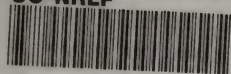
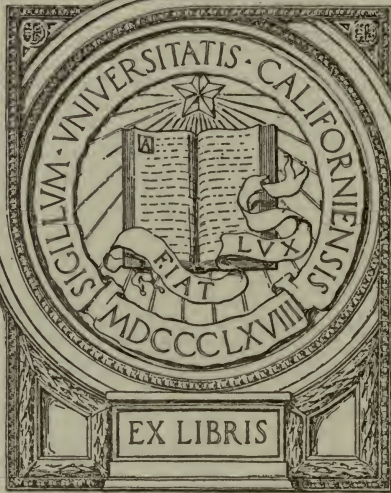


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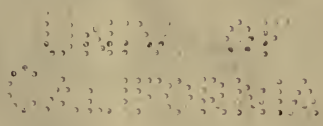
OF THE

Massachusetts

COMMISSION ON PENSIONS



MARCH 16, 1914



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The Commonwealth of Massachusetts.

To the General Court of Massachusetts.

The Commission on Pensions, authorized by chapter 106, Acts and Resolves of 1913, to make certain investigations, has completed its work and begs leave to make the following report.

Respectfully submitted,

JAMES E. McCONNELL, *Chairman.*
MAGNUS W. ALEXANDER, *Secretary.*
HENRY S. DENNISON.

BOSTON, MASS., March 16, 1914.

The Commonwealth of Massachusetts.

CHAPTER I.

SCOPE OF WORK AND RECOMMENDATIONS OF THE COMMISSION.

The General Court of Massachusetts enacted chapter 106 of the Resolves of 1913, which was approved by the Governor on June 4, 1913, as follows:—

RESOLVE TO PROVIDE FOR A COMMISSION TO DEVISE A JUST AND COMPREHENSIVE SYSTEM OF STATE, COUNTY AND MUNICIPAL PENSIONS.

Resolved, That a commission of three persons shall be appointed by the governor, with the advice and consent of the council, one of whom shall be designated by the governor as chairman, to investigate the subject of pensions. The commission shall be known as the commission on pensions, and it shall report fully and in detail the various systems under which pensions are now paid by the commonwealth and by the counties, cities and towns therein, and to what persons pensions are now being paid thereunder and the amounts thereof. The commission shall report upon the advisability of a service-pension plan under which the persons to whom pensions are granted shall make payments from their salaries or wages, or shall consent to deductions therefrom, as contributions to the fund from which pensions are to be paid, or any other plan which the commission may approve. The commission shall also consider the case of persons now receiving pensions who are engaged in other employment, and shall also report upon the advisability of a general pension system for old age or other disability, and may report a plan or plans for such a system. The commission shall give public hearings and shall be allowed for its compensation and expenses such sums as may be approved by the governor and council. The commission shall report in print on or before January tenth, nineteen hundred and fourteen, and shall include in its report a general bill or bills regulating the pensions to be paid by the commonwealth and by the counties, cities and towns therein. [*Approved June 4, 1913.*]

Subsequently a resolve extending the time for the report of the Commission on Pensions was introduced, and was approved on Jan. 31, 1914, as chapter 5 of the Resolves of 1914, reading as follows:—

Resolved, That the commission appointed under chapter one hundred and six of the resolves of the year nineteen hundred and thirteen, to devise a just and comprehensive system of state, county and municipal pensions, is hereby authorized to continue its investigations and to make its report not later than the sixteenth day of March in the current year.

Pursuant to the directions of the Legislature His Excellency Gov. Eugene N. Foss appointed, July 9, 1913, James E. McConnell, whom he designated as chairman, Magnus W. Alexander and Henry S. Dennison as members of the Commission on Pensions.

The commission held its first meeting on Aug. 4, 1913, when it elected Magnus W. Alexander as secretary, outlined the scope of its work, and engaged the necessary clerical and statistical assistants to carry into effect the provisions of chapter 106. Since that time the commission has held frequent executive sessions for the consideration of the problems committed to it by the General Court. In addition, conferences were arranged with the heads of many State, county and municipal departments, and with other persons whose opinion on the subject of old age and service pensions the commission desired to obtain. Hearings were given to representatives of organizations who requested to be heard, such as committees from the Boston fire department, prison officers, probation officers, court officers, the district police, overseers of the poor, county retirement associations, the State normal school teachers and the Boston men and women teachers. The commission, furthermore, held public hearings as directed by the Legislature. These hearings were announced through newspaper advertisements and circular letters, and took place at Boston (two hearings), Worcester, Springfield, Fitchburg, Pittsfield, Lawrence, Fall River and New Bedford, in order to enable citizens at large to present their views on the pension problem. The commission feels, therefore, that it has used every reasonable means for securing official judgment and for testing public sentiment on the questions at issue.

The Legislature imposed upon the commission definite duties, aside from that of giving public hearings, by providing in the resolve that the commission shall —

(a) Report fully and in detail the various systems under which pensions are now paid by the Commonwealth and by the counties, cities and towns therein, and to what persons pensions are now being paid thereunder and the amounts thereof.

(b) Also consider the case of persons now receiving pensions who are engaged in other employment.

(c) Report upon the advisability of a service-pension plan under which the persons to whom pensions are granted shall make payments from their salaries or wages, or shall consent to deductions therefrom as contributions to the fund from which pensions are to be paid, or any other plan which the commission may approve.

(d) Also report upon the advisability of a general pension system for old age or other disability.

(e) And include in its report a general bill or bills regulating the pensions to be paid by the Commonwealth and by the counties, cities and towns therein.

Obviously, the first two duties required statistical investigation, and the third and fourth demanded consideration of a contributory service-pension plan and of a general pension system for old age and other disability, while the fifth duty imposed upon the commission the task of expressing its recommendations in the form of a bill or bills, to be submitted to the General Court.

The commission's report is made in response to these requirements; in its main provisions it deals with: —

(a) The method and results of the statistical investigation undertaken by the commission at the request of the Legislature and at its own volition.

(b) An investigation of some of the present pensions laws as to their financial soundness and probable future cost.

(c) A condensed description of the various pension systems now in effect in the Commonwealth, and a synopsis of the principal pension systems for public employees in all States of the Union.

(d) A consideration of a general pension system for superannuated persons and of a specific phase that relates to public employees.

(e) The submission of four proposed acts, as the commission's answer to the duty laid upon it by the Legislature, to "include in its report a general bill or bills regulating the pensions to be paid by the commonwealth and by the counties, cities and towns therein."

The nature of the resolve and the title, "A Resolve to provide for a commission to devise a just and comprehensive system of State, county and municipal pensions," indicate clearly the wish of the Legislature to focus special attention on the pension problem as it affects public employees; the Legislature evidently expected, also, to receive recommendations for the enactment of one comprehensive system of pensions for all public employees.

The commission deemed it its duty, therefore, to devote the major part of its time to a study of the justification for, and the proper character of, pension legislation for public employees; it has, however, given also much thought to the general question of pensions for superannuated persons. Its findings and opinion on both these questions are set forth in chapter V. of this report.

STATISTICAL INVESTIGATIONS.

The commission endeavored first to find out how many persons throughout the Commonwealth were drawing pensions from the public treasury, and in what amounts. Inasmuch as the officials of the State, of all counties, all cities and all towns to whom letters of inquiry had been sent forwarded returns in regard to pensioners, or stated that they had no pensioners then on their pay rolls, the commission feels that it has made a complete investigation of this matter. It wishes to express herewith to these officials appreciation for their co-operation. Full information in regard to the present pensioners of the public service within the Commonwealth is given in Appendix A, while a detailed description of the statistical inquiry appears in chapter II. of this report.

The complete returns show that on Aug. 31, 1913, there were 1,501 pensioners in the Commonwealth who were drawing \$721,264.03 in annual pensions. Of this amount the city of Boston paid 931 pensioners at the rate of \$450,955.70 per annum.

These expenditures, which must be raised by taxation, are certainly large enough to arrest the attention of every taxpayer, so much the more since these sums represent payments at or near the bottom of a rising scale, which will find its level only in the course of years. Moreover, legislation for the payment of pensions to city laborers has only recently and partially become effective, and pension payments to teachers throughout the State under Chapter 832, Acts of 1913, will not become effective until July 1, 1914. Neither of these classes, except a small number of laborers, is included in the above figures, which will grow materially as time goes on.

The attempt of the commission to "consider the case of persons now receiving pensions who are engaged in other employment" proved somewhat unsuccessful, inasmuch as pensioners, to whom special letters of inquiry as to their present positions and wages were sent, in many instances failed to reply. If information of this nature should

be considered of particular value it may have to be obtained in future by personal investigation or through the established machinery of the Commonwealth at the time of taking the next census.

The commission pursued its statistical investigation beyond that strictly required by the resolve, because it felt that additional information would be needed in a further study of the pension problem. The commission desired to ascertain the liability which had already been incurred under present pension laws, and to estimate the probable cost of some of the present pension systems projected over a period of years, in order that the citizens might have adequate knowledge of this financial obligation which they were loading upon themselves and their successors as a part of the public expense which must be borne by the taxpayers. To secure this valuation and cost estimate it became necessary to know the number of persons in each branch of the public service, their ages and length of service, the character of their work and their salaries or wages. Moreover, the number of withdrawals by resignation, discharge and death in each branch of the public service had to be ascertained, as far back as available records would permit, in order to plot for each branch of the service a curve of past withdrawals, and on this basis to forecast the tendency of the curve for future withdrawals.

On account of the limited time allotted to the commission it was agreed to confine this inquiry and financial valuation to the most important parts of the public service, and in particular to the pension systems of the city of Boston. Accordingly, the necessary data were obtained in respect to firemen, policemen, teachers and public-works employees of Boston, and to firemen and policemen in the public service of the remaining cities of the State. No attempt was made to extend the inquiry to the public school teachers outside of Boston, inasmuch as a similar investigation was made by the State Board of Education as of July, 1911, and issued in January, 1913, as House Document 1926.

The commission was anxious to secure the services of a competent actuary and recognized student of pension problems for ascertaining the cost valuation of present and future pensions and annuities under existing Massachusetts laws. Mr. Herbert D. Brown, of the United States Civil Service Commission, who had made an extensive study of the problem of superannuated government employees in behalf of the commission on economy and efficiency appointed by President

Taft, was therefore employed, and the result of his work is given in detail in chapter III. of this report.

The investigation deals with a financial examination of pension funds for policemen, firemen and teachers of the city of Boston. It reveals the results that follow the enactment of pension laws without adequate consideration of the probable future cost, and indicates how the total pension obligations of the Commonwealth are rapidly accumulating under existing laws.

For police pensions Boston paid the following amounts for the last ten years:—

1903-04, \$114,029 15	1908-09, \$131,800 18
1904-05, 124,353 21	1909-10, 133,632 41
1905-06, 129,825 16	1910-11, 131,271 95
1906-07, 128,456 90	1911-12, 135,785 51
1907-08, 129,240 31	1912-13, 139,847 11

A reasonable estimate for the cost in 1920 can be placed at \$168,000 per year.

For firemen the payments have been as follows:—

1903-04, \$64,800 29	1908-09, \$95,759 49
1904-05, 68,130 84	1909-10, 97,987 10
1905-06, 69,383 20	1910-11, 102,763 94
1906-07, 76,096 79	1911-12, 108,601 84
1907-08, 88,479 16	1912-13, 111,843 37

A reasonable estimate for 1920 is \$146,000. Recent increases in salaries have not been included in this estimate.

Under the teachers' act of 1908 (the Permanent School Pension Fund) Boston teachers may be retired at sixty-five years of age. Those who were annuitants of the Retirement Fund when this act was passed are given a pension of \$180 under this act, but not more than 60 are paid this pension at any one time. The fund out of which these pensions are paid is created by an annual appropriation equal to 5 cents on every \$1,000 of assessed valuation of the city's taxable property.

The excess revenue that accumulated under this appropriation during the first years of the fund's existence was intended to establish a permanent fund for the payment of pensions in future years. That the appropriation was wholly inadequate is clearly shown by

the fact that in every year since the law took effect the net amount placed to the credit of the fund has decreased, the amount being in 1908, \$62,213.01, and in 1912 it dwindled to \$5,681.66. In 1913 the entire revenue from the 5-cent tax was \$876.43 less than the amount of the pension payments. The investigation showed that under normal load this 5-cent tax should be about 25 cents.

Of particular interest and importance is the valuation of the association of the teachers of Boston established in 1900. Under its rules teachers are obliged to contribute \$18 per year to a common fund, out of which are paid such annuities as, in the judgment of the trustees, the resources of the fund will justify. The amount of each of these annuities has been \$180 since 1904, but investigation proves that this amount is not justified; in fact, now the resources are not quite sufficient to pay the present annuitants \$180 per year as long as they may normally be supposed to live, leaving no assets for those who have been contributing but are not yet retired.

An actuarial balance sheet shows that a deficiency now exists of \$1,312,687.34. This means that in addition to its present resources, consisting of the annual contributions of \$18 from the present teaching force and the fund now on hand, it would require the above sum to meet the pensions of teachers now retired, and of the present active force, without any account being taken of future employees.

SURVEY OF PRESENT PENSION LEGISLATION IN MASSACHUSETTS.

Acting under instructions of the General Court, and also for a clearer comprehension of the pension problem as it affects Massachusetts, the commission undertook a careful study of all existing pension laws in the Commonwealth, and presents in chapter IV. of this report a description of these laws, together with a brief statement of their historical development.

The large number and variety of pension and retirement laws now on the statute books of Massachusetts, some of which have been repealed in part, while others are effective in full, are startling; their proper understanding by the beneficiaries or the public is possible only after exhaustive study. These laws differ in features of administration and application, as well as in fundamental principles; in some cases members of the same branch of the public service come under entirely different provisions for old-age incapacity, as, for ex-

ample, teachers, whose pension provisions vary according to whether they are teaching in the public schools of one city or another, or in the normal schools of the State.

The thought must immediately impress itself upon everyone who studies this legislation that there should be no necessity for such a multiplicity of pension laws and such divergence of principal and secondary features; and it must be clear to every one that there is a large amount of duplication and consequent waste of time, energy and money involved in the administration of these many and divergent laws.

The commission might have attempted to codify the present pension and retirement laws, with such changes in administrative features as would make their management simpler, by substituting a retirement commissioner for the various pension and retirement boards. The enactment of such a codified law would not have brought the pension problem much nearer proper solution, nor established a comprehensive and definite pension policy for the Commonwealth. A more complete revamping of existing pension legislation seemed necessary.

In order that the comparative extent of pension legislation in Massachusetts and in other States of the Union may readily be seen, the commission presents in Appendix B a synopsis of such legislation for public employees throughout the United States. This information is given in tabulated form in regard to firemen, policemen, teachers, judges and other State, county and municipal employees. The extract is based on a study of the pension laws of all States of the Union; it contains the most important information relative to the support and management of the pension funds, eligibility for and extent of pension payments, and such other data as are of especial interest. The same information was obtained and tabulated for representative cities throughout the country. In each case the statute is cited, so that it will be convenient for those interested to study individual provisions at full length.

THE PENSION PROBLEM.

A pension implies the periodical payment of a definite sum to aged persons. Such payment can be defended only if made for justifiable reasons. What are these reasons? Two arguments can be advanced in favor of such payments, — reward for service and relief of need.

The commission believes that service ought to be adequately paid for at the time when it is rendered, so that no deferred payments may interfere with the movability of the employee by subjecting him to financial loss when he leaves one employment for another and deprives himself of moneys admittedly earned by him but withheld by his employer until the end of a long-service period which he cannot now complete. Under the same conditions his family would be deprived of his deferred pay if he should die while in active service. The workman's whole wage should be paid in such a way as to leave him perfectly free to better his condition at any time.

If, on the other hand, pension payments are justified as relief of need, they must obviously be paid only to the needy and in relation to the extent of their need, and not to all people merely because they have reached a definite age.

The query at once arises whether there is any evidence of extensive need among aged people in Massachusetts. Previous investigations, in particular that of the Commission on Old-age Pensions, Annuities and Insurance (House Document No. 1400 of June, 1910), failed to reveal any considerable extent of old-age dependency. No evidence has since been presented which would alter the conclusions reached at that time. The commission recognizes, however, that need arising from old-age incapacity may exist to a greater extent than is indicated by evidence which it was able to gather; it is important, therefore, that the true facts should be established by a thorough investigation undertaken in connection with the next census of the Commonwealth. To assume the existence of a large class of aged dependents without substantial evidence of it, and to legislate on the basis of such assumption in advance of real demand for it, would be unjustified. Such legislation, however, may become necessary at some time in the future, and the Commonwealth should be prepared with the facts and estimates of cost based upon them.

Moreover, the importance of the need arising from old age relative to other causes of dependency, like sickness, must be studied, so that

the large cost of an old-age pension system may not result in deferring measures for relief which might later be found to be vital to the interests of the Commonwealth.

But when the need itself and its importance have been proven it will still remain a question whether that need can be adequately met by a system of payments beginning only at a fixed age and approximately equal to all.

Furthermore, it will be necessary, the commission believes, to amend the constitution if the State is to extend its social legislation in this direction. The general old-age pension is established nowhere in this country, and it is well-grounded opinion that the present form of our State constitution would prevent the payments of money raised by taxation in the form of general old-age pensions.

The preventive of old-age dependency is saving, and it is to this that the commission believes we must look to find a true and sound basis for systematic relief. When the time comes for final consideration of general old-age annuities the valid plan will be founded upon compulsory savings with assistance through administration and minimum guarantees.

The problem presents a new aspect when it is narrowed down to its application to employees in the public service. The one paramount reason advanced by nearly every government official for providing retirement allowances to public employees is that the service suffers severely from the inefficiency of the superannuated employee and the blocking of proper advancement through the service which he causes.

Humanitarian motives, and the freedom of public activities from the pressure of competition, combine to make it virtually impossible to retire those who have become gradually inefficient after long service without any provision for their old age. The means of clearing the public service of the superannuated is, therefore, justified if its cost bears a proper relation to the savings it effects. Under systems of noncontributory pensions to public employees the cost is great.

Moreover, continual demands do, and must in the nature of things, arise for shorter service requirements and extended benefits, while counter-demands can seldom be effective.

Finally, as the English experience so strikingly proves, noncontributory pensions inevitably come to be considered as deferred pay, and tend to result in holding down rates of remuneration; but de-

ferred pay also justifies demands for proportionate return upon death or separation, and so results in the "gratuities," "compassionate allowances" and "abolition pensions" of the English system. Without a basis in savings a public-service pension system is unfair to the employees and unfair to the State itself. A more extended discussion of this problem is given in chapter V. of this report.

THE PROPOSED MASSACHUSETTS RETIREMENT ACT.

This act is predicated on the theory, already alluded to in the preceding pages, that it may be considered advisable for the public employer to enforce among his employees the savings habit, to prevent them from arriving at the age of incapacity for further efficient service in destitute circumstances; and that the public employer would be justified in assisting this effort for saving both in an administrative and a financial way, to secure increased efficiency in the public service by the elimination of superannuated employees.

The habit of saving is not peculiar to any class of people; it is largely an individual characteristic. The proposed act is intended to apply to all public servants, who are to save in proportion to their salaries or wages. In order, however, not to increase unnecessarily the financial burden of the public employer, and also because legislation of this kind should concern itself primarily with persons of moderate or small incomes, to the end that there should be provision in old age for the necessities of life, the proposed law does not recognize the excess of any salaries or wages above \$2,000 per year.

Exceptions to the complete inclusiveness of the law had, nevertheless, to be made. Since, under the constitution of Massachusetts, it is doubtful whether deduction can be made from the salaries of the justices of the Supreme Judicial Court, it became advisable to exclude the highest judiciary of the State from the provisions of the act. Were it not for this constitutional limitation the commission would have included these justices within the provisions of the proposed act; all other judges are included. In taking this stand the commission is not unmindful of the unique position which the justices of the highest court of Massachusetts occupy in the public service. As the court of last appeal and the final interpreters of the constitution they are the guardians of the constitutional rights and liberties of every citizen of the Commonwealth. An error of judgment on the part of the justice of the Supreme Judicial Court may

prove of more fundamental consequence than a mistake in thought or action of any other public servant. No condition should therefore be imposed on this service which might operate against the voluntary retirement of any member of the highest judiciary at a time when his mind may begin to lose its keenness of perception and clarity of thought, or his physical condition may prevent him from a complete fulfillment of the functions of his high office.

It is for this reason that the commission proposes to retain the present law under which justices of the Supreme Judicial Court are permitted to retire. An amendment to this law is necessary, however, in order to eliminate the justices of the Superior Court from its provisions. A draft of the amended law is presented in chapter VI. of the report. But even if justices of the Supreme Judicial Court could be brought within the proposed retirement act, they, as well as all other judges of the Commonwealth, would have to be exempted from the compulsory retirement provision, since under the constitution of Massachusetts all judges are appointed during good behavior. The commission therefore advocates including all judges, except those of the Supreme Judicial Court, in the proposed act, but without compulsory retirement, in order to establish equality of treatment of all public servants by the law as far as this can be done.

Elective officers and those appointed for a definite term of years have also been excluded from the proposed act, as the very nature of their temporary employment operates against the theory of a retirement system.

Finally, it was decided not to impose the contemplated legislation on towns of less than 10,000 population, for it was realized that for many small towns with only a few permanent public employees the retirement law might prove burdensome. These towns are given the privilege, however, of accepting the law by affirmative vote at a town meeting. On this basis 298 out of 320 towns can exercise this option. But whether or not any town accepts the retirement act, it is provided that public school teachers shall be considered employees of the State as far as retirement provisions are concerned; they would, therefore, be included in the proposed legislation. This policy in respect to the retirement of teachers has already been adopted by the Commonwealth through the enactment of the present retirement law for teachers, chapter 832, Acts of 1913.

The commission drafted the Massachusetts Retirement Act with

the intent of applying it to practically all public servants; it is convinced that one of the foundation stones on which to build this law must be equality in the treatment of all public employees.

The proposed act has been made compulsory in its application. Those who enter public service after the law is placed on the statute books are obliged to accept it as a part of their contract of employment. Those already in the service at the time of the passage of the act are given the option to come within the act by not refusing its acceptance, or to give notice that they do not care to come under the act, and therefore elect to leave the public service within ninety days from the date of their choice. The choice must be made within sixty days from the enactment of the law.

Experience everywhere shows that permissive legislation of this character is ineffectual, does not accomplish the purpose for which it is created and leaves the problem unsolved. The history of Massachusetts pension legislation testifies to this effect; under it each class of public employees was considered in the past by itself and usually by a different Legislature, and, in consequence, contradictory and inconsistent provisions were written into the pension laws. The permissive contributory retirement system for cities and towns, chapter 619, Acts of 1910, later amended by chapter 338, Acts of 1911, has remained unaccepted by all cities and all towns of the Commonwealth; this legislation failed, therefore, in its purpose. When in 1912 a noncontributory system of pensions for laborers of cities and towns, chapter 503, Acts of 1912, was submitted to the voters of each city and town by referendum, 10 out of 33 cities, and 100 out of 320 towns in the Commonwealth refused to accept it. A noncontributory pension law for laborers in Boston, which was enacted in 1911 as chapter 413, and amended in 1913 as chapter 367, was made effective in the city of Boston through legislative action and without reference to the people or the city council. Permissive legislation has not only failed, therefore, to remedy the undesirable situation of the past, but the introduction of 99 new pension bills into the Legislature of 1914, and the character of these bills, shows that the hit-and-miss method of dealing with the pension problem is still advocated.

The commission is strongly of the opinion that if the principles of the legislation proposed in the Massachusetts Retirement Act for annuity payments to superannuated persons in the public service are

correct, they should be applied to all employees in the public service at one and the same time. By such enactment it is hoped to prevent future spasmodic and narrowly considered pension legislation.

It has already been stated that the enactment of a retirement law for public servants is advocated for the benefit which the public service will derive from the retirement of superannuated employees. At what age retirement should take effect is a question which admits of much argument. After all, the curve of usefulness is more or less peculiar to the characteristics of each employee. Some will reach the zenith of usefulness at rather an early age, while for others the peak of the curve will not be reached until many years later. Again, the nature of the work in some branches causes of necessity a decrease in individual efficiency at an earlier age in life and after a shorter period of service than will be the case in other branches of public employment. It would undoubtedly be most advantageous to the individual and most beneficial to the public service if each case could be treated entirely on its merit as to the time when the employee should be retired. The execution of such a plan among a large number of employees, however, offers obstacles which are well-nigh insurmountable. An average age must, therefore, be assumed at which employees in general may be supposed to have passed the period of reasonable usefulness on account of their advanced age.

The proposed act assumes sixty-five as the desirable retirement age, except in the case of policemen and firemen, for whom this age has been set at sixty. There is quite a universal agreement among all who were consulted that policemen and firemen should not be required to do active service after the age of sixty. In order, however, to introduce desirable flexibility into the schemes, it is provided that upon reaching the age of sixty-five or sixty, respectively, public employees may continue in the service by mutual agreement between them and their employer, but such retention shall be a matter of investigation and decision from year to year and for not more than five years in all. The public service of Massachusetts, if the proposed act goes into effect, will therefore in the future have no employees above the age of seventy, and in the case of policemen and firemen above the age of sixty-five, save members of the judiciary, elective officers and appointees of the Governor, of the mayors of cities and the boards of selectmen of towns.

A retirement law calling for expenditures from the tax levy can-

not be defended unless it provides also for compulsory retirement as the means toward the attainment of increased efficiency in the public service.

The proposed law is conceived as an assistant compulsory savings plan for employees. This implies that employees are to save money by definite periodical contributions, and that the employer offers his assistance in definite form, through the payment of all administrative expenses and by increasing at the time of retirement of the employee the accumulated contributions of the latter, in order that the combined amounts will purchase for the retired employee an adequate annuity. The commission aimed to make this annuity about one-half the average salary or wage of every employee, not considering, as stated before, the excess of any salary of more than \$2,000 per year.

The amount of annual contributions and the interest rate at which they are invested, the period over which contributions are paid and the age of retirement, jointly determine the amount of annuity.

The commission agreed upon a contribution of 5 per cent. of the salaries or wages of employees, and wrote this 5 per cent. assessment into the law in order to avoid any inequality in the treatment of employees in the different branches of the public service. It has, however, limited the total assessments to a period of twenty-five years, even though the employee may not yet have reached the retirement age. This time-limitation of contributions should prove advantageous to employees, and especially to those who enter the service at an early age, and it should therefore tend to attract younger persons into the public service. The amount of contribution follows somewhat the established practice in present retirement systems; moreover, a 5 per cent. reduction in salary or wage does not impose such burden on any employee as to deprive him of the necessities of life.

As it was the commission's aim to allow the employees a high rate of interest on their contributions, and in any event as much as they could get in any savings bank, it was agreed to guarantee the funds of the employees and the appropriations of the employer at 4 per cent. interest compounded semiannually. In order that this rate of interest might be maintained without detriment to the safety of the investment, it was further agreed that all funds for annuity purposes should be invested like those of savings banks, which, according to the report of the Bank Commissioner, have earned from 4.09 to

4.89 per cent. in the last twenty years. The public employer might not always be able to invest the funds at more than 4 per cent. compound interest. To allow employees a higher interest rate than can be earned by the employer through the investment of their funds would constitute concealed taxation; this the commission was anxious to avoid.

With an annual contribution of 5 per cent. for twenty-five years, invested at 4 per cent. compound interest, and an equal sum then added by the employer, the employee, if he then reaches the retirement age of sixty-five and retires from the service, would receive an annuity of about one-half his average wage. Every additional year of service beyond twenty-five, and every delayed year of retirement after age sixty-five will materially increase the amount of the annuity, as may be seen from the following illustration, which is based on a salary of \$1,000 and the American Experience Mortality Table, with a 4 per cent. investment:—

Annual salary of employee,	\$1,000 00
Annual contribution of employee,	50 00

Twenty-five years of service at retirement:—

Contributions for twenty-five years at 4 per cent. compound interest,	\$2,178 12
This amount doubled by appropriation of employer,	4,356 25
Annuity payable at age sixty,	434 62
Annuity payable at age sixty-five,	523 14
Annuity payable at age seventy,	651 93

Thirty years of service at retirement:—

Contributions for twenty-five years at 4 per cent. compound interest,	\$2,178 12
This amount doubled by appropriation of employer,	4,356 25
This amount continued at 4 per cent. compound interest for five years,	5,310 26
Annuity payable at age sixty,	529 80
Annuity payable at age sixty-five,	637 71
Annuity payable at age seventy,	794 71

Thirty-five years of service at retirement:—

Contributions for twenty-five years at 4 per cent. compound interest,	\$2,178 12
This amount doubled by appropriation of employer,	4,356 25
This amount continued at 4 per cent. compound interest for ten years,	6,472 95
Annuity payable at age sixty,	645 81
Annuity payable at age sixty-five,	777 34
Annuity payable at age seventy,	968 71

Upon retirement the employee is given the option to claim the full annuity which the amount credited to his account will purchase, or to select a somewhat lesser annuity on the basis that if he should die before the total annuity payments made to him equal the total moneys contributed by him at regular interest the balance shall be returned to his legal representatives.

This provision was inserted to permit a retiring employee to take into account the financial obligations which he may have towards members of his family who may survive him.

The proposed act provides that the appropriations which the public employer will have to make on account of his employees, when the latter reach retirement age, should be distributed over a period of years, in order not to cause an undue increase in the tax levy of any one year. This distribution is to be made over the last fifteen years of the assumed twenty-five years of service only, so as to relieve the public employer of the burden of appropriating and later canceling any moneys on account of employees who separate from the service during the first ten years of employment. This appropriation on the part of the employer is not available to the employee until he becomes an annuitant at retirement age, or is retired sooner on account of total disability, save that in case of death in service one-half is payable to the widow or minor children of the deceased. If, therefore, an employee separates from the service prior to retirement, the sum already appropriated on his account by the employer is returned to the employer, who decreases the tax levy of the following year by this amount.

The employee's contributions, on the other hand, are always considered as belonging to him, to be converted into an annuity or, in case of his separation from the service on account of resignation, dismissal or death, to be returned with accrued interest to him or his estate. The employee's money is invested for him with absolute safety and at a comparatively high rate of interest; the public employer guarantees both the principal and the interest of the contributions.

The status of an employee in reference to his contributions, length of service and annuity expectation is in no way affected under the proposed act by his transfer from one to any other branch of employment within the Commonwealth. He is also enabled to preserve the value of his years of service as a part of the total length

of service, if he should withdraw from his employment after ten years, by leaving his accumulated contributions at regular interest with the employer, either to be paid to him as an annuity when he reaches the age of retirement of the class to which he belonged, or to be counted for him when he re-enters public service.

The commission is convinced that no provision for the payment of accident compensation should be included in the proposed Massachusetts Retirement Act, in order that the act may be kept true to the purposes for which it is created. In order, however, that adequate disability and death benefits for the consequences of injuries received in the service may be allowed, the commission advocates that all public employees be brought under the provisions of chapter 751 of the Acts of 1911, commonly known as the Workmen's Compensation Act. An exception is urged, however, in regard to policemen and firemen, because of the fact that they are subject during their active service to extraordinary risks which in the nature of their work they must always be ready to face rather than to avoid, while it is the duty of every other person to avoid danger. The commission has, therefore, prepared "An Act relating to payments to policemen and firemen or their families in case of disability or death," and submits it for the consideration of the General Court. The proposed act is printed in chapter VI. of this report.

The problem of how to take care of public employees with prior service has given the commission much concern. One solution would be to treat these employees as liberally as those who enter public service after the enactment of the proposed law, which should therefore be made retroactive, and oblige the public employer now to appropriate for employees with prior service the same amount that he must under the law appropriate in the future for new employees.

As against such procedure stands the great cost which would at once be loaded on the present taxpayers from which the taxpayer would reap only a small benefit. Even if this expenditure is extended over a period of years it will substantially increase the tax levy for those years.

The commission earnestly desired to adopt this method, yet it did not feel justified in ignoring the question of cost. It differentiated, therefore, between employees with prior services who were already enjoying the expectation of future pension benefits and those who are not at present covered by pension legislation.

The former class might claim, with some degree of justification, that they had remained in the service and in some instances refused the opportunity for more remunerative employment on account of a definite pension promise. Although the Legislature has no doubt full legal authority for abrogating promised benefits, the commission feels, nevertheless, that a moral obligation attaches to the issue which the General Court cannot lightly cast aside.

Employees not now under pension laws cannot advance the claim of a pension promise. By now extending to the latter class the benefits of a retirement act, and by providing adequate recognition of prior service for the present beneficiaries of pension laws, the commissioners believe that they have dealt justly and sensibly with the situation confronting them.

Such prior service is recognized by assuring an annuity of half salary or wage, but not more than \$1,000, to those who at the time of the passage of the proposed act have already completed twenty-five or more years of service, and by guaranteeing a proportionate amount as a minimum annuity to those with lesser service. Should the General Court, however, feel justified in dealing more liberally with employees of prior service who cannot now claim pension promises, the commission has prepared tentative provisions to meet this situation, and presents them as additions to the proposed retirement act.

The enactment of the proposed law will automatically repeal all existing pension laws. In respect to present contributory pension acts the commission proposes that the moneys already contributed by the employees shall be transferred to the Retirement Fund under the new act.

An exception had to be made, however, in regard to the moneys accumulated by the Boston Teachers' Retirement Fund Association, created by chapter 237 of the Acts of 1900. Except for the compulsory feature of contributions this association is of the character of a mutual benefit association. The commission felt, therefore, that it could only recommend the removal by repeal of the compulsory feature, so that Boston teachers may not be obliged hereafter to contribute to two retirement funds. The members of the association will have to decide among themselves either to carry on the association on an entirely voluntary basis, or in what manner to dissolve the association and apportion the accumulated funds. A proposed act to cover this matter is contained in chapter VI. of this report.

In the same chapter are presented two additional bills, — the one to arrange for the transfer of all funds of the Permanent School Pension Fund for Boston Teachers to the treasurer of the city of Boston, to be expended as the city council may direct, and the other to make the necessary change in chapter 12 of the Revised Laws, dealing with taxation in the city of Boston, as required by the repeal of the law establishing the above fund.

Finally, arrangements have been made in the proposed retirement act to continue the payment of pensions to those who are now receiving them.

Study of the existing pension legislation in Massachusetts has made clear the great need of simple but effective management. To achieve this result the new retirement act calls for a retirement commissioner to supervise the administration of the law. Although the funds collected by the State and each political division therein from contributions of the employees and appropriations of the employer remain in the custody of the employer, they are subject to periodical examination by the retirement commissioner, and no annuity payments can be made from these funds without first being certified to by the retirement commissioner.

The commission has purposely omitted stating the salary of the retirement commissioner by law, and left it to the discretion of the Governor with the consent of the Council, so that the Governor would be free to select the right man for the place. It is obvious from the reading of the proposed act that the successful introduction and the smooth running of the law will depend largely on the capacity of the retirement commissioner.

The proposed Massachusetts Retirement Act is printed in full in chapter VI. of this report.

The pension legislation of Massachusetts has grown from the first pension law of twenty-five years ago, inspired by the humanitarian and just impulse to protect the firemen and policemen against the hazard of their calling, to nearly 100 laws which are contradictory, unsystematized and pregnant with unknown cost. The commission appreciates the opposition that will be aroused by disappointed expectation of gratuities from the public treasury, but it also realizes that the hour has arrived now, if ever, when the pension policy of the State must be permanently established and defined upon the basic principle of equity and justice to all.

The Legislature of 1913 asked this commission to furnish the solution of one of the most difficult problems of the Commonwealth. The bill submitted as the Massachusetts Retirement Act is the answer. It is the commission's best thought, aided by the advice and wisdom of many workers on this problem.

About 100 new bills have been introduced this year into the Legislature relative to pensions. No consideration of cost, no study of principle involved, enters into the minds of those who seek extension. If the solution is not furnished new pension legislation will complicate the situation year by year, making future effort for sound economic legislation well-nigh hopeless.

The bill submitted repeals all pension laws now on the statute books except that for Supreme Court justices, and confines within limits of one bill the whole pension system of the Commonwealth. Administration is unified, concealed taxation is avoided and equality is established among all public servants. The justification of annuities is based upon benefits to the State and not upon any right of the employee to a gratuity from the public treasury.

Upon these grounds the commission submits its report with unanimous recommendation that the General Court enact into law the bills contained therein.

CHAPTER II.

STATISTICAL INVESTIGATIONS.

Soon after its organization the commission issued on Aug. 18, 1913, a circular letter of inquiry, which was sent to the secretary of the State Retirement Association, to the county commissioners, to the mayors of all cities and to the clerks of all towns in the Commonwealth, requesting the names, ages and service periods of all persons drawing pensions under existing laws on Aug. 31, 1913, with the amount of their pensions. No letter of inquiry was sent to the Teachers' Retirement Board, since the law governing the payment of pensions to teachers, chapter 832, Acts of 1913, is not to become effective until July 1, 1914.

In order to facilitate the obtaining of this information and to secure replies in a uniform manner, special cards were printed and placed at the disposal of the officials to whom the circular letters of inquiry were sent; a copy of such card is printed below. Following the practice of the federal census department, a sample card fully filled out was enclosed with the letter.

MASSACHUSETTS COMMISSION ON PENSIONS.

[Pension data required by chapter 106, Resolves of 1913.]

City or town,.....

Name of pensioner,¹..... } Male or
. } female.

Age when pensioned,.....years.

Date when pensioned,.....

Amount of pension per year, \$.....

Occupation when pensioned,.....

Department where last employed,.....

Last rate of wages or salary, \$.....per.....

Length of municipal service,.....years.

Cause of pension (old age or disability),.....Retirement compulsory or
voluntary?.....

Number and chapter of law or ordinance under which pension is paid,.....

Is pensioner now employed?..... Where and how?.....

¹ If pensioner is a veteran of civil war, mark a V after name.

Officials of the State and all counties, as well as of all cities and all towns in the Commonwealth, responded quite promptly.

Of the 14 counties of the Commonwealth, 9 reported that they were then paying pensions, while 5 stated that they did not have pensioners at that time.

Of the 33 cities in the State, 25 sent returns of pensioners and 8 reported that they had no pensioners.

Of the 320 towns in Massachusetts, 15 sent the requested information in regard to pensioners and 305 notified the commission that they had no pensioners.

The cards were tabulated as received, and the number of pensioners and their total pension payments were recorded for the State and for each political division therein. In order to eliminate any error in the reports or in the tabulations, another letter was sent to each official who had reported pensioners, enclosing for his approval the data relating to his department. The figures used in this report have been checked back, and under the circumstances the commission believes that it has made an accurate and complete investigation of the pensioners throughout the Commonwealth and of the amount paid to them.

The investigation showed that on Aug. 31, 1913, the following amounts were payable annually by the Commonwealth, and the counties, cities and towns therein:—

Summary of Annual Pension Payments in Massachusetts.

PAID BY —	To —	Amount.
State,	217 pensioners	\$120,516 46
9 counties,	38 pensioners	19,566 36
25 cities,	1,208 pensioners	566,826 81
15 towns,	38 pensioners	14,354 40
Total,	1,501 pensioners	\$721,264 03

Amount of Pensions paid by the State.

	Number.	Amount.
State retirement beneficiaries,	75	\$22,080 73
Annuitants,	35	9,140 00
Veterans,	85	56,320 73
Justices,	3	21,375 00
Prison officers,	13	8,840 00
Metropolitan Park police,	5	2,010 00
District police,	1	750 00
Total,	217	\$120,516 46

Amount of Pensions paid by Counties of Massachusetts.

COUNTY.	Pensioners.	Prison.	Others.	Total.
Bristol,	3	\$1,556 25	-	\$1,556 25
Essex,	6	2,275 00	\$420 00	2,695 00
Franklin,	1	300 00	-	300 00
Hampden,	1	420 00	-	420 00
Middlesex,	6	600 00	4,194 43	4,794 43
Norfolk,	3	-	780 68	780 68
Plymouth,	1	-	360 00	360 00
Suffolk, ¹	15	6,030 00	1,400 00	7,430 00
Worcester,	2	1,230 00	-	1,230 00
Total,	38	\$12,411 25	\$7,155 11	\$19,566 36

¹ The pensions of employees of Suffolk County are paid by the city of Boston.

Amount of Pensions paid by Cities of Massachusetts.

CITY.	Pensioners.	Police.	Firemen.	Teachers.	Others.	Total.
Beverly,	2	\$500 00	\$500 00	-	-	\$1,000 00
Boston,	931	145,485 00	123,141 67	\$78,738 52	\$103,590 51	450,955 70
Brockton,	3	1,100 00	-	-	252 78	1,352 78
Cambridge,	66	6,224 50	-	13,630 00	7,951 38	27,805 88
Chelsea,	10	1,639 50	1,656 00	520 00	351 00	4,166 50
Everett,	3	546 00	-	654 84	-	1,191 84
Fall River,	2	800 00	-	-	-	800 00
Fitchburg,	8	-	-	-	1,857 56	1,857 56
Haverhill,	5	1,000 00	1,000 50	-	325 00	2,325 50

Amount of Pensions paid by Cities of Massachusetts — Concluded.

CITY.	Pensioners.	Police.	Firemen.	Teachers.	Others.	Total.
Holyoke,	6	\$2,100 00	\$1,200 00	—	—	\$3,300 00
Lowell,	14	7,120 24	—	—	\$352 13	7,472 37
Lynn,	36	4,740 76	3,850 00	\$2,500 00	3,536 02	14,626 78
Malden,	7	—	2,200 00	600 00	425 00	3,225 00
Marlborough,	3	1,114 68	—	—	—	1,114 68
Medford,	2	1,200 00	—	—	—	1,200 00
New Bedford,	4	453 44	—	—	1,099 63	1,553 07
Newton,	12	1,450 00	—	—	979 00	2,429 00
Pittsfield,	4	2,442 00	—	—	—	2,442 00
Quincy,	1	—	550 00	—	—	550 00
Salem,	18	753 16	1,504 20	—	3,959 90	6,217 26
Somerville,	19	4,312 37	3,050 00	—	1,442 01	8,804 38
Springfield,	13	1,692 00	1,717 50	—	633 36	4,042 86
Waltham,	3	546 00	—	—	972 00	1,518 00
Woburn,	7	1,372 50	450 00	—	495 00	2,317 50
Worcester,	29	9,018 72	2,845 00	—	2,694 43	14,558 15
Total,	1,208	\$195,610 87	\$143,664 87	\$96,634 36	\$130,916 71	\$566,826 81

Amount of Pensions paid by the City of Boston.

	Number.	Amount.
Policemen,	210	\$141,135 00
Policemen's widows,	15	4,350 00
Firemen,	202	115,041 67
Firemen's widows,	27	8,100 00
School teachers,	234	78,738 52
Public works employees,	216	88,381 17
Other employees,	27	15,209 34
Total,	931	\$450,955 70

Amount of Pensions paid by Towns of Massachusetts.

TOWN.	Pensioners.	Police.	Firemen.	Teachers.	Others.	Total.
Andover,	1	—	—	—	\$300 00	\$300 00
Arlington,	2	\$550 00	—	—	200 36	750 36
Brookline,	12	1,700 00	\$1,149 00	\$1,487 50	1,474 00	5,810 50

Amount of Pensions paid by Towns of Massachusetts—Concluded.

TOWN.	Pensioners.	Police.	Firemen.	Teachers.	Others.	Total.
Dalton,	1	-	-	\$250 00	-	\$250 00
Easton,	1	-	-	-	\$271 44	271 44
Ipswich,	1	-	\$300 00	-	-	300 00
Leominster,	4	-	-	-	683 04	683 04
Marion,	1	-	-	266 00	-	266 00
Milton,	6	\$1,049 38	-	775 00	442 28	2,266 66
Nahant,	1	-	-	-	243 00	243 00
Norwood,	1	-	-	-	307 00	307 00
Swampscott,	2	-	-	659 00	-	659 00
Watertown,	3	1,115 40	637 00	-	-	1,752 40
Wellesley,	1	-	-	300 00	-	300 00
Winchester,	1	-	-	-	195 00	195 00
Total,	38	\$4,414 78	\$2,086 00	\$3,737 50	\$4,116 12	\$14,354 40

The names of all pensioners, together with information regarding their ages, length of service, last employment, last wages or salary, and amount of their pensions, appear in Appendix A.

The commission also endeavored to comply with the request of the Legislature that consideration be given to the case of persons now receiving pensions who are engaged in other employment. Although the original cards of inquiry called for specific information of this kind, it was found that the question had been ignored in most of the replies, presumably on account of lack of information in the possession of reporting officials.

The commission felt, therefore, that the information should be secured directly from the pensioners themselves, and it accordingly sent a letter to each pensioner of every city and town, except Boston, requesting a reply to the following questions:—

Name,.....
City or town,.....
My present employer is.....
My present weekly wage is.....
Before retirement I was employed in the department of.....
at a weekly wage of.....
My annual pension is \$.....

For the convenience of pensioners a stamped return envelope was enclosed with each letter. Two hundred and forty-eight replies were received from the 315 pensioners in the cities and towns outside of Boston; of these, 14 reported that they were employed in some capacity.

While it was feasible to reach these pensioners by addressing the letters to their home city or town, a more specific address was needed for the Boston pensioners. It would have taken considerable time to secure the home addresses of the pensioners of the city of Boston, and it was decided, therefore, to hand letters of inquiry, with stamped return envelopes, to these pensioners when they appeared at the city treasurer's office for their monthly pension allowance. Of the 454 pensioners in the Boston police and fire departments 375 were reached in this manner, and from these 250 replies were received according to which 30 pensioners of the Boston fire department and 8 of the Boston police department were engaged in other employment.

No further efforts were made in this direction, for the commission felt that it would have to depend entirely upon such information as might be volunteered, without any means of checking the accuracy or completeness of the information.

The commission deemed it inadvisable, therefore, to print in detail the meager data which it had obtained, inasmuch as it was not in a position to ascertain and print the names, positions and incomes of all pensioners throughout the State who were engaged in other employment. Personal solicitation might bring the desired information should such investigation again be undertaken.

It was shown, however, even from the few records on hand, that several pensioners who had been retired from the service as superannuated were receiving substantial incomes — in one instance \$1,248 per year, and in several cases \$1,200 per year — from some source of employment in addition to substantial pensions from the cities or towns. Some pensioners in one city or town rendered paid service in another city or town or in the service of the federal government.

The comparatively large amounts of pension payments to which public employers, and in particular the city of Boston, were already obligated, stimulated the commission to inquire into the probable future cost of these obligations under present pension laws. To this end a census had to be taken of the active force in those public

employments throughout the State which were now covered by pension legislation. The number of employees in each service, their ages, length of employment and salaries or wages had to be ascertained. In addition it became necessary to know how many employees in each service had died or withdrawn by resignation or discharge, and at what age and employment period they had separated from the service. Letters were sent, therefore, to the mayors of all cities requesting this information relative to police and firemen. As the information was received it was transferred to individual cards for ready reference. According to the returns 1,974 policemen and 1,648 firemen were on the active force in the 32 cities outside of Boston. In the latter city it was necessary for the commission to secure the information through its own agents, who copied the records in the police and fire departments onto cards. One thousand five hundred and fifteen policemen and 993 firemen in Boston were so tabulated, and the withdrawals by death or resignation were obtained for each year as far back as 1895 in the case of police and 1905 in the case of firemen. In a similar way information was obtained by the commission relative to the teachers and the public works' employees in the city of Boston, of whom 3,005 of the first and 2,119 of the latter class were found to be in active service. It was at first intended to take also a census of all active teachers throughout the State, some 15,000 in number. This would have entailed considerable work, which seemed an unnecessary undertaking, inasmuch as a complete census of all active teachers in the Commonwealth outside of Boston, which had been taken by the State Board of Education as of July, 1911, and published by them in January, 1913, was deemed by the commission to be sufficient for its purposes.

The information so collected was placed in the hands of Mr. Herbert D. Brown of the United States Civil Service Commission in Washington, who is both an acknowledged expert actuary and a recognized student of the pension problem, and who in 1909 prepared for President Taft's Commission on Efficiency and Economy a report on pensions for United States government employees. The succeeding chapter III. gives a detailed account of Mr. Brown's work in establishing a valuation for the Boston police, firemen and teachers' pension funds. The limited time available for the work prevented an extension of the investigation to other pension funds.

CHAPTER III.

ACTUARIAL REPORT ON BOSTON PENSION FUNDS.

This chapter contains a detailed account of the investigation made by Herbert D. Brown of Washington, D. C., in reference to —

1. Teachers' Funds.

A. — The Permanent School Pension Fund of the City of Boston.

B. — The Boston Public School Teachers' Retirement Fund.

2. The Boston Police Pension Fund.

3. The Boston Firemen's Pension Fund.

The commission's instructions were to ascertain what liability under existing laws has been incurred by the city of Boston in the case of each fund on account of pensions promised to present employees and to those already retired on pensions.

It must be stated here in fairness to Mr. Brown that the commission could not allow him more than ten weeks within which to finish this work, nor furnish him as complete a statistical basis as a more extended study of the employments under investigation would have permitted.

The data were taken from city records which, in many cases, had not been kept with a view to furnishing the character of statistics needed for accurate work of this kind. It became necessary, therefore, to adopt in several instances other experiences than those of the services investigated as a basis for cost calculation. Although this method was resorted to with reluctance, it was thought wiser to adopt the experience of a similar service with respect to mortality and separations than to attempt to deduce rates from an experience that is known to reflect only part of the truth.

In transmitting his report Mr. Brown says:—

The amount of liability incurred depends, of course, on the length of time the employees in these various services will live to draw pensions after retiring from active duty. To answer the question asked it is first necessary, therefore, to ascertain what have been the

rates of separation from the various services, and especially the rates of mortality among the members of these services before and after pensioning. Knowing the facts of the past, those of the future can be predicted. It was necessary, therefore, to obtain reliable data concerning the members of the different services investigated on the following points:—

1. The probable mortality experience of the members while they are in active service.

2. The probable mortality experience of those who retire on service pension.

3. The probable mortality experience of those who retire on disability pension.

4. The probable mortality experience of the widows of policemen and firemen killed in line of duty, since pension laws for police and firemen make provision for widows and orphans.

5. The probable number of members who retire on account of disability and the ages at which such disability commences.

6. The probable withdrawal experience of the members or rates at which they leave the different services investigated, whether by voluntary resignation or by compulsory separation.

7. The probable withdrawal experience of the widows of policemen and firemen killed in line of duty, or the rates at which widow pensioners in the police fund and firemen's fund forfeit their pensions by remarriage or otherwise.

8. The conjugal condition of the members of the police force and the members of the firemen's service at various ages and the ages of their wives.

9. The number of orphans left by members of the police force and firemen's service, and their ages.

In order to collect the above facts in the most serviceable form so that they might be tabulated expeditiously, it was arranged to have the information concerning each person placed by itself on an individual card. When properly filled out, each card was expected to show the present status of the person whom it represented, whether he is a member of the active force or has left the service; in the latter case, if he has left on pension or without a pension; if on a pension, whether it is a regular service pension or a disability pension; and in case the pensioner is dead, whether the pension he received was a regular or a disability pension. Each card was also expected to show

the sex, the date of birth of the member, the date of entry into the service, the date of leaving the service or of accepting a pension, the cause of separation from the service, the date on which the pension was terminated, and the cause of the termination of the pension.

In calculating the liabilities of the teachers' funds, the experience of the New York teachers in regard to mortality and separations from the service was adopted, with slight modifications only, to correspond to the fact that in New York the male and female lives were segregated, whereas in Boston the rates were combined in order to expedite the work. In calculating the liabilities of the police fund the experience of the New York police service, in regard to mortality and separations from the service, was adopted, with the exception only of the rate of disability, where the experience of the two services was not comparable. In calculating the liabilities of the firemen's fund it was fortunately possible to deduce from the experience of the fund itself all the rates necessary for construction of a service table for the active force; but the rates for the pensioners' tables were adopted, like those used in the calculation of the liabilities of the police fund, from the experience of the New York police service. In the calculations for all four funds salary scales were constructed from the actual pay rolls of the services investigated.

The estimates submitted are, perhaps, as significant, in a way, as if they had been based on statistics complete in every detail. They show as clearly as need be that the teachers' funds, for which adequate incomes were supposed to be provided, are heavily insolvent. It is possible, also, that the obligations for pensions to police and firemen are considerably heavier than it was expected they would be at the time that the plans for these pension systems were adopted. Every debatable point in the calculations has been decided with a view to keeping the estimate of liabilities as low as possible. The results, therefore, understate rather than overstate the liabilities.

1. TEACHERS' FUNDS.

Teachers are retired from service in the city of Boston under the provisions of two different acts of the Legislature, — chapter 237, Acts of 1900, providing for the Boston Teachers' Retirement Fund Association, and chapter 589, Acts of 1908, creating the Permanent School Pension Fund.

The first plan, familiarly known as "the \$180 fund," is compulsory on all new entrants after the passage of the act, while teachers already in service were given the option to accept the act. The fund is maintained by contributions of the teachers who are members, each being required by law to contribute \$18 each year during the entire teaching period. After teaching thirty years the teacher is then entitled to such annuity as the fund will allow and the board of trustees determines. Since 1904 the annuity paid has been \$180, but the board of trustees has the right to reduce the amount. Under all circumstances, however, the annuity allowed must be uniform in amount. In case of disability the teacher is also entitled to retire on an annuity, provided he has taught not less than two years. If the annual deductions from the salary have not amounted to the sum of \$540 when he seeks to retire, he must pay the balance before he can become an annuitant of the Retirement Fund; or the board of trustees at its discretion may make such annuity payable in monthly installments as, in its opinion, the needs of the teacher require. Furthermore, if he resigns after contributing two years or more, one-half of his total contributions is refunded to him upon request.

The law provides that the resources of the fund shall include, besides the contributions of the teachers, two other items: (1) an endowment or permanent fund composed of gifts and legacies specifically given for that purpose, to which is added a sum set apart by the board of trustees, and (2) a general fund or treasury made up also of gifts and legacies, but exclusive of those that are specifically given to the endowment fund, and in addition the interest accumulated on what has been called the endowment or permanent fund. The only gift so far received to help constitute an endowment fund is a gift of \$900.

According to the information secured by the commission, the number who elected to become contributors and beneficiaries of the

act was 1,256. Since the act was passed, 2,424 have automatically, as new entrants into the service, come under the provisions of the act, making a total since 1900 of 3,680 teachers. Of these, 1,071 have died, resigned or become annuitants, leaving 2,609 contributing to the fund on Sept. 30, 1913, the date of the statement. Between Sept. 30, 1913, and Jan. 1, 1914, this number was, according to the data given on the cards furnished for the present valuation, increased to 2,656.

The second plan, familiarly spoken of as "the permanent fund," makes provision for the creation of a fund from city resources. No contribution is required from the teachers, and all pensions are paid out of public funds.

The benefits granted under this law, whether service or disability benefits, are based on salary and length of service. As first passed, the law provided that no pension paid to a teacher should exceed \$180 a year. The purpose of the act was that the city should add an equal amount to the annuity which the teachers received from their own contributions to the Retirement Fund. In 1910 the law was amended. The pension was then increased from a maximum of \$180 to one-third of salary at the time of retirement, and, in case of retirement on account of age, not less than \$312 nor more than \$600 a year.

The resources of the fund are the annual appropriations of the school committee plus the interest which accrues on any surplus left over after the annual pension payments have been made. It is provided that the annual appropriations of the school committee must equal 5 cents upon each \$1,000 of the assessed valuation of the taxable property of the city. In case such appropriation, together with the interest on the fund, is not sufficient to pay the full amount of pensions, the law provides that the amount shall be applied pro rata. It is also provided that "in no case nor in any year shall the pension of any teacher retired after thirty years' service be less than \$312." The practical result of this provision, of course, is that if the tax of 5 cents on each \$1,000 of the valuation of the city is not sufficient to pay the minimum pension of \$312, the city must make up the deficit by direct appropriation.

When the act was amended in 1910 so as to increase the benefits, provision was also made for the creation of a "special" class of pensioners. It was provided that not less than 60 persons who were

annuitants of the Retirement Fund when the pension act was passed in 1908, who had taught thirty years, twenty of which were in service in Boston, should receive pensions at a rate of not less than \$180 a year. It was provided then also that, as deaths occur among the annuitants, other eligibles should be added to this list of "special" pensioners, until all eligibles have been pensioned, so that 60 pensioners should be on this roll as long as there are persons eligible.

Under these two plans all teachers in the service in 1900 who elected to come under the provisions of the act passed at that time are beneficiaries under both acts. They receive on retirement such annuity from the Retirement Fund as may be granted, which up to the present time has been \$180, and in addition, if length of service has been thirty years or more, an annual pension equal to one-third of the final salary; but if length of service has been less than thirty years, then such proportion of one-third salary as the number of years' service bears to thirty years.

Taken together, these two acts practically retire the teacher on half salary. The average annual salary of 2,041 women teachers in the elementary schools is \$964.86. The annuity of \$180 from the Retirement Fund plus one-third salary makes a total of annuity and pension of \$501.62, or slightly more than one-half salary.

Since the obligations incurred by the city under each act are quite distinct, it is necessary, in making the valuation of the city's liabilities to teachers, to consider the two funds separately.

It would be natural and desirable to consider first the Boston Teachers' Retirement Fund, — "the \$180 Fund," — since that was the first established. The cards for the teachers who come under the Permanent School Pension Fund were received, however, some time before the cards for the teachers who are under the provision of the earlier act. Since the time allotted for the whole task was barely sufficient, it was necessary to proceed first with the valuation of the fund which was established last.

A. — THE PERMANENT SCHOOL PENSION FUND (CHAPTER 589,
ACTS OF 1908).

The first thing to consider in undertaking the valuation of a fund is the nature of the benefits that are paid out of it. One-third of the final salary after thirty years' service is the basis on which pensions for all terms of service are calculated. The benefits granted under this fund are as follows:—

Regular Pensions.— To teachers of active service, aged 65 years or over, one-ninetieth of the final salary for each year of service, the minimum pension to be \$312 after thirty years of service and the maximum \$600 in all cases.

Special Pensions.— To retired teachers who were annuitants of the Teachers' Retirement Fund (the \$180 fund) when the pension act was passed in 1908, a pension of \$180. (Sixty members, only, allowed this privilege at any one time.)

Disability Pensions.— To teachers of active service, under age 65, one-ninetieth of the final salary for each year of service, maximum \$600, when incapacitated for further efficient service.

NOTE.— The provision requiring ten years of service in Boston has been ignored because the statistics furnished for the valuation failed to show what portion, if any, of the teacher's service had been rendered outside of Boston.

It was hoped that the cost to the city of Boston of granting the above benefits to teachers already retired under the pension act of 1908, and to teachers now in the active service, might be calculated on the basis of the past experience of the service itself. Time was lacking, however, for careful compilation and verification of facts from which scientific tables showing the rates of mortality, rates of resignation and rates of retirement on pension among Boston teachers in the past might have been constructed. The following is a summary of the information given for the active and retired service:—

In active service, Jan. 1, 1914,	. . . . .	3,005
Pensioners:—		
Regular and invalid,	. . . . .	174
Special,	. . . . .	60
Total,	. . . . .	<u>3,239</u>

In view of the paucity of the data, it was plainly inadvisable to attempt to make an experience table. Rates drawn from so thin an experience could clearly have no value as the foundation of a service table. It was necessary, therefore, to look to the experience of other services for the various basic rates.

In selecting rates for this valuation it was considered inadvisable to consider the males and females separately. Time did not permit the extra work involved in such a separation. Then, too, since the great majority of Boston teachers are of one sex (females), such segregation was not greatly important in the calculation. Finally, as the pensions are paid entirely by the city, the matter of equity as between males and females did not have to be considered.

Rates of Mortality.

For calculating the mortality of Boston teachers of the active service the rates given in the British Offices' Select Annuitants' Mortality Table for females were used. These rates were adopted because they follow rather closely the mortality experience noted among the school teachers of New York by Mr. William A. Hutcheson in the course of his recent investigation of the condition of the New York City Teachers' Retirement Fund.

The rate of mortality adopted for members of the active service, compared with that experienced by the males and females of the New York service, is shown in the following table:—

Rates of Mortality while in Active Service.

AGE.	British Offices' Select Annuitants (for Fe- males).	New York Teachers (Male).	New York Teachers (Female).	AGE.	British Offices' Select Annuitants (for Fe- males).	New York Teachers (Male).	New York Teachers (Female).
20, . . . . .	.00271	.00128	.00128	55, . . . . .	.00734	.00695	.01040
25, . . . . .	.00276	.00221	.00227	60, . . . . .	.00935	.01134	.01499
30, . . . . .	.00287	.00432	.00332	65, . . . . .	.01392	.02338	.02213
35, . . . . .	.00329	.00585	.00363	70, . . . . .	.02351	.03600	.03322
40, . . . . .	.00402	.00330	.00438	75, . . . . .	.04002	.06201	.05034
45, . . . . .	.00496	.00257	.00558	80, . . . . .	.06574	.14447	.07373 ¹
50, . . . . .	.00611	.00451	.00746	85, . . . . .	.09523 ²	.15861 ³	-

¹ At age 78.

² At age 84.

³ At age 81.

No attempt was made to construct from the actual record of pensioners a mortality table for calculating the mortality of Boston teachers who have already been retired, since information was available concerning less than 50 deaths. Instead, the English Life Table No. 3 for females was adopted. The death rate of this table is lower than the rate found by Mr. Hutcheson among New York male teachers who have been retired on service pensions, and a little higher than the rate which Mr. Hutcheson used for the New York female teachers retired on service pensions.

No separate rate was made for service or "regular" pensioners and for invalid pensioners. The two classes of pensioners were treated as one, for the reason that the actual experience of the Boston teachers shows that retirement is generally on the basis of invalidity. The provision for retirement at age 65 is practically ignored. The curve representing retirements shows in fact, at age 65, a depression instead of the "hump" that might have been expected. It was accordingly impossible to make a mortality rate for two classes of pensioners when, in fact, the two classes were indistinguishable.

Rates of Mortality among Pensioners.

AGE.	English Life Table No. 3 for Females.	NEW YORK TEACHERS (MALE).		NEW YORK TEACHERS (FEMALE).	
		Service.	Invalid.	Service.	Invalid.
20, . . . . .	.00860	-	-	-	-
25, . . . . .	.00966	-	-	-	-
30, . . . . .	.01063	-	-	-	-
35, . . . . .	.01165	-	-	-	-
40, . . . . .	.01285	-	.0313	-	.0313
45, . . . . .	.01437	-	.0382	-	.0382
50, . . . . .	.01634	.0207	.0409	.0153	.0409
55, . . . . .	.02120	.0279	.0423	.0181	.0423
60, . . . . .	.02927	.0400	.0436	.0218	.0436
65, . . . . .	.04198	.0602	.0602	.0290	.0453
70, . . . . .	.06247	.0775	.0775	.0436	.0471
75, . . . . .	.09389	.1085	.0944	.0689	.0689
80, . . . . .	.13942	.1661	.1445	.1079	.1079
85, . . . . .	.20227	.2356	.2356	.1652	.1652
90, . . . . .	.28564	.4545	.4546	.2469	.2469
95, . . . . .	.39338	1.0000	1.0000	.3579	.3579
100, . . . . .	.53153	-	-	.4984	.4984

Rates of Separation.

It was necessary, next, to ascertain the rates at which Boston school teachers are separated from the active service. They can be separated in various ways: by death, by resignation and dismissal, and by retirement on a service or invalidity pension.

Separation by Death.

As has been explained, the rate at which they are separated by death from the active service has been taken from the mortality experience of the British Offices' Select Annuitants' Mortality Table.

Separation by Resignation and Dismissal.

An attempt was made to use the data of the Boston service as a basis for making rates of resignation. Rough tables were constructed, but the statistics were so thin as to be unreliable. The number of teachers under observation was too small to give approximate probabilities even by graduation. It was accordingly decided to use the rates of resignation employed by Mr. Hutcheson in valuing the New York Teachers' Retirement Fund, combining the rates for New York male teachers with those for New York female teachers into one set of rates. This was done in the following manner: the number of male teachers in the Boston schools at age x was multiplied by Mr. Hutcheson's rate for New York male teachers at age x , and, similarly, the number of female teachers in the Boston service at age x was multiplied by Mr. Hutcheson's rate for New York female teachers at age x . The sum of these two products was then divided by the total number of people in the service in Boston at age x . This was done on the assumption that the service in Boston to-day is normal in respect to the proportion of males and females at various ages. The rates thus produced were graduated into those shown in the table given below.

The adoption of Mr. Hutcheson's rates seems warranted by the fact that our scattered data check very closely into his. The maximum rate of resignation for the Boston teachers is slightly less than the maximum rate of resignation for female teachers of New York, but this is explained by the fact that the tables for Boston teachers include both male and female teachers, and the rate of resignation

for women at the marriageable age, as is well illustrated in Mr. Hutcheson's tables, is, roughly speaking, twice that for men of the same age, and hence it would naturally follow that these tables for Boston teachers, which make no distinction in the sex of the teacher, show a slightly lower rate of retirement.

Rates of Separation by Resignation.

AGE.	Combination of New York Teachers (Male and Female).	New York Teachers (Male).	New York Teachers (Female).	AGE.	Combination of New York Teachers (Male and Female).	New York Teachers (Male).	New York Teachers (Female).
20, . . . . .	.0100	.0110	.0102	45, . . . . .	.0042	.0050	.0027
25, . . . . .	.0558	.0291	.0613	50, . . . . .	.0017	.0029	.0013
30, . . . . .	.0556	.0216	.0498	55, . . . . .	.0005	.0014	.0009
35, . . . . .	.0198	.0126	.0218	60, . . . . .	.0001	.0003	.0005
40, . . . . .	.0090	.0073	.0089	65,	-	.0001 ¹	.0001

¹ At age 61.

It will be noted that the rate terminates abruptly at age 60. At that age no teacher is likely to resign from the service to seek other employment or to marry, especially as she may receive in five years from then, without effort or invalidity on her part, a pension for the rest of her life.

Separation by Retirement on Pension.

The rate at which teachers leave the active service to become pensioners was next considered.

The statistics of the Boston fund were found to be too narrow to form the basis of rates of retirement. It was therefore decided to use the rates deduced from the New York experience, with such modifications as were necessary to provide for the greater range in the ages of retirement in Boston. The rates deduced from the New York experience were combined in the manner described above in the case of resignation and dismissal.

Rates of Separation by Retirement on Pension.

AGE.	Combination of New York Teachers (Male and Female).	New York Teachers (Male), Service and Invalid.	New York Teachers (Female), Service and Invalid.	AGE.	Combination of New York Teachers (Male and Female).	New York Teachers (Male), Service and Invalid.	New York Teachers (Female), Service and Invalid.
20,	-	-	-	55, . . . . .	.0434	.0187	.0633
25,	-	-	-	60, . . . . .	.0790	.0369	.0924
30, . . . . .	.0001 ¹	-	-	65, . . . . .	.1404	.0732	.1451
35, . . . . .	.0017	.0001 ²	.0002 ³	70, . . . . .	.2494	.1686	.2223
40, . . . . .	.0048	.0002	.0029	75, . . . . .	.4331	.3980	.5130
45, . . . . .	.0105	.0007	.0112	80, . . . . .	.6388	.6890	.8320 ⁴
50, . . . . .	.0224	.0051	.0310	85, . . . . .	.8576 ⁵	.7610 ⁶	-

¹ At age 31.² At age 39.³ At age 37.⁴ At age 78.⁵ At age 84.⁶ At age 81.

Summarizing the above, there follows a table which shows the various rates used in the calculations:—

Rates used.

AGE.	RATES OF MORTALITY.		RATES OF SEPARATION DUE TO—	
	Active Service (British Offices).	Pensioners (English Life Table No. 3).	Resignation.	Retirement.
20, . . . . .	.00271	.00860	.0100	-
25, . . . . .	.00276	.00966	.0558	-
30, . . . . .	.00287	.01063	.0556	.0001 ¹
35, . . . . .	.00329	.01165	.0198	.0017
40, . . . . .	.00402	.01285	.0090	.0048
45, . . . . .	.00496	.01437	.0042	.0105
50, . . . . .	.00611	.01634	.0017	.0224
55, . . . . .	.00734	.02120	.0005	.0434
60, . . . . .	.00935	.02927	.0001	.0790
65, . . . . .	.01392	.04198	-	.1404
70, . . . . .	.02351	.06247	-	.2494
75, . . . . .	.04002	.09389	-	.4331
80, . . . . .	.06574	.13942	-	.6388
85, . . . . .	.09523 ²	.20227	-	.8576 ²
90,	-	.28564	-	-
95,	-	.39338	-	-
100,	-	.53158	-	-
105,	-	-	-	-

¹ At age 31.² At age 84.

With these rates as a basis, a service table for the active force of the Boston Teachers' Permanent Fund was constructed as follows: it was assumed that 1,000,000 persons entered the service at 15, the youngest age shown, and either died, resigned or were pensioned. Thus, of the 1,000,000 entering at age 15, there die before reaching

the age 16, 2,670 (which is $1,000,000 \times .00267$); there resign $1,000,000 \times 0$, or 0. The total number who leave at this age is therefore $2670 + 0 + 0$, leaving 997,330 survivors at the exact age of 16.

Service Table — Active Force.

AGE.	Living Teachers.	SEPARATION.						Total Decre- ment.
		Died.	Rate.	Re- signed.	Rate.	Pen- sioned.	Rate.	
15,	1,000,000	2,670	.00267	-	-	-	-	2,670
16,	997,330	2,673	.00268	-	-	-	-	2,673
17,	994,657	2,666	.00268	-	-	-	-	2,666
18,	991,991	2,659	.00268	-	-	-	-	2,659
19,	989,332	2,661	.00269	-	-	-	-	2,661
20,	986,671	2,674	.00271	9,867	.0100	-	-	12,541
21,	974,130	2,640	.00271	26,691	.0274	-	-	29,331
22,	944,799	2,589	.00274	40,059	.0424	-	-	42,648
23,	902,151	2,472	.00274	44,296	.0491	-	-	46,768
24,	855,383	2,344	.00274	45,506	.0532	-	-	47,850
25,	807,533	2,229	.00276	45,060	.0558	-	-	47,289
26,	760,244	2,098	.00276	43,638	.0574	-	-	45,736
27,	714,508	1,986	.00278	41,584	.0582	-	-	43,570
28,	670,938	1,898	.00283	39,048	.0582	-	-	40,946
29,	629,992	1,783	.00283	36,161	.0574	-	-	37,944
30,	592,048	1,699	.00287	32,918	.0556	-	-	34,617
31,	557,431	1,650	.00294	28,986	.0520	56	.0001	30,692
32,	526,739	1,585	.00301	22,755	.0432	211	.0004	24,551
33,	502,188	1,557	.00310	15,367	.0306	502	.0010	17,426
34,	484,762	1,551	.00320	11,586	.0239	533	.0011	13,670
35,	471,092	1,550	.00329	9,323	.0198	801	.0017	11,679
36,	459,413	1,562	.00340	4,916	.0107	964	.0021	7,442
37,	451,971	1,591	.00352	6,463	.0143	1,220	.0027	9,274
38,	442,697	1,629	.00368	5,445	.0123	1,461	.0033	8,535
39,	434,162	1,667	.00384	4,602	.0106	1,737	.0040	8,006
40,	426,156	1,713	.00402	3,835	.0090	2,046	.0048	7,594
41,	418,562	1,750	.00418	3,265	.0078	2,302	.0055	7,317
42,	411,245	1,797	.00437	2,755	.0067	2,673	.0065	7,225
43,	404,020	1,838	.00455	2,303	.0057	3,192	.0079	7,333
44,	396,687	1,896	.00478	1,944	.0049	3,570	.0090	7,410
45,	389,277	1,931	.00496	1,635	.0042	4,087	.0105	7,653
46,	381,624	1,981	.00519	1,336	.0035	4,770	.0125	8,087
47,	373,537	2,025	.00542	1,121	.0030	5,454	.0146	8,600

Service Table — Active Force — Concluded.

AGE.	Living Teachers.	SEPARATION.						Total Decrement.
		Died.	Rate.	Re-signed.	Rate.	Pen-sioned.	Rate.	
48,	364,937	2,055	.00563	912	.0025	6,204	.0170	9,171
49,	355,766	2,081	.00585	747	.0021	6,937	.0195	9,765
50,	346,001	2,114	.00611	588	.0017	7,750	.0224	10,452
51,	335,549	2,117	.00631	470	.0014	8,624	.0257	11,211
52,	324,338	2,128	.00656	357	.0011	9,536	.0294	12,021
53,	312,317	2,121	.00679	281	.0009	10,525	.0337	12,927
54,	299,390	2,117	.00707	210	.0007	11,497	.0384	13,824
55,	285,566	2,096	.00734	143	.0005	12,394	.0434	14,633
56,	270,933	2,075	.00766	108	.0004	13,330	.0492	15,513
57,	255,420	2,038	.00798	77	.0003	14,150	.0554	16,265
58,	239,155	1,997	.00835	48	.0002	14,899	.0623	16,944
59,	222,211	1,967	.00885	22	.0001	15,599	.0702	17,588
60,	204,623	1,913	.00935	20	.0001	16,165	.0790	18,098
61,	186,525	1,863	.00999	-	-	16,545	.0887	18,408
62,	168,117	1,809	.01076	-	-	16,744	.0996	18,553
63,	149,564	1,739	.01163	-	-	16,751	.1120	18,490
64,	131,074	1,665	.01270	-	-	16,437	.1254	18,102
65,	112,972	1,573	.01392	-	-	15,861	.1404	17,434
66,	95,538	1,471	.01540	-	-	15,028	.1573	16,499
67,	79,039	1,348	.01705	-	-	13,950	.1765	15,298
68,	63,741	1,208	.01895	-	-	12,589	.1975	13,797
69,	49,944	1,054	.02110	-	-	11,088	.2220	12,142
70,	37,802	889	.02351	-	-	9,428	.2494	10,317
71,	27,485	720	.02620	-	-	7,762	.2824	8,482
72,	19,003	555	.02918	-	-	6,024	.3170	6,579
73,	12,424	403	.03246	-	-	4,392	.3535	4,795
74,	7,629	275	.03610	-	-	2,996	.3927	3,271
75,	4,358	174	.04002	-	-	1,887	.4331	2,061
76,	2,297	102	.04435	-	-	1,085	.4722	1,187
77,	1,110	54	.04904	-	-	568	.5116	622
78,	488	26	.05418	-	-	270	.5528	296
79,	192	11	.05969	-	-	114	.5959	125
80,	67	4	.06574	-	-	43	.6383	47
81,	20	1	.07223	-	-	14	.6824	15
82,	5	-	.07932	-	-	4	.7297	4
83,	1	-	.08694	-	-	-	.7863	1
84,	-	-	.09523	-	-	-	.8576	-

Salary Scale.

Since pensions payable under this fund are based on the amount of the final salary, together with length of service, it was necessary to make a salary scale for the service; that is, to determine the average salary at each age. This is done by getting the increase in salary from age to age. Owing to the fact that the statistics were available for only one year, the salary scale constructed shows necessarily only the increase from age to age, and does not reflect the general increase in the salaries of the service as a whole. The effect of this limitation is to understate the present value of liabilities to prospective pensioners.

Salary Scale.

AGE.	Expected Average Salary.	AGE.	Expected Average Salary.
20,	\$735	44,	\$1,508
21,	740	45,	1,530
22,	746	46,	1,550
23,	758	47,	1,566
24,	780	48,	1,584
25,	808	49,	1,598
26,	840	50,	1,612
27,	884	51,	1,624
28,	930	52,	1,632
29,	982	53,	1,640
30,	1,040	54,	1,646
31,	1,094	55,	1,651
32,	1,122	56,	1,652
33,	1,186	57,	1,652
34,	1,224	58,	1,652
35,	1,260	59,	1,652
36,	1,296	60,	1,652
37,	1,326	61,	1,652
38,	1,356	62,	1,652
39,	1,385	63,	1,652
40,	1,412	64,	1,652
41,	1,439	65,	1,652
42,	1,464	66,	1,652
43,	1,488	67,	1,652

Salary Scale—Concluded.

AGE.	Expected Average Salary.	AGE.	Expected Average Salary.
68,	\$1,652	71,	\$1,652
69,	1,652	72,	1,652
70,	1,652	73,	1,652

Monetary Values.

Interest is assumed at 4 per cent. throughout these calculations. This is somewhat lower than the rate now earned by the teachers' funds, but it is thought to be as high as it is safe to depend on for investments covering a long period of years.

Commutation Columns.

The various tables of rates having been completed, commutation columns were compiled in the usual manner.

Annuity Values.

With the help of the commutation columns, the present value of the pension benefit was computed.

This value was applied directly to the amounts of pension drawn by the pensioners at the various ages, the result giving the present value of benefit that the city has obligated itself to pay. On account of the great length of the work tables, they are not included in this report.

In the case of the members of the active service the commutation columns furnished the value of the deferred annuities to the members at each age for each of the various lengths of service.

The amount of the liabilities assumed by the city on behalf of the members of active force was thus found to be \$4,189,967.

The calculations for estimating the accrued liabilities—that is, the liabilities assumed on behalf of those already pensioned—were made by multiplying the total pensions to persons at each age by the value of an annuity of one at that age.

The amount of the liability assumed by the city on behalf of its

“regular” pensioners, which in this case, as explained above, include both service and invalid pensioners, is shown by the following table to be \$559,768.99.

Liability to “Regular” Pensioners.

AGE.	Number of Service and Invalid Pensioners.	Amount of Pensions to Service and Invalid Pensioners.	Present Value of Pensions to Service and Invalid Pensioners.	AGE.	Number of Service and Invalid Pensioners.	Amount of Pensions to Service and Invalid Pensioners.	Present Value of Pensions to Service and Invalid Pensioners.
36, . . .	1	\$104 00	\$1,739 82	62, . . .	3	\$1,592 00	\$16,045 77
37, . . .	-	-	-	63, . . .	5	2,096 00	20,467 65
38, . . .	-	-	-	64, . . .	5	1,744 00	16,482 89
39, . . .	1	145 60	2,356 65	65, . . .	9	3,184 00	29,095 71
40, . . .	-	-	-	66, . . .	5	1,920 80	16,954 13
41, . . .	-	-	-	67, . . .	7	2,682 00	22,843 94
42, . . .	1	294 00	4,583 37	68, . . .	5	1,760 00	14,452 24
43, . . .	1	240 80	3,703 07	69, . . .	8	2,917 60	23,076 76
44, . . .	-	-	-	70, . . .	5	1,896 00	14,432 54
45, . . .	-	-	-	71, . . .	19	8,631 73	63,184 26
46, . . .	2	538 00	7,909 35	72, . . .	9	3,996 00	28,107 86
47, . . .	2	405 60	5,865 30	73, . . .	17	7,828 00	52,875 01
48, . . .	2	627 06	8,911 90	74, . . .	6	2,056 00	13,327 61
49, . . .	-	-	-	75, . . .	9	3,476 00	21,612 03
50, . . .	1	313 60	4,293 03	76, . . .	6	2,679 20	15,969 91
51, . . .	-	-	-	77, . . .	1	420 00	2,399 12
52, . . .	-	-	-	78, . . .	7	2,884 00	15,781 54
53, . . .	2	656 00	8,419 83	79, . . .	-	-	-
54, . . .	1	313 60	3,929 28	80, . . .	1	436 00	2,187 89
55, . . .	4	1,268 53	15,515 90	81, . . .	-	-	-
56, . . .	3	1,028 00	12,265 07	82, . . .	3	1,800 00	8,278 74
57, . . .	4	1,820 00	21,162 96	83, . . .	2	912 00	4,015 63
58, . . .	6	1,984 00	22,463 84	84, . . .	-	-	-
59, . . .	2	508 00	5,595 37	85, . . .	-	-	-
60, . . .	6	1,888 00	20,209 72		174	\$67,900 52	\$559,768 99
61, . . .	3	890 40	9,253 30				

It will be remembered that there is, under the provisions of the amended act of 1910, a “special” group of pensioners among the Boston teachers, consisting of 60 teachers who receive a uniform pension of \$180 a year. These are teachers who had taught thirty

years, twenty of which were in Boston, and who had been retired previous to the passage of the pension act in 1908, under the provisions of the Public School Teachers' Retirement Fund.

According to the statistics submitted there are at this time 130 teachers living who are either receiving this pension of \$180 a year or who may be eligible for such a pension. In order to determine the total liability for these pensions the cards representing these eligibles were tabulated according to age, and the number at each age discounted by the probability of living from year to year from their present ages. The number surviving were summed by years until it was found in the ninth year (1923) that the total number of survivors would be reduced to 60. Since the law has been interpreted to permit the payment of this pension to 60 persons only at one time, it is obvious that during the next nine years the annual payments to these teachers will be \$180 multiplied by 60, or \$10,800. From the ninth year on the total cost was determined by taking the then present value of an annuity of \$180 to each of the 60 survivors. This cost is shown in the following table to be \$89,304. The present value on Jan. 1, 1914, of each of the nine equal annual payments (\$10,800) was found by multiplying \$10,800 by the present value of \$1 due in the year of payment. The present value on Jan. 1, 1914, of the present value (\$89,304) in 1923 of the annuities due to the 60 survivors was found by multiplying \$89,304 by the present value of \$1 due in 1923. The sum of these ten present values is shown in the following table to be \$140,632.13.

Liability to "Special" Pensioners.

YEAR.	Annual Pay-ments.	V ⁿ of Col-umn 2 on Jan. 1, 1914.	YEAR.	Annual Pay-ments.	V ⁿ of Col-umn 2 on Jan. 1, 1914.
1914,	\$10,800	\$10,384 61	1920,	\$10,800	\$8,207 11
1915,	10,800	9,985 20	1921,	10,800	7,891 45
1916,	10,800	9,601 16	1922,	10,800	7,587 94
1917,	10,800	9,231 88	1923,	89,304 ¹	60,330 57
1918,	10,800	8,876 81		-	\$140,632 13
1919,	10,800	8,535 40			

¹ Present value in 1923 of pensions to survivors.

The total liability assumed by the city of Boston in behalf of the Permanent School Pension Fund is \$4,890,368, or the sum of the

present value of the existing pensions (\$700,401) and the present value of prospective pensions to members of the present active force (\$4,189,967). The item of \$700,401, the present value of existing pensions, is the sum of the present value of pensions to two different classes of pensioners: (1) those retired regularly under the provisions of the original act of 1908, the present value of whose pensions is \$559,769, and (2) those retired under "special" provision of the amended act of 1910, the present value of whose pensions is \$140,632.

The next pertinent question is, What assets has the city with which to meet this liability?

The act under which the fund was established in 1908 makes a special allowance of 5 cents upon each \$1,000 of the assessed valuation of the taxable property of the city which shall be appropriated annually for the payment of pensions to school teachers. It was thought that this income would be in excess of the amount required, and it was provided that the balance should go to increase the permanent fund.

The amount of money produced by this 5-cent tax during the years 1908 to 1913, inclusive, was \$405,105.37, as is shown in the following table, while the sums paid out in pensions amounted to \$228,751.76. During the first five years of the period the receipts of the permanent fund exceeded the disbursements by \$177,230.04, but from the very beginning the amount left as a surplus steadily decreased until in the sixth year (1913) the pension payments exceeded the income of the fund by \$876.43.

Difference in Receipts and Disbursements of Permanent Fund.

YEAR.	Amount received by Tax Valuation.	Amount paid in Pensions.	Amount paid to Permanent Fund.
1908,	\$63,891 51	\$1,678 50	\$62,213 01
1909,	65,043 19	8,075 12	56,968 07
1910,	66,194 65	26,247 88	39,946 77
1911,	67,770 84	55,350 31	12,420 53
1912,	70,192 42	64,510 76	5,681 66
1913,	72,012 76	72,889 19	—876 43 ¹
	\$405,105 37	\$228,751 76	—

¹ Deficit. This amount was taken from the interest accumulation on the permanent fund under the authority of a special act.

The various sums received by the permanent fund through the 5-cent tax during the first five years amounted with interest to \$193,-794.10, of which \$188,662.50 was, on Jan. 1, 1914, invested in bonds, as shown by the following memorandum:—

Bonds, par value:—	
Boston & Maine R.R. 4½s,	\$25,000
C., B. & Q. R.R. 4s,	20,000
Conn. River R.R. 4s,	3,000
Concord & Montreal R.R. 4s,	25,000
West End St. Ry. 4½s,	14,000
Del. & Hudson R.R. 4s,	14,000
Boston & Albany R.R. 4s,	30,000
Old Colony R.R. 4s,	30,000
City of Boston 4s,	8,000
Boston El. 4½s,	8,000
Fitchburg Railway 4s,	12,000
	\$189,000

In addition to these bonds the fund had in cash on Jan. 1, 1914, \$5,131.60.

The only other resource which the fund has in addition to the investments and cash on hand shown above is the income that will be derived from the 5-cent tax. The amount of this income will depend entirely upon the future valuation of the assessable property of Boston. Whatever the income from this tax may be, there are two classes of teachers who have claims against it: (1) the present pensioners and the prospective pensioners of the existing force, and (2) teachers who were not in the service on Jan. 1, 1914, but who have entered since that date, and teachers who will enter hereafter.

The present inquiry is confined to an examination of the assets and liabilities of the fund as it has to do with the first class, namely, existing pensioners and teachers of the present force who will become pensioners; therefore, in considering the revenue from this 5-cent tax, it is necessary to consider only such portion of it as would properly belong to this first class. Since the purpose of this investigation is to determine what income, expressed as a per cent. of the salaries of the teachers, would be required to pay their pensions, it is necessary to consider this income in terms of per cent. of the salaries of the teachers, although it is obvious that there is no fixed

relation between the income that may be derived from a tax on the assessed valuation of the property of the city and the pensions that might be paid the teachers of the public schools. The following table covering the six-year period during which the fund has been in existence shows that, although the teachers' salaries and the revenues from the tax have both increased, the salaries have increased more rapidly than have the revenues. In 1908 the income from this 5-cent tax amounted to 2.334 per cent. of the teachers' salaries for that year, while in 1913 the income amounted to only 2.064 per cent. of the teachers' salaries.

The Per Cent. of Salary represented by the Tax of 5 Cents on the \$1,000 of Assessed Valuation of Taxable Property.

YEAR.	Teachers' Salaries.	Amount received by Tax Valuation.	Per Cent.
1908,	\$2,737,288	\$63,891 51	2.334
1909,	2,827,468	65,043 19	2.300
1910,	2,929,581	66,194 65	2.260
1911,	3,080,858	67,770 84	2.200
1912,	3,172,943	70,192 42	2.212
1913,	3,489,259	72,012 76	2.064

To just what per cent. of salary this income will ultimately fall is a matter of conjecture. It is apparent, of course, that the per cent. will never reach zero as long as the income is not zero or the salaries are not infinity. It is apparent, also, that the higher the per cent. we assume this income to be of the teachers' salaries, the lower will be the additional per cent. of salaries required to pay the pensions. Since the income from the tax has represented each year a constantly decreasing per cent. of the teachers' salaries, — from 2.334 in 1908 to 2.064 in 1913, — it would seem that the probable future income from this tax would not be understated if the assumption is made that it will equal a flat 2 per cent. of the teachers' salaries.

Taking this as a basis for calculation, from the commutation columns it was found that the present value of 2 per cent. of the total salaries of the active force during their remaining years of service will be \$968,479.

To recapitulate, then: the assets of the fund are composed of the following three items:—

Invested funds,	\$188,662 50
Cash on hand,	5,131 60
Present value of 5-cent tax,	968,479 00
	\$1,162,273 10

The difference between the liabilities of \$4,890,368 and these assets of \$1,162,273.10 is \$3,728,094.90, which is the deficiency; that is, the amount that would have to be added in one cash sum on Jan. 1, 1914, to the assets of the fund and invested with the other moneys of the fund at 4 per cent. compound interest to meet the obligations which the city has incurred for pensions to its present pensioners and to future pensioners of the present active force.

Following is the valuation balance sheet of Jan. 1, 1914:—

Valuation Balance Sheet for the Permanent School Pension Fund, Jan. 1, 1914.

DR.	CR.
To present value of existing pensions:—	By invested funds, \$188,662 50
Service and invalid, . . . \$559,769 00	By cash on hand, 5,131 60
Special pensions, ¹ . . . 140,632 00	By present value of 5-cent tax, . . . 968,479 00
Total existing pensions, . . . \$700,401 00	By deficiency, 3,728,094 90
To present value of prospective pensions:—	
Members of present active force, . . . 4,189,967 00	
Total, \$4,890,368 00	Total, \$4,890,368 00

¹ Granted under amended act of 1910, chapter 617.

If no other provision is made, it will be necessary each year to eke out the income from the 5-cent tax by using each year (as was done in 1913) a part of the cash on hand and the invested funds. When the cash on hand and these invested funds have been consumed, the city must either pay the amount of the pensions above the amount of the 5-cent tax by direct appropriation, as they accrue from year to year, or discontinue them.

There are, in fine, two ways in which the city can meet its obligations to the existing pensioners of the Permanent School Fund and the present members of the active service who will become pensioners.

1. It can appropriate one cash sum of \$3,728,094.90, investing it at 4 per cent. compound interest.
2. It can appropriate the necessary amount directly each year as it comes due.

ESTIMATED COST BY YEARS OF PENSIONS TO PRESENT, PROSPECTIVE
AND FUTURE PENSIONERS.

Request was made that the cost to the city be calculated of appropriating directly each year, as it comes due, the amount necessary to pay not only pensions to existing pensioners and to present members of the active force, but also pensions to new entrants who will ultimately come on the pension roll.

In calculating the cost of paying pensions to new entrants it has been assumed that the average age of entrance into the service will remain 24, that the rates of decrement will be in accordance with those shown on the present Service Table, and that the number, amount of salaries and rate of promotion of the teachers of Boston will continue to be such as to cost the city annually \$3,613,770, — the estimated amount of the pay roll for the year 1914.

It will be seen that this cost by years will start with the cost of pensions to existing pensioners; will receive accessions each year, due to the fact that members of the present active force will pass on to the pension roll and due to the fact, also, that, after a time, people who are not now in the service but who will enter it will eventually pass on to the pension roll also. These costs will continue to increase until the point is reached where the increments from the active force are equalled by the deaths among the pensioners. The cost at that time will be what is called the "normal load." It is, in other words, the ultimate cost of maintaining the pension system, and in this case, under the assumptions used in these calculations, will be 12.11 per cent. of the pay roll. To tell in advance just when this normal load will be reached is impossible, since it will depend upon the growth of the service. If the annual pay roll were to remain at \$3,613,770, as it is to-day, the normal load, or ultimate annual cost of maintaining the system, would be \$437,700 ($\$3,613,770 \times 12.11$ per cent.), and would be reached about the year 1973.

There were three distinct steps in the calculation for ascertaining

the ultimate cost of maintaining the system: (1) First, the annual cost of pensions to 100 persons entering the service each year at the average age of 24 was computed by years to the point where the ultimate annual cost could be determined. This ultimate normal cost was found to be \$321,833. (2) In the second place, the amount represented by 1 per cent. of the annual salaries of the aforementioned new entrants was ascertained in order that it might be compared with the ultimate annual cost of pensions to a force composed of 100 new entrants each year. It was found by multiplying the number of survivors at each age, according to the Service Table, by the salary at each age, and dividing by the number of people entering at the average age. By summing the column, 1 per cent. of the annual ultimate salaries of a force of 100 new entrants each year was thus found to be \$26,572. The total ultimate pay roll of such a force would, therefore, be \$2,657,184. (3) The third step was to divide the ultimate cost of pensioning a force of 100 new entrants a year (which is \$321,833) by 1 per cent. of the ultimate annual pay roll (which is \$26,572). The quotient of that division is 12.11, which is the per cent. of the ultimate annual salary necessary to pay all pensions due when the cost of the pensions reaches its level.

The question is to ascertain what annual sums will have to be paid before that time arrives when the load will represent 12.11 per cent. of salaries. The problem can be stated in another way, i.e., What will be the cost by years of pensions to existing pensioners? What will be the cost by years of pensions to those now in the active service? What will be the cost by years of pensions to new entrants? What will be the sum of all these costs by years of pensions to all these classes?

The cost by years of pensions to existing pensioners was easily estimated. This calculation included the "special" pensioners, because they will enter upon the benefits of the fund, in accordance with the provisions of the law previously explained, until, in the course of nine years, the last survivor of this class of eligibles will then be an existing pensioner. The sum of the present values of the annual payments was then checked against the figure found by means of the commutation columns.

The cost by years and total cost of pensions to future entrants was obtained from data developed in calculating the per cent. of salary necessary to pay the total costs when they shall have reached their

normal, as explained above. Knowing that the total ultimate pay roll of a force of 100 new entrants each year will be \$2,657,184, it is easy to compute the number of new entrants that will be necessary each year to bring the pay roll up to \$3,613,770, the total estimated pay roll of 1914. The number is 136. Having this figure, the cost by years of pensioning new entrants can be obtained. This is a calculation of the cost of pensioning a force of people who will enter the service at the rate of 136 a year, whose total annual salaries will ultimately be \$3,613,770, whose average age of entrance into the service is 24, and whose rates of decrement are according to the Service Table.

The first of the new entrants will secure a pension in about seven years. The annual cost of all pensions, which includes the cost of pensions to all classes of pensioners, was carefully calculated for seven years, in order to determine the trend of a curve representing these costs.

Having the annual ultimate cost of all pensions and the annual cost of all pensions for the first seven years, the cost for the intervening years was estimated roughly with the help of a spline. This annual cost includes, of course, the cost of pensions to existing pensioners, to prospective pensioners now on the active force and to new entrants. The cost of pensions to existing pensioners and to future entrants having been calculated, the only cost to be ascertained was the cost of pensions to members of the present active force. This was easily calculated for each year by subtracting from the annual total cost the sum of the annual cost of pensions to the existing pensioners and the annual cost of pensions to future entrants. The present values of the annual cost of pensions to members of the present active force were then found and checked against the results obtained from the commutation columns. Thus the approximation of the total cost of intervening years obtained by use of spline was verified and found to be correct.

The following table gives the results obtained by the above processes. In the second column is shown by years the amount that can be collected through 1 per cent. of the total salaries of 136 persons who will enter the service each year at the average age of 24. In the third column is shown by years the cost of pensions to 136 persons who will enter the service each year at the average age of 24, in other words, the cost of pensions to future entrants. In the fourth

column is shown by years the cost of pensions to existing pensioners and future "special" pensioners. In the fifth column is shown by years the cost of pensions to members of the present active force. In the sixth column is shown by years the total cost of pensioning all classes of pensioners.

Boston Permanent Fund.—Cost by Years of Pensions to Present, Prospective and Future Pensioners.

YEAR.	Annual Amount collectable through 1 Per Cent of the Total Salaries of 136 Persons entering Each Year at the Average Age of 24.	Annual Cost of Pensions to 136 Persons entering Each Year at the Average Age of 24.	Annual Cost of Pensions to Existing Pensioners and Future "Special" Pensioners.	Annual Cost of Pensions to Members of Present Active Force.	Total Annual Cost of Pensions.
(1)	(2)	(3)	(4)	(5)	(6)
1914,	\$1,061	—	\$70,500	\$19,500	\$90,000
1915,	2,098	—	67,400	38,300	105,700
1916,	3,114	—	64,300	56,400	120,700
1917,	4,118	—	61,600	73,200	134,800
1918,	5,110	—	58,500	88,900	147,400
1919,	6,093	—	55,000	103,800	158,800
1920,	7,072	—	51,500	118,200	169,700
1921,	8,042	\$1	47,600	132,399	180,000
1922,	8,982	5	43,700	146,295	190,000
1923,	9,929	19	40,100	159,381	199,500
1924,	10,872	44	36,700	170,956	207,700
1925,	11,816	90	33,400	182,510	216,000
1926,	12,762	163	30,400	194,237	224,800
1927,	13,715	271	27,700	204,529	232,500
1928,	14,670	429	25,400	214,271	240,100
1929,	15,626	651	23,600	223,449	247,700
1930,	16,582	954	21,700	232,346	255,000
1931,	17,540	1,355	20,000	241,045	262,400
1932,	18,497	1,879	18,500	249,121	269,500
1933,	19,453	2,559	17,200	256,541	276,300
1934,	20,404	3,425	15,900	263,875	283,200
1935,	21,351	4,517	14,700	270,783	290,000
1936,	22,292	5,888	13,600	277,312	296,800
1937,	23,222	7,593	12,600	282,807	303,000
1938,	24,141	9,700	11,700	287,900	309,300
1939,	25,045	12,277	10,900	292,123	315,300

Boston Permanent Fund, etc. — Continued.

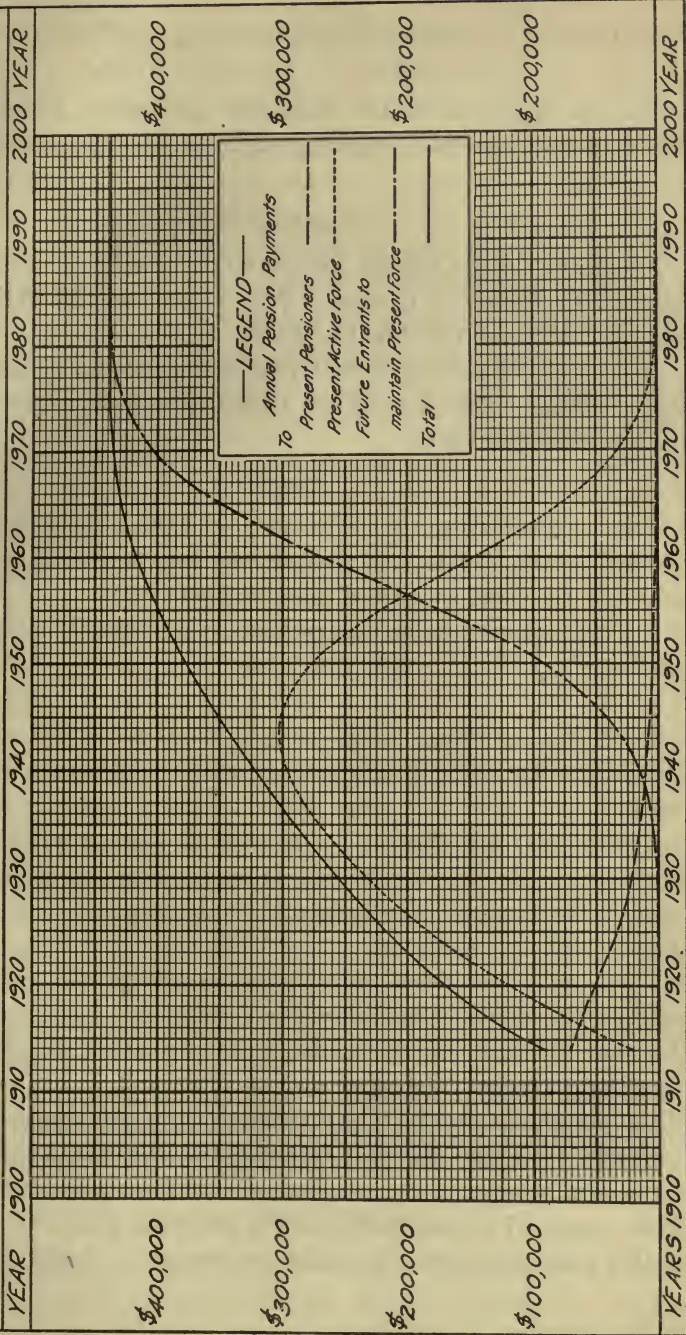
YEAR.	Annual Amount collectible through 1 Per Cent of the Total Salaries of 136 Persons entering Each Year at the Average Age of 24.	Annual Cost of Pensions to 136 Persons entering Each Year at the Average Age of 24.	Annual Cost of Pensions to existing Pensioners and Future "Special" Pensioners.	Annual Cost of Pensions to Members of Present Active Force.	Total Annual Cost of Pensions.
(1)	(2)	(3)	(4)	(5)	(6)
1940,	\$25,932	\$15,402	\$10,000	\$295,898	\$321,300
1941,	26,798	19,161	9,400	298,839	327,400
1942,	27,640	23,648	8,700	300,752	333,100
1943,	28,454	28,964	8,300	301,736	339,000
1944,	29,237	35,216	7,700	301,784	344,700
1945,	29,987	42,456	7,200	300,344	350,000
1946,	30,699	50,740	6,700	297,860	355,300
1947,	31,369	60,109	6,200	294,391	360,700
1948,	31,998	70,592	5,750	289,558	365,900
1949,	32,581	82,206	5,400	283,394	371,000
1950,	33,119	94,956	5,000	276,044	376,000
1951,	33,609	108,819	4,700	267,281	380,800
1952,	34,050	123,752	4,250	257,398	385,400
1953,	34,443	139,689	4,000	246,311	390,000
1954,	34,787	156,526	3,600	234,374	394,500
1955,	35,084	174,134	3,400	221,266	398,800
1956,	35,335	192,352	3,000	206,948	402,300
1957,	35,543	210,999	2,800	192,401	406,200
1958,	35,710	229,861	2,600	177,539	410,000
1959,	35,841	248,718	2,400	162,182	413,300
1960,	35,941	267,335	2,250	146,915	416,500
1961,	36,013	285,488	2,000	131,812	419,300
1962,	36,063	302,951	1,800	117,149	421,900
1963,	36,095	319,524	1,700	102,976	424,200
1964,	36,115	335,044	1,550	89,706	426,300
1965,	36,127	349,390	1,400	78,010	428,800
1966,	36,133	362,486	1,350	66,364	430,200
1967,	36,136	374,301	1,200	56,499	432,000
1968,	36,137	384,837	1,100	47,463	433,400
1969,	36,137	394,127	1,000	39,673	434,800
1970,	36,138	402,222	900	32,378	435,500
1971,	36,138	409,190	800	26,210	436,200

Boston Permanent Fund, etc. — Concluded.

YEAR.	Annual Amount collectible through 1 Per Cent of the Total Salaries of 136 Persons entering Each Year at the Average Age of 24.	Annual Cost of Pensions to 136 Persons entering Each Year at the Average Age of 24.	Annual Cost of Pensions to existing Pensioners and Future "Special" Pensioners.	Annual Cost of Pensions to Members of Present Active Force.	Total Annual Cost of Pensions.
(1)	(2)	(3)	(4)	(5)	(6)
1972,	\$36,138	\$415,109	\$750	\$21,141	\$437,000
1973,	36,138	420,068	700	16,932	437,700
1974,	-	424,160	650	12,890	437,700
1975,	-	427,482	600	9,618	437,700
1976,	-	430,132	500	7,068	437,700
1977,	-	432,207	400	5,193	437,700
1978,	-	433,799	300	3,601	437,700
1979,	-	434,993	200	2,507	437,700
1980,	-	435,868	100	1,732	437,700
1981,	-	436,493	50	1,157	437,700
1982,	-	436,927	-	773	437,700
1983,	-	437,220	-	480	437,700
1984,	-	437,411	-	289	437,700
1985,	-	437,532	-	168	437,700
1986,	-	437,605	-	95	437,700
1987,	-	437,647	-	53	437,700
1988,	-	437,671	-	29	437,700
1989,	-	437,683	-	17	437,700
1990,	-	437,690	-	10	437,700
1991,	-	437,693	-	7	437,700
1992,	-	437,700	-	-	437,700
1993,	-	-	-	-	-
1994,	-	-	-	-	-
1995,	-	-	-	-	-
1996,	-	-	-	-	-
1997,	-	-	-	-	-
1998,	-	-	-	-	-
1999,	-	-	-	-	-
2000,	-	-	-	-	-

The same facts given in the table and text are represented graphically in the following chart: —

CHART SHOWING ANNUAL PENSION EXPENDITURES THAT WILL BE REQUIRED OF THE PERMANENT SCHOOL PENSION FUND OF THE CITY OF BOSTON DURING FUTURE YEARS UNDER PRESENT SALARIES AND WITHOUT INCREASE IN FORCE.



B. — BOSTON TEACHERS' RETIREMENT FUND (CHAPTER 237, ACTS OF 1900) — "THE \$180 FUND."

The act under which the Teachers' Retirement Fund was established provides for the following contributions and benefits: —

Contributions.

Necessary for retirement on annuity (service or invalid) unless relieved by board of trustees: \$18 a year during entire service; total contributions not less than \$540.

Necessary for refund of half total contributions in case of retirement without either service or disability annuity: \$18 a year for not less than two years.

Benefits.

Service Annuity. — (a) The sum of \$180 a year, granted upon optional retirement to any teacher who has taught thirty years and paid into the fund at least a total of \$540.

(b) An amount to be determined by the board, granted to any teacher who seeks to retire and is unable to pay the full assessment of \$540.

Disability Annuity. — The sum of \$180 a year, granted at any time after two years to any teacher who furnishes certificate of incapacity, the annuity to cease when incapacity ceases.

Refund of Contributions. — A refund, upon application, to any teacher who has contributed two or more years and retires from the service, the amount of the refund to be equal to one-half of the amount paid into the fund.

There are a few teachers in the active service who were employed before 1900 and have exercised their privilege of not coming on the Retirement Fund, but the cards of the two funds show that, for all practical purposes, the personnel of this fund is the same as that of the permanent fund. The members of the permanent fund should comprise, therefore, the full teaching force of the city. According to the data submitted, the members of that fund were shown, as noted above (page 37), to be 3,005 active teachers, plus 174 regular and invalid pensioners and 60 special pensioners, or 3,239 in all.

Rates used in the Calculations.

Since the personnel of the two funds is substantially the same, the experience of one service is the experience of the other. As noted on page 39, the data in regard to mortality of the members and separations from the service were too scanty to warrant the deduction of rates. Suitable rates were accordingly sought in the experience of similar services. The rate of mortality for the active service was adopted from the British Offices' Select Annuitants' Mortality Table; the rate of mortality for pensioners (no distinction was made between service and invalid pensioners) was adopted from the English Life Table No. 3 for females; the rates of resignation and dismissal and of retirement adopted were combinations of the rates deduced by Mr. Wm. A. Hutcheson from the experience of New York teachers. If these rates were applicable to teachers of the Permanent School Fund they were of course applicable to teachers of the \$180 fund, since these two bodies of teachers are practically identical.

The rates used being identical, the service table employed in the calculations for the Permanent School Pension Fund was also used in the calculations for this fund.

Since the amount of the benefit allowed under the Retirement Fund is uniform and not dependent on amount of salary, no salary scale was constructed.

Interest was assumed at the rate of 4 per cent. throughout all these calculations.

The rates for the calculation of the present fund were the same as those for the calculation of the Permanent School Fund, and the calculations were made in a similar manner. The annuities in this fund were, however, uniformly \$180, instead of amounts depending on length of service and final salary.

From the commutation columns it was found that the present value of the deferred annuities to the members of the present active force is \$1,985,018.

Liabilities to Existing Pensioners.

The liabilities to existing pensioners, as will be noted from the following table, were found by finding the present value of an annuity of \$1 to each of the present pensioners at each age. This

amount was summed, and its total, \$2,232.70, was multiplied by \$180, the amount of the annuity to each of the existing pensioners, which equals \$401,886, the present value of existing pensions.

Liabilities to Existing Pensioners.

AGE.	Number of Persons.	Value of an Annuity of \$1 to Persons shown in Column (2) at Ages shown in Column (1).	Present Value of Existing Pensions.	AGE.	Number of Persons	Value of an Annuity of \$1 to Persons shown in Column (2) at Ages shown in Column (1).	Present Value of Existing Pensions.
(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
92,	1	\$3 0052	-	63,	7	\$68 3557	-
87,	2	7 4068	-	62,	6	60 4740	-
86,	1	3 8659	-	61,	6	62 3538	-
85,	1	4 0365	-	60,	5	53 5215	-
84,	5	21 0775	-	59,	4	44 0580	-
83,	2	8 8062	-	58,	3	33 9675	-
82,	1	4 5993	-	57,	8	93 0240	-
81,	1	4 8043	-	55,	7	85 6198	-
80,	7	35 1267	-	54,	2	25 0592	-
79,	9	47 1663	-	53,	4	51 3404	-
78,	7	38 3047	-	52,	1	13 1299	-
77,	5	23 5610	-	50,	1	13 6895	-
76,	10	59 6070	-	49,	2	27 9104	-
75,	13	80 8275	-	48,	2	28 4244	-
74,	9	58 3407	-	47,	2	28 9216	-
73,	16	108 0736	-	46,	1	14 7014	-
72,	17	119 5780	-	45,	2	29 8686	-
71,	21	153 7200	-	44,	1	15 1598	-
70,	14	106 5694	-	43,	1	15 3782	-
69,	11	87 0045	-	40,	1	15 9933	-
68,	11	90 3265	-	34,	1	17 0647	-
67,	13	110 7275	-	33,	1	17 2252	-
66,	9	79 4394	-	31,	1	17 5328	-
65,	9	82 2429	-		270	\$2,232 6983	\$401,886 ¹
64,	6	56 7072	-				

¹ The footing of this column was obtained by multiplying the footing of column (3) by 180.

Liability due to Refund of Teachers' Contributions.

Besides the liabilities to prospective and existing pensioners, one other liability must be taken into account in estimating the total liabilities of this fund. It is the liability of the fund caused by the refund of teachers' contributions.

This liability was estimated by constructing a set of commutation columns based on the actual number of teachers in the active force up to and including age 60, the rate of withdrawal, and the average number of years of contribution for each age group. The present value of the future refunds to the present active force was thus found to be \$37,533.

Income from Annual Assessments.

The principal income of this fund is from the contribution by each member of \$18 a year. The present value of these contributions from the present active force was found to be \$597,618.

Income from Lump Sum Payments.

Not all teachers contribute \$540 in annual installments of \$18. When a teacher's annual contributions at the time of retirement amount to less than \$540, the rules require that the balance shall be paid in a lump sum. The present value of these payments by the present active force was found to be \$124,690.

Balance Sheet.

The assets and liabilities of the fund are shown in the following balance sheet. It will be noted that the amount of the deficiency is \$1,312,687.

Valuation Balance Sheet, Jan. 1, 1914.

Dr.	Cr.
To present value of existing pensions, \$401,886 00	By invested funds, \$388,063 83
To present value of prospective pensions to members of present active force, 1,985,018 00	By cash in treasury, 5,331 83
To present value of refunds, . . . 37,533 00	By present value of lump sum payments, 124,690 00
To present value of proportion of secretary's salary chargeable to present active force, 3,954 00	By present value of \$18 contributions, 597,618 00
	Deficiency, 1,312,687 34
\$2,428,391 00	\$2,428,391 00

2. POLICE PENSION FUND.

The Police Pension Fund of the city of Boston is noncontributory. All benefits are paid out of public funds. Pensions are granted for length of service and for disability. Annuities are also allowed the widows and children of policemen killed in the performance of duty.

Retirement from the service is made by the police commissioner with the approval of the mayor. The police commissioner makes a requisition upon the city for the sum required for pensions in the same manner that he requests an appropriation for the other expenses of his department.

The annuities to widows and children of policemen are granted on their petition to the city council, the amount, which must not exceed the amount specified by law, being determined by the police commissioner.

BENEFITS.

The benefits allowed by law under this system are as follows:—

Service Pensions. — 1. One-half final salary at age 65. Retirement assumed to be compulsory.

2. One-half final salary at age 60 after twenty-five years' service. Granted on request.

3. One-half final salary at age 60 or after twenty years' service, if civil war veteran. Granted on request.

NOTE. — This third provision for service pension was not considered in the calculations, for the reason that so much time has now elapsed since the civil war that veterans of that war are all more than sixty years old.

Disability Pensions. — 1. One-half final salary at any age or after any service if disabled in the performance of duty.

2. One-half final salary if disabled from any cause after twenty years' service.

3. One-third final salary if disabled from any cause other than the performance of duty, after fifteen years' but less than twenty years' service.

Widows' Pensions. — A maximum annuity of \$300 is granted to the widows of members killed in the performance of duty so long as they remain unmarried.

Children's Pensions. — A maximum annuity of \$300 is granted children of members killed in performance of duty until youngest child reaches age 16, but not during life of widow.

NOTE. — There are no children pensioners on the roll at present, and no figures in regard to children are shown. The provision for children is the least important of all the pension provisions, and at the same time the most difficult to value. To compute the value of the continuation of a part of the widow's annuity to the children would require not only the calculation of benefits to groups of children left by widowers, but in addition the calculation of the benefit which must be added to the annuity of the widow in order to continue her allowance to the children. In view of the limited time allowed for this entire calculation, the unimportance of this particular provision, and the difficulty of making any such calculation accurately without more data than is now available, it was considered best to disregard this provision.

To value the three other benefits, — service pensions, disability pensions and widows' annuities, — that is, to calculate the cost to the city of fulfilling the obligation it has assumed towards those already drawing benefits under this arrangement and towards those in the present active force who will draw benefits in the future, it was desirable to have information drawn from the past history of the service on the following points:—

The actual rate of mortality among members of the active force, among regular or service pensioners, among invalid pensioners and among widow pensioners.

The actual rate of resignation and dismissal among members of the active force.

The actual rate of remarriage among widow pensioners.

The actual rate of disability among members of the active force.

The actual rate of retirement among members of the active force who remain in the service during the assumed optional period between 60 and 65.

The actual rate at which the salaries of members of the active force increase from year to year.

The actual marital condition of members of the service at time of death and the ages of their wives at that time.

With this information all on hand and carefully tabulated, the liability that has been assumed by Boston on account of pensions

to its policemen might have been ascertained with a high degree of accuracy. On the experience of the service in the past as a basis, tables of exposure could have been made, from which unadjusted rates of mortality, resignation and dismissal, disability and retirement might have been deduced, and these in turn adjusted to show the probable rates of separation in the future. With the help of these rates the cost of pensions to this service could have been computed with accuracy, since it is reasonable to assume that, under similar conditions, the experience of any service in the future will be similar to what it has been in the past.

Unfortunately, only a small part of the data desired was available in shape that could be used. Satisfactory cards were furnished for the following:—

Members of the active force,	1,518
Regular pensioners,	131
Disability pensioners,	79
Widow pensioners,	15
	<hr/>
Total,	1,743

Since the statistics presented were so fragmentary, and since time was lacking to complete and verify these statistics, it was held impracticable to make experience tables for the active service, regular pensioners, invalid pensioners and widow pensioners, from which the desired rates could be deduced. Under the circumstances, the only feasible thing to do was to adopt arbitrarily the rates deduced from the actual experience of a similar service, and use them to construct a service table for the valuation of the Boston police fund.

The rates adopted were, with one exception, those deduced from the experience of the New York police force. It may reasonably be assumed that the experience of the Boston police force in regard to rates of separation from the service has been similar to that of the New York police force in all respects, except the rate of retirement on disability pensions. It is thought that the rate at which policemen in New York have been retired on disability pensions is abnormally high. Preferring to run the risk of underestimating rather than of overstating liabilities, it was desired to have this estimate as conservative as possible, and it was considered advisable, therefore, to adopt disability rates that are lower than those of the

New York force. With respect to other rates of separation the experience of the two services would seem to be fairly comparable, and the rates deduced from the experience of the New York police fund were accordingly adopted, with the exception only of the disability rates, as the basis of calculations for the Boston police fund.

While it is recognized that the only experience that can be used with confidence as a basis for precise actuarial calculations is the experience of the actual service under investigation, it is believed that when a rough estimate is the only end sought, and where time is an important consideration, as it has been in this work, the use of the experience gained by a similar service is justifiable. It certainly can be stated with entire confidence that the results are sufficiently accurate to form a fair estimate of the probable amount of the liability which the city has assumed.

SALARY SCALE.

The actual experience of the Boston police fund was accepted, in one respect, as the basis for calculation. It was absolutely necessary, since all service and disability pensions in the Boston fund are based upon the amount of the employee's salary at the time of retirement, to have a salary scale. This was made by ascertaining the actual average salary for each age group and then smoothing out the irregularities in the average salary from age to age by the graphic method of graduation. It should be stated that this salary scale was based on the salary of the active force as of Jan. 1, 1914. There is a question, of course, whether a salary scale based on only one year's experience of the active service reflects the operations of the fund with sufficient accuracy to serve as an index of the future. It is admittedly not a satisfactory basis for a salary scale, since there is always a question, where the period under observation is short, whether an average based on experience within that period is a true average. It was the best, however, that could be made on the only statistics available.

Salary Scale.

AGE.	Salary Scale.	AGE.	Salary Scale.
26,	\$765	46,	\$1,394
27,	818	47,	1,407
28,	890	48,	1,416
29,	951	49,	1,425
30,	1,011	50,	1,435
31,	1,065	51,	1,444
32,	1,111	52,	1,452
33,	1,151	53,	1,460
34,	1,186	54,	1,469
35,	1,215	55,	1,476
36,	1,220	56,	1,483
37,	1,263	57,	1,490
38,	1,283	58,	1,496
39,	1,301	59,	1,500
40,	1,316	60,	1,505
41,	1,332	61,	1,508
42,	1,345	62,	1,511
43,	1,358	63,	1,512
44,	1,371	64,	1,513
45,	1,383	65,	1,514

RATES ADOPTED.

Rates of Mortality.

Two different rates of mortality were necessary to make the calculations in regard to separations from the active service caused by death, — the rate of mortality from ordinary causes and the rate of mortality from accident in the performance of duty, since pensions are granted to the widows of policemen only in case the latter are killed in line of duty. Both these rates are taken from the experience of the New York police force and are as follows:—

Rates of Mortality while in Active Service.

AGE.	From Ordinary Causes.	From Accident in Performance of Duty.	AGE.	From Ordinary Causes.	From Accident in Performance of Duty.
25, . . . . .	.0028	.0003	50, . . . . .	.0144	.0008
30, . . . . .	.0040	.0004	55, . . . . .	.0218	.0002
35, . . . . .	.0063	.0004	60, . . . . .	.0247	-
40, . . . . .	.0082	.0004	65, . . . . .	.0393	-
45, . . . . .	.0092	.0005			

For service pensioners — that is, those retiring at age 65 or at age 60, 61, 62, 63 or 64, as the case may be, after twenty-five years' service — the mortality rates assumed were those worked out in the valuation of the New York police force. They are shown in the following table: —

Rate of Mortality among Service Pensioners.

AGE.	Service Pensioners.	AGE.	Service Pensioners.
60, . . . . .	.0513	85, . . . . .	.1984
65, . . . . .	.0632	90, . . . . .	.2782
70, . . . . .	.0814	95, . . . . .	.3843
75, . . . . .	.1077	100,	1.0000
80, . . . . .	.1450		

The rate of mortality among invalid pensioners in the experience of the New York police force was also adopted. This is shown in the following table: —

Rate of Mortality among Invalid Pensioners.

AGE.	Invalid Pensioners.	AGE.	Invalid Pensioners.
25, . . . . .	.2037	65, . . . . .	.0602
30, . . . . .	.1408	70, . . . . .	.0843
35, . . . . .	.0922	75, . . . . .	.1200
40, . . . . .	.0600	80, . . . . .	.1800
45, . . . . .	.0424	85, . . . . .	.2820
50, . . . . .	.0358	90, . . . . .	.4695
55, . . . . .	.0369	95, . . . . .	.7220
60, . . . . .	.0449		

The mortality rate shown by the Combined Experience Table of Mortality was adopted as the rate of mortality of the widow pensioners of the Boston police force. This is the rate that was adopted in the calculation of the mortality rate of the widow pensioners in the New York force. The experience of the New York widow pensioners was made up in the valuation of the New York police force; but as it was found to check closely into the rate of the Combined Experience Table, the latter was used in preference, for the reason that it is the rate of a standard table, based on a larger number of lives than were included in the New York experience.

Rate of Mortality among Widow Pensioners.

AGE.	Combined Experience Table of Mortality.	AGE.	Combined Experience Table of Mortality.
22, . . . . .	.0075	62, . . . . .	.0351
27, . . . . .	.0080	67, . . . . .	.0515
32, . . . . .	.0087	72, . . . . .	.0758
37, . . . . .	.0097	77, . . . . .	.1115
42, . . . . .	.0109	82, . . . . .	.1632
47, . . . . .	.0135	87, . . . . .	.2422
52, . . . . .	.0179	92, . . . . .	.4053
57, . . . . .	.0247	97, . . . . .	.6923

RATES OF WITHDRAWAL.

Resignations, Dismissals and Remarriage of Widows.

The rate of resignation and dismissal from the active force that was adopted was that deduced from the experience of the New York police force. This rate is shown in the following table:—

Rate of Resignation and Dismissal.

AGE.	Resignation and Dismissal.	AGE.	Resignation and Dismissal.
25, . . . . .	.0257	45, . . . . .	.0036
30, . . . . .	.0168	50, . . . . .	.0018
35, . . . . .	.0083	55, . . . . .	.0014
40, . . . . .	.0068	60, . . . . .	.0004

The rate of withdrawal among one class of pensioners has to be considered also in the valuation of the police fund. Inasmuch as pensions for widows are included in the benefits, the rate at which widows remarry and forfeit their pensions was required. Having no better statistical experience to use as a basis, the rate of withdrawal among widow pensioners in the New York police force was adopted. The tabulation from which the New York table was constructed was made by dividing the number of widows who withdrew at each age into two groups, — those whose pensions lapsed because of the revocation of the pension, and those whose pensions lapsed because of remarriage. The New York police rate of withdrawal for widows was modified roughly to include only those who surrendered their pensions to marry again, and this rate was used as a basis for the Boston table. The provisions of the Boston fund allow annuities to widows only during the time that they remain unmarried, whereas the annuities of New York widows are revocable on other grounds also. The rate of withdrawal for widows, as modified from the experience of the New York police force, is shown in the following table: —

Rate of Withdrawal among Widow Pensioners.

AGE.	Modification New York Widow Pen- sioners adopted.	New York Widow Pen- sioners.	AGE.	Modification New York Widow Pen- sioners adopted.	New York Widow Pen- sioners.
22, . . . . .	.0542	.0908	62,	-	.0110
27, . . . . .	.0314	.0613	67,	-	.0103
32, . . . . .	.0202	.0401	72,	-	.0092
37, . . . . .	.0137	.0277	77,	-	.0077
42, . . . . .	.0094	.0202	82,	-	.0056
47, . . . . .	.0063	.0159	87,	-	.0031
52, . . . . .	.0036	.0132	92,	-	.0001
57, . . . . .	.0013	.0117			

RATE OF RETIREMENT ON PENSION.

The rules of the service state that any member of the department *shall* be retired who is 65 years of age. This would seem to be mandatory for the department, but the fact that the cards showed half a dozen members of the service to be still retained though past the age of 65 would seem to indicate that retirement is optional with

the employee. It is assumed in the calculations, however, that retirement is compulsory at age 65. The earliest age at which any one is eligible for retirement is the age of 60. Those who have served twenty-five years or more may retire at that age. This practically means that every one in the service may retire on a pension at age 60, if he chooses, since every one who reaches the age of 60 must have been at least twenty-five years in the service, the maximum entrance age being 35. Not all choose, however, to retire at age 60. Some remain until the age of 61, others until age 62, others until age 63, others until age 64, until finally, at age 65, all must retire. Because the right of choice is exercised between the ages 60 and 65, it is not thought best to assume a fixed age of retirement for all members. The members of the active service have, therefore, been transferred gradually to the regular pensioners' roll. In the absence of any statistics it was assumed that 30 per cent. of all persons in the active service of the Boston police force who attain to age 60 will retire on regular or service pension at that age; that 40 per cent. of those who remain and attain to age 61 will retire at that age; that 50 per cent. of those who remain and attain to age 62 will retire at that age; that 60 per cent. of those who remain and attain to age 63 will retire at that age; that 70 per cent. of those who remain and attain to age 64 will retire at that age; and all persons who remain in the active service and attain the age of 65 years are assumed to retire before reaching age 66. The rate of retirement from the service thus constructed is shown in the following table:—

Rate of Retirement.

AGE.	Retirement.	AGE.	Retirement.
60, . . . . .	.3000	63, . . . . .	.6000
61, . . . . .	.4000	64, . . . . .	.7000
62, . . . . .	.5000	65, . . . . .	.9607

RATES OF DISABILITY.

The pension provisions regarding disability make a distinction between disability resulting from the actual performance of duty and disability from other causes. One rate was, therefore, adopted to reflect the disability incurred in the performance of duty, and

another to show the disability resulting from all other causes. The combination of these two rates, that is, the sum of the two at each age, is supposed to reflect the total rate of disability from all causes in the Boston police force. This is lower than the total rate of disability in the New York police force, which is as it should be, since the rate of disability among members of the New York force is thought, for reasons given above, to be abnormally high.

That part of the Boston rate which reflects disability resulting from the actual performance of duty is one-half of the rate of total and permanent disability deduced by Mr. Arthur Hunter from the experience of various fraternal orders of the United States.¹ The rate thus deduced by Mr. Hunter is very much lower than the total rate of disability resulting from all causes among members of the New York police force, and still lower than the rate found to exist among employees of the New South Wales Government Railways and Tramways. Mr. Hunter's rate reflects only permanent, complete disablements, and does not take account of temporary or minor impairments in health. It covers only those completely out of commission. In selecting a rate to represent disability incurred in the actual performance of duty it would seem desirable to interpret the meaning of the word "disability" very strictly. Since Mr. Hunter's rate seems to reflect this strict interpretation it would appear proper to adopt his rate as the rate among members of the Boston police force of *bona fide* and permanent disability. There is one factor, however, that has to be considered in adopting a rate of disability for the Boston police force that does not enter into Mr. Hunter's rate, and that is the factor of disablement in the actual performance of duty. If Mr. Hunter's rate reflects fairly both the disability incurred in line of duty and all other disability, as would seem to be the case, then, in the absence of any actual statistics on this service, it seems reasonable to assume that one-half of that rate might safely be taken as a proper rate of disability for disablements resulting from the actual performance of duty. This is the rate adopted.

In practice the benefit provided for disability incurred in line of duty is disregarded after an employee has been in the service twenty years. At age 55 the provision for benefits in case of disability incurred in the line of duty merges into the provision for benefits in case of disability from other causes. This is due to the fact that the

¹ See Transactions, Actuarial Society of America, Vol. 12, p. 46.

minimum entrance age into the Boston force is 25 years and the maximum entrance age is 35 years. It follows, then, that all persons who remain in the service twenty years are eligible for retirement on a disability pension somewhere between the ages of 45 and 55, inclusive. Since, therefore, the two rates merge into each other between these ages, that part of the disability rate which represents the rate for disability arising from the actual performance of duty was graduated off to zero, starting at the median age of 50 and running to 56.¹

For disability from all causes other than the actual performance of duty the rate adopted was that drawn from the experience of the New South Wales Government Railways and Tramways.² This was adopted because it is a fair, medium rate, neither so high as the disability rate of the New York police nor so low as the rate for permanent disablements.

Rates of Disability.

AGE.	Combination Disability Rate adopted.	Disability from Actual Performance of Duty. One-half Rate deduced by Mr. Hunter.	Disability from all Other Causes. Rates of New South Wales Government Railways and Tramways.	AGE.	Combination Disability Rate adopted.	Disability from Actual Performance of Duty. One-half Rate deduced by Mr. Hunter.	Disability from all Other Causes. Rates of New South Wales Government Railways and Tramways.
25, . . .	.0003	.0003	-	50, . . .	.0060	.0008	.0052
30, . . .	.0003	.0003	-	55, . . .	.0176	.0001	.0175
35, . . .	.0007	.0003	.0004	60, . . .	.0457	-	.0457
40, . . .	.0022	.0004	.0018	65, . . .	.0000	-	.0000
45, . . .	.0035	.0006	.0029				

Summarizing the above, a table showing the rates of mortality, resignation and dismissal, retirement and invalidity, as used in the calculations, is given herewith.

¹ Since the calculations were made it is learned that the maximum age of entrance into the service was erroneously given as 35 instead of 33. Fortunately, the error makes very little difference in the results.

² Report of the Actuarial Subcommittee on Establishment of a Superannuation Fund for the whole of the Government Service, in New South Wales, 1912, p. 18.

Rates used.

AGE.	RATES OF MORTALITY.				RATES OF SEPARATION DUE TO —			RATES OF DIS- ABILITY DUE TO —	
	Active Service.	Service Pension- ers.	Invalid Pension- ers.	Widow Pension- ers.	Resignation and Dismissal.	Withdrawal of Widow Pen- sioners.	Retirement.	Actual Perform- ance of Duty.	All Other Causes.
22, . . . . .	.0028	-	.2452	.0075	.0400	.0542	-	-	.0003
23, . . . . .	.0023	-	.2310	.0076	.0338	.0481	-	-	.0003
24, . . . . .	.0029	-	.2173	.0077	.0291	.0430	-	-	.0003
25, . . . . .	.0031	-	.2037	.0078	.0257	.0387	-	-	.0003
26, . . . . .	.0032	-	.1910	.0079	.0234	.0349	-	-	.0003
27, . . . . .	.0034	-	.1784	.0080	.0218	.0314	-	-	.0003
28, . . . . .	.0038	-	.1659	.0081	.0203	.0286	-	-	.0003
29, . . . . .	.0041	-	.1535	.0083	.0186	.0261	-	-	.0003
30, . . . . .	.0044	-	.1408	.0084	.0168	.0238	-	-	.0003
31, . . . . .	.0049	-	.1298	.0086	.0147	.0219	-	-	.0003
32, . . . . .	.0053	-	.1195	.0087	.0126	.0202	-	-	.0003
33, . . . . .	.0058	-	.1096	.0089	.0107	.0187	-	-	.0003
34, . . . . .	.0063	-	.1002	.0091	.0093	.0173	-	-	.0003
35, . . . . .	.0067	-	.0922	.0093	.0083	.0159	-	.0004	.0003
36, . . . . .	.0072	-	.0840	.0095	.0078	.0149	-	.0009	.0003
37, . . . . .	.0077	-	.0769	.0097	.0075	.0137	-	.0014	.0004
38, . . . . .	.0081	-	.0702	.0099	.0073	.0128	-	.0015	.0004
39, . . . . .	.0084	-	.0643	.0101	.0071	.0118	-	.0016	.0004
40, . . . . .	.0086	-	.0600	.0104	.0068	.0114	-	.0018	.0004
41, . . . . .	.0088	-	.0557	.0106	.0063	.0102	-	.0020	.0004
42, . . . . .	.0090	-	.0514	.0109	.0057	.0094	-	.0022	.0005
43, . . . . .	.0093	-	.0480	.0113	.0050	.0087	-	.0024	.0005
44, . . . . .	.0095	-	.0454	.0117	.0043	.0080	-	.0026	.0005
45, . . . . .	.0097	-	.0424	.0122	.0036	.0074	-	.0029	.0006
46, . . . . .	.0101	-	.0404	.0128	.0030	.0068	-	.0032	.0006
47, . . . . .	.0107	-	.0390	.0135	.0025	.0063	-	.0035	.0007
48, . . . . .	.0117	-	.0378	.0143	.0022	.0056	-	.0039	.0007
49, . . . . .	.0133	-	.0365	.0151	.0019	.0049	-	.0044	.0008
50, . . . . .	.0152	-	.0353	.0159	.0018	.0046	-	.0052	.0008
51, . . . . .	.0172	-	.0352	.0169	.0017	.0042	-	.0075	.0008
52, . . . . .	.0189	-	.0350	.0179	.0016	.0036	-	.0100	.0008
53, . . . . .	.0203	-	.0352	.0191	.0016	.0031	-	.0125	.0006
54, . . . . .	.0213	-	.0360	.0203	.0015	.0027	-	.0150	.0004

Rates used — Continued.

AGE.	RATES OF MORTALITY.				RATES OF SEPARATION DUE TO —			RATES OF DIS- ABILITY DUE TO —	
	Active Service.	Service Pension- ers.	Invalid Pension- ers.	Widow Pension- ers.	Resignation and Dismissal.	Withdrawal of Widow Pen- sioners.	Retirement.	Actual Perform- ance of Duty.	All Other Causes.
55, . . . . .	.0220	.0436	.0369	.0217	.0014	.0023	-	.0175	.0001
56, . . . . .	.0224	.0449	.0380	.0231	.0013	.0017	-	.0200	-
57, . . . . .	.0225	.0463	.0390	.0247	.0011	.0013	-	.0240	-
58, . . . . .	.0229	.0478	.0408	.0264	.0008	.0009	-	.0300	-
59, . . . . .	.0235	.0495	.0425	.0282	.0006	.0004	-	.0432	-
60, . . . . .	.0247	.0513	.0449	.0303	.0004	.0000	.3000	.0457	-
61, . . . . .	.0265	.0533	.0479	.0326	.0002	-	.4000	.0454	-
62, . . . . .	.0290	.0554	.0502	.0351	-	-	.5000	.0414	-
63, . . . . .	.0320	.0578	.0539	.0378	-	-	.6000	.0182	-
64, . . . . .	.0355	.0603	.0565	.0408	-	-	.7000	.0087	-
65, . . . . .	.0393	.0632	.0602	.0441	-	-	.9607	.0000	-
66,	-	.0662	.0650	.0476	-	-	-	-	-
67,	-	.0696	.0688	.0515	-	-	-	-	-
68,	-	.0732	.0740	.0556	-	-	-	-	-
69,	-	.0772	.0797	.0600	-	-	-	-	-
70,	-	.0814	.0843	.0649	-	-	-	-	-
71,	-	.0860	.0904	.0702	-	-	-	-	-
72,	-	.0909	.0975	.0758	-	-	-	-	-
73,	-	.0961	.1040	.0819	-	-	-	-	-
74,	-	.1017	.1120	.0885	-	-	-	-	-
75,	-	.1077	.1200	.0956	-	-	-	-	-
76,	-	.1141	.1300	.1032	-	-	-	-	-
77,	-	.1210	.1400	.1115	-	-	-	-	-
78,	-	.1284	.1500	.1204	-	-	-	-	-
79,	-	.1364	.1645	.1301	-	-	-	-	-
80,	-	.1450	.1800	.1404	-	-	-	-	-
81,	-	.1542	.1960	.1514	-	-	-	-	-
82,	-	.1641	.2140	.1632	-	-	-	-	-
83,	-	.1747	.2360	.1759	-	-	-	-	-
84,	-	.1860	.2570	.1897	-	-	-	-	-
85,	-	.1984	.2820	.2051	-	-	-	-	-
86,	-	.2117	.3120	.2225	-	-	-	-	-
87,	-	.2263	.3450	.2422	-	-	-	-	-

Rates used — Concluded.

AGE.	RATES OF MORTALITY.				RATES OF SEPARATION DUE TO —			RATES OF DIS- ABILITY DUE TO —	
	Active Service.	Service Pension- ers.	Invalid Pension- ers.	Widow Pension- ers.	Resignation and Dismissal.	Withdrawal of Widow Pen- sioners.	Retirement.	Actual Perform- ance of Duty.	All Other Causes.
88,	-	.2424	.3840	.2653	-	-	-	-	-
89,	-	.2597	.4260	.2924	-	-	-	-	-
90,	-	.2782	.4695	.3237	-	-	-	-	-
91,	-	.2974	.5150	.3610	-	-	-	-	-
92,	-	.3141	.5603	.4053	-	-	-	-	-
93,	-	.3299	.6100	.4572	-	-	-	-	-
94,	-	.3507	.6620	.5163	-	-	-	-	-
95,	-	.3843	.7220	.5843	-	-	-	-	-
96,	-	.4455	.7945	.6486	-	-	-	-	-
97,	-	.5614	.8740	.6923	-	-	-	-	-
98,	-	.6750	.9820	.7500	-	-	-	-	-
99,	-	.7500	1.0000	1.0000	-	-	-	-	-
100,	-	1.0000	-	-	-	-	-	-	-

SERVICE TABLES.

From the rates given above, tables for the active service, the regular pensioners, invalid pensioners and widow pensioners were constructed in the customary manner. It was assumed in the service table for the active force that 100,000 persons had entered at the youngest age and experienced the various contingencies noted. Thus, of the 100,000 who entered the service at age 25 there die before reaching age 26, 306 (280 by deaths other than accidental plus 26 by accidental deaths), there retire 26, and there resign 2,570. The total number who thus leave from all causes is 2,902, leaving 97,098 survivors at exact age 26. This process is carried out to the end of the table.

The service table for the active force is as follows:—

Service Table for Active Force.

AGE.	Survivors.	Resignation or Dismissal.	Deaths Other than Accidental.	Deaths Accidental.	Disabilities in Performance of Duty.	Disabilities Other than in Performance of Duty.	Service Retirements.	Total Decrement.
25,	100,000	2,570	280	26	26	-	-	2,902
26,	97,098	2,272	282	29	26	-	-	2,609
27,	94,489	2,060	293	31	26	-	-	2,410
28,	92,079	1,869	313	32	25	-	-	2,289
29,	89,840	1,671	332	33	25	-	-	2,061
30,	87,779	1,475	351	33	25	-	-	1,884
31,	85,895	1,263	387	33	25	-	-	1,708
32,	84,187	1,061	413	33	25	-	-	1,532
33,	82,655	884	446	33	25	-	-	1,388
34,	81,267	756	479	33	25	-	-	1,293
35,	79,974	664	504	33	26	32	-	1,259
36,	78,715	614	535	32	26	71	-	1,278
37,	77,437	581	565	32	27	108	-	1,313
38,	76,124	556	586	31	28	114	-	1,315
39,	74,809	531	598	31	29	120	-	1,309
40,	73,500	500	603	31	31	132	-	1,297
41,	72,203	455	607	31	32	144	-	1,269
42,	70,934	404	610	31	33	156	-	1,234
43,	69,700	349	613	32	35	167	-	1,196
44,	68,504	295	617	33	37	178	-	1,160
45,	67,344	242	620	36	39	195	-	1,132
46,	66,212	199	629	42	41	212	-	1,123
47,	65,089	163	644	50	43	228	-	1,128
48,	63,961	141	697	53	46	249	-	1,186
49,	62,775	119	785	53	49	276	-	1,282
50,	61,493	111	885	51	52	320	-	1,419
51,	60,074	102	985	46	50	451	-	1,634
52,	58,440	94	1,069	33	44	584	-	1,824
53,	56,616	91	1,127	22	35	708	-	1,983
54,	54,633	82	1,153	13	20	819	-	2,087
55,	52,546	74	1,146	8	3	920	-	2,151
56,	50,395	66	1,124	4	-	1,008	-	2,202
57,	48,193	53	1,084	-	-	1,157	-	2,294
58,	45,899	37	1,051	-	-	1,377	-	2,465
59,	43,434	26	1,021	-	-	1,876	-	2,923

Service Table for Active Force — Concluded.

AGE.	Survivors.	Resignation or Dismissal.	Deaths Other than Accidental.	Deaths Accidental.	Disabilities in Performance of Duty.	Disabilities Other than in Performance of Duty.	Service Retirements.	Total Decrement.
60,	40,511	16	1,001	-	-	1,851	12,153	15,021
61,	25,490	5	675	-	-	1,157	10,196	12,033
62,	13,457	-	390	-	-	557	6,729	7,676
63,	5,781	-	185	-	-	105	3,469	3,759
64,	2,022	-	72	-	-	18	1,415	1,505
65,	517	-	20	-	-	-	497	517

The service table for the service or regular pensioners is as follows:—

Regular Pensioners' Table.

AGE.	Survivors.	Deaths.	AGE.	Survivors.	Deaths.
60,	1,294	66	81,	188	29
61,	1,228	65	82,	159	26
62,	1,163	64	83,	133	23
63,	1,099	64	84,	110	20
64,	1,035	62	85,	90	18
65,	973	61	86,	72	15
66,	912	60	87,	57	13
67,	852	59	88,	44	11
68,	793	58	89,	33	9
69,	735	57	90,	24	7
70,	678	55	91,	17	5
71,	623	54	92,	12	4
72,	569	52	93,	8	3
73,	517	50	94,	5	2
74,	467	47	95,	3	1
75,	420	45	96,	2	1
76,	375	43	97,	1	.56 ¹
77,	332	40	98, . . . . .	.44	.30
78,	292	37	99, . . . . .	.14	.11
79,	255	35	100, . . . . .	.03	.03
80,	220	32			

¹ Decimals were used to avoid necessity for larger radix.

The service table for the invalid pensioners is as follows:—

Invalid Pensioners' Table.

AGE.	Survivors.	Deaths.	AGE.	Survivors.	Deaths.
25,	24,422	4,974	63,	1,189	64
26,	19,448	3,714	64,	1,125	64
27,	15,734	2,806	65,	1,061	64
28,	12,928	2,144	66,	997	65
29,	10,784	1,655	67,	932	64
30,	9,129	1,285	68,	868	64
31,	7,844	1,018	69,	804	64
32,	6,826	815	70,	740	62
33,	6,011	659	71,	678	61
34,	5,352	536	72,	617	60
35,	4,816	444	73,	557	58
36,	4,372	367	74,	499	56
37,	4,005	308	75,	443	53
38,	3,697	259	76,	390	51
39,	3,438	221	77,	339	47
40,	3,217	193	78,	292	44
41,	3,024	168	79,	248	41
42,	2,856	147	80,	207	37
43,	2,709	130	81,	170	33
44,	2,579	117	82,	137	29
45,	2,462	104	83,	108	25
46,	2,358	95	84,	83	21
47,	2,263	88	85,	62	17
48,	2,175	82	86,	45	14
49,	2,093	76	87,	31	11
50,	2,017	72	88,	20	8
51,	1,945	68	89,	12	5
52,	1,877	66	90,	7	3
53,	1,811	64	91,	4	2
54,	1,747	63	92,	2	1
55,	1,684	62	93,	1	.610 ¹
56,	1,622	62	94, . . . . .	.390	.258
57,	1,560	61	95, . . . . .	.132	.095
58,	1,499	61	96, . . . . .	.037	.029
59,	1,438	61	97, . . . . .	.008	.007
60,	1,377	62	98, . . . . .	.001	.00098
61,	1,315	63	99, . . . . .	.00002	.00002
62,	1,252	63			

¹ Decimals were used to avoid necessity for larger radix.

The service table for the widow pensioners is as follows:—

Widow Pensioners' Table.

AGE.	Survivors.	Deaths.	Withdrawals.	AGE.	Survivors.	Deaths.	Withdrawals.
22,	86,033	645	4,663	58,	30,554	807	27
23,	80,725	614	3,883	59,	29,720	838	12
24,	76,228	587	3,278	60,	28,870	875	-
25,	72,363	595	2,950	61,	27,995	913	-
26,	68,818	544	2,402	62,	27,082	951	-
27,	65,872	527	2,068	63,	26,131	988	-
28,	63,277	513	1,810	64,	25,143	1,026	-
29,	60,954	506	1,591	65,	24,117	1,064	-
30,	58,857	494	1,401	66,	23,053	1,097	-
31,	56,962	490	1,247	67,	21,956	1,131	-
32,	55,225	480	1,116	68,	20,825	1,158	-
33,	53,629	477	1,003	69,	19,667	1,180	-
34,	52,149	475	902	70,	18,487	1,200	-
35,	50,772	472	807	71,	17,287	1,214	-
36,	49,493	470	737	72,	16,073	1,218	-
37,	48,286	468	662	73,	14,855	1,217	-
38,	47,156	467	604	74,	13,638	1,207	-
39,	46,085	465	544	75,	12,431	1,188	-
40,	45,076	469	514	76,	11,243	1,160	-
41,	44,093	467	450	77,	10,083	1,124	-
42,	43,176	471	406	78,	8,959	1,079	-
43,	42,299	478	368	79,	7,880	1,025	-
44,	41,453	485	332	80,	6,855	962	-
45,	40,636	496	301	81,	5,893	892	-
46,	39,839	510	271	82,	5,001	816	-
47,	39,058	527	246	83,	4,185	736	-
48,	38,285	547	214	84,	3,449	654	-
49,	37,524	567	184	85,	2,795	573	-
50,	36,773	585	169	86,	2,222	494	-
51,	36,019	609	151	87,	1,728	419	-
52,	35,259	631	127	88,	1,309	347	-
53,	34,501	659	107	89,	962	281	-
54,	33,735	685	91	90,	681	220	-
55,	32,959	715	76	91,	461	166	-
56,	32,168	743	55	92,	295	120	-
57,	31,370	775	41	93,	175	80	-

Widow Pensioners' Table — Concluded.

AGE.	Survivors.	Deaths.	Withdrawals.	AGE.	Survivors.	Deaths.	Withdrawals.
94,	95	49	-	97,	7	5	-
95,	46	27	-	98,	2	1.5 ¹	-
96,	19	12	-	99, . . . . .	.5	.5	-

¹ Decimals were used to avoid necessity for larger radix.

MONETARY VALUES.

Interest is assumed in all the calculations of the police fund at 4 per cent. This is somewhat lower than the rate of interest earned on the funds of the school teachers of Boston at the present time, but it is thought to be a fair rate for a long period of years. It is a rate that could probably be earned by the city on any funds created for pension purposes.

COMMUTATION COLUMNS.

The various tables having been completed, commutation columns were made up for each of the pensioners' tables, to be used as an aid in computing annuity values:

ANNUITY VALUES.

With the help of the commutation columns the present values of the various pension benefits were computed.

These values were applied directly to the amounts of pensions drawn by the various classes of pensioners at the various ages, the result giving the present value of each of the various kinds of pension benefits that the city has obligated itself to pay. These work tables are too voluminous to be included in this report.

In the case of the members of the active service, since they have not yet come on the pension roll, it was necessary to compute also the value of the deferred annuities to the members in each age of the service.

In the case of the invalid pensioners, both existing and prospective, it was necessary to compute three annuity values in order to cover the disability provision. The first value gives the amount of pension received by persons retired for disability caused by actual performance of duty; the second gives the amount of pension received by

those retired after fifteen years' but less than twenty years' service for disability other than that caused by actual performance of duty; and the third gives the amount of pension received by persons retired after twenty years of service for disability other than that caused by actual performance of duty. It would have been possible to combine all three of these values in one annuity value, but it was thought well to keep them separate for the purpose of comparison.

In the case of widow pensioners it was necessary, in order to compute the value of a survivorship annuity to a widow, to show how many of the persons who die are husbands and to show the age of the widow at the death of the husband. It was assumed that the proportion of all persons dying who are husbands is the same as that shown by Mr. Manly in his paper in the Journal of the Institute of Actuaries, Vol. XLII., p. 30. It was assumed that husbands dying at age 29 or younger leave widows two years younger than themselves; those dying from 30 to 35 years of age leave widows three years younger; those dying at age 35 to 40 leave widows four years younger; those dying at ages 40 to 45 leave widows five years younger; and those dying at age 45 or older leave widows six years younger than themselves.

The following statement shows the total estimated liabilities of the fund as of Jan. 1, 1914, to be \$4,772,000: —

Estimated Total Liabilities of the Boston Police Pension Fund, as of Jan. 1, 1914.

Present value of —	
Pensions to 131 members now on regular or service pension roll,	\$597,300
Pensions to 79 members now on disability or invalid pension roll,	437,300
Pensions to 15 widows now on widows' pension roll,	54,350
Total existing pensions,	————— \$1,088,950
Present value of —	
Pensions to present members of active force who retire on regular or service pensions,	\$2,496,800
Pensions to present members of active force who retire on pensions because of disability —	
Resulting from performance of duty,	58,150
From other causes, after —	
Fifteen but less than twenty years' service,	74,100
Twenty years' service,	1,032,000

Pensions to widows of present members of active force who may be killed in performance of duty,	\$22,000	
Total prospective pensions,		\$3,683,050
		<hr/>
Grand total of all pensions,		\$4,772,000

The next question is, What amount, expressed in terms of per cent. of the employees' salaries, invested at the rate of interest assumed, would be necessary to meet these expenditures by the city? To determine this it was necessary to compute annuity values showing the present value of annuities equal to 1 per cent. of the total salaries of employees for all ages, such annuities to be payable throughout active service. It is obvious, then, that the per cent. of the salary required to pay these benefits can be ascertained by dividing the present value of existing and prospective pensions by the present value of 1 per cent. of the future salaries of the present active force; that is, \$4,772,000 divided by \$249,200 equals 19.15 per cent.

The situation then is this: the city of Boston has a choice of three methods of meeting its liabilities for pensions to the existing members of the Police Pension Fund and the present members of the active service.

1. It can appropriate and invest at 4 per cent. compound interest a cash sum of \$4,772,000.

2. It can appropriate the necessary amount each year, as the pensions come due.

3. It can set aside each year during the remaining years of service a sum equal to 19.15 per cent. of the annual salaries of the present active force, investing it at compound interest.

This does not mean that the city would have to appropriate an amount equaling 19.15 per cent. of the salaries of persons coming into the service hereafter to provide for their pensions. This heavy tax of 19.15 per cent. on the salaries of the existing force is due to the fact that the accrued liabilities for pensions to existing pensioners, and proportionate parts of pensions earned by the existing active force, were not provided for during past years when they were assumed. Considering the pensions that will accrue to persons entering the service hereafter as a separate matter, it is clear that a much smaller per cent. of salary will be necessary to provide the pensions.

The question in this case is, What amount of money expressed in terms of per cent. of salaries of the active force will have to be set aside and invested at 4 per cent. interest at the time the obligation for the pension is assumed, *i.e.*, at the time the policemen's services are rendered and the salary for them paid, in order to meet the pension payments as they accrue? That question is answered by the following table, which shows the estimated contributions required of new entrants into the service for pensions granted under present retirement provisions:—

Estimated Contributions required of New Entrants into the Service of the Boston Police Force for Pensions granted Under the Present Retirement Provisions (expressed as a Percentage of Salaries paid).

AGE AT ENTRY.	AMOUNT NECESSARY TO PROVIDE FOR PENSIONS GRANTED ON ACCOUNT OF —							
	Regular or Service Retirement.	Disability from Other Causes after Fifteen but less than Twenty Years' Service.	Disability from Other Causes after Twenty Years' Service.	Disability resulting from Actual Performance of Duty.	All Disability Provisions (c) + (d) + (e).	All Provisions for Members, (b) + (f).	Widows of Members killed in Actual Performance of Duty.	All Pension Provisions or Benefits, (g) + (h).
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
26,	3.13	0.13	1.72	0.19	2.04	5.17	0.08	5.25
27,	3.27	0.14	1.75	0.20	2.09	5.36	0.09	5.45
28,	3.42	0.16	1.79	0.20	2.15	5.57	0.10	5.67
29,	3.61	0.17	1.82	0.21	2.20	5.81	0.11	5.92
30,	3.80	0.19	1.86	0.22	2.27	6.07	0.12	6.19
31,	4.02	0.21	1.90	0.22	2.33	6.35	0.13	6.48
32,	4.26	0.25	1.91	0.23	2.39	6.65	0.14	6.79
33,	4.53	0.31	1.89	0.23	2.43	6.96	0.14	7.10

3. FIREMEN'S PENSION FUND.

The Firemen's Pension Fund of the city of Boston is, like the Police Pension Fund, noncontributory. All benefits are paid out of public funds. Pensions are granted for length of service and for disability. Pensions are also allowed the widows and children of firemen killed in the discharge of their duties. A further sum of \$1,000 is paid by the Commonwealth to the widows or children in case of death within sixty days from date of injury if injury is received in the discharge of duty.

Retirement from the service is made by the fire commissioner with the approval of the mayor.

BENEFITS.

The benefits authorized by law under this system are as follows:—

Service Pensions.—1. One-half final salary at age 55 after twenty-five years of service. Granted at option of employee.

2. One-half final salary after fifteen years' service. Granted at discretion of fire commissioner.

3. Maximum annuity of \$125 to call men honorably discharged who have had fifteen years' service. Granted by city council with approval of mayor and fire commissioner.

Disability Pensions.—1. Two-thirds final salary for permanent disability in actual performance of duty.

2. One-half final salary for mental or physical disability after fifteen years of service. Certificate to fire commissioner.

3. Pension allowed, but amount not stated, for mental or physical disability within first fifteen years of service. Certificate to fire commissioner.

Widows' and Children's Pensions.—1. A \$1,000 assurance if employee dies from injuries received in performance of duty.

2. A maximum pension of \$300 is granted to widows of members killed in performance of duty.

3. A maximum pension of \$300 is granted to children of members killed in performance of duty, to run until youngest child reaches age 16, but not during life of widow.

NOTE.—There are no children pensioners on the roll at present, and no figures in regard to children are shown.

The cards sent in for the firemen covered a long period, but the experience was narrow, as will be seen from the following statement of data submitted: —

Number of resignations,	106
Number of dismissals,	65
Number of deaths,	54
Number of retirements,	142
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Total number of persons leaving active force during period 1905-14,	367
Total number of persons in active force,	992
Total number of regular members on service pension,	37
Total number of regular members on disability pension,	120
Total number of call men on pension,	45
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Total,	1,194

The statistics presented were tabulated and tables of exposure made from them. The rates deduced were (1) the rates of mortality for the active service, (2) the rates of resignation and (3) the rates of leaving the service on a pension, which included really three rates, *i.e.*, the rate of disability for disablements incurred in the actual performance of duty, the rate of disability for all other causes and the rate of retirement on a service pension. The cards sent in did not show for what cause members were retired on a pension. It had to be assumed, therefore, that all retirements, up to about the age at which retirement is granted on a regular service pension, were on account of disability. The total rate of leaving the service on a pension was divided into three rates, — two of disability and one of retirement on service pension.

RATES OF MORTALITY.

As in the valuation of the Police Pension Fund, two different rates of mortality were necessary in order to make the calculations in regard to the separation from the active service due to death. These are the rate of death from ordinary causes and the rate of death from accident incurred in line of duty. The mortality rates deduced from the experience of the Boston firemen are illustrated in the following summary table: —

Rates of Mortality while in Active Service.

AGE.	From Ordinary Causes.	From Accident in Performance of Duty.	Total Rate of Mortality.	AGE.	From Ordinary Causes.	From Accident in Performance of Duty.	Total Rate of Mortality.
25, . . . . .	.0032	-	.0032	55, . . . . .	.0111	.0015	.0126
30, . . . . .	.0033	.0002	.0035	60, . . . . .	.0195	.0007	.0202
35, . . . . .	.0037	.0013	.0050	65, . . . . .	.0393	-	.0393
40, . . . . .	.0043	.0025	.0068	70, . . . . .	.0596	-	.0596
45, . . . . .	.0056	.0025	.0081	75, . . . . .	.0872	-	.0872
50, . . . . .	.0077	.0022	.0099				

For calculating the mortality of service and of invalid pensioners among retired firemen, the mortality rates shown by the experience of the New York police fund were adopted. These are illustrated in the summary tables on page 69, in that part of this report which has to do with the police fund.

For calculating the mortality among widow pensioners, the rate adopted was, as in the case of the New York and Boston policemen's widows, that shown by the Combined Experience Table of Mortality. It is illustrated in the summary table on page 70, in that part of this report which deals with the police fund.

RATE OF RESIGNATION AND DISMISSAL.

The rate of resignation made up from the experience of the Boston firemen is shown in the following summary table:—

Rate of Resignation and Dismissal.

AGE.	Resignation and Dismissal.	AGE.	Resignation and Dismissal.
25, . . . . .	.0413	45, . . . . .	.0135
30, . . . . .	.0265	50, . . . . .	.0103
35, . . . . .	.0195	55, . . . . .	.0040
40, . . . . .	.0158		

The rules of the firemen's service, unlike those of the police service, make no provision for the revocation of a widow's pension in case of her remarriage. The only limitation put upon the widow's pension is contained in the words, "but the fire commissioner may, from time to time, order such annuity to be reduced." It was assumed, however, that, in case of the remarriage of the widow, the pension would be revoked in accordance with the general practice in pension funds. Since it is desired, above all things, to avoid overstating liabilities, it seemed best, in the absence of any information on the subject, to calculate the cost on the basis of revocation of the widow's benefit in case of remarriage. The rate used is that drawn from the experience of the New York police force and will be found on page 70 of that part of this report which has to do with the Boston police fund.

RATES OF RETIREMENT.

As explained above, the cards did not show for what cause members now on the pension roll were retired from active service. The total rate of retirement was therefore divided into three parts, as shown in the following table. The rate adopted for disability in actual performance of duty is 5 per cent. of the total rate of leaving the service on pension to age 50; then 4 per cent. of the total rate of leaving the service on pension at age 51; then 3 per cent. of the total rate of leaving the service on pension at age 52. The rate adopted for disability other than that incurred in actual performance of duty is 95 per cent. of the total rates of leaving the service on pension to and including age 50; 76 per cent. at age 51; 57 per cent. at age 52; 38 per cent. at age 53; 19 per cent. at age 54; and 0 per cent. at age 55. The rate of retirement on regular or service pension adopted is the total rate of leaving the service on pensions less the combined rates of disability retirement.

Rate of Retirement on Pensions.

AGE.	Total Rate of leaving Service on Pensions.	Adopted Rate of Disability in Actual Performance of Duty. ¹	Adopted Rate of Disability Other than in Actual Performance of Duty. ²	Adopted Rate of Retirement on Regular or Service Pension. ³
22, . . . . .	.0011	.0001	.0011	-
23, . . . . .	.0017	.0001	.0016	-
24, . . . . .	.0022	.0001	.0021	-
25, . . . . .	.0027	.0001	.0026	-
26, . . . . .	.0031	.0002	.0030	-
27, . . . . .	.0036	.0002	.0034	-
28, . . . . .	.0041	.0002	.0039	-
29, . . . . .	.0045	.0002	.0043	-
30, . . . . .	.0050	.0003	.0048	-
31, . . . . .	.0055	.0003	.0052	-
32, . . . . .	.0061	.0003	.0058	-
33, . . . . .	.0066	.0003	.0063	-
34, . . . . .	.0071	.0004	.0068	-
35, . . . . .	.0077	.0004	.0073	-
36, . . . . .	.0083	.0004	.0079	-
37, . . . . .	.0088	.0004	.0084	-
38, . . . . .	.0095	.0005	.0090	-
39, . . . . .	.0103	.0005	.0098	-
40, . . . . .	.0109	.0006	.0104	-
41, . . . . .	.0117	.0006	.0111	-
42, . . . . .	.0128	.0007	.0122	-
43, . . . . .	.0140	.0007	.0133	-
44, . . . . .	.0160	.0008	.0152	-
45, . . . . .	.0180	.0009	.0171	-
46, . . . . .	.0200	.0010	.0190	-
47, . . . . .	.0235	.0012	.0223	-
48, . . . . .	.0255	.0013	.0242	-
49, . . . . .	.0280	.0014	.0266	-
50, . . . . .	.0320	.0016	.0304	-

¹ This adopted rate is 5 per cent. of the total rate of leaving service on pension to age 50; then 4 per cent. of the total rate of leaving service on pension at age 51; then 3 per cent. of the total rate of leaving service on pension at age 52, etc.

² This adopted rate is 95 per cent. of the total rate of leaving service on pension to and including age 50; 76 per cent. at age 51; 57 per cent. at age 52; 38 per cent. at age 53; 19 per cent. at age 54; 0 per cent. at age 55.

³ This adopted rate is the total of leaving service on pensions less the combined rates of disability retirement.

Rate of Retirement on Pensions — Concluded.

AGE.	Total Rate of leaving Service on Pensions.	Adopted Rate of Disability in Actual Performance of Duty. ¹	Adopted Rate of Disability Other than in Actual Performance of Duty. ²	Adopted Rate of Retirement on Regular or Service Pension. ³
51,	.0355	.0014	.0270	.0071
52,	.0400	.0012	.0228	.0160
53,	.0455	.0009	.0173	.0273
54,	.0500	.0005	.0095	.0400
55,	.0560	-	-	.0560
56,	.0640	-	-	.0640
57,	.0720	-	-	.0720
58,	.0815	-	-	.0815
59,	.0915	-	-	.0915
60,	.1035	-	-	.1035
61,	.1155	-	-	.1155
62,	.1275	-	-	.1275
63,	.1415	-	-	.1415
64,	.1595	-	-	.1595
65,	.1775	-	-	.1775
66,	.1980	-	-	.1980
67,	.2200	-	-	.2200
68,	.2475	-	-	.2475
69,	.2780	-	-	.2780
70,	.3200	-	-	.3200
71,	.4100	-	-	.4100
72,	.5200	-	-	.5200
73,	.6255	-	-	.6255
74,	.7300	-	-	.7300
75,	.8355	-	-	.8355
76,	.9255	-	-	.9255

¹ This adopted rate is 5 per cent. of the total rate of leaving service on pension to age 50; then 4 per cent. of the total rate of leaving service on pension at age 51; then 3 per cent. of the total rate of leaving service on pension at age 52, etc.

² This adopted rate is 95 per cent. of the total rate of leaving service on pension to and including age 50; 76 per cent. at age 51; 57 per cent. at age 52; 38 per cent. at age 53; 19 per cent. at age 54; 0 per cent. at age 55.

³ This adopted rate is the total of leaving service on pensions less the combined rates of disability retirement.

Summarizing the above, a table showing the rates deduced and the rates adopted is given herewith.

Rates used.

AGE.	RATES OF MORTALITY.					RATES OF WITHDRAWAL DUE TO —		RATES OF RETIREMENT DUE TO —		
	ACTIVE SERVICE.		PENSIONERS.			Resignation and Dismissal.	Remarriage of Widow Pensioners.	Disability in Actual Performance of Duty.	Disability for all Other Causes.	Retirement on Service Pensions.
	Ordinary Causes.	Performance of Duty.	Regular Pensioners.	Invalid Pensioners.	Widow Pensioners.					
22, . . . . .	.0031	-	-	.2452	.0075	.0502	.0542	.0001	.0011	-
23, . . . . .	.0031	-	-	.2310	.0076	.0477	.0481	.0001	.0016	-
24, . . . . .	.0032	-	-	.2173	.0077	.0447	.0430	.0001	.0021	-
25, . . . . .	.0032	-	-	.2037	.0078	.0413	.0387	.0001	.0026	-
26, . . . . .	.0032	-	-	.1910	.0079	.0378	.0349	.0002	.0030	-
27, . . . . .	.0032	-	-	.1784	.0080	.0345	.0314	.0002	.0034	-
28, . . . . .	.0032	-	-	.1659	.0081	.0313	.0286	.0002	.0039	-
29, . . . . .	.0033	-	-	.1535	.0083	.0287	.0261	.0002	.0043	-
30, . . . . .	.0033	.0002	-	.1408	.0084	.0265	.0238	.0003	.0048	-
31, . . . . .	.0033	.0003	-	.1298	.0086	.0247	.0219	.0003	.0052	-
32, . . . . .	.0034	.0005	-	.1195	.0087	.0232	.0202	.0003	.0058	-
33, . . . . .	.0035	.0008	-	.1096	.0089	.0217	.0187	.0003	.0063	-
34, . . . . .	.0036	.0010	-	.1002	.0091	.0205	.0173	.0004	.0068	-
35, . . . . .	.0037	.0013	-	.0922	.0093	.0195	.0159	.0004	.0073	-
36, . . . . .	.0038	.0016	-	.0840	.0095	.0186	.0149	.0004	.0079	-
37, . . . . .	.0039	.0018	-	.0769	.0097	.0178	.0137	.0004	.0084	-
38, . . . . .	.0040	.0022	-	.0702	.0099	.0171	.0128	.0005	.0090	-
39, . . . . .	.0042	.0024	-	.0643	.0101	.0164	.0118	.0005	.0098	-
40, . . . . .	.0043	.0025	-	.0600	.0104	.0158	.0114	.0006	.0104	-
41, . . . . .	.0046	.0026	-	.0557	.0106	.0154	.0102	.0006	.0111	-
42, . . . . .	.0048	.0026	-	.0514	.0109	.0148	.0094	.0007	.0122	-
43, . . . . .	.0050	.0026	-	.0480	.0113	.0144	.0087	.0007	.0133	-
44, . . . . .	.0053	.0026	-	.0454	.0117	.0139	.0080	.0008	.0152	-
45, . . . . .	.0056	.0025	-	.0424	.0122	.0135	.0074	.0009	.0171	-
46, . . . . .	.0059	.0025	-	.0404	.0128	.0130	.0068	.0010	.0190	-
47, . . . . .	.0062	.0024	-	.0390	.0135	.0125	.0063	.0012	.0223	-
48, . . . . .	.0066	.0023	-	.0378	.0143	.0118	.0056	.0013	.0242	-
49, . . . . .	.0071	.0022	-	.0365	.0151	.0112	.0049	.0014	.0266	-
50, . . . . .	.0077	.0022	-	.0358	.0159	.0103	.0046	.0016	.0304	-
51, . . . . .	.0082	.0020	-	.0352	.0169	.0094	.0042	.0014	.0270	.0071
52, . . . . .	.0088	.0019	-	.0350	.0179	.0083	.0036	.0012	.0228	.0160
53, . . . . .	.0090	.0018	-	.0352	.0191	.0070	.0031	.0009	.0173	.0273

Rates used — Continued.

AGE.	RATES OF MORTALITY.					RATES OF WITHDRAWAL DUE TO —		RATES OF RETIREMENT DUE TO —		
	ACTIVE SERVICE.		PENSIONERS.			Resignation and Dismissal.	Remarriage of Widow Pension- ers.	Disability in Actual Perform- ance of Duty.	Disability for all Other Causes.	Retire- ment on Service Pen- sions.
	Ordinary Causes.	Performance of Duty.	Regular Pensioners.	Invalid Pensioners.	Widow Pensioners.					
54, . . . . .	.0102	.0017	-	.0360	.0203	.0056	.0027	.0005	.0095	.0400
55, . . . . .	.0111	.0015	.0436	.0369	.0217	.0040	.0023	-	-	.0560
56, . . . . .	.0121	.0014	.0449	.0380	.0231	.0023	.0017	-	-	.0640
57, . . . . .	.0133	.0012	.0463	.0390	.0247	.0003	.0013	-	-	.0720
58, . . . . .	.0148	.0010	.0478	.0408	.0264	-	.0009	-	-	.0815
59, . . . . .	.0168	.0009	.0495	.0425	.0282	-	.0004	-	-	.0915
60, . . . . .	.0195	.0007	.0513	.0449	.0303	-	-	-	-	.1035
61, . . . . .	.0233	.0005	.0533	.0479	.0326	-	-	-	-	.1155
62, . . . . .	.0272	.0003	.0554	.0502	.0351	-	-	-	-	.1275
63, . . . . .	.0313	.0002	.0578	.0539	.0378	-	-	-	-	.1415
64, . . . . .	.0350	-	.0603	.0565	.0408	-	-	-	-	.1595
65, . . . . .	.0393	-	.0632	.0602	.0441	-	-	-	-	.1775
66, . . . . .	.0432	-	.0662	.0650	.0476	-	-	-	-	.1980
67, . . . . .	.0472	-	.0696	.0688	.0515	-	-	-	-	.2200
68, . . . . .	.0512	-	.0732	.0740	.0556	-	-	-	-	.2475
69, . . . . .	.0553	-	.0772	.0797	.0600	-	-	-	-	.2780
70, . . . . .	.0596	-	.0814	.0843	.0649	-	-	-	-	.3200
71, . . . . .	.0642	-	.0860	.0904	.0702	-	-	-	-	.4100
72, . . . . .	.0692	-	.0909	.0975	.0758	-	-	-	-	.5200
73, . . . . .	.0747	-	.0961	.1040	.0819	-	-	-	-	.6255
74, . . . . .	.0807	-	.1017	.1120	.0885	-	-	-	-	.7300
75, . . . . .	.0872	-	.1077	.1200	.0956	-	-	-	-	.8355
76, . . . . .	.0943	-	.1141	.1300	.1032	-	-	-	-	.9255
77,	-	-	.1210	.1400	.1115	-	-	-	-	-
78,	-	-	.1284	.1500	.1204	-	-	-	-	-
79,	-	-	.1364	.1645	.1301	-	-	-	-	-
80,	-	-	.1450	.1800	.1404	-	-	-	-	-
81,	-	-	.1542	.1960	.1514	-	-	-	-	-
82,	-	-	.1641	.2140	.1632	-	-	-	-	-
83,	-	-	.1747	.2360	.1759	-	-	-	-	-
84,	-	-	.1860	.2570	.1897	-	-	-	-	-
85,	-	-	.1984	.2820	.2051	-	-	-	-	-

Rates used — Concluded.

AGE.	RATES OF MORTALITY.					RATES OF WITHDRAWAL DUE TO —		RATES OF RETIREMENT DUE TO —		
	ACTIVE SERVICE.		PENSIONERS.			Resignation and Dismissal.	Remarriage of Widow Pensioners.	Disability in Actual Performance of Duty.	Disability for all Other Causes.	Retirement on Service Pensions.
	Ordinary Causes.	Performance of Duty.	Regular Pensioners.	Invalid Pensioners.	Widow Pensioners.					
86,	-	-	.2117	.3120	.2225	-	-	-	-	-
87,	-	-	.2263	.3450	.2422	-	-	-	-	-
88,	-	-	.2424	.3840	.2653	-	-	-	-	-
89,	-	-	.2597	.4260	.2924	-	-	-	-	-
90,	-	-	.2782	.4695	.3237	-	-	-	-	-
91,	-	-	.2974	.5150	.3610	-	-	-	-	-
92,	-	-	.3141	.5603	.4053	-	-	-	-	-
93,	-	-	.3299	.6100	.4572	-	-	-	-	-
94,	-	-	.3507	.6620	.5163	-	-	-	-	-
95,	-	-	.3843	.7220	.5843	-	-	-	-	-
96,	-	-	.4455	.7945	.6486	-	-	-	-	-
97,	-	-	.5614	.8740	.6923	-	-	-	-	-
98,	-	-	.6750	.9820	.7500	-	-	-	-	-
99,	-	-	.7500	1.0000	1.0000	-	-	-	-	-
100,	-	-	1.0000	-	-	-	-	-	-	-

With the help of these rates, service tables for the active force, regular pensioners, invalid pensioners and widow pensioners were constructed. It will be noted that for the table for the active force data drawn from the experience of the service were available.

Service Table for Active Force.

AGE.	Survivors.	Resignations and Dismissals.	Deaths Other than Accidental.	Deaths Accidental.	Disabilities in Performance of Duty.	Disabilities Other than in Performance of Duty.	Service Retirements.	Total Decrement.
22,	100,000	5,020	310	-	6	105	-	5,441
23,	94,559	4,510	280	-	8	146	-	4,944
24,	89,615	4,001	282	-	10	187	-	4,480

Service Table for Active Force — Continued.

AGE.	Survivors.	Resignations and Dismissals.	Deaths Other than Accidental.	Deaths Accidental.	Disabilities in Performance of Duty.	Disabilities Other than in Performance of Duty.	Service Retirements.	Total Decrement.
25,	85,135	3,516	270	-	12	219	-	4,017
26,	81,118	3,062	258	-	13	239	-	3,572
27,	77,546	2,671	248	-	14	265	-	3,198
28,	74,348	2,324	240	-	16	290	-	2,870
29,	71,478	2,051	232	-	16	306	-	2,605
30,	68,873	1,822	225	10	17	327	-	2,401
31,	66,472	1,639	219	21	19	348	-	2,246
32,	64,226	1,490	218	33	20	373	-	2,134
33,	62,092	1,347	215	47	20	389	-	2,018
34,	60,074	1,232	213	60	22	405	-	1,932
35,	58,142	1,131	212	76	23	426	-	1,868
36,	56,274	1,044	211	89	24	444	-	1,812
37,	54,462	967	210	100	24	455	-	1,756
38,	52,706	899	211	113	25	476	-	1,724
39,	50,982	834	214	121	27	499	-	1,695
40,	49,287	779	212	125	27	511	-	1,654
41,	47,633	731	217	126	28	530	-	1,632
42,	46,001	679	219	121	30	559	-	1,608
43,	44,393	639	220	116	31	590	-	1,596
44,	42,797	595	225	111	34	651	-	1,616
45,	41,181	554	229	105	37	704	-	1,629
46,	39,552	512	231	98	40	712	-	1,593
47,	37,959	473	235	91	45	848	-	1,692
48,	36,267	426	239	85	46	879	-	1,675
49,	34,592	386	246	77	48	920	-	1,677
50,	32,915	337	252	71	53	1,001	-	1,714
51,	31,201	292	256	63	44	842	222	1,719
52,	29,482	245	258	56	35	672	472	1,738
53,	27,744	194	248	50	25	480	757	1,754
54,	25,990	144	265	43	13	247	1,040	1,752
55,	24,238	97	269	37	-	-	1,357	1,760
56,	22,478	52	272	31	-	-	1,439	1,794
57,	20,684	6	275	25	-	-	1,489	1,795
58,	18,889	-	280	19	-	-	1,539	1,838

Service Table for Active Force — Concluded.

AGE.	Survivors.	Resignations and Dismissals.	Deaths Other than Accidental.	Deaths Accidental.	Disabilities in Performance of Duty.	Disabilities Other than in Performance of Duty.	Service Retirements.	Total Decrement.
59,	17,051	-	286 ^c	15	-	-	1,560	1,861
60,	15,190	-	295	11	-	-	1,572	1,878
61,	13,312	-	310	7	-	-	1,538	1,855
62,	11,457	-	312	4	-	-	1,461	1,777
63,	9,680	-	303	2	-	-	1,370	1,675
64,	8,005	-	280	-	-	-	1,277	1,557
65,	6,448	-	254	-	-	-	1,145	1,399
66,	5,049	-	218	-	-	-	1,000	1,218
67,	3,831	-	181	-	-	-	843	1,024
68,	2,807	-	144	-	-	-	695	839
69,	1,968	-	109	-	-	-	547	656
70,	1,312	-	78	-	-	-	420	498
71,	814	-	52	-	-	-	334	386
72,	428	-	30	-	-	-	223	253
73,	175	-	13	-	-	-	109	122
74,	53	-	4	-	-	-	39	43
75,	10	-	1	-	-	-	8	9
76,	1	-	.1 ¹	-	-	-	.9	1

¹ Decimals were used to avoid necessity for larger radix.

The service tables for the regular pensioners, invalid pensioners and widow pensioners are the same as those used for the regular pensioners, invalid pensioners and widow pensioners of the police fund, which are given on pages 79 to 81 of this report.

SALARY SCALE.

The salary scale used in these calculations for the Boston firemen was based on the pay roll of the service for one year.

Salary Scale.

AGE.	Salary Scale.	AGE.	Salary Scale.
23,	\$720	50,	\$1,562
24,	855	51,	1,587
25,	940	52,	1,611
26,	1,008	53,	1,634
27,	1,060	54,	1,661
28,	1,100	55,	1,682
29,	1,135	56,	1,707
30,	1,163	57,	1,727
31,	1,190	58,	1,743
32,	1,215	59,	1,762
33,	1,237	60,	1,778
34,	1,260	61,	1,792
35,	1,278	62,	1,802
36,	1,298	63,	1,813
37,	1,315	64,	1,822
38,	1,335	65,	1,828
39,	1,352	66,	1,834
40,	1,370	67,	1,837
41,	1,388	68,	1,838
42,	1,408	69,	1,839 ¹
43,	1,427	70,	1,837
44,	1,442	71,	1,836
45,	1,460	72,	1,835
46,	1,480	73,	1,834
47,	1,500	74,	1,833
48,	1,520	75,	1,832
49,	1,540	76,	1,831

¹ Estimated from age 69 to end of table.

MONETARY VALUES.

Interest is assumed in all the calculations of the firemen's fund at 4 per cent.

COMMUTATION COLUMNS.

The various tables having been completed, commutation columns were made up for each of the pensioners' tables, to be used as an aid in computing annuity values.

ANNUITY VALUES.

With the help of the commutation columns the present values of the various pension benefits were computed. These values were applied directly to the amounts of pensions drawn by the various classes of pensioners at the various ages, as was explained in that part of this report which deals with the Police Pension Fund. The results give the present value of each of the various kinds of pension benefits that the city has obligated itself to pay the firemen.

The following statement shows that the present value of total existing pensions is \$974,600; the present value of prospective pensions is \$2,682,500; and the grand total of all pension payments is \$3,657,100.

*Estimated Total Liabilities of the Boston Firemen's Pension Fund as of
Jan. 1, 1914.*

Present value of—	
Pensions to 37 members now on regular or service pension roll,	\$163,500
Pensions to 120 members now on disability or invalid pension roll,	734,750
Pensions to 24 call members now on old-age pension roll,	19,750
Pensions to 21 call members now on disability or invalid pension roll,	24,000
Pensions to 9 widows now on widows' pension roll,	32,600
Total of existing pensions,	<hr/> \$974,600
Present value of—	
Pensions to present members of active force retiring on regular or service pensions,	\$1,611,150
Pensions to present members of active force retiring on pension because of disability—	
Resulting from performance of duty,	\$66,350
Resulting from other causes,	939,950
Total of all pensions for disability, —————	1,006,300
Pensions to widows of members of active force who may be killed in performance of duty,	47,800
Assurance of \$1,000 payable on death of member resulting from actual performance of duty,	17,250
Total prospective pensions,	<hr/> 2,682,500
Grand total of all pension payments,	<hr/> <hr/> \$3,657,100

The next question is, What amount, expressed in terms of per cent. of the employees' salaries, invested at 4 per cent. compound interest, would be necessary to meet these obligations? This was determined, as in the case of the police fund, by dividing the present value of existing and prospective pensions by the present value of 1 per cent. of the future salaries of the present active force. The answer is \$3,657,100 divided by \$149,900, or 24.40 per cent.

It follows, therefore, that the city of Boston has a choice of three methods in regard to the payment of pensions to existing members of the Firemen's Pension Fund and the present members of the active service when they become pensioners.

1. It can appropriate and invest at 4 per cent. compound interest a cash sum of \$3,657,100.

2. It can appropriate the necessary amount each year as the pensions come due.

3. It can set aside each year, during the remaining years of service, a sum equal to 24.40 per cent. of the annual salaries of the present active force, investing it at not less than 4 per cent. compound interest.

The amount of money, expressed in terms of per cent. of salaries of the active force, which will have to be set aside and invested at 4 per cent. interest at the time the obligation for the pension is assumed, in order to pension those who will come into the service hereafter, is of course much less than 24.40 per cent. This is shown by the following table, which gives the estimated amounts, expressed in terms of per cent. of salaries, that will be required to pension new entrants into the service under present retirement provisions: —

Estimated Contributions required for New Entrants into the Service of the Boston Fire Department for Pensions granted Under the Present Retirement Provisions (expressed as a Percentage of Salaries paid).

AGE AT ENTRY.	AMOUNT NECESSARY TO PROVIDE FOR BENEFITS GRANTED ON ACCOUNT OF —							
	Regular or Service Retirement.	Disability resulting from Ordinary Causes.	Disability resulting from Actual Performance of Duty.	All Disability Provisions, (c) + (d).	All provisions for Members, (b) + (e).	Widows of Members killed in Actual Performance of Duty.	Payment of \$1,000 on Accidental Deaths of Members in Actual Performance of Duty.	All Pension Provisions or Benefits, (f) + (g) + (h).
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
23,	2.83	3.93	0.23	4.21	7.04	0.19	0.07	7.30
24,	3.07	4.12	0.29	4.41	7.48	0.24	0.09	7.81
25,	3.18	4.37	0.31	4.68	7.86	0.28	0.11	8.25
26,	3.37	4.57	0.32	4.89	8.26	0.32	0.12	8.70
27,	3.60	4.82	0.34	5.16	8.76	0.36	0.14	9.26
28,	3.85	5.09	0.36	5.45	9.30	0.40	0.15	9.85
29,	4.11	5.34	0.38	5.72	9.83	0.44	0.17	10.44
30,	4.41	5.61	0.40	6.01	10.42	0.48	0.18	11.08

CHAPTER IV.

PENSION SYSTEMS IN MASSACHUSETTS.

1. Employees of the Commonwealth.
2. Employees of Counties.
3. Employees of Cities and Towns.
4. Judiciary.
5. Police:—
 - (a) Cities and Towns.
 - (b) Boston.
 - (c) District Police of Massachusetts.
 - (d) Metropolitan Park Police.
6. Firemen:—
 - (a) Cities and Towns.
 - (b) Boston.
7. Teachers:—
 - (a) State System.
 - (b) Noncontributory System of 1908 (Chapter 498).
 - (c) Boston.
 - (d) In State Institutions (see Employees of Commonwealth).
8. Laborers:—
 - (a) Cities and Towns.
 - (b) Boston.
 - (c) Fire Districts and Water Districts.
9. Veterans:—
 - (a) In Service of State.
 - (b) In Service of Cities and Towns.
 - (c) In Service of Counties.
 - (d) In Service of Boston.
 - (e) In Service of New Bedford, Malden, Lynn.
 - (f) In Service of Soldiers' Home.
10. Prison Officers and Instructors.
11. Probation Officers.
12. Court Officers.
13. Women employed by the Sergeant-at-Arms.
14. Miscellaneous Acts.

1. EMPLOYEES OF THE COMMONWEALTH.

The laws relating to the retirement system for employees of the Commonwealth are found in the following statutes:—

Acts of 1911, chapter 532, establishment of system.

Acts of 1912, chapter 363, amending prior act.

Acts of 1913, chapter 44, appropriation for expenses.

Acts of 1913, chapter 63, relating to refunds.

Acts of 1913, chapter 310, relating to employees having given notice of not joining.

The system is a contributory one and compulsory on all persons becoming employees of the Commonwealth after its establishment, and elective to such persons who were employees before its establishment. The system was created by chapter 532 of the Acts of 1911, which made its establishment date as of June 1, 1912.

1. ORGANIZATION AND MEMBERSHIP.

The Retirement Association is composed of employees of the Commonwealth, including employees in the metropolitan district service. Employees who are paid partly by the Commonwealth and partly by a county having a retirement system are enrolled as members of the State Retirement Association, and the Commonwealth is reimbursed by the county for a proportionate part of the pension paid. Membership in the association is evidenced by a policy issued to each member who retires or is retired.

The following classes are prohibited from membership:—

(a) All employees who enter the service of the Commonwealth who have passed the age of fifty-five years. (Such are prohibited from remaining in the service after reaching the age of seventy years.)

(b) Officers elected by popular vote.

(c) Any employee who is or will be entitled to a pension from the Commonwealth for any reason other than membership in the association.

2. ADMINISTRATION.

The management of the retirement system is vested in a Board of Retirement of three members, — the State Treasurer, one elected by the members of the association, and a third member elected by the other two.

Members of the Retirement Board receive no compensation, but claims for expense or loss of salary or wages incurred through service on the Board are paid from the contingent fund, after approval by the Governor and Council.

The Retirement Board shall —

(a) Have power to secure such clerical assistance as may be necessary, subject to the approval of the Governor and Council.

(b) Make necessary rules and regulations.

(c) Determine the percentage of salaries, subject to the maximum and minimum percentages, that employees shall contribute.

(d) Have the power to classify employees and to establish different rates of contribution.

3. FUNDS.

The funds of the system are —

(a) *Expense and Contingent Fund.* — A fund appropriated annually by the General Court to defray the whole expense of administration.

(b) *Annuity and Pension Fund.* — A fund from which all pensions and annuities are paid, created by —

(1) Amounts deducted from salaries or wages of members.

(2) Amounts contributed by the Commonwealth. The Commonwealth is required to contribute to this fund such amounts annually as, with the contributions of members, will pay the pensions and annuities provided by the act.

4. CUSTODY AND INVESTMENT OF FUNDS.

The State Treasurer has charge and control of the funds of the system, subject to the approval of the Board of Retirement, and invests all funds not required for current disbursements according to the laws relating to the investment of sinking funds.

In January of each year the State Treasurer must file with the Insurance Commissioner a sworn statement of the financial condition

of the retirement system, showing its liability on account of the following items: —

- (a) Deposit reserve.
- (b) Interest reserve.
- (c) Annuity reserve.
- (d) Expense and contingent fund.
- (e) Gifts and bequests.
- (f) Other liabilities.
- (g) Surplus.

5. CONTRIBUTIONS OF MEMBERS.

The State Treasurer deducts from the salary or wages of each member and credits to the retirement fund not less than 1 per cent. and not more than 5 per cent. of his wages or salary, as determined by the Retirement Board, which has the power to fix a minimum and maximum amount, and to classify employees and to establish different rates for different classes. Employees who receive more than \$30 weekly cannot be assessed for contributions on the excess above that amount.

6. RETIREMENT OF MEMBERS.

(a) Any employee reaching the age of sixty, after a period of fifteen continuous years of service, may retire or may be retired upon recommendation of the head of the department where he is employed.

(b) Any member on reaching the age of seventy years must be retired.

(c) Any member who has completed a period of thirty-five years of continuous service may retire or may be retired at any age for the good of the service upon recommendation of the head of the department in which he is employed.

(d) Any member who at the time of the establishment of the system had reached the age of fifty-five years may be retired at the age of sixty years or at any time thereafter.

7. ANNUITIES AND PENSIONS.

Any member who is retired at the age of seventy years, or who is retired at or after the age of sixty years, after fifteen years of service, or who is retired at any age for the good of the service

after thirty-five years of service, receives as a retirement allowance: —

(a) A life annuity payable monthly in the amount which the sum of his deposits with regular interest shall entitle him, according to the tables adopted by the Retirement Board, or a lesser annuity, with the provision that in the event of his death before receiving payments equal to the sum of his deposits with interest the difference shall be paid to his legal representatives.

(b) A pension for life, payable monthly, equal to the annuity, to be paid out of the fund contributed by the Commonwealth.

(c) If he is retired at the age of sixty years or thereafter, after fifteen years of continuous service, or at the age of sixty years or thereafter, without fifteen years of service, provided he was fifty-five years of age at the time of the establishment of the system, or if he has thirty-five years of continuous service, and retires or is retired, he receives in addition to the annuity and pension provided as above an extra pension for life as large as the amount of the annuity and pension to which he would have been entitled if the retirement system had been in operation when he entered the service and he had contributed from that date to the date of its establishment at the same rate as that adopted by the Board of Retirement.

Any employee not a member of the association who had already reached the age of fifty-five years when the system was established may be retired at any time upon the minimum pension of \$200 per year.

If a husband and wife are members of the association and one retires or is retired the other shall have the right also to retire.

If the accumulated contributions of any employee retired exceed the amount required to obtain an annuity equal to one-fourth of the average wages or salary, the excess above that amount shall be paid such employee in a lump sum with the first monthly payment on account of his retirement allowance.

Maximum and Minimum Payments. — In no case shall the pension be less than \$200 per year nor more than one-half the amount of the average salary or wages received by the member during the ten years prior to his retirement.

8. REFUNDS.

If a member ceases to be an employee before he becomes entitled to a pension, all money paid by him, with regular interest, is refunded.

If a member dies before becoming entitled to a pension, all money paid in by him, with interest earned, is paid to his legal representatives, and if there is no executor or administrator, then to such person or persons as appear to be entitled to the same.

9. TAXATION AND ASSIGNMENT.

The funds of the system are exempt from taxation. The rights of the member in the funds are exempt from taxation, operation of bankruptcy laws, and attachments, or any process of court, and cannot be assigned.

10. SUPERVISION BY INSURANCE COMMISSIONER.

The Insurance Commissioner prescribes for the system mortality tables and what rate of interest shall be established in connection with such tables. He also prescribes the methods of bookkeeping, and is required to maintain general supervision over the system and shall report to the Attorney-General any violation or neglect.

11. JURISDICTION OF COURT.

The Superior Court has jurisdiction in equity upon petition of any party interested to compel observance and restrain violation of the act.

HISTORY OF THE RETIREMENT SYSTEM FOR STATE EMPLOYEES.

By virtue of chapter 127 of the Resolves of 1907 a commission was appointed by the Governor for an investigation of and report on a system of old-age insurance and pensions. This commission filed its report and provided a bill which is substantially chapter 532 of the Acts of 1911.

This bill had as its basis a bill passed by the Legislature (chapter 435 of the Acts of 1909) entitled, "An Act to authorize the Boston & Maine Railroad and its employees to establish a co-operative pension system," and such changes were made as were necessary to make it applicable to a system for employees of the Commonwealth.

Chapter 532 of the Acts of 1911 was amended in 1912 (chapter 363) by providing —

(a) That service in a department or institution formerly administered by a city, county or corporation and taken over by the Commonwealth should be counted as part of continuous service.

(b) By extending the time of election to join to those who were employees.

(c) By providing for those who were employed partly by the county and partly by the Commonwealth.

(d) By changing the investment to the laws governing sinking funds instead of savings banks.

(e) By providing for retirement of husband and wife at the same time, if both are members.

(f) By providing for the payment of the excess beyond the amount required to give an annuity equal to one-fourth the wages or salary.

In 1913 the act was subsequently amended by chapters 63 and 310, both minor amendments not affecting the substance of the act.

On Jan. 1, 1912, when the system was established, there were eligible to membership in the association some 6,200 employees. On Feb. 1, 1912, 2,874 employees had declined to become members, and 3,324 were members of the Retirement Association. The total number of eligible employees in the service of the State and metropolitan departments on Jan. 1, 1912, was 1,258. Of these, 924, or over 72 per cent., became members. In the institutions there were eligible 4,940 persons. Of these, 2,400, or about 49 per cent., became members. It is worthy of note that in the departments where civil service tenure holds, the percentage of membership is large, while in the institutions where tenure is less secure, slightly less than half of the employees entered the Retirement Association. One other feature besides uncertainty of tenure is likely to have had its effect upon the employees in their decision as to whether or not they should become members, — that is, their failure to secure a clear understanding of the effect upon them of membership in the association. . . .

. . . One of the most perplexing questions to be determined was the rate of deduction. The law provided that it should not be less than 1 nor more than 5 per cent. of the salary or wages, not exceeding \$30 a week. It appeared to be impossible to establish any general plan of percentages which would accomplish the same proportionate retirement allowance for all members, since there was no information as to ages upon which employees would retire. After many weeks of consideration the Board determined that each employee should contribute 3 per cent. of his cash salary or wages, unless he should elect to contribute 5 per cent., and every member was given one month in

which to exercise his choice. The number of those electing to contribute 5 per cent. was 1,074.

. . . The total amount of money deducted from the pay of members of the association between June 1 and Nov. 30, 1912, is \$47,500.76. Twelve members have died and 327 have left the service since June 1; the amount of refunds in these cases has been \$1,365.94.

On June 1, when the retirement system became operative, 27 persons retired. Twenty-four of these had reached age seventy and thus were compelled to retire, and 3, being more than sixty years of age, retired at their own election. Since June 1, 18 other persons have retired, 1 of whom had reached age seventy. The total amount of the retirement allowances paid to the 45 individuals who have retired previous to December 1 is \$5,353.78, the largest single annual allowance is \$743.33 and 24 individuals are receiving the minimum allowance of \$200 a year. . . .

. . . The estimate made by the special commission which investigated the whole matter of a retirement system three years ago was that the annual cost of its administration, exclusive of retirement allowances, would be \$25,000. It is gratifying to be able to report, therefore, that for the part year in which it has been in operation the total administration expenses have been only \$5,082.66, and that for the full fiscal year of 1913 the Board asks for only \$8,500. (From the report of Board of Retirement, 1913.)

Financial Report.

The following is the financial report of the retirement system for employees of the Commonwealth for the year ending Dec. 31, 1913:—

MEMBERSHIP EXHIBIT.

Membership Dec. 31, 1912,	3,240
Admitted to association during year,	1,600
	<hr/>
Total,	4,840
Number deceased,	21
Number left service,	624
	<hr/>
	645
	<hr/>
Membership Dec. 31, 1913,	4,195

INCOME.

Members' deposits,	\$108,255 86
Received from Commonwealth for payment of pensions for prior service,	18,203 53
Received from Commonwealth for payment of pensions for subsequent service,	81 79
Interest received on investments,	4,079 62

Interest credited to members' accounts,	\$2,630 00
Received as gifts or bequests,	—
Appropriation for expenses of administration,	6,649 37
<hr/>	
Total income,	\$139,901 07
Balance December 31 of previous year,	53,351 32
<hr/>	
Total,	\$193,252 39

DISBURSEMENTS.

Refunds to members (other than death),	\$6,966 58
Refunds to legal representatives of deceased members,	354 54
Pensions paid for prior service,	18,203 53
Pensions paid for subsequent service,	81 79
Annuities,	81 79
Accrued interest on investments,	390 60
Interest credited to members' accounts,	2,630 90
Administration expenses:—	
Salaries,	\$3,901 67
Printing,	261 50
Postage,	97 00
Stationery and supplies,	245 83
Reimbursement of institutions,	1,822 75
Miscellaneous,	320 62
<hr/>	
	6,649 37
<hr/>	
Total disbursements,	\$35,359 10

Income,	\$193,252 39
Disbursements,	35,359 10
<hr/>	
Balance,	\$157,893 29

LEDGER ASSETS.

Investments,	\$143,277 32
Cash in hands of Treasurer of Commonwealth,	14,615 97
<hr/>	
Total ledger assets,	\$157,893 29

NON-LEDGER ASSETS.

Accrued interest on investments,	1,216 54
<hr/>	
Gross assets,	\$159,109 83

LIABILITIES.

Members' deposits,	\$153,296 68
Interest credited to members' accounts,	2,833 58
Annuity reserve,	1,053 59
Unexpended appropriation, ¹	—
All other liabilities,	—
Undistributed surplus,	1,925 98
	<hr/>
Total liabilities,	\$159,109 83

2. EMPLOYEES OF COUNTIES.

The laws relating to the retirement system for employees of counties of the Commonwealth are found in the following statutes: —

Acts of 1911, chapter 634, establishment of the system.

Acts of 1913, chapter 817, amendment.

Resolves of 1913, chapter 95, confirming acts of Norfolk County Association.

The system in all its essential features is similar to the system for employees of the Commonwealth.

1. ORGANIZATION.

The system is authorized in any county after the acceptance of the act by a majority of the voters at the State election, the question of acceptance being submitted upon the initiative of the county commissioners.

After a copy of the vote of acceptance has been filed in the office of the Insurance Commissioner, the latter forthwith issues a certificate that the retirement system has been established in such county, to become operative on the first day of January or the first day of July following the expiration of three months after the date of the certificate.

2. MEMBERSHIP.

In a county where the retirement system is established a Retirement Association shall be organized as follows, viz.: —

(a) All employees of the county at the date of its establishment

¹ Unexpended appropriation returned to Commonwealth for fiscal year ending Nov. 31, 1913, \$1,880.63.

may become members. After thirty days every such employee shall be considered to have elected to become a member unless he shall have declined in writing.

(b) All employees who enter the service of the county after the date of its establishment shall after thirty days of service become members of the association.

The following classes are excluded from membership: —

(a) Persons over fifty-five years of age who enter the service of the county after the establishment of the system. (Such persons are not allowed to remain in the service after reaching the age of seventy years.)

(b) Officers elected by popular vote.

(c) Any employee who is or may be entitled to a pension from the county for any other reason than membership in the association.

3. ADMINISTRATION.

The management of the retirement system is vested in a Board of Retirement consisting of three members, — the county treasurer, a member elected by the association, and a third member chosen by the other two.

The Board of Retirement serves without compensation, but claims for loss of salary or wages or expense incurred by reason of service upon the Board are paid from the contingent fund, after approval by the county commissioners.

The Retirement Board shall —

(a) Have power to make necessary rules and regulations.

(b) Employ necessary clerical assistance, subject to the approval of the county commissioners.

(c) Determine the percentage of wages that employees shall contribute to the pension fund, subject to the minimum and maximum percentages.

(d) Shall have power to classify employees and to establish different rates of contribution for different classes.

4. FUNDS.

The funds of the system are —

(a) *Expense and Contingent Fund.* — A fund appropriated by the county to defray the whole expense of administration.

(b) *Annuity and Pension Fund.* — A fund from which all pensions and annuities are paid, created by —

(1) Amounts deducted from salaries or wages of members.

(2) Amounts contributed by the county. The county is required to contribute to this fund such amounts annually as, with the contributions of members, will pay the pensions and annuities provided by the act.

5. CUSTODY AND INVESTMENT OF FUNDS.

The county treasurer has charge and control of the funds of the system, subject to the approval of the Board of Retirement, and invests all funds, not required for current disbursements, according to the laws relating to the investment of sinking funds.

(The remaining provisions follow the provisions of the act relating to employees of the Commonwealth.)

HISTORY OF THE RETIREMENT SYSTEM FOR COUNTIES.

In only three counties in the State has this act been accepted by the voters, to wit: Barnstable, Middlesex and Norfolk. These three counties, after acceptance of the act, filed the certificates required with the Insurance Commissioner, and the retirement system was established in these three counties as of July 1, 1912.

No return showing membership and financial standing as required by law has ever been filed with the Insurance Commissioner by the county treasurer of Barnstable.

Financial Report, Middlesex County.

Date retirement system became operative, July 1, 1912.

MEMBERSHIP EXHIBIT.

Membership Dec. 31, 1912,	173
Admitted to association during year,	41
	<hr/>
Total,	214
Number deceased,	3
Number left service,	24
	<hr/>
	27
	<hr/>
Membership Dec. 31, 1913,	187

INCOME.

Members' deposits,	\$4,172 93
Received from county for payment of pensions for prior service, .	812 35
Received from county for payment of pensions for subsequent service,	2 05
Interest credited to members' accounts,	101 21
Interest received on investments, less \$37.50 paid for accrued interest on bonds purchased,	93 92
Members' deposits used to purchase annuities,	51 20
Interest on members' deposits used to purchase annuities, . .	48
Appropriation for administration expenses,	573 55
Received from county on account of deficiency of last year, . .	56 73
	<hr/>
	\$5,864 42
Balance December 31 of previous year,	1,971 62
	<hr/>
Total income,	\$7,836 04

DISBURSEMENTS.

Refunds to members (other than on account of death),	\$325 21
Interest on same,	2 10
Refunds to legal representatives of deceased members,	25 55
Interest on same,	23
Interest credited to members' accounts,	101 21
Pensions paid for prior service,	812 35
Pensions paid for subsequent service,	2 05
Annuities,	2 05
Members' deposits used to purchase annuities,	51 20
Interest on members' deposits used to purchase annuities, . .	48
Administration expenses:—	
Salaries,	\$538 00
Printing,	14 00
Supplies,	8 00
Expenses of Board,	13 55
	<hr/>
	573 55
	<hr/>
Total,	\$1,895 98
Balance,	\$5,940 06

LEDGER ASSETS.

Investments,	\$4,767 90
Cash,	1,172 16
	<hr/>
	\$5,940 06

NON-LEDGER ASSETS.

Accrued interest on investments,	\$53 22
Gross assets,	\$5,993 28

LIABILITIES.

Members' deposits,	\$5,788 72
Interest credited to members' accounts,	105 83
Annuity reserve and undistributed surplus,	1 98 73
	\$5,993 28

Financial Report, Norfolk County.

Date retirement system became operative, July 1, 1912.

MEMBERSHIP EXHIBIT.

Membership Dec. 31, 1912,	55
Admitted to association during year,	1
Total,	56
Number deceased,	1
Number left service,	2
	3
Membership Dec. 31, 1913,	53

INCOME.

Members' deposits,	\$1,645 08
Received from county for payment of pensions for prior service,	780 68
Received from county for payment of pensions for subsequent service,	—
Interest received on investments,	36 20
Interest credited to members' accounts,	41 04
Received as gifts or bequests,	—
Appropriation for expenses of administration,	75 00
Total income,	\$2,578 00
Balance December 31 of previous year,	782 11
Total,	\$3,360 11

¹ The proportion of this \$98.73 which was chargeable to annuity reserve had not been computed when these figures went to press. This sum will not exceed \$10; the remainder is undistributed surplus.

DISBURSEMENTS.

Refunds to members (other than death),	\$50 99
Refunds to legal representatives of deceased members,	12 13
Pensions paid for prior service,	780 68
Pensions paid for subsequent service,	—
Annuities,	—
Accrued interest on investments,	—
Interest credited to members' accounts,	41 04
Administration expenses:—	
Salaries,	—
Printing,	—
Postage,	—
Stationery and supplies,	\$28 75
Expenses of Board,	—
	<hr/>
	28 75
Balance of expenses appropriation repaid county,	46 25
	<hr/>
Total disbursements,	\$959 84
Income,	\$3,360 11
Disbursements,	959 84
	<hr/>
Balance,	\$2,400 27

LEDGER ASSETS.

Investments,	\$2,000 00
Cash in hands of county treasurer,	400 27
	<hr/>
Total ledger assets,	\$2,400 27

NON-LEDGER ASSETS.

Accrued interest on investments,	13 33
	<hr/>
Gross assets,	\$2,413 60

LIABILITIES.

Members' deposits,	\$2,364 71
Interest credited to members' accounts,	43 14
Annuity reserve,	—
Unexpended reserve,	—
All other liabilities,	—
Undistributed surplus,	5 75
	<hr/>
Total liabilities,	\$2,413 60

3. EMPLOYEES OF CITIES AND TOWNS.

The laws relating to the retirement system for employees of cities and towns in the Commonwealth are found in the following statutes: —

Acts of 1910, chapter 619, establishment of system.

Acts of 1911, chapter 338, amendment.

This act has never been accepted by any city or town in the State. The system in its essential features is similar to the system for employees of the Commonwealth and counties.

1. ORGANIZATION.

After the acceptance of the provisions of the act by vote of the city council in a city, or of a board of selectmen in a town, the question of acceptance of the act is submitted to the voters at the next election. If a majority of the voters shall vote in the affirmative, a duly certified copy of the vote is filed in the office of the Insurance Commissioner, who forthwith issues a certificate that the retirement system is established in said city or town, to become operative on the first day of February or the first day of August following the expiration of three months after the date of such certificate.

2. MEMBERSHIP.

In a city or town where the retirement system is established, a Retirement Association shall be organized as follows, viz.: —

(a) All employees of the city or town at the date of the establishment of the system may become members. After thirty days every such employee shall be considered to have elected to become a member unless he shall have declined in writing.

(b) All employees who enter the service of the city or town after the date of the establishment of the retirement system.

The following classes are excluded from membership: —

(a) Persons over fifty-five years of age who enter the service of the city or town after the establishment of the system. Such persons are not allowed to remain in the service after reaching the age of seventy years.

(b) Officers elected by popular vote.

(c) Any employee who is or may be entitled to a pension from the city or town for any other reason than membership in the association.

3. ADMINISTRATION.

The management of the association in such city or town is vested in a Board of Retirement consisting of three members, — the city or town treasurer, a member elected by the association, and a third member chosen by the other two.

The Board of Retirement serves without compensation, but claims for loss of salary or wages or expenses incurred by reason of service upon the Board are paid from the contingent fund, after approval by the city council or board of selectmen.

The Retirement Board shall —

(a) Have power to make necessary rules and regulations.

(b) Employ necessary clerical assistance, subject to the approval of the city council or board of selectmen.

(c) Determine the percentage of wages that employees shall contribute to the pension fund, subject to the maximum and minimum percentages.

(d) Have power to classify employees and to establish different rates of contribution for different classes.

(e) Determine the application of any surplus, subject to the approval of the Insurance Commissioner.

4. FUNDS.

The funds of the system are —

(a) *Expense and Contingent Fund.* — A fund appropriated annually by the city or town to defray the expenses of the system.

(b) *Annuity and Pension Fund.* — A fund from which all pensions and annuities are paid, created by —

(1) Amounts deducted from salaries or wages of members.

(2) Amounts contributed by the city or town. The city or town is required to contribute to this fund such amounts annually as with the contributions of members will pay the pensions and annuities provided by this act.

5. CUSTODY AND INVESTMENT OF FUNDS.

The city or town treasurer has charge and control of the funds of the system, subject to the approval of the Board of Retirement, and invests all funds not required for current disbursements, according to the laws relating to the investment of sinking funds.

(The remaining provisions follow the provisions of the act relating to employees of the Commonwealth.)

4. JUDICIARY.

The laws relating to the retirement of judges are found in the following statutes:—

Acts of 1885, chapter 162, Revised Laws, chapter 158, sections 10, 11, Supreme Judicial Court.

Acts of 1887, chapter 420, Revised Laws, chapter 158, sections 10, 11, Superior Court justices.

Acts of 1889, chapter 310, Supreme Judicial and Superior Court justices.

Acts of 1906, chapter 474, probate and insolvency judges.

Acts of 1908, chapter 179, judges of Land Court.

Acts of 1910, chapter 540, amendment to probate and insolvency judges.

Acts of 1911, chapter 231, judges of municipal court of Boston.

Acts of 1911, chapter 527, amendment to Superior Court justices, Acts of 1887, chapter 420.

Acts of 1911, chapter 682, district, municipal and police court judges.

Any judge of the Supreme Judicial Court, Superior Court, Land Court and Probate and Insolvency Courts who, having attained the age of—

(a) Seventy years, after having served at least ten consecutive years, resigns his office, shall, during the remainder of his life, receive an amount equal to three-fourths of the salary by law payable to him at the time of his resignation, to be paid by the Commonwealth in the same manner as the salaries of said judges are paid.

(b) Sixty years, after having served at least fifteen consecutive years, shall have become disabled from the full discharge of his duties as such judge by reason of illness or otherwise, may, with the approval of the Governor and Council, resign his office and shall,

during the remainder of his life, receive the same amount and in the same manner provided for in (a).

Any justice of the Superior Court who resigns after seventy years of age, performs service only with his own consent on the written request of the chief justice of the court, but he shall not be counted among the justices provided by law for the Superior Court, and on his retirement another justice shall be appointed in his place.

DISTRICT, MUNICIPAL AND POLICE COURT JUDGES.

Any judge of the above courts who shall have reached the age of seventy years, and who has served for at least twenty consecutive years, may, with the consent of the Governor and Council, resign his office, and shall, during the remainder of his life, receive an amount equal to three-fourths of the salary payable to him at the time of his resignation, in the same manner in which the salaries of acting judges are paid.

MUNICIPAL COURT OF BOSTON.

The chief justice and any associate justice of this court who shall resign his office after having attained the age of seventy years, and after having served in said court at least twenty consecutive years, shall, during the remainder of his natural life, receive an amount equal to three-fourths of the salary payable to him by law at the time of his resignation, to be paid by the county of Suffolk in the same manner in which the salaries of county justices are paid.

HISTORY OF RETIREMENT SYSTEM FOR JUDGES.

In 1885 the first law was passed enabling justices of the Supreme Judicial Court to retire at the age of seventy on three-fourths salary. This was followed by a similar law passed in 1887, relative to justices of the Superior Court. Both these acts were repealed in 1899 and a new act was passed providing for retirement at the age of seventy as formerly, and further providing for retirement, with the consent of the Governor and Council, of any justice at the age of sixty, after fifteen years of service, who became incapacitated for service by illness or otherwise.

In 1906 the judges of Probate and Insolvency Courts were included in the same provisions of retirement as the justices of the

Supreme and Superior Courts, except upon one-half salary instead of three-fourths; but this was changed in 1910, and the retirement allowance was made the same, viz., three-fourths of salary.

In 1908 the provisions for retirement and retirement allowances were extended to include the judges of the Land Court.

In 1911 laws were passed providing retirement, upon three-fourths salary at the age of seventy after twenty years' service, of justices of the municipal court of Boston and justices of the district, municipal and police courts throughout the State, the only difference being that the justices of the municipal court of Boston may retire without the consent of the Governor and Council, which consent is required in the case of the justices of the district, municipal and police courts.

5. POLICE.

A. CITIES AND TOWNS (EXCEPT BOSTON).

The laws relative to pensions for old age and disability and annuities for police in cities and towns in the Commonwealth (except Boston) are found in the following statutes:—

Acts of 1892, chapter 378, retirement for old age or disability in cities of over 75,000 population, upon acceptance by city.

Acts of 1901, chapter 377, retirement for disability incurred in service.

Applied to any city or town upon acceptance.

Revised Laws, chapter 108, sections 29, 30, amending Acts of 1892, chapter 378.

Revised Laws, chapter 108, section 31, amending Acts of 1901, chapter 377.

Acts of 1902, chapter 437, annuities to widows and orphans. Applies to any city.

Acts of 1903, chapter 428, amending Revised Laws, chapter 108, sections 29, 30, to affect all cities by striking out "over 75,000."

Acts of 1904, chapter 327, retirement for age and disability *in towns*.

Acts of 1905, chapter 246, Massachusetts Police Mutual Aid Association.

Acts of 1907, chapter 186, annuities to widows and orphans. Applies to towns.

Acts of 1909, chapter 188, amending Revised Laws, chapter 108, as amended. Refers to disability.

Acts of 1910, chapter 295, excluding Boston from Massachusetts Mutual Aid Association.

Acts of 1912, chapter 447, veterans in service of cities and towns.

Acts of 1913, chapter 657, service rendered by pensioners except jury duty.

Acts of 1913, chapter 681, pensioners performing police duty after retirement.

The system is noncontributory. The pension or annuity in each case is paid by the city or town, and the acts relative to retirement must be accepted by the city or town before becoming operative.

Retirement Board.

The Retirement Board in cities consists of the board of police, and in cities where there is no board of police, the mayor and aldermen; in towns, the board or officer having authority to make appointments to the police force.

Retirement (in Cities).

Age. — There is no provision in the laws now in force for retirement on account of age. The provisions of Revised Laws, chapter 108, section 29, for retirement at the age of sixty-five, after fifteen years' service were stricken out by amendment of the Acts of 1909, chapter 188.

Disability. — Any member —

(a) *Shall* be retired upon his request or the request of the chief of police, whom the city physician certifies in writing to be permanently disabled mentally or physically by injuries sustained through no fault of his own, in the actual performance of duty, from performing further duty.

(b) *May* be retired who has performed faithful service for not less than twenty years continuously, if in the judgment of the board such member is disabled for useful service.

Retirement (in Towns).

The selectmen of every town which accepted the provisions of the Acts of 1904, chapter 327, may retire and place upon the pension roll any member of the police department who is —

(a) Sixty years of age or over, after not less than twenty-five years of continuous service.

(b) Permanently incapacitated, mentally or physically, for useful service by injuries received through no fault of his own in the actual performance of duty.

Amount of Pension.

The pension paid in every case is one-half of the annual compensation received at time of retirement.

Annuities to Widows and Orphans.

The acts providing for annuities to widows and orphans must be accepted in cities by the vote of the city council and in towns by a vote of two-thirds of the voters of the town present and voting at the town meeting.

If a policeman dies from injuries received through no fault of his own in the actual performance of duty, a pension may be paid, not exceeding \$400 yearly in cities and \$300 yearly in towns, to his widow so long as she remains unmarried, or if there is no widow to a child or children, so long as they are under sixteen years of age.

By whom paid.

In every case the pensions and annuities are paid by the city or town.

Other Provisions.

The selectmen of any town, in case of emergency, can call upon retired members for temporary service, for which service the member is entitled to full pay.

A member in receipt of a pension cannot receive pay for any other service for the city or town except as juror, and in case he accepts employment as a police officer in any city or town of the Commonwealth his pension ceases during such employment.

B. BOSTON.

The laws relating to pensions for old age or disability and annuities for the police of Boston are found in the following statutes:—

- Acts of 1878, chapter 244, first retirement act for pensions and annuities.
- Acts of 1879, chapter 97, relating to police officers of cities and towns annexed to Boston.
- Acts of 1883, chapter 14, correcting omission of lieutenants in act of 1878.
- Acts of 1887, chapter 178, increasing pensions for disability from one-third to one-half pay, and changing form of payment of pensions.

- Acts of 1892, chapter 353, relating to retirement on account of old age or disability.
- Acts of 1893, chapter 51, relating to increase from one-third to one-half pay of former members who had been retired.
- Acts of 1898, chapter 172, relating to veterans.
- Acts of 1900, chapter 306, making retirement compulsory on request at age of sixty after twenty-five years of service.
- Acts of 1903, chapter 312, including engineers and firemen of police department in pension system.
- Acts of 1904, chapter 402, including members of police signal service, but act not accepted by city council.
- Acts of 1906, chapter 291, vesting powers of board of police in single commissioner.
- Acts of 1913, chapter 657, providing pensioners shall not be paid for service to the city, except as jurors.
- Acts of 1913, chapter 681, pension to cease during employment as police officer.
- Acts of 1913, chapter 770, including police department of Hyde Park.

The system is noncontributory. All pensions for disability and old age and annuities are paid by the city. The Police Commissioner, by virtue of his statutory power, makes requisition upon the city for the amount required for pensions in the same manner as other expenses of the department. Retirement is made by the Police Commissioner with the approval of the mayor.

Any member of the department (including engineers and firemen) *shall* be retired who is —

(a) Sixty-five years of age (1892).

(b) Sixty years of age and has performed active service in the department for twenty-five consecutive years, and requests retirement (1900).

(c) A veteran of the war of the rebellion, who is sixty years of age *or* has had twenty years' active service in the department, if he requests retirement (1898).

Any member *may* be retired who is, —

(d) In the judgment of the Police Commissioner, incapacitated for useful service upon the force, and who has performed faithful service for a period of not less than twenty years (1892).

(e) Certified in writing by a physician to the board of health to be permanently incapacitated, either mentally or physically, from injuries sustained in the actual performance of his duty, for further performing police duty (1892).

(f) Certified in writing by a physician to the board of health to be permanently incapacitated for performing his duty and has served fifteen years.

Amount of Pension.

The pension paid in each case is one-half the annual compensation of the member at time of retirement (1890), except in the case of members who have performed service for fifteen years and less than twenty years and are permanently incapacitated otherwise than from injury received on duty, where the pension is one-third the annual compensation of the member at time of retirement (1887).

Death.

If a policeman dies from injuries received while in the discharge of his duty and shall leave a widow, or if no widow any child or children under the age of sixteen years, a sum not exceeding \$300 may be paid by the city as annuity to the widow, so long as she remains unmarried, or to the child or children until they reach the age of sixteen years. The procedure is for the widow or children to petition the city council for the annuity, and the Police Commissioner determines the amount, not exceeding the limit (1887).

Other Provisions.

A member in receipt of a pension cannot receive pay for any other service for the city except as jurors, and in case he accepts employment as a police officer in any city or town of the Commonwealth his pension ceases during such employment.

The Police Commissioner, in case of emergency, can call upon any member receiving a pension for temporary service, during which he receives full pay. This provision of the law has never been exercised by the present Police Commissioner, and was probably inserted to remedy the question of constitutionality.

Cost.

The amount paid by the city of Boston for pensions in its police department for the year ending Jan. 31, 1913, was \$139,847.11.

The number of pensioners as of Oct. 1, 1913, was as follows: 211 patrolmen and officers, 14 widows of men who died from injuries received in the service, and 1 dependent mother of a man who died from injuries received in the service.

Police Relief Association.

The Boston Police Relief Association is a voluntary organization incorporated under the Acts of 1876, chapter 16, composed of members of the police force and of former members now retired, who were members of the association when in active service. It has power to receive grants, devises, bequests and donations, and may hold real and personal estate not exceeding \$500,000.

Members are assessed and the association pays to members \$1 a day during sickness, after the first three days; to a member on the death of his wife, \$100; and to a designated beneficiary, or to the legal heirs of a deceased member, \$1,000 on his death. The association is not self-supporting, but the deficit is made up chiefly by the profits of an annual policemen's ball.

Financial Report.

Number of members,	1,367
Assets,	\$162,759 20
Liabilities,	—
Receipts from assessments,	13,367 00
Receipts from other sources,	32,624 84
Benefits paid,	35,601 00
Other expenses,	941 79

Police Charitable Fund.

The Police Charitable Fund is in the custody of the treasurer of the city of Boston. Formerly all witness fees received by officers from attendance at court were paid into this fund, but since that practice ceased, the fund has no income except interest accumulation.

The income only is expended by the Police Commissioner, with the approval of the mayor, for the relief of persons who have received an honorable discharge from the police force because of sickness, age or disability, and are, in consequence of such disability, in necessitous circumstances; and for the relief of widows and orphans, in necessitous circumstances, of police officers who have died while in the service or from effects of injuries received in the performance of duty.

Financial Report.

Number of beneficiaries,	66
Amount of fund, Dec. 31, 1913,	\$207,550 00
Income during 1913,	7,716 76
Total disbursements,	7,528 00
Monthly payment for December, 1913,	639 00

History of Retirement System for Boston Police.

The Boston police pension system dates from June 17, 1870, when the Boston city council passed an ordinance expressly creating the Police Charitable Fund, from which payments could be made to retired policemen in needy circumstances and to the widows and orphans of policemen who had died in the service. It was the beginning of the system.

The original fund still survives, and payments from it are now made, mainly upon the lines originally laid down, but to-day it is absolutely independent of the municipal pension system. The first real pension legislation was drafted with the 1870 ordinance as a basis. The controlling reason for its passage was that the fees of policemen as witnesses paid to the city treasurer direct should inure to the benefit of the policemen. The city waived its rights to these witness fees, and the accumulation of such fees, with interest, constitutes the Police Charitable Fund as it exists to-day.

A study of the system as it exists to-day begins naturally with the first fund and the first ordinance. It was passed June 17, 1870, as an amendment to the general police ordinance, and it provided that:—

All moneys received by police officers for fees as witnesses, and paid by them into the city treasury, shall be kept as a separate fund for a period of five years, and be invested and managed by the mayor, treasurer and auditor of the city for the time being, who shall be trustees thereof. The income of the said fund shall be applied to the relief of persons who have received an honorable discharge from the police force, by reason of sickness, age or other disability, and who in consequence thereof are in necessitous circumstances; and also to the relief of the widows and orphans in necessitous circumstances of police officers who have died while in the service of the city. Said trustees may make such rules and regulations for the appropriation and disbursement of the interest of said fund as they may deem expedient, subject, however, to such orders or ordinances as the city council may from time to time adopt.

The first record of payment out of this fund was in 1872, when a total of \$21.50 is found charged to the account, but it took almost five years before the total payments of any one year ran in excess of \$1,000.

In 1878 the first pension act relative to policemen was passed by the Legislature in the enactment of chapter 244 of the acts of that year. The chapter in question was a general police act, but there was incorporated in it a provision for the retirement on one-third salary of men who had served fifteen years in the department and who were found by the city physician to be incapacitated for police duty. And for the payment of the pensions authorized, the Board of Police Commissioners was given authority to draw upon the trustees of the Charitable Fund, established by the 1870 ordinance, and in addition on any sums specially appropriated by the city council. The city council was further given authority to appropriate, and the Police Commissioners to expend, money for the widows and orphan children of policemen who were killed or died from injuries received while in the discharge of their duty. In July of the same year, after the enactment of this measure, the city council passed a new ordinance to meet the situation.

Thus in one year two important steps had been taken. The retirement of policemen was authorized and a pension system which ignored the needy condition phase had been established, and the power of the city council to make direct money appropriations for pension purposes was established. In the fiscal year 1878-79, under this authority, the first actual pension expenditure is found to be \$3,040.

In 1879 this act was amended by the passage of chapter 97 of the acts of that year, but the amendment consisted simply of a broadening of the scope of the act to make eligible for pensions men who had served as police officers in cities and towns which had been annexed to Boston, so that their time of service in these municipalities before annexation would count towards the fifteen years specified.

The first really striking change in the 1878 law did not come until 1887, and was brought about by chapter 178 of the acts of that year. This measure provided for the retirement of members of the department who had been disabled in the performance of duty on a pension of one-half of their salary, thus making another little up-

ward increase. This chapter also repealed section 5 of chapter 244 of the Acts of 1878, which contained among other things the authority for the Police Commissioners to draw upon the Police Charitable Fund to meet the pension expenses. Thus while the effect of the new chapter was to continue the old system of pensions, and to add a new class, namely, those disabled in line of duty on a half-pay basis, no provision was made as to who should pay the pensions, nor from what fund or source they should be paid. As a matter of fact, pension payments continued to be made out of annual appropriations by the city council, and from the income of the Police Charitable Fund.

In 1892, for the first time, it was provided by the enactment of chapter 353 of the Acts of 1892 that all pensions should be paid by the city of Boston out of city council appropriations, and entirely independent of the Police Charitable Fund. This act of 1892, chapter 353, is the real basis of the present Boston police pensioning system. Its provisions were in addition to and not in repeal of any act then in force, leaving the prior law for assistance for the families of members killed in the service untouched. It provided for:—

- (a) Compulsory retirement at age of sixty-five.
- (b) Retirement after twenty years' service, if incapacitated.
- (c) Retirement on account of injuries received in the performance of duty.

It further provided —

- (d) That veterans should not be retired at the age of sixty-five except upon their own request.

The amount of all the pensions in each case was fixed at one-half the salary. There was a doubt, evidently, as to the constitutionality of the act, and a clause was inserted in the act, making the retired members subject to service calls for temporary service in cases of emergency. Another change made in procedure by this act was a provision allowing the retirement of a member of the department by a majority vote of the police board. Previously, retirements could be made only by an affirmative vote of all the members of the board, with the approval of the mayor.

The passage of this act established two general classes of pensioners, — those retired under former acts who in the main were only receiving one-third pensions, and those retired under the 1892 act on one-half salary. An agitation for uniformity started at once.

In 1893, chapter 51, that end was attained, for it provided that all the one-third salary pensioners should be transferred to the one-half-rate class.

Since 1893, while the changes in the police pension code have been numerous they have been chiefly in the way of adding new classes of pensioners, and in modifying the conditions under which retirements could be had.

Thus the Acts of 1898, chapter 172, changed the status of the veteran in the police department. Previous to the enactment of this measure he could only retire at sixty-five years, after twenty years' service and with the approval of the board. This chapter allowed him voluntarily to retire at sixty, after twenty years' service and independent of the board's approval.

Acts of 1900, chapter 306, made it compulsory on the police board to retire any man who had reached the age of sixty, after twenty-five years' service, who so requested.

Acts of 1903, chapter 312, included the engineers and firemen in the department (on the harbor police boats). in the retirement act of 1900, the act taking effect on its passage, acceptance by the city council not being required.

Acts of 1904, chapter 402, also authorized the addition of the members of the police signal service to the pensionable list. In this act it was provided that the act should not take effect until accepted by the city council, but that body failed to take such action and the act has never taken effect.

It should be noted that the first act, chapter 244, Acts of 1878, named specifically the members of the department who were to be eligible for retirement, viz., captains, inspectors, sergeants *and* patrolmen, while subsequent acts all provided for the retirement of any members of the department; there are about 100 employees of the department as clerks, matrons, etc., who have never been considered as members of the department.

Acts of 1906, chapter 291, provided that the powers of the Board of Police Commissioners be vested in a single commissioner.

Acts of 1913, chapter 681, provided that the pensions of retired police officers (the State over) should be suspended during employment on police duty in another place than where pensioned.

Acts of 1913, chapter 657, provided that retired policemen cannot draw pay for any service to the city except as jurors.

Acts of 1913, chapter 770, simply made the Hyde Park policemen eligible in the Boston pension system, that town having been annexed to Boston.

C. DISTRICT POLICE OF THE COMMONWEALTH.

Acts of 1911, chapter 675.

Any member of the district police of the Commonwealth *shall* be retired and placed upon the pension roll *at his own request* —

(a) Who is, in the judgment of the Governor, disabled for useful service, and who is certified by a physician to be permanently incapacitated, either physically or mentally, by injuries sustained through no fault of his own in the actual performance of duty.

(b) Who has performed faithful service for not less than twenty years and is, in the judgment of the Governor, incapacitated for further service.

Pension.

Upon retirement he annually receives a pension equal to one-half the compensation received by him at the time of retirement.

How Paid.

All pensions and expenses connected therewith are paid out of the treasury of the Commonwealth.

D. METROPOLITAN PARK POLICE.

Acts of 1909, chapter 453.

Acts of 1913, chapter 545.

The Metropolitan Park Commission shall, *at his own request*, if, in its judgment, he is disabled for useful service, retire any member of the police department of the commission, —

(a) Who is certified by a physician selected by the board to be permanently disabled, either mentally or physically, by injuries sustained through no fault of his in the actual performance of duty.

(b) Who has performed faithful service for not less than twenty years continuously, if he is, in its judgment, incapacitated for useful service.

Pension.

Retired members receive annually as a pension one-half the amount of compensation received at time of retirement.

Annuities.

In case of death from injuries received while in discharge of duty, an annuity may be paid to the widow or children not exceeding \$600 annually.

How paid.

Pensions and annuities are paid out of the Metropolitan Park Maintenance fund from specific appropriations for the purpose.

6. FIREMEN.**A. CITIES AND TOWNS (EXCEPT BOSTON).**

The laws relating to pensions for old age and disability and annuities for firemen in cities and towns of the Commonwealth (except Boston) are found in the following statutes: —

Revised Laws, chapter 32, section 77, allowance to families of firemen killed or fatally injured.

Revised Laws, chapter 32, section 81, in cities, pensions for disability.

Revised Laws, chapter 32, section 82, in cities, pensions for age, service, etc.

Acts of 1890, chapter 450, Massachusetts State Firemen's Association.

Acts of 1904, chapter 327, towns may pension.

Acts of 1906, chapter 171, to increase payment to association.

Acts of 1906, chapter 476, in cities, call or substitute call firemen may be pensioned.

Acts of 1907, chapter 186, annuities to widows and orphans in towns.

Acts of 1910, chapter 196, New Bedford system.

Acts of 1911, chapter 90, injured in drills.

Acts of 1912, chapter 453, Somerville system.

Acts of 1913, chapter 697, in cities, pensions to permanent and call men.

The system is noncontributory, and takes effect in cities upon acceptance by the city council, and in towns upon acceptance by a vote of two-thirds of the voters present and voting thereon at the annual town meeting.

Retirement Board.

(a) The fire commissioner or commissioners in cities having such an official, and in other cities the board of aldermen, or the board or body having the powers of the aldermen, in all cases with the approval of the mayor.

(b) In towns, the board of selectmen.

Retirement.

Age. — (a) In cities any permanent member *shall* be retired upon his request who has attained the age of sixty years, and has performed service for twenty-five years.

(b) In towns any permanent member *may* be retired who is not less than sixty years of age and who has performed faithful service for not less than twenty-five years continuously.

Disability. — (a) In cities any permanent or call member *shall* be retired whom the city physician certifies to be permanently disabled, mentally or physically, by injuries sustained or illness incurred through no fault of his in the actual performance of duty, from further performing duty; or any permanent member, after twenty-five years' service, if in the judgment of the board or official such member is disabled for useful service.

(b) In towns any permanent member shall be retired if found to be permanently incapacitated, mentally or physically, for useful service by injuries received through no fault of his own in the actual performance of duty.

Amount of Pension.

(a) In cities permanent members upon retirement receive an annual pension payable monthly equal to one-half the annual salary during the last year of service; call members receive the same pension as permanent members of the first grade of the same department in which he serves, or if there be no grades, the same as a permanent member performing like duties.

(b) In towns the pension is a sum equal to one-half the compensation received by him at time of retirement.

By whom paid.

The pensions enumerated above in every case are paid by the city or town.

Annuities to Widows and Orphans.

1. *Massachusetts State Firemen's Association.* — Annually the Commonwealth appropriates \$15,000 to be paid to the treasurer of the association and to be called "the Firemen's Relief Fund of Massachusetts," to be used in the manner and to the amount to be determined by a board, for the relief of firemen who may be injured in the performance of their duty at fires or in going to or returning from fires, and for the relief of widows and children of firemen killed in the performance of their duty.

2. *State Payment.* — The Treasurer of the Commonwealth pays to the executor or administrator, for the use of the widows and children of any fireman or members of the protective department, or any person doing fire duty by request, who is killed or dies within sixty days from injuries received while doing duty, the sum of \$1,000. The sums disbursed are paid from moneys received for taxes from fire insurance companies.

3. *Towns.* — Towns accepting the provisions of chapter 186 of the Acts of 1907 may grant an annuity not exceeding \$300 annually to the widow or children of any fireman who dies from injuries received in the actual performance of duty.

Other Provisions.

Persons receiving pensions or annuities cannot be paid for any service except jury duty by the city or county or town paying the pension or annuity.

In towns the selectmen in case of emergency may call upon retired firemen for temporary duty.

Cities having Systems created by Special Acts.

New Bedford and Somerville are exempt from the general system and have pension systems created by special acts of the General Court.

The general pension act (Revised Laws, chapter 32, section 82;

Acts of 1900, chapter 246) had provided retirement at age sixty-five, and left to the city council the amount of pensions. The New Bedford system was authorized by Acts of 1910, chapter 196. It made the retirement age sixty instead of sixty-five, and provided for one-half compensation instead of leaving the amount to the city council. It further provided for retirement by the board of fire engineers, with the approval of the mayor.

The Somerville special system was authorized by chapter 453 of the Acts of 1912. To make it effective, chapter 246 of the Acts of 1900 was repealed so far as it applied to Somerville. The Somerville system was modeled on the New Bedford system, except that it left the age of retirement at sixty-five as in the general act.

These special systems were more liberal than the general act when they were created, but are not more so than the system created by chapter 697 of the Acts of 1913.

Firemen's Relief Associations.

Cambridge, Chelsea, Lynn, New Bedford, Somerville and Waltham have firemen's relief associations created by special acts of the Legislature. Generally they are for the relief and assistance of firemen, from funds raised by assessment and donation, and exempt from provisions relating to the insurance laws.

History of Retirement Systems for Firemen.

Prior to 1890 there were no laws relative to pensions and annuities for firemen in the cities and towns of the Commonwealth, except Boston. In that year the Massachusetts State Firemen's Association was established by Acts of 1900, chapter 450, providing among other things for the payment by the Commonwealth of \$10,000 for relief of firemen injured in performance of duty, or in case of death for relief of their families. This act included within its benefits any member of a protective department, or any person performing fire duty when there was no department, but chapter 171 of the Acts of 1906 increased the annual appropriation to \$15,000 and confined the benefits to firemen.

In 1893 (chapter 401; see Revised Laws, chapter 32, section 77) provision was made for the payment of \$1,000 by the State to the widow or children of a fireman killed, and this was amended in 1899

(chapter 417) to include members of protective departments and certain persons doing fire duty.

In 1898 (chapter 267) was passed the first law authorizing cities outside of Boston to pension firemen. This law related only to disability from injury received in performance of duty, and required 200 registered voters to petition for submission of its acceptance upon the ballot and its acceptance by the voters.

In 1900 (chapter 246) was passed an act enabling cities to pension firemen at sixty-five after twenty years' service, and any member incapacitated for useful service after service of twenty years. This was a marked departure from the law of 1898, which allowed pensions only for injury incurred through duty.

In 1906 (chapter 476), upon acceptance of the act, cities were permitted, under such provision as they might by ordinance or vote prescribe, to pension call firemen or substitute call firemen.

In 1913 (chapter 697) was passed the law now in force providing pensions for permanent and call men, and repealing all former acts inconsistent with its provisions.

Towns were given no authority to pension firemen until 1904 (chapter 327), which provided retirement for disability incurred by reason of injury and for those who served twenty-five years and were sixty years of age.

In 1907 (chapter 186) an act was passed authorizing towns to pay annuities to the families of firemen killed. There is no such authority for cities.

B. BOSTON.

The laws relating to pensions for disability or old age and annuities for firemen in the city of Boston are found in the following statutes:—

Acts of 1880, chapter 107, first retirement act. Pensions for old age, disability and annuities for death. Firemen's Relief Fund established.

Acts of 1881, chapter 22, certain provisions of 1880 to apply to protective department.

Acts of 1888, chapter 174, amendment to chapter 107, 1880.

Acts of 1890, chapter 200, relating to protective department.

Acts of 1891, chapter 404, amendment to chapter 107, 1880, and chapter 174, 1888.

Acts of 1892, chapter 347, general act establishing present system.

Acts of 1893, chapter 401, (R. L., Sec. 77, Chap. 32) \$1,000 paid by State to family of fireman killed on duty.

Acts of 1895, chapter 449, single commissioner substituted for board.

Acts of 1898, chapter 246, city may expend \$3,000 annually for disabled firemen in addition.

Acts of 1899, chapter 417, amending Acts of 1893, chapter 401.

Revised Laws, chapter 32, members of protective department entitled to benefits of Firemen's Relief Fund of Massachusetts.

Acts of 1904, chapter 233, pensions for protective department.

Acts of 1909, chapter 308, incorporation of the Boston Firemen's Relief Fund.

Acts of 1911, chapter 304, amending chapter 308, Acts of 1909.

Acts of 1912, chapter 574, pensions to former call substitutes.

Acts of 1913, chapter 168, relating to Firemen's Relief Fund.

Acts of 1913, chapter 770, including firemen of Hyde Park.

Acts of 1913, chapter 800, retirement at age of fifty-five.

The pension system for firemen in Boston is noncontributory. All pensions and annuities are paid by the city.

The fire commissioner of the city of Boston, with the approval of the mayor, *shall* retire from active service and place upon the pension rolls any member who is —

(a) Fifty-five years of age and has performed service in the department not less than twenty-five years *upon his petition for retirement* (1913); and *may* retire any member who is —

(b) Disabled from injuries received in the actual performance of duty (1892).

(c) A member of the department who has served fifteen consecutive years (1892).

(d) A former call substitute, regularly rated as a call man, who has served as such for not less than fifteen consecutive years, and who was honorably discharged (1912).

(e) Certified to the fire commissioner as permanently incapacitated, either mentally or physically, for performing his duties (1892).

Amount of Pension.

The pension paid in class —

(a) Is one-half the annual compensation received at time of retirement (1913).

(b) Is, in case of total disability, two-thirds of the annual com-

pensation allowed to men of the grade in which such member served (1892).

(c) Is, if a member of the permanent force, an amount not exceeding one-half the compensation of the grade from which he retired; if a member of the call force, one-half the compensation of the grade from which he retired, or such further sum as the commissioner may determine (1892).

(d) Is an amount not exceeding \$125 per year, to be granted by the city council with the approval of the mayor and fire commissioner (1912).

(e) Is the same as in (c) if he has served fifteen years; if he has served less than fifteen years, while the law (Acts of 1891, chapter 404, and Acts of 1892, chapter 347) provides that he may be placed on the pension roll, the amount of pension is not stated, and no provision is made for pension of such member.

Death.

If a fireman dies from injuries received in the discharge of his duties, an annuity not exceeding \$300 may be paid, upon vote of the city council and approval by the mayor, to the widow, or if no widow, to the children so long as they are under sixteen years of age; but the fire commissioner may, from time to time, order such annuity to be reduced (1880).

A further sum of \$1,000 is paid by the Commonwealth to the widow or children in case of death within sixty days from injuries received in discharge of duty (Acts of 1893, chapter 401). This also includes members of the protective department.

Disability.

The city is authorized by Acts of 1898, chapter 246, to expend annually a sum not exceeding \$3,000, in addition to pensions, for the relief of firemen disabled in the service.

Special Laws.

Each year the Legislature is petitioned and enacts special laws authorizing the city to grant pensions and annuities in cases not covered by law. In 1913 the number of such special laws relating to firemen in Boston was three.

Other Provisions.

Members in receipt of a pension cannot receive pay for any other service for the city except as jurors.

The fire commissioner, in case of emergency, can call upon retired members for temporary service, during which they receive full pay. The provision was probably inserted in the law to evade the question of constitutionality.

Cost.

The city of Boston is now carrying 202 pensioners on its fire department pension roll.

Beginning with the fiscal year 1905-06 the fire department pensions paid by the city follow:—

1905-06,	\$69,383 20
1906-07,	76,096 79
1907-08,	88,479 16
1908-09,	95,759 49
1909-10,	97,987 10
1910-11,	102,763 94
1911-12,	108,601 84
1912-13,	111,843 37

There are three relief and charitable organizations connected with the Boston fire department, viz., the Boston Firemen's Relief Fund, the Charitable Association of the Boston Fire Department, and the Boston Firemen's Mutual Relief Association.

Boston Firemen's Relief Fund.

The Boston Firemen's Relief Fund was authorized and created by chapter 107 of the Acts of 1880, which first authorized the pensioning of firemen in the city of Boston. The mayor of Boston and his successor, and the board of fire commissioners and their respective successors, were constituted a body corporate for the purpose of holding and receiving money granted, given or bequeathed for the members of the department and their families requiring assistance. By chapter 22 of the Acts of 1881 the members of the protective department were made eligible to share in the benefits of the fund.

In 1909 chapter 308 was enacted, which made the fire commissioner of Boston and his successor and twelve members of the department the body corporate to control the fund, and in 1911 chapter 134 prescribed the method by which these twelve members were to be elected. Chapter 168 of the Acts of 1913 further provided that of the twelve members four should be officers.

The receipts of the fund are largely secured from the proceeds of the annual ball of the department, which in 1913 amounted to over \$11,000, and from the interest on the trust funds, amounting to \$233,000 on Sept. 1, 1913. During the last fiscal year the association disbursed, in the form of benefits and gratuities, \$20,020.34, and in the twenty-seven years between Jan. 1, 1887, and Sept. 1, 1913, has paid over \$350,000, a yearly average of nearly \$13,000.

RECEIPTS AND DISBURSEMENTS FROM SEPT. 1, 1912, TO AUG. 31, 1913.

Receipts.

Balance from previous year,	\$2,779 75
Amount received from "ball fund,"	11,751 47
Interest on bonds,	8,775 00
Interest on deposits,	49 22
Certificate of deposit with interest at 3 per cent. for six months, .	2,030 00
Donations,	366 00
City of Boston bonds matured,	7,000 00
	<hr/>
	\$32,751 44

Disbursements.

Benefits and gratuities,	\$20,255 34
Less checks returned,	235 00
	<hr/>
	\$20,020 34
Salaries,	400 00
Treasurer's bond,	65 90
Box, International Trust Company vaults,	10 00
Free beds, Massachusetts General and Carney hospitals,	400 00
Auditing books,	50 00
Printing, stationery, etc.,	205 00
Bonds purchased,	7,291 55
	<hr/>
	\$28,443 29
Balance, cash on hand Aug. 31, 1913,	4,308 15
	<hr/>
Total,	\$32,751 44

Assets, Sept. 1, 1913.

City of Boston bonds at 3½ per cent., . . .	\$144,000 00	
City of Boston bonds at 4 per cent., . . .	81,000 00	
C., B. & Q. R.R.,	8,000 00	
		————— \$233,000 00

The Charitable Association of the Boston Fire Department.

This organization was incorporated under the provisions of chapter 44 of the Acts of 1829, for the purpose of affording relief to such of their members as might at any time receive injury in the discharge of their duties as members of the Boston fire department, or to their families, in the event of their decease. In 1838 the original act was amended by chapter 131, which provided that every member of the department should be eligible to membership, as well as all members of the veteran association who had been members of the department for seven successive years. It also provided that relief could be given for distress other than for injuries incurred in line of duty, and also to past members of the association. As a result, many cases of distress are relieved which could not be by either of the other two relief associations of the department. In 1874 chapter 343 admitted members of the Boston protective department to membership.

The annual dues in the association are limited to \$5, and at the present time are placed at \$2, with a life membership at \$10. Most of the members take advantage of this latter provision, which results in an annual decrease in the receipts from dues. For the last financial year the expenses of the association exceeded the receipts by \$550.26.

Benefits are paid from three funds, — the general fund, the special fund and the Jordan Marsh Fund. Weekly benefits are paid from the general fund to members injured in line of duty at the rate of not over \$5 weekly for six months. From the special fund of \$3,000 assistance may be given to any member of the association or his family, or to any past member who has belonged to the department for five years. The object of the Jordan Marsh Fund was to assist past members who were not eligible to relief from the special fund.

During the year ending Dec. 31, 1914, over \$6,000 was paid out in the way of assistance. The present membership is now over 800.

RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING DEC. 31, 1913.

Income, Jan. 1, 1913, to Dec. 31, 1913,	\$6,183 50
Expenses:—	
General fund,	\$3,626 76
Special fund,	2,365 00
Jordan Marsh Fund,	742 00
	6,733 76
Deficit,	\$550 26
Cash on hand Jan. 1, 1913,	\$14,727 14
Cash on hand Jan. 1, 1914,	14,176 88
	\$550 26
Trust funds, Jan. 1, 1914:—	
Massachusetts Hospital Life Insurance Company,	\$61,850 00
City of Boston bonds,	51,000 00
	\$112,850 00

The Boston Firemen's Mutual Relief Association.

This association was incorporated under the provisions of the Acts of 1882 for the purpose of "paying to the widows and orphans of deceased members, or such other person or persons as they may have designated, twice as many dollars as there are members of the association." Under the constitution as adopted June 15, 1908, membership is compulsory upon all members of the Boston fire department, and members or employees of the fire alarm or repair shops, clerks and chief's drivers of the fire department, and members of the protective department may become members. Members upon entering pay an admission fee of \$3, and an advance assessment of \$2. Upon the death of any member all surviving members pay into the treasury the sum of \$2 if such assessment is deemed necessary by the board of directors. At the present time \$2,000 is paid to the family or other persons designated by the deceased, any surplus over \$2,000 remaining from the assessment going to the death benefit fund, to be used only for the payment of death benefits.

The total membership of the association on Jan. 1, 1914, was

1,332. During the last year 19 death benefits totalling \$38,000 were paid. The condition and affairs of the association as of Jan. 1, 1914, are set forth below:—

STATEMENT OF MEMBERSHIP.

Total membership Jan. 1, 1913,	1,273
Admitted during the year,	100
	<hr/>
	1,373
Number of deaths during the year,	20
Total of forfeitures,	21
	<hr/>
	41
	<hr/>
Total membership, Jan. 1, 1914,	1,332

FINANCIAL STATEMENT.

Death Benefit Fund.

Receipts:—

Balance on hand Jan. 1, 1913,	\$2,183 09
Received during the year on assessments,	41,022 00
Interest on deposits,	130 36
	<hr/>
Total,	\$43,335 45

Payments:—

19 death benefits at \$2,000 each,	38,000 00
	<hr/>
Balance on hand Jan. 1, 1914,	\$5,335 45

Surplus in Death Benefit Fund.

Balance on hand Jan. 1, 1913,	\$220 89
Surplus of 16 assessments over benefits paid,	8,994 00
	<hr/>
	\$9,214 89
Interest,	130 36
	<hr/>
Total surplus,	\$9,345 25
Death benefits paid (4) at \$2,000 each,	8,000 00
	<hr/>
	\$1,345 25
Returned from death benefit paid to one member,	1,521 00
	<hr/>
Total surplus, Jan. 1, 1914,	\$2,866 25

Expense Fund.

Receipts:—	
Admission fee of new members at \$3 each,	\$300 00
Expenditures:—	
Printing, stationery, etc.,	93 20
	<hr/>
Balance,	\$206 80

Trustees' Report.

Receipts:—	
Cash on hand Jan. 1, 1913,	\$544 72
Surplus from expense fund,	206 80
	<hr/>
	\$751 52
Interest on deposits,	9 86
	<hr/>
Total,	\$761 38
Payments:—	
Salaries for year 1912,	300 00
	<hr/>
Balance, Jan. 1, 1914,	\$461 38

7. TEACHERS.**A. STATE (EXCEPT BOSTON).**

The laws relating to annuities and pensions for teachers in the State (excluding Boston) are found in the following statutes:—

Acts of 1908, chapter 498, authorizing cities and towns to establish pension funds for teachers.

Acts of 1911, chapter 532, and amendments, relates only to normal school teachers, who are included among State employees.

Acts of 1913, chapter 832, retirement system for teachers.

The system is a contributory one and was established by Acts of 1913, chapter 832, to take effect July 1, 1914.

1. *Organization and Membership.*

It includes all teachers of public schools in the State (excepting Boston) who —

(a) Commence teaching after July 1, 1914.

(b) Are teaching before June 30, 1914, and elect to become members of the Retirement Association.

Teachers who elect or are required to share the benefits and responsibilities of the act constitute the Retirement Association.

2. *Administration.*

The management of the retirement system is vested in a Retirement Board of seven members, viz., the Insurance Commissioner, the Bank Commissioner, the Commissioner of Education, three members elected by the Retirement Association, and the seventh member elected annually by the other six.

Members of the Retirement Board receive no compensation, but necessary expenses and loss of salary due to service on the Board are paid from the expense fund, and claims for such must be subject to the approval of the Governor and Council.

The Retirement Board shall —

(a) Elect a secretary and such other clerical assistants as may be necessary, the salaries of whom are fixed by the Board with the approval of the Governor and Council.

(b) Execute the provisions of the act.

(c) Make all rules and regulations.

(d) Adopt for the retirement system one or more mortality tables, and determine what rate of interest shall be established in connection with the tables.

(e) Make necessary reports.

3. *Funds.*

The funds of the system consist of an expense fund, an annuity fund and a pension fund.

(a) *Expense Fund.* — A fund appropriated by the Legislature each year to defray the expense of administration.

(b) *Annuity Fund.* — A fund created by assessments paid by members, and the interest derived from investment.

(c) *Pension Fund.* — A fund consisting of such amounts as shall be appropriated by the State from time to time, on estimates submitted by the Retirement Board, to operate pensions.

4. *Custody and Investment of Funds.*

(a) The treasurer of each town or city, on receipt of a voucher from the school committee for deduction from teachers' salaries, transmits the amount specified in voucher to the secretary of the Retirement Board.

(b) The secretary of the Retirement Board pays to the Treasurer of the Commonwealth all amounts collected by him.

(c) All funds held subject to the order of the Retirement Board are kept in the custody of the Treasurer of the Commonwealth, who invests all sums not required for current disbursements in accordance with the requirements of the laws relating to sinking funds.

(d) All payments of pensions and annuities are made by the Treasurer of the Commonwealth, who files an annual statement of the financial condition with the Insurance Commissioner and the Retirement Board.

5. *Contributions of Members.*

To provide for the annuities required in the act each member of the association shall, in a manner prescribed by the Retirement Board, be required to contribute a stated percentage of his salary, the rate of contribution to be determined from time to time by the Retirement Board, and to be uniform for all members, but at no time to be less than 3 nor more than 7 per cent., with the further proviso, however, that no annual contribution shall be less than \$35 nor more than \$100.

Any member, after paying assessments for thirty years, shall be exempt from further assessments, but may elect to continue payments until the total of payments with interest has amounted to a sum sufficient to purchase an annuity of \$500 at sixty years of age.

6. *Retirement of Teachers.*

(a) Any member of the Retirement Association *may* be retired by the school committee, with the approval of the Retirement Board, on attaining the age of sixty years, or at any time thereafter if incapacitated for rendering satisfactory service.

(b) Any member on attaining the age of seventy years *shall* be retired.

7. *Annuities and Pensions.*

The retirement allowance is to be paid annually during his lifetime to each member of the association after retirement, and consists of two parts, the annuity and the pension.

(a) The annuity is such amount as the sum of his assessments with regular interest entitles him, *or* an annuity of less amount, with the provision that if he dies before receiving payments equal to the sum of his assessments with regular interest, the difference shall be paid to his legal representatives.

(b) The pension is an amount equal to the annuity.

(c) If the teacher has served fifteen years or more he receives such an amount in addition that the sum of this additional pension and his pension shall equal the pension to which he would have been entitled if he had paid thirty assessments on his average yearly wage for the fifteen years preceding retirement, provided that if the total sum of such additional pension, together with the annuity and pension, is less than \$300 in any one year, an additional sum to make an annual allowance of \$300 shall be paid from the pension fund.

8. *Refund.*

Any member of the association resigning from the service of the public schools before becoming eligible for the retirement allowance is entitled to a refund of his contributions, together with regular interest thereon.

9. *Death.*

If a member of the Retirement Association dies before becoming eligible for a retirement allowance, the full amount of his contributions (with interest thereon) is paid to his legal representatives.

10. *Reinstatement.*

A member who has withdrawn from service in the public schools, upon re-employment in the public schools may be reinstated in the association in a manner determined by the Board of Retirement.

11. *Membership in Other Retirement Associations.*

Provision is made that teachers who receive a pension under this act shall not participate in the benefits of other retirement systems supported in whole or in part by funds raised by taxation.

12. *Reimbursement of Cities and Towns.*

Cities and towns which accepted the former teachers' pension act (chapter 498, Acts of 1908), which provided for retirement without contribution, and the city of Boston which has retired teachers under special acts of its own, are reimbursed for the amount of pensions paid to such teachers, with the proviso that the amount shall not be in excess of the amount to which the teacher would have been entitled as a pension had he become a member of the Retirement Association.

13. *Expense of Administration.*

The expense necessary to the administration of this system (exclusive of the payments of retirement allowances) is met from appropriations for the purpose made annually by the Legislature on the basis of estimates furnished by the Retirement Board.

Provision is made for referendum and repeal of the former pension act for teachers in cities and towns (Acts of 1908, chapter 498) by all cities and towns that accepted said act.

14. *Jurisdiction of Court.*

The Superior Court upon petition of any interested party, has jurisdiction in equity to compel the observance and restrain the violation of this act and of the rules and regulations of the Retirement Board.

B. FORMER SYSTEM OF PENSIONS FOR TEACHERS IN THE STATE.
Acts of 1908, chapter 498.

This act, establishing pensions for teachers in cities and towns, was effective in only such cities and towns where, upon petition of not less than 5 per cent. of the voters, it had been submitted at the following city or town election and accepted at such election.

1. *Retirement.* — Under this act the school committee of any city or town could retire any teacher who was sixty years of age or over, or who was incapacitated for useful service in the judgment of the committee, if he had served twenty-five years.

2. *Pensions.* — The pension was determined by the school committee, but not to exceed one-half of the compensation received at time of retirement, and in no case to exceed \$500.

3. *Funds.* — The funds were derived from taxation in the usual course, and payments of retirement allowances were made by the city or town treasurer. No contributions were required from teachers.

Teachers in State Normal Schools.

Teachers in the various normal schools of the State come under the provisions of the Acts of 1911, chapter 532, and amendments thereof relating to State employees. (See System for State employees.)

*History of Retirement System for Teachers in the State
(excluding Boston).*

The first law enacted relative to pensions for teachers outside of Boston was chapter 498 of the Acts of 1908. This was a wholly noncontributory system, and enabled towns and cities to establish pension funds for teachers when the act was accepted at the annual town or city election after petition of 5 per cent. of the voters.

The act was accepted in the following cities and towns throughout the State: Brookline, Cambridge, Dalton, Lynn, Marion, Milton, Pittsfield, Swampscott, Wellesley and Winchester.

In 1911 a resolve was passed (chapter 47) which read: —

Resolved, That the board of education is hereby requested to investigate the advisability of providing a retirement allowance for teachers who have taught in the public schools of the commonwealth for thirty-five years, and the amount

and times of payment of such allowances. The board is further requested to report the result of its investigation to the general court, with such recommendations as it may deem expedient, either in its annual report or separately, not later than the fifteenth day of January, nineteen hundred and thirteen.

In accordance with such resolve the Board of Education made a report (House Document No. 1926), and the bill recommended in their report is substantially chapter 832 of the Acts of 1913.

After the passage of this act the Retirement Board was organized in accordance with its provisions, and elected a secretary. On Oct. 9, 1913, the teachers' Retirement Board met and adopted 5 per cent. as the rate of assessment. The Board also adopted the American Experience Table of Mortality, with $3\frac{1}{2}$ per cent. interest.

The secretary of the Board is engaged in making up a list of teachers who will be at least sixty years of age in 1914, and trying to ascertain how many of these are likely to retire then, in order that the Board may submit to the Legislature a correct estimate of the amount that it will be necessary to appropriate in order to provide for the pensions of teachers who retire in that year.

C. BOSTON.

The laws relating to pensions for teachers in the city of Boston are found in the following statutes: —

Acts of 1900, chapter 237, Public School Teachers' Retirement Fund in the city of Boston.

Acts of 1902, chapter 233, amendment as to investment of funds.

Acts of 1908, chapter 589, pension act for teachers in public day schools of city of Boston.

Acts of 1909, chapter 537, relating to pensions to annuitants of Retirement Fund. Not accepted by city.

Acts of 1910, chapter 617, increasing the amount of pension and extending pensions to part of the annuitants of the Retirement Fund.

Acts of 1912, chapter 569, pensions to part of the annuitants of Retirement Fund, and including Hyde Park in system.

The system is a combination of the Retirement Fund Association (Acts of 1900, chapter 237), which is wholly contributory, and a straight service pension (Acts of 1908, chapter 589), which is wholly noncontributory. It results in the teacher who is retired under the provisions of both acts receiving from the Retirement Fund such annuity as the fund will allow and the board of trustees determines,

which at the present time is \$180 per year, and in addition thereto under the pension act she receives one-third of her annual salary at the time of retirement if she has taught thirty years or more, and if less than thirty years such proportion of one-third salary as the number of years she has taught bears to thirty years. Her total contribution is under the Retirement Fund, by which \$18 is deducted from her salary annually, and she must at the time of retirement have paid into said fund \$540. If the annual deductions from her salary have not amounted to such sum, she must pay the balance before she can become an annuitant of the Retirement Fund. The two systems make a complicated whole, and must be considered separately.

1. *Teachers' Retirement Fund (Acts of 1900, Chapter 237).*

The act was compulsory on all teachers entering the service after its passage, and the teachers already in the service could elect to come within its provisions. It includes in the term "teacher," supervisors, superintendents of instruction, principals and regular instructors in the public day schools.

Funds. — (a) Permanent fund, made up of gifts and legacies specifically given to the permanent fund and a sum set apart by the board of trustees.

(b) General fund, made up of (1) gifts and legacies not specifically given to the permanent fund; (2) amounts retained from salaries (\$18 annually from each teacher's salary, and she must contribute \$540 before receiving an annuity); (3) interest from permanent fund.

Management. — Four members of the school committee, superintendent of schools and six teachers (elected by the teachers) constitute the board of trustees, who serve without compensation and control the Retirement Fund and its investment. The city treasurer is the custodian of the fund and makes payments therefrom as ordered by the board, and receives as compensation for services and clerk hire such sum as the Board may determine not exceeding \$1,500 a year, the same to be appropriated by the school committee for that purpose.

Retirement. — To become entitled to an annuity a teacher must have taught —

(a) Thirty years, ten years of which must have been in Boston.

(b) Not less than two years if incapacitated and discharged from

service, provided certificate of incapacity is furnished by attending physician and physician employed by the Board, and provided annuity ceases when incapacity ceases.

Annuities. — Annuities paid are not fixed by the statute, but are such as the fund will allow and the board of trustees determines, but must be uniform in amount. The amount determined by the trustees has been \$180 per annum since 1904, payable in monthly instalments of \$15.

Withdrawals. — Any teacher who has contributed two years or more and retires from the service shall upon application receive one-half the total amount paid by her into the fund.

Other Provisions. — If a teacher seeking to retire is unable to pay the full amount of assessments, viz., \$540, the board of trustees has discretion to make her such monthly payments as an annuity as in its opinion the needs of the teacher require.

2. *Boston Teachers' Pensions (Acts of 1908, Chapter 589 and amendments).*

This is a noncontributory system, which includes superintendent, supervisors, directors, principals and all other persons permanently employed in giving or supervising instruction in the city of Boston, including the principal and teachers in the parental school.

Funds. — The school committee annually appropriates for pensions, provided by the act, 5 cents upon each \$1,000 of the valuation of the city, and pays to the treasurer of the permanent pension fund such portion as will not be needed for pensions during the current year. The total amount paid in one year is not to exceed the proceeds of 5 cents per \$1,000 valuation, and in case the amount available is not sufficient, together with accrued interest of permanent fund, to pay the pensions the amount is applied pro rata, provided that in no case nor in any year shall the pension of any teacher retired after thirty years' service be less than \$312.

Management. — The care and investment of the fund is vested in a board of three trustees, one of whom is the chairman of the board of commissioners of sinking funds, another chosen by the school committee, and the third chosen by the board of trustees of the Teachers' Retirement Fund. The city treasurer is the custodian of moneys and securities of the fund, and the superintendent of schools is the secretary of the board of trustees.

Retirement. — The school committee may retire with a pension any teacher who is —

(a) Sixty-five years of age.

(b) Incapacitated for further efficient service in its opinion.

Pension. — The pension paid is —

(a) One-third of the salary at time of retirement if the teacher has taught for thirty years or more, ten years of which must have been in Boston; provided that in no case shall the pension be less than \$312 nor more than \$600.

(b) If the teacher has taught less than thirty years, ten of which shall have been in Boston, then such pension in proportion to the pension paid for thirty years as the term of service is in proportion to thirty years.

The pension of any teacher retired because of incapacity shall terminate when in the opinion of the school committee the incapacity shall have ceased, and the teacher tendered reappointment.

Pensions to Teachers previously retired. — The amended act of 1910, chapter 617, also provided that the school committee should grant pensions at a rate not less than \$180 per annum to not less than sixty persons who were annuitants of the Boston Teachers' Retirement Fund Association when the pension act was passed in 1908, and who had taught thirty years, twenty of which were in service of Boston; and during each year thereafter should add additional annuitants to the pension roll, so that the number of such annuitants should be not less than sixty. A provision is inserted that such annuitants shall be subject to the call of the school committee to teach in case of emergency. From eligible annuitants of the Retirement Fund the school committee made a pension roll of sixty annuitants, selecting those most advanced in point of age.

History of Pension System for Boston Teachers.

Retirement Fund. — After the passage of chapter 237, Acts of 1900, establishing the Public School Teachers' Retirement Fund, an organization was formed to carry into effect the provisions of the act, called the Boston Teachers' Retirement Fund Association, which adopted a constitution and by-laws for its government. While non-contributory pensions for police, firemen, and judges had been enacted by the Legislature, this was the first pension system established on a purely contributory basis, the only payment by the city being the

additional compensation to the city treasurer as custodian of the fund, not exceeding \$1,500. The deduction of \$18 annually is made from each teacher's salary without regard to the amount of her salary. The only gift or legacy to the fund has been one of \$900, which constitutes the permanent fund.

Since its organization in 1900 to Sept. 30, 1913, the total number of members has been: —

Number electing to join,	1,256
Number accepting appointment since act was passed,	2,424
	3,680
Number who have died, retired or become annuitants,	1,071
	2,609
Number contributing Sept. 30, 1913,	2,609

Nearly three hundred of the older teachers never joined the association.

The amount paid annuitants is by the determination of the board of trustees as the fund allows, but must be uniform. It is at the present time \$180, but an examination of its financial condition presages the reduction in the annuity in the not far future.

Tables from the Custodian's Report showing the Annual Receipts and the Annual Payments from Organization in 1900 to Sept. 30, 1913.

	RECEIPTS.				Annuities granted.	Refunds granted.	PAYMENTS.				Balances.
	Reservations from Salaries.	Payments to complete \$540.	Income from Interest.	Totals.			To Annuitants.	For Refunds.	Expenses.	Totals.	
1900-01,	\$23,079 00	\$4,287 00	\$364 85	\$27,730 85	7	-	\$329 50	-	\$257 92 ¹	\$587 42	\$27,143 43
1901-02,	26,032 50	10,114 00	1,645 55	37,792 05	15	-	2,256 39	-	396 13	4,102 98	33,689 07
1902-03,	28,494 00	11,636 00	2,621 00	42,751 00	28	6	6,209 33	\$117 00	351 21	6,677 54	36,073 46
1903-04,	30,459 00	8,178 00	3,477 34	42,114 34	18	10	10,320 34	237 00	478 44	11,035 78	31,078 56
1904-05,	32,373 00	4,713 00	3,595 36	40,681 36	9	30	11,423 69	915 00	443 11	12,781 80	27,899 56
1905-06,	34,026 00	11,052 00	5,513 19	50,591 19	25	31	15,224 22	1,105 50	455 71	16,785 43	33,805 76
1906-07,	35,409 00	6,570 00	6,599 43	48,578 43	15	31	18,618 38	1,327 50	527 42	20,473 30	28,105 13
1907-08,	37,383 00	9,039 00	7,625 65	54,047 65	7	50	20,017 95	2,290 50	517 65	22,826 10	31,221 55
1908-09,	39,444 00	15,252 00	9,410 00	64,106 00	39	38	25,398 23	1,924 50	647 51	27,970 24	36,135 76
1909-10,	43,338 00	13,707 00	10,517 62	67,562 62	24	37	29,891 96	1,996 50	820 41	32,708 87	34,853 75
1910-11,	44,121 00	11,731 00	11,826 08	67,678 08	39	50	36,070 50	2,563 50	864 15	39,498 15	28,179 03
1911-12,	46,044 00	6,174 00	12,823 57	65,041 57	22	53	40,039 50	3,025 50	921 14	43,986 14	21,055 43
1912-13,	47,463 00	10,467 00	14,098 05	71,968 05	26	54	43,273 50	3,126 00	894 03	47,293 53 ²	24,403 43
	\$467,665 50	\$122,920 00	\$90,057 69	\$680,643 19	274	390	\$258,072 49	\$18,628 50	\$9,025 29	\$286,998 37	\$393,644 82

¹ Premium on bonds, \$1,450.4² Interest on bonds, \$271.09

Pensions. — There was no straight service pension for teachers until the law of 1908, chapter 589. It was provided in section 1 that no pension paid to a teacher should exceed \$180 per year. The purpose of the act was that the city should add an equal amount to the annuity derived from the teachers' contributions to the Retirement Fund. Retirement was for teachers (a) sixty-five years of age, after service of thirty years, twenty of which have been in Boston; (b) teachers who in the opinion of the committee are incapacitated for efficient service. In (a) the pension was fixed at \$180, and in (b) such proportion of \$180 as the number of years of service was to thirty years.

In 1910, chapter 617, the 1908 act was materially changed. The pension was increased from a maximum of \$180 to one-third of salary at time of retirement, and in case of retirement on account of age (sixty-five after thirty years' service), not less than \$312 nor more than \$600.

This act, in connection with the Retirement Fund act, practically retired the teacher on half salary. The average yearly salary of 2,041 women teachers in the elementary schools is \$964.86. The annuity of \$180 from the Retirement Fund in addition to one-third salary make a total of pension and annuity of \$501.62, slightly more than one-half salary. The sole contribution of the teacher to this pension and annuity is \$18 annually.

Retroactive Pensions to Annuitants of the Retirement Fund. — After the passage of the 1908 pension act the teachers who had been previously retired sought to come within its provisions. In 1909, chapter 537, an act was passed to take effect upon acceptance by the school committee, whereby all annuitants of the Retirement Fund and all teachers previously retired, who had taught for a period of thirty years, twenty of which were in Boston, were made eligible for pensions. Forty of those eligible were to be added to the pension roll the first year and forty more each succeeding year, until all the persons eligible on account of past service were on the pension roll.

A proviso that such retired teachers should be subject to the call of the school committee for service in case of emergency was inserted in view of the doubtful constitutionality of such legislation. The act never became effective, by reason of its nonacceptance by the school committee.

However, in chapter 617 of the Acts of 1910 (the act increasing

the pension), a section (4) was inserted compelling the school committee in that year to grant pensions to not less than sixty persons who were annuitants of the Retirement Fund when the 1908 act was passed, at a rate not less than \$180 per annum; and during each year thereafter such additional annuitants shall be pensioned as are necessary to keep on the pension roll the names of not less than sixty such annuitants. The school committee complied with the act and placed sixty annuitants on the pension roll, selecting those of most advanced age. The former emergency clause was inserted. Application of the annuitant was necessary, and in 1912, chapter 569, the time of application was extended to Aug. 1, 1912, on account of some eligible applicants not being familiar with the prior law. In 1912, upon the annexation of Hyde Park, the teachers of that town were included within the provisions of the teachers' pensions of Boston. (Acts of 1912, chapter 569.)

FINANCIAL REPORT.

Total amount appropriated by the school committee for payment of pensions during the year,	\$72,012 76
Transferred to appropriation from accrued interest of the permanent fund,	880 43
	<hr/>
Total payments to pensioners,	\$72,893 19
Cash on hand Feb. 1, 1913,	5,131 60
Receipts, 1913-14,	7,977 09
	<hr/>
	\$13,108 69
Payments,	880 43
	<hr/>
Cash on hand Jan. 31, 1914,	\$12,228 26
Investments, Feb. 1, 1913:—	
Principal,	\$176,750 00
Income,	11,912 50
	<hr/>
	\$188,662 50
Investments, Jan. 31, 1914,	\$188,662 50
<i>Cash.</i>	
Income:—	
Balance, Feb. 1, 1913,	\$4,651 56
Interest on bank deposits,	\$182 09
Interest on investments,	7,795 00
	<hr/>
	7,977 09
	<hr/>
	\$12,628 65

Transfer to principal:—

Income received prior to June 11, 1910,	\$316 82	
Paid to city of Boston for payment of pensions,	880 43	
		1,197 25

Balance, Jan. 31, 1914, \$11,431 40

Principal:—

Balance, Feb. 1, 1913,	\$480 04	
Transfer from income as above,	316 82	
		796 86

\$12,228 26

Investments and Cash.

Principal investments,	\$176,750 00	
Principal cash,	796 86	
		\$177,546 86
Income investments,	\$11,912 50	
Income cash,	11,431 40	
Available for payment of pensions,		23,343 90

Total principal and income, Jan. 31, 1914, \$200,890 76

Total number of pensioners reported at close of previous year, 214

Number added during year:—

Annuitants at \$180,	7	
From school service,	34	
		41

255

Deaths during year:—

Annuitants at \$180,	7	
Others,	18	
		15

Reappointed to school service, 1

16

239

Total number placed on pension roll to date, 274

Total deaths to date, 34

Total reappointments to service to date, 1

35

239

¹ Including one in previous year, notice of which was received subsequent to date of annual report.

8. LABORERS.

A. CITIES AND TOWNS (EXCEPT BOSTON).

The only existing laws relative to pensioning laborers in the cities and towns of the Commonwealth, excluding Boston, are found in the following statutes:—

Acts of 1912, chapter 503, establishment of system.

Acts of 1913, chapter 671, including laborers in fire districts and water districts.

The system is noncontributory and refers to any laborer in the employ of a city or town, without defining the meaning of the word "laborer" as was done in the Boston act.

Establishment.

The act required its submission to the voters of each city and town in the Commonwealth, and provided that it should become effective in any city or town upon its acceptance by a majority of the voters of such city or town voting thereon.

The act further provided that not less than two weeks nor more than four weeks before such election the city clerk of each city should mail to each voter a copy of the act with notice that it was to be voted upon at the coming election.

Beneficiaries.

Any laborer in the employ of any city or town accepting the act.

Retirement.

Any laborer who has reached the age of—

(a) Sixty years, after twenty-five years of service, and who has become physically or mentally incapacitated for labor, or after fifteen years of service, if mentally or physically incapacitated by reason of injury received in the performance of duty, may be retired at his request, with the approval of the mayor in cities and the board of selectmen in towns.

(b) Sixty-five years, after twenty-five years of service, shall be retired.

Pension.

In all cases the annual pension is equal to one-half of the average annual compensation paid to him as a laborer during the two years next prior to his retirement.

Statistics.

The act was submitted to the voters at the State election of 1912, and was accepted by 22 cities and 232 towns, and rejected by 10 cities and 96 towns. For the complete vote of cities and towns in the Commonwealth upon its acceptance and rejection see table below.

B. FIRE AND WATER DISTRICTS.

Chapter 503 of the Acts of 1912 seemed to exclude from its provisions laborers in the employ of fire districts and water districts, and chapter 671 of the Acts of 1913 was enacted to include such within its provisions. The latter act provided —

(a) That hereafter the former act shall be held to include laborers in the employ of fire districts and water districts.

(b) That in any city or town having a fire or water district therein, which accepted the provisions of chapter 503 of the Acts of 1912, such act shall again be submitted to the voters of such city or town for their acceptance, with the understanding that the act applies to laborers in the employ of fire districts and water districts.

(c) That the city clerk of any city concerned should mail to each voter a copy of the vote with notice of its submission on the ballot.

List of Cities and Towns that have accepted Chapter 503, Acts of 1912.

CITY OR TOWN.	Yes.	No.	CITY OR TOWN.	Yes.	No.
Abington, . . .	411	162	Athol,	677	275
Adams,	524	413	Attleborough, . . .	1,270	374
Agawam,	206	104	Avon,	147	77
Alford,	14	11	Ayer,	202	111
Amherst,	340	281	Barnstable,	318	207
Andover,	387	309	Becket,	38	26
Arlington,	934	484	Belchertown,	96	70
Ashburnham,	110	48	Bellingham,	83	46
Ashland,	162	101	Belmont,	433	232

List of Cities and Towns that have accepted Chapter 503, Acts of 1912 — Continued.

CITY OR TOWN.	Yes.	No.	CITY OR TOWN.	Yes.	No.
Beverly,	1,486	992	Easton,	332	127
Blackstone,	330	101	Edgartown,	67	37
Bourne,	143	69	Enfield,	51	33
Boxborough,	23	20	Erving,	67	28
Braintree,	612	274	Everett,	2,558	895
Brewster,	48	15	Falmouth,	193	109
Bridgewater,	341	151	Fitchburg,	2,223	1,615
Brimfield,	35	33	Florida,	6	5
Brockton,	4,054	2,067	Foxborough,	216	114
Brookfield,	102	63	Framingham,	1,074	447
Brookline,	2,149	1,326	Franklin,	328	163
Buckland,	63	58	Gardner,	648	298
Burlington,	28	23	Gay Head,	5	1
Cambridge,	7,452	2,381	Georgetown,	124	94
Canton,	349	170	Gill,	62	40
Charlton,	81	63	Grafton,	153	127
Chatham,	68	55	Great Barrington,	402	162
Chelsea,	2,342	686	Greenfield,	733	352
Chester,	53	37	Groton,	116	107
Chicopee,	1,235	676	Groveland,	111	87
Clarksburg,	50	31	Halifax,	23	18
Clinton,	937	374	Hamilton,	110	79
Cohasset,	189	124	Hancock,	16	14
Colrain,	54	47	Hanover,	105	67
Dalton,	291	101	Hanson,	57	41
Dana,	31	28	Hardwick,	118	56
Danvers,	608	489	Harwich,	103	69
Dedham,	744	289	Haverhill,	2,600	2,331
Deerfield,	113	51	Hingham,	339	212
Dennis,	65	44	Hinsdale,	91	28
Douglas,	134	55	Holbrook,	178	86
Dover,	42	36	Holland,	7	6
Dudley,	158	84	Holliston,	207	136
Duxbury,	83	55	Holyoke,	2,811	2,733
East Bridgewater,	227	101	Hopedale,	219	89
East Longmeadow,	61	44	Hopkinton,	201	85
Eastham,	25	19	Hubbardston,	50	38
Easthampton,	410	337	Hudson,	415	167

List of Cities and Towns that have accepted Chapter 503, Acts of 1912 — Continued.

CITY OR TOWN.	Yes.	No.	CITY OR TOWN.	Yes.	No.
Hull,	83	31	Nahant,	146	62
Huntington,	75	47	Nantucket,	170	98
Ipswich,	242	151	Natick,	802	417
Kingston,	86	63	Needham,	359	186
Lakeville,	34	26	New Ashford,	4	2
Lancaster,	96	66	New Marlborough,	59	39
Lanesborough,	53	40	Newton,	3,256	1,563
Lee,	287	120	Norfolk,	70	45
Leicester,	186	114	North Attleborough,	724	249
Lenox,	234	88	North Brookfield,	104	85
Leominster,	898	529	North Reading,	68	50
Leverett,	17	14	Northborough,	91	88
Lexington,	380	265	Northbridge,	462	175
Longmeadow,	94	58	Northfield,	85	68
Ludlow,	168	55	Norton,	103	79
Lynn,	7,404	3,193	Norwell,	75	60
Lynnfield,	89	57	Norwood,	627	181
Malden,	3,325	1,441	Oak Bluffs,	40	37
Manchester,	182	111	Oakham,	15	12
Mansfield,	342	184	Orange,	382	199
Marblehead,	509	500	Orleans,	61	36
Marshfield,	86	70	Otis,	29	21
Mashpee,	21	8	Oxford,	122	107
Maynard,	336	132	Palmer,	464	170
Medfield,	100	76	Paxton,	20	16
Medford,	2,138	897	Peabody,	928	628
Medway,	179	89	Pembroke,	63	40
Melrose,	1,373	931	Pepperell,	186	105
Mendon,	48	39	Peru,	15	7
Middleborough,	448	270	Phillipston,	19	12
Middlefield,	11	8	Pittsfield,	2,873	1,400
Middleton,	51	10	Plainville,	88	64
Milford,	819	313	Plymouth,	718	359
Millbury,	208	168	Plympton,	23	18
Millis,	98	32	Provincetown,	96	77
Milton,	607	457	Quincy,	2,268	1,611
Monson,	228	140	Randolph,	379	151
Montague,	365	142	Reading,	486	287

List of Cities and Towns that have accepted Chapter 503, Acts of 1912 — Concluded.

CITY OR TOWN.	Yes.	No.	CITY OR TOWN.	Yes.	No.
Rehoboth,	58	34	Uxbridge,	238	128
Revere,	1,767	470	Wakefield,	870	431
Richmond,	33	24	Walpole,	368	103
Rockland,	595	228	Waltham,	2,376	1,290
Rockport,	229	192	Ware,	448	205
Royalston,	33	22	Wareham,	239	100
Russell,	50	27	Warren,	184	100
Rutland,	58	35	Washington,	12	11
Salem,	2,767	1,802	Watertown,	830	415
Sandwich,	84	42	Wayland,	174	80
Saugus,	581	255	Webster,	611	198
Savoy,	20	19	Wellesley,	347	210
Scituate,	167	105	Wellfleet,	52	16
Seekonk,	52	46	Wendell,	24	17
Sharon,	150	98	West Bridgewater,	138	81
Sheffield,	106	68	West Newbury,	120	38
Sherborn,	58	52	West Springfield,	675	147
Shirley,	72	47	West Stockbridge,	98	38
Somerville,	6,756	2,432	Westborough,	280	214
South Hadley,	290	225	Westfield,	917	688
Southborough,	116	72	Westford,	96	88
Southbridge,	704	340	Westminster,	60	57
Spencer,	340	216	Westwood,	60	46
Springfield,	7,120	2,989	Weymouth,	888	450
Sterling,	72	67	Whitman,	610	255
Stockbridge,	148	54	Wilbraham,	58	49
Stoneham,	622	275	Williamstown,	189	182
Stoughton,	482	195	Wilmington,	110	68
Stow,	47	46	Winchendon,	236	160
Sutton,	85	79	Winchester,	702	434
Swampscott,	483	307	Windsor,	13	7
Templeton,	133	100	Winthrop,	1,022	515
Tisbury,	63	45	Woburn,	1,182	770
Townsend,	88	71	Worcester,	9,277	6,034
Truro,	18	14	Wrentham,	98	70
Upton,	123	84	Yarmouth,	101	49

Cities and Towns which rejected Chapter 503, Acts of 1912.

CITY OR TOWN.	Yes.	No.	CITY OR TOWN.	Yes.	No.
Acton,	111	117	Gosnold,	9	9
Acushnet,	37	83	Granby,	27	46
Amesbury,	447	454	Granville,	19	24
Ashby,	28	45	Greenwich,	17	17
Ashfield,	18	44	Hadley,	58	68
Auburn,	113	125	Hampden,	32	35
Barre,	73	131	Harvard,	32	58
Bedford,	61	69	Hatfield,	56	74
Berkley,	16	37	Hawley,	1	16
Berlin,	45	63	Heath,	8	17
Bernardston,	16	34	Holden,	87	100
Billerica,	157	166	Lawrence,	2,406	4,715
Blandford,	13	41	Leyden,	11	20
Bolton,	35	41	Lincoln,	43	57
Boxford,	27	45	Littleton,	45	56
Boylston,	34	50	Lowell,	4,173	5,807
Carlisle,	17	32	Lunenburg,	35	87
Carver,	23	23	Marion,	55	55
Charlemont,	22	55	Marlborough,	904	1,022
Chelmsford,	160	276	Mattapoisett,	45	70
Cheshire,	53	60	Merrimac,	93	119
Chesterfield,	19	26	Methuen,	381	656
Chilmark,	7	19	Monroe,	8	8
Concord,	262	450	Monterey,	18	23
Conway,	53	55	Montgomery,	3	10
Cummington,	30	47	Mount Washington,	4	5
Dartmouth,	58	171	New Bedford,	3,109	5,113
Dighton,	57	71	New Braintree,	6	26
Dracut,	110	199	New Salem,	15	25
Dunstable,	12	24	Newbury,	39	122
Egremont,	32	33	Newburyport,	623	1,293
Essex,	72	95	North Adams,	986	1,232
Fairhaven,	192	249	North Andover,	273	278
Fall River,	4,052	5,654	Northampton,	1,070	1,223
Freetown,	22	73	Pelham,	13	30
Gloucester,	838	1,839	Petersham,	28	46
Goshen,	9	11	Plainfield,	9	22

Cities and Towns which rejected Chapter 503, Acts of 1912 — Concluded.

CITY OR TOWN.	Yes.	No.	CITY OR TOWN.	Yes.	No.
Prescott,	9	15	Taunton,	1,783	1,808
Princeton,	23	38	Tewksbury,	81	110
Raynham,	34	61	Tolland,	7	8
Rochester,	20	47	Topsfield,	47	51
Rowe,	7	17	Tyngsborough,	32	54
Rowley,	62	84	Tyringham,	14	18
Salisbury,	52	102	Wales,	19	21
Sandisfield,	12	17	Warwick,	15	17
Shelburne,	70	92	Wenham,	46	87
Shrewsbury,	34	104	West Boylston,	42	73
Shutesbury,	6	8	West Brookfield,	58	62
Somerset,	89	141	West Tisbury,	15	18
Southampton,	20	56	Westhampton,	12	24
Southwick,	38	41	Weston,	68	231
Sturbridge,	59	63	Westport,	41	118
Sudbury,	51	67	Whately,	18	24
Sunderland,	23	29	Williamsburg,	103	108
Swansea,	50	106	Worthington,	9	34

C. BOSTON.

The laws relative to the retirement system for laborers in the city of Boston are found in the following statutes: —

Acts of 1911, chapter 413, establishment of system.

Acts of 1913, chapter 367, amendment.

The system is noncontributory and was established by the city council accepting chapter 413, Acts of 1911.

Beneficiaries.

The word laborer in the act includes laborers, skilled laborers, mechanics and craftsmen as registered upon the lists of the Civil Service Commission for labor service in the city of Boston, and includes all janitors and all women performing duties similar to those attached to positions in the labor service.

Management.

The Retirement Board consists of the mayor, the auditor and treasurer of the city, who discharge the duties imposed without additional compensation.

Retirement.

Any laborer who has reached the age of —

(a) Sixty years, after service for not less than twenty-five years, and who is physically incapacitated, *may be retired.*

(b) Seventy years of age, after service of not less than twenty-five years, *must be retired.*

Pension.

In each case he receives an annual pension equal to one-half the compensation to which he would have been entitled for full employment during the last year of his service to the city, but not to exceed \$360 per year.

Laborers retired in the City of Boston, March, 1912, to September, 1913.

Compulsory retirement (seventy years of age),	54
Voluntary retirement (twenty-five years of service),	79
Total number retired to Sept. 1, 1913,	133
Total number died,	13
Number on pension roll, Sept. 1, 1913,	120
Number of veterans retired to Sept. 1, 1913,	120
Annual cost to the city of Boston,	\$43,200

History of Retirement System for Boston Laborers.

The Finance Commission disapproved of chapter 619 of the Acts of 1910 (an act providing retirement systems for employees of cities and towns), and the city council of Boston by vote refused to accept the act. This resulted in the General Court passing chapter 413 of the Acts of 1913, which took effect on its passage, no provision being made for its acceptance or rejection by the city. The act provided a pension upon retirement of one-half the compensation received during the last year of service. By amendment of chapter 367, Acts of 1913, this pension was increased to "an amount" equal to one-half the compensation to which he would have been entitled for full employment during the last year of his service for the city.

9. VETERANS.

The laws relating to retirement for veterans in the public service are found in the following statutes:—

- Acts of 1892, chapter 353, Boston police department.
- Acts of 1898, chapter 172, Boston police department.
- Acts of 1907, chapter 458, in service of State.
- Acts of 1909, chapter 398, clerks of courts in counties.
- Acts of 1910, chapter 459, amendment to include all veterans in service of counties.
- Acts of 1911, chapter 113, in service of Boston.
- Acts of 1911, chapter 504, veterans in service of New Bedford.
- Acts of 1911, chapter 725, veterans in service of Malden.
- Acts of 1912, chapter 55, veterans in service of Lynn.
- Acts of 1912, chapter 395, amendment to Boston act.
- Acts of 1912, chapter 447, in service of cities and towns.
- Acts of 1913, chapter 313, amendment to Boston act.
- Acts of 1913, chapter 642, veterans in service of Soldiers' Home.

A. STATE.

A veteran of the civil war in the service of the Commonwealth—

1. If incapacitated for active duty shall be retired, with the consent of the Governor, on one-half salary, provided he shall have been in the service of the Commonwealth at least ten years.
2. If, in the opinion of the Governor and Council he is incapacitated so as to render his retirement necessary for the good of the service, he may so be retired at any time.
3. Or if his term of service was for a fixed number of years he is entitled to one-half salary without reappointment.

B. CITIES AND TOWNS.

Veterans of the civil war in the service of any city or town, if incapacitated for active duty, may be retired by the city council of a city or the selectmen of a town at one-half the average rate of compensation paid to him during the two years immediately preceding his retirement, provided he has been in the service of the city or town at least ten years.

Joint Employment.

If employed by two cities or by a city and town or by two towns, retirement must be by joint action of the two governing bodies.

Acceptance of Act.

The act is only effective when accepted by the city council of a city or by a majority of the voters of a town.

C. COUNTIES.

A veteran of the civil war in the service of any county, if incapacitated for active duty, having arrived at sixty-five years of age, and after ten years' service, may be retired by the county commissioners on one-half salary, but not to exceed \$800 a year, to be paid from the treasury of the county; but if in the opinion of the Governor and Council he is incapacitated so as to render his retirement necessary for the good of the service, he may be retired at any time.

D. BOSTON.

A veteran of the civil war in the service of the city of Boston, if incapacitated for active duty, may be retired, with the approval of the mayor, after ten years' service on one-half compensation. If his term of service was for a fixed number of years he shall be entitled to the benefits of the act without reappointment. If he is on leave of absence, or on the list of employees, although not rendering service, or if he left the employ of the city within three years preceding the passage of the act, he is entitled to the benefits of the act. In the case of janitors in the employ of the school committee of the city, the rate of pension is based upon the net compensation as determined by the school committee.

Veterans in police department. (*See Police.*)

E. NEW BEDFORD, MALDEN, LYNN.

Prior to the passage of chapter 447, Acts of 1912, relative to pensioning veterans in the service of cities and towns, the above-named cities were authorized to pension veterans in their service by special acts of the General Court. Each act provides that a veteran in the service of the city, if incapacitated for active duty,

may be retired with the consent of the mayor on one-half compensation after service of at least ten years, and further provides (except in the Malden act) that if the veteran's term of service was for a fixed number of years he shall be entitled to the benefits of the act without reappointment.

F. SOLDIERS' HOME IN MASSACHUSETTS.

A veteran of the civil war in the service of the Soldiers' Home in Massachusetts, if incapacitated for active service, may be retired after fifteen years' service by the trustees of the Home, with the consent of the Governor and Council, on one-half compensation, but not exceeding \$500 per year.

10. PRISON OFFICERS AND INSTRUCTORS.

Acts of 1908, chapter 601, retirement of officers in prisons.

Acts of 1911, chapter 673, amendment to include instructors.

Beneficiaries.

Any officer or instructor in the State Prison, Massachusetts Reformatory, State Farm, Reformatory Prison for Women or jail or house of correction who began employment as such before June 7, 1911.

Retirement.

The Prison Commissioners, with the approval of the Governor and Council, may retire and place upon a pension roll an officer or instructor who —

(a) Is sixty-five years of age or over, and who has been employed in prison service with a good record for not less than twenty years.

(b) Has become permanently disabled by injuries sustained in the performance of his duty.

(c) Has performed faithful service for thirty years.

Approval required.

Approval of retirement is required in case of an employee of the State Farm by the trustees of that institution; in case of an employee of jail or house of correction, by the sheriff and county commis-

sioners; in Boston the sheriff and mayor must recommend the retirement for employees of the jail and the penal institutions; the commissioner and the mayor must recommend for employees of the house of correction.

Pension.

The pension paid is an amount equal to one-half of the salary he was receiving at time of retirement.

By whom paid.

In the case of an officer or instructor in the State institutions the pension is paid by the State, and in the case of officers or instructors of jails or houses of correction the pension is paid by the counties.

11. PROBATION OFFICERS.

Acts of 1912, chapter 723.

Beneficiaries.

Any probation officer or assistant probation officer whose whole time is given to the duties of the office.

Retirement.

The court upon which he attends, with the approval of the county commissioners, may retire and place upon the pension roll such officer who is —

(a) Not less than sixty years of age and who has served not less than twenty years.

(b) Permanently disabled, mentally or physically, for further service by reason of injuries or illness incurred in the performance of duty.

Pension.

The pension is one-half the annual compensation received by him at the time of retirement, and is paid by the county employing him.

12. COURT OFFICERS OF THE SUPREME AND SUPERIOR COURTS.

Acts of 1912, chapter 722.

Beneficiaries.

Any court officer of the Supreme Judicial Court or of the Superior Court.

Retirement.

Any officer, who in the judgment of the sheriff of his county is disabled for useful service, and certified by a physician to be permanently incapacitated, either mentally or physically, by injuries sustained in the actual performance of duty, and any officer who has performed faithful service for not less than twenty years and in the judgment of the sheriff is incapacitated for further service, shall, if the sheriff so requests, with the approval of the majority of the justices of the court in which he serves, be retired.

Pension.

The pension is one-half the compensation received by him at the time of retirement.

By whom paid.

Pensions are paid by the State and several counties to the same extent and in the same proportion as the salaries were paid at time of retirement.

13. WOMEN EMPLOYED BY THE SERGEANT-AT-ARMS.

Acts of 1913, chapter 711.

Any woman in the employ of the sergeant-at-arms as a cleaner or scrub woman, who has reached the age of sixty years and has been in such employ not less than fifteen years and has become physically or mentally incapacitated for labor, and any such employee who has been in the employ of said department for a period of not less than ten years and has become physically or mentally incapacitated for labor by reason of any injury received in the performance of her duties in said department, may, with the approval of the sergeant-at-arms, be retired from service, and if so retired she shall receive from the commonwealth for the remainder of her life the sum of three dollars per week.

CHAPTER V.

THE PENSION PROBLEM.

GENERAL OLD-AGE PENSIONS.

The call for old-age pensions arises from the fact that some men arrive at the unproductive period of life without having made adequate provision for it, and because at present there is no satisfactory system of dealing with cases of need arising from this fact. There is also a demand for a pension system from those who hold that the State as representing society should assume an increasing guardianship over its citizens and, accordingly, provide for their needs. With these persons the general old-age pension is only a small part of a larger program for the reorganization of society; to them no proof of the desirability of an old-age pension is necessary. Those, on the other hand, who are convinced of the validity of the doctrine of *laissez faire*, are equally strong in their belief that old-age pensions are wholly indefensible. They deprecate the encroachment of society upon individual freedom, and oppose the extension of the social activities of the State; their hope for the advancement of society rests on the industry and thrift of the individual, and when misfortune or lack of stamina have operated adversely in individual cases, they offer the poorhouse for the dependent and the hospital for the sick.

Between these extremes stands the largest class of citizens, to whom any defect in the present social system is of vital concern, and to whom the call for an old-age pension, based upon the need of the superannuated and the inadequacy of the present system of poor relief to meet this need, is a challenge to constructive thinking.

While the social activities of the State are marked by humane legislation in many forms for the betterment of the individual, its system of poor relief is antiquated. Poor relief makes no distinction between the worthy and the unworthy; the social stigma, the deprivation of citizenship, and often the publication in the town report of the name of the recipient and the amount doled out to him, make the system onerous, and the opprobrious epithet of "pauper" is the price the citizen is obliged to pay for help. Whether the agitation

for old-age pensions could have been avoided had the State built upon humane and economic lines a system of relief to the needy that would have removed the stigma now attaching to it, is not yet too late to inquire. The causes of the stigma are worthy of considerable study, for it may well be that a wise change in method can greatly improve the whole situation.

Much of the agitation for the old-age pension in this Commonwealth is based upon an expectation of payment by the State of about \$200 per annum, and its exponents cite the example of European countries as a precedent. A full description of the origin and growth of old-age pensions in Germany, England, France and other countries is set forth in the United States Bureau of Labor publications. It is necessary, however, to refer to them briefly here in order to correct the conception of the foreign old-age pension as it exists in the minds of some of those who advocate it in this Commonwealth.

The German system was established in 1889, and its fundamental principles have undergone no change. It has stood the test of twenty-five years' experience, and has proved of economic and humanitarian value. The system is compulsory and includes invalidity and old age. The premiums are paid, one-half by the employee, one-half by the employer; the State subsidy is the cost of administration and \$11.90 per annum to each pensioner. The annuity varies from \$26.18 to \$54.64, payable at age 70.

The compulsory system in France is similar, the employer and employee contributing equally to the premium. The State subsidy was \$11.58, but was increased by the act of Feb. 12, 1912, to a maximum of \$19.30. The pension varies from \$19.70 to \$78.78, and is payable at age 60.

The English system provides pension payments by the State to every person over the age of 70 who is not in receipt of an annual income greater than £31 10s. The system went into effect June 1, 1909. The amount of pension varies between 52s. and 260s. per annum, depending upon the income of the pensioner from other sources. It will be seen that even under the English system, which places the whole cost of pensions on the State, the latter pays at most an annual gratuity of less than \$65.

What is the demand for an old-age pension; to what extent does old-age dependency exist; should a pension be based upon need, or should it be extended to all, regardless of need; can legislation be

enacted without constitutional amendment, — these are the elements that make up the problem in this Commonwealth.

The Pension Commission of 1910 reported that there was no considerable demand in this State for the establishment of a general scheme of old-age pensions or insurance. The experience of the present commission has emphasized this conclusion. In the hearings held throughout the State no one appeared in advocacy of a general old-age pension, save in one instance at a hearing in Boston. Nevertheless, from time to time, before legislative committees or other bodies, advocates of the general old-age pension appear. In some cases the demand arises from an honest sympathy with the dependent aged; in some cases the demand is inspired by adherence to socialistic theories; and in other cases it has its inception in the belief that it is an attractive inducement to political support. The demand that is the most difficult to meet arises from the fact that public employees, who are regarded as more favored in their employment than private employees, are in some places in receipt of non-contributory pensions paid from funds raised by taxation, and that private employees have equal rights to such consideration from the public treasury. Whatever may be the motives that actuate those who at the present time are insistent upon the necessity of a general old-age pension, the citizens of the Commonwealth have not yet manifested any sufficient interest in the question to call for immediate legislation.

The investigation of the Pension Commission, which reported in 1910, showed less than 25 per cent. of the inmates of poorhouses to be over sixty-five years of age. The present commission, without attempting to duplicate the work of the former commission, has interviewed many of the almoners throughout the State and others interested in poor relief. The almoners almost without exception stated their conviction based upon their experience that a system of old-age pensions would not help the poorhouse problem, as nearly all inmates of the poorhouses are such as must have institutional care. Neither the former commission nor the present could do more than make an estimate of the number of people in the State over sixty-five and over seventy years of age, outside of the poorhouses, who are in a condition of old-age dependency.

The commission recognizes, however, that need arising from old-age incapacity may exist to a greater extent than is indicated by the experience of almoners, the reports of town farms, the expression

of citizens at public hearings, or by any data which are yet available. In the treatment of this question, involving a departure into experimental fields of legislation, the most accurate statistical information is necessary as a guide to action. That a census study is needed is indicated by the experience of England, where the number of applications for pensions was 667,000, or nearly double the estimate of 386,000. Our own experience in the United States of underestimates is also illuminating: President Cleveland pointed out that in 1818, when the Revolutionary Pension bill was under discussion, the number of pensioners was estimated as 374; the number of applicants was 22,297; and the number of pensions allowed 20,485, and the cost was \$1,850,000 instead of the \$40,000 which was estimated. In 1853 a law was passed for the widows of Revolutionary soldiers, who were estimated at 300; the number of pensions allowed was 3,742, and amounted to \$180,000 instead of \$24,000 as estimated. In Germany the first step in the discussion of social insurance was a most minute census investigation of the whole country. The commission recommends, therefore, that at the State census of 1915 an exhaustive study be made and a supplementary census be taken of the condition, the need and the causes of need of all persons in the State over sixty-five years of age.

Economically considered, the old-age pension is a redistribution of wealth, either from the productive years of an individual to his non-productive years, or from the funds of all to the superannuated. Redistribution in the one case is by savings, in the other by taxation. Upon the basis of savings, a pension system can be inclusive, balanced and self-sufficient. If the wage earner received an adequate wage, — and by adequate wage is meant the inclusion of a surplus beyond the amount necessary for decent support of his family, — and the State could compel him in his productive years to lay aside from such surplus an amount sufficient for his non-productive years, the problem would be solved. An independent old age would then be the result of individual effort.

Upon grounds of justice an old-age pension derived from savings cannot be assailed; upon practical grounds the ability of the lowest paid worker to set aside enough to provide a reasonable annuity for himself may be questioned. Reference to annuity tables will show that it takes but a small amount weekly to purchase a substantial annuity at advanced age. To buy an annuity at age 70 of about \$200

per year requires a deposit of only 34 cents a week for forty years, at an interest rate of $3\frac{1}{2}$ per cent., or 42 cents a week for thirty-five years. The same deposits would furnish an annuity of about \$170 at age 65.

Upon the basis of taxation the problem presents new aspects. A system of non-contributory pensions regardless of need, to all who reach a certain age, must be supported by the tax levy, and many who give unthinking support to such a doctrine as a simple and easy settlement of the needs of the poor do not always realize that taxes are borne not alone by the taxpayer, who pays directly, but indirectly by all the people in the State.

Old age exists to a far greater extent than is generally supposed. According to the American Experience Mortality Table of 100 persons at the age of twenty, 53 will reach the age of sixty-five and 42 the age of seventy, at which time the average expectancy of life will be eight and a half years. Consequently, any general old-age pension, not based upon need, must eventually include about one-half the present adult population of the State. The provident worker would be taxed directly on his home and indirectly on all the necessities of life in order to support such a scheme, but no share of his burden should go to those whose need is actually less than his own, or who is less deserving. It would become necessary, therefore, to make sure that annuities would be paid neither to the shiftless nor to the well-to-do. But this would require an investigation of the financial condition and previous record of each applicant, which would create expensive and inquisitorial machinery and would in its essence be poor relief. Yet not even in this form is it effective or just relief, for it lacks all the flexibility which should provide for dependents of the pensioner or for the increased needs of the invalid.

Consideration of the many and puzzling questions which arise out of the sufferings of poverty is led into wrong paths by the alluring simplicity of the general old-age pension. The needs of the indigent vary in their extent, their nature and their causes; need is by no means confined to those over sixty-five years old, but arises from three sources, sickness, widowhood, and orphanage, much more frequently than from old age. If a pension system takes into account variations in the amount of help needed, it is a poor relief which sacrifices some of its efficacy for the sake of concealment of its real nature. If it does not take these variations into account, it becomes a rigid and

expensive system of gratuities, giving less than is needed to some and encouraging some to become dependents who would otherwise maintain themselves in independence.

There is one factor of the problem in our country, and more particularly in our State, which does not exist in any important degree in England or Germany, — the effect of immigration upon the results of a pension system. While this effect is very difficult to predict, the subject demands close thought. In a stable community a system of gratuitous old-age pensions is felt by many to be a serious menace to the sturdiness of the citizenship; there is the added fear that such a system would invite an undesirable migration from other States and countries into Massachusetts.

Finally, if a general old-age pension were advisable, notwithstanding the reasons heretofore given, the constitutional phase of the problem still remains to be considered.

The general principle of law forbids the exercise of the power of taxation for any but a public purpose. Old-age pensions have nowhere been established in the United States. The opinion is well grounded among all who have written on the subject, that under our present forms of federal and State constitutions, old-age pensions, when not based on need in the form of poor relief, would be prohibited by our constitution. An eminent authority,¹ after reviewing the decisions of federal and State courts bearing on the question, says: —

Our conclusions, then, as to the constitutionality of old age, accident and sickness pensions are, assuming that the courts do not change their view: —

1. Such pensions when provided by State action are not prohibited by the fourteenth amendment or any other provision of the federal Constitution, particularly if they are confined to indigent persons.

2. If not confined to indigent persons they are unconstitutional under the ordinary provisions of the State constitutions.

3. Even if confined to indigent persons they are probably unconstitutional under the ordinary provisions of the State constitutions, although there is some reason for believing they might be justified as a form of outdoor poor relief.

4. There is much ground for the belief that such pensions, particularly if confined to indigent persons, might constitutionally be provided by the federal government.

¹ Frank J. Goodnow, Columbia University, *American Political Science Review*, May, 1911.

The commission does not urge, as an argument against old-age pensions, that they are not permitted by our constitution, for whenever the old-age pension is demanded by the people of this State the constitution can be amended. The commission, however, strongly recommends that no such legislation be attempted until the constitutional question be determined, so that the enactment of a law of doubtful constitutionality, which purports to be a humanitarian measure of relief, may not arouse expectations which the Supreme Court may be compelled, by a just interpretation of the constitution, to disappoint.

The commission is of the firm opinion that the reasons herein set forth compel the conclusion that a general old-age pension is inadvisable.

PUBLIC SERVICE PENSIONS.

The principle upon which pensions have been granted by the Legislature in this Commonwealth to persons engaged in the public service has never been defined either by the Legislature or the courts.

The pension system had its origin in the police and firemen's pensions, the adoption of which was due to sentiment aroused on account of the hazard of their employment. The system grew, and one pension law after another was passed, generally following an organized movement by the proposed beneficiaries. Many of these laws were drawn with evident doubt of their constitutionality, and in the earlier laws a clause was generally inserted providing that the pensioners could be called upon for duty in cases of emergency. This clause had no practical results, and without doubt was written in with the hope of evading the question. In view of the increasing effort of nearly all classes of public employees to obtain pensions the time has now come to determine upon what principle and what theory such pensions must be based. The form of legislation must depend upon whether a pension has its basis in some right of the employee or some benefit to the public service. In the hearings before the commission the public employees, almost without exception, based their claim for their respective pensions upon grounds relating to their employment as constituting a moral or equitable right to the pension.

While it will not be feasible within the limits of this chapter to

discuss the question fully from a legal standpoint, it is advisable briefly to refer to the right or power of the State to grant pensions.

That money raised by taxation can only be voted for a public use is a principle affirmed by the Massachusetts Supreme Court in many cases.

In *Whitaker v. Salem*, decided Feb. 28, 1914, the Supreme Court of this Commonwealth said:—

But they must keep within the broad principles which govern all public boards of officers. They are charged with the expenditure of money raised by taxation. They can have power to vote it only for public uses. They have no right to devote it to private purposes. However meritorious the project may appear to be, either in its practical, or ethical, or sentimental aspects, if it is in essence the emolument of an individual rather than furthering the public interest, money raised by taxation cannot be appropriated for it. These principles often have been declared respecting a great variety of subjects and cannot be doubted.

In *Opinion of the Justices*, 204 Mass. 175, the court qualified its decision in *Mead v. Acton*, 139 Mass. 341, which was a case widely cited throughout the country against the right to pension public employees, and said, upon the question of the right of a city to pay to the widow or heirs of a deceased public employee the salary to which he would have been entitled, "It will be plain from what we have said, that in our opinion the public welfare alone must be the ground, as it is the only legal justification for this kind of payment."

Perhaps the clearest statement is made in the leading case of *Lowell v. Boston*, 111 Mass. 454, where Mr. Justice Wells said:—

The promotion of the interest of individuals, either in respect to property or business, although it may result incidentally in the advancement of the public welfare, is in its essential character a private and not a public advantage. However certain and great the resulting good to the general public, it does not, by reason of its comparative importance, cease to be incidental. The incidental advantage to the State, which results from the promotion of private interests and the prosperity of private enterprises or business, does not justify their aid by the use of public money raised by taxation, or for which taxation may become necessary. It is the essential character of the direct object of the expenditure which must determine its validity as justifying a tax, and not the magnitude of the interests to be effected, nor the degree to which the general advantage of the community, and thus the public welfare, may be ultimately benefited by their promotion.

This principle has been affirmed by the Supreme Court in Opinion of the Justices, 175 Mass. 599; Opinion of the Justices, 190 Mass. 611; Opinion of the Justices, 204 Mass. 611; Opinion of the Justices, 211 Mass. 624.

Therefore, in analyzing the reasons upon which the pension for public employees must be based, it can be deduced from the above citations that the expenditure of public moneys raised by taxation for gratuities or any purpose but a public use is unlawful, and that the reason for a pension to a public employee must have its derivation from one of two sources: (*a*) an equitable claim of the employee upon the State, or (*b*) a public purpose resulting in benefit to the State.

Government is necessary to society, but the cost of government can become a menace and burden to society beyond its just limits; analysis of the advancing cost of living discloses that excessive cost of government contributes no small part. According to the Census Bureau's figures the city of Boston spends for all purposes connected with its government and administration about \$35,000,000 per year. This is about \$48 per capita, or about \$200 for every family. The laborer who has no taxable property does not contribute such an amount directly by taxation; but indirectly he pays his full share in rent, in groceries, provisions and whatever else he buys. The property owner is often but a tax collector who pays his taxes from the income derived from rents, and the increased taxation of the manufacturer or the merchant is borne by the consumer in the increased price of the goods he buys.

The cost of taxation is of paramount importance to the man who works with his hands as well as to the property owner, and government, the cost of which must be paid out of the funds raised by taxation, should not be administered on extravagant or philanthropic lines, but must be subjected to the test of its true value to all citizens.

It can be predicated as sound doctrine that the State has done its full duty towards the public employee when it fulfils its just obligations to him. This leads to the inquiry as to what is the duty of the State to the employee. That duty can be stated to comprise:—

1. An adequate wage for service rendered. By adequate wage is meant a wage that leaves at least some surplus to the employee beyond the cost of living. This surplus necessarily is an indeterminate quantity dependent to a large extent upon the thrift of the

employee; but with a proper standard of thrift it should be large enough to give reasonable comfort and education to his family.

2. Hours of labor and other conditions of employment as favorable as those in similar private employment.

3. Permanency of employment and security of wages as favorable as can be obtained in any similar private employment.

If the State fulfils its duty in these respects the public employee can have no further claim as a moral or equitable right upon the State.

While there are some exceptions to the rule, nevertheless it will not be disputed by most citizens that the public employee receives as much, if not more, in wages than the private employee in similar employment; that as a rule he is more favored in conditions and hours of labor, is subject to less strenuous supervision, and is assured of better security of wages and greater permanency of employment. If wages at any time should fall below the standard the remedy should not be a pension system but the readjustment of wages.

It must follow that the public employee's claim to a pension cannot with reason be based on any failure of the State to do its duty.

The arguments generally advanced in support of pensions are: —

1. That the reason which has induced many railway companies and industrial corporations to provide superannuation retirement for their employees applies equally to the service of the State.

No doubt the example of many railroads and other large business institutions, which have established gratuitous pension systems for superannuated employees, has created among public employees a belief that the State should do the same. In some cases such private pension schemes are based on philanthropic and humanitarian motives, and in others the purpose is to hold employees free from the interference of labor organizations. That such pension schemes furnish a precedent for pensions for public employees cannot be more convincingly refuted than by the reasons given by the United States Commission on Economy and Efficiency in its report to President Taft, April, 1912 (House Doc. No. 732, 62d Cong., 2d Sess.): —

The question may be raised why a straight pension should be demoralizing to the government service, when the testimony of private employers is to the effect that they have found it helpful in the maintenance of discipline. The answer is that conditions of employment in the government service are diametrically different from those in private service. A straight pension

is a powerful aid to the ordinary employer in holding his men and in keeping up their standard of efficiency, as brought out by the Hon. Frank A. Vanderlip, president of the National City Bank of New York, in an article on "Insurance for Working Men," published in the "North American Review," in December, 1905. Said he:—

When employees realize that unsatisfactory conduct may at any time lose them not only their present position, a loss which in such a labor market as ours might be easily made good, but that it entails further the loss of a very valuable asset,— the employee's right to a pension,— the incentive to good conduct is greatly increased. It operates especially as an incentive to hold men between the ages of forty and fifty, when they have acquired the experience and skill which makes them especially valuable, and prevents their being tempted away by slightly increased wages for a temporary period.

This statement is entirely correct when applied to business institutions. It is not wholly correct when applied to the government service. A straight pension is a powerful aid to the government as well as to a corporation in holding its employees, but there is this radical difference in its operation under the two conditions: in the case of the government it operates to hold the poor employees rather than the good, and to break down rather than to keep up the standard of efficiency. This is explained by two fundamental differences in the conditions of labor when a private corporation is the employer and when the United States government acts in that capacity. These are, first, the fact that there is seldom any relationship between the value and the cost of a government output such as there always is in the case of a commodity produced by a private corporation; and second, the fact that the man at the head of a government office or shop has much less authority over his subordinates than has an executive officer similarly placed in a private business.

The fact that the administrative officials at the head of government offices have not entire control over the selection of their subordinates makes it impossible for those officials to be held as strictly responsible for results as is the case in private business. What is everybody's business is nobody's business. Since also the position of the executive head of the office is not greatly endangered by the incompetency of his assistants, especially where the effect of the incompetency cannot be readily measured by reduction in actual output of some kind, it follows that he can afford to be lenient with them. He is especially inclined to be so if the employee's inefficiency is known to be the result of old age or any other cause which makes an appeal to the natural feelings of humanity. In case the inefficient employee is working under a pension system whereby he is entitled on reaching a certain age to retire on a competence, the head of the office will be all the more reluctant to dismiss him before he reaches that age. But a pension system has exactly the opposite effect where the private corporation is the employer. In that case the administrative official at the head of an office is held directly responsible either to the owner of the business or a board of directors for the inefficiency of his subordinates. The output can usually be measured in terms of tons

or dollars, and if it falls below the required amount the position of the man in charge is jeopardized. In self-defence, therefore, he is obliged to hold every subordinate up to the highest standard of efficiency, and to stifle any feeling of humanity or sympathy which might otherwise tempt him to show leniency. That being his state of mind, a pension system becomes a powerful aid to him in his effort to maintain discipline and secure obedience and industry, as explained by Mr. Vanderlip in the article quoted above. Undoubtedly, the reason why railroads and other corporations are disposed to favor the straight pension with entire control of the pension fund, rather than any contributory plan with a fund in any way controlled by the employees, is that it helps them to approximate the establishment of military discipline among their subordinates. They look on a pension as a useful kind of strike insurance. For fear of forfeiting his pension, the employee, like the soldier, will sacrifice much of his personal liberty, including his right to strike for better wages or shorter hours.

2. That a pension system attracts a better class of employees. While it is true that individual cases can be cited wherein the pension is an inducing factor to enter the public service, it may well be questioned whether it increases to any appreciable extent the efficiency of the service, since it attracts the inefficient as well as the efficient. It is a very small percentage of those who enter the public service to whom the consideration of what they will receive by way of a pension at sixty-five or seventy years of age is a controlling factor in their application for public employment. The attraction of a better class of employees by reason of a pension is an unknown quantity, if it exists at all, and to justify the cost of a pension system on such an unknown factor would be illogical and unwarranted.

3. That a pension increases the efficiency of the public employee. This reason assumes that the public employee, who is paid an adequate wage, would be more efficient if a pension were added to his wage. This argument rarely comes from the employee, who contends that he is giving the best service he can. A pension system is not an incentive to efficiency in service because it includes the inefficient as well as the efficient. What added stimulus can the efficient employee have to further endeavor by reason of a pension, when he considers that his inefficient fellow employee will likewise receive the same pension?

The commission finds that only by the retirement of the superannuated does a pension system improve the efficiency of the public service, and that without a proper pension system —

1. Appointing officers are unwilling to dismiss those who have become superannuated, when it entails hardship.
2. Political influences come into play to prevent the discharge of employees who have outlived their usefulness.
3. The practice of keeping on the pay roll superannuated employees who have lost their efficiency means waste.

The waste arises from the fact that the superannuated employee is unable to perform his duty and is practically a pensioner on full salary; that his work devolves upon younger employees who feel a sense of injustice in performing the work and receiving less than the aged incompetent; and that superannuated employees retard promotion and stagnate the service.

Whether a proper pension plan should be non-contributory or contributory in character is a vital question.

The non-contributory pension, sometimes called the straight pension, is supported wholly from the tax levy. The commission finds against such pension for public employees, because —

1. It is a heavy, continuing and increasing tax.
2. It makes for inefficiency in the public service, by making difficult the dismissal of incompetent employees.
3. It is disadvantageous to the employees, because it influences adversely the wage of the employee.
4. It encourages a demand for non-contributory pensions for all aged persons.

In past pension legislation the cost was usually concealed by want of actuarial estimate. This is strikingly illustrated by the experience of the Permanent School Pension Fund of the city of Boston, which was established in 1908. It is based on a cost of 5 cents for each thousand dollars' valuation, but the actuarial examination made for the commission, as given in chapter III, shows its cost to be almost six times as great. Similarly, the Police Pension Fund in the city of New York shows that the direct contributions by the city, to cover the deficits, increased from \$193,946.26 in 1905 to \$1,320,538.34 in 1913. The experience of New York, with its teachers and firemen's pension funds, is equally startling. It is usually overlooked that pension systems start with a small number of pensioners, which is increased year by year until eventually the pension roll contains a large proportion of those originally in the service. The cost rises correspondingly.

Under a non-contributory system the employee is inclined to look upon his pension as a deferred wage, or a compensation paid him for a service in which his wage was inadequate. To those who hold this view the argument against the dismissal of an incompetent employee who thereby forfeits the wages which have been deferred, but which he has nevertheless earned, is strong and leads to the retention of the incompetent to avoid the injustice. Under a contributory system, when the incompetent employee is dismissed and his savings are returned to him, the argument has not equal force.

The non-contributory pension is disadvantageous to employees because it is taken into account in fixing the wage scale. This leads to a consideration of a vital question, namely, the effect of pensions upon wages. Even though the non-contributory pension cannot be defended as a deferred wage, nevertheless it is invariably taken into account sooner or later in adjusting wages. Whatever may have been the reason for the establishment of a pension system in the beginning, when the question is considered of granting an increase of pay, the fact that the service is bearing the burden of gratuitous pensions, will be taken into consideration by the officer or body which determines the wage. The history of the British Civil Service pension shows this to be true. Of the 100,000 civil servants in Great Britain about 70,000 joined an organization which took the name of the Deferred Pay Committee. These employees contended not only that their salaries were lower than they would have been had the pension system not been adopted, but that the amount withheld from their salaries was more than sufficient to pay the pensions. In consequence of their agitation the Courtney Commission was appointed in 1902, with the result that the system was so modified as to make it virtually a contributory plan.

The commission found in its conferences with heads of departments that in fixing the wage schedule the pension which the employee may receive is generally taken into account. The pensionable employee will, in time, work for a less wage than he would receive if it were not for the promised pension. The pension and the wage should be kept separate; the employee is entitled to an adequate wage apart from the pension, and has a right to have it paid when it is earned.

That a pension is a deferred wage implies that the employee has earned a certain wage, part of which is retained by the employer to

be paid him on retirement at a stated age. But what becomes, under such a theory, of the deferred wages earned by the employee who leaves the service or dies? He forfeits that part of his wages which has not been paid because deferred, and the forfeited wages become part of a fund from which are paid the pensions of those who survive to the pensionable age. This is in fact a tontine system which is to-day condemned by the best insurance laws.

Looking the question squarely in the face, would the employees assent to a pension upon the theory of deferred wages, and consent that part of their wages be held back for the benefit of those who survive to the pensionable age? Upon such a theory the employee, in order to recover his wages, would have to succeed in three things: living to a certain age, remaining in the service until that age, and living beyond that age long enough to get back the value of his contributions.

The non-contributory pension to public employees encourages a demand for the same kind of a pension for all superannuated citizens. The inadvisability of the general old-age pension has already been pointed out, and perhaps the strongest element in a demand for a general old-age pension is the fact that the State has established non-contributory pensions for its public employees. A noteworthy fact in this connection is the vote in the cities of the Commonwealth at the State election in November, 1912, upon the question of pensioning laborers in the employ of cities and towns. The large textile centers of the State, like Lowell, Lawrence, New Bedford and Fall River, voted against the adoption of the act to pension laborers. The commission believes this was in the main due to the feeling among mill operatives that the public employee was already favored beyond the private employee, and no more entitled to receive a pension from the State than any other citizen who becomes superannuated.

That under a non-contributory pension the public employee endeavors to extend his benefits at increased cost to the public treasury needs no argument in the light of experience in this Commonwealth. The continual agitation for increased benefits, reduction of retirement age, shortening of service requirement, and inclusion of former employees, with the supporting pressure in favor not counterbalanced by any effective representation on behalf of the taxpayer, has created our unequal and confused system of pensions. Unless it is sup-

planted by a uniform and universal plan based upon sound and permanent principles, with equal justice to all public employees, our unsystematic pension system will involve the Commonwealth in irremedial difficulty.

Such a plan must embody as its fundamentals:—

1. *Compulsory Saving.*—Since the State, through compulsory saving, obviates the difficulty and hardship of retiring the superannuated without provision for dependent old age, it receives benefit by way of increased efficiency, and should assume part of the cost of a retirement system.

2. *Compulsory Application.*—The experience of the State has demonstrated in pension and similar legislation that voluntary plans are ineffectual to accomplish practical results.

3. *Inclusion* of all public employees because inefficiency on account of superannuation is not peculiar to any class of employees.

4. *Centralized administration*, for reasons of economy as well as for statistical information, correlated study and estimate of cost.

CHAPTER VI.

PROPOSED LEGISLATION.

The commission presents in this chapter several bills, the enactment of which by the General Court will carry into effect the recommendations contained in this report. These bills are:—

1. The Massachusetts Retirement Act (An Act to establish a retirement system for employees in the public service).
2. An Act relating to payments to police and firemen, or their families, in case of disability or death.
3. An Act relating to retirement of justices of the Supreme Judicial Court.
4. An Act relative to the Public School Teachers' Retirement Fund in the city of Boston.
5. An Act relative to the Permanent School Pension Fund of the city of Boston.
6. An Act relative to taxation in the city of Boston.

The nature of these bills and the reasons for their proposal have already been set forth in chapter I. of this report.

1. MASSACHUSETTS RETIREMENT ACT. AN ACT TO ESTABLISH A RETIREMENT SYSTEM FOR EMPLOYEES IN THE PUBLIC SERVICE.

Be it enacted, etc., as follows:

PART I.

SECTION 1. This act shall be known as the Massachusetts retirement act, and its purpose is to improve the efficiency of the public service by the retirement of superannuated employees.

SECTION 2. The following words and phrases as used in this act, unless a different meaning is plainly required by the context, shall have the following meanings:—

(a) "Retirement system" shall mean the arrangement provided in this act for the payment of annuities.

(b) "Retirement" shall mean the termination of service at the

age of retirement, or within five years thereafter as provided in the act, except that in the case of judges it shall mean resignation.

(c) "Annuities" shall mean the payments for life derived from funds created under the provisions of this act.

(d) "The retirement commissioner" shall mean the commissioner appointed by the governor as provided in the act.

(e) "Employer" shall mean the commonwealth, metropolitan district, county, city or town by which the employee is paid: *provided, however*, that in the case of teachers, all deductions made from their salary, pay or compensation shall be transferred to the treasurer of the Commonwealth, and all payments made under the provisions of this act, except the deduction from salary, pay or compensation, shall be made by the commonwealth.

(f) "Employee" shall mean regular and permanent employees whose only or principal employment is in the service of the employer.

(g) "Regular interest" shall mean interest at four per cent compounded semi-annually on the last days of December and June and reckoned for full six months' periods.

(h) "City council" shall mean the legislative branch of the city government, whether consisting of one chamber or two.

(i) "Public school" shall mean any day school conducted within the commonwealth under the order and superintendence of a duly elected school committee, and also any day school conducted under the provisions of chapter four hundred and seventy-one of the acts of the year nineteen hundred and eleven.

(j) "Teacher" shall mean any teacher, principal, supervisor or superintendent employed by a school committee, or board of trustees, or the commonwealth in a public school within the commonwealth.

(k) "Police" shall mean the superintendent and deputy superintendent, chief or officer corresponding thereto, chief inspector, captain, inspector, lieutenant, sergeant, patrolman, marine engineer or marine fireman in every regularly organized police department.

(l) "Fireman" shall mean chief of department, assistant chief, district chief, captain, lieutenant, engineer, assistant engineer, hoseman, ladderman and fireman in every regularly organized fire department.

SECTION 3. The retirement system shall be established on the first day of January next following the passage of this act.

SECTION 4. This act shall apply to the commonwealth, to the met-

ropolitan district, to every county in the commonwealth, to all cities, to every town of over ten thousand population, as determined by the last census of the commonwealth, and to towns of less than ten thousand population only as to teachers: *provided*, that any town which may hereafter have a population of over ten thousand, as determined by the census of the commonwealth, shall come within the provisions of this act; and *further provided*, that any town of less than ten thousand population shall come within the provisions of this act, if a majority of the voters voting thereon at an annual town meeting shall vote in the affirmative that this act shall take effect in such town, and in that case the act shall take effect ninety days from the date of said vote.

SECTION 5. The retirement act shall include, subject to the exceptions provided in the following section: —

(a) All employees of the commonwealth.

(b) All employees of the metropolitan district.

(c) All employees of the counties of the commonwealth.

(d) All employees of cities.

(e) All employees of towns, including fire and water districts in towns, to which this act applies.

SECTION 6. The following classes of employees shall not be included within the provisions of this act: —

(a) Justices of the Supreme Judicial Court.

(b) All elective officers.

(c) Employees appointed for a definite term of years by the governor, the mayors of cities, and boards of selectmen of towns.

(d) Veterans except as provided in Part IV.

SECTION 7. Every employee to whom this act applies, except as provided in the following section, who shall continue in the service of the employer after the passage of this act, as well as every person to whom this act applies who may hereafter become an employee, shall be deemed to consent and agree to the deductions made and provided for herein and to all other provisions of this act and any amendments thereof. Payment, less said deduction, shall be a full and complete discharge and acquittance of all claims or demands whatsoever for service rendered by such person during the period covered by such payment, notwithstanding any other law, rule or regulation affecting the salary, pay or compensation of any person or persons to whom this act applies.

SECTION 8. Any employee at the time of the passage of this act, to whom this act applies, may, within sixty days, give notice to the employer that he does not desire to come within the provisions of the act, and he shall thereby be deemed to have elected not to continue in the service of the employer, and his employment shall cease within ninety days from the receipt of such notice.

PART II.

MANAGEMENT OF SYSTEM.

SECTION 1. There shall be a retirement commissioner for the commonwealth appointed by the governor with the advice and consent of the council, who shall hold the office for the term of three years from the date of his commission and until his successor is appointed and qualified. He may be removed by the governor. He shall give bond with sureties in the sum of ten thousand dollars, to be approved by the treasurer and receiver-general, for the faithful performance of his duties, and shall receive in full compensation for his services an annual salary to be fixed by the governor with the consent of the council. The retirement commissioner shall devote his whole time to the duties of the office.

SECTION 2. The commissioner may, with the approval of the governor and council, appoint, and with the consent of the governor remove, a deputy commissioner to assist him with his duties, who shall receive an annual salary of twenty-five hundred dollars. In case a vacancy in the office of commissioner occurs, and during the absence or disability of that officer, the deputy commissioner shall perform the duties of the office. The commissioner may employ in his department such additional clerks and assistants as the public duties in his charge may require, at an expense not to exceed such amount as the general court may appropriate each year.

SECTION 3. The management of the retirement system in this act is vested in the retirement commissioner, and all retirements shall be made by him. No pension or annuity provided by this act shall be paid by the commonwealth, or any county, city, town or district therein, except upon the certificate of the retirement commissioner duly filed.

SECTION 4. The retirement commissioner shall, for the purposes of this act, prescribe one or more mortality tables, and shall deter-

mine what rate of interest shall be established in connection with such tables, and may later prescribe other tables or another rate of interest and may determine the application of the change so made.

He shall also prescribe and supervise the method of bookkeeping in connection with the retirement system provided for in this act, and shall furnish to each department of the commonwealth and to each county, city, town or district in the commonwealth, or any department thereof, blanks in such form as he may approve for retirements and such other information as he may deem proper.

SECTION 5. For the purposes aforesaid the retirement commissioner, either personally or by deputy, or assistant, shall at least once every year make examination of and have access to all books, papers and securities of any department of the commonwealth or any county, city, town or district therein. He shall at least once in every five years cause an actuarial examination to be made of the annuity funds. He may summon and administer oaths to and examine as witnesses any persons relative to the financial affairs, transactions and conditions of the retirement system provided for by this act.

SECTION 6. The retirement commissioner shall preserve in a permanent form a record of his proceedings, including a statement of the result of his official examination of the retirement system provided for in this act, and shall annually and as early as consistent with full and accurate preparation, make a report to the general court of his official transactions, and shall include in such report a statement of the receipts and expenditures of his department for the preceding year and of the financial condition and business transactions of the retirement system as disclosed by official examination of the same or by their annual statements, abstracts of which shall appear therein, and such other information, statistics and recommendations as he may think proper.

SECTION 7. If in the judgment of the retirement commissioner any county, city, town or district, or any official thereof, or any official of the commonwealth, has violated or neglected to comply with any of the provisions of this act or with the rules and regulations established by the retirement commissioner thereunder, he shall give notice thereof to the county, city, town or district, or official thereof, or official of the state, and thereafter, if such violation or neglect continues, shall forthwith present the facts to the attorney-general for his action.

SECTION 8. The retirement commissioner shall have power to make rules and regulations, subject to the approval of the governor, not inconsistent with the provisions of this act, and shall perform such other functions as are required for the execution of the provisions of this act.

PART III.

ANNUITY AND RETIREMENT PLAN.

SECTION 1. Beginning with the first day of January next following the passage of this act there shall be deducted and withheld from the salary, pay or compensation of every employee to whom this act applies, whenever the same is payable, five per cent of such salary, pay or compensation: *provided*, that such deduction shall be made only during the first twenty-five years of service; and *further provided*, that any employee who receives more than two thousand dollars annually in salary, pay or compensation shall not be assessed for contributions on the excess above that amount, and *further provided*, that no such deductions shall be made in the case of employees who begin service when they have reached an age which is within ten years of the retirement age.

SECTION 2. The amounts so deducted and withheld from the salary, pay or compensation of each employee shall be deposited by the treasurer of the employer in the retirement fund of the employer, and shall be credited to the individual account of the employee from whose salary, pay or compensation the deductions are made, except that the amounts deducted from the salary, pay or compensation of teachers shall be transferred at the time the deductions are made by the treasurer of the employer to the treasurer of the commonwealth, and shall be deposited by him in the retirement fund of the commonwealth.

On the last day of June and December in each year the treasurer of the employer, and in the case of teachers the treasurer of the commonwealth, shall credit the account of each employee with regular interest accrued thereon.

SECTION 3. (a) The employer shall appropriate annually such an amount as may be necessary to defray any expenses of administration.

(b) Beginning with the completed tenth year of service of each employee, and continuing until the completion of twenty-five years

of service of such employee, or such part of it as remains prior to his death, separation or retirement, the employer shall each year appropriate and pay to its treasurer, to be deposited in the retirement fund, such an amount, as estimated by the retirement commissioner, that with regular interest will equal the estimated amount of the employee's contributions with regular interest at the completion of twenty-five years of service.

(c) The employer shall appropriate annually such an amount as may be required to make any payments in accordance with the provisions of section fifteen of Part III.

(d) In case the amount appropriated by the employer in any year should prove insufficient for the purposes of this act, as determined by the retirement commissioner, the employer shall appropriate in the following year such an additional sum as may be required to cover the deficit; in case there is any surplus from the appropriation of the preceding year, as determined by the retirement commissioner, the appropriation for the following year shall be reduced by such surplus.

SECTION 4. When an employee is retired upon an annuity the amount provided in this act for the payment of such annuity shall be transferred to a fund called the annuity fund.

SECTION 5. All funds created under this act shall be invested in such securities except personal securities as are permitted by the laws of Massachusetts for the investment of funds of savings banks.

SECTION 6. The retirement age for all employees shall be sixty-five years, except that for policemen and firemen the retirement age shall be sixty years: *provided*, that nothing contained in this section shall apply to judges.

SECTION 7. If, within thirty days before the arrival of an employee at the age of retirement, the head of the department or the officer in control of the department in which such employee is employed certifies to the retirement commissioner that he is efficient and willing to remain in the service, and that the continuance of such employee therein would be advantageous to the public service, such employee may be retained upon approval of the retirement commissioner for a term not exceeding one year, and at the end of one year he may, by a similar certification, be continued for an additional term of one year, and so on; but no employee shall be retained in the public service who has attained an age of five years beyond the

retirement age. Unless such certification is made the employee shall be retired at the retirement age.

SECTION 8. Every employee to whom this act applies shall upon retirement receive from the annuity fund such an annuity as the sum of his contributions with regular interest, together with the amount with regular interest appropriated on his account by the employer according to the provisions of this act, shall entitle him, according to the mortality table adopted by the retirement commissioner, in one of the following forms: —

(a) An annuity payable monthly.

(b) An annuity payable monthly, with the provision that in case of the death of the annuitant before he has received in annuities the amount of his contributions with regular interest the balance shall be paid to a beneficiary designated at the time of his retirement, or, in the absence of such designation, to his legal representatives.

SECTION 9. Any employee who is certified by a physician designated by the employer to be permanently incapacitated, either mentally or physically, for further performance of duty may, upon approval by the retirement commissioner, be then retired, and upon such retirement may withdraw his contributions with regular interest, or receive such an annuity in one of the options provided in section eight of Part III as he will be entitled to from the sum of the following amounts: —

(1) The amount of his contributions with regular interest.

(2) The amounts already appropriated by the employer on his account with regular interest.

SECTION 10. (a) If an employee dies before he has completed ten years of service there shall be paid to his legal representatives all the money that has been contributed by him, together with regular interest; if, however, there is no executor or administrator of the estate of such deceased employee, all sums due under this paragraph, not exceeding one hundred dollars, may be paid to such person or persons as appear in the judgment of the retirement commissioner to be entitled to the proceeds of the estate, and such payment shall be a bar to recovery by any other person.

(b) If an employee dies after ten years of service, and before he has become an annuitant, there shall be paid to his legal representatives all the money that has been contributed by him, with regular interest; and in case he leaves a widow, or if no widow any child

or children under sixteen years of age, there shall be paid to such widow, or if no widow, for the benefit of such child or children, a further sum equal to one half the sum which at the time of his death the employer has appropriated on his account.

SECTION 11. If an employee separates from the service at any time before he becomes an annuitant he shall withdraw the amount of his contributions with regular interest, but if he has performed ten or more years of service prior to his separation he may —

(a) Withdraw his contributions with regular interest.

(b) Leave his contributions in the retirement fund and when he reaches the retirement age of the class in which he last performed service he shall receive such an annuity in any of the options provided in section eight of Part III as he shall be entitled to from the amount of his contributions with regular interest, together with the amount appropriated by the employer on his account with regular interest.

(c) At any time after his separation from the service withdraw the amount of his contributions with regular interest to the last interest period.

(d) In case of death after separation from the service, his contributions with regular interest to the last interest period shall be paid to his legal representatives.

SECTION 12. If any employee who has separated from the service and withdrawn his contributions subsequently re-enters the services of an employer, his period of service for the purposes of this act and of making deductions from his salary, pay or compensation, shall be reckoned from the date of his re-entering the service, unless he shall within ninety days from the date of re-entering the service pay to the employer the amount withdrawn by him, in which case the same shall be credited to his individual account, and his former period of service shall be counted: *provided, however*, that if his former service has been for a period in excess of ten years, the former service shall be counted as of ten years and the amount required to be repaid shall not be in excess of ten years' contributions with regular interest. If such employee has not withdrawn his contributions at the date of re-entering the service he shall be credited with his former service.

SECTION 13. Any employee who shall cease to be employed by one employer and shall subsequently be employed by another employer, and who has not withdrawn his contributions, shall immedi-

ately give notice to the new employer that he has been employed under the provisions of this act, and thereupon the former employer shall by its treasurer transfer to the new employer the contributions of such employee with regular interest, together with any amount which has been appropriated by the employer according to the provisions of this act, but the latter amount shall be returned to the former employer in case the employee withdraws his contributions before retirement or dies in the service; but in case payments are made to widow or children as provided in section ten of Part III, paragraph (b), then only one half such amount shall be returned to the former employer.

SECTION 14. (a) All moneys contributed prior to the passage of this act by employees of the commonwealth, by virtue of the provisions of chapter five hundred and thirty-two of the acts of the year nineteen hundred and eleven, and any acts in amendment thereof, may be withdrawn within ninety days after the passage of this act with interest accrued thereon, and if not withdrawn said moneys shall be credited to the individual account of each employee according to the provisions of this act, and all such funds held by the treasurer of the commonwealth ninety days after the passage of this act, including any and all investments and securities belonging to said funds, shall be administered and distributed according to the provisions of this act.

(b) All moneys contributed prior to the passage of this act by employees of counties of the commonwealth, by virtue of the provisions of chapter six hundred and thirty-four of the acts of the year nineteen hundred and eleven, and any acts in amendment thereof, may be withdrawn within ninety days after the passage of this act, with interest accrued thereon, and if not withdrawn said moneys shall be credited to the individual account of each employee according to the provisions of this act, and all such funds held by the county treasurer ninety days after the passage of this act, including any and all investments and securities belonging to said funds, shall be administered and distributed according to the provisions of this act.

SECTION 15. Any employee in the service of the employer at the date of the passage of this act who was included within the provisions of any former act, repealed by this act, including chapter eight hundred and thirty-two of the acts of the year nineteen hundred and thirteen, providing upon retirement annuities and pensions for such

employee, shall receive on retirement, (a) if he has performed service for twenty-five years prior to the passage of this act, such additional sum, if any be necessary, as will make his annuity equal to one half the salary, pay or compensation received by him during the year preceding the date of the passage of this act; or (b) if he has performed less than twenty-five years of service prior to the passage of this act, such additional sum, if any be necessary, as will make his annuity such proportion of one half the salary, pay or compensation received by him during the year preceding the date of the passage of this act as his years of service at the date of the passage of this act bears to twenty-five years: *provided, however*, that the additional sums as provided in (a) and (b) of this section shall not increase the annuity payable to any one person beyond one thousand dollars.

SECTION 16. If it is impracticable for the employer to determine the length of service or salary, pay or compensation of any employee, the same shall be estimated by the employer subject to review by the retirement commissioner upon appeal by the employee.

PART IV.

MISCELLANEOUS PROVISIONS.

SECTION 1. A veteran of the civil war in the service of the commonwealth or any county, city or town in the commonwealth, or in the service of the Soldiers' Home, if incapacitated for active duty, upon his request shall be retired from active service by the retirement commissioner, and shall thereafter receive an annual pension at one half the rate of compensation paid to him at the time of his retirement, to be paid out of the treasury of the employer: *provided*, that no veteran shall be entitled to be retired under the provisions of this section unless he shall have been in the service of the employer for at least ten years; and *further provided*, that in the case of janitors in the employ of school committees the rate of pension shall be based upon the net compensation of such employees as determined by the school committee.

SECTION 2. Any person who shall be in receipt of an annuity or pension at the time of the passage of this act by virtue of the provisions of any former act or acts now repealed shall continue to receive the pension or annuity hereafter in the same amount and

manner as he was receiving at the time of the passage of this act, and nothing contained in this act shall affect such pension or annuity.

SECTION 3. No person who now or hereafter receives a pension or an annuity from any employer shall be paid for any service, except service as juror, rendered by him to an employer after the date of the first payment of such pension or annuity.

SECTION 4. Nothing contained in this act shall affect the right or power of the employer in regard to the removal or suspension of any employee.

SECTION 5. That portion of the salary, pay or compensation of an employee deducted or to be deducted under this act, all annuities and all his rights in the funds of the retirement system, shall be exempt from taxation and from the operation of any laws relating to bankruptcy or insolvency, and shall not be attached or taken upon execution or other process of any court. No assignment of any right in or to said funds shall be valid. The funds of the retirement system, so far as invested in personal property, shall be exempt from taxation.

SECTION 6. In any question involving length of service or the amount of annuity to be paid under the provisions of this act, the decision of the retirement commissioner shall be final.

SECTION 7. The superior court shall have jurisdiction in equity upon the petition of the retirement commissioner or any interested party to compel the observance and restrain violation of this act and of the rules and regulations established hereunder.

SECTION 8. Section five of chapter two hundred and forty-four of the acts of the year eighteen hundred and seventy-eight; chapter ninety-seven of the acts of the year eighteen hundred and seventy-nine; chapter one hundred and seven of the acts of the year eighteen hundred and eighty; chapter twenty-two of the acts of the year eighteen hundred and eighty-one; chapter fourteen of the acts of the year eighteen hundred and eighty-three; chapter one hundred and seventy-eight of the acts of the year eighteen hundred and eighty-seven; chapter one hundred and seventy-four of the acts of the year eighteen hundred and eighty-eight; chapter four hundred and four of the acts of the year eighteen hundred and ninety-one; chapters three hundred and forty-seven, three hundred and fifty-three and three hundred and seventy-eight of the acts of the year eighteen hundred and ninety-two; chapter fifty-one of the acts of the year eighteen

hundred and ninety-three; chapters one hundred and seventy-two and two hundred and forty-six of the acts of the year eighteen hundred and ninety-eight; chapter two hundred and thirteen of the acts of the year eighteen hundred and ninety-nine; chapter three hundred and six of the acts of the year nineteen hundred; sections eighty-one and eighty-two of chapter thirty-two of the Revised Laws; sections twenty-nine to thirty-one, inclusive, of chapter one hundred and eight of the Revised Laws; chapters three hundred and twelve, four hundred and twenty-eight and four hundred and forty-nine of the acts of the year nineteen hundred and three; chapters three hundred and twenty-seven and four hundred and two of the acts of the year nineteen hundred and four; chapters four hundred and seventy-four and four hundred and seventy-six of the acts of the year nineteen hundred and six; chapters one hundred and eighty-six and four hundred and fifty-eight of the acts of the year nineteen hundred and seven; chapters one hundred and seventy-nine, four hundred and ninety-eight, five hundred and eighty-nine and six hundred and one of the acts of the year nineteen hundred and eight; chapters one hundred and eighty-eight, three hundred and ninety-eight, four hundred and fifty-three and five hundred and thirty-seven of the acts of the year nineteen hundred and nine; chapters one hundred and ninety-six, four hundred and fifty-nine, five hundred and forty, six hundred and seventeen and six hundred and nineteen of the acts of the year nineteen hundred and ten; chapters ninety, one hundred and thirteen, two hundred and thirty-one, three hundred and thirty-eight, four hundred and thirteen, five hundred and four, five hundred and twenty-seven, five hundred and thirty-two, six hundred and thirty-four, six hundred and seventy-three, six hundred and seventy-five, six hundred and eighty-two and seven hundred and twenty-five of the acts of the year nineteen hundred and eleven; chapters fifty-five, three hundred and sixty-three, three hundred and ninety-five, four hundred and forty-seven, four hundred and fifty-three, five hundred and three, five hundred and sixty-nine, five hundred and seventy-four, seven hundred and twenty-two and seven hundred and twenty-three of the acts of the year nineteen hundred and twelve; chapters sixty-three, three hundred and ten, three hundred and thirteen, three hundred and sixty-seven, four hundred and eighty-seven, five hundred and forty-five, six hundred and forty-two, six hundred and fifty-seven, six hundred and seventy-one, six hundred and eighty-one, six

hundred and ninety-seven, seven hundred and eleven, eight hundred, eight hundred and seventeen and eight hundred and thirty-two of the acts of the year nineteen hundred and thirteen, and all other acts and parts of acts inconsistent herewith are hereby repealed.

SECTION 9. The repeal of a law by this act shall not affect any act done, ratified or confirmed, or any right accrued or established, or any action, suit or proceeding commenced under any of the laws repealed before the repeal took effect.

SECTION 10. This act shall take effect upon its passage.

PRIOR SERVICE.

(To be inserted as sections 17 and 18 of Part III if credit for prior service is to be given to all employees.)

SECTION 17. The retirement commissioner, as soon as practicable after the passage of this act, shall require the employer to determine the length of service and the annual salary, pay or compensation during prior service of every employee in service at the time of the passage of this act to whom this act applies, and the retirement commissioner shall determine what amount would have been appropriated by the employer on the employee's account, together with regular interest, in case the act had been in operation at the time when the employee entered the service of the employer, and such amount shall be appropriated by the employer and paid to its treasury in not more than fifteen annual payments, to be deposited in the retirement fund. After the establishment of the system the employer shall appropriate each year such amount as together with the amount appropriated for prior service will be sufficient to equal at the completion of twenty-five years of service the amount the employee would have contributed with regular interest if the act had been in effect at the time he entered the service.

SECTION 18. Any employee in the service of the employer at the date of the passage of this act —

(a) Who has reached retirement age, shall be retired within ninety days, unless certified according to the provisions of section seven of Part III, and shall thereafter receive such an annuity as he is entitled to from the sum of the amounts the employer would have appropriated on his account with regular interest if this act had been in effect at the time he entered the service.

(b) Who has not reached retirement age and thereafter retires or is retired, shall upon his retirement receive such an annuity in one of the options provided in section eight of Part III as he will be entitled to from the sum of the following amounts:—

(1) The amount of his contributions with regular interest.

(2) The amount of the appropriations of the employer on his account with regular interest.

(3) An amount equal to the amounts with regular interest which the employer would have appropriated from the time he entered service to the date of the passage of this act if this act had been in effect at the time he entered service.

2. AN ACT RELATING TO PAYMENTS TO POLICE AND FIREMEN OR THEIR FAMILIES IN CASE OF DISABILITY OR DEATH.

Be it enacted, etc., as follows:

SECTION 1. If a policeman or fireman is disabled by reason of injuries sustained in the performance of his duty he shall receive his full salary, pay or compensation during the continuance of such disability for a period not exceeding one year, and thereafter he shall receive one half of his salary, pay or compensation during the continuance of such disability: *provided, however,* that such payments shall cease whenever he is required to perform active service after examination by a physician designated by the head of the department in which he was last employed.

SECTION 2. If a policeman or fireman shall die from injuries received in the discharge of his duty and shall leave a widow or any child or children under the age of sixteen years, a sum equal to twenty-five per cent of the salary, pay or compensation received by such policeman or fireman at the time of his death shall be paid as an annuity to his widow, so long as she remains unmarried, and a further sum of ten per cent of such salary, pay or compensation shall be paid as an annuity for the benefit of each child under sixteen years of age of such deceased person so long as such child is under sixteen years of age, provided that the annuities for children of such deceased person shall not exceed thirty per cent of his salary, pay or compensation.

SECTION 3. No person shall receive any payments provided in this act who shall claim compensation under the provisions of chapter eight hundred and seven of the acts of the year nineteen hundred and thirteen or any amendment thereof.

SECTION 4. Payments provided by this act shall be made in the same manner as payments of salary, pay or compensation to firemen and policemen in active service.

SECTION 5. When any policeman or fireman in any town in which there is no regularly organized police or fire department, or any officer or member in active service of any incorporated protective department acting in concert with fire departments, or any person

doing police or fire duty at the request or upon the order of the authorities of any town having no organized police or fire department, is killed or dies within sixty days from injuries received while in the discharge of his duty as such policeman or fireman, and the fact of such death is certified by the city or town clerk and the attending physician or medical examiner to the treasurer of the commonwealth, said treasurer shall pay to the executor or administrator of such deceased fireman or policeman the sum of one thousand dollars for the use of his widow, or if there is no widow, for the use of his minor children, or if there is no widow or minor child, for the use of the next of kin. All sums paid under this section shall be paid from the treasury of the commonwealth.

SECTION 6. This act, except section five, shall apply to the policemen and firemen in every regularly organized police department or fire department in any city or town in the commonwealth, to the police of the metropolitan park department and to the district police of the commonwealth.

SECTION 7. Chapter two hundred and forty-six of the acts of the year eighteen hundred and ninety-eight; sections seventy-one to seventy-seven, inclusive, of chapter thirty-two of the Revised Laws; chapters one hundred and eight and four hundred and thirty-seven of the acts of the year nineteen hundred and two; chapter two hundred and fifty-three of the acts of the year nineteen hundred and three; chapter one hundred and seventy-one of the acts of the year nineteen hundred and six; and all other acts and parts of acts inconsistent herewith are hereby repealed.

SECTION 8. The repeal of a law by this act shall not affect any act done, ratified or confirmed or any right accrued or established, or any action, suit or proceedings commenced under any of the laws repealed before the repeal took effect.

SECTION 9. This act shall take effect upon its passage.

3. AN ACT RELATING TO RETIREMENT OF JUSTICES OF THE SUPREME JUDICIAL COURT.

Be it enacted, etc., as follows:

SECTION 1. Section ten of chapter one hundred and fifty-eight of the Revised Laws is hereby amended by striking out the word "either", in the first line, and inserting in place thereof the words:—supreme judicial court,—by striking out the words "in either or both of said courts", in the second line; by adding after the word "years", in the third line, the words:—including service in the superior court,—by striking out the word "courts", in the last line, and inserting in place thereof the words:—supreme judicial court,—so that said section shall read as follows:—*Section 10.* A justice of the supreme judicial court who, having attained the age of seventy years and having served for at least ten consecutive years, including service in the superior court, resigns his office, shall during the remainder of his life receive an amount equal to three fourths of his salary which is by law payable to him at the time of his resignation, to be paid by the commonwealth in the same manner as the salaries of justices of said supreme judicial court are paid.

SECTION 2. Section eleven of said chapter one hundred and fifty-eight is hereby amended by striking out the word "either", in the first line, and inserting in place thereof the words:—supreme judicial court,—by striking out the words "in either or both of said courts", in the second line; by adding after the word "years", in the third line, the words:—including service in the superior court,—so that said section shall read as follows:—*Section 11.* A justice of the supreme judicial court who having attained the age of sixty years and having served for at least fifteen consecutive years, including service in the superior court, shall have become disabled for full performance of his duties as such justice by reason of illness, may, with the approval of the governor and council, resign his office under the provisions of this section and shall thereafter, during the remainder of his life, receive the same amount, and in the manner provided in the preceding section.

4. AN ACT RELATIVE TO THE PUBLIC SCHOOL TEACHERS' RETIREMENT FUND IN THE CITY OF BOSTON.

Be it enacted, etc., as follows:

SECTION 1. Section five of chapter two hundred and thirty-seven of the acts of the year nineteen hundred is hereby amended by adding after the word "provided", in the last line, the words:—provided that such reservation from salary shall not be made from the salary of any teacher who is elected after the first day of January, nineteen hundred and fifteen, or any teacher who gives notice in writing to the superintendent of schools within ninety days from the first day of January in the year nineteen hundred and fifteen that she elects not to come within the provisions of the act,— so that said section shall read as follows:—*Section 5.* Beginning with the monthly payments in November in the year nineteen hundred the city treasurer of the city of Boston shall reserve from the salary of each teacher who has come under the provisions of this act the sum of three dollars, and in every alternate monthly payment thereafter shall reserve the same sum, and shall pay the sums so reserved into the school teachers' retirement fund, as herein provided: *provided*, that such reservation from salary shall not be made from the salary of any teacher who is elected after the first day of January, nineteen hundred and fifteen, or any teacher who gives notice in writing to the superintendent of schools within ninety days from the first day of January in the year nineteen hundred and fifteen that she elects not to come within the provisions of the act.

SECTION 2. Section six of said chapter two hundred and thirty-seven is hereby amended by adding after the word "teacher", in the third line, the words:— except such teachers as have elected not to come within the provisions of the act,— so that said section shall read as follows:—*Section 6.* The city treasurer, upon vote of the board of trustees, shall pay out of said retirement fund, in monthly payments, such an annuity to any teacher, except such teachers as have elected not to come within the provisions of this act, who shall retire or be discharged from the service of the city, as the fund will allow and said board of trustees shall determine; but in no case shall a teacher receive such annuity unless such teacher has taught for

thirty years, and for at least ten years in the public schools of the city of Boston, except as hereinafter provided.

SECTION 3. Section seven of said chapter two hundred and thirty-seven is hereby amended by adding after the word "teacher", in the third line, the words:— except such teachers as have elected not to come within the provisions of the act, — so that said section shall read as follows:— *Section 7.* The city treasurer, upon a vote of the board of trustees, shall pay out of the retirement fund, in monthly payment, such an annuity to any teacher, except such teachers as have elected not to come within the provisions of the act, who has taught not less than two years in the city of Boston, although less than thirty years in the aggregate, as the fund will allow and said board of trustees shall determine, if such teacher has become incapacitated for teaching and has been discharged from the service of the city of Boston: *provided*, that a certificate of such incapacity be furnished by the attending physician and by a physician employed by the board of trustees; and *further provided*, that the annuity shall cease when the incapacity ceases.

SECTION 4. Section eleven of this chapter is amended by adding after the word "provisions", in the fourth line, the words:— except as provided in section five, — and by striking out the remainder of said section, so that said section shall read as follows:— *Section 11.* This act shall be binding upon all teachers entering the service of the city of Boston after it goes into effect, and upon such of the teachers in the service of said city at the time of its enactment as may thereafter elect to come under its provisions, except as provided in section five.

SECTION 5. This act shall take effect upon its passage.

**5. AN ACT RELATIVE TO THE PERMANENT SCHOOL PENSION
FUND OF THE CITY OF BOSTON.**

Be it enacted, etc., as follows:

SECTION 1. The permanent school pension fund, as established by chapter five hundred and eighty-nine of the acts of the year nineteen hundred and eight, together with any and all unappropriated income of said fund, shall be transferred by the treasurer of the city of Boston into the reserve fund of said city, and made a part thereof, to be expended as the city council of the city of Boston, with the approval of the mayor, may direct.

SECTION 2. This act shall take effect upon its passage.

6. AN ACT RELATIVE TO TAXATION IN THE CITY OF BOSTON.

Be it enacted, etc., as follows:

SECTION 1. Section fifty-four of chapter twelve of the Revised Laws is hereby amended by striking out the words "ten and one half dollars", in the twentieth line, and inserting in place thereof the words: — ten dollars and fifty-five cents, — so as to read as follows: — *Section 54.* The taxes assessed on property exclusive of the state tax, county tax and sums required by law to be raised on account of the city debt shall not in any year exceed twelve dollars in any city on every one 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, subject to the following provisions: — If the city council of a city which contains less than one hundred thousand inhabitants according to the last preceding national or state census so determines, the average of the assessors' valuation of the taxable property therein for the preceding three years, said 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, shall be used to determine said limit of taxation instead of said assessors' valuation of the preceding year. In the city of Boston, and in all cities which contain one hundred thousand inhabitants or more according to the census aforesaid, said average shall be so used. In the city of Boston said taxes shall not exceed ten dollars and fifty-five cents instead of twelve dollars as aforesaid. Any order or appropriation requiring a larger assessment than is herein limited shall be void. The provisions of this section shall not affect any existing exemption from the operation of the corresponding provisions of earlier laws.

SECTION 2. This act shall take effect upon its passage.

APPENDIX A.

STATE EMPLOYEES RETIRED UNDER THE PROVISIONS OF CHAPTER 532 OF THE ACTS OF 1911.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.
Barnet, Catherine F., . . .	1849	1906	1912	6	63	\$200 00	\$240 00	Hospital.
Barton, Annie, . . .	1848	1887	1913	26	64	200 00	360 00	Hospital.
Barton, Samuel, . . .	1835	1875	1912	37	77	743 33	1,486 67	Sec. of Commonwealth.
Beckerman, Margaret A., . . .	1842	1897	1912	15	70	200 00	300 00	Hospital.
Blades, Francis P., . . .	1846	1901	1913	12	66	200 00	383 08	Hospital.
Boutwell, Wm. H., . . .	1842	1906	1912	6	70	200 00	358 80	Hospital.
Boylan, Stephen, . . .	1847	1900	1913	14	66	200 00	641 65	Metropolitan Park Com.
Bradford, Nathaniel, . . .	1846	1891	1912	21	66	200 00	740 17	School.
Briggs, Harriet E., . . .	1845	1901	1912	11	67	200 00	204 20	Hospital.
Clark, Charles R., . . .	1848	1896	1912	17	64	200 00	390 00	Hospital.
Conley, Luke, . . .	1845	1881	1912	31	67	325 75	651 50	Metropolitan Water Works.
Conry, John J., . . .	1849	1907	1913	6	64	200 00	334 00	Hospital.
Corcoran, Michael, . . .	1852	1907	1912	5	60	200 00	625 40	Hospital.
Cornish, Mrs. Emma T., . . .	1852	1878	1912	34	60	341 34	752 80	State Board of Charity.
Crawford, Sarah M., . . .	1845	1880	1913	33	68	875 00	1,750 00	State Board of Charity.
Davis, Amelia, . . .	1843	1867	1913	46	70	700 00	1,400 00	School.
Davis, Belle C., . . .	1849	1885	1912	27	63	329 20	798 30	Police.
Delano, John W., . . .	1852	1890	1912	22	60	354 51	1,565 00	Fish and Game Com.
Denley, Edward, . . .	1842	1900	1912	12	70	200 00	702 00	Metropolitan Park Com.
Dennison, Hollis J., . . .	1844	1911	1912	1	68	200 00	300 00	Hospital.
Dolloff, Albert W., . . .	1853	1907	1913	6	60	200 00	1,092 00	Hospital.
Drew, Isaac M., . . .	1850	1896	1913	17	62	200 00	782 50	Metropolitan Water Works.
Drown, Frank H., . . .	1856	1885	1912	27	56	200 00	1,560 00	Statistics.
Ellsworth, J. Lewis, . . .	1848	1903	1913	10	64	200 00	3,000 00	State Board of Agriculture.
Farnham, George Y., . . .	1838	1909	1912	3	74	200 00	312 00	Hospital.
Fielding, John, . . .	1848	1897	1913	16	65	214 76	935 12	Metropolitan Sew. Works.
Flannery, Patrick, . . .	1836	1866	1912	46	76	297 87	595 73	Metropolitan Water Works.

STATE EMPLOYEES RETIRED UNDER THE PROVISIONS OF CHAPTER 532 OF THE ACTS OF 1911 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.
Freeman, Henry C., . . .	1823	1897	1912	15	84	\$200 00	\$294 30	Hospital.
Gardner, Henry R., . . .	1836	1901	1912	11	76	371 90	1,500 00	Province Laws.
Garey, Thomas C., . . .	1838	1886	1912	26	74	200 00	180 00	Hospital.
Gordon, Lila J., . . .	1851	1873	1912	39	61	207 39	703 33	Hospital.
Gorham, Mary I., . . .	1845	1903	1913	10	68	200 00	345 83	School.
Hamilton, Henry J., . . .	1839	1897	1912	15	73	200 00	336 00	Hospital.
Hennessy, James, . . .	1850	1907	1912	5	62	200 00	600 00	Hospital.
Hogan, John, . . .	1835	1877	1912	35	77	204 00	408 00	Hospital.
Holmes, Sidney, . . .	1843	1898	1913	16	70	252 12	890 00	Sergeant-at-Arms.
Hovey, Frank A., . . .	1851	1900	1912	12	61	200 00	950 00	Hospital.
Howard, Georgianna, . . .	1841	1881	1912	31	71	386 44	772 88	Tax Commission.
Hunkins, Susan P., . . .	1837	1906	1912	6	75	200 00	300 00	Hospital.
Ingham, Alvenza, . . .	1848	1898	1912	15	64	200 00	430 73	Hospital.
Jones, Rebecca, . . .	1841	1874	1912	38	71	504 17	1,008 33	School.
Kelly, John, . . .	1843	1872	1913	41	70	356 74	713 47	Metropolitan Water Com.
Kelsey, Millard F., . . .	1850	1877	1912	35	62	501 88	1,003 75	Hospital.
Lahiff, Michael, . . .	1838	1866	1912	46	74	297 98	595 95	Metropolitan Water Com.
Lamont, Angus R., . . .	1847	1906	1913	7	66	200 00	547 75	Hospital.
Leahy, Michael, . . .	1837	1887	1912	25	75	377 56	755 12	Metropolitan Water Com.
Leary, Abbie T., . . .	1851	1902	1912	11	61	200 00	192 00	Hospital.
McGowan, Annie, . . .	1852	1889	1913	24	60	200 00	216 16	Hospital.
McNider, Henry J., . . .	1851	1873	1912	39	61	384 12	932 53	Metropolitan Water Com.
Murphy, Jeremiah, . . .	1837	1900	1912	12	75	200 00	702 00	Metropolitan Park Com.
Neilson, John, . . .	1850	1882	1913	31	63	270 00	540 00	Hospital.
O'Connor, Andrew J., . . .	1852	1908	1913	4	60	200 00	260 00	Hospital.
Oldham, John W., . . .	1834	1878	1912	34	78	660 00	1,320 00	Metropolitan Water Com.
Pettigrove, Frederick G., . . .	1847	1883	1913	30	65	905 14	4,000 00	Prison Commission.
Pierce, Nathaniel, . . .	1847	1906	1912	7	65	200 00	1,248 00	Sewerage.
Power, John, . . .	1843	1897	1913	15	70	200 00	648 00	Metropolitan Park Com.
Prentiss, Junius P., . . .	1843	1911	1913	2	70	200 00	420 00	Hospital.
Putnam, Franklyn H., . . .	1847	1901	1913	12	65	200 00	549 00	Hospital.
Ralston, David, . . .	1839	1869	1912	43	73	315 02	630 03	Metropolitan Water Com.
Roberts, Stutson, . . .	1836	1894	1913	19	78	586 50	1,206 40	Metropolitan Water Com.

STATE EMPLOYEES RETIRED UNDER THE PROVISIONS OF CHAPTER 532 OF THE ACTS OF 1911 — *Concluded.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.
Ryan, Jos. F.,	1844	1891	1912	22	68	\$263 23	\$630 00	Metropolitan Water Com.
Sawyer, Ellen M., . . .	1840	1866	1912	46	72	600 00	1,200 00	Library.
Sisk, James M.,	1845	1868	1912	44	67	204 00	408 00	Hospital.
Smith, Mrs. Emily, . . .	1842	1911	1912	1	70	200 00	216 00	Hospital.
Smith, Maria C.,	1840	1883	1912	29	72	500 00	1,000 00	Library.
Sornborger, Martin L., .	1841	1903	1912	9	71	200 00	702 00	Hospital.
Tassinari, Ettore, . . .	1853	1878	1913	35	60	326 92	653 84	Hospital.
Tassinari, Pietro, . . .	1845	1890	1912	22	67	200 00	240 00	Hospital.
Teague, James W., . . .	1843	1896	1913	17	69	355 86	1,382 60	Metropolitan Sew. Works.
Tuttle, George W., . . .	1841	1906	1912	6	71	200 00	600 00	Harbor and Land Com.
Ware, George A.,	1843	1902	1913	11	70	200 00	418 00	School.
West, Jeruel,	1827	1862	1912	50	85	468 00	936 00	Hospital.
Whitcomb, Robert C., . .	1848	1907	1912	5	64	200 00	579 00	Hospital.
White, Isaac W.,	1839	1904	1912	8	73	200 00	936 00	Hospital.
Wiley, David M.,	1842	1906	1912	6	70	200 00	520 00	Hospital.

Total amount of pension, \$22,080.73.

ANNUITIES PAID BY THE COMMONWEALTH UNDER THE PROVISIONS OF SPECIAL ACTS.

	Amount of Annuity.	Length of Annuity.	Date Annuity commences.	Legislation under which paid.
Barber, Lavinia A.,	\$300 00	Life.	Mar., 1907	Res. 1907, Chap. 18
Bent, Wilma D.,	150 00	5 years.	Jan., 1912	Res. 1912, Chap. 40
Bessom, Nancy E.,	150 00	Life.	Mar., 1901	Res. 1901, Chap. 34
Buckley, Patrick,	480 00	Life.	Feb., 1910	Res. 1910, Chap. 11
Bucknam, George C.,	100 00	Life.	- -	Res. 1874, Chap. 83
Burr, Lemuel D. and Anna,	150 00	Life.	Dec., 1908	Res. 1909, Chap. 4
Carney, Susanna,	180 00	Life.	Mar., 1909	Res. 1909, Chap. 86
Chaplin, Susan S. (guardian),	72 00	Life.	Mar., 1907	Res. 1907, Chap. 27
Clark, Mary H.,	72 00	Life.	Mar., 1901	Res. 1901, Chap. 36
Coffin, William E.,	72 00	Life.	Mar., 1901	Res. 1901, Chap. 37

ANNUITIES PAID BY THE COMMONWEALTH UNDER THE PROVISIONS OF SPECIAL
ACTS — *Concluded.*

	Amount of Annuity.	Length of Annuity.	Date Annuity com- mences.	Legislation under which paid.
Cook, Lavinia,	\$72 00	Life.	Jan., 1885	Res. 1885, Chap. 41
Corrigan, Richard F.,	150 00	5 years.	Jan., 1913	Res. 1913, Chap. 55
Cropper, Alice J.,	500 00	5 years.	Apr., 1913	Res. 1913, Chap. 90
Cummings, Lucinda B.,	300 00	Life.	Jan., 1912	Res. 1912, Chap. 12
Daley, Delia A., and Talbot, Samantha,	150 00	Life.	Mar., 1913	Res. 1913, Chap. 36
Drummey, Patrick,	200 00	Life.	- 1889	Res. 1889, Chap. 52
Garland, Frank L.,	600 00	Life.	Feb., 1899	Res. 1899, Chap. 6
Gigger, Elbridge G.,	150 00	Life.	Jan., 1909	Res. 1909, Chap. 20
Gilbert, Lucy A.,	200 00	Life.	May, 1913	Res. 1913, Chap. 80
Guenther, Bertha M.,	180 00	10 years.	Jan., 1909	Res. 1909, Chap. 95
Hillman, Samuel,	480 00	Life.	July, 1908	Res. 1908, Chap. 21
Hewes, Charles H.,	200 00	5 years.	Dec., 1911	Res. 1912, Chap. 119
Horton, Lewis A.,	100 00	Life.	June, 1869	Res. 1869, Chap. 83
Kelliher, Julia, guardian of two Ford children,	150 00	2 yrs. 2 mos.	Jan., 1912	} Res. 1912, Chap. 13
	150 00	7 yrs. 9 mos.	Jan., 1912	
Lawrence, William H.,	500 00	5 years.	Jan., 1911	Res. 1911, Chap. 16
Layhee, Patrick,	72 00	Life.	Mar., 1901	Res. 1901, Chap. 35
Lind, Bertha T.,	500 00	5 years.	Dec., 1911	Res. 1912, Chap. 25
Murphy, Margaret,	200 00	Life.	Jan., 1893	Res. 1893, Chap. 13
Nagle, Ann J.,	240 00	10 years.	Apr., 1910	Res. 1910, Chap. 143
Nixon, Elizabeth,	500 00	5 years.	Jan., 1912	Res. 1912, Chap. 68
O'Neil, John,	320 00	Life.	Feb., 1912	Res. 1912, Chap. 14
Parenteau, Alfred,	400 00	5 years.	Apr., 1913	Res. 1913, Chap. 53
Pidgin, Charles F.,	500 00	5 years.	Feb., 1913	Res. 1913, Chap. 15
Raymond, Ella,	300 00	5 years.	Jan., 1912	Res. 1912, Chap. 1
Welch, Harry W.,	300 00	Life.	Jan., 1897	Res. 1897, Chap. 64

Total amount of pension, \$9,140.

VETERANS RETIRED UNDER THE PROVISIONS OF CHAPTER 458 OF THE ACTS OF
1907.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Abbott, Joseph W.,	1837	1904	1913	9	76	\$425 00	\$850 00	Senate.	Messenger.
Adams, Chas. O.,	1834	1881	1908	27	74	550 00	1,100 00	Sergt.-at-Arms.	Watchman.
Adlington, Jos. S.,	1840	1886	1908	22	68	425 00	850 00	Sergt.-at-Arms.	Messenger.
Atherton, Arlon S.,	1842	1900	1912	12	70	750 00	1,500 00	District Police.	Inspector.
Bardwell, Henry J.,	1841	1890	1911	21	70	750 00	1,500 00	District Police.	Inspector.
Baston, G. A.,	1841	1906	1911	5	70	352 00	704 00	Met. Park Com.	Draw tender.
Black, J. B.,	1835	1895	1910	15	75	900 00	1,496 00	M. W. and S. Bd.	Engineer.
Blossom, Wayne W.,	1841	1885	1911	26	70	600 00	1,200 00	Prison.	Officer.
Bolton, Gilman B.,	1843	1885	1911	26	68	550 00	1,100 00	Sergt.-at-Arms.	Watchman.
Bowers, John,	1840	1896	1909	13	69	600 00	1,200 00	Prison.	Watchman.
Brown, Benj. B.,	1840	1886	1910	24	70	425 00	850 00	Sergt.-at-Arms.	Messenger.
Brown, Joseph R.,	1837	1886	1911	25	74	600 00	1,200 00	Sergt.-at-Arms.	Watchman.
Bruce, John L.,	1845	1885	1907	23	62	600 00	1,200 00	Prison.	Watchman.
Burnsville, John H.,	-	-	1912	-	-	288 00	576 00	Hospital.	Carpenter.
Caldicott, Geo. W.,	-	-	1912	-	-	300 00	600 00	Hospital.	-
Campbell, James P.,	1844	1883	1908	25	64	750 00	1,500 00	District Police.	Clerk.
Capelle, Wm. C.,	1832	1862	1912	50	80	1,100 00	2,200 00	Ajt. General.	Clerk.
Carleton, Albert A.,	1846	1897	1910	13	64	700 00	1,400 00	Bd. of Charity.	Clerk.
Carr, Charles F.,	1845	1900	1910	10	65	450 00	900 00	Q. M. G.	Armorer.
Carr, John A.,	1847	1904	1911	7	64	450 00	900 00	Q. M. G.	Armorer.
Caswell, Levi L.,	1845	1885	1913	28	68	650 00	1,300 00	Prison.	Officer.
Chaplain, William,	1840	1885	1910	25	70	600 00	1,200 00	Prison.	Watchman.
Collamore, Henry H.,	1841	1894	1913	19	72	750 00	1,500 00	District Police.	Inspector.
Cooke, Willard S.,	1838	1904	1913	9	66	500 00	1,000 00	Sergt.-at-Arms.	Messenger.
Coyne, Thomas F.,	1834	1886	1912	26	78	500 00	1,000 00	Sergt.-at-Arms.	Messenger.
Crittenden, Geo. F.,	1842	1898	1912	14	70	750 00	1,500 00	District Police.	Inspector.
Curtis, Wm. W.,	1845	1885	1907	22	62	750 00	1,500 00	Prison.	Instructor.
Cushman, James M.,	-	1887	1908	21	-	900 00	1,800 00	Con. of Co. Ac.	Deputy.
Davis, James H.,	-	-	1911	-	-	423 00	846 00	Hospital.	Carpenter.
Davis, Horace F.,	-	1888	1913	25	-	783 33	1,566 66	Health.	Inspector.
Deming, A. B. C.,	-	1895	1913	18	-	1,050 00	2,100 00	Treasurer.	Bookkeeper.
Dyer, David H.,	1834	1896	1912	16	78	750 00	1,500 00	District Police.	Inspector.
Dyson, Joseph M.,	-	1879	1908	29	-	750 00	1,500 00	District Police.	Inspector.

VETERANS RETIRED UNDER THE PROVISIONS OF CHAPTER 458 OF THE ACTS OF
1907 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Edgett, Isaac H., . . .	-	1889	1913	24	-	\$1,500 00	\$3,000 00	Secretary.	Deputy.
Elmes, Amos M., . . .	1842	1885	1908	23	66	600 00	1,200 00	Prison.	Watchman.
Fairbanks, Amos H., . . .	1830	1883	1910	27	80	650 00	1,300 00	S. A. and Pen.	Clerk.
Fairbanks, Henry H., . . .	-	1868	1913	45	-	600 00	1,200 00	Bd. of Charity.	Agent.
Flint, Surrill, . . .	1842	1889	1913	14	71	550 00	1,100 00	Sergt.-at-Arms.	Watchman.
Fuller, Joseph, . . .	1838	1867	1912	45	74	650 00	1,300 00	Prison Com.	Officer.
Gordon, William S., . . .	-	1885	1913	28	-	675 00	1,350 00	School.	Engineer.
Grant, Andrew D., . . .	-	-	-	-	-	300 00	600 00	State Farm.	
Halstrick, Joseph, . . .	1841	1888	1907	19	66	750 00	1,500 00	District Police.	Inspector.
Hastings, Charles W., . . .	1831	1879	1910	31	79	1,250 00	2,500 00	S. A. and Pen.	Commissioner.
Hayden, Sydney E., . . .	1842	1903	1910	7	68	546 00	1,092 00	Water Works.	Asst. Eng.
Hill, George N., . . .	1843	1907	1912	5	69	390 00	780 00	Statistics.	Clerk.
Hodges, Alfred B., . . .	1840	1896	1912	16	72	750 00	1,500 00	District Police.	Detective.
Holmes, C. Bradford, . . .	1841	1897	1909	12	68	511 40	1,022 30	Met. Park Com.	Watchman.
Howe, Asa F., . . .	-	-	-	-	-	750 00	1 500 00	Lyman School.	-
Hyde, Edwin O., . . .	1838	1884	1908	24	70	600 00	1,200 00	Prison.	Watchman.
Jenness, William, . . .	1840	1896	1909	13	69	600 00	1,200 00	Reformatory.	Watchman.
Joy, Alonzo, . . .	1841	1889	1908	19	67	600 00	1,200 00	Reformatory.	Watchman.
Kazar, John H., . . .	1842	1896	1908	12	66	750 00	1,500 00	District Police.	Inspector.
Kinnear, John, . . .	1831	1880	1909	29	78	1,100 00	2,200 00	Sergt.-at-Arms.	Clerk.
Knight, Thomas W., . . .	1841	1901	1910	9	69	750 00	1,500 00	Auditor.	Clerk.
Landy, Luke R., . . .	1842	1878	1907	29	65	600 00	1,200 00	Adj. General.	Supt. St. Ar.
Locke, J. Henry, . . .	-	1897	1908	11	-	425 00	850 00	Senate.	Messenger.
McGrath, John, . . .	1848	1898	1913	15	65	750 00	1,500 00	District Police.	Inspector.
Moore, Joseph A., . . .	1844	1884	1912	28	68	1,200 00	2,400 00	District Police.	Chief Insp.
Morley, Joseph A., . . .	1846	1893	1908	15	62	600 00	1,200 00	Prison.	Watchman.
Moses, George F., . . .	1843	1908	1913	5	70	600 00	1,200 00	Sergt.-at-Arms.	Watchman.
Murray, Peleg F., . . .	1837	1892	1911	19	74	750 00	1,500 00	District Police.	Detective.
Park, Wisner, . . .	1835	1896	1908	12	73	600 00	1,200 00	Reformatory.	Watchman.
Perkins, John T., . . .	-	-	-	-	-	200 00	400 00	Reformatory.	-
Proctor, Milo J., . . .	1840	1894	1910	16	70	500 00	1,000 00	Sergt.-at-Arms.	Elevator man.
Quinby, H. M., . . .	-	-	1912	-	-	1,500 00	3,000 00	Hospital.	Supt.
Remington, David T., . . .	1845	1890	1910	20	65	1,750 00	3,500 00	Sergt.-at-Arms.	Sergt.-at-Arms.

VETERANS RETIRED UNDER THE PROVISIONS OF CHAPTER 458 OF THE ACTS OF
1907 — *Concluded.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Riggs, Geo. W., . . .	1843	1897	1911	14	68	\$352 00	\$821 26	Met. Park Com.	Draw tender.
Reynolds, John P., . .	1841	1879	1911	32	71	1,000 00	2,000 00	Adj. General.	Clerk.
Robinson, Benjamin F.,	-	-	1910	-	-	600 00	1,200 00	Prison.	-
Sanderson, Martin, . .	-	-	1911	-	-	300 00	600 00	School.	Janitor.
Sherwin, Henry, . . .	1837	1884	1912	28	75	1,500 00	3,000 00	Civ. Serv. Com.	Ch. examiner.
Smith, Joseph, . . .	1846	1895	1908	13	62	550 00	1,100 00	Sergt.-at-Arms.	Watchman.
Splaine, Henry, . . .	1837	1890	1910	20	73	750 00	1,500 00	District Police.	Inspector.
Stevens, Benjamin, . .	1840	1889	1907	18	67	600 00	1,200 00	Prison.	Watchman.
Storey, John, . . .	1843	1895	1911	16	68	390 00	780 00	M. W. and S. B.	Janitor.
Sweeney, Charles H., .	1840	1897	1908	9	68	600 00	1,200 00	Reformatory.	Watchman.
Taylor, Dwight B., . .	1842	1892	1910	18	68	600 00	1,200 00	Prison.	Watchman.
Tenney, Charles F., . .	1842	1894	1907	13	65	550 00	1,100 00	Sergt.-at-Arms.	Watchman.
Terry, John H., . . .	-	-	1913	-	-	700 00	1,400 00	Health.	Inspector.
Tyler, John H., . . .	1843	1905	1913	8	70	420 00	840 00	Statistics.	Clerk.
Walker, David, . . .	-	1895	1908	13	-	700 00	1,400 00	Charity.	Visitor.
Witherell, Edwin S., .	1846	1896	1908	12	62	500 00	1,000 00	Q. M. G.	Armorer.
Wood, Charles H. W., .	-	1906	1913	7	-	390 00	780 00	Highway Com.	Clerk.
Works, George L., . . .	1843	1899	1912	13	69	360 00	720 00	Reformatory.	Watchman.
Young, Henry F., . . .	1840	1901	1910	9	70	390 00	780 00	Sergt.-at-Arms.	Porter.

Total amount of pension, \$56,320.73.

METROPOLITAN PARK POLICE RETIRED UNDER THE PROVISIONS OF CHAPTER
453 OF THE ACTS OF 1909.

Haddock, Salem P., . .	1864	1899	1910	11	46	\$546 00	\$1,092 00	Met. Park Com.	Sergeant.
Powers, John W. (widow of).	1864	1897	1912	15	48	400 00	1,000 00	Met. Park Com.	Patrolman.
Stewart, Robert D. (widow of).	1877	1910	1913	3	36	400 00	1,000 00	Met. Park Com.	Patrolman.
Mateer, William (widow of).	1874	1905	1909	4	35	300 00	858 00	Met. Park Com.	Patrolman.
Geer, Charles P., ¹ . . .	1854	1910	1913	3	59	364 00	200 00	Met. Park Com.	Patrolman.

Total amount of pension, \$2,010.

¹ Special act.

DISTRICT POLICE RETIRED UNDER THE PROVISIONS OF CHAPTER 675 OF THE
ACTS OF 1911.

Griffin, John E., . . .	1858	1891	1912	21	54	\$750 00	\$1,500 00	District Police.	Inspector.
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Total amount of pension, \$750.

JUSTICES RETIRED UNDER THE PROVISIONS OF CHAPTER 162 OF THE ACTS OF
1885, AND SUBSEQUENT ACTS.

Name.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Morton, James M.,	1837	1890	1913	23	76	\$7,500 00	\$10,000 00	Sup. Jud. Ct.	Justice.
Knowlton, Marcus P.,	1839	1881	1911	30	72	7,875 00	10,500 00	Sup. Jud. Ct.	Justice.
Sherman, Edgar J.,	1834	1887	1911	24	77	6,000 00	8,000 00	Superior Court.	Justice.

Total amount of pension, \$21,375.

PRISON OFFICERS RETIRED UNDER THE PROVISIONS OF CHAPTER 601 OF THE
ACTS OF 1908.

Barnes, John W. F.,	1831	1881	1908	27	77	\$1,000 00	\$2,000 00	Prison.	Chaplain.
Batt, William J.,	1835	1885	1910	25	75	1,000 00	2,000 00	Prison.	Chaplain.
Benjamin, Frank E.,	1852	1882	1913	31	61	800 00	1,600 00	Prison.	Officer.
Brooks, Susan P.,	1859	1879	1912	33	53	500 00	1,000 00	Prison.	Clerk.
Leftovith, Martin,	1854	1908	1912	4	58	540 00	1,080 00	Prison.	Instructor.
MacDonald, George,	1852	1879	1909	31	58	600 00	1,200 00	Prison.	Turnkey.
McFarland, Sylvester,	1842	1884	1909	24	66	600 00	1,200 00	Prison.	Watchman.
Masters, Helen B.,	1840	1877	1913	36	73	250 00	500 00	Prison.	Officer.
Morton, Frances A.,	1838	1881	1910	29	72	1,000 00	2,000 00	Prison.	Supt. W. Pris.
Piper, James H.,	1839	1868	1908	40	69	600 00	1,200 00	Prison.	Turnkey.
Sprague, William W.,	1841	1888	1912	24	71	750 00	1,500 00	Prison.	Instructor.
Wood, William H.,	1846	1883	1911	28	65	600 00	1,200 00	Prison.	Officer.
Young, George W.,	1856	1885	1908	23	52	600 00	1,200 00	Prison.	Watchman.

Total amount of pension, \$8,840.

SUMMARY OF STATE PENSION PAYMENTS.

DEPARTMENT.	Number.	Annual Cost.	DEPARTMENT.	Number.	Annual Cost.
State Retirement, . . .	75	\$22,080 73	Prison Officers, . . .	13	\$8,840 00
Annuities,	35	9,140 00	Metropolitan Park Police,	5	2,010 00
Veterans,	85	56,320 73	District Police, . . .	1	750 00
Justices,	3	21,375 00	Total,	217	\$120,516 46

COUNTY EMPLOYEES RETIRED UNDER THE PROVISIONS OF CHAPTER 634 OF THE
ACTS OF 1911.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
BRISTOL COUNTY.									
Brown, Frank A.,	1846	1880	1911	31	65	\$456 25	\$911 25	Prison.	Officer.
Carrier, I. Granville,	1841	1873	1911	38	70	600 00	1,100 00	Prison.	Keeper.
Holmes, Ezra,	1842	1885	1913	28	71	500 00	1,007 40	Prison.	Officer.
Total amount of pension, \$1,556.25.									
ESSEX COUNTY.									
Brocklebank, L. H.,	1846	1892	1911	19	65	\$425 00	\$850 00	Prison.	Officer.
Cobb, Warren D.,	1839	1888	1909	21	70	500 00	1,000 00	Prison.	Officer.
Johnson, Francis F.,	1842	1889	1912	23	70	425 00	850 00	Prison.	Officer.
Peart, Chas. W.,	1839	1896	1911	15	72	420 00	840 00	Judicial.	Officer.
Phipps, Cyrus H.,	1845	1892	1911	19	66	500 00	1,000 00	Prison.	Engineer.
Stevens, Chas. H.,	1840	1875	1909	34	69	425 00	850 00	Prison.	Officer.
Total amount of pension, \$2,695.									
FRANKLIN COUNTY.									
Widow of Sheriff Harkins,	-	-	1913	-	-	\$300 00	-	Prison.	Sheriff.
Total amount of pension, \$300.									
HAMPDEN COUNTY.									
Holder, Dennis C.,	1839	1891	1913	22	74	\$420 00	\$840 00	Prison.	Foreman.
Total amount of pension, \$420.									
MIDDLESEX COUNTY.									
Hadley, Samuel P.,	1832	1877	1912	35	80	\$2,625 00	\$3,500 00	Judicial.	Justice.
Jones, Wm. C.,	1844	1888	1910	22	66	600 00	1,200 00	Prison.	Officer.
Joy, Isaac,	1850	1908	1913	5	63	200 00	660 00	Reg. of Deeds.	Laborer.
Law, Emerson W.,	1841	1881	1911	30	70	800 00	1,600 00	Judicial.	Clerk.
Thompson, Adelaide B.,	1839	1874	1912	38	73	369 43	1,020 00	Reg. of Deeds.	Clerk.
Walker, Rebecca J.,	1837	1897	1912	15	75	200 00	624 00	Reg. of Deeds.	Clerk.
Total amount of pension, \$4,794.43.									

COUNTY EMPLOYEES RETIRED UNDER THE PROVISIONS OF CHAPTER 634 OF THE
ACTS OF 1911 — *Concluded.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
NORFOLK COUNTY.									
Everett, Sarah B., . . .	1842	1864	1912	48	70	\$335 08	\$535 50	Reg. of Deeds.	Clerk.
Haskell, Sarah S., . . .	1844	1866	1912	46	68	200 00	244 32	Reg. of Deeds.	Clerk.
Thayer, Mary S. W., . . .	1832	1873	1912	39	80	245 60	455 16	Reg. of Deeds.	Clerk.

Total amount of pension, \$780.68.

PLYMOUTH COUNTY.									
Hathaway, Benj. A., . . .	1834	1874	1912	38	78	\$360 00	\$720 00	Court.	Clerk.

Total amount of pension, \$360.

SUFFOLK COUNTY.									
Brown, George W., . . .	1850	1886	1909	23	59	\$600 00	\$1,200 00	Jail.	Van driver.
Browne, George G., . . .	1846	1892	1912	20	66	330 00	660 00	Penal.	Officer.
Brugts, Frederick C., . . .	-	1897	1911	14	-	300 00	600 00	Penal.	Fireman.
Buswell, Albert S., . . .	1843	1873	1911	38	68	800 00	1,600 00	Municipal Ct.	Officer.
Collins, Nancy E., . . .	-	1881	1909	28	-	180 00	360 00	Penal.	Matron.
Davis, Nancy B., . . .	1852	1878	1911	33	59	300 00	600 00	Penal.	Matron.
Hollingsworth, John, . . .	1840	1887	1911	24	71	480 00	960 00	Penal.	Watchman.
Hunter, Charles M., . . .	1846	1893	1912	19	66	600 00	1,200 00	Jail.	Officer.
Kennison, George A., . . .	1844	1895	1912	17	68	330 00	660 00	Penal.	Officer.
Lincoln, Llewlyn, . . .	1844	1895	1912	17	68	330 00	660 00	Penal.	Officer.
Nason, George H., . . .	1836	1895	1912	17	76	600 00	1,200 00	Municipal Ct.	Officer.
Prescott, William, . . .	1843	1881	1912	31	69	950 00	1,900 00	Penal.	Clerk.
Reardon, John J., . . .	1843	1885	1911	26	68	625 00	1,250 00	Jail.	Officer.
Swain, James M., . . .	1843	1881	1909	28	66	675 00	1,350 00	Jail.	Steward.
Wiggin, Joseph A., . . .	1844	1893	1912	19	68	330 00	660 00	Penal.	Officer.

Total amount of pension, \$7,430.

WORCESTER COUNTY.									
Sweeney, David H., . . .	1843	1867	1913	46	70	\$530 00	\$1,060 00	Prison.	Steward.
Washburn, W. A., . . .	1837	1889	1911	22	74	700 00	1,400 00	Prison.	Master.

Total amount of pension, \$1,230.

SUMMARY OF PENSION PAYMENTS BY COUNTIES OF MASSACHUSETTS.

COUNTY.	Number of Pensioners.	Annual Cost.	COUNTY.	Number of Pensioners.	Annual Cost.
Bristol,	3	\$1,556 25	Norfolk,	3	\$780 68
Essex,	6	2,695 00	Plymouth,	1	360 00
Franklin,	1	300 00	Suffolk,	15	7,430 00
Hampden,	1	420 00	Worcester,	2	1,230 00
Middlesex,	6	4,794 43	Total,	38	\$19,566 36

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Andover.									
Saunders, James,	1846	1902	1913	11	67	\$300 00	\$600 00	Public Bldg.	Teamster.

Total amount of pension, \$300.

Arlington.									
Barry, Garrit,	1850	1878	1913	35	63	\$550 00	\$1,100 00	Police.	Patrolman.
Burns, Michael,	1846	1884	1912	28	66	200 36	801 44	Public Works.	Teamster.

Total amount of pension, \$750.36.

BEVERLY.									
Mitchell, Chas. W.,	1841	1898	1913	15	72	\$500 00	\$1,000 00	Police.	Patrolman.
Smith, Chas. E.,	1849	1882	1913	31	64	500 00	-	Fire.	Callman.

Total amount of pension, \$1,000.

BROCKTON.									
Davis, Peter,	1845	1882	1913	31	68	\$550 00	\$1,100 00	Police.	Patrolman.
O'Brien, Michael,	1848	1888	1913	25	65	252 78	505 56	Public Works.	Laborer.
Smith, Robert W.,	1839	1884	1913	29	74	550 00	1,100 00	Police.	Patrolman.

Total amount of pension, \$1,352.78.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Brookline.									
Creelman, Andrew, . . .	1852	1886	1913	27	61	\$700 00	\$1,400 00	Police.	Sergeant.
Dearborn, Geo. F., . . .	1840	1870	1905	35	65	700 00	1,400 00	Police.	Lieutenant.
Donovan, Joseph W. (widow of).	-	-	1912	15	-	300 00	600 00	Public Works.	Laborer.
Finnegan, Arthur, . . .	1836	1887	1912	25	75	324 00	702 00	Public Works.	Laborer.
Frye, Mary P., . . .	1849	1871	1909	38	60	500 00	1,200 00	School.	Teacher.
Honey, Thos. N., . . .	1868	1901	1907	6	39	549 00	1,098 00	Fire.	Driver.
Johnson, Anna M., . . .	-	1884	1910	26	64	500 00	1,200 00	School.	Teacher.
McKenna, Alfred S., . . .	1842	1902	1912	10	70	390 00	780 00	Public Bldg.	Janitor.
McMurray, Joseph (widow of).	-	1896	1907	11	-	300 00	-	Police.	Patrolman.
O'Connell, Wm. W., . . .	1844	1900	1912	12	68	460 00	-	Public Works.	Laborer.
Rockwood, Adela F., . . .	1854	1887	1913	26	59	487 50	975 00	School.	Teacher.
Stanford, Wm. J., . . .	1883	1906	1912	6	29	600 00	1,200 00	Fire.	Fireman.

Total amount of pension, \$5,810.50.

CAMBRIDGE.									
Brooks, Edwin C., . . .	1844	1870	1913	43	69	\$1,100 00	\$2,200 00	Public Works.	Supt.
Clark, Patrick, . . .	1840	1887	1913	26	73	387 42	774 84	Public Works.	Teamster.
Conroy, James, . . .	1844	1896	1913	17	69	322 16	644 32	Public Works.	Laborer.
Dudley, Francis E., . . .	1834	1892	1913	21	79	288 60	577 20	Public Works.	Driver.
Emery, James W., . . .	1841	1895	1912	17	71	600 00	1,250 00	Public Bldg.	Inspector.
Fitzgerald, John, . . .	1848	1903	1913	10	65	311 24	662 48	Public Works.	Laborer.
Gallivan, Mortimer, . . .	1848	1888	1913	35	65	178 88	357 76	Public Works.	Laborer.
Gaughan, John, . . .	1842	1896	1912	16	70	520 00	1,040 00	Public Works.	Draw tender.
Graham, Patrick, . . .	1848	1894	1913	19	65	132 60	265 20	Public Works.	Laborer.
Haskins, John, . . .	1842	1890	1912	22	70	351 00	702 00	Public Works.	Laborer.
McHugh, Charles, . . .	1848	1893	1913	20	65	600 00	1,200 00	Public Works.	Foreman.
Morrissey, Michael, . . .	1839	1897	1912	15	73	351 00	702 00	Public Works.	Laborer.
Noonan, Patrick, . . .	1839	1886	1913	17	74	307 84	615 68	Public Works.	Laborer.
O'Rourke, Michael, . . .	1848	1832	1913	31	65	232 96	465 92	Public Works.	Laborer.
Simpson, Wm., . . .	1844	1899	1912	13	68	351 00	702 00	Public Works.	Laborer.
Sullivan, John, . . .	1848	1885	1913	28	65	327 08	654 16	Public Works.	Laborer.
Sullivan, Michael, . . .	1848	1888	1913	25	65	303 16	606 32	Public Works.	Laborer.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating
CAMBRIDGE — <i>Con.</i>									
Sullivan, Richard, .	1848	1888	1913	25	65	\$330 20	\$660 40	Public Works.	Laborer.
Sullivan, Thomas, .	1848	1888	1913	25	65	331 20	662 48	Public Works.	Laborer.
Whetland, Charles, .	1844	1901	1913	12	69	351 00	702 00	Public Works.	Laborer.
White, Charles H., .	1845	1885	1913	28	68	274 04	548 08	Public Works.	Laborer.
Belcher, Edw. F., .	1841	1879	1903	24	62	546 00	1,092 00	Police.	Patrolman.
Coulter, John, .	1844	1883	1906	23	62	547 50	1,095 00	Police.	Patrolman.
Dechan, John W., .	1855	1883	1910	27	55	650 00	1,300 00	Police.	Lieutenant.
Forristall, Jas. B., .	1856	1892	1909	17	53	547 50	1,095 00	Police.	Patrolman.
Ginty, Michael A., .	1844	1884	1906	22	62	547 50	1,095 00	Police.	Patrolman.
Howe, William H., .	1841	1891	1911	20	70	547 50	1,095 00	Police.	Patrolman.
Jones, Henry C., .	1853	1882	1903	21	50	547 50	1,095 00	Police.	Patrolman.
Ladd, Fred L., .	1842	1887	1909	22	67	546 00	1,092 00	Police.	Patrolman.
Marston, Chas. C., .	1848	1886	1906	20	58	547 50	1,095 00	Police.	Patrolman.
Real, Thomas J., .	1845	1884	1912	28	67	650 00	1,300 00	Police.	Sergeant.
Roper, Bernard J., .	1855	1882	1909	27	54	547 50	1,095 00	Police.	Patrolman.
Avery, Ella R., .	1853	1881	1913	32	60	500 00	1,000 00	School.	Principal.
Bettinson, Addie, .	1852	1872	1913	41	61	350 00	700 00	School.	Principal.
Blackman, Wm. R., .	1841	1895	1912	17	71	468 00	936 00	School.	Janitor.
Blair, Mary, .	1859	1882	1913	31	54	350 00	700 00	School.	Teacher.
Bradbury, Wm. F., .	1829	1860	1913	53	84	500 00	3,000 00	School.	Master.
Chamberlain, Sally, .	1835	1880	1913	33	78	350 00	700 00	School.	Teacher.
Cheney, Ellen A., .	1848	1876	1913	37	65	350 00	700 00	School.	Teacher.
Cronin, Patrick, .	1840	1892	1912	20	72	312 00	624 00	School.	Janitor.
Day, Arthur C., .	1837	1896	1913	17	76	364 00	728 00	School.	Janitor.
Doherty, Josephine M., .	1857	1878	1913	35	56	350 00	750 00	School.	Teacher.
Driscoll, Mary A., .	1854	1888	1913	25	59	350 00	700 00	School.	Teacher.
Dutcher, C. P., .	1840	1888	1913	25	73	350 00	750 00	School.	Teacher.
Evans, M. Elizabeth, .	1843	1874	1913	39	70	350 00	700 00	School.	Teacher.
Ewell, Charlotte A., .	1847	1868	1913	45	66	450 00	900 00	School.	Teacher.
Fletcher, R. H., .	1829	1861	1913	52	84	500 00	2,300 00	School.	Master.
Gilman, Mary M., .	1838	1886	1913	27	75	350 00	700 00	School.	Teacher.
Grover, Edw. O., .	1834	1880	1913	33	79	500 00	2,300 00	School.	Master.
Gunnison, Sarah J., .	1861	1882	1913	31	52	500 00	1,000 00	School.	Principal.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
CAMBRIDGE — Con.									
Hutchins, Nellie A., . . .	1853	1875	1913	38	60	\$450 00	\$800 00	School.	Teacher.
Josselyn, A. B., . . .	1840	1863	1913	50	73	350 00	700 00	School.	Teacher.
Kenney, John S., . . .	1836	1893	1913	20	77	364 00	728 00	School.	Janitor.
Leamer, John S., . . .	1847	1902	1912	10	65	546 00	1,092 00	School.	Janitor.
Leighton, Ellen M., . . .	1845	1871	1913	42	68	350 00	700 00	School.	Principal.
Locke, Evelyn J., . . .	1853	1880	1913	33	60	500 00	1,000 00	School.	Principal.
Lowell, K. M., . . .	1847	1869	1913	44	66	350 00	750 00	School.	Teacher.
Paddack, Eliza S., . . .	1848	1870	1913	43	65	350 00	700 00	School.	Teacher.
Pendexter, Frances E., . . .	1840	1864	1913	49	73	350 00	810 00	School.	Principal.
Pitkin, Emily R., . . .	1844	1871	1913	42	69	350 00	700 00	School.	Teacher.
Robinson, J. A., . . .	1852	1888	1913	25	61	350 00	700 00	School.	Teacher.
Sawyer, Mary E., . . .	1834	1862	1913	51	79	350 00	700 00	School.	Teacher.
Scudder, Emma A., . . .	1838	1872	1913	41	75	450 00	900 00	School.	Teacher.
Southwick, John S., . . .	1843	1898	1912	14	69	576 00	1,092 00	School.	Janitor.
Taylor, Abbie S., . . .	1837	1862	1913	51	76	350 00	750 00	School.	Teacher.
Whitcher, Lydia A., . . .	1843	1869	1913	44	70	350 00	700 00	School.	Teacher.
Total amount of pension, \$13,630.00.									
CHELSEA.									
Crane, Wm. P., . . .	1846	1892	1912	20	66	\$546 00	\$1,092 00	Police.	Patrolman.
Cullen, Henry, . . .	1838	1873	1913	40	75	351 00	702 00	Public Works.	Laborer.
Edgett, Milner H., . . .	1862	1898	1912	14	50	546 00	1,092 00	Police.	Patrolman.
Hadley, Geo. A., . . .	1848	1867	1910	43	62	475 00	950 00	Fire.	Fireman.
Huston, Elbridge W., . . .	1844	1886	1913	27	69	520 00	1,040 00	School.	Janitor.
Orcutt, John A., . . .	1844	1868	1908	40	64	75 00	150 00	Fire.	Callman.
Pepper, Daniel W., . . .	1834	1862	1908	46	74	100 00	150 00	Fire.	Callman.
Reed, Wm. H., . . .	1861	1885	1905	20	44	475 00	950 00	Fire.	Fireman.
Smith, Geo. A., . . .	1856	1884	1912	28	56	531 00	1,062 00	Fire.	Fireman.
Webber, James B., . . .	1854	1890	1906	16	52	547 50	1,095 00	Police.	Patrolman.
Total amount of pension, \$4,166.50.									
Dalton.									
Warren, Sarah E., . . .	-	1880	1910	30	-	\$250 00	\$500 00	School.	Teacher.

Total amount of pension, \$250.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
EASTON.									
Lordan, William, . . .	1841	1883	1913	30	72	\$271 44	\$542 88	Public Works.	Laborer.
Total amount of pension, \$271.44.									
EVERETT.									
Horsman, Henry A., . . .	1857	1890	1912	22	55	\$546 00	\$1,092 00	Police.	Patrolman.
Mann, Ezekiel F., . . .	1837	1898	1913	15	76	366 60	733 20	School.	Janitor.
Spaulding, Jacob C., . . .	1843	1901	1913	12	70	279 24	558 48	School.	Janitor.
Total amount of pension, \$1,191.84.									
FALL RIVER.									
Brockleburst, John, . . .	1839	1869	1909	40	70	\$400 00	\$1,200 00	Police.	Captain.
Multon, Andrew, . . .	1846	1874	1912	38	66	400 00	1,200 00	Police.	Lieutenant.
Total amount of pension, \$800.									
FITCHBURG.									
Carey, Martin, . . .	1845	1887	1912	25	67	\$161 32	\$322 64	Public Works.	Laborer.
Carey, Thomas, . . .	1841	1893	1913	20	72	207 19	414 38	Public Works.	Laborer.
Collett, John, . . .	1846	1888	1913	25	67	202 20	404 40	Public Works.	Laborer.
Flynn, Jeremiah, . . .	1843	1873	1913	40	70	282 50	565 00	Public Works.	Laborer.
Hackett, Jas. T., . . .	1839	1887	1912	25	73	196 94	393 88	Public Works.	Laborer.
Morin, Louis, . . .	1847	1883	1913	30	66	265 32	530 64	Public Works.	Laborer.
Shay, Patrick, . . .	1853	1883	1913	30	60	198 94	397 87	Public Works.	Laborer.
Sheehan, Timothy, . . .	1843	1873	1913	40	70	343 15	686 30	Public Works.	Laborer.
Total amount of pension, \$1,857.56.									
HAVERHILL.									
Caswell, Augustus, . . .	1838	1888	1912	24	74	\$500 00	\$1,000 00	Police.	Patrolman.
Jackson, Samuel C., . . .	1846	1873	1913	40	67	500 00	1,000 00	Fire.	Engineer.
Lucy, John O., . . .	1837	1880	1912	32	75	500 00	1,000 00	Police.	Patrolman.
Messer, Leverett, . . .	1830	1866	1913	47	83	325 00	600 00	Public Bldg.	Janitor.
Tilton, Edwin W., . . .	1870	1896	1909	13	39	500 50	200 00	Fire.	Callman.
Total amount of pension, \$2,325.50.									

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
HOLYOKE.									
Castle, John,	1846	1883	1910	27	64	\$700 00	\$1,400 00	Fire.	Supt.
Davis, John A.,	1844	1884	1906	22	62	500 00	1,000 00	Police.	Patrolman.
Knapp, Charles,	1838	1870	1910	40	72	500 00	1,000 00	Fire.	Engineer.
Louney, Cornelius J.,	1844	1884	1906	22	62	500 00	1,000 00	Police.	Patrolman.
Shine, Michael,	1844	1869	1912	43	68	550 00	1,100 00	Police.	Patrolman
Vachon, John A.,	1857	1892	1912	20	55	550 00	1,100 00	Police.	Patrolman.
Total amount of pension, \$3,300.									
Ipswich.									
Gilmore, Geo. H. (widow of).	1858	-	1907	-	49	\$300 00	-	Fire.	Fireman.
Total amount of pension, \$300.									
Leominster.									
Ayers, John,	1839	1877	1912	35	73	\$244 92	\$491 00	Public Works.	Laborer.
Corey, Samuel,	1835	1887	1912	25	77	138 12	276 38	Public Works.	Laborer.
Foley, Michael,	1848	1888	1913	25	65	213 24	426 38	Public Works.	Laborer.
Marquis, David T.,	1837	1888	1913	25	76	86 76	173 50	Public Works.	Laborer.
Total amount of pension, \$683.04.									
LOWELL.									
Fox, Edward,	1845	1884	1910	26	65	\$501 84	\$1,003 68	Police.	Patrolman.
Fox, John W.,	1867	1891	1908	17	41	501 84	1,003 68	Police.	Patrolman.
Goodwin, Frank,	1845	1872	1910	38	65	600 00	1,200 00	Police.	Inspector.
Grinnell, Enoch N.,	1843	1881	1907	26	64	501 84	1,003 68	Police.	Patrolman.
Hill, James E.,	1839	1895	1913	18	74	352 13	702 00	Health.	Laborer.
Howard, Cornelius,	1847	1884	1909	25	62	501 84	1,003 68	Police.	Patrolman.
Mackenzie, John R.,	1859	1888	1903	15	44	501 84	1,003 68	Police.	Patrolman.
McIntee, Cormack,	1847	1885	1910	25	63	501 84	1,003 68	Police.	Patrolman.
Marshall, Geo. W.,	1856	1884	1910	26	54	501 84	1,003 68	Police.	Patrolman.
Moffatt, Wm. B.,	1853	1881	1909	28	56	1,000 00	2,000 00	Police.	Supt.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
LOWELL — Con.									
Moore, Francis E., . . .	1851	1889	1911	22	60	\$501 84	\$1,003 68	Police.	Patrolman.
O'Connell, John, . . .	1841	1882	1908	26	67	501 84	1,003 68	Police.	Patrolman.
Provencher, N., . . .	1855	1884	1912	28	57	501 84	1,003 68	Police.	Patrolman.
Quinn, Henry F., . . .	1850	1887	1910	23	60	501 84	1,003 68	Police.	Patrolman.

Total amount of pension, \$7,472.37.

LYNN.									
NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Alley, Alonzo, . . .	1849	1865	1912	47	63	\$550 00	\$1,100 00	Fire.	Engineer.
Burnham, Geo. W., . . .	1842	1891	1912	21	70	220 32	440 64	Public Works.	Laborer.
Burrill, Frank A., . . .	1843	1888	1911	23	68	500 00	1,000 00	Police.	Patrolman.
Carroll, Margaret, . . .	-	-	1910	-	-	400 00	800 00	-	(Special Act.)
Chadwell, Fannie M., . . .	1848	1868	1909	41	61	300 00	700 00	School.	Teacher.
Chaffee, Chas. H., . . .	1837	1858	1911	53	74	525 00	1,050 00	Fire.	Engineer.
Chamberlain, John, . . .	1840	1892	1912	20	72	426 40	852 80	Public Works.	Inspector.
Currant, Thatcher, . . .	1844	1894	1912	18	68	525 00	1,050 00	Police.	Patrolman.
Cutcheon, Clara, . . .	1854	1875	1911	36	57	300 00	700 00	School.	Teacher.
Fiske, Maria C., . . .	1857	1884	1911	27	54	300 00	700 00	School.	Teacher.
Foye, Merritt S., . . .	1839	1889	1912	23	73	420 00	840 00	Poor.	Supt.
Helan, John, . . .	1830	1878	1913	35	83	264 96	529 92	Public Works.	Laborer.
Hilliker, Lucy E., . . .	1850	1867	1913	46	63	300 00	700 00	School.	Teacher.
Hilliker, Sarah T., . . .	1853	1870	1913	43	60	300 00	700 00	School.	Teacher.
Jeffers, Geo. W., . . .	1848	1902	1912	10	64	525 00	1,050 00	Police.	Patrolman.
Johnson, Stephen H., . . .	1859	1886	1910	24	51	500 00	1,000 00	Fire.	Fireman.
Jordan, Henry F., . . .	1841	1888	1911	23	70	550 00	1,100 00	Police.	Lieutenant.
Kennedy, James, . . .	1852	-	1913	-	61	300 00	-	-	(Special Act.)
Lamphier, Marcia, . . .	1865	1884	1913	29	48	400 00	1,200 00	School.	Teacher.
Larrabee, Emery E., . . .	1845	1902	1912	10	67	515 76	1,000 00	Police.	Patrolman.
Lee, David, . . .	1846	1880	1911	31	65	500 00	1,000 00	Police.	Patrolman.
Lord, John A., . . .	1852	1889	1910	21	58	125 00	250 00	Fire.	Callman.
Lowe, Geo. F., . . .	1871	1903	1912	9	41	525 00	1,050 00	Fire.	Fireman.
Moulton, Wm. B., . . .	1844	1888	1912	24	68	426 40	852 80	Public Works.	Inspector.
Partridge, Otis, . . .	1846	1882	1911	29	65	500 00	1,000 00	Fire.	Fireman.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
LYNN — Con.									
Pike, George M., . . .	1845	1880	1911	31	66	\$550 00	\$1,100 00	Police.	Lieutenant.
Robinson, Frederick, . . .	1845	1872	1911	39	66	500 00	1,000 00	Fire.	Fireman.
Rowell, Nathaniel, . . .	1841	1866	1909	43	68	525 00	1,050 00	Police.	Sergeant.
Seger, Henry F., . . .	1836	1894	1912	18	76	143 00	286 00	Public Bldg.	Laborer.
Staton, Clara M., . . .	1851	1872	1913	41	62	300 00	700 00	School.	Teacher.
Staton, Mary R., . . .	1848	1871	1913	42	65	300 00	700 00	School.	Teacher.
Storer, Eben K., . . .	1846	1901	1913	12	67	384 98	769 96	Health.	Laborer.
Wiley, I. Otis, . . .	1837	1893	1912	19	75	550 00	1,100 00	Police.	Patrolman.
Wright, Alex. S., . . .	1849	1900	1912	12	63	549 96	1,100 00	Health.	Inspector.
Young, C. O. B., . . .	1843	1878	1911	33	68	500 00	1,000 00	Fire.	Fireman.
Ziegler, Richard F., . . .	1851	1883	1910	27	59	125 00	250 00	Fire.	Callman.

Total amount of pension, \$14,626.78.

MALDEN.									
Hadley, Jonas H., . . .	1846	1888	1908	20	62	\$550 00	\$1,100 00	Fire.	Captain.
Morrison, Robt., . . .	1842	1892	1912	20	70	600 00	1,200 00	School.	Engineer.
Murphy, Julia A. (widow), . . .	-	-	1911	-	-	300 00	900 00	Fire.	Fireman.
Peterson, Robt. W., . . .	1843	1892	1912	20	69	50 00	100 00	Election.	Reg. of voters.
Reardon, Owen, . . .	1844	1892	1912	20	68	375 00	750 00	Public Works.	Laborer.
Sanford, Geo. L., . . .	1853	1892	1908	16	55	500 00	1,000 00	Fire.	Fireman.
Turner, Frank, . . .	1848	1893	1913	20	65	850 00	1,700 00	Fire.	Chief.

Total amount of pension, \$3,225.

Marion.									
Parris, Charlotte D., . . .	1842	1862	1913	51	71	\$266 00	\$532 00	School.	Teacher.

Total amount of pension, \$266.

MARLBOROUGH.									
Callahan, Jas. L., . . .	1848	1890	1913	23	65	\$458 28	\$1,000 00	Police.	Patrolman.
O'Brien, Terrence, . . .	1844	1898	1913	15	69	327 60	655 20	Police.	Reserveman.
Bernard, Dosithe, . . .	1845	1890	1913	23	68	328 80	657 60	Police.	Reserveman.

Total amount of pension, \$1,114.68.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
MEDFORD.									
Grady, John, . . .	1834	1870	1907	37	73	\$450 00	\$900 00	Police.	Patrolman.
Holmes, Emery D., .	1846	1883	1912	29	66	750 00	1,500 00	Police.	Chief.
Total amount of pension, \$1,200.									
Milton.									
Houghton, Edwin A., .	1835	1886	1913	27	78	\$501 88	\$1,003 76	Police.	Keeper.
McGowan, Timothy,	1842	1890	1913	23	71	236 80	473 60	Public Works.	Laborer.
Morrissey, Michael, .	1834	1885	1912	27	78	205 48	410 96	Public Works.	Laborer.
Sears, Ida M., . . .	1854	1878	1913	35	59	425 00	850 00	School.	Teacher.
Wales, Geo. E., . . .	1854	1888	1913	25	59	350 00	700 00	School.	Teacher.
Wigley, James, . . .	1844	1884	1913	29	69	547 50	1,095 00	Police.	Patrolman.
Total amount of pension, \$2,266.66.									
Nahant.									
Tierney, Peter, . . .	1844	1888	1913	25	69	\$243 00	\$486 00	Public Works.	Laborer.
Total amount of pension, \$243.									
NEW BEDFORD.									
Briden, Samuel, . . .	1840	1899	1913	14	73	\$305 76	\$615 10	Public Works.	Bridge tender.
Rock, Henry, . . .	1847	1902	1912	10	65	260 00	490 00	Public Works.	Laborer.
Weaver, Stephen V., .	1840	1896	1913	17	73	533 87	1,067 75	Public Works.	Painter.
Winslow, Geo. F., . .	1838	1897	1913	16	75	453 44	907 50	Police.	Keeper.
Total amount of pension, \$1,553.07.									
NEWTON.									
Ammitage, John, . . .	1837	1875	1913	38	76	\$54 25	\$108 50	Public Works.	Laborer.
Cannon, Michael, . . .	1839	1892	1912	20	73	172 50	345 00	Public Works.	Laborer.
Coakley, Patrick, . . .	1848	1875	1913	38	65	232 44	464 88	Public Works.	Laborer.
Dolan, Thomas, . . .	1845	1883	1913	30	68	450 00	900 00	Police.	Driver.
Foster, John, . . .	1838	1875	1913	38	75	121 26	242 52	Public Works.	Laborer.
Hannegan, Patrick, . .	1832	1875	1913	38	81	28 44	56 88	Public Works.	Laborer.
Lahey, James, . . .	1843	1883	1913	30	70	13 69	27 83	Public Works.	Laborer.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
NEWTON—Con.									
McCarthy, John, . . .	1843	1878	1913	35	70	\$104 35	\$208 70	Public Works.	Laborer.
Madden, Patrick, . . .	1838	1877	1913	36	75	89 82	179 64	Public Works.	Laborer.
Ryan, John, . . .	1845	1878	1913	35	68	1,000 00	2,000 00	Police.	Captain.
Sweeney, William, . . .	1842	1885	1913	28	71	140 81	281 62	Public Works.	Laborer.
Vignoles, Thomas, . . .	1839	1884	1913	28	74	21 44	42 88	Public Works.	Laborer.
Total amount of pension, \$2,429.									
Norwood.									
Dexter, Charles B., . . .	1838	1901	1913	12	75	\$307 00	\$614 00	Public Works.	Supt.
Total amount of pension, \$307.									
PITTSFIELD.									
Deane, James F., . . .	1850	1887	1913	26	63	\$600 00	\$1,200 00	Police.	Captain.
Hogan, Dennis, . . .	1855	1886	1913	27	58	546 00	1,092 00	Police.	Patrolman.
Tobin, William, . . .	1852	1886	1911	25	59	546 00	1,092 00	Police.	Patrolman.
White, William G., . . .	1856	1882	1913	31	57	750 00	1,500 00	Police.	Chief.
Total amount of pension, \$2,442.									
QUINCY.									
Costa, Charles P., . . .	1848	1893	1913	20	65	\$550 00	\$1,100 00	Fire.	Captain.
Total amount of pension, \$550.									
SALEM.									
Arnold, James H., . . .	1845	1899	1912	13	67	\$222 04	\$444 08	Public Bldg.	Laborer.
Bagley, Patrick, . . .	1848	1884	1913	29	65	200 00	400 00	Water.	Laborer.
Chamberlain, Edw. O., . . .	1847	1884	1912	28	65	500 48	1,001 00	Fire.	Driver.
Cole, Chas. H., . . .	1835	1898	1913	15	78	186 96	373 92	Public Works.	Laborer.
Cunningham, Wm. H., . . .	1843	1873	1913	40	70	136 16	272 32	Public Works.	Laborer.
Cook, David N., . . .	1849	1898	1913	15	64	692 40	1,600 00	Public Works.	Supt.
Dennett, Fred J., . . .	1859	1898	1913	15	54	351 98	703 96	Public Works.	Laborer.
Flynn, Michael, . . .	1840	1874	1913	39	73	499 72	1,001 00	Fire.	Driver.
Haley, Humphrey, . . .	1843	1883	1913	30	70	359 84	719 68	Public Works.	Laborer.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON—*Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
SALEM—Con.									
Hallahan, Timothy, . . .	1843	1883	1913	30	70	\$171 76	\$343 52	Public Works.	Laborer.
McMahon, John J., . . .	1846	1886	1913	27	67	285 48	570 96	Public Works.	Laborer.
Miller, Charles H., . . .	1841	1873	1913	40	72	499 72	1,000.00	Police.	Patrolman.
Smith, Benj. C., . . .	1840	1887	1912	25	72	253 44	506 88	Police.	Patrolman.
Southwick, Edw., . . .	1834	1893	1913	20	79	349 96	700 00	Public Bldg.	Laborer.
Stillman, Amos, . . .	1844	1874	1913	39	69	553 00	1,100 00	Public Works.	Supt.
Tucker, Thomas D., . . .	1842	1886	1913	27	71	220 48	440 96	Health.	Laborer.
Whelton, John, . . .	1844	1872	1912	40	68	229 84	459 68	Public Works.	Laborer.
Wright, George S., . . .	1871	1898	1911	13	40	504 00	150 00	Fire.	Callman.

Total amount of pension, \$6,217.26.

SOMERVILLE.									
Bean, George W., . . .	1839	1875	1902	27	63	\$547 50	\$1,095 00	Police.	Patrolman.
Blaisdell, Wm. J., . . .	1846	1889	1910	21	64	100 00	200 00	Fire.	Callman.
Bridges, Chas. H., . . .	1848	1873	1908	35	60	100.00	200 00	Fire.	Callman.
Carleton, Ira S., . . .	1864	1892	1907	15	42	547 50	1,095 00	Police.	Patrolman.
Chase, James H., . . .	1838	1890	1913	23	75	260 00	520 00	Public Bldg.	Janitor.
Cotty, Edward, . . .	1844	1888	1913	25	69	350 40	821 25	Public Works.	Driver.
Fuller, John E., . . .	1844	1875	1906	31	62	547 50	1,095 00	Police.	Patrolman.
Gilman, Arthur M., . . .	1866	1893	1913	20	47	650 00	1,300 00	Fire.	Lieutenant.
Hill, John E., . . .	1846	1891	1910	19	64	100 00	200 00	Fire.	Callman.
Hilton, Herbert, . . .	1866	1895	1911	16	45	574 87	1,149 75	Police.	Patrolman.
Hopkins, James R., . . .	1836	1856	1910	54	74	1,200 00	2,000 00	Fire.	Chief.
Joy, Thomas W., . . .	1846	1891	1910	19	64	100 00	200 00	Fire.	Callman.
Parkhurst, M. C., . . .	1842	1868	1908	40	66	1,000 00	2,000 00	Police.	Chief.
Pollard, James J., . . .	1861	1893	1908	15	47	547 50	1,095 00	Police.	Patrolman.
Pond, Benjamin H., . . .	1867	1889	1913	24	46	700 00	1,400 00	Fire.	Captain.
Spike, Daniel R., . . .	1844	1880	1910	30	66	100 00	200 00	Fire.	Callman.
Staples, Albion L., . . .	1837	1875	1905	30	68	547 50	1,095 00	Police.	Patrolman.
Whalen, Richard, . . .	1843	1868	1913	45	70	324 61	821 25	Water.	Laborer.
Young, Joseph, . . .	1836	1871	1913	42	77	507 00	1,014 00	Public Bldg.	Janitor.

Total amount of pension, \$8,804.38.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON—*Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
SPRINGFIELD.									
Barringer, C. S.,	1850	1875	1908	33	58	\$465 00	\$930 00	Fire.	Fireman.
Clark, W. J.,	1854	1887	1912	25	58	87 50	175 00	Fire.	Callman.
DeForest, Geo. L.,	1854	1884	1912	28	58	546 00	1,095 00	Police.	Patrolman.
Haynes, Chas. A.,	1848	1883	1909	26	61	600 00	1,200 00	Police.	Inspector.
Lee, F. G.,	1870	1900	1907	7	37	465 00	930 00	Fire.	Fireman.
Peters, C. W.,	1850	1876	1912	36	62	87 50	175 00	Fire.	Callman.
Russ, T. B.,	1847	1867	1912	45	65	87 50	175 00	Fire.	Callman.
Ryan, William,	1843	1883	1913	30	70	317 20	634 40	Public Works.	Laborer.
Sibley, William H.,	1850	1885	1910	25	60	546 00	1,095 00	Police.	Patrolman.
Stephens, E. T.,	1854	1886	1912	26	58	87 50	175 00	Fire.	Callman.
Stephens, J. A.,	1840	1856	1908	52	68	350 00	700 00	Fire.	Callman.
Wade, A. P.,	1841	1881	1905	24	64	87 50	175 00	Fire.	Callman.
Washburn, D. E.,	1840	1895	1913	18	73	316 16	632 32	Public Works.	Laborer.
Total amount of pension, \$4,042.86.									
Swampscott.									
Fernald, Minnie H.,	1852	1888	1913	25	61	\$325 00	\$650 00	School.	Teacher.
Hadley, E. J.,	1848	1873	1913	40	65	334 00	668 00	School.	Teacher.
Total amount of pension, \$659.									
WALTHAM.									
Bryant, James J.,	1840	1873	1908	35	68	\$546 00	\$1,092 00	Police.	Patrolman.
Field, James,	1835	1889	1912	23	77	372 00	744 00	Public Works.	Laborer.
Patch, Samuel,	1837	1896	1912	16	75	600 00	1,200 00	Public Bldg.	Supt.
Total amount of pension, \$1,518.									
Watertown.									
Cooney, Daniel H.,	1853	1884	1911	27	58	\$624 00	\$1,248 00	Police.	Chief.
Holt, John H.,	1849	1881	1906	25	57	637 00	1,274 00	Fire.	Engineer.
Parker, George,	1839	1865	1907	42	68	491 40	982 80	Police.	Patrolman.
Total amount of pension, \$1,752.40.									

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON—*Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Wellesley.									
Philips, Alice L., . . .	1852	1872	1912	40	60	\$300 00	\$700 00	School.	Teacher.
Total amount of pension, \$300.									
Winchester.									
Kennedy, Patrick J., . .	1841	1883	1913	30	72	\$195 00	\$390 00	Public Works.	Laborer.
Total amount of pension, \$195.									
WOBURN.									
Buckley, Chas. P., . . .	1851	1890	1910	20	59	\$450 00	\$900 00	Fire.	Fireman.
Connolly, John, . . .	1839	1887	1913	26	74	342 75	700 00	Public Bldg.	Janitor.
Connolly, John P., . . .	1838	1888	1913	25	75	92 22	184 44	Public Works.	Laborer.
Coughlin, John, . . .	1840	1887	1912	25	72	60 03	120 06	Public Works.	Laborer.
Fountain, Edward, . . .	1847	1888	1912	24	65	457 50	915 00	Police.	Patrolman.
French, Austin G., . . .	1847	1891	1912	21	65	457 50	915 00	Police.	Patrolman.
Kean, Clarence M., . . .	1848	1887	1912	25	64	457 50	915 00	Police.	Patrolman.
Total amount of pension, \$2,317.50.									
WORCESTER.									
Adams, William A., . . .	1853	1880	1911	31	58	\$637 50	\$1,275 00	Fire.	Captain.
Atkinson, Amos, . . .	1839	1868	1912	44	73	900 00	1,800 00	Police.	Chief.
Barker, Charles W., . . .	1837	1872	1912	40	75	501 87	1,003 75	Police.	Patrolman.
Coleman, George S., . . .	1842	1870	1912	42	70	1,050 00	2,100 00	Fire.	Chief.
Dolan, John, . . .	1848	1888	1913	25	65	243 38	486 76	Public Works.	Laborer.
Dowd, Martin, . . .	1841	1886	1913	27	72	214 09	428 18	Public Works.	Laborer.
Fairbanks, Edson, . . .	1838	1868	1912	44	74	456 25	912 50	Police.	Doorman.
Flynn, John, . . .	1845	1883	1913	30	68	264 40	528 80	Public Works.	Laborer.
Foley, Michael J., . . .	1845	1874	1912	38	67	501 87	1,003 75	Police.	Patrolman.
Hickey, William, . . .	1840	1884	1912	28	72	600 00	1,200 00	Police.	Sergeant.
Hogan, Patrick, . . .	1846	1887	1913	26	67	249 20	498 40	Public Works.	Laborer.
Keyes, John, . . .	1840	1890	1912	22	72	501 87	1,003 75	Public Works.	Laborer.
Legassey, John B., . . .	1842	1882	1912	30	70	501 87	1,003 75	Public Works.	Laborer.
Maloney, James M., . . .	1841	1872	1912	40	71	456 25	912 50	Police.	Doorman.

RETIRED EMPLOYEES OF ALL CITIES AND TOWNS, EXCEPT BOSTON — *Concluded.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
WORCESTER—Con.									
March, Addison, . . .	1839	1868	1912	44	73	\$501 87	\$1,003 75	Police.	Patrolman.
Maroney, Michael, . . .	1842	1889	1913	24	71	158 12	316 24	Public Works.	Laborer.
Matthews, David A., . . .	1847	1872	1913	41	66	1,250 00	2,500 00	Police.	Chief.
Matthews, Thomas F., . . .	1864	1892	1913	21	49	547 50	1,095 00	Police.	Patrolman.
Millet, F. W., . . .	1846	1887	1912	25	66	501 87	1,003 75	Police.	Patrolman.
Moore, James W., . . .	1869	1888	1907	19	38	520 00	520 00	Fire.	Callman.
Powers, Thomas, . . .	1844	1876	1913	37	69	158 95	317 90	Public Works.	Laborer.
Rockett, William, . . .	1837	1874	1913	39	76	234 60	469 20	Public Works.	Laborer.
Ryan, Patrick F., . . .	1846	1889	1912	23	66	501 87	1,003 75	Police.	Patrolman.
Shaw, James D., . . .	1842	1866	1913	47	71	637 50	1,275 00	Fire.	Chief.
Streeter, Henry B., . . .	1835	1868	1912	44	77	501 87	1,003 75	Police.	Patrolman.
Sweeney, Adam, . . .	1837	1885	1913	28	76	167 95	335 90	Public Works.	Laborer.
Tierney, James J., . . .	1850	1890	1912	22	62	547 50	1,095 00	Police.	Patrolman.
Walsh, Matthew J., . . .	1841	1874	1912	38	71	650 00	1,300 00	Police.	Lieutenant.
Warren, John W., . . .	1845	1883	1912	29	67	600 00	1,200 00	Police.	Sergeant.

Total amount of pension, \$14,558.15.

SUMMARY OF PENSION PAYMENTS BY CITIES OF MASSACHUSETTS, EXCEPT BOSTON.

CITY.	Number of Pensioners.	Annual Cost.	CITY.	Number of Pensioners.	Annual Cost.
Beverly,	2	\$1,000 00	Medford,	2	\$1,200 00
Brockton,	3	1,352 78	New Bedford,	4	1,553 07
Cambridge,	66	27,805 88	Newton,	12	2,429 00
Chelsea,	10	4,166 50	Pittsfield,	4	2,442 00
Everett,	3	1,191 84	Quincy,	1	550 00
Fall River,	2	800 00	Salem,	18	6,217 26
Fitchburg,	8	1,857 56	Somerville,	19	8,804 38
Haverhill,	5	2,325 50	Springfield,	13	4,042 86
Holyoke,	6	3,300 00	Waltham,	3	1,518 00
Lowell,	14	7,472 37	Woburn,	7	2,317 50
Lynn,	36	14,626 78	Worcester,	29	14,558 15
Malden,	7	3,225 00	Total,	277	\$115,871 11
Marlborough,	3	1,114 63			

SUMMARY OF PENSION PAYMENTS BY TOWNS OF MASSACHUSETTS.

TOWN.	Pension-ers.	Total.	TOWN.	Pension-ers.	Total.
Andover,	1	\$300 00	Milton,	6	\$2,266 66
Arlington,	2	750 36	Nahant,	1	243 00
Brookline,	12	5,810 50	Norwood,	1	307 00
Dalton,	1	250 00	Swampscott,	2	659 00
Easton,	1	271 44	Watertown,	3	1,752 40
Ipswich,	1	300 00	Wellesley,	1	300 00
Leominster,	4	683 04	Winchester,	1	195 00
Marion,	1	266 00		38	\$14,354 40

BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE ACTS OF 1880, AND SUBSEQUENT ACTS.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Abbott, Lewis P.,	1838	1873	1904	31	66	\$1,000 00	\$2,000 00	Fire.	District chief.
Adams, Charles T.,	1851	1885	1907	22	56	700 00	1,400 00	Fire.	Lieutenant.
Adamson, David L.,	1848	1873	1893	20	45	800 00	1,500 00	Fire.	Clerk.
Akerly, Alonzo C., Jr.,	1874	1898	1908	10	34	600 00	1,200 00	Fire.	Ladderman.
Albrecht, Nicholas,	1856	1894	1904	10	48	300 00	200 00	Fire.	Callman.
Andrews, Thomas A.,	1851	1879	1909	30	58	650 00	1,300 00	Fire.	Engineer.
Bailey, James F.,	1872	1896	1912	16	40	650 00	1,300 00	Fire.	Ladderman.
Barrus, Joseph C.,	1854	1874	1893	19	39	600 00	1,200 00	Fire.	Ladderman.
Bartlett, Robert E.,	1854	1874	1898	24	44	800 00	1,600 00	Fire.	Captain.
Baumeister, John,	1847	1870	1909	39	62	700 00	1,400 00	Fire.	Lieutenant.
Baynton, Alfred G.,	1851	1874	1899	25	48	125 00	200 00	Fire.	Callman.
Berry, George W.,	1836	1871	1895	24	59	125 00	200 00	Fire.	Callman.
Bird, Joseph W.,	1846	1876	1907	31	61	600 00	1,200 00	Fire.	Ladderman.
Bird, Nathaniel H.,	1835	1870	1897	27	62	650 00	1,300 00	Fire.	Engineer.
Black, David S.,	1838	1870	1898	28	60	600 00	1,200 00	Fire.	Ladderman.
Blaisdell, George S.,	1846	1880	1904	24	58	125 00	200 00	Fire.	Callman.
Boardman, Charles D.,	1842	1874	1908	34	66	600 00	1,200 00	Fire.	Ladderman.
Boggs, Thomas F.,	1852	1873	1910	37	58	600 00	1,200 00	Fire.	Ladderman.
Bolton, Joseph F.,	1843	1863	1906	43	63	125 00	250 00	Fire.	Callman.
Booker, Oliver J.,	1834	1868	1906	38	72	600 00	1,200 00	Fire.	Hoseman.

BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE ACTS OF 1880, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Boudreau, Charles P., .	1873	1896	1902	6	29	\$600 00	\$1,200 00	Fire.	Hoseman.
Bowman, Erwin C., .	1850	1874	1895	21	45	600 00	1,200 00	Fire.	Hoseman.
Brown, Anor W., . .	1840	1874	1895	21	55	933 33	1,400 00	Fire.	Lieutenant.
Brown, Joseph H., .	1849	1875	1908	33	59	125 00	250 00	Fire.	Callman.
Brown, Joseph H. E., .	1880	1905	1912	7	32	600 00	1,200 00	Fire.	Ladderman.
Bryan, William F., .	1879	1902	1913	11	34	650 00	1,300 00	Fire.	Hoseman.
Bullard, George D., .	1849	1882	1907	25	58	600 00	1,200 00	Fire.	Hoseman.
Burley, Frank G., . .	1839	1875	1904	29	65	650 00	1,300 00	Fire.	Engineer.
Burns, Matthew, . .	1850	1882	1908	26	58	600 00	1,200 00	Fire.	Hoseman.
Burt, Waldo C., . .	1856	1890	1907	17	51	125 00	200 00	Fire.	Callman.
Callahan, Daniel T., .	1865	1890	1901	11	36	600 00	1,200 00	Fire.	Hoseman.
Carpenter, Benj. W., .	1835	1870	1897	27	62	650 00	1,300 00	Fire.	Engineer.
Chaplin, Charles M., .	1846	1866	1911	45	65	800 00	1,600 00	Fire.	Operator.
Chapman, John R., .	1842	1873	1905	32	63	600 00	1,200 00	Fire.	Hoseman.
Coffey, Daniel J., . .	1869	1898	1908	10	39	600 00	1,200 00	Fire.	Hoseman.
Coleman, George H., .	1862	1892	1908	16	46	600 00	1,200 00	Fire.	Hoseman.
Colpoys, William P., .	1879	1902	1908	6	29	600 00	1,200 00	Fire.	Ladderman.
Condry, William, . .	1851	1874	1913	39	62	650 00	650 00	Fire.	Hoseman.
Crane, Francis H., . .	1851	1874	1907	33	56	125 00	200 00	Fire.	Callman.
Crowley, John J., . .	1874	1897	1910	13	36	600 00	1,200 00	Fire.	Ladderman.
Cummings, Robert, .	1857	1888	1909	21	52	650 00	1,300 00	Fire.	Engineer.
Dennison, Gardner, .	1856	1888	1907	19	51	125 00	200 00	Fire.	Callman.
Desorgher, John A., .	1848	1874	1907	33	59	125 00	200 00	Fire.	Callman.
Doherty, Daniel J., .	1856	1884	1908	24	52	600 00	1,200 00	Fire.	Hoseman.
Donnell, Octavius, .	1848	1881	1908	27	60	650 00	1,300 00	Fire.	Engineer.
Donnelly, George R., .	1856	1882	1913	31	57	650 00	650 00	Fire.	Hoseman.
Dooley, James A., . .	1850	1880	1908	28	58	125 00	200 00	Fire.	Callman.
Dooley, Ignatius H., .	1870	1894	1905	11	35	600 00	1,200 00	Fire.	Ladderman.
Downey, James E., .	1872	1895	1913	18	41	650 00	1,300 00	Fire.	Hoseman.
Dunn, Martin J., . .	1858	1886	1900	14	42	933 33	1,400 00	Fire.	Lieutenant.
Dwight, Henry C., . .	1846	1874	1910	36	64	600 00	1,200 00	Fire.	Hoseman.
Egan, Edward J., . .	1886	1907	1913	6	27	500 00	1,000 00	Fire.	Hoseman.
Emery, Franklin C. P., .	1842	1870	1898	28	56	125 00	200 00	Fire.	Callman.

BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE ACTS OF 1880, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Engler, Samuel, . . .	1873	1897	1909	12	36	\$600 00	\$1,200 00	Fire.	Engineer.
Ewers, John H., . . .	1848	1873	1907	34	59	800 00	1,600 00	Fire.	Captain.
Feeley, Jeremiah A., . . .	1878	1905	1913	8	35	650 00	1,300 00	Fire.	Ladderman.
Fitzgerald, James D., . . .	1863	1890	1905	15	42	600 00	1,200 00	Fire.	Hoseman.
Flanagan, John J., . . .	1858	1885	1911	26	53	800 00	1,600 00	Fire.	Captain.
Flanagan, Thomas B., . . .	1848	1878	1911	33	63	700 00	1,400 00	Fire.	Lieutenant.
Flanders, Brown S., . . .	1836	1864	1910	46	74	1,600 00	3,200 00	Fire.	Supt.
Fletcher, Stephen W., . . .	1837	1873	1900	27	63	600 00	1,200 00	Fire.	Hoseman.
Flynn, Philip G., . . .	1861	1886	1912	26	51	700 00	1,400 00	Fire.	Lieutenant.
Frasier, Charles W., . . .	1870	1895	1906	11	36	650 00	1,300 00	Fire.	Engineer.
Fratrus, Frank L., . . .	1866	1895	1912	17	46	125 00	200 00	Fire.	Callman.
Frost, George W., . . .	1838	1868	1907	39	69	800 00	1,600 00	Fire.	Captain.
Fruean, Edmund, . . .	1843	1870	1905	35	62	125 00	200 00	Fire.	Callman.
Gaffey, James E., . . .	1862	1886	1908	22	46	600 00	1,200 00	Fire.	Hoseman.
Gale, John W., . . .	1847	1874	1907	33	60	600 00	600 00	Fire.	Hoseman.
Gallagher, Robert J., . . .	1845	1874	1909	35	64	650 00	1,300 00	Fire.	Engineer.
Galvin, James F., . . .	1859	1884	1902	18	43	600 00	1,200 00	Fire.	Hoseman.
Garrity, Joseph M., . . .	1862	1886	1910	24	48	1,333 33	2,000 00	Fire.	District chief.
George, Cyrus A., . . .	1839	1865	1911	46	72	1,000 00	2,000 00	Fire.	Asst. supt.
Gibbons, John, . . .	1877	1905	1910	5	33	600 00	1,200 00	Fire.	Hoseman.
Gill, William H., . . .	1857	1892	1908	16	51	600 00	1,200 00	Fire.	Ladderman.
Gordon, Jason, . . .	1847	1870	1895	25	48	300 00	200 00	Fire.	Callman.
Gordon, Rastus, . . .	1847	1872	1895	23	48	125 00	200 00	Fire.	Callman.
Gowan, Thomas W., . . .	1830	1860	1893	33	63	800 00	1,600 00	Fire.	Captain.
Greeley, William C., . . .	1868	1894	1912	18	44	800 00	1,600 00	Fire.	Lieutenant.
Greenwood, John F., . . .	1841	1870	1905	35	64	125 00	200 00	Fire.	Callman.
Griffin, Charles M., . . .	1864	1895	1910	15	46	600 00	1,200 00	Fire.	Asst. engineer.
Hall, William H., . . .	1843	1877	1896	19	53	125 00	200 00	Fire.	Callman.
Haney, Thomas C., . . .	1851	1874	1904	30	53	866 67	1,300 00	Fire.	Master carp.
Hartnett, Henry, . . .	1874	1902	1911	9	37	800 00	1,200 00	Fire.	Hoseman.
Hayes, Fred W., . . .	1854	1874	1912	38	58	650 00	1,300 00	Fire.	Hoseman.
Hawkins, Henry M., . . .	1840	1861	1906	45	66	1,000 00	2,000 00	Fire.	Supt. repairs.
Hedrington, Dennis J., . . .	1859	1888	1913	25	54	650 00	1,300 00	Fire.	Ladderman.

BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE ACTS OF 1880, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Heymann, Henry, .	1853	1873	1910	37	57	\$650 00	\$1,300 00	Fire.	Engineer.
Hickey, Jeremiah J., .	1865	1896	1909	13	44	600 00	1,200 00	Fire.	Hoseman.
Hickey, Peter J., . .	1870	1885	1900	5	30	600 00	1,200 00	Fire.	Hoseman.
Hickey, William J., .	1863	1884	1907	23	44	600 00	1,200 00	Fire.	Hoseman.
Holton, John C., . . .	1872	1895	1909	14	37	600 00	1,200 00	Fire.	Hoseman.
Howard, John E., . . .	1881	1904	1908	4	27	600 00	1,200 00	Fire.	Hoseman.
Hoyt, Joseph H., . . .	1848	1882	1905	23	57	125 00	200 00	Fire.	Callman.
Hurley, Charles P. A., .	1881	1904	1909	5	28	600 00	1,200 00	Fire.	Ladderman.
Jeffrey, Erastus E., .	1833	1859	1903	44	70	650 00	1,300 00	Fire.	Engineer.
Jones, Henry H., . . .	1844	1874	1898	24	54	125 00	200 00	Fire.	Callman.
Keyes, Patrick E., . .	1850	1875	1907	32	57	1,000 00	2,000 00	Fire.	District chief.
Kelley, John D., . . .	1842	1874	1893	19	51	800 00	1,200 00	Fire.	Hoseman.
Kelton, Moses B., . . .	1838	1870	1893	17	55	125 00	250 00	Fire.	Callman.
Knights, John,	1847	1873	1893	20	46	1,066 67	1,600 00	Fire.	Captain.
Lally, Thomas P., . . .	1846	1868	1907	39	61	700 00	1,400 00	Fire.	Lieutenant.
Lally, William,	1866	1890	1913	23	47	800 00	1,600 00	Fire.	Lieutenant.
Laskey, Albert M., . .	1865	1889	1912	23	47	650 00	1,300 00	Fire.	Ladderman.
Lee, John,	1852	1882	1910	28	58	650 00	1,300 00	Fire.	Engineer.
Le Favor, James H., . .	1841	1863	1904	41	63	800 00	1,600 00	Fire.	Captain.
Leonard, Michael C., .	1858	1882	1909	27	51	800 00	1,600 00	Fire.	Captain.
Littleton, James M., .	1851	1871	1909	38	58	800 00	1,600 00	Fire.	Captain.
Lynch, John,	1851	1875	1909	34	58	600 00	1,200 00	Fire.	Ladderman.
Mahegan, John A., . . .	1867	1891	1905	14	38	600 00	1,200 00	Fire.	Hoseman.
Mason, Rufus L., . . .	1833	1871	1900	29	62	650 00	1,300 00	Fire.	Engineer.
Matthews, Peter A., . .	1868	1892	1912	20	44	800 00	1,600 00	Fire.	Lieutenant.
McCarthy, William, . .	1873	1897	1 10	13	37	600 00	1,200 00	Fire.	Hoseman.
McCormack, William T.,	1852	1880	1912	32	60	650 00	1,300 00	Fire.	Hoseman.
McDonald, Daniel F., . .	1875	1900	1911	11	36	600 00	1,200 00	Fire.	Hoseman.
McDonald, William H., .	1858	1887	1913	26	55	650 00	1,300 00	Fire.	Hoseman.
McGarr, John H.,	1850	1883	1903	20	53	600 00	1,200 00	Fire.	Hoseman.
McIntyre, Edward J., . .	1871	1893	1911	12	40	600 00	1,200 00	Fire.	Ladderman.
McLaughlin, John A., .	1877	1900	1907	7	30	600 00	1,200 00	Fire.	Hoseman.
McLean, Duncan,	1849	1880	1908	28	59	800 00	1,600 00	Fire.	Captain.

BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE ACTS OF 1880, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
McManus, John P.,	1856	1884	1911	27	55	\$1,066 67	\$1,600 00	Fire.	Captain.
Melody, Thomas J.,	1864	1894	1901	7	37	600 00	1,200 00	Fire.	Hoseman.
Merrill, Leonard F.,	1838	1869	1893	24	55	125 00	250 00	Fire.	Callman.
Miller, Charles,	1835	1872	1898	26	63	600 00	1,200 00	Fire.	Asst. eng.
Mullen, Martin J.,	1880	1909	1912	3	32	550 00	1,100 00	Fire.	Hoseman.
Murnan, John H.,	1859	1888	1909	21	50	600 00	1,200 00	Fire.	Hoseman.
Murphy, Joseph,	1875	1898	1913	15	38	650 00	1,300 00	Fire.	Hoseman.
Murphy, John J.,	1861	1892	1907	15	46	800 00	1,200 00	Fire.	Hoseman.
Nannery, Thomas,	1838	1865	1903	38	65	650 00	1,300 00	Fire.	Engineer.
Neal, John,	1843	1874	1904	30	61	700 00	1,400 00	Fire.	Lieutenant.
Nolan, Joseph,	1850	1882	1910	28	60	600 00	1,200 00	Fire.	Hoseman.
Noon, William J.,	1861	1890	1909	19	48	125 00	200 00	Fire.	Callman.
O'Connell, David J.,	1846	1875	1912	37	66	700 00	1,400 00	Fire.	Engineer.
O'Connell, Thomas A.,	1882	1906	1911	5	29	600 00	1,200 00	Fire.	Ladderman.
O'Hare, Martin M.,	1866	1889	1902	13	36	600 00	1,200 00	Fire.	Hoseman.
O'Riordan, Daniel,	1852	1882	1908	26	56	125 00	200 00	Fire.	Callman.
Perry, Alfred H.,	1833	1865	1898	33	65	650 00	1,300 00	Fire.	Engineer.
Perry, John J.,	1866	1894	1903	14	42	600 00	1,200 00	Fire.	Hoseman.
Phillips, John G.,	1837	1870	1895	25	58	125 00	250 00	Fire.	Callman.
Pine, Joseph S.,	1845	1879	1896	17	51	600 00	1,200 00	Fire.	Hoseman.
Pitcher, Henry P.,	1840	1876	1907	31	67	700 00	1,400 00	Fire.	Lieutenant.
Poor, Charles F.,	1852	1874	1897	23	45	800 00	1,600 00	Fire.	Captain.
Prendergast, John,	1850	1882	1910	28	60	600 00	1,200 00	Fire.	Ladderman.
Putnam, Uzziel,	1837	1853	1910	57	73	800 00	1,600 00	Fire.	Operator.
Quigley, John I.,	1855	1884	1913	29	58	650 00	1,300 00	Fire.	Hoseman.
Rathburn, William A.,	1845	1874	1907	33	62	600 00	1,200 00	Fire.	Hoseman.
Reiley, George B.,	1836	1874	1901	27	65	800 00	1,600 00	Fire.	Captain.
Restarick, Robert J.,	1859	1888	1907	19	48	600 00	1,200 00	Fire.	Ladderman.
Reynolds, James F.,	1839	1874	1898	24	59	125 00	250 00	Fire.	Callman.
Rhodes, Frank G.,	1853	1875	1908	33	55	125 00	200 00	Fire.	Callman.
Riley, Charles,	1833	1863	1900	37	67	650 00	1,300 00	Fire.	Engineer.
Riley, James H.,	1861	1890	1907	17	46	650 00	1,300 00	Fire.	Engineer.
Riley, Joseph,	1840	1874	1898	24	58	125 00	250 00	Fire.	Callman.

BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE ACTS OF 1880, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Ryan, Edward J., . . .	1871	1893	1906	13	35	\$600 00	\$1,200 00	Fire.	Ladderman.
Scallan, Lawrence, . . .	1842	1874	1907	33	65	600 00	1,200 00	Fire.	Ladderman.
Scannell, John D., . . .	1846	1870	1907	37	61	125 00	200 00	Fire.	Callman.
Scott, Andrew C., . . .	1852	1871	1895	24	43	800 00	1,500 00	Fire.	Clerk.
Seaver, William F., . . .	1845	1874	1913	31	68	125 00	250 00	Fire.	Callman.
Shea, Jeremiah F., . . .	1857	1887	1907	20	50	125 00	200 00	Fire.	Callman.
Silva, Joseph H., . . .	1867	1891	1907	16	40	600 00	1,200 00	Fire.	Ladderman.
Smith, Charles P., . . .	1851	1874	1905	31	54	800 00	1,600 00	Fire.	Captain.
Smith, Edmund B., . . .	1845	1870	1902	32	57	800 00	1,600 00	Fire.	Captain.
Smith, Frank B., . . .	1863	1890	1909	19	46	125 00	200 00	Fire.	Callman.
Smith, Frank H., . . .	1858	1885	1903	18	45	700 00	1,400 00	Fire.	Lieutenant.
Smith, George S., . . .	1842	1874	1905	31	63	125 00	250 00	Fire.	Callman.
Smith, Hiram D., . . .	1844	1867	1906	39	62	1,000 00	2,000 00	Fire.	District chief.
Smith, John W., . . .	1839	1872	1903	31	64	600 00	1,200 00	Fire.	Hoseman.
Smith, William H., . . .	1860	1891	1909	18	49	600 00	1,200 00	Fire.	Hoseman.
Snow, Alva D., . . .	1840	1874	1890	16	50	600 00	1,200 00	Fire.	Hoseman.
Sparks, Irving, . . .	1868	1893	1908	15	40	800 00	1,600 00	Fire.	Captain.
Spencer, George L., . . .	1847	1876	1906	30	59	600 00	1,200 00	Fire.	Hoseman.
Sprague, Augustus W., . . .	1850	1875	1905	30	55	125 00	200 00	Fire.	Callman.
Stimson, George W., . . .	1847	1868	1910	42	63	1,000 00	2,000 00	Fire.	Vet. surgeon.
Stinson, George H., . . .	1854	1882	1891	9	37	800 00	1,200 00	Fire.	Ladderman.
Stern, Edward R., . . .	1861	1883	1913	30	52	700 00	1,400 00	Fire.	Engineer.
Stevens, Charles W., . . .	1858	1883	1893	10	35	600 00	1,200 00	Fire.	Hoseman.
Strangman, J., . . .	1839	1870	1907	37	68	125 00	200 00	Fire.	Callman.
Straw, Charles A., . . .	1854	1875	1907	32	53	600 00	1,600 00	Fire.	Purch. officer.
Sullivan, Jeremiah F., . . .	1858	1887	1901	14	43	600 00	1,200 00	Fire.	Hoseman.
Swift, George C., . . .	1859	1880	1912	32	53	650 00	1,300 00	Fire.	Hoseman.
Thayer, Minot B., . . .	1839	1870	1907	37	68	125 00	200 00	Fire.	Callman.
Titus, George F., . . .	1847	1874	1906	32	59	800 00	1,600 00	Fire.	Captain.
Turnbull, Frank, . . .	1842	1874	1912	38	70	650 00	1,300 00	Fire.	Hoseman.
Turner, Charles E., . . .	1860	1895	1912	17	52	125 00	200 00	Fire.	Callman.
Twiss, George H., . . .	1860	1881	1913	32	53	800 00	1,600 00	Fire.	Lieutenant.
Van Etten, Wm. J., . . .	1854	1883	1908	25	54	125 00	200 00	Fire.	Callman.

**BOSTON FIREMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 107 OF THE
ACTS OF 1880, AND SUBSEQUENT ACTS — *Concluded.***

NAME.	Date of Birth.		Date of Retirement.	Years of Service.		Amount of Pension.	Salary at Retirement.	Department.	Rating.
	Date of Birth.	Date of Appointment.		Years of Service.	Age at Retirement.				
Walters, James M., . . .	1859	1888	1902	14	43	\$600 00	\$1,200 00	Fire.	Hoseman.
Welch, Patrick J., Jr., . . .	1865	1891	1902	11	37	600 00	1,200 00	Fire.	Hoseman.
Welch, Thomas H., . . .	1850	1873	1913	40	63	900 00	1,800 00	Fire.	Captain.
Weston, John T., . . .	1856	1876	1913	37	57	700 00	1,400 00	Fire.	Engineer.
Wharton, John E., . . .	1848	1873	1905	32	57	125 00	250 00	Fire.	Callman.
Wheeler, Frank T., . . .	1868	1896	1911	15	43	600 00	1,200 00	Fire.	Ladderman.
Whitehead, Edwin A., . . .	1834	1871	1898	27	64	600 00	1,200 00	Fire.	Hoseman.
Wild, Warren T., . . .	1842	1874	1903	29	61	125 00	200 00	Fire.	Callman.
Willett, Charles C., . . .	1850	1874	1893	19	43	1,066 67	1,600 00	Fire.	Captain.
Williams, George R., . . .	1840	1868	1907	39	67	600 00	1,200 00	Fire.	Ladderman.
Withington, Lemuel A., . . .	1853	1895	1912	17	59	125 00	200 00	Fire.	Callman.
Wood, Joseph W., . . .	1876	1901	1910	9	34	800 00	1,200 00	Fire.	Hoseman.
Wood, Wallace B., . . .	1853	1874	1895	21	42	125 00	200 00	Fire.	Callman.
Woodmancy, Henry A., . . .	1877	1904	1909	5	32	600 00	1,200 00	Fire.	Hoseman.
Wright, John H., . . .	1840	1874	1893	19	53	125 00	250 00	Fire.	Callman.
Wyman, Walter W., . . .	1838	1882	1899	17	61	125 00	250 00	Fire.	Callman.
Zwicker, Newton, . . .	1860	1889	1909	20	49	125 00	200 00	Fire.	Callman.

Total amount of pension, \$115,041.67.

**WIDOWS OF BOSTON FIREMEN PENSIONED UNDER THE PROVISIONS OF CHAPTER
107 OF THE ACTS OF 1880.**

NAME.	Date of Pension.	Amount of Pension.	NAME,	Date of Pension.	Amount of Pension.
Akerly, Mary C., . . .	1910	\$300 00	Hawkins, Mary E., . . .	1902	\$300 00
Blanchard, Henrietta, . . .	1905	300 00	James, Josephine, . . .	1912	300 00
Cheswell, Millie B., . . .	1906	300 00	Lamb, Mary A., . . .	1895	300 00
Collins, Sarah, . . .	1898	300 00	Leary, Catherine A., . . .	1908	300 00
Demary, Nancy M., . . .	1901	300 00	Loker, Mary J., . . .	1890	300 00
Deneen, Elizabeth J., . . .	1912	300 00	McCarthy, Julia, . . .	1900	300 00
Disken, Mary A., . . .	1907	300 00	McDonald, Annie A., . . .	1899	300 00
Greene, Alice, . . .	1913	300 00	Murnan, Ellen, . . .	1890	300 00

WIDOWS OF BOSTON FIREMEN PENSIONED UNDER THE PROVISIONS OF CHAPTER
107 OF THE ACTS OF 1880 — *Concluded.*

NAME.	Date of Pension.	Amount of Pension.	NAME.	Date of Pension.	Amount of Pension.
Needham, Jennie M., . . .	1911	\$300 00	Ritchie, Henrietta A., . . .	1913	\$300 00
O'Connell, Catherine F., . . .	1903	300 00	Russell, Hannah A., . . .	1902	300 00
O'Neill, Margaret T., . . .	1906	300 00	Ryan, Margaret J., . . .	1911	300 00
Pierce, Lena E., . . .	1901	300 00	Tagen, Sarah E., . . .	1907	300 00
Pope, Margaret, . . .	1907	300 00	Wall, Katie J., . . .	1905	300 00
Ready, Mary, . . .	1903	300 00	Total, . . .	-	\$8,100 00

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE
ACTS OF 1878, AND SUBSEQUENT ACTS.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Abbott, Edwin W., . . .	1848	1874	1913	39	65	\$650 00	\$1,300 00	Police.	Patrolman.
Adams, George H., . . .	1849	1874	1912	38	63	900 00	1,800 00	Police.	Lieutenant.
Ahern, John L., . . .	1866	1890	1911	21	45	600 00	1,200 00	Police.	Patrolman.
Alley, Wilbur R., . . .	1849	1883	1906	23	57	600 00	1,200 00	Police.	Patrolman.
Aubens, Frank S., . . .	1839	1876	1904	28	65	600 00	1,200 00	Police.	Patrolman.
Badger, Charles A., . . .	1856	1888	1908	20	52	600 00	1,200 00	Police.	Patrolman.
Barry, Maurice R., . . .	1848	1900	1913	13	65	600 00	1,200 00	Police.	Patrolman.
Bates, Edward M., . . .	1850	1880	1910	30	60	600 00	1,200 00	Police.	Patrolman.
Bench, Patrick J., . . .	1859	1891	1913	22	54	600 00	1,200 00	Police.	Patrolman.
Benner, Lewis W., . . .	1841	1869	1883	14	42	547 50	1,095 00	Police.	Patrolman.
Berry, Walter M., . . .	1863	1886	1907	21	44	600 00	1,200 00	Police.	Patrolman.
Blackburn, Abner, . . .	1835	1873	1900	27	65	600 00	1,200 00	Police.	Patrolman.
Blanchard, Samuel D., . . .	1838	1870	1901	31	63	700 00	1,400 00	Police.	Sergeant.
Bowman, Edward H., . . .	1836	1885	1898	13	62	600 00	1,200 00	Police.	Patrolman.
Brazer, Charles B., . . .	1860	1887	1912	25	52	700 00	1,400 00	Police.	Sergeant.
Brewer, George E., . . .	1861	1888	1909	21	48	600 00	1,200 00	Police.	Patrolman.
Brock, Frank, . . .	1856	1882	1912	30	56	650 00	1,300 00	Police.	Patrolman.
Broderick, John G., . . .	1858	1881	1903	22	45	600 00	1,200 00	Police.	Patrolman.
Browne, Daniel J., . . .	1859	1887	1907	20	48	600 00	1,200 00	Police.	Patrolman.
Brown, Joseph, . . .	1837	1872	1902	30	65	600 00	1,200 00	Police.	Patrolman.

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE
ACTS OF 1878, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Brown, Roscoe D., .	1848	1875	1908	33	60	\$600 00	\$1,200 00	Police.	Patrolman.
Brown, William E., .	1846	1878	1910	32	64	600 00	1,200 00	Police.	Patrolman.
Bruce, Walter E., . .	1845	1880	1902	22	57	700 00	1,400 00	Police.	Sergeant.
Bullard, Charles E., .	1846	1878	1907	29	61	600 00	1,200 00	Police.	Patrolman.
Burk, John M. F., . .	1845	1874	1903	29	58	600 00	1,200 00	Police.	Patrolman.
Burnett, William J., .	1858	1883	1907	24	49	300 00	1,600 00	Police.	Lieutenant.
Burns, Edward W., . .	1851	1880	1906	26	55	600 00	1,200 00	Police.	Patrolman.
Burrell, Edward H., .	1848	1874	1890	16	42	600 00	1,200 00	Police.	Patrolman.
Butler, Edward, . . .	1853	1882	1902	20	49	600 00	1,200 00	Police.	Patrolman.
Callahan, Michael, . .	1843	1873	1908	35	65	600 00	1,200 00	Police.	Patrolman.
Carey, Daniel W., . . .	1845	1875	1908	33	63	600 00	1,200 00	Police.	Patrolman.
Carlstein, Carl, . . .	1865	1895	1911	16	46	600 00	1,200 00	Police.	Patrolman.
Carroll, Robert, . . .	1840	1874	1900	26	60	600 00	1,200 00	Police.	Patrolman.
Cassidy, Joseph A., . .	1858	1882	1913	31	55	787 50	1,575 00	Police.	Sergeant.
Chadwick, John H., . .	1830	1871	1903	32	73	600 00	1,200 00	Police.	Patrolman.
Chamberlain, Alba E., .	1848	1878	1913	35	65	650 00	1,300 00	Police.	Patrolman.
Chase, Fremont, . . .	1861	1891	1909	18	48	400 00	1,200 00	Police.	Patrolman.
Chick, Samuel B., . . .	1849	1881	1909	28	60	600 00	1,200 00	Police.	Patrolman.
Clark, Ashton D., . . .	1864	1891	1911	20	47	600 00	1,200 00	Police.	Patrolman.
Clark, Thomas R., . . .	1849	1880	1909	29	60	600 00	1,200 00	Police.	Patrolman.
Clatur, George S., . . .	1831	1873	1896	23	65	600 00	1,200 00	Police.	Patrolman.
Clayton, Jeremiah, . .	1845	1878	1907	29	62	600 00	1,200 00	Police.	Patrolman.
Cleveland, Lindell, . .	1868	1891	1909	18	41	600 00	1,200 00	Police.	Patrolman.
Coburn, David,	1845	1874	1910	36	65	600 00	1,200 00	Police.	Patrolman.
Cogan, William H., . . .	1851	1873	1899	26	48	300 00	1,600 00	Police.	Inspector.
Colby, George B., . . .	1848	1884	1905	21	57	600 00	1,200 00	Police.	Patrolman.
Coleman, Thomas W., . .	1848	1874	1903	29	55	1,250 00	2,500 00	Police.	Captain.
Collyer, Luther H., . . .	1842	1870	1902	32	60	300 00	1,600 00	Police.	Lieutenant.
Corbett, Patrick, . . .	1847	1880	1910	30	63	600 00	1,200 00	Police.	Patrolman.
Cotton, William M., . .	1840	1874	1904	30	64	600 00	1,200 00	Police.	Patrolman.
Coulter, James M., . . .	1845	1874	1908	34	63	1,500 00	3,000 00	Police.	Dep. supt.
Courser, Jesse G., . . .	1838	1892	1899	7	61	600 00	1,200 00	Police.	Patrolman.
Cram, Andrew P., . . .	1845	1879	1902	23	57	600 00	1,200 00	Police.	Patrolman.

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE ACTS OF 1878, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.		Date of Retirement.	Years of Service.		Amount of Pension.	Salary at Retirement.	Department.	Rating.
	Date of Birth.	Date of Appointment.		Date of Retirement.	Age at Retirement.				
Cullen, James A., . . .	1844	1891	1912	21	68	\$650 00	\$1,300 00	Police.	Patrolman.
Daly, Thomas M., . . .	1842	1892	1906	14	64	600 00	1,200 00	Police.	Patrolman.
Danforth, Benj. F., . . .	1857	1888	1911	23	54	600 00	1,200 00	Police.	Patrolman.
Deering, Frederick H., . . .	1838	1867	1901	34	63	600 00	1,200 00	Police.	Patrolman.
Dempsey, Michael, . . .	1843	1875	1899	24	56	600 00	1,200 00	Police.	Patrolman.
Dennis, William A., . . .	1842	1884	1907	23	65	800 00	1,600 00	Police.	Lieutenant.
Denton, Charles H., . . .	1857	1883	1913	30	56	900 00	1,800 00	Police.	Lieutenant.
Doherty, Charles H., . . .	1847	1880	1912	32	65	650 00	1,300 00	Police.	Patrolman.
Dolan, Michael, . . .	1832	1870	1893	23	61	600 00	1,200 00	Police.	Patrolman.
Donovan, Dennis, . . .	1852	1881	1905	24	53	600 00	1,200 00	Police.	Patrolman.
Donovan, Dennis, . . .	1844	1877	1909	32	65	1,250 00	2,500 00	Police.	Captain.
Drew, Edward J., . . .	1860	1888	1912	24	52	650 00	1,300 00	Police.	Patrolman.
Driscoll, Daniel F., . . .	1847	1878	1908	30	61	600 00	1,200 00	Police.	Patrolman.
Dugan, Joseph, . . .	1844	1868	1912	44	68	1,500 00	3,000 00	Police.	Dep. Supt.
Dunbar, Clarence M., . . .	1857	1888	1910	22	53	600 00	1,200 00	Police.	Patrolman.
Durgin, Benjamin, . . .	1831	1868	1907	39	76	600 00	1,200 00	Police.	Patrolman.
Durgin, George A., . . .	1847	1893	1912	19	65	650 00	1,300 00	Police.	Patrolman.
Dyer, William H., . . .	1848	1873	1912	39	64	1,250 00	2,500 00	Police.	Captain.
Estes, Eugene E., . . .	1861	1890	1902	12	41	600 00	1,200 00	Police.	Patrolman.
Everbeck, Gorham H., . . .	1849	1877	1909	32	60	600 00	1,200 00	Police.	Patrolman.
Fallon, Thomas J., . . .	1856	1880	1904	24	48	600 00	1,200 00	Police.	Patrolman.
Farnham, Jewett, . . .	1849	1880	1909	29	60	600 00	1,200 00	Police.	Patrolman.
Felt, David O., . . .	1846	1878	1898	20	52	600 00	1,200 00	Police.	Patrolman.
Fernald, Almerin W., . . .	1848	1882	1908	26	60	600 00	1,200 00	Police.	Patrolman.
Ford, Herbert S., . . .	1852	1881	1912	31	60	650 00	1,300 00	Police.	Patrolman.
Foster, Ira C., . . .	1843	1873	1903	30	60	1,250 00	2,500 00	Police.	Captain.
Fotler, William, . . .	1846	1871	1911	40	65	800 00	1,600 00	Police.	Lieutenant.
French, Franklin S., . . .	1837	1874	1896	22	59	600 00	1,200 00	Police.	Patrolman.
Frohock, Millard M., . . .	1851	1882	1911	29	60	800 00	1,600 00	Police.	Lieutenant.
Galvin, James, . . .	1838	1873	1903	30	65	600 00	1,200 00	Police.	Patrolman.
Garland, Monroe T., . . .	1849	1879	1909	30	60	600 00	1,200 00	Police.	Patrolman.
Gillette, Charles W., . . .	1849	1875	1910	35	61	600 00	1,200 00	Police.	Patrolman.
Glawson, John B., . . .	1858	1888	1912	24	54	650 00	1,300 00	Police.	Patrolman.

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE
ACTS OF 1878, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Goldie, Joseph, . . .	1842	1874	1898	24	56	\$600 00	\$1,200 00	Police.	Patrolman.
Good, John J., . . .	1862	1885	1911	26	49	700 00	1,400 00	Police.	Sergeant.
Gorman, William P., . .	1848	1880	1900	20	52	600 00	1,200 00	Police.	Patrolman.
Gray, Clarendon W., . .	1845	1879	1898	19	53	600 00	1,200 00	Police.	Patrolman.
Green, John J., . . .	1854	1881	1903	22	49	600 00	1,200 00	Police.	Patrolman.
Griffin, Michael, . . .	1839	1873	1904	31	65	600 00	1,200 00	Police.	Patrolman.
Hardy, Patrick H., . . .	1840	1891	1900	9	60	600 00	1,200 00	Police.	Patrolman.
Harris, John H., . . .	1852	1882	1912	30	60	900 00	1,800 00	Police.	Inspector.
Hart, Thomas J., . . .	1852	1898	1913	15	61	600 00	1,200 00	Police.	Patrolman.
Harvey, George, . . .	1841	1872	1897	25	56	600 00	1,200 00	Police.	Patrolman.
Hawthorne, George E., .	1865	1893	1910	17	45	400 00	1,200 00	Police.	Patrolman.
Hebard, Charles W., . .	1844	1888	1904	16	60	600 00	1,200 00	Police.	Patrolman.
Hildreth, Alfred H., . .	1865	1888	1910	22	45	600 00	1,200 00	Police.	Patrolman.
Hoffman, Frederic G., . .	1849	1872	1903	31	54	1,250 00	2,500 00	Police.	Captain.
Hogan, James F., . . .	1846	1875	1904	29	58	600 00	1,200 00	Police.	Patrolman.
Holmes, Robert S., . . .	1846	1884	1909	25	63	547 50	1,095 00	Police.	Patrolman.
Hood, Allen,	1843	1895	1903	8	60	600 00	1,200 00	Police.	Patrolman.
Hooper, Charles F., . . .	1852	1885	1912	27	60	600 00	1,200 00	Police.	Patrolman.
Horgan, Cornelius F., . .	1842	1875	1902	27	60	600 00	1,200 00	Police.	Patrolman.
Houghton, Andrew, . . .	1844	1869	1905	36	61	800 00	1,600 00	Police.	Inspector.
Houghton, Daniel F., . .	1849	1879	1909	30	60	600 00	1,200 00	Police.	Patrolman.
Houghton, Patrick, . . .	1847	1877	1907	30	60	700 00	1,400 00	Police.	Sergeant.
Howe, William C. M., . .	1846	1895	1906	11	60	600 00	1,200 00	Police.	Patrolman.
Howell, Frederick S., . .	1874	1901	1912	11	38	600 00	1,200 00	Police.	Patrolman.
Hubbard, William H., . .	1842	1867	1899	32	57	600 00	1,200 00	Police.	Patrolman.
Hunt, Benjamin H., . . .	1842	1876	1904	28	62	600 00	1,200 00	Police.	Patrolman.
Irish, Richard F., . . .	1836	1875	1903	28	67	1,250 00	2,500 00	Police.	Captain.
Jenkins, Henry R., . . .	1856	1885	1903	18	47	600 00	1,200 00	Police.	Patrolman.
Johnson, Edward M., . .	1830	1863	1890	27	60	800 00	1,600 00	Police.	Lieutenant.
Johnson, Eugene M., . .	1831	1861	1903	42	72	700 00	1,400 00	Police.	Sergeant.
Johnson, Michael, . . .	1839	1872	1904	32	65	600 00	1,200 00	Police.	Patrolman.
Jones, Frank I.,	1858	1880	1912	32	54	1,250 00	2,500 00	Police.	Captain.
Karcher, Jacob W., . . .	1839	1872	1900	28	61	600 00	1,200 00	Police.	Patrolman.

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE ACTS OF 1878, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Keane, Timothy F., .	1860	1884	1910	26	50	\$600 00	\$1,200 00	Police.	Patrolman.
Kendall, Herbert W., .	1861	1883	1904	21	43	600 00	1,200 00	Police.	Patrolman.
Kingsley, Elias, . .	1859	1884	1901	17	42	400 00	1,200 00	Police.	Patrolman.
Knowles, James, . .	1850	1883	1912	29	62	650 00	1,300 00	Police.	Patrolman.
Knox, Joseph H., . .	1842	1879	1912	33	70	900 00	1,800 00	Police.	Inspector.
Lane, George W., . .	1848	1873	1903	30	55	600 00	1,200 00	Police.	Patrolman.
Lee, James H., . . .	1835	1873	1900	27	65	600 00	1,200 00	Police.	Patrolman.
Leggett, William T., .	1840	1870	1904	34	64	800 00	1,600 00	Police.	Inspector.
Lewis, George E., . .	1849	1878	1910	32	61	600 00	1,200 00	Police.	Patrolman.
Look, Orrick,	1841	1873	1900	27	59	600 00	1,200 00	Police.	Patrolman.
Lucas, Winslow B., .	1833	1870	1908	38	75	600 00	1,200 00	Police.	Patrolman.
Lund, Richard H., . .	1843	1869	1891	22	48	600 00	1,200 00	Police.	Patrolman.
Lurvey, Freeman J., .	1864	1888	1895	7	31	600 00	1,200 00	Police.	Patrolman.
Mackinnon, Edward C.,	1875	1902	1909	7	34	600 00	1,200 00	Police.	Patrolman.
Maguire, Andrew, . .	1833	1877	1898	21	65	600 00	1,200 00	Police.	Patrolman.
Mahoney, Edward F., .	1842	1892	1902	10	60	600 00	1,200 00	Police.	Patrolman.
Mahoney, Edward H., .	1850	1883	1910	27	60	600 00	1,200 00	Police.	Patrolman.
Marsh, Reuben, . . .	1849	1875	1909	34	60	600 00	1,200 00	Police.	Patrolman.
Martin, Chauncey C., .	1835	1872	1900	28	65	600 00	1,200 00	Police.	Patrolman.
May, Benjamin, . . .	1848	1874	1908	34	60	600 00	1,200 00	Police.	Patrolman.
McCormick, James, . .	1841	1860	1884	15	43	547 50	1,095 00	Police.	Patrolman.
McGovern, James L., .	1852	1880	1913	33	61	650 00	1,300 00	Police.	Patrolman.
McHenry, Joseph, . .	1852	1878	1904	26	52	600 00	1,200 00	Police.	Patrolman.
McKenzie, James, . .	1862	1891	1912	21	50	600 00	1,200 00	Police.	Patrolman.
McMahon, Edward, . .	1876	1904	1913	9	37	650 00	1,300 00	Police.	Patrolman.
McMorrow, Michael, .	1847	1876	1902	26	55	600 00	1,200 00	Police.	Patrolman.
McNamara, Michael, .	1840	1864	1881	17	41	547 50	1,095 00	Police.	Patrolman.
Meissner, John G., . .	1837	1875	1898	23	61	600 00	1,200 00	Police.	Patrolman.
Middleton, John J., .	1847	1875	1900	25	53	600 00	1,200 00	Police.	Patrolman.
Morrill, John L., . . .	1843	1874	1900	26	57	600 00	1,200 00	Police.	Patrolman.
Morse, Robert A. F., .	1857	1888	1910	22	53	600 00	1,200 00	Police.	Patrolman.
Morse, William W., . .	1866	1890	1913	23	47	650 00	1,300 00	Police.	Patrolman.
Moulton, John H., . .	1843	1875	1907	32	64	600 00	1,200 00	Police.	Patrolman.

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE
ACTS OF 1878, AND SUBSEQUENT ACTS — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Murphy, Cornelius F., . .	1860	1884	1907	23	47	\$600 00	\$1,200 00	Police.	Patrolman.
Nannery, James,	1845	1879	1910	31	65	600 00	1,200 00	Police.	Patrolman.
Newcomb, Arthur W., . .	1845	1875	1907	32	62	600 00	1,200 00	Police.	Patrolman.
Nickerson, Arthur W., . .	1870	1895	1910	15	40	600 00	1,200 00	Police.	Patrolman.
Norcott, John F.,	1849	1891	1909	18	60	600 00	1,200 00	Police.	Patrolman.
O'Brien, Jeremiah, . . .	1852	1883	1913	30	61	650 00	1,300 00	Police.	Patrolman.
Olds, Edward R.,	1863	1888	1910	22	47	612 50	1,225 00	Police.	Patrolman.
O'Neill, James,	1846	1881	1911	30	65	1,250 00	2,500 00	Police.	Captain.
O'Neill, James H.,	1847	1878	1907	29	60	600 00	1,200 00	Police.	Patrolman.
Page, John M.,	1828	1855	1893	38	65	547 50	1,095 00	Police.	Patrolman.
Parsons, John E.,	1830	1872	1896	24	66	600 00	1,200 00	Police.	Patrolman.
Pease, Edward A.,	1854	1884	1911	27	57	1,250 00	2,500 00	Police.	Captain.
Perkins, Albert W.,	1843	1878	1898	20	55	600 00	1,200 00	Police.	Patrolman.
Perry, William F.,	1850	1875	1912	37	62	900 00	1,800 00	Police.	Lieutenant.
Philbrook, John E.,	1843	1895	1903	8	60	600 00	1,200 00	Police.	Patrolman.
Powderly, Patrick,	1844	1888	1904	16	60	600 00	1,200 00	Police.	Patrolman.
Rich, Hiram H.,	1846	1878	1911	33	65	800 00	1,600 00	Police.	Lieutenant.
Richardson, George S., . .	1842	1888	1908	20	66	600 00	1,200 00	Police.	Patrolman.
Richardson, William W., .	1849	1884	1907	23	58	600 00	1,200 00	Police.	Patrolman.
Rideout, William H., . . .	1847	1880	1912	32	65	700 00	1,400 00	Police.	Sergeant.
Riley, James,	1850	1893	1911	18	61	600 00	1,200 00	Police.	Patrolman.
Ritter, Daniel A.,	1850	1873	1911	38	61	1,250 00	2,500 00	Police.	Captain.
Robinson, George M., . . .	1850	1874	1910	36	60	800 00	1,600 00	Police.	Inspector.
Ryan, John J.,	1855	1883	1905	22	50	600 00	1,200 00	Police.	Patrolman.
Savory, George E.,	1844	1873	1909	36	65	1,250 00	2,500 00	Police.	Captain.
Shannon, Andrew,	1843	1879	1911	32	68	600 00	1,200 00	Police.	Patrolman.
Sheehan, John T.,	1852	1881	1913	32	61	650 00	1,300 00	Police.	Patrolman.
Smith, George H.,	1841	1889	1902	13	61	600 00	1,200 00	Police.	Patrolman.
Smith, Gustavus A.,	1836	1872	1887	15	51	800 00	1,600 00	Police.	Lieutenant.
Smith, William,	1840	1878	1898	20	58	600 00	1,200 00	Police.	Patrolman.
Spear, William H.,	1841	1871	1902	31	61	600 00	1,200 00	Police.	Patrolman.
Stevens, Ira W.,	1848	1875	1909	34	61	600 00	1,200 00	Police.	Patrolman.
Stinson, William L.,	1864	1889	1913	24	49	650 00	1,300 00	Police.	Patrolman.

BOSTON POLICEMEN RETIRED UNDER THE PROVISIONS OF CHAPTER 244 OF THE
ACTS OF 1878, AND SUBSEQUENT ACTS — *Concluded.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Stuart, Thomas R. D., .	1828	1863	1893	30	65	\$600 00	\$1,200 00	Police.	Patrolman.
Sugrue, Timothy F., .	1872	1900	1909	9	37	600 00	1,200 00	Police.	Patrolman.
Sullivan, Daniel J., .	1845	1892	1905	13	60	600 00	1,200 00	Police.	Patrolman.
Sullivan, Jeremiah B., .	1843	1874	1908	34	65	700 00	1,400 00	Police.	Sergeant.
Sullivan, Michael, .	1878	1908	1913	5	35	650 00	1,300 00	Police.	Patrolman.
Tallon, Nicholas C., .	1848	1881	1913	32	65	650 00	1,300 00	Police.	Patrolman.
Taylor, George W., .	1842	1895	1903	8	61	600 00	1,200 00	Police.	Patrolman.
Thompson, Thomas P., .	1876	1907	1913	6	37	650 00	1,300 00	Police.	Patrolman.
Thornton, Dudley C., .	1840	1883	1905	22	65	700 00	1,400 00	Police.	Sergeant.
Tighe, Charles H., .	1846	1873	1911	38	65	700 00	1,400 00	Police.	Sergeant.
Trask, Frank E., .	1844	1870	1902	32	58	600 00	1,200 00	Police.	Patrolman.
Trask, Frederick G., .	1867	1890	1910	29	43	600 00	1,200 00	Police.	Patrolman.
Underwood, Theodore W.,	1843	1876	1899	23	56	600 00	1,200 00	Police.	Patrolman.
Vinal, Renough J., .	1849	1873	1901	28	52	600 00	1,200 00	Police.	Patrolman.
Waldron, Edwin A., .	1851	1884	1911	27	60	600 00	1,200 00	Police.	Patrolman.
Walker, William C., .	1854	1875	1904	29	50	600 00	1,200 00	Police.	Patrolman.
Wagatt, Enos, .	1821	1854	1885	31	64	547 50	1,095 00	Police.	Patrolman.
Watts, William B., .	1851	1877	1912	35	61	1,500 00	3,000 00	Police.	Dep. Supt.
Whalen, Michael J., .	1856	1881	1907	26	51	600 00	1,200 00	Police.	Patrolman.
Wharff, Clarence C., .	1853	1879	1913	34	60	650 00	1,300 00	Police.	Patrolman.
Wilder, Harrison, .	1844	1873	1904	31	60	600 00	1,200 00	Police.	Patrolman.
Wilson, Samuel P., .	1833	1863	1903	40	70	600 00	1,200 00	Police.	Patrolman.
Wood, Harvey T., .	1850	1879	1913	34	63	650 00	1,300 00	Police.	Patrolman.
Woodman, Charles C., .	1861	1891	1913	22	52	650 00	1,300 00	Police.	Patrolman.
Wright, Amos, .	1845	1874	1907	33	62	600 00	1,200 00	Police.	Patrolman.

Total amount of pension, \$141,135.

WIDOWS OF BOSTON POLICEMEN PENSIONED UNDER THE PROVISIONS OF CHAPTER
178 OF THE ACTS OF 1887.

NAME.	Date of Pension.	Amount of Pension.	NAME.	Date of Pension.	Amount of Pension.
Allen, Sarah J., . . .	1904	\$300 00	Lynch, Mary A. (mother),	1908	\$300 00
Barber, Lavinia A., . . .	1899	300 00	Muldoon, Josephine, . . .	1896	300 00
Cunningham, Mary E., . . .	1899	300 00	Peterson, Alice M., . . .	1912	300 00
DeCoursey, Ellen M., . . .	1906	150 00	Regan, Catherine A., . . .	1900	300 00
Flynn, Mary E., . . .	1903	300 00	Schlehuber, Jennie R., . . .	1910	300 00
Harris, Mary A., . . .	1907	300 00	Sturdivant, Emma F., . . .	1904	300 00
Leavitt, Sarah E., . . .	1898	300 00	Trainer, Elizabeth, . . .	1903	300 00
Lehan, Lucy A., . . .	1913	300 00	Total,	-	\$4,350 00

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE
ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Abbott, Melissa, . . .	1837	1861	1908	47	71	\$420 00	\$1,260 00	School.	Teacher.
Adams, Charlotte, . . .	1841	1872	1910	38	69	180 00	-	School.	Teacher.
Atwood, William B., . . .	1848	1868	1912	44	64	600 00	3,180 00	School.	Teacher.
Austin, Elvira, A. L., . . .	1840	1870	1910	40	70	180 00	-	School.	Teacher.
Baker, Julia F., . . .	1851	1873	1908	35	57	312 00	792 00	School.	Teacher.
Balch, Mrs. Anna M., . . .	1841	1862	1911	49	70	372 00	1,116 00	School.	Teacher.
Barnes, Thomas H., . . .	1832	1852	1910	58	78	600 00	3,180 00	School.	Teacher.
Bartlett, Margaret A., . . .	1837	1875	1910	35	73	180 00	-	School.	Teacher.
Bense, Eveleen I., . . .	1856	1882	1912	30	56	344 00	1,032 00	School.	Teacher.
Bettis, Harriette A., . . .	1826	1864	1910	46	84	180 00	-	School.	Teacher.
Bird, Luthera W., . . .	1843	1864	1911	47	68	312 00	936 00	School.	Teacher.
Blackburn, Elizabeth M.,	1866	1886	1911	25	45	363 33	1,308 00	School.	Teacher.
Blanchard, Roxanna N.,	1832	1867	1910	43	78	180 00	-	School.	Teacher.
Bloomfield, Ellen S., . . .	1867	1890	1910	20	43	208 00	936 00	School.	Teacher.
Bowler, Ada E., . . .	1853	1872	1908	36	55	312 00	936 00	School.	Teacher.
Boynton, Sara F., . . .	1849	1872	1909	37	60	312 00	936 00	School.	Teacher.
Bradford, Phebe C., . . .	1839	1867	1910	43	71	180 00	-	School.	Teacher.
Bragg, Helen A., . . .	1857	1879	1909	30	52	540 00	1,620 00	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Bredeen, Frances L.,	1835	1875	1910	35	75	\$180 00	-	School.	Teacher.
Brickett, Sarah O.,	1827	1872	1913	41	86	180 00	-	School.	Teacher.
Brooks, Frances N.,	1835	1862	1912	50	77	180 00	-	School.	Teacher.
Brown, Clara B.,	1856	1876	1909	33	53	312 00	\$936 00	School.	Teacher.
Brown, Eliza,	1836	1857	1908	51	72	312 00	936 00	School.	Teacher.
Browne, Harriet E.,	1838	1882	1910	28	72	291 20	936 00	School.	Teacher.
Buffum, Mary E.,	1841	1864	1909	45	68	312 00	936 00	School.	Teacher.
Bunker, Alfred,	1838	1872	1910	38	72	600 00	3,180 00	School.	Teacher.
Cadogan, Catherine J.,	1841	1883	1908	25	67	260 00	660 00	School.	Teacher.
Campbell, William T.,	1852	1878	1911	33	59	600 00	3,204 00	School.	Teacher.
Caryl, Harriet E.,	1835	1861	1910	49	75	180 00	-	School.	Teacher.
Cassidy, F. Mabel,	1878	1899	1909	10	31	104 00	936 00	School.	Teacher.
Chandler, Sarah M.,	1829	1872	1913	41	84	180 00	-	School.	Teacher.
Chapman, Susan E.,	1856	1876	1909	33	53	312 00	936 00	School.	Teacher.
Child, Mary F.,	1834	1870	1910	40	76	180 00	-	School.	Teacher.
Clapp, Annie L.,	1857	1892	1910	18	53	180 00	-	School.	Teacher.
Clapp, Henry L.,	1839	1869	1910	41	71	600 00	3,180 00	School.	Teacher.
Clark, Abby M.,	1839	1859	1910	51	71	312 00	936 00	School.	Teacher.
Clark, Grace M.,	1860	1889	1913	24	53	313 60	1,176 00	School.	Teacher.
Colomy, Emma F.,	1851	1874	1910	36	59	180 00	-	School.	Teacher.
Coe, Amelia B.,	1843	1865	1913	48	70	452 00	1,356 00	School.	Teacher.
Coe, Ellen,	1844	1868	1913	45	69	420 00	1,260 00	School.	Teacher.
Colesworthy, Mary J.,	1838	1863	1909	46	71	312 00	936 00	School.	Teacher.
Collins, Ellen L.,	1847	1866	1912	46	65	360 00	1,080 00	School.	Teacher.
Colton, Carrie A.,	1864	1888	1912	24	48	313 60	1,176 00	School.	Teacher.
Comey, Vodisa J.,	1843	1865	1913	48	70	408 00	1,224 00	School.	Teacher.
Condron, Delia B.,	1845	1895	1909	14	64	145 60	888 00	School.	Teacher.
Courtney, Frank F.,	1851	1883	1908	25	57	600 00	2,340 00	School.	Teacher.
Cousens, Susan M.,	1841	1876	1908	32	67	312 00	732 00	School.	Teacher.
Cox, Annie R.,	1858	1879	1909	30	51	312 00	936 00	School.	Teacher.
Cumming, Isabella,	1840	1869	1910	41	70	312 00	936 00	School.	Teacher.
Cutter, Adeline F.,	1835	1863	1910	47	75	180 00	-	School.	Teacher.
Cutter, H. Elizabeth,	1841	1868	1910	42	69	312 00	936 00	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Dana, Emma P., . . .	1850	1868	1909	41	59	\$312 00	\$936 00	School.	Teacher.
Davis, Ida H., . . .	1853	1881	1912	31	59	360 00	1,080 00	School.	Teacher.
Day, Mary D., . . .	1838	1859	1910	51	72	180 00	-	School.	Teacher.
Dean, Franklin H., . .	1841	1877	1912	35	71	500 00	1,500 00	School.	Teacher.
DeLande, Phebe A., . .	1843	1890	1913	23	70	263 73	1,032 00	School.	Teacher.
Dimick, Orlando W., . .	1840	1869	1910	41	70	600 00	3,180 00	School.	Teacher.
Dix, Florence, . . .	1849	1886	1912	26	63	520 00	1,836 00	School.	Teacher.
Dodge, Kate L., . . .	1838	1879	1910	31	72	180 00	-	School.	Teacher.
Dodge, Sarah R., . . .	1867	1892	1911	19	44	197 60	936 00	School.	Teacher.
Dolbeare, Alice G., . .	1858	1876	1913	37	55	404 00	1,212 00	School.	Teacher.
Durant, S. Louise, . . .	1831	1867	1910	43	79	180 00	-	School.	Teacher.
Durgin, Emeline E., . .	1843	1865	1911	46	68	404 00	1,212 00	School.	Teacher.
Dwyer, Henrietta L., . .	1848	1867	1913	46	65	408 00	1,224 00	School.	Teacher.
Ellis, Annie G. D., . .	1843	1877	1909	32	66	312 00	936 00	School.	Teacher.
Ellis, Fred O., . . .	1836	1860	1910	50	74	600 00	3,180 00	School.	Teacher.
Etheridge, Cora L., . .	1846	1869	1911	42	65	312 00	936 00	School.	Teacher.
Fales, Sarah C., . . .	1845	1869	1912	43	67	360 00	1,080 00	School.	Teacher.
Fellows, George M., . .	1837	1869	1910	41	73	180 00	-	School.	Teacher.
Fillebrown, Anna G., . .	1843	1871	1911	40	68	180 00	-	School.	Teacher.
Fisher, Eliza C., . . .	1841	1860	1908	48	67	420 00	1,212 00	School.	Teacher.
Flanders, Mary E., . .	1849	1869	1910	41	61	312 00	936 00	School.	Teacher.
Foley, Bridget A., . . .	1845	1868	1911	43	66	344 00	1,032 00	School.	Teacher.
Ford, Mary A., . . .	1839	1860	1910	50	71	404 00	1,212 00	School.	Teacher.
Foster, Alla W., . . .	1847	1879	1913	34	66	564 00	1,692 00	School.	Teacher.
French, Mary W., . . .	1854	1878	1909	31	55	312 00	936 00	School.	Teacher.
Frizzell, Susan, . . .	1841	1875	1910	35	69	180 00	-	School.	Teacher.
Frye, Serena J., . . .	1853	1888	1909	21	56	218 40	792 00	School.	Teacher.
Fuller, Sarah, . . .	1836	1855	1910	55	74	600 00	3,180 00	School.	Teacher.
Gardner, Helen A., . . .	1837	1875	1910	35	73	180 00	-	School.	Teacher.
Gargan, Mary F., . . .	1848	1874	1909	35	61	372 00	1,116 00	School.	Teacher.
Gargan, Teresa M., . . .	1850	1870	1909	39	59	372 00	1,116 00	School.	Teacher.
Gay, E. Bradford, . . .	1841	1880	1910	30	69	180 00	-	School.	Teacher.
George, Anna J., . . .	1825	1880	1913	33	88	180 00	-	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Gerry, Martha C., . . .	1846	1876	1908	32	62	\$312 00	\$936 00	School.	Teacher.
Gibson, John T., . . .	1842	1865	1912	47	70	600 00	3,180 00	School.	Teacher.
Gifford, Susan R., . . .	1842	1876	1912	36	70	344 00	1,032 00	School.	Teacher.
Gilman, Esther W. M., . .	1837	1875	1910	35	73	180 00	-	School.	Teacher.
Glidden, Mary E., . . .	1849	1865	1908	43	59	312 00	936 00	School.	Teacher.
Gordon, Emma A., . . .	1850	1874	1909	35	59	312 00	936 00	School.	Teacher.
Gormley, Mary V., . . .	1868	1892	1909	17	41	176 80	936 00	School.	Teacher.
Gould, Ella T., . . .	1848	1867	1908	41	60	312 00	936 00	School.	Teacher.
Gunn, Kate S., . . .	1857	1879	1909	30	52	312 00	792 00	School.	Teacher.
Hadley, Darius, . . .	1841	1867	1908	41	67	600 00	2,460 00	School.	Teacher.
Hall, Alice, . . .	1839	1859	1910	51	71	312 00	936 00	School.	Teacher.
Hall, Helen P., . . .	1843	1874	1912	38	69	372 00	1,116 00	School.	Teacher.
Hall, Lillian M., . . .	1871	1892	1913	21	42	240 80	1,032 00	School.	Teacher.
Halliday, Marcella C., . .	1840	1868	1910	42	70	312 00	936 00	School.	Teacher.
Heaton, Mary, . . .	1839	1867	1910	43	71	180 00	-	School.	Teacher.
Hersey, Lizzie M., . . .	1861	1891	1910	19	49	180 00	-	School.	Teacher.
Hill, Melvin J., . . .	1843	1875	1908	33	65	600 00	3,060 00	School.	Teacher.
Hitchings, Helen M., . . .	1839	1867	1910	43	71	180 00	-	School.	Teacher.
Hooker, Clara B., . . .	1854	1873	1908	35	54	312 00	936 00	School.	Teacher.
Horne, Edwin T., . . .	1842	1864	1912	48	70	600 00	3,180 00	School.	Teacher.
Hosmer, Sarah H., . . .	1832	1869	1910	41	78	180 00	-	School.	Teacher.
Hotchkiss, Louise S., . . .	1836	1874	1908	34	72	312 00	936 00	School.	Teacher.
Howard, Mary L., . . .	1844	1863	1908	45	64	312 00	936 00	School.	Teacher.
Howard, Mary W., . . .	1859	1884	1908	24	49	249 60	936 00	School.	Teacher.
Howes, Harriett S., . . .	1839	1868	1910	42	71	180 00	-	School.	Teacher.
Howes, Martha T., . . .	1875	1895	1909	14	34	145 60	936 00	School.	Teacher.
Hudson, Anna L., . . .	1849	1872	1903	36	59	404 00	1,212 00	School.	Teacher.
Hunter, Annie B., . . .	1859	1881	1912	31	53	344 00	1,032 00	School.	Teacher.
Hussey, Fannie W., . . .	1851	1871	1912	41	61	344 00	1,032 00	School.	Teacher.
Hutchins, Amy, . . .	1851	1870	1910	40	59	436 00	1,308 00	School.	Teacher.
James, Annie P., . . .	1840	1868	1910	42	70	180 00	-	School.	Teacher.
Johnson, Ruby A., . . .	1866	1889	1912	23	46	263 73	1,032 00	School.	Teacher.
Josselyn, Abbie P., . . .	1846	1867	1909	42	63	404 00	1,212 00	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Kimball, Charles F., .	1831	1865	1910	45	79	\$180 00	-	School.	Teacher.
Kimball, Henry H., .	1835	1877	1910	33	75	180 00	-	School.	Teacher.
Kimball, Maria D., .	1832	1872	1910	38	78	180 00	-	School.	Teacher.
King, Charles F., .	1843	1867	1913	46	70	600 00	\$3,420 00	School.	Teacher.
Knowles, Martha A., .	1845	1872	1913	41	68	408 00	1,224 00	School.	Teacher.
Lamson, Fannie M., .	1851	1875	1912	37	61	404 00	1,212 00	School.	Teacher.
Lancaster, Edward M., .	1832	1858	1910	52	78	600 00	3,180 00	School.	Teacher.
Lane, Fannie D., .	1856	1879	1909	30	53	312 00	936 00	School.	Teacher.
Laughlin, Helen C., .	1861	1881	1912	31	51	344 00	1,032 00	School.	Teacher.
Leach, Ellen E., .	1840	1859	1910	51	70	312 00	936 00	School.	Teacher.
Leonard, Amos M., .	1841	1865	1911	46	70	600 00	3,180 00	School.	Teacher.
Leonard, Sarah E., .	1845	1867	1911	44	66	436 00	1,308 00	School.	Teacher.
Lindenberg, Althea W., .	1859	1882	1911	29	52	301 60	936 00	School.	Teacher.
Loring, Susan A. W., .	1830	1859	1910	51	80	180 00	-	School.	Teacher.
Lothrop, Cordelia, .	1832	1861	1910	49	78	180 00	-	School.	Teacher.
Marble, Anna E., .	1848	1888	1910	22	62	228 80	792 00	School.	Teacher.
Marble, George R., .	1832	1868	1910	42	78	180 00	-	School.	Teacher.
Marston, Elias H., .	1843	1865	1913	48	70	600 00	3,420 00	School.	Teacher.
Maynard, Emily E., .	1845	1867	1909	42	64	312 00	936 00	School.	Teacher.
McDermott, Ellen C., .	1854	1880	1911	31	57	312 00	936 00	School.	Teacher.
McKean, Ada L., .	1845	1877	1910	33	65	180 00	-	School.	Teacher.
McKenzie, Amelia, .	1845	1876	1910	34	65	180 00	-	School.	Teacher.
Mendell, Abbie S. H., .	1839	1880	1910	30	71	312 00	936 00	School.	Teacher.
Meserve, Esther M., .	1836	1885	1908	23	72	312 00	936 00	School.	Teacher.
Minter, Mary E., .	1849	1869	1909	40	60	312 00	936 00	School.	Teacher.
Mitchell, Matilda, .	1841	1863	1911	48	70	372 00	1,116 00	School.	Teacher.
Monro, Sarah A. J., .	1857	1880	1910	30	53	428 00	1,284 00	School.	Teacher.
Montague, Mary A., .	1840	1866	1910	44	70	180 00	-	School.	Teacher.
Morand, Henri M. F., .	1841	1875	1911	36	70	600 00	2,040 00	School.	Teacher.
Morse, Angeline S., .	1855	1876	1909	33	54	312 00	936 00	School.	Teacher.
Morse, Ellen E., .	1838	1869	1910	41	72	180 00	-	School.	Teacher.
Morse, Francis A., .	1843	1865	1913	48	70	600 00	3,420 00	School.	Teacher.
Moses, L. Theresa, .	1836	1854	1910	46	74	180 00	-	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Mudge, Cora B., . . .	1872	1892	1913	21	41	\$294 00	\$1,260 00	School.	Teacher.
Neale, Mary F., . . .	1839	1862	1910	48	71	180 00	-	School.	Teacher.
Needham, Sarah J. C., . .	1842	1874	1910	36	68	540 00	1,620 00	School.	Teacher.
Newell, Anne E., . . .	1841	1862	1911	49	70	372 00	1,116 00	School.	Teacher.
Nichols, Mary, . . .	1839	1867	1910	43	71	180 00	-	School.	Teacher.
Nickerson, Abbie C., . .	1847	1868	1911	43	64	328 00	984 00	School.	Teacher.
Nickerson, Caroline K., .	1831	1861	1910	49	79	312 00	936 00	School.	Teacher.
Norton, Elizabeth B., . .	1847	1868	1910	42	63	372 00	1,116 00	School.	Teacher.
Nute, Ida B., . . .	1856	1878	1909	31	53	312 00	936 00	School.	Teacher.
Nye, Abby F., . . .	1847	1867	1911	44	64	540 00	1,620 00	School.	Teacher.
O'Connor, Ellen M., . . .	1855	1898	1913	15	58	196 00	1,176 00	School.	Teacher.
Parish, Roswell, . . .	1841	1883	1911	28	70	560 00	3,204 00	School.	Teacher.
Patterson, Margaret J., .	1868	1892	1913	21	45	361 20	1,548 00	School.	Teacher.
Patterson, Mary E., . . .	1850	1877	1910	33	60	312 00	936 00	School.	Teacher.
Peabody, Mary C., . . .	1840	1888	1908	20	68	208 00	792 00	School.	Teacher.
Perry, Minnie A., . . .	1861	1881	1911	30	50	312 00	936 00	School.	Teacher.
Perry, Serena F., . . .	1847	1867	1911	44	64	312 00	936 00	School.	Teacher.
Pierce, Mary E., . . .	1859	1881	1909	28	50	373 33	1,200 00	School.	Teacher.
Pillsbury, Ellenette, . .	1842	1865	1912	47	70	344 00	1,032 00	School.	Teacher.
Pitman, Amelia H., . . .	1834	1858	1910	52	76	180 00	-	School.	Teacher.
Porter, Emily M., . . .	1838	1877	1910	33	72	180 00	-	School.	Teacher.
Power, Elizabeth A., . . .	1847	1888	1908	20	61	208 00	936 00	School.	Teacher.
Pratt, Ellen A., . . .	1844	1869	1908	39	64	312 00	936 00	School.	Teacher.
Preston, Elizabeth R., . .	1849	1868	1908	40	59	372 00	1,116 00	School.	Teacher.
Rea, Adelaide A., . . .	1840	1876	1910	34	70	180 00	-	School.	Teacher.
Reid, Jane F., . . .	1846	1863	1912	49	66	420 00	1,260 00	School.	Teacher.
Rich, Ruth G., . . .	1841	1871	1909	38	68	436 00	1,308 00	School.	Teacher.
Rich, William E. C., . . .	1843	1876	1913	37	70	600 00	3,420 00	School.	Teacher.
Richardson, John K., . . .	1843	1871	1913	42	70	600 00	3,204 00	School.	Teacher.
Rowe, Ruth E., . . .	1837	1869	1910	41	73	180 00	-	School.	Teacher.
Ruggles, Olive, . . .	1822	1879	1910	31	88	180 00	-	School.	Teacher.
Rundlett, Marion W., . . .	1843	1866	1913	47	70	392 00	1,176 00	School.	Teacher.
Russell, Almira B., . . .	1835	1862	1910	48	75	180 00	-	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Sanborn, Cora F., . . .	1854	1889	1909	20	55	\$208 00	\$936 00	School.	Teacher.
Sanborn, Josephine L., . .	1844	1875	1908	33	64	540 00	1,620 00	School.	Teacher.
Sawtelle, Ellen C., . . .	1843	1864	1912	48	69	600 00	3,180 00	School.	Teacher.
Sawyer, Mary C., . . .	1841	1869	1910	41	69	180 00	-	School.	Teacher.
Sayward, Margaret W., . .	1854	1875	1910	35	56	372 00	1,116 00	School.	Teacher.
Shaw, Emma G., . . .	1839	1863	1910	47	71	600 00	1,764 00	School.	Teacher.
Shaw, Sarah, . . .	1838	1877	1908	31	70	564 00	1,692 00	School.	Teacher.
Shorey, Sarah A., . . .	1845	1863	1911	48	66	600 00	1,836 00	School.	Teacher.
Skilton, Julia A., . . .	1843	1876	1908	32	65	312 00	936 00	School.	Teacher.
Smith, Elizabeth L., . . .	1857	1876	1908	32	51	540 00	1,620 00	School.	Teacher.
Smith, Maria J., . . .	1840	1861	1910	49	70	312 00	936 00	School.	Teacher.
Smith, Sarah R., . . .	1836	1857	1910	53	74	436 00	1,308 00	School.	Teacher.
Southworth, Edward, . . .	1838	1866	1910	44	72	600 00	3,180 00	School.	Teacher.
Stall, Sarah, . . .	1839	1876	1909	33	70	312 00	936 00	School.	Teacher.
Stickney, Edward, . . .	1832	1853	1910	57	78	600 00	3,180 00	School.	Teacher.
Stodder, Elizabeth L., . .	1842	1869	1912	43	70	344 00	1,032 00	School.	Teacher.
Stone, Ellen R., . . .	1831	1866	1913	47	82	180 00	-	School.	Teacher.
Stone, Silas C., . . .	1831	1854	1910	56	79	600 00	3,180 00	School.	Teacher.
Sturtevant, Harriet, . . .	1836	1862	1910	48	74	312 00	936 00	School.	Teacher.
Swords, Elizabeth, . . .	1830	1870	1910	40	80	180 00	-	School.	Teacher.
Sylvester, Adeline L., . . .	1841	1860	1908	48	67	600 00	1,836 00	School.	Teacher.
Tewskbury, Mary P. E., . .	1836	1868	1910	42	74	180 00	-	School.	Teacher.
Thomas, A. Elizabeth, . . .	1845	1881	1911	30	66	312 00	936 00	School.	Teacher.
Thompson, Daniel G., . . .	1843	1869	1912	43	69	500 00	1,500 00	School.	Teacher.
Thompson, Helen O., . . .	1849	1883	1913	30	64	312 00	648 00	School.	Teacher.
Tiernay, Mary E., . . .	1856	1875	1913	38	57	392 00	1,176 00	School.	Teacher.
Todd, Elizabeth F., . . .	1849	1871	1911	40	62	328 00	984 00	School.	Teacher.
Todd, Hattie L., . . .	1858	1878	1910	32	52	312 00	936 00	School.	Teacher.
Tower, Jennie S., . . .	1834	1871	1909	38	75	436 00	1,308 00	School.	Teacher.
Towle, Mary C. R., . . .	1839	1858	1910	52	71	312 00	936 00	School.	Teacher.
Travis, Charles B., . . .	1841	1863	1912	49	71	600 00	3,060 00	School.	Teacher.
Trow, Mary E., . . .	1842	1861	1908	47	66	312 00	936 00	School.	Teacher.
Turner, Elizabeth A., . . .	1844	1867	1908	41	64	312 00	936 00	School.	Teacher.

BOSTON TEACHERS RETIRED UNDER THE PROVISIONS OF CHAPTER 237 OF THE ACTS OF 1900, AND CHAPTER 589 OF THE ACTS OF 1908 — *Concluded.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Warren, Horace W., .	1842	1872	1912	40	70	\$600 00	\$3,180 00	School.	Teacher.
Waterhouse, Emma A., .	1843	1874	1911	37	68	312 00	936 00	School.	Teacher.
Weeks, Emily, .	1840	1877	1910	33	70	180 00	-	School.	Teacher.
Wentworth, Sarah R., .	1837	1867	1910	43	73	180 00	-	School.	Teacher.
Wetherbee, Elizabeth B.,	1839	1880	1910	30	71	312 00	936 00	School.	Teacher.
Whipple, Josephine G., .	1834	1857	1910	53	76	180 00	-	School.	Teacher.
Whitney, Mary E., .	1854	1875	1908	33	54	372 00	1,116 00	School.	Teacher.
Wier, Affie T., .	1848	1874	1911	37	63	180 00	-	School.	Teacher.
Wilkins, Mary E., .	1846	1865	1908	43	62	312 00	936 00	School.	Teacher.
Willett, Emogene F., .	1842	1867	1908	41	66	312 00	936 00	School.	Teacher.
Williams, Charlotte P., .	1837	1864	1910	46	73	180 00	-	School.	Teacher.
Winn, Sarah C., .	1850	1871	1911	40	61	436 00	1,308 00	School.	Teacher.
Wise, Margaret T., .	1852	1874	1913	39	61	600 00	1,908 00	School.	Teacher.
Worcester, Sarah J., .	1852	1878	1913	35	61	392 00	1,176 00	School.	Teacher.
Wormelle, Benjamin, .	1836	1868	1910	42	74	180 00	-	School.	Teacher.
Wyman, Ellen R., .	1843	1862	1913	51	70	392 00	1,176 00	School.	Teacher.
Yeaton, Martha, .	1838	1873	1910	37	72	312 00	936 00	School.	Teacher.
Young, E. Bentley, .	1841	1866	1911	45	70	600 00	3,180 00	School.	Teacher.

Total amount of pension, \$78,738.52.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE ACTS OF 1911.

Public Works Department.

BRIDGE DIVISION.									
Crogan, James C., .	1848	1895	1911	16	63	\$450 00	\$900 00	Public Works.	Draw tender.
Crowley, Jeremiah, .	1845	1891	1911	20	66	410 63	821 25	Public Works.	Watchman.
Donahoe, Dennis J., .	1845	1900	1913	13	68	410 63	821 25	Public Works.	Watchman.
Edgeworth, Samuel B., .	1846	1889	1912	23	66	450 00	900 00	Public Works.	Draw tender.
Garvin, Ezra K., .	1837	1876	1912	36	75	782 50	1,825 00	Public Works.	Insp. mason'y.
Hayward, Hampton V.,	1836	1901	1911	10	75	900 00	900 00	Public Works.	Draw tender.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Continued.*

Public Works Department — Continued.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
BRIDGE DIVISION — <i>Con.</i>									
McCabe, John J., . . .	1844	1879	1913	34	69	\$500 00	\$1,000 00	Public Works.	Draw tender.
McFarland, Daniel, . . .	1850	1888	1911	23	61	600 00	1,200 00	Public Works.	Draw tender.
McIntire, James F., . . .	1847	1897	1911	14	64	410 63	821 25	Public Works.	Watchman.

Total amount of pension, \$4,914.39.

FERRY DIVISION.									
Austin, William, . . .	1834	1895	1912	17	78	\$352 13	\$821 25	Public Works.	Carp. asst.
Bussey, George, . . .	1832	1870	1911	41	79	660 00	1,320 00	Public Works.	Captain.
Christiernin, Henry P., . . .	1836	1882	1911	29	75	1,050 00	2,100 00	Public Works.	Foreman.
Flynn, John H., . . .	1846	1896	1912	16	66	450 00	900 00	Public Works.	Quartermaster.
Joy, Francis P., . . .	1841	1870	1913	43	72	360 00	912 50	Public Works.	Laborer.
Joy, Joseph, . . .	1842	1870	1913	43	71	352 13	912 50	Public Works.	Laborer.
Long, Dennis, . . .	1836	1906	1911	5	75	480 00	960 00	Public Works.	Gateman.
McKenney, Mrs. B., . . .	1842	1883	1913	30	71	240 00	480 00	Public Works.	Janitress.
Moran, Peter, . . .	1836	1896	1911	15	75	450 00	900 00	Public Works.	Watchman.
Moore, John, Jr., . . .	1846	1887	1911	24	65	420 00	840 00	Public Works.	Deck hand.
Riley, John P., . . .	1844	1876	1911	35	67	540 00	1,080 00	Public Works.	Tollman.
Wheeler, John A., . . .	1845	1890	1911	21	66	660 00	1,320 00	Public Works.	Captain.

Total amount of pension, \$6,014.26.

PAVING DIVISION.									
Adams, Robert, . . .	1845	1895	1911	16	66	\$352 13	\$821 25	Public Works.	Stableman.
Blanchard, Edward P., . . .	1845	1873	1911	38	66	547 50	1,277 50	Public Works.	Steam eng.
Bolan, Michael, . . .	1850	1884	1912	28	62	352 13	821 25	Public Works.	Laborer.
Bonner, Neil, . . .	1836	1861	1912	51	76	352 13	821 25	Public Works.	Laborer.
Brennan, John, . . .	1831	1873	1912	39	81	352 13	821 25	Public Works.	Laborer.
Buckley, Timothy J., . . .	1851	1887	1912	25	61	352 13	821 25	Public Works.	Laborer.
Carroll, Henry M., . . .	1850	1901	1912	11	62	352 13	821 25	Public Works.	Laborer.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Continued.*

Public Works Department — *Continued.*

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
PAVING DIVISION									
— <i>Con.</i>									
Chute, James J., . . .	1847	1891	1911	20	64	\$430 38	\$1,003 75	Public Works.	Weigher.
Conroy, John, . . .	1847	1889	1911	22	64	352 13	821 25	Public Works.	Teamster.
Cosgrove, James, . . .	1849	1874	1912	38	63	352 13	821 25	Public Works.	Watchman.
Cronin, William E., . . .	1848	1884	1913	29	65	352 13	821 25	Public Works.	Laborer.
Crowley, Dennis, . . .	1833	1862	1912	50	79	352 13	821 25	Public Works.	Laborer.
Culahan, Malachi, . . .	1846	1879	1913	34	67	352 13	821 25	Public Works.	Laborer.
Cullinane, Simon J., . . .	1842	1887	1913	26	71	360 00	912 50	Public Works.	Laborer.
Cunningham, Patrick, . . .	1837	1872	1912	40	75	352 13	821 25	Public Works.	Laborer.
Dinneen, John, . . .	1844	1880	1913	33	69	352 13	821 25	Public Works.	Laborer.
Doherty, Patrick, . . .	1840	1871	1913	42	73	352 13	821 25	Public Works.	Laborer.
Donahoe, John, . . .	1849	1877	1913	36	64	352 13	821 25	Public Works.	Laborer.
Doran, Peter, . . .	1838	1886	1911	25	73	352 13	821 25	Public Works.	Laborer.
Downing, Robert, . . .	1848	1895	1911	16	63	352 13	821 25	Public Works.	Laborer.
Dumphy, James, . . .	1832	1880	1911	31	79	352 13	821 25	Public Works.	Laborer.
Emmett, Edward, . . .	1839	1862	1912	50	73	352 13	821 25	Public Works.	Laborer.
Fitzgerald, William A., . . .	1845	1876	1911	35	66	900 00	1,800 00	Public Works.	Foreman.
Flannigan, Thomas, . . .	1847	1875	1912	37	65	352 13	821 25	Public Works.	Laborer.
Gabriel, Charles J., . . .	1843	1868	1911	43	68	547 75	1,277 50	Public Works.	Subforeman.
Gallinaugh, Edward, . . .	1842	1887	1912	25	70	352 13	821 25	Public Works.	Laborer.
Gilday, James, . . .	1847	1898	1911	13	64	352 13	821 25	Public Works.	Laborer.
Good, Thomas F., . . .	1839	1886	1911	25	72	352 13	821 25	Public Works.	Laborer.
Grady, Michael, . . .	1844	1885	1912	27	68	352 13	821 25	Public Works.	Laborer.
Harrington, Edward, . . .	1842	1902	1913	11	71	352 13	821 25	Public Works.	Laborer.
Hart, Michael, . . .	1842	1883	1912	29	70	352 13	821 25	Public Works.	Laborer.
Hickey, John, . . .	1837	1874	1912	38	75	352 13	821 25	Public Works.	Laborer.
Higgins, Dennis, . . .	1841	1872	1911	39	70	352 13	821 25	Public Works.	Laborer.
Hollaran, John, . . .	1842	1887	1912	25	70	352 13	821 25	Public Works.	Laborer.
Hopkins, Nathan, . . .	1840	1894	1912	18	72	352 13	821 25	Public Works.	Watchman.
Horan, Martin, . . .	1847	1872	1912	40	65	352 13	821 25	Public Works.	Laborer.
Howe, Frederick, . . .	1847	1895	1911	16	64	352 13	821 25	Public Works.	Laborer.
Jones, Richard, . . .	1845	1885	1912	27	67	352 13	821 25	Public Works.	Laborer.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Continued.*

Public Works Department — *Continued.*

NAME.	Date of Birth.	Date of Appoint- ment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retire- ment.	Department.	Rating.
PAVING DIVISION									
— <i>Con.</i>									
Keegan, John,	1838	1874	1912	38	74	\$352 13	\$821 25	Public Works.	Laborer.
Keenan, Hugh,	1846	1883	1912	29	66	352 13	821 25	Public Works.	Laborer.
Kelley, John,	1839	1870	1912	42	73	352 13	821 25	Public Works.	Laborer.
Kelley, Thomas W. H., .	1843	1891	1911	20	68	626 00	1,460 00	Public Works.	Inspector.
Lane, Thomas,	1840	1882	1912	30	72	352 13	821 25	Public Works.	Laborer.
Manley, Henry,	1841	1869	1911	42	70	1,500 00	3,000 00	Public Works.	Civil eng.
Marie, Wallace R., . . .	1844	1900	1912	12	68	352 13	821 25	Public Works.	Watchman.
McCabe, Bernard,	1837	1891	1911	20	74	352 13	821 25	Public Works.	Laborer.
McCarthy, Bartholomew,	1847	1876	1912	36	65	352 13	821 25	Public Works.	Laborer.
McCarthy, Daniel, . . .	1828	1887	1912	25	84	352 13	821 25	Public Works.	Laborer.
McCarthy, John,	1846	1897	1911	14	65	430 38	1,003 75	Public Works.	Watchman.
McCullough, Thomas, . .	1839	1864	1912	48	73	352 13	821 25	Public Works.	Laborer.
McDonald, Michael, . . .	1843	1873	1912	39	69	352 13	821 25	Public Works.	Laborer.
McEleney, John,	1840	1885	1913	28	73	352 13	821 25	Public Works.	Laborer.
McGovern, John,	1851	1883	1913	30	62	360 00	1,095 00	Public Works.	Paver.
Merrigan, John F., . . .	1845	1885	1912	27	67	352 13	821 25	Public Works.	Laborer.
Moran, Thomas,	1838	1900	1912	12	74	352 13	821 25	Public Works.	Laborer.
Mulkern, Michael,	1841	1884	1912	28	71	352 13	821 25	Public Works.	Laborer.
Murphy, Andrew,	1839	1889	1911	22	72	352 13	821 25	Public Works.	Laborer.
Ninan, Dennis,	1846	1884	1912	28	66	352 13	821 25	Public Works.	Laborer.
O'Donnell, Patrick, . . .	1839	1895	1911	16	72	352 13	821 25	Public Works.	Laborer.
Reddington, Timothy, . .	1842	1874	1912	38	70	352 13	821 25	Public Works.	Laborer.
Russell, John,	1844	1874	1912	38	68	352 13	821 25	Public Works.	Laborer.
Ryan, Jeremiah,	1839	1878	1912	34	73	352 13	821 25	Public Works.	Laborer.
Ryan, John,	1844	1867	1912	45	68	352 13	821 25	Public Works.	Laborer.
Ryan, Thomas,	1833	1869	1912	43	79	352 13	821 25	Public Works.	Laborer.
Smith, John,	1847	1900	1911	11	64	352 13	821 25	Public Works.	Laborer.
Sullivan, James,	1850	1881	1912	31	62	352 13	821 25	Public Works.	Laborer.
Towle, John,	1844	1895	1911	16	67	352 13	821 25	Public Works.	Laborer.
Walsh, Michael,	1842	1883	1912	29	70	352 13	821 25	Public Works.	Laborer.
Woodward, John O., . . .	1834	1902	1913	11	79	391 25	912 50	Public Works.	Painter.

Total amount of pension, \$26,868.92.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Continued.*

Public Works Department — Continued.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
SANITARY DIVISION.									
Ambrose, Thomas,	1842	1885	1912	27	70	\$352 13	\$821 25	Public Works.	Laborer.
Ayers, Joseph F.,	1841	1900	1911	11	70	469 50	1,095 00	Public Works.	Inspector.
Bloom, George,	1849	1882	1913	31	64	360 00	912 50	Public Works.	Painter.
Burke, Thomas,	1851	1880	1912	32	61	352 13	821 25	Public Works.	Laborer.
Burns, Peter,	1841	1872	1912	40	71	352 13	821 25	Public Works.	Laborer.
Callahan, Owen,	1839	1885	1913	28	74	352 13	821 25	Public Works.	Laborer.
Callahan, Peter,	1851	1871	1913	42	62	352 13	821 25	Public Works.	Laborer.
Cochrane, Michael,	1839	1879	1912	33	73	352 13	821 25	Public Works.	Laborer.
Condon, Edward,	1838	1874	1912	38	74	352 13	821 25	Public Works.	Laborer.
Conley, John,	1849	1873	1912	39	63	352 13	821 25	Public Works.	Laborer.
Corcoran, William,	1839	1887	1911	24	72	352 13	821 25	Public Works.	Laborer.
Coughlin, William,	1838	1877	1912	35	74	352 13	821 25	Public Works.	Laborer.
Curley, Michael,	1833	1871	1912	41	79	352 13	821 25	Public Works.	Laborer.
Davidmeyer, Louis,	1840	1895	1912	17	72	352 13	821 25	Public Works.	Laborer.
Dobbins, John,	1834	1883	1912	29	78	352 13	821 25	Public Works.	Laborer.
Downing, Charles,	1841	1872	1912	40	71	352 13	821 25	Public Works.	Laborer.
Farrell, Lawrence,	1846	1879	1913	34	67	352 13	821 25	Public Works.	Laborer.
Fortier, Edmund,	1839	1877	1913	36	74	352 13	821 25	Public Works.	Laborer.
Garrigan, Michael,	1839	1875	1912	37	73	352 13	821 25	Public Works.	Laborer.
Gorham, Patrick,	1839	1873	1912	39	73	352 13	821 25	Public Works.	Laborer.
Gotthardt, Gustave,	1833	1874	1912	38	79	352 13	821 25	Public Works.	Laborer.
Harkins, Daniel,	1841	1875	1911	36	70	352 13	821 25	Public Works.	Teamster.
Harkins, Neil,	1838	1883	1912	29	74	352 13	821 25	Public Works.	Laborer.
Hurley, Timothy,	1839	1881	1912	31	73	352 13	821 25	Public Works.	Laborer.
Keenan, Thomas E.,	1838	1861	1912	51	74	352 13	821 25	Public Works.	Laborer.
King, Michael,	1841	1875	1912	37	71	352 13	821 25	Public Works.	Laborer.
Malley, James,	1848	1873	1912	39	64	352 13	821 25	Public Works.	Teamster.
Maxwell, Isaac S.,	1845	1900	1911	11	66	410 63	821 25	Public Works.	Stableman.
McCarron, Richard,	1833	1874	1913	39	80	352 13	821 25	Public Works.	Dumper.
McCarter, John,	1849	1872	1912	40	63	352 13	821 25	Public Works.	Laborer.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Continued.*

Public Works Department — Continued.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
SANITARY DIVISION — <i>Con.</i>									
McLaughlin, Augustus, . . .	1845	1895	1911	16	66	\$352 13	\$821 25	Public Works.	Laborer.
Mullen, Henry,	1851	1884	1912	28	61	352 13	821 25	Public Works.	Laborer.
Mulvey, Thomas,	1838	1879	1912	33	74	352 13	821 25	Public Works.	Laborer.
Murphy, Daniel,	1842	1888	1911	23	69	352 13	821 25	Public Works.	Laborer.
Rowe, Walter H.,	1844	1901	1912	11	68	469 50	1,095 00	Public Works.	Clerk.
Sweeney, Edward F.,	1846	1885	1912	27	66	352 13	821 25	Public Works.	Laborer.
Toomey, Patrick,	1842	1888	1913	25	71	352 13	821 25	Public Works.	Teamster.
Vaughan, James,	1837	1879	1913	34	76	352 13	821 25	Public Works.	Laborer.

Total amount of pension, \$13,682.05.

SEWER DIVISION.									
Baker, Cushing,	1847	1888	1913	25	66	\$455 00	\$1,064 58	Public Works.	Steam eng.
Barry, John,	1845	1880	1912	32	67	352 13	821 25	Public Works.	Laborer.
Barry, John H.,	1847	1896	1913	17	66	456 25	912 50	Public Works.	Watchman.
Chadwick, William F.,	1846	1897	1912	15	66	468 00	1,095 00	Public Works.	Clerk.
Cronin, Patrick,	1849	1883	1913	30	64	360 00	912 50	Public Works.	Bracer.
Donohue, Patrick,	1839	1887	1912	25	73	352 13	821 25	Public Works.	Laborer.
Early, Thomas J.,	1852	1888	1913	25	61	360 00	912 50	Public Works.	Bracer.
Farrell, James,	1845	1895	1911	16	66	410 63	821 25	Public Works.	Watchman.
Finn, James H.,	1839	1888	1911	23	72	728 00	1,703 33	Public Works.	Engineer.
Gallagher, James,	1852	1886	1912	26	60	352 13	821 25	Public Works.	Laborer.
Kelly, Martin,	1846	1884	1912	28	66	410 63	821 25	Public Works.	Watchman.
Malloy, Owen,	1851	1885	1912	27	61	352 13	821 25	Public Works.	Laborer.
McFarland, John,	1852	1888	1913	25	61	352 13	821 25	Public Works.	Laborer.
McLaughlin, Bernard,	1845	1886	1912	26	67	352 13	821 25	Public Works.	Laborer.
Park, William,	1833	1900	1911	11	78	900 00	1,800 00	Public Works.	Foreman.
Ryan, John,	1850	1887	1912	25	62	352 13	821 25	Public Works.	Laborer.
Slattery, John,	1846	1888	1911	23	65	468 00	1,095 00	Public Works.	Storekeeper.
Sweeney, John,	1837	1895	1911	16	74	352 13	821 25	Public Works.	Laborer.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Continued.*

Public Works Department — Continued.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
<i>SEWER DIVISION — Con.</i>									
Wade, Michael, . . .	1838	1886	1912	26	74	\$352 13	\$821 25	Public Works.	Laborer.
Wiley, James R., . . .	1844	1896	1911	15	67	468 00	1,095 00	Public Works.	Blacksmith.
Wood, Albert P., . . .	1844	1897	1912	15	68	508 63	1,186 25	Public Works.	Oiler.

Total amount of pension, \$9,162.31.

<i>STREET CLEANING AND OILING DIVISION.</i>									
Craffey, John F., . . .	1844	1886	1912	26	68	\$352 13	\$821 25	Public Works.	Laborer.
Cuddy, Paul J., . . .	1848	1887	1912	25	64	352 13	821 25	Public Works.	Laborer.
Cunningham, Patrick, . . .	1837	1873	1912	39	75	352 13	821 25	Public Works.	Laborer.
Devine, James H., . . .	1843	1891	1911	20	68	469 50	1,095 00	Public Works.	Subforeman.
Doherty, John, . . .	1837	1861	1912	51	75	410 63	821 25	Public Works.	Stableman.
Fenno, Abraham, . . .	1845	1895	1913	18	68	391 25	912 50	Public Works.	Dumpman.
Finnerty, James, . . .	1841	1902	1912	10	71	352 13	821 25	Public Works.	Laborer.
Fitzsimmons, John, . . .	1841	1870	1912	42	71	352 13	821 25	Public Works.	Laborer.
Gillen, Daniel, . . .	1836	1860	1912	52	76	352 13	821 25	Public Works.	Laborer.
Gilmartin, Patrick, . . .	1841	1870	1912	40	71	352 13	821 25	Public Works.	Laborer.
Johnson, John F., . . .	1841	1895	1912	17	71	410 63	821 25	Public Works.	Stableman.
Joyce, Martin, . . .	1840	1888	1913	25	73	360 00	912 50	Public Works.	Laborer.
Linehan, Edward, . . .	1850	1885	1912	27	62	410 63	821 25	Public Works.	Laborer.
Malvey, James, . . .	1844	1875	1912	37	68	352 13	821 25	Public Works.	Laborer.
McGrath, Dennis, . . .	1850	1884	1912	28	62	352 13	821 25	Public Works.	Laborer.
Moore, William, . . .	1844	1875	1912	37	68	352 13	821 25	Public Works.	Laborer.
Murphy, John J., . . .	1844	1891	1912	21	68	547 75	1,277 50	Public Works.	Subforeman.
Organ, Patrick, . . .	1845	1891	1912	21	67	352 13	821 25	Public Works.	Laborer.
Raughan, Patrick, . . .	1849	1881	1913	32	64	352 13	821 25	Public Works.	Laborer.
Rogan, Michael, . . .	1844	1879	1912	33	68	352 13	821 25	Public Works.	Laborer.
Sullivan, John, . . .	1847	1891	1912	21	65	352 13	821 25	Public Works.	Laborer.
Sullivan, John, . . .	1846	1887	1912	25	66	352 13	821 25	Public Works.	Laborer.
Sweeney, Edward, . . .	1840	1891	1912	21	72	352 13	821 25	Public Works.	Laborer.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE ACTS OF 1911 — *Continued.*

Public Works Department — Continued.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
STREET CLEANING AND OILING DIVISION — <i>Con.</i>									
Toole, Patrick, . . .	1852	1885	1912	27	60	\$352 13	\$821 25	Public Works.	Laborer.
Walsn, John F., . . .	1847	1887	1912	25	65	352 13	821 25	Public Works.	Laborer.
Welch, Martin, . . .	1850	1884	1912	28	62	352 13	821 25	Public Works.	Laborer.

Total amount of pension, \$9,690.86.

WATER DIVISION.									
NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Burns, Matthew, . . .	1836	1887	1912	25	76	\$352 13	\$821 25	Public Works.	Laborer.
Callahan, Thomas F., . .	1842	1899	1911	12	69	352 13	821 25	Public Works.	Laborer.
Carroll, William, . . .	1850	1882	1913	31	63	353 69	912 50	Public Works.	Laborer.
Cook, John, . . .	1844	1884	1913	29	69	352 13	821 25	Public Works.	Laborer.
Donahue, Michael, . . .	1849	1886	1913	27	64	353 69	912 50	Public Works.	Laborer.
Drown, Benjamin F., . .	1846	1897	1913	16	67	800 00	1,600 00	Public Works.	Clerk.
Ducey, Thomas F., . . .	1842	1888	1913	25	71	352 13	821 25	Public Works.	Laborer.
Edmonds, Michael F., . .	1844	1883	1911	28	67	550 00	1,100 00	Public Works.	Inspector.
Fitzpatrick, John B., . .	1847	1891	1912	21	65	500 00	1,000 00	Public Works.	Inspector.
Gilray, James, . . .	1851	1876	1912	36	61	352 13	821 25	Public Works.	Laborer.
Hayes, Joseph, . . .	1847	1897	1912	15	65	547 75	1,277 50	Public Works.	Carpenter.
Huntress, Walter C., . .	1840	1895	1911	16	71	352 13	821 25	Public Works.	Laborer.
Joyce, Patrick, . . .	1842	1885	1911	26	69	410 63	821 25	Public Works.	Watchman.
Kane, John, . . .	1831	1884	1912	28	81	352 13	821 25	Public Works.	Laborer.
Kelley, Walter, . . .	1839	1886	1913	27	74	360 00	1,095 00	Public Works.	Paver.
Kenney, William, . . .	1839	1874	1911	37	72	352 13	821 25	Public Works.	Calker.
Leonard, Michael, . . .	1851	1886	1912	26	61	352 13	821 25	Public Works.	Laborer.
Linnell, George H., . . .	1843	1896	1911	15	68	352 13	821 25	Public Works.	Laborer.
Lynch, Philip P., . . .	1831	1885	1911	26	80	352 13	821 25	Public Works.	Laborer.
Magee, Bernard, . . .	1854	1888	1912	24	58	547 75	1,277 50	Public Works.	Carpenter.
Maloney, Jere P., . . .	1842	1895	1911	16	69	450 00	900 00	Public Works.	Messenger.
Martin, James, . . .	1842	1885	1911	26	69	508 63	1,186 25	Public Works.	Machinist.
McCaffrey, Philip, . . .	1846	1884	1912	28	66	352 13	821 25	Public Works.	Laborer.
McCormick, Patrick, . . .	1833	1873	1912	39	74	352 13	821 25	Public Works.	Laborer.

BOSTON LABORERS RETIRED UNDER THE PROVISIONS OF CHAPTER 413 OF THE
ACTS OF 1911 — *Concluded.*

Public Works Department — Concluded.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
<i>WATER DIVISION — Con.</i>									
McDavitt, Philip, . . .	1845	1886	1911	25	66	\$469 50	\$1,095 00	Public Works.	Paver.
McGorty, Charles, . . .	1850	1883	1912	28	62	352 13	821 25	Public Works.	Laborer.
McNaughton, Con. J., . . .	1849	1880	1911	23	62	650 00	1,300 00	Public Works.	Clerk.
Murphy, James, . . .	1848	1899	1911	12	63	352 13	821 25	Public Works.	Teamster.
Murphy, John J., . . .	1848	1889	1912	23	64	550 00	1,100 00	Public Works.	Inspector.
O'Brien, James, . . .	1847	1883	1912	29	65	352 13	821 25	Public Works.	Laborer.
O'Donnell, Daniel, . . .	1843	1884	1912	28	69	352 13	821 25	Public Works.	Laborer.
O'Leary, Bart, . . .	1846	1887	1912	25	66	352 13	821 25	Public Works.	Laborer.
Raymond, Charles, . . .	1840	1895	1912	17	72	800 00	1,600 00	Public Works.	Clerk.
Rogers, John, . . .	1842	1887	1912	25	70	352 13	821 25	Public Works.	Laborer.
Ryan, Patrick, . . .	1845	1868	1912	44	67	352 13	821 25	Public Works.	Laborer.
Sheedy, Patrick, . . .	1844	1887	1912	25	68	352 13	821 25	Public Works.	Laborer.
Shepard, James S., . . .	1847	1895	1911	16	64	550 00	1,100 00	Public Works.	Inspector.
Swan, Walter E., . . .	1844	1875	1912	37	68	1,000 00	2,000 00	Public Works.	Clerk.
Sweeney, Daniel, . . .	1844	1886	1911	25	67	352 13	821 25	Public Works.	Laborer.
Trask, Charles H., . . .	1852	1895	1912	17	60	547 75	1,277 50	Public Works.	Carpenter.
Welch, Peter, . . .	1851	1874	1912	38	61	352 13	821 25	Public Works.	Laborer.

Total amount of pension, \$18,048.38.

Park Department.

Ahern, Thomas, . . .	1847	1884	1912	28	65	\$352 13	\$821 25	Park.	Laborer.
Cahill, John, . . .	1845	1887	1912	25	67	352 13	821 25	Park.	Laborer.
Devine, Timothy, . . .	1838	1887	1912	25	74	352 13	821 25	Park.	Laborer.
Donovan, John J., . . .	1844	1891	1911	20	67	352 13	821 25	Park.	Laborer.
Foley, Edward, . . .	1837	1887	1912	25	75	352 13	821 25	Park.	Laborer.
Henneberry, Edward, . . .	1851	1883	1912	29	61	352 13	821 25	Park.	Laborer.
Lee, Patrick, . . .	1847	1887	1912	25	65	352 13	821 25	Park.	Laborer.
McGowan, William, . . .	1844	1884	1912	28	68	352 13	821 25	Park.	Laborer.
Murphy, John, . . .	1840	1887	1912	25	72	352 13	821 25	Park.	Laborer.
Myers, John, . . .	1842	1887	1912	25	70	352 13	821 25	Park.	Laborer.
Shea, Patrick, . . .	1848	1887	1912	25	64	352 13	821 25	Park.	Laborer.

Total amount of pension, \$3,873.43.

MISCELLANEOUS DEPARTMENTS.

NAME.	Date of Birth.	Date of Appointment.	Date of Retirement.	Years of Service.	Age at Retirement.	Amount of Pension.	Salary at Retirement.	Department.	Rating.
Loveren, Edgar H.,	1841	1881	1911	30	70	\$912 50	\$1,825 00	Assessing.	Clerk.
Bleiler, Charles,	1844	1901	1912	11	68	410 63	821 25	Bath.	Janitor.
Corliss, Thomas,	1838	1860	1912	52	74	352 13	821 25	Cemetery.	Grave digger.
Flynn, John J.,	1845	1869	1913	44	68	352 13	821 25	Cemetery.	Laborer.
McDonald, Patrick,	1842	1886	1912	26	70	352 13	821 25	Cemetery.	Ledgeman.
Mullen, John,	1835	1887	1912	25	77	352 13	821 25	Cemetery.	Laborer.
Sloan, David F.,	1825	1878	1911	33	86	352 13	821 25	Cemetery.	Asst. gardener.
Vantassel, Aaron,	1837	1884	1912	28	75	352 13	821 25	Cemetery.	Laborer.
McCarthy, John E.,	1846	1869	1911	42	65	1,000 00	2,000 00	Children's Inst.	General agent.
Derby, Isaac W.,	1836	1874	1911	37	75	1,050 00	2,100 00	Collecting.	Deputy col.
Davis, Charles E., Jr.,	1843	1866	1911	45	68	1,500 00	3,000 00	Health.	Secretary.
Durgin, Samuel H.,	1840	1867	1912	45	72	2,500 00	5,000 00	Health.	Chairman.
Reed, John D.,	1844	1878	1912	34	68	700 00	1,400 00	Poor.	Storekeeper.
Childs, Henry W.,	1847	1888	1912	24	65	375 00	750 00	Public Bldg.	Janitor.
Frost, Emery W.,	1847	1901	1912	11	65	175 00	341 33	Public Bldg.	Janitor.
Ricker, Oliver P.,	1837	1901	1912	11	75	600 00	1,200 00	Wire.	Clerk.

Total amount of pension, \$11,335.91.

SUMMARY OF PENSION PAYMENTS BY CITY OF BOSTON.

DEPARTMENT.	Number.	Annual Cost.
Police,	210	\$141,135 00
Police, widows,	15	4,350 00
Firemen,	202	\$115,041 67
Firemen, widows,	27	8,100 00
School,	234	123,141 67
Public Works,	216	78,738 52
Other departments,	27	88,381 17
		15,209 34
Total,	931	\$450,955 70

SUMMARY OF PENSION PAYMENTS IN MASSACHUSETTS.

	Number of Pensioners.	Annual Cost.
State,	217	\$120,516 46
Counties,	38	19,566 36
Cities,	1,208	566,826 81
Towns,	38	14,354 40
Total,	1,501	\$721,264 03

Cities having pensioners,	25	Cities having no pensioners,	8
Towns having pensioners,	15	Towns having no pensioners,	305
Counties having pensioners,	9	Counties having no pensioners,	5

APPENDIX B.

DIGEST OF PENSION LEGISLATION
EMPLOYEES OF ALL STATES

1. Firemen.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY --		
			State.	Local Authorities.	Firemen.
Alabama.	Gen. Laws of 1911, No. 254, sect. 18½. Applies to cities of 25,000 to 50,000.	Board of 4 commissioners (same having entire charge of city government.)	Nothing.	Total expense to be met out of any unexpended appropriation balance.	Nothing.
	Acts of 1911, No. 431. Applies to all cities over 25,000.	Such management as city may adopt.	Nothing.	Total expense to be met out of any unexpended appropriation balance.	Nothing.
Arizona.	No legislation.				
Arkansas.	No legislation.				
California.	Acts of 1901, ch. 87, as amended by Acts of 1903, ch. 143. Applies to entire State.	Board of Fire Commissioners (if none, local governing body).	Nothing.	Entire amount.	Nothing.
OAKLAND.	City charter of 1910.	Board of 3 city officials.	Nothing.	Annual appropriation necessary to carry act into effect.	\$2 monthly from salary.

APPENDIX B.

RELATING TO STATE, COUNTY AND MUNICIPAL
IN THE UNITED STATES.

1. Firemen.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service in police or fire departments if 50 years of age.	Nothing.	Nothing.	No one eligible for pensions who "possesses independent means of livelihood." Annuity to remain on reserve list subject to department rules. Act mandatory on all cities.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 25 years of service in police or fire departments if 60 years of age.	Nothing.	Nothing.	No one eligible for pensions who "possesses independent means of livelihood." Annuity to remain on reserve list subject to department rules.
One-half of annual salary at time of retirement for age, service or disability.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age.	In event of death in line of duty, widow, or children under 16, or if neither, dependent parents, receive $\frac{1}{3}$ of salary of member at time of death; in event of death from natural causes after 10 years of service, widow or other dependents receive \$1,000.	Nothing.	If member is convicted of felony, habitual drunkenness or disobedience or becomes nonresident, pension ceases. Members dismissed within 1 year of passage of act for inefficiency caused by injuries in line of duty, after 12 years of service, are entitled to all the benefits of the act.
One-half of annual salary 1 year to retirement.	Recognized at any time if incurred in line of duty; after 20 years of service if 55 years of age.	No provision.	If killed in line of duty, widow, or children under 16 years of age, or dependent parents receive $\frac{1}{2}$ of annual salary at time of death. In event of death from natural causes after 10 years of service, \$1,000.	Nothing.	If member is convicted of felony, habitual drunkenness or becomes nonresident, pension ceases.

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Colorado. (DENVER.)	Acts of 1903, ch. 172, and city charter of 1904. Act applies to cities over 100,000.	Board of trustees of 5 city officials.	Nothing.	Tax levy of 1 cent on each \$100 of taxable property when fund is below \$300,000.	Fines, penalties and rewards.
Connecticut.	No State-wide legislation.				
BRIDGEPORT.	City charter of 1907.	Board of Fire Commissioners.	Nothing.	Any deficit occurring in funds needed to pay pensions.	Monthly assessments not exceeding 2% of salary. Assessment on permanent men $\frac{1}{2}$ that on call men.
NEW HAVEN.	Acts of 1894.	Board of Fire Commissioners.	Nothing.	5% of all liquor licenses until Relief Fund reaches \$50,000. Proceeds from sale of unclaimed property.	Monthly assessments on salary not exceeding 2% as may be determined by trustees.
Delaware.	No State-wide legislation.				
Florida.	No State-wide legislation.				
Georgia.	No State-wide legislation.				
ATLANTA.	Acts of 1910 amending city charter and amendment of 1912.	Local board.	Nothing.	Appropriation of entire amount.	Nothing.
Idaho.	No legislation.				
Illinois. (CHICAGO).	Acts of 1887, p. 122, as amended by Acts of 1913. Applies to cities of over 50,000.	Local board.	Nothing.	Proportion of taxes paid by foreign insurance companies and on certain licenses.	1 % of salary; fines on firemen.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	In event of death in line of duty, or while in service or on retired list, from any cause, widow shall receive \$30 monthly, and each child under 14 years of age, \$6 monthly.	Nothing.	In event of temporary total disability incurred in line of duty member to receive amount equal to salary for 1 year, provided salary is not received also. Members must remain on reserve list subject to department rules. In event of death of active or retired fireman, \$100 for funeral expenses to widow or family.
One-half of annual salary at time of retirement paid to permanent fireman of equal rank.	Recognized at any time if incurred in line of duty.	After 20 years of service.	Nothing.	Nothing.	- -
One-fourth to ½ of annual salary at time of retirement.	Recognized at any time if incurred in line of duty. After 25 years of continuous service members of veteran reserve may be retired for meritorious service.	No provision.	In event of death incurred in line of duty, widow or dependents receive sum not exceeding \$2,000.	Nothing.	- -
One-half of annual salary at time of retirement not exceeding \$50 monthly for retirement after 20 years of service; not exceeding \$100 after 35 years of service.	After 20 years of continuous service. Recognized at any time if incurred in line of duty.	After 20 years of continuous service, if 60 years of age,	Nothing.	Nothing.	In event of retirement after 20 years but before 35 years of service member may be required to do such duty in any municipal department as his physical condition permits.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service, the last 2 continuous.	In event of death incurred in line of duty, widow receives \$35 monthly; children under 16 years of age each receive \$3 monthly; dependent parents, \$25 each monthly.	Nothing.	- -

1. Firemen — Continued.

STATE AND CITY.	Legislation	Management	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Indiana.	Acts of 1905, ch. 129, as amended by Acts of 1913, ch. 52. Applies to all 1st and 2d class cities and all 3d, 4th and 5th class cities which accept act.	Board of 6 trustees, 4 from force.	Nothing.	One-twentieth to $\frac{1}{10}$ of mill on each \$1 of taxable property in city.	1% to $1\frac{1}{2}$ % of annual salary.
Iowa.	Laws of 34th General Assembly, ch. 61 and subsequent amendments. Mandatory on cities having a paid department; permissive on cities having an organized department.	Board of 3 trustees.	Nothing.	Tax levy of not over $\frac{1}{2}$ of 1 mill on each \$1 of taxable property.	1% of annual salary; entrance fee of \$5.
Kansas.	No legislation.				
Kentucky (LOUISVILLE).	Acts of 1912, ch. 122. Mandatory on all 1st class cities.	Board of trustees of 5 city officials.	Nothing.	Tax levy of 1 cent on each \$100 of taxable property when fund is below \$300,000.	Fines, penalties and rewards. Each member may be assessed \$6 monthly.
Louisiana.	No State-wide legislation.				
NEW ORLEANS.	Acts of 1912, act No. 152, amending Acts of 1902, act No. 43.	Board of 7 trustees, president and secretary of Board of Fire Commissioners, chief engineer and 4 members of force below rank of chief engineer.	Nothing.	1% of license fees. Proceeds from sale of condemned property.	1% of salary and annual dues of \$6. For first year dues are \$12. Assessment of \$1 when death benefits are to be paid. Fines, penalties and rewards.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Retirement for disability, \$25 to \$50 monthly. After 25 years of service, \$20 to \$40 monthly; after 20 years of service, \$15 to \$30 monthly (if not for criminal act).	Recognized at any time if incurred in line of duty.	After 25 years of service. If member is discharged after 20 years of service for anything except criminal act, annuities may be paid.	In event of death in service or after retirement, widow receives \$20 to \$25 monthly, and each child, \$6 monthly.	Nothing.	No pension for any one over 35 at time of entering service, nor for any one who failed to pass medical examination. Not applicable to present members.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 5 years if incurred in any other manner.	After 22 years of service, the last 5 continuous.	In event of death of member in city department in line of duty, widow receives \$20 monthly; children under 16 years, \$6 each monthly; if neither, dependent father or mother receives \$20 monthly. In towns such pension to be determined by board.	Nothing.	- -
\$30 monthly.	Recognized at any time if incurred in line of duty.	No provision.	In event of death incurred in line of duty or from any cause, after 15 years of service the widow receives \$30; each child under 14 years of age, \$6; if unmarried and childless, dependent father and mother receive \$30 monthly.	Nothing.	In event of temporary total disability incurred in line of duty, member receives amount equal to salary for not exceeding 1 year. \$100 allowed to wife for funeral expenses.
One-half of salary at time of retirement in all cases except for disability incurred in line of duty. If incurred in line of duty, $\frac{2}{3}$ of salary at time of retirement.	Recognized at any time if incurred in line of duty. Recognized also if incurred in any manner without regard to age or length of service.	After 15 years of service if 60 years of age.	In event of death incurred in line of duty or after 1 year of service, \$500. If an active member, dependents receive \$180 annually, and each child under 14 years of age, \$72 annually.	Nothing.	In event of temporary total disability after service of 1 year, member receives \$1 per day.

1. Firemen — Continued.

STATE AND CITY.	Legislation	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Maine.	No State-wide legislation.				
PORTLAND.	Special acts of 1909, ch. 356.	Local board.	Nothing.	City appropriation.	Left to discretion of board.
Maryland.	No State-wide legislation.				
BALTIMORE.	City charter of 1900, sects. 70 and 445.	Board of Fire Commissioners.	Nothing.	Appropriation of entire amount.	Nothing.
Massachusetts.	Acts of 1898, ch. 267 and subsequent laws. Applies to all cities and towns except those having pension systems under special acts.	Board of Fire Commissioners in cities and board of selectmen in towns.	Nothing.	Entire amount.	Nothing.
	Relief Fund. Acts of 1890, ch. 450, amended by Acts of 1902, ch. 108, and Acts of 1906, ch. 171. Applies to whole State.	Board of 5 members.	\$15,000 annually, from tax on insurance companies, is appropriated to the Massachusetts State Firemen's Association.	Nothing.	Nothing.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Not to exceed $\frac{1}{2}$ of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 15 years of service if 60 years of age and honorably discharged.	In event of death in line of duty, widow or other dependents receive not more than \$25 monthly.	Left to discretion of board.	In event of temporary total disability, city council may appropriate for member sum not exceeding $\frac{1}{2}$ his salary at time of incurring disability.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty, or for other reasons, at discretion of board.	After 20 consecutive years of faithful service.	In event of death in line of duty, widow and children receive annually $\frac{1}{2}$ of annual salary at time of death.	Nothing.	- -
In cities, permanent men receive $\frac{1}{2}$ of annual salary during last year of service; call men receive same as permanent men doing like duty. In towns member receives $\frac{1}{2}$ the compensation received at time of retirement.	In cities any permanent or call man shall be retired if disabled in line of duty at any time. After 25 years of service any permanent man shall be retired if unfit for service. In towns any permanent or call man shall be retired if disabled in line of duty.	In cities, after 25 years of service if 60 years of age, members shall be retired at own request; in towns, after 25 years of continuous service if 60 years of age, members may be retired.	Nothing.	Nothing.	In towns firemen receiving pensions remain on reserve list. Firemen receiving pensions cannot be paid for any service except jury duty by the town, city or county paying the pension.
Amount determined by board for relief of firemen injured in performance of duty, or for relief of families of those killed.	- -	- -	\$1,000 to be paid by the State to the executors of any one, whether member of association or not, who is killed while doing fire duty. Towns accepting provisions of ch. 186 of Acts of 1907 may grant an annuity not exceeding \$300 to widow and children.	- -	- -

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Massachusetts — Con. BOSTON.	Acts of 1880, ch. 107 and sub- sequent acts.	Fire Commissioners.	Nothing.	Entire amount.	Nothing.
Michigan.	No State-wide legislation. (See Additional Data.)	- -	- -	- -	- -
GRAND RAPIDS.	Local acts, 1891, No. 309.	Board of Fire Commissioners.	Nothing.	Annual appropriation	Nothing.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
<p>(a) For total disability in line of duty, $\frac{2}{3}$ of annual salary of men of same grade in which member served.</p> <p>(b) For service retirement after 25 years, pension is $\frac{1}{2}$ of annual salary at time of retirement.</p> <p>(c) For service retirement after 15 years, $\frac{1}{2}$ of annual salary if a permanent man; if a call man, $\frac{1}{2}$ of annual salary and such further sum as commissioner decides.</p> <p>(d) For former call substitutes city council and mayor may grant annuity of not over \$125.</p> <p>(e) For incapacity for duty same as (c) if he has served 15 years; if less than 15 years, act does not provide for pension.</p>	<p>At any time if incurred in line of duty. At any time if incapacitated physically or mentally for duty.</p>	<p>After 25 years of service if 55 years of age, retirement is compulsory if member requests. After 15 years of consecutive service, board may retire. Board may retire all former call substitutes who served as such for not less than 15 years and were honorably discharged.</p>	<p>In event of death in line of duty, widow or children under 16 years of age may receive annuity of not over \$300 from city; and a further sum of \$1,000 from the State by Acts of 1893, ch. 401.</p>	<p>Nothing.</p>	<p>Pensioned members may not receive pay from city for any service except jury duty. Pensioned members may be called on for temporary duty. City also appropriates \$3,000 annually for relief of firemen injured in line of duty.</p>
- -	- -	- -	- -	- -	<p>Public Laws of 1913, p. 787. This is a concurrent resolution proposing an amendment to sect. 14 of Art. 10 of the Constitution of State relative to pensioning firemen.</p>
<p>One-half of annual salary at time of retirement, not to exceed \$450.</p>	<p>Recognized at any time if incurred in line of duty.</p>	<p>After 20 years of service if unable to perform duties.</p>	<p>In event of death from injury incurred in line of duty within 1 year from date of injury, widow or other dependents receive \$300 for 5 years.</p>	<p>Nothing.</p>	<p>Firemen are compelled to join the Firemen's Fund Association, which pays sick, accident and death benefits; annual dues, \$12; and \$5 death assessment when fund is insufficient.</p>

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Michigan— Con. DETROIT.	Local acts, 1885, No. 386.	Board of Fire Commissioners.	Nothing.	Annual appropriation.	Nothing.
Minnesota.	Acts of 1913, ch. 318, amending Acts of 1907, ch. 24. Applies to cities of 50,000 and over.	Board of trustees.	State appropriation.	Tax levy of $\frac{1}{10}$ mill on all tax- able property.	Nothing.
ST. PAUL.	Acts of 1892.	Board of trustees.	State appropriation.	2% of premiums collected in city by fire insurance companies.	\$3 annually. Entrance fee of \$15. Annuitants also pay annual dues.
MINNEAPOLIS.	Acts of 1892.	Board of trustees.	Nothing.	2% of premiums collected in city by fire insurance companies. Tax levy of $\frac{1}{40}$ of mill on each \$1 of tax- able property.	\$3 per year. Assessment of \$2 per member when necessary to pay death benefits.
Mississippi.	No legislation.				

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 25 years of service if unable to perform duties.	In event of death from injury incurred in line of duty within 1 year from date of injury, widow or other dependents receive \$300 annually.	Nothing.	Firemen are compelled to join the Firemen's Fund Association, which pays sick, accident and death benefits; annual dues, \$12; and \$5 death assessment when fund is insufficient.
To be fixed by local by-laws, not to exceed \$40 monthly.	Recognized at any time if incurred in line of duty. (Must make application within 60 days of leaving department.)	After 20 years of service if 50 years of age.	In event of death in line of duty, widow or other dependents receive such pension as local by-laws permit.	Nothing.	- -
Pensioners, after 20 years of service and 50 years of age or when totally disabled, receive \$480 annually; pensioners who are disabled but capable of light manual or office work receive from \$180 to \$300 annually.	Recognized at any time for any injury or sickness except result of immoral habits. If members of department over 20 years, full pension is received.	After 20 years of service and 50 years of age if a member of the association 10 years.	In event of death of active member or pensioner, widow receives \$30 monthly, and each child under 16, \$5; total family not to exceed \$40 monthly. In event of death of widow, children to receive such sum as board determines, not exceeding \$40 monthly. In event of death of member, wife or children or other dependents receive \$500. If no wife or child, other heirs receive \$1,000.	Nothing.	In event of temporary sickness or disability, member receives \$15 per week for not over 12 weeks. \$100 allowed for funeral expenses. Member discharged from department for intemperance, immoral or disorderly conduct or for refusing to pay his debts shall forfeit all claims.
If totally disabled or retired because of age, pensioners receive \$480. If disability is only partial, \$180 to \$300.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	In event of death of member, widow or children under 16 receive annuity of not over \$480 and a death benefit of \$125. If no widow or children, heirs receive \$1,000.	Nothing.	In event of temporary disability, member receives \$12 a week for not over 15 weeks.

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Missouri.	No State-wide legislation.				
St. Louis.	R. S. of 1899, sect. 6411.	Board of trustees.	Nothing.	1% of all license fees; proceeds from sale of condemned materials.	\$6 annually; fines, penalties and rewards. Assessment of \$1 when death benefits are to be paid.
Nebraska.	Comp. Stats. of 1911, sects. 3555-3559. Applies to all 1st class cities of less than 25,000, and all 2d class cities having organized volunteer companies.	Board of trustees.	Nothing.	Balance of any appropriations not used; license tax of not over \$5 annually on each insurance company doing business in the city.	Nothing.
	Comp. Stats. of 1911, sects. 3561-3562. Applies to all metropolitan and 1st class cities.	Board of trustees.	Nothing.	Balance of any appropriations not used; license tax of not over \$5 annually on each insurance company doing business in the city.	Nothing.
Nevada.	No legislation.				
New Hampshire.	Acts of 1907, ch. 85, sect. 1 and subsequent amendments.	Local authorities.	Nothing.	Entire amount.	Nothing.
New Jersey.	Public Laws, 1902, ch. 270 and subsequent amendments. Applies to all 1st class cities accepting act.	Board of 5 trustees, 4 from force.	Nothing.	Appropriation; 1% of premiums received by foreign insurance companies doing business in city; fines on account of chimney fires; minor theatre license fees; fees from permits granted by board.	2% assessment monthly; fines, penalties and rewards.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Two-thirds of salary for disability incurred in line of duty; if incurred in any other manner, $\frac{1}{2}$ of salary.	Recognized at any time if incurred in line of duty; if unfit for duty board may retire at any time.	After 15 years of service if 60 years of age.	In event of death incurred in line of duty or after 1 year of service, dependents receive \$500. In event of death of active member, dependents receive \$180 annually and each child under 14 years of age, \$72 annually.	Nothing.	- -
In cities, \$3 to \$10 weekly during disability, not more than \$200 for any one injury; in towns, \$2 to \$5 weekly during disability, not more than \$100 for any one injury.	Recognized at any time if incurred in line of duty.	- -	- -	- -	- -
One-half of annual salary at time of retirement, not over \$50 monthly.	Recognized at any time if incurred in line of duty.	After 21 years of service.	In event of death in line of duty, widow or children under 13 years of age receive $\frac{1}{2}$ of annual salary at time of death, not over \$50 monthly.	- -	If partially disabled, member receives amount equal to salary for not over 12 months. This act applies also to members of paid fire departments.
\$500 based on 25 years of service, in no case less than \$100.	Recognized at any time if incurred in line of duty.	After 25 years of service in district.	Nothing.	Nothing.	Question of acceptance to be submitted to people at election in town; in city aldermen or council may accept. No pension to be paid for more than 1 year at a time.
One-half of annual salary received at time of retirement.	Recognized at any time if incurred in line of duty. Incapacity from any cause after 20 years of service.	After 20 years of service if 60 years of age.	In event of death of member after 5 years of service or of member after retirement, widow or children or dependent parents receive $\frac{1}{2}$ of salary at time of death or retirement.	Nothing.	- -

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
New Jersey — Con.	Public Laws of 1905, ch. 65 and subsequent amendments. Applies to all municipalities other than those of the 1st class having paid fire departments.	Board of 5 trustees, 4 from force.	Nothing.	Appropriation; 1% of premiums received by foreign insurance companies doing business in city; fines on account of chimney fires; minor theatre license fees; fees from permits granted by board.	2% assessment monthly; fines, penalties and rewards.
JERSEY CITY.	Laws of 1902, ch. 270, amended by Laws of 1908, ch. 142, and Laws of 1912, ch. 240.	Board of 5 trustees, 4 from force.	Nothing.	1% of premiums collected in city by foreign insurance companies doing business in city; minor theatre license fees; fines on account of chimney fires; fees from permits granted by fire department.	1% of annual salary; fines, penalties and rewards.
New Mexico.	No legislation.				
New York.	Laws of 1909, ch. 29. Applies to active volunteer firemen in cities, towns or fire district.	- - -	- - -	Entire amount.	- - -
NEW YORK CITY.	Laws of 1901, ch. 466 and subsequent amendments.	Board of Fire Commissioners.	Nothing.	45% of State tax of 2% of premiums collected in city by foreign fire insurance companies; 10% of excise moneys in Manhattan, Bronx and Brooklyn, and 4½% in Queens and Richmond; all licenses for explosives in Manhattan, Bronx and Brooklyn, and 45% of such licenses in Queens and Richmond; fines for violation of fire regulations; proceeds from sale of condemned materials.	Fines, penalties and rewards.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.	
	Disability.	Age or Service.				
One-half of annual salary received at time of retirement.	Recognized at any time if incurred in line of duty.	After 25 years of service if 55 years of age.	In event of death of member after 5 years of service or of member after retirement, widow or children or dependent parents receive $\frac{1}{2}$ of salary at time of death or retirement.	Nothing.	-	-
One-half of annual salary received at time of retirement.	Recognized at any time if incurred in line of duty; after 20 years of service if caused by reason of old age.	After 20 years of service if 60 years of age.	In event of death dependents receive annually $\frac{1}{2}$ of salary at time of death.	Nothing.	-	-
- -	- -	- -	In event of death incurred in line of duty, dependents receive \$500.	- -	-	-
One-third of pay at time of retirement if length of service under 10 years, except when disabled in line of duty; in all other cases $\frac{1}{2}$ of pay at time of retirement.	Recognized at any time if incurred in line of duty; in any manner, except on duty, under 10 years; in any manner after 10 years.	After 20 years of service on request or at discretion of Fire Commissioner.	In event of death in line of duty, not over $\frac{1}{2}$ of pay at time of death, not exceeding \$1,000 annually, to dependents; widow may receive \$600 if half of pay be less than that; in event of death by causes other than in line of duty, or if an annuitant die, not over \$300 annually to dependents.	Nothing.	-	-

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
New York—Con. SYRACUSE.	Laws of 1905, ch. 683, as amended by Laws of 1911, ch. 372.	Board of trustees.	Nothing.	Tax of 2% of premiums collected in city by foreign fire insurance companies; proceeds from sale of condemned material.	1% of annual salary; fines, penalties and rewards.
YONKERS.	Laws of 1908, ch. 452.	Local board of trustees.	Nothing.	\$5,000 annual appropriation.	Fines, penalties and rewards.
North Carolina.	No legislation.				
North Dakota.	Acts of 1910, ch. 123. Applies to entire State.	Board of trustees.	State appropriation.	Nothing.	Nothing.
Ohio.	General Code of 1910, sects. 4600-4615. Applies to all cities and towns having a fire department supported in whole or in part at public expense.	Board of trustees of 6 members, 5 from force.	Nothing.	Tax levy of $\frac{3}{10}$ mill on all taxable property; fees from licenses under control of fire department.	Monthly assessments as may be agreed upon; fines, penalties and rewards.
DAYTON.	General Code of 1910, H. B. 934.	Board of trustees of 6, 5 from force.	Nothing.	Tax levy of $\frac{3}{10}$ mill on all taxable property; fees from licenses under control of fire department.	Nothing.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service retirement is optional unless member is 65 years of age, when it is compulsory.	In event of death in line of duty or after 10 years of service, or if an annuitant die, dependents receive \$300 and each child \$60 annually, not over \$420 to one family.	Nothing.	- -
Not less than $\frac{1}{2}$ of pay at time of retirement if after 20 years of service. Not over $\frac{1}{2}$ of pay if retired for disability incurred in line of duty.	Recognized at any time if incurred in line of duty; in any manner after 20 years of service if 60 years of age.	After 20 years of service if 60 years of age.	In event of death incurred in line of duty or after 20 years of service, or if an annuitant die, dependents receive not under \$300 annually.	Nothing.	- -
Determined by local by-laws, not to exceed \$40 monthly.	Recognized at any time if incurred in line of duty.	After 20 years of service, including last 10 preceding retirement if 50 years of age.	Nothing.	Nothing.	- -
Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	- -
\$40 monthly.	Recognized at any time if incurred in line of duty.	After 25 years of service.	In event of death in line of duty, widow while unmarried receives \$25 monthly; each child under 16 years, \$6 monthly; if no widow or children, dependent parents receive \$25 monthly, to be paid to either father or mother as board determines. If member dies after 5 years of service from any other cause except in line of duty, or self-abuse, widow and children receive same annuities.	Nothing.	If pensioner is convicted of felony or is guilty of habitual drunkenness, leading immoral life, failure to provide for family or removes from U. S., pension may be revoked or transferred to one of his dependents selected by the trustees.

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Ohio—Con. CLEVELAND.	General Code of 1910.	Board of trustees of 6, 5 from force.	Nothing.	Not over $\frac{3}{10}$ mill on each dollar of taxable property.	$\frac{1}{2}$ % of salary; fines, penalties, fees and rewards.
Oklahoma.	Laws of 1913, ch. 244. Applies to all incorporated cities and towns.	Board of trustees of 5 members, 2 from force.	Nothing.	One-half of 2% tax on premiums collected in city by foreign fire insurance companies.	Nothing.
Oregon.	No legislation.				
Pennsylvania.	Acts of 1913, act 849, amending Acts of 1901, act 14. Applies to cities of 2d class.	Determined by city councils.	See additional data.	See additional data.	See additional data.
PITTSBURG.	- -	- -	Nothing.	One-half of 2% tax on premiums collected in city by foreign fire insurance companies; annual appropriation of \$30 per member. (See Additional Data.)	Fines and penalties.
PHILADELPHIA.	Acts of 1874.	Board of control of 15 members of the association.	Nothing.	- -	2% of annual salary when necessary.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Eleven-sixteenths of salary at time of retirement based on 30 years of service, not exceeding \$1,200, except in case of chief and 2 assistants, with a pension of $\frac{7}{16}$ of salary for those disabled after less than 5 years of service.	Recognized at any time.	After 25 years of service, last 12 of which must have been continuous, or after 25 years of continuous service.	In event of death dependents receive annuities of \$60 to \$300 according to length of service of member; each child under 16 years, \$36 to \$84 additional.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service in some fire department, 10 of which were in Oklahoma and last 2 years consecutive; after 10 years of consecutive service in one department and 50 years of age.	In event of death widow and children under 16 years receive $\frac{1}{2}$ of salary at time of death.	Nothing.	In event of temporary disability, member shall receive not less than \$5 weekly after period of 6 months, and hospital expenses. If member is convicted of felony or becomes habitual drunkard or disobedient to rules, pension ceases.
See additional data.	See additional data.	See additional data.	See additional data.	See additional data.	Act permits cities to pension aged or disabled firemen and policemen or their families in event of death.
One-half of annual salary at time of retirement. For disability, \$15 weekly for 1 year. If then pronounced permanently disabled, \$1,000, after which membership terminates.	Recognized at any time if incurred in line of duty.	After 20 years of service.	In event of death of active member, \$1,000.	Nothing.	The appropriation of \$30 annually per man by the city is made as an addition to salary to get around the prohibition by the Constitution against any "municipality making an appropriation to any firm, corporation or individual."
For disability, $\frac{1}{2}$ of annual salary at time of retirement; for service, $\frac{1}{2}$ of average annual salary for a period of 2 continuous years.	Recognized at any time if incurred in line of duty.	After 20 years of service.	In event of death in line of duty, widow receives \$240 annually, each child under 16 years, \$72. If no widow, dependent parents receive \$20 annually, amount in no case to exceed $\frac{1}{2}$ of annual salary at death.	Nothing.	- -

1. Firemen — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Rhode Island.	General Laws of 1909, p. 1350.	- -	Entire amount (\$2,500).	- -	- -
PAWTUCKET.	Public Laws of 1913, ch. 1007.	- -	- -	- -	- -
PROVIDENCE.	Acts of 1896, ch. 372, and Acts of 1913, ch. 977.	Board of Fire Commissioners.	Nothing.	Appropriation by city if necessary.	1% of annual salary; fines, fees and rewards.
South Carolina.	No State-wide legislation.				
CHARLESTON.	City ordinance of 1904 and amendments.	Board of 5 trustees.	Nothing.	1/10% of all sums collected by city from fire insurance companies doing business in city.	Fines, penalties and rewards.
South Dakota.	No legislation.				
Tennessee.	Acts of 1909, ch. 408, as amended by Acts of 1911, ch. 2 (Chattanooga).	Board of 5 trustees.	Nothing.	Tax levy on all privileges by ordinance.	Fines, penalties, rewards and fees.
Texas.	Acts of 1907.	Local board.	Nothing.	Nothing.	\$12 annually; entrance fee of \$10; fines, penalties and rewards.
Utah.	Acts of 1911, ch. 146. Applies to all cities and towns having equipment of over \$500.	State Insurance Commissioner has charge.	Nothing.	1% of all premiums collected by fire insurance companies in the city.	Nothing.

1. Firemen — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
- -	- -	- -	- -	- -	For relief of firemen or families of firemen injured or killed in line of duty, whether members of association or not.
- -	- -	- -	- -	- -	This act authorized the mayor and city council to create a pension fund for permanent members of the fire department and to establish necessary rules and regulations.
One-half of annual salary at retirement if above rank of assistant foreman; all others receive a sum not exceeding \$600.	Recognized at any time if incurred in line of duty.	After 65 years of age.	Nothing.	Nothing.	If member is guilty of immoral conduct or habitual drunkenness, pension ceases.
One-half of annual salary, not less than \$120 annually.	Recognized at any time if incurred in line of duty.	After 20 years of service, 12 being consecutive.	In event of death incurred in line of duty, or after 20 years of service, 12 being consecutive, from any cause, nearest relatives receive not less than \$50 nor more than \$100.	Nothing.	- -
For disability, $\frac{2}{3}$ of annual salary at time of retirement; for service, $\frac{1}{2}$ of annual salary at time of retirement.	Recognized after 20 years of service if unfit for service.	After 20 years of service.	In event of death in line of duty, widow or heirs receive \$500.	Nothing.	In event of temporary disability, member receives sum equal to salary for not over 6 months.
One-third of pay at time of retirement.	Recognized at any time if incurred in line of duty.	After 22 years of service, last 2 continuous, if 60 years of age.	In event of death, dependents receive \$144 annually and each child under 16 years, \$36.	Nothing.	- -
Loss of both hands, \$2,500; both feet, \$2,500; both eyes, \$2,500; 1 hand and 1 foot, \$2,500; 1 hand or 1 foot, \$1,250. For total disability in line of duty, \$2,500.	Recognized at any time if incurred in line of duty.	No provision.	In event of death in line of duty, heirs receive \$2,500.	Nothing.	- -

1. Firemen — Concluded.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Firemen.
Vermont.	No legislation.				
Virginia.	Acts of 1908, ch. 181.	Local board.	Nothing.	1% of all premiums collected by fire insurance companies in the city.	Nothing.
Washington. (SPOKANE.)	Acts of 1909. Applies to all cities and towns.	Board of trustees.	Nothing.	Tax levy of not over $\frac{1}{2}$ mill on each \$1 of taxable property when fund is less than \$25,000.	$1\frac{1}{2}$ % of salary; fines, penalties and rewards.
West Virginia.	No legislation.				
Wisconsin.	Acts of 1907, ch. 214. Applies to all 2d, 3d and 4th class cities.	Board of trustees of 7 members, 3 from force.	Nothing.	One-half of all sums from taxation of fire insurance companies doing business in city.	1% of annual salary; fines, penalties and rewards.
	Acts of 1907, ch. 87. Applies to all 1st class cities.	Board of trustees.	Nothing.	All sums collected by cities from fire insurance companies.	$2\frac{1}{2}$ % of annual salary.
MILWAUKEE.	Acts of 1899.	Board of trustees.	Nothing.	Two-thirds of all sums from taxation of fire insurance companies doing business in city.	$2\frac{1}{2}$ % of annual salary; fines, penalties and rewards.
Wyoming.	No legislation.				

1. Firemen — Concluded.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Determined by local authorities.	Determined by local authorities.	Determined by local authorities.	Determined by local authorities.	Nothing.	- -
For disability, $\frac{1}{2}$ of pay at time of retirement; for service, $\frac{1}{2}$ of pay based on last year.	Recognized at any time if incurred in line of duty.	After 20 years of service, last 2 continuous, if 55 years of age.	In event of death in line of duty, widow or other dependents receive $\frac{1}{2}$ of salary at time of death; if death results from natural cause after 2 years of service, \$1,000.	Nothing.	In event of temporary disability incurred in line of duty, member receives nursing in hospital for not over 6 months. Pension revoked for drunkenness, disobedience or conviction for felony.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 22 years of service.	In event of death, after 10 years of service, for any cause, widow or other dependents receive $\frac{1}{3}$ of annual salary at time of death; each child under 16 years, \$6 monthly.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 10 years of service if incurred in any manner.	After 22 years of service board may retire; if superannuated at any time, retirement is compulsory.	In event of death incurred in line of duty or after 10 years of service, or if an annuitant die, dependents receive \$420 to \$720 annually according to rank of member, and each child under 18 years of age, \$72, the total amount not to exceed $\frac{1}{2}$ of salary at time of death.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 10 years of service if incurred in any manner.	After 22 years of service board may retire; if superannuated at any time, retirement is compulsory.	In event of death incurred in line of duty or after 10 years of service, or if an annuitant die, dependents receive \$420 to \$720 annually according to rank of member, and each child under 18 years, \$72, the total amount not to exceed $\frac{1}{2}$ of salary at time of death.	Nothing.	- -

2. Police.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Alabama.	Acts of 1911, No. 431. Applies to cities of over 25,000.	Such management as city may adopt.	Nothing.	Total expense to be met out of any unexpended appropriation balances.	Nothing.
	Acts of 1911, No. 254. Applies to cities from 25,000 to 50,000.	Board of 4 commissioners (same having charge of city government).	Nothing.	Total expense to be met out of any unexpended appropriation balances.	Nothing.
Arizona.	No legislation.				
Arkansas.	No legislation.				
California.	Acts of 1897, ch. 57, amending Acts of 1889, ch. 62, as further amended by Acts of 1891, chs. 210, 248. Applies to entire State.	Board of 3 trustees composed of county, city or town officials.	Nothing.	5% to 10% of liquor licenses; 50% of dog license money; 25% to 50% of license fees of pawn-brokers, second-hand dealers, junk dealers and billiard hall keepers; 25% of fines for violation of local ordinances; proceeds of sale of unclaimed property; all fines for carrying concealed weapons.	\$2 monthly from salary; fines, penalties and rewards.
OAKLAND.	City charter, 1910.	Board of 3 trustees.	Nothing.	Annual appropriation necessary to carry act into effect.	\$2 monthly from salary.
Colorado.	Acts of 1913, ch. 120. Applies to cities over 100,000.	Board of 7 trustees, 2 from force.	Nothing.	For 1914 and each succeeding year when fund falls below \$300,000, tax levy of 1 cent on each \$100 of taxable property.	1% of annual salary; fines, penalties and rewards.

2. Police.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 25 years of service if 60 years of age.	Nothing.	- -	No one eligible for pensions who possesses "independent means of livelihood." Annuitants to remain on reserve list subject to department rules.
One-half of salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	Nothing.	- -	No one eligible for pensions who "possesses independent means of livelihood." Annuitants to remain on reserve list subject to department rules.
One-half of salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age.	If killed in line of duty, widow and children under 16 years receive $\frac{1}{3}$ of salary; if member dies from natural causes after 10 years of service, widow or dependents receive \$1,000.	Nothing.	Men with service records of 12 years or more dismissed for disability incurred in line of duty, within 1 year prior to passage of act, entitled to all benefits of act. If a member becomes convicted of felony, habitual drunkenness or disobedience to department rules, pension ceases.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 20 years of service in department if 60 years of age.	No provision.	If killed in line of duty, widow, children under 16 or dependent parents receive $\frac{1}{2}$ of salary at time of death; in event of death from natural causes after 10 years of service, \$1,000.	Nothing.	If a member becomes convicted of felony, habitual drunkenness or becomes nonresident, pension ceases.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 60 years of age. After 25 years of service.	In event of death in line of duty, widow receives \$30; each child under 16 years, \$6 monthly; if neither, dependent father and mother receive \$15 each; if either is dead the other receives \$30.	Nothing.	In event of temporary disability, member receives amount equal to full pay, provided no salary is received, for not more than 1 year.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Colorado—Con. DENVER.	City charter, 1904.	Board of Fire and Police Commissioners.	Nothing.	All dog licenses; 50% of automobile license money; all proceeds of unclaimed property; all fines from carrying concealed weapons; 50% of rewards and fees; a reasonable appropriation by the city council.	1% of annual salary.
Connecticut.	Acts of 1893, ch. 115. Applies to all cities having police department under police commission, which shall accept it.	Board of Police Commissioners.	Nothing.	Appropriation by cities; 5% of liquor licenses; proceeds from sale of lost property.	Fines, penalties and rewards.
BRIDGEPORT.	Special acts of 1907, revising city charter.	Police Commissioners.	Nothing.	Nothing.	Monthly assessments not exceeding 2% of salary.
NEW HAVEN.	Acts of 1894.	Board of Police Commissioners.	Nothing.	5% of all liquor licenses until relief fund reaches \$50,000; proceeds from sale of unclaimed property.	Monthly assessment on salary not exceeding 2%, as may be determined by trustees.
Delaware.	No State-wide legislation.				
WILMINGTON.	Acts of 1907, ch. 185, and amendments.	Board of trustees of police officials.	Nothing.	Not less than \$2,000 annually; proceeds from sale of unclaimed property.	Fixed by local authorities not less than 1% of annual salary; fines, penalties and rewards.
Florida.	No legislation.				
Georgia.	No State-wide legislation.				
ATLANTA.	Laws of 1910 amending city charter.	Mayor and general council.	Nothing.	Entire amount.	Nothing.
Idaho.	No legislation.				

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of average annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 20 years of service if 60 years of age.	No provision.	If killed in line of duty, decedent's mother receives \$6 monthly; decedent's father, \$8; each child under 14, \$6; widow, until marriage, \$30; the whole not to exceed $\frac{1}{2}$ annual salary at time of death.	- -	Annuitants must remain on reserve list subject to department rules.
One-fourth to $\frac{1}{2}$ of annual salary at time of retirement for patrolmen, not to exceed \$500; for others than patrolmen, $\frac{1}{2}$ of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 20 years of service if unfit for service by reason of old age or nature of duties.	No provision.	In event of death incurred in line of duty, widow or children under 18 years of age receive not over \$300 annually.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service.	Nothing.	Nothing.	- -
One-fourth to $\frac{1}{2}$ of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 25 years of continuous service, members of veteran reserve may be retired for meritorious service.	No provision.	In event of death in line of duty, widow or dependents receive sum not exceeding \$2,000.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 15 years of service from other causes.	After 25 years of service.	Nothing.	Nothing.	- -
One-half of annual salary at time of retirement, not to exceed \$100 monthly.	Recognized after 20 years of continual service.	After 35 years of continual service.	Nothing.	Nothing.	- -

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Illinois.	Acts of 1909, amended by Acts of 1913. Applies to cities of 9,000 to 50,000.	Board of 3 trustees, 1 from force.	Nothing.	75% of dog licenses; 2% of liquor licenses; 10% of fines for violation of city ordinances; 10% of all other licenses.	1% of annual salary, not to exceed \$12 annually; 1% of all pensions; all rewards and fees, and wages for special detail.
CHICAGO.	Acts of 1887 and amendments thereto. Applies to cities over 50,000.	Board of 5 trustees, 2 from force.	Nothing.	75% of dog licenses; 4% of liquor licenses; proceeds from sale of unclaimed property; 25% of pawnbrokers, etc., licenses; 3% of all other licenses, not exceeding \$50,000; fines for carrying concealed weapons.	1% to 1½% of annual salary, not to exceed \$36; all rewards and fees, and wages for special detail.
Indiana. INDIANAPOLIS.	Acts of 1908 as amended by Acts of 1913, ch. 123. Applies to cities of 1st and 2d class and to all other cities accepting.	Board of 9 trustees, 6 from the force.	Nothing.	Tax levy of not less than $\frac{1}{20}$ nor more than $\frac{1}{10}$ of mill on each \$1 of taxable property.	1% to 1½% of annual salary based on years of service, not to exceed \$15.
Iowa.	Laws of 34th General Assembly, ch. 51, amending Laws of 33d General Assembly, ch. 62. Applies to entire State.	Board of trustees of 3 city officials.	Nothing.	Tax levy of $\frac{1}{10}$ mill on each \$1 of taxable property.	1% of salary; membership fee of \$5; fines, penalties and rewards.
Kansas.	No legislation.				
Kentucky. LOUISVILLE.	Acts of 1912, ch. 112. Applies to all 1st class cities.	Board of 5 city officials.	Nothing.	Tax levy of 1 cent on each \$100 of taxable property.	Fifty cents monthly; fines, penalties and rewards.

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement, not to exceed \$600.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	In event of death in line of duty or from natural causes after 10 years of service, widow or other dependents receive $\frac{1}{2}$ of annual salary, not to exceed \$600 annually.	Nothing.	If member is convicted of felony, habitual drunkenness or disobedience to department rules or becomes non-resident, pension ceases.
One-half of annual salary at time of retirement, not less than \$600 nor more than \$900.	Recognized at any time if incurred in line of duty; insanity recognized after 10 years of service with pension of $\frac{1}{2}$ salary.	After 20 years of service in either police or fire departments.	In event of death in line of duty or from natural causes after 10 years of service, widow or other dependents receive $\frac{1}{2}$ of annual salary, not less than \$600 nor more than \$900.	Nothing.	If member is convicted of felony, habitual drunkenness or disobedience to department rules or becomes non-resident, pension ceases.
Persons retired for disability receive not less than \$120 nor more than \$600 per year; after 20 years of service, \$360; after 25 years of service, \$600.	Recognized at any time if incurred in line of duty.	After 20 years, but before 25 years; after 25 years or more.	In event of death in line of duty, \$150 is allowed for funeral expenses; widow to receive \$30 monthly, and children under 16 years, \$6 each monthly; if neither, \$20 monthly to other dependents.	Nothing.	If member is guilty of disobedience, is convicted of crime, habitual drunkenness or becomes nonresident, pension ceases.
One-half of annual salary at time of retirement if an organized department; such sum as board may fix if a paid department.	Recognized at any time if incurred in line of duty; for ordinary causes, only after 5 years of service.	After 22 years of service, the last 5 continuous, if 55 years of age.	In event of death in line of duty, widow receives \$20 monthly; children under 16 years, \$6 each monthly; if neither, dependent parents, \$20 monthly.	Nothing.	- -
\$30 monthly for permanent total disability.	Recognized at any time if incurred in line of duty.	No provision.	In event of death in line of duty, or for any natural cause after 15 years of service, widow receives \$30 monthly; children under 14 receive \$6 each monthly; if neither, dependent parents receive \$30 monthly; \$100 allowed for funeral expenses.	Nothing.	If temporarily disabled, member to receive amount equal to full pay for not more than 1 year, provided salary is not received.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Louisiana.	No State-wide legislation.				
NEW ORLEANS.	Act of 1888, No. 63.	Local police board of 6 members and the mayor.	Nothing.	Proceeds from sale of unclaimed property and from suits for penalties. ½ of 1% of annual appropriation for maintenance of police force; 1% of annual appropriation for policing wharves and landings.	Fines, penalties and rewards.
Maine.	No legislation.				
PORTLAND.	Acts of 1906.	Local board.	Nothing.	Annual appropriation by city.	Nothing.
Maryland.	No State-wide legislation.				
BALTIMORE.	Acts of 1886, ch. 459 and amendments.	Board of Police Commissioners.	Nothing.	Proceeds from sale of unclaimed property; appropriations from liquor licenses, other minor license fees, unexpended police appropriations, appropriation by city council to meet any deficiency.	2% of annual salary; fines, penalties and rewards.
Massachusetts.	R. L. of 1902, ch. 108, sects. 29-30, with amendments. (Acts of 1892, ch. 378.) Applies to cities over 75,000, except Boston.	Board composed of mayor and aldermen.	Nothing.	Entire amount.	Nothing.
CITIES OVER 75,000.	Acts of 1902, ch. 437. Applies to cities except Boston.	- -	- -	- -	- -
	Acts of 1912, ch. 447.	- -	- -	- -	- -

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Not over \$150 annually.	Recognized after 20 years of service if superannuated; at any time if incurred in line of duty.	Nothing.	In event of death in line of duty or after 20 years of service from natural causes, not over \$150 to widow and children under 16 years.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 65 years of age.	Nothing.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 16 years of service.	In event of death in line of duty, board to make reasonable provision for widow and children under 18 years.	Nothing.	If member is found guilty of leading improper or immoral life, board may suspend or revoke pensions; annuitants to remain on reserve list subject to department rules. Annuities paid shall at all times be based on current salaries of active members.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 20 years of continuous service if, in judgment of board, disabled for useful service.	No provision.	Nothing.	Nothing.	Act to take effect upon acceptance by city council.
- -	- -	- -	In event of death incurred in line of duty, widow or children under 16 years receive not over \$400.	- -	Act to take effect upon acceptance by city council.
One-half of annual average salary for 2 years immediately preceding retirement.	Recognized in case of civil war veterans in service of city or town in any capacity for 10 years immediately preceding retirement.	- -	- -	- -	Act to take effect upon acceptance by city council or majority of voters of town.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Massachusetts — Con.	Acts of 1913, ch. 657.	- -	- -	- -	- -
	Acts of 1913, ch. 681.	- -	- -	- -	- -
ALL CITIES AND TOWNS.	R. L. of 1902, ch. 108, sect. 31. (Acts of 1901, ch. 377.) Ap- plies to all cities and towns not having pension systems.	Board of offi- cials having au- thority to make appointments to the police de- partment.	Nothing.	Entire amount.	Nothing.
	Acts of 1904, ch. 327. Ap- plies to towns.	Selectmen of towns.	Nothing.	Entire amount.	Nothing.
	Acts of 1912, ch. 447.	- -	- -	- -	- -
	Acts of 1913, ch. 657.	- -	- -	- -	- -
	Acts of 1913, ch. 681.	- -	- -	- -	- -

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
- -	- -	- -	- -	- -	No person who receives a pension from any city, town or county shall be paid for any service except service as juror, rendered by him to said city, town or county after date of first payment of pension.
- -	- -	- -	- -	- -	Pension to retired officer ceases during employment as police officer or police official in any city or town in State.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	No provision.	Nothing.	Nothing.	Act to take effect upon acceptance by city council or by majority vote of town.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 25 years of continuous service if 60 years of age.	Nothing.	Nothing.	Act to take effect upon acceptance by $\frac{2}{3}$ vote of voters at town meeting; members to remain on reserve force.
One-half of average annual salary for 2 years immediately preceding retirement.	Recognized in case of civil war veterans in service of city or town in any capacity for 10 years immediately preceding retirement.	- -	- -	- -	Act to take effect upon acceptance by city council or majority of voters of town.
- -	- -	- -	- -	- -	No person who receives a pension from any city, town or county shall be paid for any service except service as juror, rendered to said city, town or county after date of first payment of pension.
- -	- -	- -	- -	- -	Pension to retired officer ceases during employment as police officer or police official in any city or town in State.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Massachusetts — Con. BOSTON.	Acts of 1878, ch. 244, and subsequent amendments.	Police Commis- sioner and mayor.	Nothing.	Entire amount.	Nothing.
	Acts of 1912, ch. 447.	- -	- -	- -	- -
	Acts of 1913, ch. 657.	- -	- -	- -	- -
	Acts of 1913, ch. 681.	- -	- -	- -	- -
METROPOLITAN PARK POLICE.	Acts of 1909, ch. 453, amended by Acts of 1913, ch. 545.	Metropolitan Park Commis- sion.	Entire amount.	Nothing.	Nothing.
DISTRICT POLICE.	Acts of 1911, ch. 675.	Approval of Governor or Council is necessary.	Entire amount.	Nothing.	Nothing.

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement in all cases except for disability incurred after 15 years and less than 20 years of service, in which case the pension is $\frac{1}{3}$ of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 15 years and less than 20 years of service; after 20 years of service.	After 65 years of age, retirement compulsory, except to civil war veterans. Civil war veterans 60 years of age, without regard to length of service, or after 20 years of service, without regard to age, shall be retired at request. After 25 years of service and 60 years of age any member shall be retired at request.	In event of death in line of duty, \$300 annually to widow or children under 16 years of age.	Nothing.	Retirement to be in all cases by the police commissioner, with approval of mayor.
One-half of average annual salary for 2 years immediately preceding retirement.	Recognized in case of civil war veterans in service of city or town in any capacity for 10 years immediately preceding retirement.	- -	- -	- -	Act to take effect upon acceptance by city council or majority of voters of town.
- -	- -	- -	- -	- -	No person who receives a pension from any city, town or county shall be paid for any service except service as juror, rendered by him to said city, town or county after date of first payment of pension.
- -	- -	- -	- -	- -	Pension to retired officer ceases during employment as police officer or police official in any city or town in State.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 20 years of continuous service.	Nothing.	In event of death in line of duty, widow or children under 16 years receive not over \$600 at discretion of board.	Nothing.	Annuitant to remain on reserve list.
One-half of annual salary at time of death.	Recognized, upon approval of Governor and Council, at any time if incurred in line of duty; after 20 years of service if incapacitated, upon approval of Governor.	- -	- -	- -	- -

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Michigan.	No State-wide legislation.				
DETROIT.	Acts of 1893.	Local authorities.	Nothing.	Dog licenses and appropriation of balance necessary; proceeds from sale of unclaimed property; fees for capture of dogs; unclaimed moneys.	1% of salary; fines, penalties and rewards.
Minnesota.	Acts of 1913, ch. 290, amending Acts of 1903, ch. 159.	Relief association.	Nothing.	One-seventh of 1 mill on each \$1 of taxable property.	Nothing.
MINNEAPOLIS.	Acts of 1903, ch. 159, with amendments. Applies to cities of over 50,000.	Board of 5 directors.	Nothing.	One-seventh of 1 mill on each \$1 of taxable property.	\$2 annually.
ST. PAUL.	Acts of 1903, ch. 159, with amendments. Applies to cities of over 50,000.	Board of 5 directors.	Nothing.	One-tenth of 1 mill on each \$100 of taxable property.	\$5 membership fee; \$2 annually.
Mississippi.	No legislation.				
Missouri.	No legislation.				
Montana.	No legislation.				
Nebraska.	R. L. 1913, Art. 6, sects. 3991-3999. Applies to all metropolitan cities.	Local boards.	Nothing.	Proceeds from sale of unclaimed property; forfeited bail; any heretofore existing police funds.	Not more than \$1 monthly; fines, penalties and rewards.
OMAHA.	Acts of 1909.	Local board.	Nothing.	Unexpended police salary appropriation; forfeited bail; proceeds from sale of unclaimed property.	Not over \$1 monthly; fines, penalties, fees and rewards.
Nevada.	No legislation.				

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 25 years of active service.	Nothing.	Nothing.	- -
Fixed by local by-laws, not exceeding \$40 monthly.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	Nothing.	Nothing.	If member is convicted of felony, habitual drunkenness or disobedience to department rules or becomes non-resident, pension ceases.
\$30 monthly for retirement for disability; \$40 monthly for service retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 55 years of age.	Nothing.	Nothing.	Pension ceases if pensioner becomes non-resident or imprisoned for misdemeanor or felony.
\$30 monthly for disability; \$40 monthly for service retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	\$100 death benefit.	Nothing.	\$100 benefit on death of wife if a member 6 months.
\$50 monthly.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	In event of death at any time in line of duty, widow and minor children receive not less than \$20 monthly.	Nothing.	If member is convicted of drunkenness or crime, pension ceases.
\$50 monthly.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	In event of death, \$500; in event of death of wife of active member, \$100.	Nothing.	For disability out of line of duty, members receive not over \$2 daily, after first 5 days, for not over 6 months; thereafter during disability, \$1 daily. Allowance for funeral expenses is also made. If member is convicted of felony or habitual drunkenness, pension ceases.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
New Hampshire.	Acts of 1907, ch. 85, and amendments thereto. Applies to entire State.	Local authorities.	Nothing.	Entire amount.	Nothing.
New Jersey.	Acts of 1912, ch. 373, amending Laws of 1911, ch. 72. Applies to all cities other than 1st class.	Commission of 4 members, 2 from force.	Nothing.	Such tax levy as is necessary to meet deficit.	1% of annual salary; fines, penalties and rewards.
	Acts of 1908, ch. 74.	- -	- -	- -	- -
	Acts of 1910, ch. 48, amending Acts of 1895, ch. 91. Applies to park police.	County Board of Park Commissioners.	Nothing.	Nothing.	1% to 3% of salary based on years of service; fines, penalties and rewards.
	Acts of 1885, ch. 148, and amendments. Applies to all cities.	- -	- -	- -	- -
	Acts of 1885, ch. 250, and amendments. Applies to all cities accepting provisions.	Board of Police Commissioners of city.	Nothing.	Proceeds from sale of unclaimed property.	At least 1% of salary; fines, penalties and rewards.
ELIZABETH.	Acts of 1907.	Board of Police Commissioners.	Nothing.	Tax equal to 4% of police department pay roll.	1% of salary.
NEWARK.	Acts of 1902.	Board of Police Commissioners.	Nothing.	Proceeds from sale of unclaimed property.	1% of salary; fines, penalties and rewards.
New Mexico.	No legislation.				
New York.	Acts of 1885, ch. 486, and amendments. Applies to cities of over 1,000,000.	Board of trustees of police officials.	Nothing.	- -	\$12 annually; fines, penalties and rewards.

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
\$500 annually, based on 25 years of service.	Recognized at any time if incurred in line of duty.	After 25 years of service in district.	Nothing.	Nothing.	Question of acceptance to be submitted to people at election in town; in city, aldermen or council may accept. No pension to be paid for more than 1 year at a time.
One-half of salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age; after 25 years of service if 55 years of age.	In event of death incurred in line of duty, widow or children under 16 years receive $\frac{1}{2}$ of annual salary at time of death.	Nothing.	- -
To be fixed by local by-laws.	To be fixed by local by-laws.	After 20 years of service if 65 years of age.	To be fixed by local authorities.	To be fixed by local authorities.	This is an empowering act subject to referendum. Details of act to be fixed by local by-laws.
One-half of salary received at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age.	In event of death incurred in line of duty, widow or children under 14 years receive $\frac{1}{2}$ of annual salary at time of death.	Nothing.	- -
- -	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age.	- -	- -	This is an empowering act leaving other provisions to local authorities.
One-half of salary received at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age.	In event of death incurred in line of duty, widow and children receive $\frac{1}{2}$ of annual salary at time of death.	Nothing.	- -
One-half of salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age; after 25 years of service if 55 years of age.	Nothing.	Nothing.	- -
One-half of salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 60 years of age.	In the event of death in line of duty, $\frac{1}{2}$ salary at time of death to widow or dependents.	Nothing.	- -
- -	- -	- -	In event of death, beneficiary designated receives \$1,200; if none, widow or legal representative.	- -	All other provisions to be left to local authorities.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
New York—Con. NEW YORK CITY.	Acts of 1857, ch. 569, and subsequent acts.	Police Commissioner.	Nothing.	Certain excise moneys; proceeds of sale of unclaimed property; certain license fees for permits issued by police department; appropriation of balance necessary.	Not over 2% of salary; fines, penalties and rewards.
ROCHESTER.	Acts of 1907, ch. 755.	Commission of Public Safety.	Nothing.	Annual appropriation of \$3,000; 1½% of liquor license; proceeds from sale of unclaimed property; forfeited bail in police court; fines for carrying dangerous weapons; certain other minor license fees.	Not less than 2% of annual salary; fines, penalties and rewards.
North Carolina.	No legislation.				
North Dakota.	No legislation.				
Ohio.	General Code of 1910, sects. 4616-4631. Applies to all cities and towns having departments supported in whole or in part at public expense.	Board of 6 trustees, 5 from police force.	Nothing.	Tax levy of ¾ of 1 mill on each \$1 of taxable property.	Monthly assessments at discretion of local boards.
	General Code of 1910, sects. 4632-4647. Applies to all cities and towns having sanitary police departments supported in whole or in part at public expense.	Board of 6 trustees, 5 from police force.	Nothing.	Tax levy of 1/30 of 1 mill on each \$1 of taxable property.	Monthly assessments at discretion of local boards.

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
If retired for disability, $\frac{1}{4}$ to $\frac{1}{2}$ of annual salary except where member is 55 years of age and has served 20 years in which case pension is not less than $\frac{1}{2}$ salary. If retired for age or service not less than $\frac{1}{2}$ of annual salary.	Recognized at any time if incurred in line of duty. After 10 years but less than 25 years of service if incapacitated. After 20 years of service if 55 years of age and certified by police surgeons to be incapacitated must be retired.	After 20 years of service if 55 years of age, may be retired on request. After 25 years of service if 55 years of age must be retired. After 60 years of age may be retired. Veterans of Civil War after 20 years of service or after reaching age of 60 must be retired.	To the dependent parents or widow, or children under 18 years of age of member dying as a result of injury received in performance of duty a sum not exceeding \$600 annually is paid. If member dies after 10 years' service or after being pensioned widow or children receive not over \$300 annually.	- -	Pensions may be continued to widow, and children under 18 years of age. Pensions are for life and can not be revoked. Widows pensions cease on re-marriage.
If retired after 15 years and less than 20 years of service, not less than \$250 nor more than \$500; in other cases not less than $\frac{1}{2}$ of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; after 15 years of service and less than 20 years of service for any other cause.	After 20 years of service.	In event of death of member in line of duty, or of an annuitant who was retired after 20 years of service, widow or dependents receive $\frac{1}{2}$ of salary at time of death or retirement, not exceeding \$500; in event of death after 15 years of service, or after retirement for 15 years of service, widow or other dependents receive annual pension not exceeding \$250.	Nothing.	Pensions may be revoked by commission at its discretion, except in case of members retired after 20 years of service or because of injuries received in line of duty.
Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	- -
Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	Determined by local by-laws.	- -

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Ohio — Con. CINCINNATI.	Acts of 1892.	Local board.	Nothing.	Tax levy of $\frac{3}{10}$ of 1 mill on each \$1 of taxable property; proceeds from sale of unclaimed property.	\$12 annually; fines, penalties and rewards.
COLUMBUS.	Acts of 1903.	Local board.	Nothing.	Tax levy of not over $\frac{3}{10}$ of 1 mill on each \$1 of taxable property; proceeds from sale of unclaimed property.	Nothing.
SPRINGFIELD.	Acts of 1904.	Local board.	Nothing.	Appropriation annually of balance necessary.	Fines, penalties, rewards and fees.
Oklahoma.	No legislation.				
Oregon.	Acts of 1913, ch. 287. Applies to all cities of over 50,000.	Board of police pension relief, composed of 3 city officials.	Nothing.	1% of liquor license money; 10% of license money of pawnbrokers, second-hand and junk dealers; 50% of dog license fees; fines for carrying concealed weapons; 5% of fines for violation of city ordinances.	$1\frac{1}{2}$ % of annual salary; fines, penalties and rewards.
Pennsylvania.	Acts of 1893, No. 82.	City council or committee of officers of city.	Nothing.	Nothing.	Not more than 3% of annual salary.

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
\$600 annually for service retirement or disability incurred in line of duty; \$2 monthly for each year of service, not exceeding \$540 annually, for disability incurred outside line of duty.	Recognized at any time if incurred in line of duty; after 15 years of continuous service if incurred in any other manner.	After 25 years of continuous service if 55 years of age.	In event of death in line of duty or after 15 years of service, or if an annuitant die, widow receives \$240 annually and each child under 16 years of age, \$72. In event of death of active member, widow, if entitled to annuity, receives \$100; if widow is not entitled to an annuity, she receives a payment of \$300.	Nothing.	Member temporarily disabled receives \$1.75 per diem for 8 months if disability continues. By returning to duty 1 day, member is entitled to payment for another 8 months and so continued indefinitely. Widow, or children of marriage subsequent to retirement, not entitled to annuity.
After 25 years of service, \$480 if retired on own request; \$600 if retired by chief. After 15 years of service, \$360 to \$600 for total disability caused by sickness in line of duty; \$180 to \$360 for partial disability. For total disability by accident in line of duty, \$600; for partial disability, \$180 to \$360.	Recognized at any time for accident incurred in line of duty; for sickness incurred in line of duty after 15 years of service.	After 25 years of service.	In event of death in line of duty or after 10 years of service, or if an annuitant die, widow receives not over \$300 annually, and each child under 16 years of age, \$72.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service.	In event of death of active member, \$240 annually to widow; \$72 annually to each child under 16 years.	Nothing.	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 20 years of service if 50 years of age.	In event of death in line of duty, widow or other dependents receive $\frac{1}{3}$ of annual salary at time of death.	Nothing.	In event of temporary disability, member receives amount equal to salary for 6 months, and hospital expenses. Pension ceases if annuitant becomes nonresident.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	Determined by local authorities.	In event of death in line of duty, widow and dependents receive not in excess of $\frac{1}{2}$ of annual salary at time of death.	Nothing.	If member is convicted of felony, habitual drunkenness or disobedience to department rules, or becomes nonresident, pension ceases.

2. Police — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Pennsylvania — Con.	Acts of 1913, No. 849, amending Acts of 1901, No. 14. Applies to 2d class cities.	Local commission.	Nothing.	Entire amount.	Nothing.
PHILADELPHIA.	Acts of 1891.	Local board.	Nothing.	Annual appropriation.	One day's pay per month; entrance fee of 25 cents; \$10 if application for membership is not made within 60 days of entering service.
PITTSBURG.	Acts of 1893.	Local board of directors of 13 members.	Nothing.	Annual appropriation of \$50 per man. (See Additional Data.)	1 $\frac{1}{8}$ % of annual salary when fund is under \$50,000; fines, penalties, rewards and fees.
Rhode Island.	No State-wide legislation.				
PROVIDENCE.	Acts of 1901, ch. 930, as amended by Acts of 1911, ch. 734 and ch. 976.	Board of Police Commissioners.	Nothing.	Nothing.	1% of annual salary; fines, penalties, rewards and fees.
South Carolina.	No legislation.				
CHARLESTON.	City ordinance of 1902.	Board of 3 trustees.	Nothing.	Nothing.	Fines, penalties and rewards.
South Dakota.	No legislation.				
Tennessee.	No legislation.				
Texas.	No legislation.				
Utah.	No legislation.				
Vermont.	No legislation.				
Virginia.	No State-wide legislation.				
RICHMOND.	Acts of 1898.	Local board of trustees.	Nothing.	Nothing.	\$12 annually from salary.

2. Police — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Determined by local authorities.	Determined by local authorities.	Determined by local authorities.	Determined by local authorities.	- -	This act authorizes cities of the 2d class to provide for aged, retired, disabled or injured police or firemen, or for their families if killed on duty.
2½% of average annual salary for 10 years preceding retirement (\$3,000 taken as highest annual salary), multiplied by years of service, not exceeding 20 years.	Recognized at any time if incurred in line of duty; after 10 years of service if outside of line of duty.	After 20 years of service, if 50 years of age, member may retire; after 20 years of service member may be retired at discretion of police department at any age.	In event of death within 60 days from date of injury received in line of duty, widow receives \$240 annually; children under 14 years, \$72 each annually, not to exceed \$600 to one family annually.	Nothing.	Applicant must have paid in or arranged to pay at least 20 years' assessments.
One-half of annual salary at time of retirement; for permanent disability, ½ of annual salary for not over 52 weeks, then \$1,000, after which membership ceases.	Recognized at any time if incurred in line of duty.	After 20 years of service in the city.	Death benefit of \$1,000.	Nothing.	The appropriation of \$50 annually per member by the city is made as an addition to salary to get around the prohibition by the Constitution against any municipality "making an appropriation to any individual, firm or corporation."
Determined by Board of Police Commissioners.	Determined by Board of Police Commissioners.	After 30 years of service in the department if 60 years of age.	Determined by Board of Police Commissioners.	- -	- -
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; if aged and decrepit, at any time.	No provision.	Nothing.	Nothing.	- -
\$360 annually.	Recognized in any manner.	No provision.	Nothing.	Nothing.	- -

2. Police — Concluded.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Policemen.
Washington.	Acts of 1909, ch. 39, as amended by Acts of 1911, ch. 18. Applies to all 1st class cities.	Board of trustees of city officials and 3 police officers.	Nothing.	1% of liquor licenses; 50% of dog licenses; 10% of city ordinance fines; 10% of licenses from pool-rooms, junk dealers, second-hand dealers, etc.; fines for carrying concealed weapons; proceeds from sale of unclaimed property.	1½% of annual salary.
West Virginia.	No legislation.				
Wisconsin.	Acts of 1907, ch. 671. Applies to all 2d and 3d class cities.	Board of 7 trustees, 3 from force.	Nothing.	All dog licenses; 1% of all other licenses; proceeds from sale of unclaimed property.	1% of annual salary; fines, penalties and rewards.
MILWAUKEE.	Acts of 1891.	Local board of trustees.	Nothing.	50% of dog licenses; 1% of all other licenses.	2½% of annual salary.
Wyoming.	No legislation.				

2. Police — Concluded.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty; recognized in any manner at discretion of board.	After 20 years of service if 60 years of age.	In event of death incurred in line of duty, widow, or children under 16 years of age, receive $\frac{1}{3}$ of annual salary at time of death; from natural causes after 5 years of service, widow, or children under 16 years of age, or dependents, receive \$1,000.	Nothing.	If temporarily disabled, member to receive full pay and hospital expenses for not more than 6 months. If member is convicted of felony or disobedience to department rules or becomes nonresident, pension ceases.
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 22 years of service.	In event of death in line of duty or from natural causes after 10 years of service, widow receives $\frac{1}{3}$ of salary at time of death; children under 16 years receive \$72 each annually; if neither, dependent parents receive widow's share; family of deceased to receive in no case more than $\frac{1}{2}$ of annual salary.	Nothing.	- -
One half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 22 years of service.	In event of death in line of duty or from natural causes after 15 years of service, or if an annuitant die, widow receives \$420 to \$900, according to rank, and \$72 additional to each child under 18 years of age; not over $\frac{1}{2}$ of salary at time of death to any one family.	Nothing.	Widow of marriage subsequent to retirement not entitled to an annuity.

3. Teachers.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Alabama.	None.				
Arizona.	Session laws, 1912.	State Board of Education controls.	Entire amount.	Nothing.	Nothing.
Arkansas.	None.				
California.	Acts of 1913, ch. 694.	State Board of Education, which constitutes retirement fund board.	5% of the tax under the inheritance and transfer tax laws. Appropriations may also be made by legislature.	Nothing.	Nothing.
Colorado.	Acts of 1909, ch. 214.	Local school authorities.	Nothing.	Special tax levy on school districts not to exceed $\frac{1}{10}$ of a mill.	Nothing.
Connecticut.	No State-wide legislation.	- - -	- - -	- - -	- - -
NEW HAVEN.	Acts of 1911, Special act amending charter, city of New Haven.	New Haven school board controls.	Nothing.	Appropriation permissive.	1% of salary if teaching service is less than 10 years; 2% if over 10 years, not to exceed \$32 per year. Salary deductions for absences.
NEW LONDON.	Acts of 1911, No. 461.	New London school board controls.	Nothing.	5% of liquor license fees. Amount equal to difference between 3% of salary list and 5% of excise fees.	1% of salary.
Delaware.	No State-wide legislation.				

3. Teachers.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
A flat rate of \$600 annually for all annuitants.	No special provision.	After 25 years of service within State.	No provision.	- -	Applies to entire State. Retirements are at discretion of State board.
\$500 annually, based on 30 years of service. Teachers retiring after 15 and before 30 receive a proportionate annuity.	Recognized after 15 years of service in State.	After 30 years of service, 15 of which must have been in State, including the 10 immediately preceding retirement.	- -	- -	Applies to the entire State. No one eligible who has not paid in or made arrangements to pay in assessments as of 30 years.
Not more than \$480 annually for 25 years of service. Teachers retiring after 10 years and before 25 because of disability draw an annuity fixed at discretion of local directors.	Recognized after 10 years of service in district.	After 25 years of service, 15 of which must have been in district. Men must be at least 60 years of age, and women 50.	- -	- -	Applies to districts of the 1st class (Denver).
- -	- -	- -	- -	- -	A general bill for the pensioning of teachers throughout the State was passed by the 1913 legislature and vetoed by the Governor.
One-half of average annual salary for last 5 years of service, not less than \$400 nor more than \$800. Teachers retiring for disability after 20 but before 30 years of service receive proportionate annuity.	Recognized after 15 years, last 10 of which must have been in city.	After 30 years of service, the last 20 of which must have been in city.	- -	Amount contributed returned only in case of dismissal.	Contribution compulsory on new teachers. Teachers with 40 years of service antedating act may go on retired list.
One-half of average annual salary for last 5 years.	Recognized after 25 years of service, 15 of which must have been in city.	After 30 years of service, 15 of which must have been in city.	- -	No provision.	Compulsory on all new teachers.

3. Teachers — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Delaware—Con. WILMINGTON.	Acts of 1911, ch. 208, amending Acts of 1913, ch. 210.	Board of retirement of 7 members, 3 from teaching force.	Nothing.	Not less than \$1,000 yearly from local board of education. Not less than \$2,000 yearly by city council.	1% to 3% of annual salary, not to exceed \$50.
Florida.	None.				
Georgia.	No State-wide legislation.				
ATLANTA.	Acts of 1912, amending city charter.	Local school authorities.	Nothing.	Entire amount.	Nothing.
Idaho.	None.				
Illinois.	Acts of 1913. Applies to cities of 10,000 to 100,000 in population.	Local boards of management of 3 to 9 members, $\frac{2}{3}$ to be from teaching force.	Nothing.	Appropriation permissive.	From \$5 to \$30 annually from salary, graded on years of service.
CHICAGO.	Acts of 1913, H. B. 882. Applies to cities of over 100,000 (Chicago).	Local board of management of 9, 6 from teaching force.	Nothing.	Interest on school funds, raised by taxation, plus an appropriation sufficient to make city's contribution equal the amount set apart from teachers' share.	From 50 cents to \$3 per month for each month of service, graded on years of service.
Indiana. TERRE HAUTE.	Acts of 1913, ch. 77. Applies to cities of 55,000 to 60,000 (Terre Haute).	Local commission of 5, 3 from teaching force.	Nothing.	One-quarter mill tax on each \$1 of taxable property in city.	From \$10 to \$25 annually from salary, graded on years of service.
	Acts of 1913, ch. 334. Applies to cities of 20,000 to 100,000.	Local commission of 5, 3 from teaching force.	Nothing.	One-quarter mill tax on each \$1 of taxable property in district.	From \$10 to \$25 annually from salary, graded on years of service.

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
\$400, based on 35 years of service. Teachers retiring for disability after 20 years but before 35 years receive proportionate annuity.	Recognized after 20 years of service, 15 of which must have been in city.	After 30 years of service and 65 years of age. After 35 years of service, 20 of which have been in city.	- -	To be fixed by local by-laws.	- -
One-half of salary at time of retirement, not to exceed \$50 per month for 20 years of service, or \$100 per month for 35 years.	Recognized after 20 years of service.	After 35 years of continuous service.	- -	- -	Annuitants may be called on for special service.
\$400 annually, based on 25 years of service. Teachers retiring after 15 years for disability and before 25 receive a proportionate annuity.	Recognized after 15 years of service in district.	After 25 years of service "within the meaning of act."	- -	Amount contributed returned if dismissed; $\frac{1}{2}$ if teacher resigns.	Compulsory on new teachers.
\$400 annually, based on 25 years of service. Teachers retiring after 15 years for disability and before 25 receive a proportionate annuity.	Recognized after 15 years of service, the last 9 of which must have been in city.	After 25 years of service, the last 15 of which must have been in city.	- -	Amount contributed returned if dismissed; $\frac{1}{2}$ if teacher resigns.	Compulsory on new teachers. Provisions are made to allow teachers to make payments for previous service.
\$600 annually, based on 30 years of service. Teachers retiring after 20 years of service for disability receive certain arbitrary amounts from \$300 upwards.	Recognized after 20 years of service, the last 12 of which must have been in the city.	After 30 years of service, 18 of which must have been in the city.	- -	Amount contributed returned if teacher resigns.	- -
\$600 annually, based on 30 years of service. Teachers retiring after 20 years of service for disability receive certain arbitrary amounts from \$300 upwards.	Recognized after 20 years of service, the last 12 of which must have been in the district.	After 30 years of service, 18 of which must have been in the district.	- -	Amount contributed returned if teacher resigns.	- -

3. Teachers — Continued.

[STATE AND CITY.]	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Indiana — CON. INDIANAPOLIS.	Acts of 1907. Applies to cities of 100,000 and over (Indianapolis).	Board of 7 trustees, 3 from teaching force.	Nothing.	One cent tax on each \$100 of taxable property in the city.	From 1% to 2% of annual salaries, not to exceed \$20, graded on years of service.
Iowa.	No legislation.	- -	- -	- -	- -
Kansas.	Acts of 1911, ch. 280. Applies to cities of the 1st class.	Local board of education controls.	Nothing.	Sum not less than 1½ times amount of salary assessment, and not less than the amount required to meet payments.	From 1% to 1½% of annual salaries, graded on years of service.
Kentucky.	Acts of 1912, ch. 129. Applies to 1st class cities.	Local board of education controls, 5 from teaching force.	Nothing.	Nothing.	From 1% to 2% of annual salaries, not to exceed \$20, graded on years of service.
Louisiana.	Acts of 1910, Act No. 116. Applies to Parish of Orleans (New Orleans).	Board of 7 trustees, 3 from teaching force.	Nothing.	Nothing.	From 1% to 2% of annual salary, graded on years of service.

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
\$600, based on 40 years of service. Teachers retiring after 15 years of service for disability receive a proportionate annuity.	Recognized after 15 years of service, all in the city.	After 25 years of service, 20 of which must have been in the city.	- -	One-half of amount contributed returned in the event of resignation, dismissal or death.	Compulsory on new teachers. Pensioner, after 25 years of service, must have paid or made arrangements to pay into said fund not less than 1/3 of the amount to which he shall be entitled as pensioner. Pensions may be revoked in the event of imprisonment for any offence.
- -	- -	- -	- -	- -	A teachers' pension bill passed one house in General Assembly in 1912, but was killed in the other.
\$500 annually, based on 30 years of service. Teachers retiring after 25 years of service receive a proportionate annuity.	Recognized after 25 years of service, 15 of which must have been in a 1st class city.	After 30 years of service, 15 of which must have been in a 1st class city.	- -	Amount contributed returned in the event of dismissal; 1/2 of the amount in event of resignation or death.	Teachers may decline membership by filing notice to that effect within 30 days of entering service.
\$400 annually, based on 40 years of service. Teachers retiring after 20 years, but before 40 years of service, receive a proportionate annuity.	Recognized after 20 years of service in pensioning city.	After 30 years of service in pensioning city.	- -	One-half of the amount contributed returned in event of resignation, dismissal or death.	Membership compulsory on all teachers receiving \$450 or more per annum. Beneficiaries must have paid in or made arrangements to pay in assessments equal to the annuity for one year. Pensions may be revoked in the event of imprisonment for any offence.
One-half of average annual salary for last 5 years, in no case to be less than \$300 nor more than \$600. Teachers retiring after 10 years but before 40 years of service receive amount proportionate to years served.	Recognized after 10 years of service.	After 40 years of service.	- -	One-half of the amount contributed returned in event of dismissal or death.	Mandatory on all new teachers. Pension ceases upon marriage of annuitant. Applicant must have paid or made arrangements to pay amount of first year's annuity.

3. Teachers -- Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY --		
			State.	Local Authorities.	Teachers.
Maine.	Acts of 1913, ch. 75. Applies to entire State.	State Superintendent of Schools to formulate rules for carrying act into effect.	\$8,000 appropriated for 1913, and \$25,000 annually thereafter to be taken from the school and mill fund.	Nothing.	Nothing.
Maryland.	Acts of 1912, ch. 135. Applies to entire State.	State Board of Education controls.	\$28,000 appropriation authorized.	Nothing.	Nothing.
	Acts of 1912, ch. 463. Applies to Alleghany Co.	Board of 5 trustees, 3 from teaching force.	Nothing.	Such appropriation by county as may be necessary.	1% to 2% of annual salary, graded on years of service, not to exceed \$20.
BALTIMORE.	Acts of 1912.	Board of trustees of Teachers Retirement Fund of Baltimore County.	Nothing.	Such sums as county commissioner of Baltimore County may appropriate.	1% to 2% of annual salary, graded on years of service, not to exceed \$28.80.
Massachusetts.	Acts of 1908, ch. 498. Applies to all cities and towns accepting act, except Boston.	Local school committee controls.	Nothing.	Such revenues as may be appropriated by city or town.	Nothing.

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
\$250 annually, based on 35 years of service, and lesser amounts arbitrarily fixed for 30 and 25 years of service. Special half-rate pensions are also provided for teachers who retired from service previous to act.	No provision.	After 25, 30 or 35 years of service, including 20 years of service in State schools, the last 15 of which immediately precede retirement, provided the applicant has reached the age of 60.	-	-	-
A flat rate of \$200 annually for all annuitants.	Recognized after 25 years of service if 60 years of age and without the means of "comfortable support."	No further provision except age limit may be waived in extreme cases.	-	-	Pension continues only as long as annuitant is without other means of support.
One-half of average annual salary for last 5 years of service, not to exceed \$400 nor be less than \$200. Teachers retiring after 20 years but before 40 years of service shall receive amount proportionate to years served.	Recognized after 20 years of service.	After 40 years of service.	-	-	One-half of amount contributed returned in event of resignation or death. Mandatory on all teachers. Applicant must have paid or made arrangements to pay amount of first annuity. Act also provides for formation of a relief fund maintained by 25 cent monthly levy on teachers. Teacher disabled for 20 school days receives thereafter \$5 weekly for not more than 10 weeks. Any deficit in fund to be met by further levy of \$1 on teachers; any surplus to be transferred to the retirement fund.
\$600 annually, based on 35 years of service. A minimum of \$360 is established, and between the two the annuity is $\frac{1}{2}$ the average annual salary for last 5 years of service.	Recognized after 20 years of service in city.	After 35 years of service.	-	-	One-half of amount contributed returned in case of death. Compulsory on new teachers. Must have paid in or made arrangements to pay in amount of one annuity.
One-half of annual salary at time of retirement, not to exceed \$500.	Recognized after 25 years of service in city or town.	After 60 years of age, at discretion of school committee.	-	-	Subject to referendum vote in all cities and towns, except Boston, on petition of 5% of voters.

3. Teachers — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Massachusetts — Con.	Acts of 1913, ch. 832. Applies to entire State, except Boston.	Teachers retirement board of 7 members, 3 from teaching force.	Such appropriations as may be necessary to administer act, to be known as Expense Fund. Such amounts as may be necessary to pay pensions provided by this act, to be known as the Pension Fund.	Nothing.	To be determined annually by retirement board, but not to be less than \$35 nor more than \$100 in any one year. Exempt from assessment after 30 years' payments if member so elects. In no case shall member pay a sum more than sufficient to purchase an annuity of \$500 at age of 60 years.
(BOSTON.)	Acts of 1900, ch. 237, as amended by Acts of 1902, ch. 233.	Board of 11 trustees, 6 from teaching force.	Nothing.	Not exceeding \$1,500 annually for treasurer and clerk hire.	\$3 every alternate month from salary.
	Acts of 1903, ch. 589, amended by Acts of 1910, ch. 617, and Acts of 1912, ch. 569.	Board of 3 trustees.	Nothing.	Tax of 5 cents on each \$1,000 of property valuation.	Nothing.

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Retirement allowance to consist of two parts, annuity and pension. Annuity to be such as can be purchased by contributions of member, with compound interest, at time of retirement. The pension is to equal amount of annuity paid. Teacher who shall have entered the service before June 30, 1914, who shall have served 15 years or more in State, including the 5 years immediately preceding retirement, shall receive such annuity as his payments entitle him to, plus such pension as shall make a total of at least \$300.	Recognized after 60 years of age.	Voluntary after 60 years of age; compulsory at 70 years.	In event of death of annuitant before receiving as annuities full amount paid in as assessments, the difference shall be paid to his legal representatives.	Full amount contributed, with interest, returned in event of resignation or death.	Compulsory on all teachers entering service after June 30, 1914. Question of repeal of Acts of 1908, ch. 498, shall be subject of referendum vote on petition of 5% of voters of any city or town. No town or city to be permitted to avail itself of Acts 1908, ch. 498, hereafter. State to reimburse cities which have accepted Acts of 1908, ch. 498, up to the amount pensioners would be entitled to under the provisions of this act.
Such annuity as fund will allow and as board of trustees may determine. (At present annuity is \$180.)	Recognized after 2 years of service, provided payments have been made as of 30 years of service.	After 30 years of service, at least 10 of which must have been in city.	- -	One-half of amount contributed returned to retiring teachers after 2 years of service.	Mandatory on all teachers entering service after act takes effect. Annuitants not having paid \$540 and not able to make up deficit may be retired on such annuity as trustees determine.
One-third of salary at time of retirement, based on 30 years of service, not to be less than \$312 nor exceed \$600. Teachers retiring after period aggregating less than 30 years, 10 of which were in city of Boston, receive proportionate annuity.	Recognized at discretion of school committee.	After 30 years of service and 65 years of age.	- -	- -	- -

3. Teachers — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Massachusetts— Con. (BOSTON) — Con.	Acts of 1912, ch. 569.	- -	- -	- -	-
Michigan.	No State-wide legislation.	- -	- -	- -	- -
DETROIT.	Acts of 1907, amending charter.	Local board of 7 trustees, 3 from teaching force.	Nothing.	Board of educa- tion may appro- priate tuition fees of nonresident pupils.	1% to 3% of salary, not to exceed \$30, graded on years of service.
Minnesota.	Acts of 1911, ch. 383. Applies to cities having 10,000 or more population.	Local retirement fund association formed by teachers, ap- proved by city council and in- corporated.	Nothing.	Tax not to exceed $\frac{1}{10}$ of 1 mill on taxable property.	No fixed provi- sion; left to dis- cretion of local board.
DULUTH.	Under authority of "10,000 popu- lation" act.	Duluth Fund Association.	Nothing.	One-tenth of 1 mill on all tax- able property.	\$10 to \$25 per annum, graded on years of service.
MINNEAPOLIS.	Under authority of "10,000 popu- lation" act.	Minneapolis Teachers' Retire- ment Fund As- sociation of 9, 5 from teaching force.	Nothing.	One-tenth of 1 mill tax on all taxable property, $\frac{1}{10}$ of which goes to permanent fund.	\$10 to \$25 per annum, graded on years of service.
Mississippi.	No legislation.				

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
- -	- -	- -	- -	- -	This act provides that at least 60 of those who were annuitants of the Boston Teachers' Retirement Fund Association at time when Act of 1908, ch. 589 took effect, or of other teachers who had retired prior to such time who had taught 30 years, 20 of which were in the city of Boston, shall be paid annual pensions of not less than \$180 annually. At least 60 to be kept on roll at all times.
- -	- -	- -	- -	- -	Bill for teachers' pensions introduced at last legislative session and lost.
\$400 annually, based on 30 years of service, of which 20 must have been in city or after 25 years of service wholly in city.	Recognized after 20 years of service, 10 of which must have been in city.	After 30 years of service, of which 20 must have been in city or after 25 years of service wholly in city.	- -	At discretion of trustees, but not to exceed $\frac{1}{2}$ of amount contributed.	- -
No fixed provision.	No fixed provision.	No fixed provision.	- -	No fixed provision.	Approval of $\frac{1}{2}$ of teaching staff required to form association.
\$500, based on 30 years of service. Teachers retiring after 20 years for disability receive proportional annuity, but not less than \$333.33.	Recognized after 20 years of service.	After 30 years of service.	- -	Amount contributed returned if dismissed; $\frac{1}{2}$ of amount if teacher resigns.	- -
\$500, based on 30 years of service, 10 years of which must have been in city. Teachers retiring after 20 years and before 30 years receive a proportionate annuity.	Recognized after 2 years of service, and annuity is fixed at discretion of board.	After 20 years of service, retirement is possible without disability.	- -	Amount contributed returned in the event of dismissal or death; $\frac{1}{2}$ of amount in event of resignation.	Must have paid in $\frac{1}{2}$ of amount of one annuity to be eligible.

3. Teachers — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Missouri.	No State-wide legislation.	- -	- -	- -	- -
ST. LOUIS.	- -	Private Teachers' Association.	Nothing.	Nothing.	1% of salary.
Montana.	No legislation.				
Nebraska. OMAHA.	Acts of 1909, ch. 132. Applies to all metropolitan cities.	Local boards of education.	Nothing.	Not less than 1½ times amount of teachers' salary assessment.	1% to 1½% of annual salary.
Nevada.	No legislation.				
New Hampshire.	No legislation.				
New Jersey.	Acts of 1903 and amendments.	Board of 8 trustees.	Nothing.	- -	2% to 3% of annual salary, not to exceed \$50 yearly nor to exceed \$1,000 total.
New Mexico.	No legislation.				
New York.	Acts of 1911, ch. 449. Applies to entire State.	Board of 5 trustees appointed by commissioner of education.	State appropriations from time to time as may be necessary.	No provision.	1% of annual salary.
NEW YORK CITY.	Acts of 1909, ch. 505, amending Greater New York City Charter as re-enacted by ch. 466, Acts of 1901.	Board of education controls. Retirement determined by retirement board.	Nothing.	5% of excise moneys.	1% of salary, not to exceed \$30 in case of teachers, nor \$40 in case of supervising officers.

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
- -	- -	- -	- -	- -	Ruling has been made that pensioning teachers from public funds is unconstitutional.
\$180, based on 35 years of service.	- -	After 35 years, or on request or at discretion of board of education.	- -	- -	- -
\$500, based on 35 years of service. Teachers retired after 25 and before 35 years of service receive proportionate annuity.	Recognized after 25 years of service, 20 of which must have been in the city.	After 35 years of service, teachers may be retired; after 40 years must be. 20 years of service in city in each case is required.	- -	- -	No refunds in case of dismissal.
One-half of average annual salary for last 5 years of service, not less than \$250 nor more than \$600.	Recognized after 20 years of service in State.	After 35 years of service, 20 of which are in State.	- -	- -	Applicant must have paid in or made arrangements to pay amount of first annuity.
One-half of annual salary at time of retirement, not to exceed \$600. Teacher retiring after 15 years and before 25 years of service receives proportionate annuity.	Recognized after 15 years of service, last 9 of which must have been in the district.	After 25 years of service, the last 15 of which must have been in the district.	- -	- -	No provision.
One-half of salary received at retirement, not less than \$600 after 30 years of service. Teacher retired after 20 but before 30 years of service for disability receives a proportionate annuity. In no case shall annuity exceed \$1,500 for teachers nor \$2,000 for professors in higher institutions.	Recognized after 20 years, 15 of which must have been in the city.	After 30 years of service and 65 years of age.	- -	- -	Amount contributed returned if dismissed.
					Presidents or professors shall receive such additional sums as annuity as will increase such half of salary as previously paid, if not an even multiple of \$1,000, to an even multiple of \$1,000. Act applies also to teachers in normal schools and correctional institutions.

3. Teachers — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
New York—Con. BUFFALO.	City charter of 1907, as amended by Acts of 1909, ch. 554.	Board of 5 trustees.	Nothing.	City council may appropriate sum not to exceed salary deductions.	1% to 2% of salaries, based on years of service.
ROCHESTER.	City charter of 1907, as amended by Acts of 1907, ch. 755.	Board of 4 trustees, 2 from teaching staff.	Nothing.	Amount equal to $\frac{1}{2}$ of salary deductions.	2% of annual salary.
North Carolina.	No legislation.				
North Dakota.	Acts of 1913, ch. 251.	Board of 5 trustees, appointed by Governor, 3 from members of the fund.	Nothing.	County treasurer shall annually set aside from county tuition funds 10 cents for each child of school age in the county.	From 1% to 2% of annual salaries, not to exceed \$40, based on length of service.
Ohio.	Acts of 1911, S. B. 142, amending sects. 7877, 7878, 7891 of General Code. Applies to entire State.	Local boards of trustees of not less than 3 nor more than 7 members.	Nothing.	1% to 2% of money raised by taxation for school purposes.	\$2 per month.
Oklahoma.	No legislation.				
Oregon.	Acts of 1913, ch. 58, amending acts of 1911, ch. 280. Applies to districts having more than 10,000 children of school age. (See Portland.)	Management invested in teachers' association, under approval of local school board.	Nothing.	3% of school district tax levy.	Fines, penalties and forfeitures.
Pennsylvania.	Pennsylvania school code of 1911.	Left to local authorities.	Nothing.	Left to local authorities.	- -

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.	
	Disability.	Age or Service.				
One-half of annual salary at time of retirement, not to exceed \$300.	Recognized after 20 years of service for females and 25 years for males, $\frac{1}{5}$ of which must have been in the city.	After 30 years of service for females and 35 years for males, $\frac{1}{5}$ of which must have been in the city.	-	-	Full amount contributed returned in event of dismissal or retirement.	Applicant must have contributed or arranged to contribute at least 40% of salary at time of retirement.
One-half of annual salary at time of retirement, not to exceed \$300.	Recognized after 20 years of service for females and 25 years for males, 15 of which must have been in the city.	After 30 years of service for females and 35 years for males, 15 of which must have been in city.	-	-	Full amount contributed if teacher is discharged.	Applicant must have contributed or arranged to contribute at least 40% of salary at time of retirement.
One-fiftieth of average annual salary for last 5 years of service multiplied by whole number of years of service, not to exceed \$750 annually or to be less than \$350 annually.	Recognized after 15 years of service in State.	After 25 years of service, 18 of which, including 5 immediately preceding retirement, must have been in the State.	-	-	One-half the amount contributed returned in the event of resignation or dismissal.	Teachers pay assessments for only 25 years. The full amount of the annuity to which the teacher shall be entitled during the first year must be paid in in assessments to make him eligible.
\$12.50 for each year of service, not to exceed \$450.	Recognized after 20 years of service, 10 of which must have been in the district.	After 30 years of service, 15 of which must have been in the district.	-	-	Amount contributed returned if teacher is dismissed; $\frac{1}{2}$, if teacher resigns.	No one eligible for pensions who has not paid or made arrangements to pay \$20 for each year of service, not, however, to exceed \$600.
Discretionary.	Discretionary.	Discretionary.	-	-	Discretionary.	Majority of teachers must favor before incorporation.
-	-	-	-	-	-	Simply an empowering act whereby boards of school directors, school controllers and other authorities may establish teachers' retiring funds in all districts.

3. Teachers — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Pennsylvania — Con. PHILADELPHIA.	Pennsylvania school code of 1911.	Board of retirement of 5 members, 1 from teaching force.	Nothing.	Amount equal to teachers' contributions.	1% to 2% of teachers' annual salary, based on years of service, not to exceed \$50 annually.
Rhode Island.	School Laws of 1910, pp. 27 and 94.	State Board of Education controls.	Entire amount.	Nothing.	Nothing.
PROVIDENCE.	Acts of 1897, ch. 485.	Board of 9 trustees, 3 from teaching force.	Nothing.	Nothing.	1% of annual salary, not to exceed \$12.
South Carolina.	No State-wide legislation.				
CHARLESTON.	Acts of 1898 and 1902.	Board of 5 trustees, 1 from teaching force.	Nothing.	10% for first 5 years, and thereafter 4% of gross income of special school fund paid by city.	Nothing.
South Dakota.	No legislation.				
Tennessee.	No legislation.				
Texas.	No legislation.				
Utah.	Laws of 1913, ch. 91.	State board or local board of education may authorize organization of a retirement commission. First-class cities have retirement board of 7 members, 3 from teaching force; State at large has board of 15, 11 being teachers.	Nothing.	Nothing.	1% of salary, not to exceed \$12.

3. Teachers — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.	
	Disability.	Age or Service.				
One-half of salary at time of retirement, not less than \$400 nor more than \$1,000. Teachers retiring after 5 years and before 30 years of service receive proportionate annuity.	Recognized after 5 years of service. Board of retirement may at its discretion grant full annuity to disabled teacher after 30 years of service, 20 of which must have been in city.	After 30 years of service, 20 years of which must have been in city, if applicant is 60 years of age.	-	-	Total amount contributed returned in case of dismissal.	To be eligible for pensions teachers must have contributed or arranged to contribute assessments as of 25 years.
One-half of average annual salary for last 5 years of service, not to exceed \$500.	No provision.	After 35 years of service, 25 of which must have been in the State, including the last 15 years.	-	-	None.	-
One-half of salary at retirement, not to exceed \$600.	Recognized after 10 years of service in city.	After 35 years of service for males and 30 years for females, the last 20 years of which in each case must have been in the city.	-	-	No provision.	Teacher to be eligible for pension must have made payments for at least 5 years.
One-half of salary at time of retirement, not to exceed \$250.	Recognized after 20 years of service in the city.	After 25 years of service if 65 years of age and are "in need of maintenance."	-	-	None.	-
One-half of average annual salary for last 5 years of service, not to exceed \$600. Teachers retiring after 20 years of service and before 30 years receive a proportionate annuity.	Recognized after 20 years of service; but if disability ceases, pension is stopped unless pensioner shall have reached 60 years of age.	After 30 years of service, 10 of which are in city or State, provided applicant has reached age of 60.	-	-	Amount contributed returned in event of death or dismissal; $\frac{1}{2}$ if applicant resigns.	-

3. Teachers — Concluded.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Teachers.
Vermont.	Acts of 1912, No. 70.	State Teachers' Retirement Fund Board of 5 members, 1 from teaching force.	Appropriations may be made by General Assembly.	- -	At discretion of local authorities.
Virginia.	Acts of 1910, ch. 97.	State Board of Education.	\$5,000 annually.	Nothing.	1% of annual salary.
Washington.	Awaiting 1914 referendum to the people, Senate Bill 48, Acts of 1913.	Board of trustees of 5, 2 being from teaching staff and appointed by Governor.	State levy by State Board of Equalization of 20 cents for each child in State of school age, not to exceed 5 mills on the dollar.	No provision.	1% to 2½% of salary, graded on years of service, not to exceed \$50.
West Virginia.	No legislation.				
Wisconsin.	Acts of 1911, ch. 323, amended by Acts of 1911, ch. 664.	Board of 5 trustees, 3 from teaching force.	Ten cents for each person of school age in State.	No provision.	1% to 2% of annual salary, graded on years of service, not to exceed \$30.
MILWAUKEE.	Acts of 1909, ch. 510, as amended by Acts of 1911, ch. 189. Applies to cities of 1st class only.	Board of 9 trustees, 4 from teaching force.	Nothing.	1% of gross school fund necessary to pay annuities.	\$2 monthly for 25 years or until \$500 has been paid in.
Wyoming.	No legislation.				

3. Teachers — Concluded.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of average annual salary for last 5 years of service, not to exceed \$500. Teachers retiring because of disability before 25 years of service shall receive such pension as the board may fix.	Recognized at discretion of State Teachers' Retirement Fund Board.	After 25 years of service entirely in State or 30 years of service, 20 of which must have been in the State.	- -	No provision.	Teacher to be eligible must have made payments equal to 40% of annuity. Teachers entitled to benefits of this act must retire at age of 60, or right lapses.
One-half of average annual salary for last 5 years of service, not to exceed \$500.	Recognized after 20 years of service in State.	After 30 years of service in State, men must be 58 years of age; women, 50 years of age.	- -	None.	- -
One-half of average annual salary during last 5 years of service, not to exceed \$600. Teachers retiring at end of 10 years of service and before 15 years for disability receive a minimum of \$300. Teachers retiring after 15 years of service and before 30 years shall receive a proportionate annuity.	Recognized after 10 years of service in State.	After 30 years of service, 15 of which are in State, for males; after 25 years of service, 15 of which are in the State, for females.	In the event of the death of an annuitant who has paid in assessments in excess of annuities received, his estate shall be entitled to the difference.	One-half of the amount contributed returned in event of resignation after 3 years.	- -
\$12.50 for each year of service, not, however, to exceed \$450 in any one year.	Recognized after 18 years of service in State.	After 25 years of service, 18 of which must have been in the State.	- -	One-half of amount contributed returned in the event of resignation, dismissal or death.	- -
A flat rate of \$400 for all annuitants.	Recognized after 15 years of service in the city (contributions for 15 years must have been paid).	After 25 years of service, 15 of which must have been in the city.	- -	One-half of amount contributed returned in the event of resignation, dismissal or death.	Mandatory on new teachers. In extreme cases Board may waive eligibility provisions by majority vote. Refunds can not be paid from amount contributed by local authorities.

4. Judges.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY --		
			State.	Local Authorities.	Judges.
Louisiana.	Acts of 1910, ch. 277. Applies to Supreme Court judges.	- -	Appropriation of amount necessary.	Nothing.	Nothing.
Maine.	Acts of 1911, ch. 198, amending Acts of 1909, ch. 132. Applies to Supreme and Superior Court judges.	- -	Appropriation of amount necessary.	Nothing.	Nothing.
Maryland.	Acts of 1904, ch. 236. Applies to judges of Circuit Court, Supreme Court of Baltimore and Court of Appeals.	- -	Appropriation of amount necessary.	Nothing.	Nothing.
Massachusetts.	Acts of 1885, ch. 162 (R. L., ch. 158, sects. 10-11), and subsequent acts. Applies to all judges.	- -	Appropriation of amount necessary except for Municipal Court judges of city of Boston.	Appropriation of entire amount by Suffolk County for pensions for Municipal judges of city of Boston.	Nothing.
Minnesota.	Acts of 1913, ch. 269. Applies to Supreme and District Courts.	- -	Appropriation of amount necessary.	Nothing.	Nothing.

4. Judges.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Full salary.	- -	After 75 years of age provided he has served not less than 15 years prior to retirement.	- -	- -	This is a joint resolution providing for amendment to Art. 86 of the Constitution.
One-half of salary at time of retirement.	- -	After 70 years of age provided he has served not less than 10 consecutive years.	- -	- -	Justice must retire within 1 year after becoming eligible for pension or waive claim to pension.
\$2,400 annually.	- -	After 70 years of age provided he has served not less than 10 consecutive years immediately preceding retirement. After 70 years of age provided he has served 15 consecutive years either before or after, or partly before and partly after 1904. After 70 years of age provided he has served as judge and is now no longer in office.	- -	- -	- -
Three-quarters of annual salary.	Recognized, subject to approval by Governor and Council, after 15 consecutive years of service, if 60 years of age, in the case of judges of Supreme Judicial, Superior, Land and Probate and Insolvency Courts.	After 70 years of age provided he has served at least 10 consecutive years in the case of judges in Supreme Judicial, Superior, Land, Probate and Insolvency Courts. After 70 years of age and 20 consecutive years of service, subject, except in Boston, to approval by Governor and Council, in the case of District, Municipal and Police Court judges.	- -	- -	- -
Amount of salary for remainder of term (6 years).	Recognized at any time upon investigation by Governor.	- -	- -	- -	- -

4. Judges — Concluded.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Judges.
New Jersey.	Acts of 1908, ch. 313, amended by Acts of 1911, ch. 185. Applies to chancellor, chief justice and associate justices of Supreme Court.	- -	Appropriation of amount necessary.	Nothing.	Nothing.
New York.	Acts of 1913, ch. 138, amending Acts of 1911, ch. 855, as amended by Acts of 1912, ch. 486. Applies to all employees of Supreme Court, first district.	Appellate Division of the Supreme Court of the first district.	Supreme Court appropriation of balance necessary.	Nothing.	1% of annual salary.
	Acts of 1913, ch. 185, amending Acts of 1909, ch. 35. Applies to all employees of Supreme Court of the second and ninth districts.	Appellate Division of the Supreme Court of the second district.	Entire amount out of Supreme Court appropriation.	Nothing.	Nothing.
Rhode Island.	General Laws of 1909, ch. 274. Applies to Supreme and Superior Court judges.	- -	Appropriation of amount necessary.	Nothing.	Nothing.

4. Judges — Concluded.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-third of annual salary.	Recognized at any time if incurred in office, upon approval by Governor.	After 70 years of age provided he has served 21 years.	- -	- -	Provisions are retroactive for period of 1 year.
To be determined by Appellate Division, not exceeding ½ of average annual salary for 2 years preceding retirement.	Recognized after 30 years of service, of which 12½ must have been in the Supreme Court of the first district, and at least 12½ years prior service in any other court, department or office of the State or the county or the city of New York.	- -	- -	- -	Employees must signify intention of taking advantage of this act.
To be determined by Appellate Division, not exceeding ½ of average annual salary for 2 years preceding retirement.	Recognized after 25 years of service.	- -	- -	- -	- -
Full salary at time of retirement.	- -	After 70 years of age provided he has served not less than 10 years immediately preceding. After 25 years of service.	- -	- -	- -

5. Other State, County and Municipal Employees.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY --		
			State.	Local Authorities.	Employees.
Illinois.	Acts of 1913, S. B. 365, amending Acts of 1909, ch. 122. Applies to public school employees other than teachers receiving over \$49 monthly in cities of over 100,000.	Board of 6 trustees, 4 from employees.	Nothing.	Board of education may appropriate sum not exceeding twice the amount contributed by employees.	Fixed by trustees, not less than \$12 nor more than \$48 annually.
	R. S. of 1911, ch. 24, sects. 661-674. Applies to all employees in Water Works Department of cities of over 100,000.	Board of 6 trustees, 4 from employees.	Nothing.	Nothing.	1% to 2% of annual salary.
	R. S. of 1911, ch. 24, sects. 747-751. Applies to all except temporary employees not eligible under any other pension act.	Board of 5 trustees, 3 from employees.	Nothing.	Nothing.	\$2 monthly.
	R. S. of 1911, ch. 81, sects. 43-57. Applies to public library employees in cities of over 100,000.	Board of 5 trustees, 2 from employees.	Nothing.	Nothing.	Fixed by trustees, not less than \$6 nor more than \$48.

5. Other State, County and Municipal Employees.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
Fixed by board of trustees in proportion to amount contributed, not exceeding \$600.	See Additional Data.	After 10 years of service and 10 years of contributions if 55 years of age. After 20 years of service.	In event of death of member who is not or has not been a beneficiary, trustees may pay widow or minor children 1 year's benefits.	One-half amount contributed in event of resignation or dismissal before 10 years.	After 10 years of assessments if member is disabled he is pensioned for 2 years; and at expiration of that time if disability continues, pension may be extended.
Fixed by board of trustees in proportion to amount contributed, not exceeding $\frac{1}{2}$ of salary.	See Additional Data.	After 50 years of age, 20 years of service and if member has paid assessments for 10 years.	In event of death of member who is not or has not been a beneficiary for 3 years, trustees may pay widow or children not over \$300.	One-half of amount contributed in event of resignation or dismissal if member has paid assessments for 5 years. If member has been an employee for 12 years, he may continue paying assessments until eligible for pension.	After 5 years of assessments if member is disabled he is pensioned for 2 years, and at expiration of that time if disability continues, pension may be extended.
\$50 monthly.	See Additional Data.	After 20 years of service if 55 years of age. After 20 years of service, if under 55 years of age, member may retire and continue paying dues until 55 years of age.	- -	- -	After 5 years of assessments if member is disabled he is pensioned for 2 years; and at expiration of that time if disability continues, pension may be extended. No pensions to be paid previous to 1916. Members must have paid or arranged to pay assessments as of 20 years to be eligible for pensions.
Fixed by board of trustees in proportion to amount contributed, not exceeding \$600.	See Additional Data.	After 10 years of service and 10 years of contributions if 55 years of age. After 20 years of service and 5 years of contributions.	In event of death of member who is not or has not been a beneficiary, trustees may pay widow or minor children 1 year's benefits.	One-half of amount contributed in event of resignation or dismissal.	After 10 years of assessments if member is disabled he is pensioned for 2 years; and at expiration of that time if disability continues, pension may be extended.

5. Other State, County and Municipal Employees — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Employees.
Massachusetts.	Acts of 1911, ch. 532 and subsequent acts. Applies to all employees of the Commonwealth except those entering service after 55 years of age, who are prohibited from remaining in service after reaching age of 70 years, officers elected by popular vote and all who are entitled to pensions from Commonwealth for any reason other than membership in association.	Board of retirement of 3 members.	Appropriation of entire amount for administration. Appropriation of balance necessary to pay annuities and pensions.	Nothing.	Fixed by board of retirement, not less than 1% nor more than 5%, \$30 weekly being maximum basis of assessment.
	Acts of 1911, ch. 634 and subsequent acts. Applies to counties accepting act by vote of people at State election.	Board of retirement of 3 members.	Nothing.	Appropriation by county of entire amount for administration. Appropriation by county of balance necessary to pay pensions and annuities.	See Additional Data.

5. Other State, County and Municipal Employees — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Employees.
Massachusetts — Con.	Acts of 1910, ch. 619, and amending act of 1911, ch. 338. Applies to all cities and towns after acceptance except Boston.	Board of retirement of 3 members.	Nothing.	Appropriation by city or town of amount necessary for administration. Appropriation by city or town of balance necessary to pay pensions and annuities.	See Additional Data.
	Acts of 1911, ch. 413, and amending act of 1913, ch. 367. Applies to city of Boston.	Board of retirement of 3 officials, including mayor.	Nothing.	Entire amount appropriated by city.	Nothing.
	Acts of 1912, ch. 503, as amended by Acts of 1913, ch. 671. Applies to all cities and towns, except Boston, accepting act.	Board of retirement.	Nothing.	Entire amount appropriated by city or town.	Nothing.
	Acts of 1907, ch. 458. Applies to civil war veterans in the employ of the State.	- -	- -	- -	- -
	Acts of 1912, ch. 447. Applies to civil war veterans in all cities and towns, except Boston, after acceptance.	- -	- -	- -	- -
	Acts of 1909, ch. 398, as amended by Acts of 1910, ch. 459. Applies to civil war veterans in employ of counties.	- -	- -	- -	- -
	Acts of 1911, ch. 113, as amended by Acts of 1912, ch. 395, and Acts of 1913, ch. 313. Applies to civil war veterans in service of city of Boston.	- -	- -	- -	- -

5. Other State, County and Municipal Employees — Continued.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
See Additional Data.	- -	See Additional Data.	- -	See Additional Data.	Act is similar in all essential features to retirement systems for employees of the Commonwealth and counties.
One-half of salary of grade of employment at time of retirement, not to exceed \$360 per year.	After 25 years of service, if 60 years of age and incapacitated, may be retired.	After 25 years of service, if 70 years of age, must be retired.	- -	- -	- -
One-half of average annual salary received during 2 years next prior to retirement.	After 25 years of service, if 60 years of age and incapacitated, may be retired. After 15 years of service if incurred in line of duty.	After 25 years of service, if 65 years of age, must be retired.	- -	- -	- -
One-half of annual salary at time of retirement.	After 10 years with consent of Governor. At any time with consent of Governor and Council.	If term of service is for fixed number of years, member may be retired without reappointment.	- -	- -	- -
One-half of average annual salary for 2 years preceding retirement.	After 10 years with approval of city council, or selectmen in towns.	- -	- -	- -	If employed by two cities, or two towns, or by city and town, retirement must be by joint action of the two governing bodies.
One-half of annual salary, not exceeding \$800.	After 10 years of service, if 65 years of age, with consent of county commissioners. At any time with consent of Governor and Council.	- -	- -	- -	- -
- -	After 10 years of service with consent of mayor.	If term of service is for fixed number of years, member may be retired without reappointment.	- -	- -	If member is on leave of absence or on list of employees, although not rendering service, or if he left the employ of the city within 3 years preceding passage of the act, he is entitled to benefits of the act.

5. Other State, County and Municipal Employees. — Continued.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Employees.
Massachusetts — Con.	Acts of 1908, ch. 601, and amendment of 1911, ch. 673. Applies to prison officers and instructors who began employment previous to June 7, 1911.	Approval of the Governor and Council necessary.	Entire amount.	Nothing.	Nothing.
Nebraska.	Acts of 1913, ch. 152. Applies to public library employees in 1st class cities.	City council.	Nothing.	Appropriation of sum not less than $1\frac{1}{2}$ times salary contribution and not less than amount necessary to meet payments, and to cease when fund is large enough.	$1\frac{1}{2}\%$ of annual salary.
New Jersey.	Acts of 1913, ch. 215. Applies to all cities having health boards if adopted by $\frac{2}{3}$ of employees.	Board of 5 trustees, 4 being employees.	Nothing.	Fines and fees collected by Health Department not exceeding \$2,500 annually. Any appropriation city may make.	2% of annual salary if fund is below \$20,000.
New York.	Acts of 1901, ch. 466, as amended by Acts of 1911, ch. 839. Applies to New York city.	Commissioner of street cleaning, New York city.	Nothing.	Proceeds from sale of ashes, garbage and refuse and condemned property. Moneys received from privilege of scow trimming. Unexpended salary appropriation in the department.	Not over 3% of annual salary; fines, penalties and rewards.
	Acts of 1901, ch. 466, sects. 1319-1326, and amendments. Applies to New York city.	Board of Health.	Nothing.	All fines for violation of Sanitary Code or health laws of New York city.	1% of annual salary; fines, penalties and rewards.
	Acts of 1911, ch. 669, and Acts of 1912, ch. 479. Applies to employees not eligible under other retirement systems.	Board of Estimate and Apportionment.	Nothing.	From excise moneys or liquor taxes.	Nothing.

5. Other State, County and Municipal Employees — Continued.

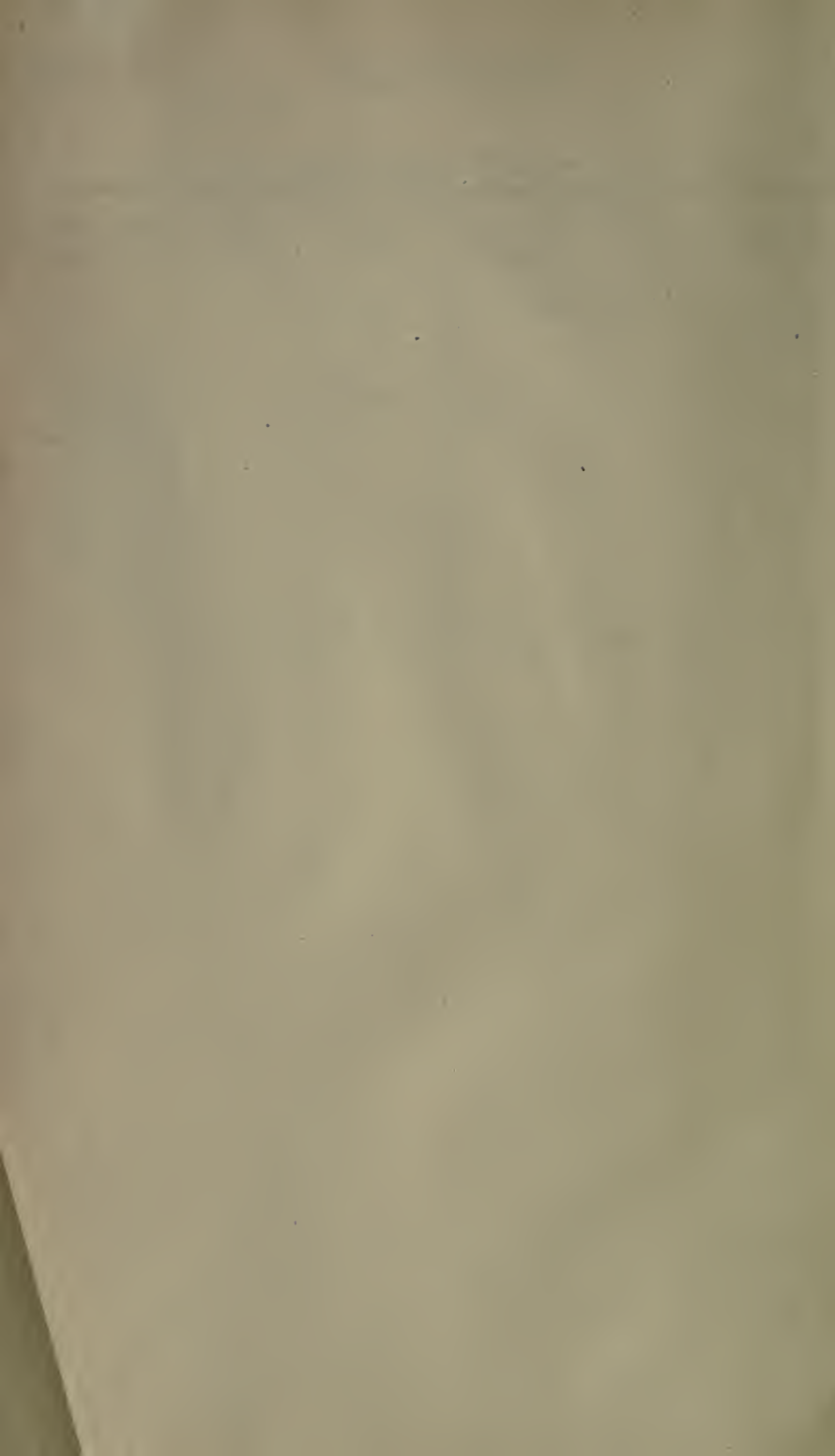
Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of annual salary at time of retirement.	Recognized at any time if incurred in line of duty.	After 30 years of service. After 20 years of service, with a good record, if 65 years of age.	- -	- -	- -
\$420 annually if retired after 35 years of service. After 20 years of service annuity is in proportion as length of service is to 35 years.	Recognized after 20 years of service.	After 35 years of service employees may be retired, and after 40 years of service employees must be retired, provided in both cases 20 years of service were in public library of the city.	- -	- -	In event of discharge for cause other than disability or incapacity, employee forfeits all claims. Employee may be reinstated after disability ceases, and period of retirement counts towards service pension but not towards disability pension.
One-half of annual salary.	Recognized at any time if incurred in line of duty. After 25 years of service or for advanced age if unfit for duty.	After 25 years of honorable service.	- -	- -	In event of death, resignation or discharge after less than 25 years of service, all payments are forfeited. No pensions are to be paid until 1918.
\$300 annually for disability incurred in line of duty. One-half of annual salary for disability after 10 years of service or for service retirement after 20 years of service.	Recognized at any time if incurred in line of duty. After 10 years of service if incurred in any manner.	After 20 years of service if 60 years of age.	In event of death incurred in line of duty or after 10 years of service from natural causes, widow receives \$200 annually, children under 18 years, \$200 annually; if neither, dependent mother receives \$200 annually.	- -	- -
One-fourth to $\frac{1}{2}$ of annual salary for disability incurred before 20 years of service. After 20 years of service not exceeding $\frac{1}{2}$ of salary of employee of same rank.	Recognized at any time if incurred in line of duty. After 20 years of service if incurred in any manner.	- -	In event of death incurred in line of duty, widow and children under 18 years receive not over \$300 annually; if neither, dependent parents receive \$300 annually.	- -	Physicians and surgeons are included as employees.
Not more than $\frac{1}{2}$ of average annual salary for 3 years before retirement.	After 30 years of service. After 20 years of service if veterans of the civil war.	- -	- -	- -	Members eligible not affected by change from one department to another, by any change in title, promotion, vacation or leave of absence.

5. *Other State, County and Municipal Employees* — Concluded.

STATE AND CITY.	Legislation.	Management.	FUNDS CONTRIBUTED BY —		
			State.	Local Authorities.	Employees.
Pennsylvania.	Laws of 1913, No. 461. Applies to 1st class cities.	- -	Nothing.	½% of all taxes.	1% of annual salary.
	Laws of 1913, No. 38. Applies to 2d class cities.	- -	Nothing.	See Additional Data.	See Additional Data.

5. *Other State, County and Municipal Employees* — Concluded.

Rate of Pension.	PENSIONS FOR —		Payments at Death.	Refunds.	Additional Data.
	Disability.	Age or Service.			
One-half of average annual salary for 2 years preceding retirement.	- -	After 20 years of service.	- -	- -	- -
- -	- -	- -	- -	- -	This is merely an empowering act authorizing the creation of a pension fund for aged, retiring or disabled employees, such fund to be raised by deductions from salary, or by annual appropriation therefor by way of increase in salaries, or by both methods.



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