896 uncollected . . . . .		12,472 09	
Taxes of 1897 unapplied . . . . .		1,366 45	
Street Watering Assessments, 1894, 1895 and 1896, collected . . . . .		808 05	
††Street Watering Assessments, 1894, 1895 and 1896, uncollected . . . . .		352 13	
Cash Balance, February 1, 1897, unused . . . . .		48,871 22	
		<hr/>	
		\$90,564 25	
The above-mentioned balances amount to . . . . .		104,232 22	
		<hr/>	
		\$194,796 47	

**ASSETS, FEBRUARY 1, 1898 (Exclusive of Public Property and Sinking Funds).**

Cash in Treasury, February 1, 1898 . . . . .	\$78,661 21
Uncollected Taxes, February 1, 1898 . . . . .	87,718 49
Uncollected Sewer Assessments, Apportionments and House Connections . . . . .	25,922 76
Uncollected Street Watering Assessments . . . . .	1,754 99
Uncollected Sidewalk Assessments . . . . .	739 02
	<hr/>
	\$194,796 47

\* No money raised to meet expenditure for Brooks Schoolhouse.

† Middlesex Avenue Bridge account overdrawn.

‡ Special Construction account overdrawn.

§ Outside Relief account overdrawn.

¶ No appropriation for streets in Middlesex Falls as it was expected that the State would refund.

†† These will be available when collected.

The foregoing accounts have been closed, with the exception of those which are to be carried forward into the new year.

BALANCES.

FEBRUARY 1, 1898.

	DR.	CR.
*Brooks Schoolhouse . . . . .		\$59,519 26
Streets in Middlesex Fells . . . . .	\$2,565 91	
**Interest . . . . .		1,660 00
†Sewer Construction . . . . .		58,765 81
‡Brooks and Streams . . . . .		1,532 49
‡High Service and Renewing Mains . . . . .		4,729 17
‡Improving and Enlarging Water Supply . . . . .		1,556 25
**Maintenance and Interest on Bonds . . . . .		200 00
‡New Construction and Ser- vice Pipes . . . . .		2,159 08
City Collector, Tax Account . . . . .	87,718 49	
"    Sidewalk Ass't . . . . .	513 14	
"    Sidewalk Account . . . . .	225 88	
"    Sewer Ass'ts . . . . .	10,570 47	
"    Sewer Connections . . . . .	848 28	
"    Sewer Apport'm'ts . . . . .	14,504 01	
"    Watering Ass't . . . . .	1,754 99	
Permanent Debt . . . . .		14,609 42
Perpetual Care Fund . . . . .		19,020 00
Funded Debt . . . . .		1,421,000 00
Unfunded Debt . . . . .		112,000 00
Public Property, (real estate) . . . . .	891,350 00	
Property and Debt Balance . . . . .	675,279 42	
Excess and Deficiency . . . . .		67,240 32
City Treasurer (Cash in treas- ury, Feb. 1, 1898) . . . . .	78,661 21	
	\$1,763,991 80	\$1,763,991 80

\*Appropriation \$65,000. Expended to date \$5,480.74. No funds have been raised to meet appropriation.

† Sewer Assessments, Apportionments and House Connections of which \$32,843.05 has been collected.

‡ Bonds have been issued.

\*\* To provide for past due coupons.

For the purpose of comparison the following table is submitted, the figures of which are taken from the table marked "Balances," the report of the Commissioners of Sinking Funds, and information furnished by the City Clerk.

COMPARISON OF LIABILITIES AND ASSETS ON FEBRUARY 1, 1897, WITH THE SAME ON FEBRUARY 1, 1898.

LIABILITIES.				
	Feb. 1, 1897.	Feb. 1, 1898.	Increase.	Decrease.
High Schoolhouse . . . . .	\$2,492 93			\$2,492 93
Lincoln Schoolhouse . . . . .	366 90			366 90
Brooks and Streams . . . . .	5,656 52	\$1,532 49		4,124 03
High Service, Renewing Main Shed and Fence . . . . .	928 02	4,729 17	\$3,801 15	
Improving and Enlarging Wa- ter Supply . . . . .	763 05			763 05
Hillside School . . . . .	5,368 49	1,556 25		3,812 24
Public Library Building . . . . .	213 16			213 16
Sewer Construction . . . . .	7,055 61			7,055 61
Funded Debt . . . . .	94,100 32	58,765 81		35,334 71
Unfunded Debt . . . . .	1,105,000 00	1,421,000 00	316,000 00	
Notes in Anticipation of Taxes	220,000 00	112,000 00		108,000 00
Permanent Debt . . . . .	85,000 00			85,000 00
Perpetual Care Fund . . . . .	14,609 42	14,609 42		
Interest . . . . .	18,072 50		947 50	
Maintenance and Int. on Bonds		1,660 00	1,660 00	
New Construction and Service Pipes . . . . .		200 00	200 00	
	2,159 08		2,159 08	
	<b>\$1,559,627 81</b>	<b>\$1,637,232 22</b>	<b>\$324,767 73</b>	<b>\$247,163 32</b>

ASSETS.				
	Feb. 1, 1897.	Feb. 1, 1898.	Increase.	Decrease.
State and Military Aid . . . . .	\$2,594 00	\$2,825 50	\$231 50	
Sinking Funds . . . . .	109,804 58	246,741 48	76,936 90	
Brooks Schoolhouse . . . . .		5,480 74	5,480 74	
Streets in Middlesex Falls <i>City Collector:</i>		2,565 91	2,565 91	
Sewer Assessments . . . . .	57,065 39	10,570 47		\$46,494 92
Sewer Connections . . . . .	224 63	848 28	623 65	
Sewer Apportionments . . . . .	8,131 65	14,504 01	6,372 36	
Sidewalk Assessments . . . . .		513 14	513 14	
Sidewalks Account . . . . .		225 88	225 88	
Watering Assessments . . . . .	1,160 18	1,764 99	594 81	
Tax Account . . . . .	58,560 99	87,718 49	29,157 50	
<i>City Treasurer:</i>				
Cash in Treasury . . . . .	43,871 22	78,661 21	34,789 99	
	<b>\$341,412 64</b>	<b>\$452,410 10</b>	<b>\$157,492 38</b>	<b>\$46,494 92</b>

Net debt, February 1, 1897 . . . . .				\$1,218,215 17
Assets increased . . . . .	\$157,492 38			
Assets decreased . . . . .	46,494 92			
Net increase in Assets . . . . .		\$110,997 46		
Liabilities increased . . . . .	\$324,767 73			
Liabilities decreased . . . . .	247,163 32			
Net increase in Liabilities . . . . .		77,604 41		
Decrease in net debt . . . . .				33,393 03
Net debt, February 1, 1898 . . . . .				<b>\$1,184,822 12</b>

## BILLS FOR COLLECTION.

All bills due the city from the various departments, excepting those for water rates, service pipes, taxes, street-watering, care of lots, sewer assessments, sewer connections and sidewalk assessments, pass through this office and are registered, numbered and mailed to the parties designated, and a memorandum of the items is given to the City Collector for collection.

The books of this department show the amount remaining uncollected February 1, 1898, to have been as follows :

For Sidewalks and Edgestones account . . .	\$802 90
For Outside Relief account . . . . .	622 01
For Sewer Construction account . . . . .	54 56
For Miscellaneous Credits account . . . . .	473 78
For Collection of House Offal account . . . . .	102 50
	<hr/>
	\$2,055 75

## BONDS SOLD.

- On May 11, 1897, 200 City of Medford Municipal Loan 4 per cent bonds due in 1917, were sold at \$106.923 . . . . .
- On Nov. 12, 1897, 16 City of Medford Water Fund 4 per cent bonds due in 1923, were sold at \$108.68 . . . . .
- On Jan. 10, 1898, 100 City of Medford Municipal Loan 4 per cent bonds due in 1918, were sold at \$109.089 . . . . .

The present indebtedness of the City is as follows :

FUNDED DEBT.

MEDFORD WATER FUND BONDS.

DATE.	Issued under Chap. Acts of		Due.	Rate	Numbered.	Interest payable.	Amount.
July 1, 1890 . . . .	201	1889	July 1, 1900 . . . .	4		Jan. 1 and July 1	\$75,000 00
July 1, 1890 . . . .	201	1889	July 1, 1910 . . . .	4		" 1 " 1	125,000 00

\$200,000 00

CITY OF MEDFORD WATER FUND BONDS.

Jan. 1, 1894 . . . .	98	1893	Jan. 1, 1899 . . . .	4	1- 4	Jan. 1 and July 1	\$4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1900 . . . .	4	5- 8	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1901 . . . .	4	9- 12	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1902 . . . .	4	13- 16	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1903 . . . .	4	17- 20	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1904 . . . .	4	21- 24	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1905 . . . .	4	25- 28	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1906 . . . .	4	29- 32	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1907 . . . .	4	33- 36	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1908 . . . .	4	37- 40	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1909 . . . .	4	41- 44	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1910 . . . .	4	45- 48	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1911 . . . .	4	49- 52	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1912 . . . .	4	53- 56	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1913 . . . .	4	57- 60	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1914 . . . .	4	61- 64	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1915 . . . .	4	65- 68	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1916 . . . .	4	69- 72	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1917 . . . .	4	73- 76	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1918 . . . .	4	77- 80	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1919 . . . .	4	81- 84	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1920 . . . .	4	85- 88	" 1 " 1	4,000 00
" 1, 1894 . . . .	98	1893	" 1, 1921 . . . .	4	89- 92	" 1 " 1	4,000 00

Jan. 1, 1894 . . . . .	98	1893	Jan. 1, 1922 . . . . .	4	93- 96	Jan. 1 and July 1	4,000 00
" 1, 1894 . . . . .	98	1893	" 1, 1923 . . . . .	4	97-100	" 1 " 1	4,000 00
Oct. 1, 1894 . . . . .	98	1893	Oct. 1, 1914 . . . . .	4	101-125	Apr. 1 and Oct. 1	25,000 00
" 1, 1894 . . . . .	98	1893	" 1, 1919 . . . . .	4	126-150	" 1 " 1	25,000 00
Dec. 1, 1894 . . . . .	98	1893	Dec. 1, 1922 . . . . .	4	151-195	June 1 and Dec. 1	45,000 00
July 1, 1895 . . . . .	98	1893	July 1, 1916 . . . . .	4	196-201	Jan. 1 and July 1	6,000 00
" 1, 1895 . . . . .	98	1893	" 1, 1917 . . . . .	4	202-207	" 1 " 1	6,000 00
" 1, 1895 . . . . .	98	1893	" 1, 1918 . . . . .	4	208-218	" 1 " 1	11,000 00
" 1, 1895 . . . . .	98	1893	" 1, 1920 . . . . .	4	219-233	" 1 " 1	15,000 00
" 1, 1895 . . . . .	98	1893	" 1, 1921 . . . . .	4	234-248	" 1 " 1	15,000 00
" 1, 1895 . . . . .	98	1893	" 1, 1923 . . . . .	4	249-258	" 1 " 1	10,000 00
" 1, 1896 . . . . .	98	1893	" 1, 1923 . . . . .	4	259-284	" 1 " 1	26,000 00
" 1, 1897 . . . . .	98	1893	" 1, 1923 . . . . .	4	285-300	" 1 " 1	16,000 00
<b>Total Water Debt</b>							<b>300,000 00</b>

300,000 00  
\$500,000 00

Amount authorized by Chapter 98, Acts of 1893, \$300,000.

**MEDFORD PUBLIC BUILDING LOAN.**

July 1, 1893 . . . . .	167	1893	July 1, 1913 . . . . .	4	1- 30	Jan. 1 and July 1	\$30,000 00
" 1, 1893 . . . . .	167	1893	" 1, 1913 . . . . .	4	31- 45	" 1 " 1	15,000 00
Nov. 1, 1894 . . . . .	167	1893	Nov. 1, 1914 . . . . .	4	46-101	May 1 and Nov. 1	56,000 00
July 1, 1895 . . . . .	167	1893	July 1, 1899 . . . . .	4	102-107	Jan. 1 and July 1	6,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1901 . . . . .	4	108-113	" 1 " 1	6,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1902 . . . . .	4	114-119	" 1 " 1	6,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1903 . . . . .	4	120-125	" 1 " 1	6,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1904 . . . . .	4	126-129	" 1 " 1	4,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1907 . . . . .	4	130-133	" 1 " 1	4,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1908 . . . . .	4	134-154	" 1 " 1	21,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1909 . . . . .	4	155-180	" 1 " 1	26,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1911 . . . . .	4	181-206	" 1 " 1	26,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1912 . . . . .	4	207-232	" 1 " 1	26,000 00
" 1, 1895 . . . . .	167	1893	" 1, 1915 . . . . .	4	233-250	" 1 " 1	18,000 00
<b>Total</b>							<b>\$250,000 00</b>

\$250,000 00

Amount authorized by Chapter 167, Acts of 1893, \$250,000.

CITY OF MEDFORD PUBLIC PLAYGROUND LOAN.

DATE.	Issued under Chap. Acts of		Due.	Rate	Numbered.	Interest payable.	Amount.
July 2, 1894 . . .	225	1893	July 1, 1904 . . .	4	1- 7	Jan. 1 and July 1	\$7,000 00
Dec. 1, 1894 . . .	225	1893	Dec. 1, 1914 . . .	4	8- 21	June 1 and Dec. 1	14,000 00
<b>Total . . .</b>							<b>21,000 00</b>

MEDFORD SEWERAGE LOAN.

July 2, 1894 . . .	180	1893	July 1, 1905 . . .	4	1- 20	Jan. 1 and July 1	\$20,000 00
" 2, 1894 . . .	180	1893	" 1, 1906 . . .	4	21- 32	" 1 " 1	12,000 00
" 2, 1894 . . .	180	1893	" 1, 1907 . . .	4	33- 44	" 1 " 1	12,000 00
" 2, 1894 . . .	180	1893	" 1, 1915 . . .	4	45- 54	" 1 " 1	10,000 00
" 2, 1894 . . .	180	1893	" 1, 1924 . . .	4	55- 64	" 1 " 1	10,000 00
Oct. 1, 1894 . . .	180	1893	Oct. 1, 1905 . . .	4	65- 74	Apr. 1 and Oct. 1	10,000 00
" 1, 1894 . . .	180	1893	" 1, 1906 . . .	4	75- 84	" 1 " 1	10,000 00
" 1, 1894 . . .	180	1893	" 1, 1915 . . .	4	85- 94	" 1 " 1	10,000 00
" 1, 1894 . . .	180	1893	" 1, 1924 . . .	4	95-104	" 1 " 1	10,000 00
Aug. 1, 1895 . . .	180	1893	Aug. 1, 1916 . . .	4	105-124	Feb. 1 and Aug. 1	20,000 00
" 1, 1895 . . .	180	1893	" 1, 1917 . . .	4	125-144	" 1 " 1	20,000 00
" 1, 1895 . . .	180	1893	" 1, 1918 . . .	4	145-164	" 1 " 1	20,000 00
" 1, 1895 . . .	180	1893	" 1, 1919 . . .	4	165-184	" 1 " 1	20,000 00
" 1, 1895 . . .	180	1893	" 1, 1920 . . .	4	185-209	" 1 " 1	25,000 00
" 1, 1895 . . .	180	1893	" 1, 1921 . . .	4	210-234	" 1 " 1	25,000 00
" 1, 1895 . . .	180	1893	" 1, 1922 . . .	4	235-259	" 1 " 1	25,000 00
" 1, 1895 . . .	180	1893	" 1, 1923 . . .	4	260-289	" 1 " 1	30,000 00
July 1, 1896 . . .	180	1893	July 1, 1925 . . .	4	290-309	Jan. 1 and July 1	20,000 00
" 1, 1896 . . .	180	1893	" 1, 1926 . . .	4	310-350	" 1 " 1	41,000 00
<b>Total . . .</b>							<b>350,000 00</b>

Amount authorized by Chapter 180, Acts of 1893, \$350,000.

CITY OF MEDFORD MUNICIPAL LOAN.

May 1, 1897 . . . . .	212	1897	May 1, 1917 . . . . .	4	1-200	May 1 and Nov. 1	\$200,000 00	
Jan. 1, 1898 . . . . .	212	1897	Jan. 1, 1918 . . . . .	4	201-300	Jan. 1 and July 1	100,000 00	
Total, . . . . .								300,000 00
Amount authorized by Chapter 212, Acts of 1897, \$300,000.								
Total amount of Funded Debt, February 1, 1898 . . . . .								\$1,421,000 00

UNFUNDED DEBT.

Date.	To whom issued.	Due.	Rate.	Amount.	
July 12, 1894	Warren Institution for Savings . . . . .	July 12, 1898	4 per cent.	\$12,000 00	
April 18, 1896	James W. Longstreet & Co. . . . .	April 18, 1898	4 "	6,500 00	
April 18, 1896	James W. Longstreet & Co. . . . .	April 18, 1898	4 "	24,500 00	
July 17, 1896	Medford Savings Bank . . . . .	July 17, 1898	4 "	2,500 00	
July 17, 1896	Medford Savings Bank . . . . .	July 17, 1899	4 "	6,000 00	
July 14, 1896	Commonwealth of Massachusetts . . . . .	July 14, 1899	4 "	20,000 00	
July 14, 1896	Commonwealth of Massachusetts . . . . .	July 14, 1899	4 "	21,500 00	
Dec. 8, 1896	Commonwealth of Massachusetts . . . . .	Dec. 8, 1900	3¼ "	19,000 00	
	Total unfunded debt . . . . .				\$112,000 00

PERMANENT DEBT.

		Due.	Rate.	Amount.	
Secomb Fund . . . . .	Deposited in City Treasury	Perpetual	6 per cent.	\$5,800 00	
Hall Church Fund . . . . .	" "	"	6 "	5,000 00	
Simonds Fund . . . . .	" "	"	6 "	1,300 00	
Osgood Fund . . . . .	" "	"	6 "	2,009 42	
Tufts Fund . . . . .	" "	"	6 "	500 00	
Total . . . . .					\$14,609 42



PERPETUAL CARE FUND.

For perpetual care of lots in cemeteries (deposited in City Treasury; interest 4 per cent.) . . . . . \$19,020 00

TRUST FUND.

There is also a fund known as the Bradbury Fund, amounting to \$11,252. This is invested in the Medford Savings Bank, and is not included in estimating the city's indebtedness.

MATURITY OF BONDS.

Date of Maturity	Water Loan.	Public Building Loan.	Municipal Loan.	Playground Loan.	Sewerage Loan.	Total each year.
1899	Jan. 1 . \$4,000	July 1 . \$6,000				\$10,000
1900	Jan. 1 . 4,000					79,000
	July 1 . 75,000					
1901	Jan. 1 . 4,000	July 1 . 6,000				10,000
1902	Jan. 1 . 4,000	July 1 . 6,000				10,000
1903	Jan. 1 . 4,000	July 1 . 6,000				10,000
1904	Jan. 1 . 4,000	July 1 . 4,000		July 1 . \$7,000		15,000
1905	Jan. 1 . 4,000				{ July 1 . \$20,000 Oct. 1 . 10,000	34,000
1906	Jan. 1 . 4,000				{ July 1 . 12,000 Oct. 1 . 10,000	26,000
1907	Jan. 1 . 4,000	July 1 . 4,000			July 1 . 12,000	20,000
1908	Jan. 1 . 4,000	July 1 . 21,000				25,000
1909	Jan. 1 . 4,000	July 1 . 26,000				30,000
1910	Jan. 1 . 4,000					129,000
	July 1 . 125,000					
1911	Jan. 1 . 4,000	July 1 . 26,000				30,000
1912	Jan. 1 . 4,000	July 1 . 26,000				30,000
1913	Jan. 1 . 4,000	July 1 . 45,000				49,000
1914	Jan. 1 . 4,000	Nov. 1 . 56,000		Dec. 1 . 14,000		99,000
	Oct. 1 . 25,000					
1915	Jan. 1 . 4,000	July 1 . 18,000			{ July 1 . 10,000 Oct. 1 . 10,000	42,000

1916	{ Jan. 1 . \$4,000				Aug. 1 . \$20,000	\$30,000
	{ July 1 . 6,000					
1917	{ Jan. 1 . 4,000	May 1	\$200,000		Aug. 1 . 20,000	230,000
	{ July 1 . 6,000					
1918	{ Jan. 1 . 4,000	Jan. 1	. 100,000		Aug. 1 . 20,000	135,000
	{ July 1 . 11,000					
1919	{ Jan. 1 . 4,000				Aug. 1 . 20,000	49,000
	{ Oct. 1 . 25,000					
1920	{ Jan. 1 . 4,000				Aug. 1 . 25,000	44,000
	{ July 1 . 15,000					
1921	{ Jan. 1 . 4,000				Aug. 1 . 25,000	44,000
	{ July 1 . 15,000					
1922	{ Jan. 1 . 4,000				Aug. 1 . 25,000	74,000
	{ Dec. 1 . 45,000					
1923	{ Jan. 1 . 4,000				Aug. 1 . 30,000	86,000
	{ July 1 . 52,000					
1924					{ July 1 . 10,000	20,000
1925					{ Oct. 1 . 10,000	20,000
1926					July 1 . 20,000	41,000
					July 1 . 41,000	41,000
Totals	\$484,000	\$250,000	\$300,000	\$21,000	\$350,000	\$1,421,000

### SINKING FUNDS.

(See report of Commissioners of Sinking Funds, dated February 7, 1898.)

Water Loan Sinking Fund	\$133,542 62
Public Building Loan Sinking Fund	40,830 72
Sewerage Loan Sinking Fund	45,397 38
Public Playground Loan Sinking Fund	4,618 12
Municipal Loan Sinking Fund	22,302 64
Total	\$246,741 48

## COUPONS.

The following coupons remain unpaid February 1, 1898 :

Public Building Loan, due Jan. 1, 1897 . . .	\$20 00
Public Playground Loan, due June 1, 1896 . . .	100 00
“ “ “ due Dec. 1, 1896 . . .	100 00
Sewerage Loan, due Jan. 1, 1897 . . .	20 00
“ “ due Jan. 1, 1898 . . .	320 00
Public Building Loan, due July 1, 1897 . . .	20 00
“ “ “ due Jan. 1, 1898 . . .	1,080 00
Water Fund Loan, due Oct. 1, 1897 . . .	20 00
“ “ “ due Jan. 1, 1898 . . .	180 00
	\$1,860 00

## “ CHAPTER 312, ACTS OF 1885.

“ AN ACT TO LIMIT MUNICIPAL DEBT OF AND THE RATE OF  
TAXATION IN CITIES.

“ *Be it enacted, etc., as follows :*

“ Section 1. The taxes assessed on property in any city, except the city of Boston, exclusive of State tax, county tax and sums required by law to be raised on account of the city debt, shall not exceed in any year twelve dollars on every one thousand dollars of the average of the assessors' valuations of the taxable property therein for the preceding three years, the valuation for each year being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void.

“ Section 2. The limit of indebtedness of cities shall hereafter be two and one-half per cent on the average valuation prescribed in Section one of this act,” etc.

Net valuation, City of Medford, 1895 . . .	\$16,857,300
“ “ “ “ 1896 . . .	17,674,300
“ “ “ “ 1897 . . .	18,325,820

Average net valuation of the City of Medford for the years 1895, 1896 and 1897 .	\$17,619,140
	12
	<hr/>
	35238280
	17619140
	<hr/>

Assessed at \$12 per \$1,000, gives . . . \$211,429.68+

Which is the legal limit of taxation for municipal purposes for 1898, outside of the Sinking Fund requirements, interest on the debt and State and county tax, unless advantage is taken of the following Legislative Act of 1893 :

“ CHAPTER 247, ACTS OF 1893.

“ AN ACT AUTHORIZING ASSESSORS IN CITIES OF LESS THAN ONE HUNDRED THOUSAND INHABITANTS TO USE THE VALUATION OF THE YEAR PRECEDING AS A BASIS OF TAXATION.

“ *Be it enacted, etc., as follows :*

“ Section 1. In every city containing less than one hundred thousand inhabitants the taxes assessed on property, exclusive of State tax, county tax and sums required by law to be raised on account of city debt, shall not exceed in any year twelve dollars on every thousand dollars of the assessors' valuation of the taxable property therein for the preceding year, said valuation being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void ; but the city council of any city coming within the provisions of this act may, in any year, decide that the taxes assessed shall be raised, in accordance with the provisions of Section one of Chapter three hundred and twelve of the Acts of the year eighteen hundred and eighty-five.”

In which case, the net valuation for 1897,  
 being . . . . . \$18,325,820  
 12

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36651640  
 18325820

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Assessed at \$12 per \$1,000, gives . . . \$219,909.84

#### BORROWING CAPACITY.

Section 2 of Chapter 312 of the Acts of 1885 limits the indebtedness to 2½ per cent of the average valuation for the three preceding years.

Two and one-half per cent of \$17,619,140,  
 which is the average net valuation for the  
 years 1895, 1896 and 1897, is . . . \$440,478 50

\$1,121,000 of the bonded indebtedness is not to be considered or reckoned in determining the authorized limit of indebtedness of the City of Medford.

The Municipal Loan is within the  
 debt limit and amounts to . \$300,000 00  
 Deduct the Sinking Fund appli-  
 cable to this loan, . . . 22,302 64  


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 \$277,697 36

The Unfunded Debt amounts to 112,000 00  
 The Perpetual Care Fund, is . 19,020 00  
 The Permanent Debt, is . 14,609 42  


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 145,629 42

\$423,326 78  
 Borrowing Capacity, Feb. 1, 1898 . . . 17,151 72

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Limit of indebtedness . . . . . \$440,478 50

## PUBLIC PROPERTY.\*

ASSESSORS' VALUATION MAY 1, 1897.

(REAL ESTATE.)

## Ward 1.

56,758 feet land, Magoun Park . . . . .	\$12,500 00
James Schoolhouse . . . . .	8,500 00
58,900 feet land, Spring street, cor. Bradshaw	11,800 00
Engine House, Hose 4 . . . . .	5,000 00
8,270 feet land, Lot 15 Spring street . . . . .	1,500 00
Osgood Schoolhouse . . . . .	5,000 00
28,800 feet land, Middlesex avenue . . . . .	4,300 00
5,149 feet land, Lot 60 Farragut avenue . . . . .	400 00
5,149 feet land, Lot 61 Farragut avenue . . . . .	400 00
5,149 feet land, Lot 78 Sheridan avenue . . . . .	400 00
5,149 feet land, Lot 77 Sheridan avenue . . . . .	400 00
6,306 feet land, Lot 57 Central avenue, cor. Farragut . . . . .	650 00
6,074 feet land, Lot 58 Central avenue . . . . .	600 00
5,786 feet land, Lot 59 Central avenue, cor. Sheridan . . . . .	600 00
Curtis Schoolhouse . . . . .	5,000 00
26,545 feet land, Paris street . . . . .	4,000 00
58,952 feet land, Logan park . . . . .	10,600 00
14,120 feet land, Lot 8 Dell avenue . . . . .	400 00
13,660 feet land, Lot 9 Dell avenue . . . . .	400 00
19,750 feet land, Lot 7 Dell avenue . . . . .	600 00

## Ward 2.

Hose House and Shed . . . . .	\$2,000 00
9,870 feet land, Salem street . . . . .	2,450 00
Swan Schoolhouse . . . . .	8,000 00
25,423 feet land cor. Washington and Park sts.	8,900 00
Washington Schoolhouse . . . . .	45,000 00
56,520 feet land, Washington street, cor. Cross	16,950 00

## Ward 3.

Almshouse . . . . .	\$25,000 00
Stable . . . . .	1,000 00
Piggery, Tool and Tramp House . . . . .	700 00
Stone Crusher and Building . . . . .	1,000 00
16.49 acres land, Winthrop street . . . . .	8,250 00
Pest House . . . . .	500 00
7.61 acres land off Winthrop street . . . . .	2,300 00
Everett Schoolhouse . . . . .	8,000 00
10,155 feet land, Salem street . . . . .	3,050 00
119,950 feet land, Public Common, Salem st. . . . .	30,000 00
36,040 feet land, Salem st. Cemetery . . . . .	\$14,400 00
48,400 feet land, Cross st. Cemetery . . . . .	\$7,250 00
Dwelling house and Barn . . . . .	800 00
Brick Engine House . . . . .	3,500 00
Standpipe . . . . .	4,500 00
Ice, House, Sheds, Barn and Machinery . . . . .	5,000 00
Dwelling House (Tay House) . . . . .	800 00
Engine House at Spot Pond . . . . .	2,000 00
193 acres land, Forest street to Stoneham line . . . . .	57,900 00
High School Building . . . . .	150,000 00
63,558 feet land, Lot B, Forest street . . . . .	22,250 00
62,455 feet land, Lot A, Forest street . . . . .	21,850 00
City Hall . . . . .	8,000 00
4,270 feet land, High street, cor. Main . . . . .	10,700 00
1,056 feet land, Grand View avenue . . . . .	150 00
21,296 feet land, Governors ave., cor. High st. . . . .	5,300 00
Brooks Schoolhouse . . . . .	25,000 00
83,960 feet land, High street, Auburn to Allston streets . . . . .	21,000 00
Public Library . . . . .	20,000 00
24,129 feet land, High street . . . . .	7,250 00
Centre Schoolhouse . . . . .	25,000 00
30,112 feet land, High street . . . . .	10,550 00
58,000 feet land, Hastings Park . . . . .	\$10,450 00
Barn and Shed, Sewer Department . . . . .	300 00
Office and Storehouse, Sewer Department . . . . .	300 00

## Ward 4.

Police Station . . . . .	\$25,000 00
9,046 feet land, Main street cor. Union . . . . .	5,450 00
Engine, Hook and Ladder and Hose House . . . . .	20,000 00
10,480 feet land, Main street cor. South . . . . .	7,350 00
Cradock Schoolhouse . . . . .	10,000 00
26,690 feet land, Summer st., cor. College ave. . . . .	4,000 00
Highway Stables and Out Buildings . . . . .	2,500 00
105,000 feet land, James street . . . . .	8,400 00
Water Works Building . . . . .	12,000 00
43,320 feet land, James street to Swan street . . . . .	6,500 00
30,200 feet land, rear of Swan street . . . . .	200 00
3,560 feet land, " Old Town Pound," Union st. . . . .	550 00
3,458 feet land, Union street . . . . .	500 00
Cummings Schoolhouse . . . . .	4,500 00
19,810 feet land, Cotting street, cor. Adams . . . . .	2,400 00
2,550 feet land, Swan street (of Foster) . . . . .	300 00

## Ward 5.

Lincoln Schoolhouse . . . . .	\$35,000 00
42,000 feet land, Harvard street, between Dartmouth and Yale . . . . .	8,400 00
Hillside Schoolhouse . . . . .	15,000 00
29,775 feet land, Boston ave., cor. Winthrop street . . . . .	5,050 00
Tufts Schoolhouse . . . . .	15,000 00
33,851 feet land, junction Main and Medford streets . . . . .	6,750 00
21,600 feet land, " Brooks park " . . . . .	4,300 00
Brick Engine House . . . . .	12,000 00
7,780 feet land, Lots 25 and 26 Medford street . . . . .	1,400 00

## Ward 6.

Chemical and Hose House . . . . .	\$3,000 00
8,720 feet land, Canal street . . . . .	1,300 00
Hall Schoolhouse . . . . .	6,000 00



16,181 feet land, Harvard ave., cor. Sharon st.	3,250 00
5,210 feet land, junction Grove and High streets	\$1,550 00
Hervey Schoolhouse	6,000 00
25,600 feet land, Holton street, cor. Sharon	5,100 00
9.15 acres land, "Brooks Playstead"	20,000 00
12,140 feet land, adjoining Railroad	600 00
Gleason Schoolhouse	8,000 00
20,350 feet land, Warren st., cor. Madison and Gleason	4,050 00
33.37 acres land, Oak Grove Cemetery	\$33,350 00
	<hr/>
	\$891,350 00

\*This includes only a portion of the property owned by the Water Department.

#### BY WARDS.

(All Parks and Cemeteries included.)

Ward 1	\$73,050 00
Ward 2	83,300 00
Ward 3	514,050 00
Ward 4	109,650 00
Ward 5	102,900 00
Ward 6	92,200 00
	<hr/>
Total	\$975,150 00

# MEDFORD HISTORICAL SOCIETY.

æ. 2365.

## REPORT OF ACCOUNTANTS.

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BOSTON, December 15, 1897.

*Hon. Lewis H. Lovering, Mayor of the City of Medford:*

DEAR SIR,— Agreeably to your request, we have made an examination of the accounts of the Auditor, Treasurer and Collector of Taxes, of the City of Medford, from February 1st, 1893, to February 1st, 1897, and beg to submit the following report:

In conducting our examination, we have had in view: First,—To ascertain the correctness of the Auditor's, Treasurer's and Collector's accounts. Second,—The financial condition of the city at the commencement of its first fiscal year, on February 1st, 1893, and on February 1st of each succeeding year. Third,—The reason for the large increase in the Net Debt not accounted for by the issue of Bonds.

We submit herewith Exhibits A, B, C, and D, covering the financial years 1893, 1894, 1895 and 1896 respectively. Each exhibit shows Receipts and Expenditures for the year, Liabilities and Assets, at the beginning and close of each year; a table comparing Liabilities and Assets at beginning and close of each year and an explanation of the changes as shown in the table. At the end of Exhibit D, (pages 390 and 391,) we give a table comparing Liabilities and Assets on February 1st, 1893, with those of February 1st, 1897, and an explanation of the changes during that period.

Our examination of the accounts of the Auditor and Treasurer has included the verification of all payments passed by the Auditor, and paid by the Treasurer, by the original re-

ceipted bill, cancelled bond, note or coupon, and for all such payments we find a proper voucher and from the endorsements thereon they are apparently charged to the proper accounts. We have also verified the receipts, so far as practicable, and find them properly accounted for.

The balance of Cash in Treasury on Feb.		
1, 1893, as shown by the books, was	-	\$31,581 33
The total receipts from Feb. 1, 1893, to Feb.		
1, 1897, as more fully shown in Exhibits		
A, B, C and D, (on pages 356, 365, 374,		
383,) were	- - - - -	3,359,961 03
		<hr/>
		\$3,391,542 36

The total expenditures from Feb. 1, 1893		
to Feb. 1, 1897, as more fully shown in		
Exhibits A, B, C and D, (on pages 358,		
367, 376, 385) were	- - - - -	3,347,671 14
		<hr/>
Balance in Treasury Feb. 1, 1897 was		\$43,871 22

This balance we have verified by the actual cash in Treasury on October 25, 1897, at which date it was \$41,123.89.

We hand you herewith, Exhibit F, (page 403,) showing the standing of the different accounts in the Collector's department. The Tax Accounts for the balances due on the tax list of 1891 and 1892, and the tax levies of 1893 and 1894, have been closed and the funds collected therefrom paid to the Treasurer, as more fully shown on page 403. We have verified the amounts shown as uncollected on the tax lists of 1895 and 1896 by a list taken from the Collector's books and find them as stated on page 403. We found the Sewer Assessment and Sewer Apportionment accounts somewhat mixed together, and we have treated them as one account. We did not take off an account of those outstanding. These accounts should be separated and kept in such a manner

that they could be verified by a list of those uncollected, at any time.

As shown on page 406 the Collector on November 20, 1897, owed the city the sum of \$5,467.58 for funds collected and not paid to the Treasurer.

We verified his cash on hand at that date and found it to be \$5,559.73 or an excess of \$92.15 which the collector informs us is caused by his having used some of his personal funds when he first became collector and which he has allowed to remain.

As shown on page 403, there is due the Collector \$26.65 on the tax list of 1895.

The Receipts and Expenditures for the several years are shown in Exhibits A, B, C and D, (on pages 356, 364, 373, 382.) They correspond with the Receipts and Expenditures as shown in the Auditor's report for each year, where they are given in greater detail.

**LIABILITIES AND ASSETS ON FEB. 1, 1893-'94-95-96-'97,  
ALSO INCREASES IN NET DEBT.**

In making making up the statement of Liabilities and Assets, we have not included the accrued interest on bonds, notes or taxes or some small outstanding receivables which we understand are of doubtful value. The sewer assessments, apportionments and connections are shown on both sides of the account, it being understood that they are especially applicable to sewer construction, and stand credited to that department for that purpose.

We find the liabilities and assets at the commencement of the first fiscal year, or on Feb. 1, 1893, as more fully shown on page 359, to have been :

Total Liabilities	\$444,963 63
Total Assets	109,292 69
	<hr/>
Net Debt, Feb. 1, 1893	\$335,670 94

The Liabilities at the close of the year, or on February 1, 1894, as more fully shown on page 360, were :

Total Liabilities . . . . .	\$471,834 69
Total Assets . . . . .	134,699 21
Net Debt, Feb. 1, 1894 . . . . .	\$337,135 48
Net Debt, Feb. 1, 1893 (see page 359) . . . . .	335,670 94
Increase in Net Debt from Feb. 1, 1893 to Feb. 1, 1894, as shown on page 360 . . . . .	\$1,464 54

The various changes in Liabilities and Assets which produced this result, as more fully shown on pages 362 and 363, were as follows :

The Liabilities Increased (page 362) . . . . .	\$26,871 06
The Assets Increased (page 363) . . . . .	25,406 52
Net Increase in Liabilities and Net Debt . . . . .	\$1,464 54

#### LIABILITIES AND ASSETS, FEB. 1, 1895.

The Liabilities and Assets on February 1, 1895, as more fully shown on page 368, were :

Total Liabilities . . . . .	\$735,893 33
Total Assets . . . . .	130,434 74
Net Debt, Feb. 1, 1895 . . . . .	\$605,458 59
Net Debt, Feb. 1, 1894 (see page 363) . . . . .	337,135 48
Increase in Net Debt from Feb. 1, 1894 to Feb. 1, 1895, page 368 . . . . .	\$268,323 11

The various changes in Liabilities and Assets which produced this result, as more fully shown on pages 369 to 371, were as follows :

The Liabilities Increased (see page 371) . . . . .	\$264,058 64
The Assets Decreased (see page 372) . . . . .	4,262 47
Net Increase in Liabilities and Net Debt . . . . .	\$268,323 11

## LIABILITIES AND ASSETS, FEB. 1, 1896.

The Liabilities and Assets on February 1, 1896, as more fully shown on page 377, were :

Total Liabilities . . . . .	\$1,350,794 57
Total Assets . . . . .	296,622 40
<hr/>	
Net Debt, Feb. 1, 1896 . . . . .	\$1,054,172 17
Net Debt, Feb. 1, 1895 (see page 377) . . . . .	605,458 59
<hr/>	
Increase in Net Debt from Feb. 1, 1895 to Feb. 1, 1896 . . . . .	\$448,713 58

The various changes in Liabilities and Assets which produced this result, as more fully shown on pages 378 to 381 were as follows :

The Liabilities Increased (see pages 379)	\$614,901 24
The Assets Increased (see page 381)	166,187 66
<hr/>	
Net Increase in Liabilities and Net Debt . . . . .	\$448,713 58

## LIABILITIES AND ASSETS, FEB. 1, 1897.

The Liabilities and Assets on February 1, 1897, as more fully shown on pages 385 and 386, were as follows :

Total liabilities . . . . .	\$1,559,627 81
Total assets . . . . .	341,412 64
<hr/>	
Net debt February 1, 1897 . . . . .	\$1,218,215 17
Net debt February 1, 1896 (page 377) . . . . .	1,054,172 17
<hr/>	
Increase in net debt from February 1, 1896 to February 1, 1897 . . . . .	\$164,043 00

The various changes in liabilities and assets which produced this result, as more fully shown on pages 387 to 390 were as follows :

The liabilities increased . . . .	\$208,833 24
The assets increased . . . .	44,790 24
	<hr/>
Net increase in liabilities and net debt . .	\$164,043 00
The net debt February 1, 1893 was . . .	335,670 94
The increases in net debt from February 1, 1893 to Feb. 1, 1897 were (See p. 391).	
From February 1, 1893 to	
February 1, 1894 . . . \$1,464 54	
From February 1, 1894 to	
February 1, 1895 . . . 268,323 11	
From February 1, 1895 to	
February 1, 1896 . . . 448,713 58	
From February 1, 1896 to	
February 1, 1897 . . . 164,043 00	
	<hr/>
Total increase in net debt February 1, 1893 to February 1, 1897 . . . .	882,544 23
	<hr/>
Net debt February 1, 1897 . . . .	\$1,218,215 17
The above increase in net debt of \$882,544.23 may properly be divided into two elements: First, that caused by the issue of Bonds, less Sinking Funds, as more fully shown on page 391, amounting to . . . \$724,635 39	
Second, that caused from the increase in the Perpetual Care Fund, notes, balances, etc., less cash, taxes, etc., as more fully shown on page 392, amounting to . . . 157,908.84	
	<hr/>
	\$882,544 23

The large increase in net debt, other than is accounted for by the issue of bonds, has been principally due to three reasons:

First: An error on the part of the Auditor, particularly in 1895 and 1896, in deducting the cash in treasury on February 1st; also collections made, from February 1st, to the

date of his certificate, from the uncollected Taxes outstanding February 1st, and by taking onto account balances to be reimbursed to the treasury where bonds are to be sold and ignoring balances where bonds have been sold and the money not expended.

Second: An error on the part of the Assessors in deducting \$12,000 uncollected taxes in making up their assessment for 1896.

Third: By appropriations made in 1895 and in 1896; especially in the latter, which were to be paid by notes payable in from one to four years.

We submit herewith an exhibit marked E, showing how nearly the ordinary expenditures of each fiscal year were paid by the Taxes assessed and Miscellaneous Income of that year; also the application of all other receipts to the other than ordinary expenditures. The Auditor's Certificate to the Assessors and the Assessors' Assessment. In the fiscal year 1893, the taxes assessed and income *exceeded* the ordinary expenditures by \$19,899.08 as more fully shown on page 393. In this year the records do not show any details as to how the assessment was made up.

In the fiscal year 1894 the taxes assessed and income exceeded the ordinary expenditures by \$7,913.17, as more fully shown on page 395. By referring to the copy of the Auditor's Certificate on page 396, you will note that he has deducted the sum of \$30,171.75 from the amount to be raised by taxation. In doing this, we believe he was in error except as to the sum of \$12,274.67 for unexpended balances from the previous year reappropriated, and which were included in the previous year's tax levy, and having been raised by taxation once would not need to be included again. The assessors' records, as shown on page 396, give no details as to how they made their assessment. It would appear, however, that they did not deduct the full amount for estimated receipts as recommended by the Auditor. Had they done so the result for the year would have been a deficit and not an excess.



In the fiscal year 1895, the ordinary *expenditures exceeded* the taxes assessed and income by \$42,080.84, as more fully shown on page 397.

By referring to the copy of the Auditor's Certificate page 398, you will note that he deducts the sum of \$59,905.24 for cash and taxes collected, also \$6,812.74 for expenditures to be reimbursed to the treasury. He, however, does not take into account the fact that there are balances due accounts where bonds have been sold amounting to \$44,811.41 (see page 368.) On February 1st, the cash in treasury and uncollected taxes together amounted to . \$68,552 31  
Add amounts to be reimbursed . . . . 6,812 74

---

\$75,365 05

Deduct balances due . . . . \$44,811 41

Reappropriation of balances from  
the previous year and included in  
that year's taxes hence in cash or  
uncollected taxes . . . . 9,686 49

---

\$54,497 90

Balance over . . . . . \$20,867 15

Yet the Auditor deducts in all . . . . . 66,717 98

In the fiscal year 1896, the *ordinary expenditures exceeded* the taxes assessed and income by \$77,948.54 as more fully shown on page 400. By referring to the copy of the Auditor's Certificate on page 401, you will note that he deducts \$49,691.02 for cash and taxes collected, and in addition, \$29,773.22 for amounts to be reimbursed in the treasury. He properly might have deducted \$2,332.87, the amount of balances reappropriated and which were included in the tax levy of the previous year.

He does not, however, take into account the amount due for unexpended balances amounting to \$104,815.20 or the amount due the Sewer Department of \$26,869.22 (see pages 376 and 377.)

He does not take into account the Perpetual Care Fund of \$19,822.50. This fund has never been invested and shows on the books as an open account. We are informed that it was the intention to include it in this year's taxes in order that it might be put into the treasury and invested. You will note, however, that it was not included in the amount raised. The Auditor simply deducted it from his cash and decreased his credit deducted by that amount.

On February 1st, the cash in treasury and uncollected taxes together amounted to (page 377)	. . . \$83,378 74
Add amount to be reimbursed (page 377)	. . . 29,773 22

Total . . . . .	\$113,151 96
Deduct :	
Balances due (page 376****)	\$104,815 20
Due Sewer Dept. cash collected (page 377) . . . . .	26,869 22
Balances reappropriated . . . . .	2,332 87
	<hr/> \$134,017 29

<i>Excess of amount deducted over</i>	
<i>Cash and Taxes . . . . .</i>	\$21,865 33
Yet the Auditor deducts in all . . . . .	79,464 24

By referring to the Assessors' Assessment as given on page 401, you will note that they have deducted the sum of \$12,000 for uncollected taxes. This was a serious error on their part. They should have known from the Auditor's Certificate, that he had already taken into account \$23,797.07 of the uncollected taxes and that by deducting \$12,000 they were practically deducting as a credit the entire amount of uncollected taxes on February 1st, 1896.

From February 1, 1893, to February 1, 1897, we find that the *ordinary expenditures exceeded* the taxes assessed and income by \$92,217.13, as more fully shown on page 402. The fiscal years 1895 and 1896 showed an excess of expen-

ditures over taxes assessed and income of	\$120,029 38
The fiscal years 1893 and 1894 an excess of taxes assessed and income over expendi- tures of . . . . .	27,812 25
<hr/>	
Excess of ordinary expenditures over tax levies and miscellaneous income in the 4 years	\$92,217 13

The above excess constitutes a part of the increase in net debt, as more fully shown on page 392, of \$157,908.84.

#### APPROPRIATIONS PAYABLE BY NOTES.

In 1895, there were three appropriations made amounting to \$24,523.29, for which the treasurer was authorized to issue notes. Of these appropriations, \$22,521.80 was expended. The notes payable outstanding February 1, 1896, showed an increase over those of 1895 (as shown on page 378) of \$28,-500 which would be largely due to the above appropriations.

In 1896, there were five appropriations made amounting to \$56,372.96 for which the Treasurer was authorized to issue notes payable in from two to three years and notes were also issued payable in four years to cover the appropriation for the Public Library building, amounting to \$19,000 or a total of \$75,372.96; of this amount \$65,751.60 was expended.

The notes outstanding on February 1, 1897, show an increase over those of February 1, 1896, as shown on page 387, of \$123,500, and notes in anticipation of Taxes \$85,-000 which, of course, was largely due to the above appropriations.

#### TRUST AND PERPETUAL CARE FUNDS.

These Funds show on the books of the City as open accounts. We are informed that they have never been invested yet the money has been used. The interest on them has been regularly paid, that on the Perpetual Care Fund being paid to the Trustees of Oak Grove Cemetery. We

would advise that these Funds be placed in the hands of the Trustees and the Funds regularly invested.

In closing, we wish to thank the officers and employees of the several departments for their courtesy and aid.

Respectfully submitted,

THOS. P. PARSONS,  
HARRY W. MARDEN,  
*Accountants.*

Room 1149 Tremont Building, Boston, Mass.

(Exhibit A.)

## RECEIPTS AND EXPENDITURES

FROM FEBRUARY 1, 1893, TO FEBRUARY 1, 1894.

Balance Feb. 1, 1893, including dog tax of 1892 . . . . .	\$31,581 33
--	-------------

## RECEIPTS.

State and military aid . . . . .	\$1,765 50
Oak Grove Cemetery . . . . .	5,134 50
General repairs (highway) . . . . .	2,476 30
Sidewalks and edgestones . . . . .	2,303 66
Middlesex avenue bridge . . . . .	377 64
Outside relief and almshouse . . . . .	1,214 17
Collection of ashes and house offal . . . . .	542 25
County of Middlesex, High street award . . . . .	1,500 00
Tax titles redeemed . . . . .	102 40
Interest on Osgood and Tufts fund . . . . .	150 57
Interest on Bradbury fund, taxes and de- posits . . . . .	3,056 25
Fire department receipts . . . . .	303 50
Corporation and bank tax . . . . .	26,846 80
Ship tax . . . . .	135 80
Dog tax . . . . .	1,382 93
Sundry receipts from miscellaneous acc'ts . . . . .	2,693 96
Premium on 72,000 water bonds . . . . .	1,216 80
Perpetual care (to be added to fund) . . . . .	1,125 00
Rent and repairs (water department) . . . . .	1,590 89
Maintenance and interest on bonds (water department) . . . . .	37,333 89
New construction (water department) . . . . .	1,252 99
Armory . . . . .	200 00
Sundry small receipts . . . . .	300 59
Borrowed in anticipation of taxes . . . . .	137,000 00
Taxes collected (not including interest or costs) . . . . .	235,224 92
Water bonds sold . . . . .	72,000 00
Total receipts . . . . .	<u>\$537,231 31</u>
	\$568,812 64

## EXPENDITURES.

Hydrants . . . . .	\$3,660	00
Interest . . . . .	9,699	98
Sundries (miscellaneous account) . . . . .	3,653	29
Salaries and fees . . . . .	9,290	27
Street lights . . . . .	10,997	94
State aid and soldiers' relief . . . . .	3,159	46
Voting precincts and election expenses . . . . .	1,671	42
Armory, . . . . .	\$699.95	
City Hall, . . . . .	990.80	
	<hr/>	1,690 75
Insurance, . . . . .	\$455.51	
Reporter, . . . . .	655.77	
	<hr/>	1,111 28
Telephone . . . . .	781	40
Decoration Day . . . . .	300	00
Rent rifle range, \$125; ringing bells, \$18 . . . . .	143	00
Assessors' expenses . . . . .	2,984	35
Auditor's salary and expense . . . . .	1,117	80
Cemetery department . . . . .	6,014	12
Fire department . . . . .	14,282	12
Health department . . . . .	1,095	22
Police department . . . . .	12,620	96
Public library . . . . .	5,180	81
Relief of poor department . . . . .	13,674	80
School department . . . . .	57,497	49
Highway department:		
General repairs . . . . .	18,180	36
Sidewalks and edgestones . . . . .	8,080	22
Steam road roller . . . . .	4,188	47
Snow . . . . .	1,234	47
Collection of ashes and house offal . . . . .	4,282	02
Outfit for collecting ashes, etc. . . . .	1,105	61
Weir Bridge . . . . .	2,338	51
Gravelly Creek . . . . .	13,310	58
High street widening . . . . .	2,071	45
Salary street commissioners . . . . .	1,600	00
Repairs on sundry streets, stables, trees, bridges, etc. . . . .	6,421	20
Improving and enlarging water supply . . . . .	19,820	53

Maintenance and interest on water bonds (includes amount due Sinking Fund Commissioner for net income of 1892 and years previous to Feb. 1, 1893, viz.: \$15,386.08) . . . . .	43,941 90
New construction and service pipe . . . . .	14,983 95
Pumping station at Wright's Pond . . . . .	4,169 98
Driven wells . . . . .	6,190 03
Rents and repairs, salaries of commis- sioners, etc. . . . .	689 16
Sewer department, surveying . . . . .	2,134 84
Otis street park . . . . .	6,542 49
Public Commons . . . . .	10 00
Engine house lot, Medford street . . . . .	1,560 00
Schoolhouse lot, Harvard street . . . . .	7,567 56
Washington schoolhouse . . . . .	3,500 00
Unpaid bills of previous year . . . . .	5,980 72
Water Loan Sinking Fund, premium received on bonds issued . . . . .	1,216 80
City Council contingent . . . . .	749 17
City Hall equipment and furnace . . . . .	1,152 62
Estate Frances Brooks . . . . .	550 00
Estates bought at tax sale and abated taxes	383 76
National Construction Co. . . . .	546 08
Sundry small accounts . . . . .	37 89
Payment of city debt . . . . .	15,350 00
Notes in anticipation of taxes, amount borrowed during the year and repaid same year . . . . .	137,000 00
Note in anticipation of taxes due April 30, 1893 . . . . .	10,000 00
Note due Jan. 27, 1894 . . . . .	20,000 00
State, county and sewer tax . . . . .	26,148 71
<b>Total expenditures . . . . .</b>	<b>\$553,669 54</b>
<b>Balance of cash Feb. 1, 1894</b>	<b>\$15,143 10</b>

## LIABILITIES AND ASSETS FEBRUARY 1, 1893.

LIABILITIES.	
Trust funds :	
Secomb fund . . . . .	\$5,800 00
Hall church fund . . . . .	5,000 00
Simons fund . . . . .	1,300 00
Osgood fund . . . . .	2,009 42
Tufts fund . . . . .	500 00
	<hr/>
	\$14,609 42
Perpetual care fund . . . . .	12,857 50
Notes in anticipation of taxes . . . . .	10,000 00
Notes (unfunded debt, including two water works notes \$31,000) . . . . .	126,350 00
Water bonds . . . . .	250,000 00
Unpaid bills of town of Medford . . . . .	5,980 89
Water works dept., balances due maintenance and interest account . . . . .	25,165 82
	<hr/>
Total liabilities . . . . .	\$444,963 63
ASSETS.	
Cash in treasury, February 1, 1893	\$31,581 33
Uncollected taxes, 1893, . . . . .	\$7,573.56
"    "    1894, . . . . .	28,932.33
	<hr/>
	36,505 89
State and military aid due from state for expenditures of 1892 . . . . .	1,765 50
Sinking fund . . . . .	39,439 97
Total assets . . . . .	<hr/>
	109,202 69
Net debt, February 1, 1893 . . . . .	<hr/>
	\$335,670 94

## LIABILITIES AND ASSETS, FEBRUARY 1, 1894.

LIABILITIES.	
Trust funds (same as February 1, 1893)	\$14,609 41
Perpetual care fund . . . . .	13,982 50
Notes (unfunded debt) . . . . .	80,000 00
Water bonds . . . . .	322,000 00



Water works dept., balance due maintenance and interest and Boston avenue connection accounts . . . . .	19,423 31
Unexpended balance due water dept. from the \$72,000 water bonds issued :	
Improving and enlarging water supply	\$9,679 47
Pumping station at Wright's pond . . . . .	5,830 02
Driven wells . . . . .	6,309 97
	<u>\$21,819 46</u>
Total liabilities, Feb. 1, 1894	\$471,834 69

## ASSETS.

Cash in treasury, February 1, 1894	\$15,143 10
Uncollected taxes . . . . .	41,585 16
Sinking fund . . . . .	58,260 06
State and military aid due from state for expenditure of 1893 . . . . .	1,851 50
Amounts paid during the year on the following accounts, same to be repaid when bonds are sold :	
From sewer bonds, surveying	\$2,134 84
From playground bonds, Otis street park . . . . .	6,542 49
From public building bonds, engine house lot . . . . .	1,560 00
From public building bonds, schoolhouse lot, Harvard street . . . . .	7,567 56
From public building bonds, Harvard street schoolhouse	54 50
	<u>17,859 39</u>
Total assets, February 1, 1894	<u>134,699 21</u>
Net debt Feb. 1, 1894 . . . . .	\$337,135 48
Net debt Feb. 1, 1893 . . . . .	335,670 94
	<u>\$1,464 54</u>
Increase in net debt during the year	\$1,464 54

COMPARISON OF LIABILITIES AND ASSETS ON FEBRUARY 1,  
1893, WITH THOSE ON FEBRUARY 1, 1894.

LIABILITIES.				
	Feb. 1, 1893.	Feb. 1, 1894.	Increase.	Decrease.
Trust Funds (see Sheet 3-4) . . . . .	\$14,609 42	\$14,609 42		
Perpetual Care Fund . . . . .	12,857 50	13,982 50	\$1,125 00	
Notes in anticipation of Taxes . . . . .	10,000 00			\$10,000 00
Notes, Unfunded Debt . . . . .	126,350 00	80,000 00		46,350 00
Water Bonds . . . . .	250,000 00	322,000 00	72,000 00	
Unpaid Bills, Town of Medford . . . . .	5,980 89			5,980 89
Balance due Maintenance and Interest, account of Water Department (see Sheets 3-4) . . . . .	25,105 82	19,423 31		5,742 51
Balance due Water Dept. . . . .		21,819 46	21,819 46	
	\$444,903 63	\$471,834 69	\$91,944 46	\$68,073 40
ASSETS.				
	Feb. 1, 1893.	Feb. 1, 1894.	Increase.	Decrease.
Cash in Treasury . . . . .	\$31,581 33	\$15,143 10		\$16,438 23
Uncollected Taxes . . . . .	36,595 89	41,585 16	\$5,079 27	
State and Military Aid . . . . .	1,785 50	1,851 50	86 00	
Sinking Fund . . . . .	39,439 97	58,200 06	18,820 09	
Balances due from Sundry Accounts, for which Bonds have been issued (see Sheet 4) . . . . .		17,859 39	17,859 39	
	\$109,292 69	\$134,669 21	\$41,844 75	\$16,438 23
Liabilities increased . . . . .		\$94,944 46		
Liabilities decreased . . . . .		68,073 40		
Net increase in Liabilities . . . . .			\$26,871 06	
Assets increased . . . . .		\$41,844 75		
Assets decreased . . . . .		16,438 23		
Increase in Assets . . . . .			25,406 52	
Net increase in debt . . . . .				\$1,464 54
Net debt, February 1, 1893 . . . . .				335,670 94
Net debt, February 1, 1894 . . . . .				\$337,135 48

EXPLANATION OF CHANGES IN LIABILITIES AND ASSETS  
(as shown in table above.)

Net debt Feb. 1, 1894 . . . . .	\$337,135 48
Net debt Feb. 1, 1893 . . . . .	335,670 94
Increase in net debt Feb. 1893 to Feb. 1, 1894 . . . . .	\$1,464 54
Liabilities Feb. 1, 1894 . . . . .	471,834 69
Liabilities Feb. 1, 1893 . . . . .	444,963 63
Increase in liabilities . . . . .	\$26,871 06

The above increase in liabilities is made up as follows:

Perpetual care fund (by amount received)	1,125 00
Water bonds issued for following purposes :	
To pay note due Jan. 24, 1894 . . . . .	20,000 00
To pay note D. D. Wright . . . . .	11,000 00
Expended for improving and enlarging	
water supply . . . . .	8,820 53
Expended on driven wells . . . . .	6,190 03
Expended on pumping station . . . . .	4,169 98
To cover following unexpended balances	
(see page 360) :	
Improving and enlarging . . . . .	9,679 47
Pumping station . . . . .	5,830 02
Driven wells . . . . .	6,309 97
	<hr/>
	\$72,000 00
Unexpended balance due water works'	
account (see page 360) . . . . .	21,819 46
	<hr/>
Total increase . . . . .	94,944 46
Liabilities decreased as follows :	
Note in anticipation of taxes paid . . . . .	10,000 00
Unfunded debt :	
Note due January 24, (paid from proceeds	
of water bonds) . . . . .	20,000 00
Note to D. D. Wright (paid from proceeds	
of water bonds) . . . . .	11,000 00
Note due January 5 (paid from appropriation)	
) . . . . .	11,350 00
Note due Aug. 23, 1893 . . . . .	4,000 00
Unpaid bills of town of Medford . . . . .	5,980 89
Amount due maintenance and interest	
account water works . . . . .	5,742 51
	<hr/>
Total decrease . . . . .	68,073 40
	<hr/>
Net increase in liabilities . . . . .	\$26,871 06
Assets Feb. 1, 1894 . . . . .	134,699 21
Assets Feb. 1, 1893 . . . . .	109,292 69
	<hr/>
Increase in assets . . . . .	\$25,406 52

The above increase in assets is made up as follows :

Uncollected taxes . . . . .	\$5,079 27	
Due from state for state aid . . . . .	86 00	
Sinking fund :		
Surplus earnings water dept.		
for 1892 . . . . .	\$7,203 85	
Surplus earnings water dept.		
for 1893 (paid in maintenance and interest acct.)	8,182 23	
Premium on bonds sold . . . . .	1,216 80	
Int. on investments as shown by report of commissioner	2,217 21	
	<u>          </u>	18,820 09

Following payments during the year to be repaid from proceeds of bonds when bonds are sold: (see page 360)

Surveying (sewer) . . . . .	2,134 84	
Otis street pk. (playground)	6,542 49	
Engine house lot (building)	1,560 00	
Schoolhouse lot, Harvard st. (building) . . . . .	7,567 56	
Schoolhouse, Harvard street	54 50	
	<u>          </u>	17,859 39
		<u>          </u>
		\$41,844 75

The assets decreased as follows :

Cash in the treasury . . . . .	16,438 23	
	<u>          </u>	
Net increase in assets . . . . .		\$25,406 52
		<u>          </u>
Increase in net debt . . . . .		1,464 54
Net debt Feb. 1, 1893 . . . . .		385,670 94
		<u>          </u>
Net debt Feb. 1, 1894 . . . . .		\$337,135 48

(Exhibit B.)

## RECEIPTS AND EXPENDITURES.

FEBRUARY 1, 1894, TO FEBRUARY 1, 1895.

Cash balance, February 1, 1894 . . . \$15,143 10

## RECEIPTS.

Armory . . . . .	\$100 00
Interest . . . . .	3,766 91
Soldiers Relief . . . . .	17 50
State Aid . . . . .	1,855 50
Oak Grove Cemetery . . . . .	4,010 19
Fire Department . . . . .	43 00
Ashes and house offal . . . . .	134 50
Highways, general repairs . . . . .	5,054 14
Sidewalks and edgestones . . . . .	2,430 16
Middlesex avenue bridge . . . . .	425 99
Public Library . . . . .	150 57
Outside relief and almshouse . . . . .	2,450 86
Abated taxes and sales for taxes . . . . .	67 86
Sewer construction . . . . .	3,042 99
Water works construction . . . . .	1,361 48
Improving and enlarging water supply . . . . .	700 00
Maintenance and interest on bonds . . . . .	29,984 07
Rents and repairs (water dept.) . . . . .	479 00
High service . . . . .	23 12
Miscellaneous accounts . . . . .	5 00
Perpetual care to be added to fund . . . . .	1,490 00
Borrowed in anticipation of taxes . . . . .	100,000 00
Street watering assessment . . . . .	1,888 95
Miscellaneous credits :	
80 Public building bonds . . . . .	30,000 00
Premium on same . . . . .	1,443 00
64 Sewer bonds . . . . .	64,000 00
Premium on same . . . . .	2,630 40
7 Playground bonds . . . . .	7,000 00
Premium on same . . . . .	230 95
50 Water bonds . . . . .	50,000 00
Premium on same . . . . .	2,138 00
40 Sewer bonds . . . . .	40,000 00
Premium on same . . . . .	1,452 00

71 Public building bonds . . . . .	71,000 00	
Premium on same . . . . .	3,393 80	
14 Playground bonds . . . . .	14,000 00	
Premium on same . . . . .	871 50	
45 water bonds . . . . .	45,000 00	
Premium on same . . . . .	3,100 00	
From sinking fund commission to pay		
water bonds . . . . .	50,000 00	
Warren institution for savings note . . . . .	12,000 00	
State, corporation and bank tax . . . . .	22,882 82	
Licenses and fees . . . . .	5,615 55	
Court fines and fees . . . . .	1,771 60	
Costs on taxes from Collector, \$949.55		
" " " " 102.40		
	<u>1,051 95</u>	
Lots in Oak Grove cemetery . . . . .	260 00	
Sundry accounts . . . . .	124 80	
Taxes collected (not including interest or costs)	237,962 55	
Total receipts . . . . .	<u>\$827,711 03</u>	
		<u>\$842,854 13</u>

EXPENDITURES.

Advertising . . . . .	\$742 97
Abated taxes and estates bought at tax sale . . . . .	61 92
Armory . . . . .	799 13
Canvassing births . . . . .	100 00
Celebration of Fourth of July . . . . .	264 00
Claims against the city . . . . .	1,225 00
City Council contingent . . . . .	364 62
City Hall fuel, light and equipment . . . . .	2,370 16
Decoration Day . . . . .	300 00
Engine house, Medford street . . . . .	9,082 07
Engine and horses . . . . .	2,308 21
Gravelly Creek . . . . .	587 25
High schoolhouse . . . . .	532 38
Hydrants . . . . .	4,065 00
Insurance . . . . .	1,993 07
Interest . . . . .	9,752 89

Land for high schoolhouse . . . . .	15,122	55
Land for police station . . . . .	6,500	00
Premiums on bonds sold, paid to sinking fund commissioner . . . . .	15,259	97
Water bonds paid . . . . .	50,000	00
Commonwealth of Mass., liquor licenses and corporation tax . . . . .	1,256	22
Sundry claims . . . . .	50	00
Metropolitan sewer tax (assessed in 1894)	7,109	73
Middlesex County tax (assessed in 1894)	11,111	11
Map of Medford . . . . .	483	22
Miscellaneous accounts . . . . .	1,852	02
Notes in anticipation of taxes paid	100,000	00
Notes paid (unfunded debt) . . . . .	24,000	00
Plans for high schoolhouse . . . . .	2,500	00
Police station . . . . .	9,895	51
Salaries and fees . . . . .	10,644	89
Lincoln schoolhouse, Harvard street	35,671	25
State aid and soldiers relief . . . . .	4,115	87
State tax . . . . .	10,160	00
Street lights . . . . .	11,097	98
Telephones . . . . .	748	42
Voting precincts and election expenses	1,490	86
Sundry small accounts . . . . .	1,237	08
Water loan sinking fund . . . . .	20,480	55
Assessing dept., expenses and salaries	3,140	75
Auditing dept., expenses and salaries	1,676	86
Cemetery dept., expenses and salaries	5,294	56
Engineering dept., expenses and salaries	999	85
Fire dept., salaries and expenses . . . . .	16,043	29
Health dept., salaries and expenses . . . . .	916	63
Highway department:		
General repairs . . . . .	24,381	99
Sidewalks and edgestones . . . . .	6,619	59
Collecting ashes and house offal . . . . .	5,196	83
Removing snow . . . . .	1,287	19
Watering streets . . . . .	2,256	38
Care of and setting out trees . . . . .	1,276	47
Marion street drain and Middlesex avenue bridge . . . . .	2,211	18

Salary street commissioner . . . .	1,600 00
Governors avenue . . . . .	2,479 39
Sundry streets, bridges, drains and engineering . . . . .	6,740 50
Brooks Playstead . . . . .	13,500 00
Otis street park and public commons . .	614 35
Police department . . . . .	14,574 54
Public library . . . . .	5,180 52
Poor department . . . . .	13,374 91
School department . . . . .	60,460 93
Sewer construction and survey . . . .	90,076 49
Improving and enlarging water supply .	26,482 09
Maintenance and interest on bonds (in- cludes amount due sinking fund com- missioners Feb. 1, 1894, for surplus earnings for 1893, \$8,251.60 . . . .	34,677 21
New construction . . . . .	9,606 09
Pumping station . . . . .	2,332 40
Renewal of main between ponds . . . .	3,780 36
High service . . . . .	76,290 54
Driven wells, rents and repairs Boston avenue and salaries . . . . .	2,172 81
Total expenditures	<u>\$810,080 10</u>
Cash balance February 1, 1895	<u>\$32,774 08</u>

## LIABILITIES AND ASSETS FEBRUARY 1, 1895.

### LIABILITIES.

Permanent debt (trust funds as in 1893)	\$14,609 42
Perpetual care . . . . .	15,472 50
Unfunded debt . . . . .	68,000 00
Water bonds . . . . .	367,000 00
Public building bonds . . . . .	101,000 00
Playground bonds . . . . .	21,000 00
Sewer bonds . . . . .	104,000 00
Balances unexpended on public building bonds:	
Engine house . . . . .	\$2,117 93
Lincoln school . . . . .	1,274 25



Police station . . . . .	11,604 49	
Issue in excess of appropriations . . . . .	1,049 89	
	<hr/>	16,046 56
Balance unexpended on Otis street park for which bonds have been issued . . . . .		457 51
Balances unexpended on sewer bonds issued . . . . .		14,831 66
Balances unexpended on water bonds issued :		
Driven wells . . . . .	6,080 68	
Pumping station . . . . .	3,497 62	
Improving and enlarging water supply . . . . .	3,897 38	
	<hr/>	13,475 68
Total liabilities Feb. 1, 1895 . . . . .		<hr/> 735,893 33

## ASSETS.

Cash in treasury Feb. 1, 1895 . . . . .	\$32,774 03	
Taxes uncollected . . . . .	35,778 28	
Sinking funds :		
Water . . . . .	\$42,916 00	
Public buildings . . . . .	4,644 08	
Sewer . . . . .	4,030 06	
Playground . . . . .	1,104 75	
	<hr/>	52,694 89
State and military aid . . . . .		2,044 50
Amount paid out on account of renewal of main between ponds (bonds to be issued) . . . . .		3,780 36
Amount paid for plans for High School (bonds to be issued) . . . . .		2,500 00
Amount paid on account of High School (bonds to be issued) . . . . .		532 38
Street watering assessments . . . . .		330 30
	<hr/>	
Total assets Feb. 1, 1895 . . . . .		<hr/> \$130,434 74
Net debt Feb. 1, 1895 . . . . .		\$605,458 59
Net debt Feb. 1, 1894 . . . . .		337,135 48
		<hr/>
Increase in net debt during the year . . . . .		\$268,323 11

COMPARISONS OF LIABILITIES AND ASSETS ON FEBRUARY 1,  
1894, WITH SAME ON FEBRUARY 1, 1895.

LIABILITIES.				
	Feb. 1, 1894.	Feb. 1, 1895.	Increase.	Decrease.
Trust Funds . . . . .	\$14,609 42	\$14,609 42		
Perpetual Care Fund . . . . .	13,582 50	15,472 50	\$1,490 00	
Unfunded Debt Notes . . . . .	80,000 00	68,000 00		\$12,000 00
Water Bonds . . . . .	322,000 00	367,000 00	45,000 00	
Public Building Bonds . . . . .		101,000 00	101,000 00	
Playground Bonds . . . . .		21,000 00	21,000 00	
Sewer Bonds . . . . .		104,000 00	104,000 00	
Due Maintenance and Interest account Water Deut. . . . .	19,423 31			19,423 31
Balance unexpended on Water Works account . . . . .	21,819 46	13,475 68		8,343 78
Balance unexpended on Public Buildings account . . . . .		16,046 56	16,046 56	
Balance unexpended on Otis Street Park . . . . .		457 51	457 51	
Balance unexpended on Sewer account . . . . .		14,831 66	14,831 66	
	<u>\$471,834 69</u>	<u>\$735,893 33</u>	<u>\$303,825 73</u>	<u>\$39,767 09</u>
ASSETS.				
Cash in Treasury . . . . .	\$15,143 10	\$32,774 03	\$17,630 93	
Uncollected Taxes . . . . .	41,585 16	35,778 28		\$5,806 88
State and Military Aid . . . . .	1,851 50	2,044 50	193 00	
Sinking Funds . . . . .	58,200 06	62,694 89		5,665 17
Sundry amounts paid on ac- counts for which bonds are to be issued . . . . .	17,859 39	6,812 74		11,046 65
St. Watering Assessments due . . . . .		330 30	330 30	
	<u>\$134,639 21</u>	<u>\$130,434 74</u>	<u>\$18,154 23</u>	<u>\$22,418 70</u>
Liabilities increased . . . . .		\$303,825 73		
Liabilities decreased . . . . .		39,767 09		
Net increase in Liabilities . . . . .			\$264,058 64	
Assets decreased . . . . .		\$22,418 70		
Assets increased . . . . .		18,154 23		
Net decrease in Assets . . . . .			4,246 47	
Net increase in debt . . . . .				\$268,323 11
Net debt, February 1, 1894 . . . . .				337,135 48
Net debt, February 1, 1895 . . . . .				<u>\$605,458 59</u>

## EXPLANATION OF CHANGES IN LIABILITIES AND ASSETS.

(As shown in table above.)

Net debt Feb. 1, 1895 . . . . .	\$605,458 59
Net debt Feb. 1, 1894 . . . . .	337,135 48
Increase in net debt Feb. 1, 1894 to Feb. 1, 1895 . . . . .	<u>\$268,323 11</u>

Liabilities Feb. 1, 1895 . . . .	\$735,893 33
Liabilities Feb. 1, 1894 . . . .	460,662 98
	<hr/>
Increase in liabilities	\$275,230 35

The above increase in liabilities is made up as follows :

Perpetual care fund (by amount received, see page 364) . . . . .	\$1,490 00
Water bonds issued for following purposes :	
For high service . . . . .	\$75,000 00
For improving and enlarging water supply . . . . .	20,000 00
	<hr/>
Amount of bonds issued	\$95,000 00
Less bonds paid by cash from sinking fund commissioners (see page 365) . . . . .	50,000 00
	<hr/>
	\$45,000 00

Public building bonds issued for following purposes :

To repay balance due for amounts expended last year on following items: (see page 263.)	
Engine house lot . . . . .	\$1,560 00
Schoolhouse lot, Harvard street . . . . .	7,567 56
Lincoln school, Harvard street . . . . .	54 60
	<hr/>
	\$9,182 06

For amounts expended this year on

Lincoln school . . . . .	\$35,671 25
Engine house . . . . .	9,082 07
Police station . . . . .	9,395 51
Land for high school . . . . .	15,122 55
Land for police station . . . . .	6,500 00
	<hr/>
	\$84,953 44

Also the following balances carried forward (see page 367)

Engine house . . . . .	\$2,117 93
Lincoln school . . . . .	1,274 25
Police station . . . . .	11,604 49
	<hr/>
	\$99,950 11

Issued in excess of appropriations	1,049 89	<hr/>	\$101,000 00
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Playground bonds issued for following purposes :		
To repay balance due for amounts expended last year for Otis street park (See page 360)	\$6,542 49	
Expended this year for Brooks Playstead	13,500 00	
Balance of appropriation for Otis street park	457 51	
	<u>\$20,500 00</u>	
Issued in excess of appropriation	500 00	\$21,000 00
	<u>500 00</u>	
Sewer bonds issued for following purposes :		
To repay balance due for amount expended last year for following items: (see page 360)		
Surveying	2,134 84	
Expended this year for surveying	1,614 13	
Expended this year for construction less receipts	85,419 37	
Balance due on sewer construction account	14,580 63	
Balance due on surveying account	251 03	
	<u>\$104,000 00</u>	
Balances due on public building bonds issued (see items pages 367 and 368)		16,046 56
Balances due on playground bonds issued, Otis street park (see items page 368)		457 51
Balance due on sewer bonds issued (see items page 368)		14,831 66
		<u>14,831 66</u>
Total increase on liabilities		\$303,825 73
The liabilities decreased as follows :		
Notes paid from appropriations		12,000 00
Amount due maintenance and interest account of water dept.		19,423 31
Amount due water works account for un-expended balances	8,343 78	
	<u>8,343 78</u>	39,767 09
		<u>39,767 09</u>
Net increase in liabilities		\$264,058 64

Assets Feb. 1, 1894 . . . .		\$134,699 21	
Assets Feb. 1, 1895 . . . .		130,434 74	
	Decrease in assets . . . .		\$4,264 47
The above decrease in assets is made us as follows :			
Assets increased :			
Cash in treasury . . . .	\$17,630 93		
State and military aid . . . .	193 00		
Street watering assessments . . . .	330 30		
		\$18,154 23	
	Net increase in liabilities . . . .		\$264,058 64
Assets decreased :			
Uncollected taxes . . . .	\$5,806 88		
Differences in sundry amounts paid on accounts for which bonds are to be issued (see page 369) . . . .	11,046 65		
Sinking funds increased by			
Surplus earnings of water dept. for 1893 and 1894	\$23,378 75		
Premiums on bonds sold and earnings on investments . . . .	15,702 68		
Appropriation . . . .	5,353 40		
		\$42,434 83	
Sinking funds decreased by			
Payment of water bonds from sinking fund funds	50,000 00		
	Decrease	\$5,565 17	\$5,565 17
Total decrease in assets . . . .		\$22,418 70	
Deduct increase as shown above		18,154 23	
	Net decrease in assets . . . .	\$4,264 47	4,264 47
Increase in net debt . . . .		\$268,323 11	
Net debt Feb. 1, 1894 . . . .		337,135 48	
	Net debt Feb. 1, 1895 . . . .		\$605,458 59

(Exhibit C.)

## RECEIPTS AND EXPENDITURES

FROM FEBRUARY 1, 1895, TO FEBRUARY 1, 1896.

Cash in treasury February 1, 1895 . . . . \$32,774 03

## RECEIPTS.

Interest . . . . .	\$5,349 31
State and military aid and soldiers' relief . . . . .	2,052 50
Oak Grove Cemetery . . . . .	4,142 00
General repairs of highways . . . . .	5,647 96
Middlesex avenue bridge . . . . .	513 64
Sidewalks and edgestones . . . . .	2,555 69
Newburn and Mystic avenues . . . . .	223 00
Street numbering . . . . .	48 72
Collection of house offal, ashes, and care of trees . . . . .	380 10
Abated taxes, City Hall equipment and insurance . . . . .	45 94
Fire department . . . . .	43 00
Park department . . . . .	35 00
Police department . . . . .	75
Public Library (dog tax and interest) . . . . .	1,514 27
Almshouse and outside relief . . . . .	1,850 56
Brooks and streams and sewer construction . . . . .	5,971 24
Water dept. maintenance and interest on bonds . . . . .	49,893 45
Water dept. sundry accounts . . . . .	6,018 86
Perpetual care fund (added to the fund) . . . . .	1,350 00
Sewer assessments . . . . .	20,296 80
Sewer connections . . . . .	6,572 42
Street watering assessments . . . . .	1,838 27
Miscellaneous credits:	
F. S. Moseley & Co., note 1 year . . . . .	17,500 00
F. S. Moseley & Co., note 6 months . . . . .	50,000 00
149 public building bonds . . . . .	149,000 00
Premium on same . . . . .	6,280 35
185 sewer bonds . . . . .	185,000 00
Premium on same . . . . .	13,116 50
91 water bonds . . . . .	91,000 00

Premium on same . . . . .	\$3,939 39
Medford Savings Bank notes . . . . .	29,000 00
Corporation and bank tax . . . . .	35,911 94
Collector of taxes costs 1894 and 1895 . . . . .	764 21
Lots in Oak Grove Cemetery . . . . .	350 00
Court and House of Correction fines, etc. . . . .	1,265 10
City clerk, licenses and fees . . . . .	566 75
Sundry small receipts . . . . .	99 75
Notes in anticipation of taxes . . . . .	100,000 00
Taxes collected (not including interest or costs . . . . .)	226,257 55
	<hr/>
Total receipts . . . . .	1,016,406 02
	<hr/>
	\$1,049,180 05

## EXPENDITURES.

Abated taxes and estates bought at sale for taxes . . . . .	\$374 38
Advertising . . . . .	558 38
Armory . . . . .	717 49
Canvassing births . . . . .	111 00
Claims, Nicholas White, judgment . . . . .	17,453 20
City Council contingent . . . . .	329 59
City Hall, fuel and light . . . . .	2,366 04
City Hall equipment . . . . .	2,913 44
Decoration Day . . . . .	300 00
Election expenses . . . . .	1,405 60
Engine house, Medford street . . . . .	2,117 93
Gravelly Creek . . . . .	116 55
High schoolhouse . . . . .	85,404 50
Hillside Schoolhouse . . . . .	15,669 91
Hydrants . . . . .	4,830 00
Insurance . . . . .	1,053 65
Interest . . . . .	19,038 95
Lincoln Schoolhouse . . . . .	848 15
Miscellaneous small accounts . . . . .	2,122 16
Payment of city debt, notes . . . . .	12,000 00
Police station . . . . .	14,711 16
Preservation of public documents, printing and stationery . . . . .	1,087 83

Rifle range, \$175 ringing bells, \$42 . . . . .	\$217 00
Salaries . . . . .	12,959 22
Sanitary improvement . . . . .	93 00
State aid and soldiers' relief . . . . .	4,371 04
Street lights . . . . .	12,400 53
Telephones . . . . .	127 67
Assessors salaries, and clerk and expenses	3,758 24
Auditor, salary, expenses and printing reports . . . . .	2,099 69
Cemetery department . . . . .	5,648 32
Engineering department . . . . .	3,991 08
Fire department . . . . .	18,154 04
Health department . . . . .	1,099 54
Highway department:	
General repairs . . . . .	20,828 89
Sidewalks and edgestones . . . . .	9,792 13
Watering streets . . . . .	3,050 50
Collecting ashes and house offal . . . . .	5,817 90
Salary Street Commissioner . . . . .	1,600 00
Stone crusher and elevator . . . . .	1,699 86
Lapham street drain . . . . .	3,040 52
Mystic and Newbern avenues . . . . .	3,427 35
Governors avenue . . . . .	1,314 73
Middlesex avenue bridge . . . . .	1,295 90
Removing snow, paving gutters, care of trees and sundry expenses . . . . .	5,901 65
Inspection department . . . . .	460 00
Park department . . . . .	4,340 73
Police department . . . . .	17,114 83
Public Library . . . . .	6,814 63
Poor department . . . . .	11,651 27
School department . . . . .	69,926 18
Sewer department . . . . .	200,489 46
Improving and enlarging water supply . . . . .	24,654 84
High service and renewing mains . . . . .	45,085 73
Maintenance and interest on bond . . . . .	49,893 45
New construction . . . . .	12,826 91
Renewal of main between ponds . . . . .	18,608 68
Water department building . . . . .	4,514 78



Rents, repairs and salaries of Commissioners . . . . .	\$2,537 29
Note F. S. Moseley & Co. . . . .	50,000 00
Sinking fund com'rs premiums on bonds sold . . . . .	23,336 24
Notes, unfunded debt . . . . .	6,000 00
Corporation tax . . . . .	10 24
Metropolitan sewer tax . . . . .	9,950 81
Middlesex County tax . . . . .	14,753 88
State tax . . . . .	9,345 00
Sinking fund com'rs (assessed in 1895) . . . . .	11,157 85
Notes in anticipation of taxes . . . . .	100,000 00
	<hr/>
Total payments . . . . .	\$1,001,581 41
	<hr/>
Cash in treasury February 1, 1896 . . . . .	\$47,598 64

### LIABILITIES AND ASSETS, FEBRUARY 1, 1896.

#### LIABILITIES.

Permanent debt . . . . .	\$14,609 42
Perpetual care . . . . .	16,822 50
Unfunded debt . . . . .	96,500 00
Water bonds . . . . .	458,000 00
Public building bonds . . . . .	250,000 00
Playground bonds . . . . .	21,000 00
Sewer bonds . . . . .	289,000 00
Balances expended from Public Building Bonds issued :	
High school . . . . .	\$61,663 12
Lincoln school . . . . .	425 70
	<hr/>
	*62,088 82
Balances unexpended from sewer bonds issued . . . . .	*35,086 66
Balances unexpended from water bonds issued :	
Water department building . . . . .	\$5,485 22
Renewal of main between ponds . . . . .	749 28
High service and renewing mains . . . . .	1,354 34
Improving and enlarging water supply . . . . .	50 88
	<hr/>
	*7,639 72

Cash collected from sewer assessments and connections, due sewer department . . . . .	\$26,869 22
Sewer assessments and connections which are especially set aside for sewer construction (see below) . . . . .	73,178 23
	<hr/>
	\$1,350.794 57

## ASSETS.

Cash in treasury February 1, 1896 . . . . .	\$47,598 64
Uncollected taxes: 1894, \$1,002.20; 1895, \$34,777.90 . . . . .	35,780 10
Sinking fund:	
Water . . . . .	\$69,504 93
Public building . . . . .	14,218 91
Sewer . . . . .	21,226 37
Playground . . . . .	2,205 11
	<hr/>
	107,155 32
State and military aid . . . . .	2,350 50
Street watering assessments . . . . .	786 39
Sewers house connections . . . . .	430 54
Sewer assessments . . . . .	72,747 69
Amounts paid out on account of following items for which bonds are to be issued (included in issue of \$61,000 of bonds in 1896).	
Sewer pipe . . . . .	\$15,000 00
Brooks and streams . . . . .	14,773 22
	<hr/>
	29,773 22
Total assets . . . . .	<hr/> 296,622 40
Net debt February 1, 1896 . . . . .	\$1,054,172 17
Net debt February 1, 1896 . . . . .	\$1,054,172 17
Net debt February 1, 1895 . . . . .	605,458 59
	<hr/>
Increase in net debt during the year . . . . .	\$44,7813 58

NOTE. In making up the above liabilities and assets we have included the item "sewer assessments and connections" on both sides of the account, for the reason that we understand this asset can only be used for new sewer construction and stands credited to that department for that purpose.

COMPARISON OF LIABILITIES AND ASSETS ON FEBRUARY 1, 1895, WITH SAME ON FEBRUARY 1, 1896.

LIABILITIES.				
	Feb. 1, 1895.	Feb. 1, 1896.	Increase.	Decrease.
Trust Funds . . . . .	\$14,609 42	\$14,609 42		
Perpetual Care Fund . . . . .	15,472 50	16,822 50	\$1,350 00	
Unfunded Debt (Notes) . . . . .	68,000 00	96,500 00	28,500 00	
Water Bonds . . . . .	367,000 00	458,000 00	91,000 00	
Public Building Bonds . . . . .	101,000 00	250,000 00	149,000 00	
Playground Bonds . . . . .	21,000 00	21,000 00		
Sewer Bonds . . . . .	104,000 00	289,000 00	185,000 00	
Balances unexpended on Water Works account . . . . .	13,475 68	7,639 72		\$5,835 96
Balances unexpended on Public Buildings account . . . . .	16,046 56	62,088 82	46,042 26	
Balance unexpended on Otis Street Park . . . . .	457 51			457 51
Cash collected from Sewer Assessments and Connections, due Sewer Department . . . . .		26,869 22	26,869 22	
Balance unexpended on Sewer account . . . . .	14,831 66	35,086 66	20,255 00	
Sewer Assessments and Connections which are especially set aside for Sewer Construction (see below) . . . . .		73,178 23	73,178 23	
	\$735,893 33	\$1,360,794 67	\$624,901 34	\$6,293 47

ASSETS.			
	Feb. 1, 1895.	Feb. 1, 1896.	Increase.
Cash in Treasury . . . . .	\$32,774 03	\$47,598 64	\$14,824 61
Uncollected Taxes . . . . .	35,778 28	35,780 10	1 82
State and Military Aid . . . . .	2,044 50	2,350 50	306 00
Sinking Funds . . . . .	52,694 89	107,155 32	54,460 43
Sundry amounts paid on accounts for which bonds are to be issued . . . . .	6,812 74	29,773 22	22,960 48
Street Watering Assessments . . . . .	330 30	786 39	456 09
Sewer House Connections . . . . .		430 54	430 54
Sewer Assessments . . . . .		72,747 69	72,747 69
	\$130,434 74	\$206,622 40	\$166,187 66

Liabilities increased . . . . .	\$621,194 71		
Liabilities decreased . . . . .	6,293 47		
Net increase in Liabilities . . . . .		\$614,901 24	
Assets increased . . . . .		166,187 66	
Net increase in debt . . . . .			\$448,713 58
Net debt, February 1, 1895 . . . . .			605,458 59
Net debt, February 1, 1896 . . . . .			\$1,054,173 17

EXPLANATION OF CHANGES IN LIABILITIES AND ASSETS.

(As shown in table above.)

Net debt Feb. 1, 1896 . . . . .	\$1,054,172 17
Net debt Feb. 1, 1895 . . . . .	605,458 59
Increase in net debt Feb. 1, 1895 to Feb. 1, 1896 . . . . .	448,713 58

Liabilities Feb. 1, 1896 . . . .		\$1,350,794 57
Liabilities Feb. 1, 1895 . . . .		785,893 33
		<hr/>
Increase in liabilities . . . .		614,901 25
The above increase in liabilities is made up as follows :		
Perpetual care fund (amount received, see page 373) . . . .		1,350 00
Unfunded debt :		
Notes to F. S. Moseley & Co. (see page 373) . . . . .	\$67,500 00	
Notes to Medford Savings Bank . . . . .	29,000 00	
	<hr/>	\$96,500 00
Less :		
Note paid by appropriation . . . . .	\$12,000 00	
Note paid Com. of Massachusetts . . . . .	6,000 00	
Note paid F. S. Moseley & Co. . . . .	50,000 00	
	<hr/>	68,000 00
Increase in unfunded debt . . . .		<hr/> 28,500 00
Water bonds issued for following purposes :		
High service . . . . .	\$48,000 00	
Water department building . . . . .	10,000 00	
Improving and enlarging water supply . . . . .	13,000 00	
Renewal of mains between ponds . . . . .	20,000 00	
	<hr/>	91,000 00
Public building bonds issued for following purposes :		
High school building (expended in 1895) . . . . .	\$85,304 50	
High school building (balance carried forward) . . . . .	61,663 12	
Plans for high school (paid for in 1894) . . . . .	2,500 00	
Amount paid on account of building (1894) . . . . .	532 38	
	<hr/>	\$150,000 00
Less issued in excess of requirements in 1894 (see page 370) . . . .	1,049 89	
	<hr/>	\$148,950 11
Issued in excess of requirements . . . . .	49 89	
	<hr/>	149,000 00
Sewer construction bonds . . . .		185,000 00

## Unexpended balances :

Balance on public building bonds,		
Feb. 1, 1896 (see page 376) .	\$62,088 82	
Feb. 1, 1895 (see page 367) .	16,046 56	
	<hr/>	46,042 26
Balance on sewer bonds, Feb. 1,		
1896 (see page 376) . . . .	35,086 60	
Feb. 1, 1895 (see page 368) .	14,831 60	
	<hr/>	20,255 00
Cash collected from sewer assess-		
ments and connections due the		
sewer department (see page 377)		26,869 22
Sewer assessments and connections		
which are especially set aside for		
sewer construction (see page 377)		73,178 23
		<hr/>
		\$621,194 71

The liabilities decreased in unexpended balances as follows :

## Water works account :

February 1, 1895 (see page 369) .	\$13,475 68	
February 1, 1896 (see page 376) .	7,639 72	
	<hr/>	\$5,835 96
Unexpended balance on Otis street		
Park (368) . . . . .	457 51	
	<hr/>	6,293 47
Net increase in liabilities . . . .		614,901 24
Assets February 1, 1896 . . . . .	296,622 40	
Assets February 1, 1895 . . . . .	130,434 74	
	<hr/>	
Increase in assets . . . . .	\$166,187 66	

The above increase in assets is made up as follows :

Cash in treasury . . . . .	\$14,824 61
Uncollected taxes . . . . .	1 82
State and military aid . . . . .	306 00
Sinking funds :	
Appropriation . . . . .	\$11,157 85
Premiums on bonds . . . . .	23,336 24
Surplus water earnings for year	
ending January 31, 1896 . . . .	19,218 72
Net income on investments as	
shown by commissioner's report .	747 62
	<hr/>
	54,460 43

<b>Sundry amounts paid on accounts for which bonds are to be issued :</b>	
Amounts due February 1, 1896 (see page 377) . . .	\$29,773 22
Amounts due February 1, 1895 (see page 368) . . .	6,812 74
	<hr/>
	22,960 48
Street watering assessments . .	456 09
Sewer house connections . .	430 54
Sewer assessments . . .	72,747 69
	<hr/>
Total increase in assets .	166,187 66
	<hr/>
Net increase in debt during the year	448,713 58
Net debt Feb. 1, 1895 . .	605,458 59
	<hr/>
Net debt Feb. 1, 1896 . .	\$1,054,172 17

(Exhibit D.)

## RECEIPTS AND EXPENDITURES

FROM FEBRUARY 1, 1896, TO FEBRUARY 1, 1897.

Cash in treasury . . . . \$47,598 64

## RECEIPTS.

Interest . . . . .	\$5,046 61
State aid and soldiers relief . . . . .	2,370 50
Cemetery department . . . . .	4,304 61
Fire department . . . . .	101 00
Highway department:	
General repairs account . . . . .	\$4,522 22
Sidewalks and edgestones . . . . .	3,160 38
Ashes and house offal . . . . .	404 25
Sundry accounts . . . . .	708 50
	<hr/>
	8,795 35
Inspection department . . . . .	2 00
Public library (dog tax and interest)	1,510 02
Poor department . . . . .	2,787 85
School department . . . . .	131 18
Sewer construction account . . . . .	2,554 12
Playstead brook (\$2,500 contributed by Brooks real estate trust) . . . . .	2,649 45
Water department:	
Improving and enlarging water supply . . . . .	3,982 35
Maintenance and interest on bonds	52,816 44
New construction . . . . .	3,465 63
Rents and repairs on buildings . . . . .	3,499 72
	<hr/>
	\$63,764 14
Miscellaneous credits:	
Notes to J. W. Longstreet & Co.	\$31,000 00
Notes to F. S. Moseley & Co. . . . .	61,000 00
Notes to Commonwealth of Mass.	60,500 00
61 Sewer bonds sold . . . . .	61,000 00
Premium on same . . . . .	4,093 10
26 Water bonds sold . . . . .	26,000 00
Premium on same . . . . .	1,777 10
Notes to Medford savings bank . . . . .	8,500 00
Corporation and bank tax . . . . .	26,423 03
Land sold to Gen. S. C. Lawrence	4,616 74
Tax collector, costs on taxes . . . . .	1,254 45
From sale of lots Oak Grove cem- etery . . . . .	429 00
City clerk licenses and fees . . . . .	570 60

Court and house of correction		
fines and fees . . . . .	\$1,630	61
Paid by Insurance Co., fire at		
Everett schoolhouse . . . . .	967	01
Sundry items . . . . .	610	39
		<u>\$290,372 03</u>
Perpetual care fund (to be added to		
fund . . . . .		1,250 00
Insurance . . . . .		25 75
Notes in anticipation of taxes . . . . .		270,000 00
Sewer assessments and apportion-		
ments . . . . .		79,753 99
Sewer connections . . . . .		13,364 02
Street watering assessments . . . . .		2,345 76
Sidewalks . . . . .		804 74
Taxes collected (not including in-		
terest or costs . . . . .		226,679 55
		<u>\$978,612 67</u>
<b>Total receipts . . . . .</b>		<b>\$1,026,211 31</b>
	<b>EXPENDITURES.</b>	
Abated taxes, etc. . . . .	\$129	59
Advertising . . . . .	686	37
Almshouse building . . . . .	18,251	23
Armory . . . . .	800	00
Settlement of sundry claims . . . . .	1,441	46
City Council contingent . . . . .	414	04
City Hall, fuel and equipment . . . . .	3,316	62
Decoration Day . . . . .	300	00
Election expenses and ballot boxes	1,682	94
Gravelly creek . . . . .	710	00
High schoolhouse . . . . .	59,988	97
High schoolhouse equipment . . . . .	5,681	22
Hillside school . . . . .	116	93
Hydrants . . . . .	6,252	50
Insurance . . . . .	1,471	89
Interest . . . . .	86,385	46
Miscellaneous account . . . . .	1,424	16
Unfunded debt (note paid) . . . . .	13,000	00
Printing, stationery and preserva-		
tion of public documents . . . . .		1,066 70
Public library building . . . . .		11,944 39
Salaries . . . . .		13,508 35
Sinking funds . . . . .		26,891 28
Soldiers relief and state aid . . . . .		4,864 50
Street lights . . . . .		13,399 15
Assessors' and clerks' salaries and		
expenses . . . . .		3,633 10



Auditor's salary, expenses and printing reports . . . .		\$2,161 33
Cemetery department . . . .		5,684 91
Engineering department . . . .		3,996 90
Fire department . . . . .		20,060 46
Health department . . . . .		1,420 27
Highway department:		
General repairs . . . . .	\$24,521 04	
Collecting ashes and house offal	6,390 87	
Sidewalks and edgestones . . . .	7,356 14	
Watering streets . . . . .	3,094 80	
Riverside avenue and Fifth street	3,152 28	
Salary of street commissioner . .	1,533 34	
Sundry streets, drains, paving, care of and setting out trees, snow, etc. . . . .	22,982 98	
		<hr/>
		69,031 45
Inspection department . . . . .		1,588 78
Park department . . . . .		2,055 42
Police department . . . . .		19,203 20
Public library . . . . .		6,109 48
Poor department . . . . .		11,623 63
School department . . . . .		80,848 65
Schoolhouse improvement . . . . .		21,501 79
Land for schoolhouse . . . . .		5,872 97
Sewer department:		
Construction . . . . .	\$149,949 16	
Brooks and streams . . . . .	4,570 26	
Playstead brook . . . . .	5,734 82	
Maintenance and salaries of Com'rs. . . . .	948 35	
		<hr/>
		161,202 59
Water department:		
Maintenance and interest on bonds	\$52,816 44	
New construction . . . . .	12,665 31	
Improving and enlarging water supply . . . . .	10,164 74	
High service and renewing mains	10,426 32	
Water department building . . . .	9,051 87	
Rents and repairs . . . . .	3,499 72	
Sundry expenses and salaries of Com'rs. . . . .	1,060 63	
		<hr/>
		99,685 03
State and county tax . . . . .		26,541 61
Miscellaneous credits:		
Unfunded debt, F. S. Moseley & Co., note . . . . .	\$17,500 00	

Unfunded debt Medford Savings		
Bank, note . . . . .	\$7,000 00	
Sinking fund commissioners, Pre- miums on bonds sold . . . . .	5,870 20	
Corporation tax and burial of soldiers . . . . .	382 29	
	<u>30,752 49</u>	
Notes in anticipation of taxes . . . . .	185,000 00	
Total expenditures . . . . .		<u>982,340 09</u>
Balance of cash in treasury, Feb. 1, 1897		\$43,871 22

## LIABILITIES AND ASSETS FEBRUARY 1, 1897.

LIABILITIES.		
Permanent debt . . . . .		\$14,609 52
Perpetual care fund . . . . .		18,082 50
Unfunded debt . . . . .		220,000 00
Water bonds . . . . .		484,000 00
Public building bonds . . . . .		250,000 00
Sewer bonds . . . . .		250,000 00
Playground bonds . . . . .		21,000 00
Notes in anticipation of taxes . . . . .		85,000 00
Balances unexpended from building bonds issued :		
On Lincoln school account . . . . .	\$360 99	
On Hillside school account . . . . .	213 16	
On High school account . . . . .	1,674 15	
On High school equipment acc't . . . . .	815 78	
	<u>          </u>	*\$3,073 08
Balances unexpended from the water bonds issued and cash from town of Melrose :		
High service account . . . . .	938 02	
Shed, fence and sidewalk account . . . . .	763 65	
Improving and enlarging water supply . . . . .	5,368 49	
	<u>          </u>	7,060 16
Balance unexpended from sewer bonds issued :		
Brooks and streams account . . . . .		5,656 52
Public library building (notes issued)		*7,055 61
Cash collected from sewer assess- ments, apportionments and con- nections, due sewer department . . . . .		28,678 85
Sewer assessments, connections and apportionments which are especi- ally set aside for sewer construc- tion (see below) . . . . .		65,421 67
		<u>          </u>
		\$1,559,627 81

ASSETS.	
Cash in treasury Feb. 1, 1897 . . . . .	\$43,871 22
Uncollected taxes . . . . .	58,560 99
Sinking funds:	
Water loan . . . . .	\$104,593 05
Public building loan . . . . .	27,336 04
Sewer loan . . . . .	34,461 65
Playground loan . . . . .	3,413 84
	169,804 58
State and military aid . . . . .	2,594 00
Street watering assessments . . . . .	1,160 18
Sewer house connections . . . . .	224 63
Sewer assessments . . . . .	57,065 39
Sewer apportionments . . . . .	8,131 65
	\$341,412 64
Total assets . . . . .	
Net debt Feb. 1, 1897 . . . . .	1,218,215 17
Net debt Feb. 1, 1896 . . . . .	1,054,172 17
	\$164,043 00
Increase in net debt during the year . . . . .	

NOTE.—In making up the above liabilities and assets I have included the item "sewer assessments and connections" on both sides of the account for the reason that I understand this asset can only be used for new sewer construction, and stands credited to that department for that purpose. There is also an item of sewer apportionment of \$37,798.27 which has not been committed to the collector and which is omitted, it not appearing on the auditor's accounts until committed to the collector of taxes.

COMPARISON OF LIABILITIES AND ASSETS ON FEBRUARY 1,  
1896, WITH SAME ON FEBRUARY 1, 1897.

LIABILITIES.				
	Feb. 1, 1896.	Feb. 1, 1897.	Increase.	Decrease.
Trust Funds . . . . .	\$14,609 42	\$14,609 42		
Perpetual Care Fund . . . . .	16,822 50	18,072 60	\$1,250 00	
Unfunded Debt Notes . . . . .	96,568 00	230,000 00	133,500 00	
Water Bonds . . . . .	456,000 00	484,000 00	26,000 00	
Public Buildings Bonds . . . . .	250,000 00	250,000 00		
Playground Bonds . . . . .	21,000 00	21,000 00		
Sewer Bonds . . . . .	289,000 00	350,000 00	61,000 00	
Notes in anticipation of Taxes		85,000 00	85,000 00	
Balances unexpended on Water Works account . . . . .	7,639 72	7,060 16		\$579 56
Balances unexpended on Public Building account and Public Library . . . . .	62,088 82	10,128 60		51,960 13
Cash collected from Sewer Assessments and Connections, due Sewer Department . . . . .	26,869 22	28,678 85	1,809 63	
Balance unexpended on Sewer account Bonds . . . . .	35,086 66	5,656 52		29,430 14
Sewer Assessments, Apportionments and Connections, especially for Sewer Construction . . . . .	73,178 23	65,421 67		7,756 56
	<u>\$1,350,794 57</u>	<u>\$1,569,627 81</u>	<u>\$298,559 63</u>	<u>\$89,726 36</u>
ASSETS.				
Cash in Treasury . . . . .	\$47,508 64	\$43,871 22		\$3,727 42
Uncollected Taxes . . . . .	35,780 10	58,560 99	\$22,780 89	
State and Military Aid . . . . .	2,350 50	2,594 00	243 50	
Sinking Funds . . . . .	107,155 32	169,804 68	62,649 26	
Sundry amounts paid on accounts for which bonds are to be issued . . . . .	29,773 22			29,773 22
Street Watering Assessments	786 39	1,160 18	373 79	
Sewers, House Connection . . . . .	430 64	224 63		205 91
Sewer Assessments . . . . .	72,747 69	57,065 39		15,682 30
Sewer Apportionments . . . . .		8,131 65	8,131 65	
	<u>\$296,622 40</u>	<u>\$341,412 64</u>	<u>\$94,179 09</u>	<u>\$49,388 85</u>
Liabilities increased . . . . .		\$298,559 63		
Liabilities decreased . . . . .		89,726 39		
Increase in Liabilities . . . . .			\$208,833 24	
Assets increased . . . . .		\$94,179 09		
Assets decreased . . . . .		49,388 85		
Increase in Assets . . . . .			44,790 24	
Increase in net debt . . . . .				\$164,043 00
Net debt, February 1, 1896 . . . . .				1,054,172 17
Net debt, February 1, 1897 . . . . .				<u>\$1,218,215 17</u>

## EXPLANATION OF CHANGES IN LIABILITIES AND ASSETS.

(as shown in table above.)

Net debt February 1, 1897 . . . . .	\$1,218,215 17
Net debt February 1, 1896 . . . . .	1,054,172 17
Increase in net debt . . . . .	<u>\$164,043 00</u>

Liabilities February 1, 1897 . . .	\$1,559,627 81
Liabilities February 1, 1896 . . .	1,350,794 57
	<hr/>
Increase in liabilities . . . . .	\$208,833 24

The above increase in Liabilities is made up as follows :

Perpetual care fund (amount received see page 383) . . . . .		1,250 00
Unfunded debt :		
Notes to J. W. Longstreet & Co.	\$31,000 00	
Notes to F. S. Moseley & Co. . . . .	61,000 00	
Notes to Com. of Massachusetts . . . . .	60,500 00	
Notes to Medford Savings Bank . . . . .	8,500 00	
	<hr/>	
	\$161,000 00	
Less :		
Notes paid by appropriation . . \$13,000 00		
Notes to F. S. Moseley & Co. paid . . 17,500 00		
Note to Medford Savings Bank paid . . . . . 7,000 00		
	<hr/>	
	37,500 00	
	<hr/>	
		123,500 00
Water bonds issued for following purposes :		
High service . . . . .	\$10,000 00	
Water department building . . . . .	3,575 00	
Improving and enlarging water supply . . . . .	11,500 00	
Shed, fence and sidewalks . . . . .	925 00	
	<hr/>	
		26,000 00
Sewer bonds issued for following purposes :		
Sewer pipe (amount expended in 1895) . . . . .	\$15,000 00	
Brooks and streams (amount expended in 1895) . . . . .	14,773 22	
Brooks and streams (balance carried to 1896) . . . . .	226 78	
Brooks and streams (appropriation in 1896) . . . . .	10,000 00	
Construction (appropriation in 1896) . . . . .	21,000 00	
	<hr/>	
		61,000 00
Notes issued in anticipation of taxes and unpaid February 1, 1897 . . . . .		85,000 00
Cash collected on sewer assessments and connections, due sewer dept. . . . .		1,809 63
		<hr/>
Total increase in liabilities . . . . .		\$298,559 63

## The Liabilities decreased in unexpended balances as follows:

Water works account Feb. 1, 1896 (see page 380) . . . . .	\$7,639 72	
Water works account Feb. 1, 1897 (see page 385) . . . . .	7,060 16	
	<hr/>	\$579 56
Public building, Public Library building, accounts:		
February 1, 1896 (see page 376) .	\$62,088 82	
February 1, 1897 (see page 385**) .	10,128 69	
	<hr/>	\$51,960 13
Sewer account Feb. 1, 1896 (see page 376) . . . . .	\$35,086 66	
Sewer account Feb. 1, 1897 (see page 385) . . . . .	5,656 52	
	<hr/>	29,430 14
Sewer assessments, apportionments and connections especially for sewer construction (see 387) .		7,756 56
		<hr/>
Total decrease in liabilities . . .		\$89,726 39
		<hr/>
Increase in liabilities . . . . .		\$208,833 24
Assets Feb. 1, 1897 (see 386)	\$341,412 64	
Assets Feb. 1, 1896 (see 380) . . .	296,622 40	
	<hr/>	
Increase in assets . . . . .		\$44,790 24

## The above increase in assets is made up as follows:

Uncollected taxes . . . . .	\$22,780 89
State and military aid . . . . .	243 50
Sinking Funds:	
Appropriations . . . . .	\$26,891 28
Surplus earnings of water dept. for year ending Jan. 31, 1897 . . . . .	26,212 72
Premiums on bonds sold . . . . .	5,870 20
Net income on investments as shown by Com'rs report . . . . .	3,675 06
	<hr/>
	62,649 26
Street watering assessments . . . . .	373 79
Sewer apportionments . . . . .	8,131 65
	<hr/>
Total increase in assets . . . . .	\$94,179 09

The assets are decreased as follows :

Cash . . . . .	\$3,727 42	
Sundry amounts paid for which bonds are to be issued Feb. 1, 1896 (see page 381) . . . . .	29,773 22	
Sewer house connections . . . . .	205 91	
Sewer assessments . . . . .	15,682 30	
Total decrease . . . . .	<u>49,388 85</u>	
Net increase in assets . . . . .		44,790 24
Net increase in debt during the year . . . . .		\$164,043 00
Net debt February 1, 1896 . . . . .		1,054,172 17
Net debt February 1, 1897 . . . . .		<u>\$1,218,215 17</u>

COMPARISON OF LIABILITIES AND ASSETS ON FEBRUARY 1,  
1893, WITH THOSE ON FEBRUARY 1, 1897.

LIABILITIES.				
	Feb. 1, 1893.	Feb. 1, 1897.	Increase.	Decrease.
Trust Funds . . . . .	\$14,009 42	\$14,009 42		
Perpetual Care Fund . . . . .	12,857 50	18,072 50	\$5,215 00	
Notes in anticipation of Taxes . . . . .	10,000 00	86,000 00	76,000 00	
Unfunded Debt . . . . .	126,350 00	220,000 00	93,650 00	
Water Bonds . . . . .	250,000 00	484,000 00	234,000 00	
Public Building Bonds . . . . .		250,000 00	250,000 00	
Sewer Bonds . . . . .		350,000 00	350,000 00	
Playground Bonds . . . . .		21,000 00	21,000 00	
Unpaid Bills, Town of Medford Due Maintenance and Interest account of Water Dept. . . . .	5,980 89			\$5,980 89
Balances unexpended from Building Bonds and Public Library . . . . .	25,165 82			25,165 82
Balances unexpended from Water Bonds and Cash from the Town of Melrose . . . . .		10,128 69	10,128 69	
Balances unexpended from Sewer Bonds . . . . .		7,060 16	7,060 16	
Cash collected on Sewer As- sessments and Connections, due Sewer Dept. . . . .		5,656 62	5,656 62	
Sewer Assessments, Apportion- ments and Connections espe- cially for Sewer Construction . . . . .		28,078 85	28,078 85	
		65,421 67	65,421 67	
	<u>\$441,963 63</u>	<u>\$1,559,627 81</u>	<u>\$1,145,810 89</u>	<u>\$31,146 71</u>

ASSETS.			
Cash in Treasury . . . . .	\$31,581 33	\$43,871 22	\$12,289 89
Uncollected Taxes . . . . .	36,501 89	68,660 99	22,655 10
State and Military Aid . . . . .	1,765 50	2,644 00	828 50
Sinking Funds . . . . .	39,439 97	169,804 58	130,264 61
Street Watering Assessments . . . . .		1,160 18	1,160 18
Sewers, House Connections . . . . .		294 63	294 63
Sewer Assessments . . . . .		57,065 39	57,065 39
Sewer Apportionments . . . . .		8,131 65	8,131 65
	<u>\$109,292 69</u>	<u>\$341,412 61</u>	<u>\$232,119 95</u>
Liabilities increased . . . . .		\$1,145,810 89	
Liabilities decreased . . . . .		31,146 71	
Net increase in Liabilities . . . . .			\$1,114,664 18
Assets increased . . . . .			232,119 95
Net increase in debt . . . . .			\$882,544 23
Net debt, February 1, 1893 . . . . .			335,670 94
Net debt, February 1, 1897 . . . . .			<u>\$1,218,216 17</u>
Net debt, February 1, 1893 . . . . .			\$335,670 94
Add increase in net debt—To February 1, 1894 . . . . .			1,464 54
February 1, 1894, to February 1, 1895 . . . . .			268,323 11
February 1, 1895, to February 1, 1896 . . . . .			448,713 58
February 1, 1896, to February 1, 1897 . . . . .			164,043 00
Net debt, February 1, 1897 . . . . .			<u>\$1,218,216 17</u>

## EXPLANATION OF CHANGES IN LIABILITIES AND ASSETS.

(As shown in table above.)

Bonded debt Feb. 1, 1893 . . . . .		\$250,000 00
Bonds issued from Feb. 1, 1893, to Feb. 1, 1897:		
Water bonds . . . . .		284,000 00
Sewer bonds . . . . .		350,000 00
Public building bonds . . . . .		250,000 00
Playground bonds . . . . .		21,000 00
		<u>\$1,155,000 00</u>
Less water bonds paid . . . . .		50,000 00
Total bonded debt Feb. 1, 1897 . . . . .		<u>\$1,105,000 00</u>
Bonded debt Feb. 1, 1893 . . . . .		250,000 00
Increase in bonded debt Feb. 1, 1893 to Feb. 1, 1897 . . . . .		\$855,000 00
Sinking funds Feb. 1, 1897 . . . . .	\$169,804 58	
Less sinking fund, Feb. 1, 1893 . . . . .	39,439 97	
Increase in sinking funds . . . . .		<u>130,364 61</u>
Net increase in net debt from issue of bonds . . . . .		724,635 39
Total increase in net debt (see above) . . . . .		882,544 23
Increase in net debt from bonds (see above) . . . . .		<u>724,635 38</u>
Increase in net debt other than by bond issues . . . . .		<u>\$157,908 85</u>



The items composing the above \$157,908.85 are as follows :

Increase in perpetual care fund . . . . .	5,215 00
Increase in notes in anticipation of taxes . . . . .	75,000 00
Increase in unfunded debt . . . . .	93,650 00
Balances due on bonds or notes issued for water, sewers and buildings, also cash from town of Melrose . . . . .	22,845 37
Cash collected and due sewer department from sewer assessments, etc. (see 385) . . . . .	28,678 85
Sewer assessments, apportionments, etc. (see 385)	65,421 76
	<hr/>
	\$290,810 89
Less the following :	
Unpaid bills of town of Medford . . . . .	\$5,980 89
Maintenance and interest water works on account . . . . .	25,165 82
Increase in cash in treasury . . . . .	12,259 89
Increase in uncollected taxes . . . . .	22,055 10
Increase in state and military aid . . . . .	828 50
Street watering . . . . .	1,160 18
Sewer assessments, apportionments, etc. . . . .	65,421 67
	<hr/>
	132,902 05
	<hr/>
	\$157,908 84
Increase in net debt from Feb. 1, 1893, to Feb. 1, 1897, from bond issues, less sinking funds . . . . .	724,635 39
Increase in same period from notes issued, per- petual care fund, balances and deficit in taxa- tion . . . . .	157,908 84
Net debt Feb. 1, 1893 . . . . .	335,670 94
	<hr/>
Net debt Feb. 1, 1897 . . . . .	\$1,218,215 17

## EXHIBIT E.

Showing the relation of taxes assessed and the miscellaneous income in each year, to the payment of the ordinary expenses of that year; also of all other receipts to all other expenditures.

The auditor's certificate to the assessors and the assessment.

## RECEIPTS.

Tax levy of 1893 with corrections for added, reassessed and abated taxes . . . . .	\$241,716 38
Total miscellaneous receipts . . . . .	\$537,231 31
Less receipts from taxes collected, borrowed in anticipation of taxes, bonds, maintenance and interest account of water department, and perpetual care, which are not applicable to the payment of ordinary expenses . . . . .	483,900 61
	<hr/>
Balances applicable to the payment of ordinary expenses . . . . .	53,330 70
	<hr/>
Total applicable to payment of ordinary expenses	\$295,047 08

## EXPENDITURES.

Total expenditures . . . . .	553,669 54
Less the following items on account of balances, reappropriations or appropriations covered by bonds or notes:	
Sundry reappropriations . . . . .	\$15,582 41
Water department accounts . . . . .	64,395 13
Sundry accounts covered by bonds, including driven wells, pumping station and sewer surveying . . . . .	37,327 20
Notes in anticipation of taxes . . . . .	137,000 00
Notes of unfunded debt . . . . .	30,000 00
Water bond premium . . . . .	1,216 80
	<hr/>
Total expenditures not payable from taxes and income . . . . .	278,521 54
	<hr/>
Total expenditures payable from this year's taxes and income . . . . .	275,148 00
Total receipts applicable to payment of the ordinary expenses (see above) . . . . .	295,047 08
Total ordinary expenditures to be paid therefrom	<hr/> 275,148 00
Excess of tax levy and income over ordinary expenditures . . . . .	\$19,899 08

Add all other receipts, \$483,900.61, less \$235,224.92 collected from taxes which is partly included in tax levy (see above) . . . . .	248,675 69
<hr/>	
Total applied to the payment of all other than ordinary expenditures . . . . .	\$268,574 77
Expenditures other than ordinary expenses de- ducted from total expenditures (see above) . . . . .	278,521 54
Total receipts applicable to their payment . . . . .	268,574 77
<hr/>	
	\$9,946 77
Add taxes abated on 1891 and 1892 lists . . . . .	1,412 19
<hr/>	
Excess of all expenditures over tax levy and miscellaneous income for the year . . . . .	\$11,358 96

The above excess corresponds to the net decrease in cash in treasury and uncollected taxes as shown in table, Exhibit A, page 361, and when taken in connection with the other items shown in the table, makes the increase in net debt \$1,464.54.

## RECEIPTS.

Tax levy of 1894 with corrections for added, reassessed and abated taxes . . . . .	\$233,467 18
Total miscellaneous receipts . . . . .	\$827,711 03
Less receipts from taxes collected, borrowed in anticipation of taxes, bonds, water department, notes, etc., which are not applicable to the payment of the ordinary expenses . . . . .	771,918 58
	<hr/>
	55,792 45
Total applicable to payment of ordinary expenses	\$289,259 63

## EXPENDITURES.

Total expenditures . . . . .	\$810,080 10
Less the following items on account of balances, reappropriations or appropriations covered by bonds or notes:	
Reappropriations . . . . .	\$10,539 54
Covered by bonds or notes . . . . .	290,204 39
Water earnings, water bonds paid, premiums on bonds, notes, maintenance and interest account, notes in anticipation of taxes and rents and repairs, water department . . . . .	227,989 71
	<hr/>
Total expenditures not payable from this year's taxes and income . . . . .	528,733 64
<hr/>	
Total expenditures payable from this year's taxes and income . . . . .	281,346 46

Total receipts applicable to the payment of the ordinary expenses (see above)	289,259 63
Total ordinary expenditures to be paid therefrom	<u>281,346 46</u>
Excess of tax levy and income over ordinary expenditures	7,913 17
Add all other receipts, \$771,918.58, less \$237,-962.55 collected from taxes which are partly included in tax levy (see above)	593,956 03
Total applied to the payment of all other than ordinary expenditures	541,869 20
Deduct expenditures payable from the above	<u>528,733 64</u>
	18,135 56
Deduct taxes abated on the 1893 list	<u>1,311 51</u>
Excess of tax levy and all miscellaneous receipts over all expenditures	\$11,824 05

The above excess corresponds to the net increase in cash in treasury and uncollected taxes as shown in table, Exhibit B, page 369, and when taken in connection with the other items shown in the table makes the increase in net debt \$268,323.11.

	(Copy.)	
Appropriations not bondable	.	\$223,156 80
Reappropriations not bondable	.	12,274 62
State tax	.	10,160 00
Metropolitan sewer tax	.	7,109 73
Middlesex County tax	.	11,111 00
Sinking fund	.	<u>5,353 40</u>
		\$269,165 55

Cash in treasury Feb. 1894	\$15,143 10
Taxes of 1893 collected	39,000 00
Expenditures of last year reimbursed to the treasury, viz.:	
Surveying sewer department	\$2,134 84
Otis street park	6,542 49
Engine house lot, Medford street	1,560 00
Schoolhouse lot, Harvard street	7,567 56
Ernest W. Bowditch for surveying	24 50
J. O. Goodwin for surveying	30 00
	<u>17,859 39</u>
	\$72,002 49

Funds in the treasury not available for current expenses:	
Surplus earnings of the water department for the year ending Dec. 31, 1893, and the January earnings in 1894	20,011 28

Also proceeds of bonds issued last year for improving and en- larging water supply	\$9,679 47		
Pumping station at Wright's pond	5,830 02		
Driven wells	6,309 97		
	<u>\$21,819 46</u>	\$41,830 74	
			<u>\$30,171 75</u>
			\$238,993 80

## Estimated Receipts:

Corporation and bank tax	25,000 00
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The following appropriations have  
been made payable from the esti-  
mated receipts:

Celebration of July 4	500 00
City Hall equipment	500 00
Advertising	300 00
Printing and stationery	300 00
	<u>\$1,600 00</u>

Also the following appropriation  
asked for:

Insurance	1,000 00	
Equipment for city engineer's de- partment	1,000 00	
Safe for assessors	125 00	
	<u>\$2,125 00</u>	3,725 00
		<u>\$21,275 00</u>

MEDFORD, Aug. 1, 1894.

To the Honorable Board of Assessors:

I hereby certify that the foregoing is a correct statement of the amount to  
be raised by taxation and miscellaneous receipts the current year.

GEORGE D. CUMMINGS, *City Auditor.*

## ASSESSOR'S ASSESSMENT.

State tax	\$10,160 00
State tax sewer	7,109 73
County tax	11,111 11
City tax	205,413 54
Total assessment	<u>\$233,794 38</u>

## RECEIPTS.

Tax levy of 1895 with corrections for added, re-assessed and abated taxes . . . . .	\$228,061 25
Total miscellaneous receipts . . . . .	\$1,016,406 02
Less receipts from taxes collected, borrowed in anticipation of taxes, bonds, notes, water dept., sewer assessments, etc., which are not applicable to the payment of the ordinary expenses . . . . .	958,640 84
	<u>57,765 18</u>
Total applicable to payment of ordinary expenses	\$285,826 43

## EXPENDITURES.

Total expenditures . . . . .	\$1,001,581 41
Less the following items on account of balances, reappropriations or appropriations covered by bonds or notes:	
Reappropriations . . . . .	\$7,819 94
Notes . . . . .	22,521 80
Bonds and water and sewer dept. balances . . . . .	394,076 87
Balances . . . . .	17,638 55
Maintenance and interest account, notes paid from miscellaneous credits, bond premiums, notes in anticipation of taxes, rents and repairs water dept. . . . .	231,616 98
Total expenditures not payable from this year's taxes and income . . . . .	<u>673,674 14</u>
Total expenditures payable from this year's taxes and income . . . . .	\$327,907 27
Total receipts applicable to their payment . . . . .	<u>285,826 43</u>
Excess of ordinary expenditures over tax levy and income . . . . .	\$42,080 84
All other receipts \$958,640.84, less \$226,257.55 collected from taxes which is partly included in tax levy (see above) . . . . .	\$732,383 29
Deduct excess of ordinary expenditures . . . . .	<u>42,080 84</u>
	\$690,302 45
Deduct all other expenditures as shown above . . . . .	<u>673,674 14</u>
	\$16,628 31
Deduct taxes abated on the 1894 list . . . . .	<u>1,801 88</u>
Excess of tax levy and all miscellaneous receipts over all expenditures . . . . .	14,826 43

The above excess corresponds to the net increase in cash in treasury and uncollected taxes as shown in table, Exhibit C, page 378, and when taken in connection with the other items shown in the table makes the increase in net debt \$348,666.13.

(COPY.)

MEDFORD, September 28, 1895.

Appropriations . . . . .	\$566,178 28
Reappropriations . . . . .	45,906 13
Balance reappropriated . . . . .	193,088 18
Sinking Fund requirements . . . . .	11,157 85
State tax . . . . .	9,345 00
Metropolitan sewer tax . . . . .	9,950 81
Middlesex County tax . . . . .	14,753 88

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\$850,380 13

Appropriations or reappropriations provided for  
by the issue of notes or bonds

Engine House Medford street . . . . .	\$2,117 93
High schoolhouse . . . . .	146,997 62
Lincoln schoolhouse . . . . .	1,274 25
Police station . . . . .	13,604 49
Logan grove . . . . .	457 51
Brooks and streams . . . . .	15,000 00
Sewer construction . . . . .	199,580 63
Sewer pipe . . . . .	15,000 00
Surveying . . . . .	251 03
High service and renewing mains . . . . .	48,000 00
Improving and enlarging water supply . . . . .	42,978 06
Pumping station at Wright's pond . . . . .	3,497 62
Renewal of main between ponds . . . . .	16,219 64
Claims . . . . .	17,473 29
Hillside school . . . . .	16,000 00

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\$538,422 07

Cash in treasury Feb. 1, 1895 . . . . . 32,774 03

Taxes collected to September 28 . . . . . 27,131 21

Expenditures of last year to be reimbursed to  
the treasury:

Renewal of main between ponds . . . . .	3,780 36
High schoolhouse . . . . .	532 38
Plans for High schoolhouse . . . . .	2,500 00

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\$605,140 05

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\$245,140 05

To the Honorable Board of Assessors:

I hereby certify that \$245,240.08 is the correct amount to be raised by taxation and miscellaneous receipts the current year.

GEORGE D. CUMMINGS, Auditor.

EXHIBIT E.

399

ASSESSORS' ASSESSMENT.	
Auditor's certificate . . . . .	\$245,240 08
Less State and County tax . . . . .	34,049 69
	<hr/>
	\$211,190 39
Overlay . . . . .	5,240 82
	<hr/>
	\$216,431 21
Bank and Corporation tax (estimate) . . . . .	21,500 00
	<hr/>
	\$194,931 21
Polls . . . . .	8,250 00
	<hr/>
City tax . . . . .	\$186,681 21
Polls . . . . .	8,250 00
State and County tax . . . . .	34,049 69
	<hr/>
Total assessment . . . . .	\$228 980 90
RECEIPTS.	
Tax levy of 1896, with corrections for added, re-assessed and abated taxes . . . . .	\$249,749 68
Total miscellaneous income . . . . .	\$978,612 67
Less receipts from taxes collected, borrowed in anticipation of taxes, bonds, notes water department, sewer assessments, etc., which are not applicable to the payment of ordinary expenses . . . . .	907,770 39
	<hr/>
	70,842 28
Total applicable to payment of ordinary expenses . . . . .	\$320,591 96
EXPENDITURES.	
Total expenditures . . . . .	982,340 09
Less the following items on account of balances, reappropriations or appropriations covered by bonds, notes or assessments:	
Reappropriations . . . . .	1,240 97
Balances . . . . .	60,047 68
Bonds and notes . . . . .	65,751 60
Water and sewer departments . . . . .	241,389 14
Notes paid for miscellaneous credits, premium on bonds and notes in anticipation of taxes . . . . .	215,370 20
	<hr/>
Total expenditures not payable from this year's taxes and income . . . . .	583,799 59
	<hr/>
Total expenditures payable from this year's taxes and income . . . . .	\$398,540 50
Total receipts applicable to their payment . . . . .	320,591 96
	<hr/>
Excess of ordinary expenditures over tax levy and income . . . . .	77,948 54



All other receipts, \$907,770.39, less \$226,679.45 collected from taxes, which is partly included in tax levy (see above) . . . . .	681,090 84
Deduct excess of ordinary expenditures . . . . .	77,948 54
	<hr/>
	\$603,142 30
Deduct all other expenditures as shown above . . . . .	583,799 59
	<hr/>
	\$19,342 71
Deduct taxes abated on the 1894-5 lists . . . . .	199 70
	<hr/>
Excess of tax levy and all miscellaneous receipts over all expenditures . . . . .	\$19,143 01

The above excess corresponds to the net increase in cash in treasury and uncollected taxes as shown in table Exhibit D, page 387, and when taken in connection with the other items shown in the table makes the increase in net debt \$127,300.99.

(COPY.)

MEDFORD, August 11, 1896.

Appropriations (sinking fund requirements included) . . . . .	\$472,775 49
Reappropriations . . . . .	2,332 87
Balances reappropriated . . . . .	204,862 65
State tax . . . . .	10,902 50
Middlesex county tax . . . . .	15,639 11
	<hr/>
	\$706,512 62

Of the above appropriations, reappropriations and balances, the following are to be provided for by the issue of notes or bonds, or by assessments, viz:

Hillside schoolhouse	} reappropriated . . . . .	\$330 09
Brooks and streams		226 78
High school house . . . . .	} Balances reappropriated.	61,663 12
Lincoln schoolhouse . . . . .		425 70
Sewer construction . . . . .		135,134 11
High service and renewing mains . . . . .		1,354 34
Improving and enlarging water supply . . . . .		50 88
Water department building . . . . .		5,485 22
Renewal of mains between ponds . . . . .		749 26
Improvement and enlarging water supply, app. February 26 . . . . .		7,500 00
High school equipment, app. March 31 . . . . .		6,500 00
Land for schoolhouse, app. May 12 . . . . .		5,872 97
Almshouse building, app. May 27 . . . . .		20,000 00

Playstead brook, app. May 27 . . . . .	2,500 00
Brooks and streams, app. May 27 . . . . .	10,000 00
Schoolhouse improvement, app. June 9 . . . . .	21,500 00
High service and renewing mains, app. July 7 . . . . .	10,000 00
Improvement and enlarging water supply, app. July 7 . . . . .	4,000 00
Public library building, app. July 21 . . . . .	19,000 00
Sewer construction, app. June 23 . . . . .	21,000 00
Water department building, app. July 25 . . . . .	3,575 00

\$336,867 49

Cash in treasury Feb. 1, 1896 . . . . .	\$47,598 64
Less balance to the credit of overlay and abatement . . . . .	\$1,882 19
Less the amount of per- petual care fund . . . . .	19,822 50
	<u>\$21,704 69</u>

Net cash balance available . . . . .	\$25,893 95
Taxes collected to Aug. 11, 1896 . . . . .	23,797 07
Expenditures of last year to be reim- bursed to the treasury, viz:	
Sewer pipe . . . . .	\$15,000 00
Brooks and streams . . . . .	14,773 22
	<u>29,773 22</u>

416,331 73

\$290,180 89

*To the Honorable Board of Assessors:*

GENTLEMEN: I herewith certify that \$290,180.89 is the correct amount to be raised by taxation and miscellaneous receipts the current year.

GEORGE D. CUMMINGS, *City Auditor.*

ASSESSOR'S ASSESSMENT, 1896.

Auditor's certificate . . . . .	\$290,180 89
State and county tax . . . . .	26,541 61
	<u>\$263,639 28</u>

Credits:

Uncollected taxes . . . . .	\$12,000 00
Corporation and bank tax . . . . .	25,000 00
Miscellaneous credits . . . . .	6,494 26

\$43,494 26

\$220,145 02

State tax . . . . .	\$10,902 50
County tax . . . . .	15,639 11
Overlay . . . . .	3,447 13
City tax . . . . .	220,145 02

Total assessment

\$250,133 76

## SUMMARY.

Total expenditures payable from taxes assessed and miscellaneous income from Feb. 1, 1893, to Feb. 1, 1897:	
Feb. 1, 1893 to Feb. 1, 1894 (see page 393) .	\$275,148 00
Feb. 1, 1894 to Feb. 1, 1895 (see page 394) .	281,346 46
Feb. 1, 1895 to Feb. 1, 1896 (see page 397) .	327,907 27
Feb. 1, 1896 to Feb. 1, 1897 (see page 399) .	398,540 50
	<u>\$1,282,942 23</u>
Taxes assessed and income applicable to the payment of the above:	
Feb. 1, 1893 to Feb. 1, 1894 (see page 393) .	\$295,047 08
Feb. 1, 1894 to Feb. 1, 1895 (see page 394) .	289,259 63
Feb. 1, 1895 to Feb. 1, 1896 (see page 397) .	285,826 43
Feb. 1, 1896 to Feb. 1, 1897 (see page 399) .	320,591 96
	<u>\$1,190,725 10</u>
Excess of ordinary expenditures over taxes assessed and income . . . . .	
	\$92,217 13
Add other expenditures payable from bonds, notes, sewer assessments, etc.:	
Feb. 1, 1893 to Feb. 1, 1894 (see page 393) .	\$278,521 54
Feb. 1, 1894 to Feb. 1, 1895 (see page 394) .	528,733 64
Feb. 1, 1895 to Feb. 1, 1896 (see page 397) .	673,674 14
Feb. 1, 1896 to Feb. 1, 1897 (see page 399) .	583,799 59
	<u>\$2,064,728 91</u>
Total expenditures which were paid by bonds, notes, sewer assessments and income not applicable to ordinary expenses . . . . .	
	\$2,156,946 04
Receipts from bonds, notes, sewer assessments, etc., applied to the payment of the above:	
Feb. 1, 1893 to Feb. 1, 1894 (see page 394) .	248,675 69
Feb. 1, 1894 to Feb. 1, 1895 (see page 395) .	533,956 03
Feb. 1, 1895 to Feb. 1, 1896 (see page 397) .	732,383 29
Feb. 1, 1896 to Feb. 1, 1897 (see page 400) .	681,090 84
	<u>\$2,196,105 85</u>
Deduct total expenditures (see above) . . . . .	2,156,946 04
	<u>\$39,159 81</u>
Deduct taxes abated as shown on pp. 394, 395, 397, 400	4,725 28
	<u>\$34,434 53</u>
Excess of all receipts over all expenditures from Feb. 1, 1893, to Feb. 1, 1894 . . . . .	
	\$34,434 53

The above excess is the increase in cash in treasury and uncollected taxes as shown in table, Exhibit D, pages 390, 391, and when taken in connection with the other increases and decreases shown, makes the increase in net debt \$745,754.77.

(Exhibit F.)

## TAX COLLECTOR'S DEPARTMENT.

Balances on taxes of 1891 and 1892, and taxes of 1893 and 1894.

Balance due Feb. 1, 1893 on tax of 1891 . . . . .		\$7,573 56
Balance due Feb. 1, 1893 on tax of 1892 . . . . .		28,932 33
Tax list of 1893 committed . . . . .		242,504 28
Tax list of 1894 committed . . . . .		233,794 38
Added, reassessed and error .75 . . . . .		2,237 93
Interest and costs collected as shown on Collector's cash book . . . . .		6,919 78
		<hr/>
		\$521,962 26
Abatements and error .03 . . . . .	\$7,914 81	
Paid treasurer as shown by treasurer's books . . . . .	514,047 45	
		<hr/>
		521,962 26

## TAXES OF 1895.

Tax list of 1895 committed . . . . .		\$228,980 90
Added . . . . .		637 10
		<hr/>
		\$229,618 00
Reassessed . . . . .		2,124 20
		<hr/>
		\$231,742 20
Abatements . . . . .		4,071 00
		<hr/>
		\$227,671 20
Poll tax added . . . . .		2 00
Corrections for abatements paid . . . . .		14 30
		<hr/>
		\$227,667 50
Cash paid treasurer . . . . .	\$255,816 65	
Uncollected Nov. 1, 1897 as shown by list taken from collector's books . . . . .	1,897 50	
		<hr/>
		\$227,714 15
Total amount of taxes . . . . .	227,687 50	
		<hr/>
Balance due collector . . . . .	\$26 65	
Between Nov. 1, 1897 and Nov. 20, 1897, there was collected from the taxes uncollected Nov. 1 . . . . .	\$662 40	
And for interest . . . . .	9 94	
		<hr/>
Amount in collector's hands, Nov. 20, 1897 . . . . .	\$672 34	

TAXES OF 1896.	
Tax list of 1896 committed . . . . .	\$250,183 76
One poll tax added . . . . .	2 00
Added and reassessed . . . . .	1,538 88
Overpayment . . . . .	13 60
Error . . . . .	84
	<hr/>
	\$251,689 08
Interest and cost collected . . . . .	1,559 57
	<hr/>
	\$253,248 65
Cash paid treasurer (as shown by treasurer's books) . . . . .	\$235,073 85
Abatements . . . . .	1,948 00
	<hr/>
	\$237,021 85
Balance uncollected Nov. 1st, 1897 as shown by list taken from collector's books . . . . .	\$16,226 80
Collected from Nov. 1st to Nov. 20th, as shown by collector's cash . . . . .	
Taxes paid . . . . .	\$936 16
Interest and costs . . . . .	73 03
	<hr/>
	\$1,009 19
Paid treasurer . . . . .	951 74
	<hr/>
Cash in collector's hands . . . . .	\$57 45

TAXES OF 1897.	
Collected by collector, taxes and interest as shown by collector's cash book . . . . .	\$203,198 48
Paid treasurer as per treasurer's books . . . . .	201,686 63
	<hr/>
Balance in hands of collector . . . . .	\$1,511 86

SEWER ASSESSMENTS AND APPORTIONMENTS.	
List 1 to 38, both inclusive . . . . .	\$93,565 94
List 39 to 76, both inclusive . . . . .	109,735 53
	<hr/>
Abatements and corrections . . . . .	255 37
	<hr/>
Total of lists committed . . . . .	\$203,046 10
Collected by collector as shown by his cash books . . . . .	131,229 48
	<hr/>
Balance uncollected . . . . .	\$71,816 62

Collected by collector on assessments and apportionments . . . . .	\$181,229 48
Collected interest and cost . . . . .	1,881 17
	<hr/>
	\$183,110 65
Paid treasurer as shown by treasurer's books . . . . .	182,957 98
	<hr/>
Balance in collector's hands	\$152 72

## SEWER HOUSE CONNECTIONS.

Balance in collector's hands Feb. 1, 1897, awaiting settlement with depositors, which balance I have verified and corrected . . . . .	\$257 34
Deposits from Feb. 1 to Nov. 19, 1897 . . . . .	13,652 54
Paid by parties when cost was more than the deposit . . . . .	149 01
	<hr/>
	\$14,058 89
Paid treasurer as shown by his books . . . . .	\$8,186 20
Refunded to depositors when cost was less than deposit . . . . .	3,376 60
	<hr/>
	11,512 80
Balance in collector's hands awaiting settlement	\$2,546 09

## STREET WATERING ASSESSMENTS.

List committed 1894 . . . . .	\$2,224 77
List committed 1895 . . . . .	2,316 58
List committed 1896 . . . . .	2,721 65
	<hr/>
	\$7,263 00
Abatements allowed . . . . .	29 84
	<hr/>
	\$7,233 16
Collected as shown by collector's cash books . . . . .	6,759 81
	<hr/>
Balance Nov. 20, 1897 . . . . .	\$478 35
Collected as shown above . . . . .	\$6,759 81
Collected on 1897 list as shown by collector's cash . . . . .	958 48
	<hr/>
	\$7,718 29
Paid treasurer as shown by treasurer's cash . . . . .	7,650 50
	<hr/>
Balance in Collector's hands . . . . .	\$67 79

## SIDEWALK APPLICATIONS.

Deposits, 1896 . . . . .	\$789 00
Received for overcost above deposit . . . . .	34 63

Deposits Feb. 1, 1897 to Nov. 20, 1897 . . .		\$1,798 50
Received for overcost above deposits or cost when deposit was not made . . . . .		247 80
		<hr/> \$2,869 93
Refunded to depositors when deposit exceeded cost	\$157 68	
Paid treasurer as shown by treasurer's books . . . . .	<u>2,324 60</u>	<u>2,482 28</u>
Balance in collector's hands awaiting settle- ment with depositors . . . . .		\$387 65

## SIDEWALK ASSESSMENTS.

Collected by collector, as shown by his assess- ment and cash book . . . . .		\$135 89
Paid treasurer, as shown by treasurer's books . . . . .		74 31
		<hr/> \$61 58

## MISCELLANEOUS BILLS.

Amount collected since Feb. 1, 1897, as shown by collector's cash . . . . .		\$54,712 80
Paid treasurer, as shown by treasurer's books . . . . .		54,702 70
		<hr/> \$10 10

## SUMMARY OF AMOUNTS IN COLLECTOR'S HANDS, NOVEMBER 20, 1897.

Tax list of 1895 . . . . .	\$672 34
Tax list of 1896 . . . . .	57 45
Tax list of 1897 . . . . .	1,511 86
Sewer house connections . . . . .	2,546 09
Sewer assessments and apportionments . . . . .	152 72
Street watering assessments . . . . .	67 79
Sidewalk applications . . . . .	387 65
Sidewalk assessments . . . . .	61 58
Miscellaneous bills . . . . .	10 10
	<hr/> \$5,467 58

On Nov. 20, 1897, the collector had on hand and in bank, as counted and verified by us, the sum of \$5,559.73, or \$92.15 more than he owed the city. There is also due him the sum of \$26.65 in his settlement of the 1895 taxes.

## CHAPTER 176, ACTS OF 1898.

### AN ACT TO AUTHORIZE THE CITY OF MEDFORD TO INCUR INDEBTEDNESS BEYOND THE LIMIT FIXED BY LAW, FOR PARK PURPOSES.

*Be it enacted, etc., as follows:*

SECTION 1. The City of Medford, for the purpose of defraying the costs and expenses of acquiring land on, along or near Mystic River, for park purposes under the authority of chapter one hundred and fifty-four of the acts of the year eighteen hundred and eighty-two, and for improving the same, may incur indebtedness to an amount not exceeding fifty thousand dollars, and may from time to time, by a vote passed in the manner provided by section seven of chapter twenty-nine of the Public Statutes, issue and sell bonds or scrip therefor, signed by its mayor and treasurer and countersigned by its auditor, payable in periods not exceeding thirty years from the date of issue, and bearing interest at a rate not exceeding four per cent per annum, payable semi-annually. Said bonds or scrip shall be denominated on their face, Medford Park Loan, Act of 1898.

SECTION 2. The debt and loan authorized by this act and the bonds or scrip issued therefor shall not be considered or reckoned in determining the authorized limit of indebtedness of said city under the provisions of section four of chapter twenty-nine of the Public Statutes and acts in amendment thereof; but said city shall establish a sinking fund as provided in section nine of said chapter twenty-nine, sufficient with its accumulations for the payment of the debt hereby authorized at its maturity, and any premium received in the sale of such bonds or scrip shall be paid over to the Board of Sinking Fund Commissioners and be placed in the sinking fund of said city created for the payment of the loan herein authorized.

SECTION 3. Nothing in this act shall be construed as limiting the power which said city or its Board of Park Commissioners may exercise under the authority of said chapter one hundred and fifty-four of the acts of the year eighteen hundred and eighty-two and acts in amendment thereof.

SECTION 4. This act shall take effect upon its passage.  
Approved March 15, 1898.



CHAPTER 221, ACTS OF 1898.

AN ACT TO AUTHORIZE THE CITY OF MEDFORD TO MAKE  
AN ADDITIONAL PUBLIC BUILDING LOAN.

*Be it enacted, etc., as follows:*

SECTION 1. The city of Medford, for the purpose of erecting schoolhouses and engine houses, may incur indebtedness to an amount not exceeding one hundred and twenty-five thousand dollars in addition to the amount heretofore authorized by law to be incurred by said city for building purposes; and may from time to time, by a vote passed in the manner provided by section seven of chapter twenty-nine of the Public Statutes, issue and sell bonds or scrip therefor. Said bonds or scrip shall be designated on the face thereof, Medford Public Building Loan, Act of 1898, shall be signed by the mayor and treasurer and countersigned by the auditor of said city, shall be payable in periods not exceeding twenty years from the date of issue, and shall bear interest at a rate not exceeding four per cent per annum, payable semi-annually; *provided*, that the whole amount of such bonds or scrip issued by said city, together with the bonds or scrip heretofore authorized to be issued by said city for the same purposes, shall not in any event exceed the amount of three hundred and seventy-five thousand dollars.

SECTION 2. The provisions of section two of chapter one hundred and sixty-seven of the acts of the year eighteen hundred and ninety-three shall apply to the indebtedness authorized by this act and to the bonds or scrip issued under the authority hereof.

SECTION 3. This act shall take effect upon its passage.  
Approved March 24, 1898.

**MEDFORD HISTORICAL SOCIETY.**  
*ac. 2365.*

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