

ANNUAL REPORT
OF THE
FIRE DEPARTMENT
OF THE
CITY OF BOSTON
FOR THE
YEAR ENDING 31 JANUARY, 1917



CITY OF BOSTON
PRINTING DEPARTMENT
1917

ANNUAL REPORT
OF THE
FIRE DEPARTMENT
OF THE
CITY OF BOSTON
FOR THE
YEAR ENDING 31 JANUARY, 1917



CITY OF BOSTON
PRINTING DEPARTMENT
1917

ANNUAL REPORT
OF THE
FIRE DEPARTMENT
FOR THE YEAR 1916-17.

BOSTON, January 31, 1917.

HON. JAMES M. CURLEY,
Mayor of the City of Boston:

SIR,— As provided by section 24, chapter 3, Revised Ordinances of 1898, City of Boston, I have the honor to present herewith a report of the activities of the Fire Department for the year ending January 31, 1917.

Appended to my statement are reports from the Chief of Department and the officers in charge of the different branches and information and statistics of general interest concerning the work, personnel and property of the department.

FINANCES.

Two million fifty-one thousand two hundred forty-five dollars and seventeen cents was expended by the Fire Department for maintenance during the past fiscal year. This is \$1,738.99 less than was expended during the previous year. In addition to the above, \$51,826.33 has been expended, by special appropriations, for much needed permanent improvements in the alteration of old fire stations. The income of the department from various sources amounted to \$9,056.52.

PERSONNEL.

On January 31, 1917, the fire-fighting force comprised 973 men, with 122 employees in the other branches of the service. On January 31, 1916, there was a total of 1,079 men in the employ of the department.

Nineteen members were retired during the year on account of age and disability.

FIRE PREVENTION.

The department has persisted in its efforts to reduce the fire loss by the practice of fire prevention methods. More than thirty thousand inspections have been made throughout the city during the past year, and in every case where the conditions required attention the officers of this department have not hesitated to take action. In hundred of cases only verbal orders have been necessary, the person responsible for the conditions realizing the grave danger of allowing conditions liable to cause fire to remain unremedied. Hundreds of written orders, however, have been issued, and it has been necessary to bring occasional obstinate cases to the attention of the courts. In some cases drastic recommendations are necessary, such as the installation of automatic sprinklers in certain classes of buildings. Such recommendations as the latter are forwarded to the Fire Prevention Commissioner of the metropolitan district for a review and such disposition as he thinks proper. Regular inspections have been made of schoolhouses, theaters, motion picture houses, public buildings, etc. A great amount of excellent work has been accomplished by this inspection system, not only in effecting the remedy of dangerous conditions but giving the officers of this department an opportunity to familiarize themselves with the interiors of buildings in their districts.

During the year 8,544 permits were issued for fires in the open air, for the keeping and storage of inflammable fluids, for the keeping and storage of gasoline and other volatile fluids in amounts not exceeding 130 gallons, for the keeping, storage and discharge of fireworks and firecrackers, and for the handling and transportation of explosives. Authority to issue these permits is delegated to this department by the Fire Prevention Commissioner of the metropolitan district.

MOTOR FIRE APPARATUS.

Twenty-two new pieces of motor apparatus were purchased during the year, including nine chief's automobiles.

I firmly believe that the department apparatus should be motorized as rapidly as possible. Not less than two hundred thousand dollars should be set aside each year for the purchase of motor apparatus until the work is done. Today Boston is about 37 per cent motorized and is a little behind a few of the other large cities of the country. If enough money is made available in the next three years Boston should be the first of the large cities to complete the motorization of its equipment.

The repair shop building at Bristol and Albany streets is fast becoming overcrowded, due to the change from horse-drawn to motor apparatus. It will be only a question of a short time when some arrangement will have to be made for a repair shop for motor apparatus, as it has been found that the care and repairing of other parts of apparatus and machinery connected with the department tests the capacity of the present repair shop. A very advantageous site for a motor apparatus repair shop would be on land owned by the city and occupied by this department as a veterinary hospital in Atkinson street, Ward 9. The increase in the amount of motor apparatus decreases the number of horses and naturally the demand for a hospital; eventually the hospital will be entirely unnecessary. In erecting a motor apparatus repair shop the plans should include space for the storage of spare apparatus, and thus make possible the saving in rental of \$2,000 per year which the city is now paying for storage space at Nos. 240-256 Dover street. I believe that money should be appropriated at once to start plans for this project.

FIRE LOSSES.

Consideration of the number of alarms and the fire loss for the preceding twelve months is found most interesting. During the year the department responded to 4,531 alarms as compared with 5,437 alarms in 1915. The fire loss for the year amounted to \$2,473,801, including \$101,312 in marine loss. The total loss for 1916 was \$530,799 less than the total loss in 1915—

the year previous. Such an enormous reduction in the fire loss is most remarkable. A careful analysis of the activities for the past twelve months divides the credit in three parts. In my opinion the reduction is due, in part, to the inspection system instituted and conducted in this department; the greater efficiency of the department due to the motorization of much apparatus, and to the very successful arson investigation inaugurated by your Honor. There is not the slightest doubt in my mind that the greatest part of the reduction is due to the wonderful work resulting from this investigation. The results began to show most patently by a falling off in the number of alarms just as soon as action under the investigation was commenced. The district attorney's office and the state and city police are deserving of great praise for the invaluable work they performed in prosecuting the so-called "arson trust." I hope the work will continue, and this department is most willing to coöperate in any proposition having for its end the reduction of the fire loss in this city. Merely for the sake of comparison and to show more clearly what this reduction of \$530,799 in the fire loss means I give below the figures for the past four years:

	Number of Alarms.	Fire Loss.
1913.....	4,916	\$3,138,373 00
1914.....	5,534	3,013,873 00
1915.....	5,437	3,004,600 00
1916.....	4,531	2,473,801 00

ALTERATIONS TO HOUSES.

The houses of Engine Company 14 on Centre street and Ladder Company 4 on Dudley street, Roxbury district, have been thoroughly remodeled. These houses have been practically rebuilt throughout and are now modern and up to date in every respect.

The old municipal building at the corner of Dorchester and West Fourth streets, South Boston, is being remodeled along the lines of the above stations and will provide suitable and commodious quarters for Engine Company 1 and Ladder Company 5. Engine Company 1 is stationed in this building and Ladder

Company 5 in another building in West Fourth street. After the changes have been completed the two companies will be in the same building, increasing the efficiency and reducing the cost of upkeep. Similar changes are being made in the old and crowded quarters of Engine Company 8 in Salem street. Both of these houses will be ready for occupancy in the spring.

There are many houses in this department which were erected in the early days of the call service and conveniences were provided for only two or three men. As the department gradually assumed a permanent basis minor changes were made from time to time in the houses. Today, with the department on a complete permanent basis and the motorization of the department taking on rapid form, the unfitness of these houses becomes more and more emphasized. To carry on this work of remodeling and altering the old fire stations will require large sums of money, but it is work that must be done. In my opinion it should be carried on gradually, and a certain amount of money made available each year to modernize fire stations.

At the quarters of Engine Company 33, Boylston and Hereford streets, much work has been done. The stable was demolished and granolithic floors, base and driveways installed. The walls and ceiling of the main floor have been fireproofed; better toilet and locker facilities and shower baths have been provided.

Owing to the construction of the Dorchester Tunnel the quarters of Engine Company 15 at Dorchester avenue and Broadway extension will have to be entirely remodeled. Arrangements are being made to divide the cost of this work between the Transit Commission and the Fire Department.

Land has been bought and plans drawn for a new fire station at the Readville section. When the new building is erected it will be equipped with motor apparatus and will take the place of the old and condemned structure now used for a fire station and located on land owned by the New York, New Haven & Hartford Railroad at Milton and Sprague streets.

MISCELLANEOUS.

Three pulmotors were purchased during the year and installed on Ladders 1, 4 and 17, in different sections of the city. They have been used in giving first aid

and relief to the members of the department and citizens and have proven their worth in the conservation of life. Additional machines will be purchased during the coming year and installed on other trucks.

Six smoke masks and helmets have been ordered and I intend to establish a rescue squad in the near future at the Fort Hill fire station. These helmets will be of great service in fighting fires which are attended with dense smoke, especially in the basements of buildings and holds of ships. Undoubtedly they will prove of invaluable service to the department in the future in the rescue of persons from smoke and gas filled buildings.

A school for officers has been established in the department where a course of lectures is provided for the officers of the department below the rank of district chief. Its purpose is to standardize certain lines of work in the department and to provide an opportunity for the officers to fit themselves for the work they are expected to perform in the fire service.

The members of the department have worked hard and faithfully during the past year, and I believe the general efficiency of the department is reflected in the appreciation manifested by citizens in generous donations to the Boston Firemen's Relief Fund as well as by numerous letters of commendation received by me from time to time. An excellent spirit of coöperation exists between the Fire and other departments, and I am grateful for all assistance rendered by the heads of other city departments, especially the Police Commissioner and the Commissioners of Public Works, Wire and Building Departments.

Yours very respectfully,

JOHN GRADY,
Fire Commissioner.

NAMES OF CHIEF ENGINEERS, OR CHIEF OF DEPARTMENT, SINCE THE FIRE DEPARTMENT WAS ESTABLISHED, JANUARY, 1826.

Samuel D. Harris	1826-28
Thomas C. Amory	1829-35
William Barnicoat	1836-53
Elisha Smith, Jr.	1854-55
George W. Bird	1856-65
John S. Damrell	1866-74
William A. Green	1874-84
Lewis P. Webber	1884-1901
William T. Cheswell	1901-06
John A. Mullen	1906-14
John Grady	* 1914
Peter F. McDonough	1914-17

* Appointed Fire Commissioner.

REPORT OF CHIEF OF THE DEPARTMENT.

BOSTON, February 1, 1917.

FROM: THE CHIEF OF DEPARTMENT.
TO: THE FIRE COMMISSIONER.
SUBJECT: ANNUAL REPORT.

The following is the report of the Chief of Department for the year ending January 31, 1917:

During the calendar year the department has responded to 4,531 alarms. The fire loss was \$2,473,801, including marine loss of \$101,312.

ADDITIONS AND CHANGES.

February 3, 1916, a gasoline motor-driven combination pumping engine, chemical and hose wagon was placed in service with Engine Company 14, replacing the horse-drawn apparatus. Five horses were displaced by this change.

April 5, 1916, a new company, to be known as Ladder Company 14, was organized and was established in the quarters of Engine Company 41, Allston. A gasoline motor-driven, quick-raising, 85-foot aerial truck was placed in service with this company.

August 22, 1916, Engine 28 was equipped with a two-wheel tractor, displacing three horses.

October 2, 1916, a gasoline motor-driven combination chemical engine and hose wagon was placed in service with Chemical Engine Company 10, replacing the horse-drawn apparatus. Two horses were displaced by this change.

October 16, 1916, the horse-drawn engine in service with Engine Company 33 was replaced by an engine equipped with a two-wheel tractor, displacing three horses.

January 18, 1917, a gasoline motor-driven combination chemical engine and hose wagon was placed in service with Engine Company 33, replacing the two-horse hose wagon in service with that company.

Two steam fire engines and one combination ladder

truck and chemical engine were equipped with two-wheel tractors and are being used as relief apparatus.

Two gasoline touring cars and four runabouts were purchased for use by deputy and district chiefs.

A gasoline motor-driven emergency truck was placed in service in the quarters of Water Tower Company 2, headquarters building. This truck weighs 12,550 pounds without load and is in charge of the supervisor of motor apparatus. The capacity of the truck is three and one half tons and it is fitted with a power winch capable of lifting up to five tons. The truck is fitted with jacks, blocks and all such tools necessary for emergency work, also carries supplies of gasoline and lubricating oil. This truck will respond to extra alarms of fire and will be operated by the motor squad of the department.

Engine 35, a self-propelling steam fire engine, and Engine 39 were equipped with new boilers and practically rebuilt.

The station in which is housed Engine Company 14 was remodeled. A larger dormitory, separate rooms for all officers and better toilet and locker room facilities were provided. The stable was demolished, a granolithic floor and base installed and the walls and ceiling of main floor fireproofed. Dutch doors and granolithic driveways were other improvements.

The station in which is housed Ladder Company 4 was remodeled. A larger dormitory, separate rooms for all officers and better locker room and toilet facilities were provided. The stable was demolished and a granolithic floor and base installed. The walls and ceiling of main floor were fireproofed. A garage for the deputy chief of the second division was built in these quarters. Dutch doors and granolithic driveway and walks were other improvements.

The station in which is housed Engine Company 33 was remodeled. The stable was demolished and a granolithic floor and base installed. The walls and ceiling of main floor were fireproofed. Better locker room and toilet facilities and Dutch doors were other improvements.

Land was purchased at the corner of Milton and Hamilton streets in the Readville district for a site for the proposed new station to replace the present quarters of Hose Company 49, which are not fit for occupancy.

BUILDINGS.

The interiors of the stations are in good condition as regards cleanliness and show evidence of painstaking work to keep them in order, but many of these buildings are without modern facilities and in a few instances hardly fit for occupancy. The installation of motor apparatus is going to make considerable remodeling absolutely necessary.

APPARATUS AND EQUIPMENT.

The apparatus and equipment, including hose, was given the annual inspection and test and all necessary repairs made to put same in first-class order.

BUILDING INSPECTION.

Regular inspections were made of theaters, motion picture houses, schoolhouses, public buildings and all places of public assembly.

On request signs on roofs have been inspected and reported on.

The system of building inspection throughout the city has been continued and many hazardous conditions have been corrected.

Inspections of premises have been made in connection with applications for licenses for the storage and sale of explosives and inflammables.

Under the direction of the district chiefs permits were issued for building fires in the open air.

Licenses for the transportation of explosives were issued by the deputy and district chiefs.

All blasting operations in the city limits were safeguarded by this department.

DRILLS.

During the year all companies have held weekly drills and all new appointees have passed through the department drill school.

All regularly assigned chauffeurs were instructed in the department automobile school.

During the year a school of instruction for officers of this department below the rank of district chief was established at the headquarters building.

The purpose of this school is to give to the officers, by means of a course of lectures in matters pertaining

to the department and by discussion and exchange of ideas with brother officers, an opportunity to better fit themselves for the work they are expected to do and to standardize throughout the department certain lines of work.

A committee consisting of the Chief of Department, two deputies and two district chiefs was appointed to conduct the school.

It was the duty of the committee to make all arrangements for the conduct of the school, assign the instructors for the different topics to be discussed, arrange for the attendance of the officers, and see that everything was accomplished for the successful operation of the school.

The following topics will be lectured on and discussed during the term of the school:

Water supply.	Sprinkler installation.
Hydraulics.	Discipline in quarters and at fires.
Appliances.	Judgment in action in event of fires in different sections at the same time.
Fire alarm system.	Building inspection.
Administration and paper work.	Motor apparatus.
Laws, ordinances, rules and regulations.	Fireboats.
Methods in fire fighting, including building construction and contents.	Explosives and inflammables.
Conflagrations.	

MUTUAL AID.

The plan of coöperation with the cities and towns adjacent to our borders was maintained during the year passed with beneficial results. Our neighbors have shown the usual fine spirit.

HYDRANTS.

The following is the number and type of hydrants in use for fire service January 31, 1917:

Boston post	3,601
Ordinary post	3,361
Lowry	1,736
Boston Lowry	652
Boston	310
Carried forward	9,660

<i>Brought forward</i>	9,660
Chapman post	216
Ludlow post	23
Matthews post	4
Coffin post	1
Total	<u>9,904</u>

HIGH PRESSURE FIRE SERVICE.

The following is the report of the work done on the high pressure fire service as made by the engineer in charge:

"The high pressure fire service of the Public Works Department, during the last year, has practically completed the correction of excessive leakage conditions in the pipe lines installed previous to 1916, and has extended the system with about one half mile of piping located in Broad, Franklin, Purchase, Summer and School streets, which includes a 12-inch gated connection with the old salt water line at Congress and Purchase streets. A 16-inch gated connection located on Tremont street near West street has been established between the high service domestic and the high pressure fire service main. There is now a total of 192 high pressure hydrants connected with the system and 188 of these are ready for use with domestic high service at about 95 pounds per square inch pressure. Tests were conducted on two successive Sundays at Haymarket square which demonstrated the possibilities and limitations of using these hydrants with hose lines playing from the street or connected with deck guns on hose wagons, at which were present representatives of the local and National Board of Fire Underwriters, Fire Department and Public Works Department officials.

"The stand taken by the Municipal and State Boards of Health and the Metropolitan Water Board required that we could use in the high pressure system either the fireboats for an emergency or the domestic high service, but not both, due to their fear of probable contamination due to the mixture of polluted harbor water which might find its way through the 16-inch connection on Tremont street back into the domestic supply. Due to the fact that the old salt water line, with its fireboat connections at Central Wharf, had been utilized in but one fire since 1898, when it was installed, it was thought by the Board of Underwriters

and the Public Works Department officials that greater advantage would be derived for the present by utilizing the high service connection. This meant that the fireboat connection at Central Wharf must be abandoned and it has been dismantled, and also that there must be no delivery connection from the fireboats to any hydrant in the system until the pumping station is completed, at which time it is intended to restore the Central Wharf fireboat connection and to provide at least one other harbor front manifold for fireboat connection.

"The Fire Department has been provided with the equipment necessary to operate these high pressure hydrants and instructions have been given practically all of the men in the department as to their features of design and proper manipulation.

"The location of gate valves in the piping mains will be designated on adjoining buildings or posts in a circle about three inches in diameter, painted white with a red line across the circle and a figure, also in red, on a white field. This figure indicates the number of feet distant from the building line at its intersection with the sidewalk where the red line produced meets this intersection, to the center of the cover of the valve vault. All the main line valves are in vaults.

"Every 8-inch hydrant connection has an independent gate which we intend to locate in dimension given on the barrel of the hydrant in white figures. The designation for all gate locations we expect to have completed during the present year.

"The high pressure hydrants from which the domestic high service is available have red hoods. All those not permanently in service or temporarily taken out of service for any reason have black hoods."

RECOMMENDATIONS.

Under this heading the items mentioned are in my opinion necessary for the comfort of the men and to keep abreast of the times as regards motor apparatus.

FIRE STATIONS.

A new station should be built on the site secured in the Readville section to replace the present quarters of Hose Company 49, which are unfit for occupancy.

The station now occupied by Chemical Company 3, Winthrop street, Charlestown, should be remodeled to house an engine company.

The stations now occupied by Engine Company 17 and Ladder Company 7, in the Meeting House Hill section of Dorchester, should be replaced by a new building on the same site to house both companies.

The station now occupied by Engine Company 26-35 should be replaced by a new building on the same site. The dormitory accommodations in the present station are wholly inadequate for the number of men housed there at present. The new station should contain offices for the Chief of Department.

The greater part of the cellar of the station occupied by Engine Company 15, Broadway and Dorchester avenue, South Boston, was taken for construction purposes in connection with the Dorchester Tunnel. This necessitated the relocation of the house and engine heating apparatus in a specially constructed cellar under the sidewalk on the Broadway side of the station. This work was done under the direction and at the expense of the Transit Commission, and in my opinion this would be an opportune time to remodel this station for the incoming motor apparatus.

I would recommend the fireproofing of the main floors of stations now occupied by motor apparatus at the earliest possible time that financial conditions will permit, and in connection with this remodeling that shower rooms be installed and separate rooms for all officers be furnished.

The painting of all exterior wood and metal on the stations should receive consideration.

APPARATUS.

Engines.

A gasoline motor-driven combination pumping engine, chemical and hose wagon with a pump capacity of at least 750 gallons per minute for the proposed station in Readville.

A gasoline motor-driven combination pumping engine, chemical and hose wagon with a pump capacity of at least 1,000 gallons per minute for the proposed remodeled station on Winthrop street, Charlestown.

Gasoline motor-driven combination pumping engines,

chemicals and hose wagons with a pump capacity of at least 750 gallons per minute to replace the horse-drawn apparatus in the quarters of Engine Companies 1, 16, 19, 30, 42 and 48.

Two-wheel tractors should be attached to the horse-drawn engines in the quarters of Engine Companies 3, 8, 15, 20, 26, 36 and 39.

Chemical and Hose Combinations.

Gasoline motor-driven combination chemical engine and hose wagons to replace the horse-drawn apparatus in the quarters of Engine Companies 3, 8, 15, 20, 26, 36 and 39.

Ladder Trucks.

Gasoline motor-driven 85-foot quick-raising aerial trucks should be installed in the quarters of Ladder Companies 1, 2, 3, 5 and 9 to replace the horse-drawn apparatus.

The horse-drawn combination ladder trucks and chemical engines in service with Ladder Companies 11, 22, 23, 24, 25, 26, 27 and 28 should be replaced by gasoline motor-driven 65-foot quick-raising aerial trucks, each equipped with a 40-gallon chemical tank.

Relief Apparatus.

With the large number of pieces of motor apparatus at present in service, which will be largely augmented in the near future, I cannot emphasize too strongly the need of having sufficient relief apparatus of the different types on hand to replace the regularly assigned apparatus in an emergency.

MEN.

The new engine company recommended for the Readville section should consist of a lieutenant and six men, and as Hose Company 49 would be disbanded the man now assigned to that company could be transferred to the new company.

The engine company recommended for the Charlestown district should consist of two officers and ten men, and as Chemical Company 3 would be disbanded the four men now assigned to that company could be transferred to the new company.

The morale of the department is excellent. Much credit is due the officers and men for the praiseworthy manner in which their duty has been done.

I wish to express my gratitude to all other departments who have cheerfully coöperated with us when called on.

P. F. McDONOUGH,
Chief of Department.

FIRE ALARM BRANCH.

March, 1917.

FROM: THE SUPERINTENDENT OF FIRE ALARM BRANCH.

TO: THE FIRE COMMISSIONER.

SUBJECT: ANNUAL REPORT FOR YEAR ENDING JANUARY 31, 1917.

I respectfully submit the following report of the Fire Alarm Branch for the fiscal year February 1, 1916, to February 1, 1917.

OPERATING DIVISION.

NOTE.— The records of this division are for the calendar year 1916.

Box alarms received and transmitted:

First alarms	2,356
Second alarms	46
Third alarms	16
Fourth alarms	6

Box alarms received and not transmitted:

Alarms received from same box for same fire two or more times	208
Alarms received from adjacent boxes for same fire	209

Still alarms received and transmitted:

Received from citizens by telephone to office	993
Received from Police Department by telephone to office	141
Received from department stations	797
"Mutual aid" alarms, classified as stills	18
Emergency calls, treated as stills	33
Still alarms for which box alarms were later transmitted	128

AUTOMATIC ALARMS.

Boston Automatic alarms received	162
Department boxes received and transmitted in connection with same	17
A. D. T. alarms received	33

A. D. T. alarms transmitted	22
Department boxes received and transmitted for same,	11

TOTAL ALARMS.

Box alarms received from all sources	2,841
Box alarms transmitted (including multiples)	2,424
Stills, Automatics, Mutual Aid, Emergency, etc., eliminating those for which box alarms were transmitted	2,149
Total alarms transmitted for all classes	4,573

FIRE ALARM BOX RECORDS.*

Boxes from which no alarms were received	450
Boxes from which twenty or more alarms were received,	4
Box tests and inspections	10,963

CONSTRUCTION DIVISION.

Underground Construction.

Thirty-six thousand (36,000) feet of cable, containing about eighty-three (83) miles of conductors, were hauled into underground ducts, principally in the South Boston, Roxbury and West Roxbury sections. Forty-two thousand eight hundred and seventy-two (42,872) feet of cable were bought, but owing to the pressing demand on cable manufacturers, a condition prevalent throughout the trade, the contracting manufacturer of our cable was unable to fulfill the contract until several weeks after the specified time, with the result that weather conditions prevented the installation of but a comparatively small amount.

About eight thousand (8,000) feet of ducts were laid underground; seven (7) manholes built; thirty-five (35) lamp-posts and two (2) test posts were set. Six (6) lamp-posts and three (3) test posts were reset or replaced by new posts.

Overhead Construction.

About seventeen (17) miles of wire were strung on poles for extension of circuits and to replace old wire. About eighteen (18) miles of old wire were removed because of the extension of underground system.

* Each keyless door is tested semi-weekly.

One (1) new box circuit and one (1) new tapper were made.

Fire Alarm Boxes.

Thirty-nine (39) new fire alarm box stations were established, thirty (30) of which are public boxes and nine (9) placed on private property. Ten (10) of the new boxes were placed on lamp-posts; twenty (20) were attached to poles; five (5) were attached to buildings and four (4) were located inside of buildings.

Seventeen (17) boxes formerly attached to poles or buildings have been re-established on lamp-posts and one (1) box was removed from private property and relocated on a pole. Five (5) boxes were removed from service.

INSIDE WORK, DEPARTMENT STATIONS.

Considerable progress has been made in bringing the wiring of department stations up to present-day standard requirements. Extensive changes, alterations and additions have been made in both lighting and signal services. Engine 14 and Ladder 4 stations were completely rewired for signal and lighting services by men of this branch.

Many additional test switches for signal circuits have been installed in stations.

RECOMMENDATIONS.

Funds should be provided for replacing old cables and additional cables in Boston proper, and also for the extension of the underground service in sections where the present overhead construction is dangerous. The prescribed underground districts for this year affect this department considerably and will require a larger appropriation than usual.

There are several places where signal boxes should be established; especially is this true of the newly built suburban sections.

Several circuits are overloaded and new circuits should be made to relieve this condition.

A few minor improvements are contemplated in the central station and the standardization of wiring in stations must be continued.

FIRE ALARM BOX POSTS INSTALLED AND DUCT LENGTHS TO SAME.

<i>City Proper.</i>	Duct Feet.
Prince and Salem streets	10
Canal and Traverse streets	25
Albany and Harvard streets	17
Massachusetts and Commonwealth avenues	16
Beacon street and Charlesgate West	33
<i>East Boston.</i>	
Bennington and Moore streets	16
Bennington street and Neptune road	15
<i>Dorchester.</i>	
Sumner and Willis streets	126
Sumner and Stoughton streets	39
Blue Hill avenue and Clarkwood street	67
<i>Roxbury.</i>	
West Cottage and Judson streets	11
Dudley and Greenville streets	20
Harrison avenue and Eustis street	39
Roxbury and Centre streets	122
Tremont and Parker streets	12
Tremont and St. Alphonsus streets	10
Huntington avenue, opposite Fenwood road	21
Columbus avenue and Dimock street	10
Amory street, at car barn	10
<i>West Roxbury.</i>	
South and Robert streets, 2 ducts	96
Walworth street and Belgrade avenue	51
Centre and Church streets	34
Centre and La Grange streets	12
Washington street and Elven road	91
<i>Hyde Park.</i>	
River and West streets	14
River street and Metropolitan avenue	17
Webster street and Central avenue	7
<i>Brighton.</i>	
Commonwealth avenue and St. Paul street	84
Pratt and Ashford streets	30
Washington and Snow streets	23
Washington street and Commonwealth avenue	113
Chestnut Hill and Commonwealth avenues	17
Chestnut Hill avenue and Sutherland road	70
Strathmore and Sutherland roads	19

FIRE ALARM POSTS RESET.

Forest Hills street and Glen road (knocked down by automobile).
 Joy and Myrtle streets (knocked down by automobile).
 North and Cross streets (knocked down by automobile).
 Dorchester avenue and A street (account subway construction).
 Albany and Dover streets (change in grade line).
 Albany and Dedham streets (change in grade line, 52 feet duct).

NEW TEST POSTS INSTALLED.

	Feet.
Massachusetts avenue and Southampton street, 4 ducts	100
Everett avenue and Stoughton street, 4 ducts	104

WOOD TEST POSTS REPLACED BY IRON POSTS.

Harrison avenue and Waltham street, 4 ducts	130
Dorchester avenue and West Fourth street, 5 ducts	140
Warren and Moreland streets.	

CONDUITS INSTALLED.

To Fire Alarm Shop, Wareham street, 3 ducts	140
To City Hospital Ambulance Station, Albany street, 1 duct	32
Albany and Newton streets (to connect manholes), 1 duct	22
* Amory street, between Centre and Bragdon streets, 2 ducts	1,688
Dimock street, from Amory street to Columbus avenue, 1 duct	331
Annabel street, from Sumner street to Engine House 21, 2 ducts	780
At Stoughton and Sumner streets, between manholes, 2 ducts	64
* Chestnut Hill avenue, at Commonwealth avenue, 1 duct	327
North Beacon street, from Cambridge street to Everett street, 2 ducts	800
To Engine House 43, Andrew square, 2 extra ducts,	210
Harrison avenue, at Stoughton street, 1 duct	83

NEW POLE CONNECTIONS AND DUCT LENGTHS TO SAME.

<i>East Boston.</i>	Duct Feet.
Bennington and Byron streets	100
<i>Dorchester.</i>	
Stoughton street and Everett avenue	142
Pleasant and Thornley streets	36
Dorchester avenue and Rawson street	98

* In conjunction with Police Department.

Brighton.

	Feet.
Chester and Ashford streets, 4-conductor	1,039
Post and pole connections, 10-conductor	197
Post and pole connections, 4-conductor	225

PUBLIC FIRE ALARM BOXES ESTABLISHED.

City Proper.

- 132. Canal and Traverse streets.
- 1492. Albany and Harvard streets.
- 1536. Commonwealth avenue and Clarendon street.
- 1584. Commonwealth and Massachusetts avenues.
- 1593. Belvidere and Dalton streets.
- 231. Beacon street and Charlesgate West.

Roxbury.

- 2272. Columbus avenue and Centre street.

Jamaica Plain.

- 2421. South Huntington avenue and Bynner street.
- 2435. Spring Park avenue and Enfield street.

West Roxbury.

- 2516. Washington street and Elven road.
- 2624. Clement avenue and Stratford street.
- 2663. Washington street, opposite Edgemere road.
- 2716. Hewlett and Selwyn streets.
- 2745. La Grange and Vale streets.

Dorchester.

- 3454. Neponset avenue and Tileston street.
- 3467. Walnut and Woodworth streets.
- 3527. Blue Hill avenue and Clarkwood street.
- 3534. Morton and Owen streets.
- 3541. Wellington Hill street, opposite Ormond street.
- 3643. Milwood and Milton streets.
- 3651. Bailey and Atherstone streets.

Brighton.

- 511. Commonwealth avenue and St. Paul street.
- 5155. Union street and Howard place.
- 5156. Nottingham road, opposite No. 16.
- 5162. Commonwealth avenue and Cummings road.
- 5164. Lanark and Kilsyth roads.
- 5198. Nonantum street and Brayton road.
- 5284. Hobart and Bennett streets.

Hyde Park.

- 3856. Milton and Chester streets.

PRIVATE FIRE ALARM BOXES ESTABLISHED.

- 1357. Massachusetts General Hospital.
- 1358. Massachusetts Eye and Ear Infirmary.
- 1437. Boston & Albany Railroad freight office, Kneeland and South streets. (Auxiliary.)
- 1438. Boston & Albany Railroad freight shed, Utica street. (Auxiliary.)
- 1439. Boston & Albany Railroad freight sheds, Albany street. (Auxiliary.)
- 1594. Fenway Theater, Massachusetts avenue, near Boylston street.
- 1658. Home for Destitute Catholic Children, Harrison avenue. (Owned by Fire Department.)
- 7327. King Terminal, K and Elkins street. (Auxiliary.)
- 7328. Condit Electrical Manufacturing Company, East First and L streets. (Auxiliary.)

SCHOOLHOUSE BOX ESTABLISHED.

- 2349. High School of Commerce, Avenue Louis Pasteur.

CHANGES IN LOCATION OF FIRE ALARM BOXES.

- 235. From Ladder House No. 4 to Dudley and Greenville streets.
- 243. From Engine House No. 14 to Centre and Roxbury streets.
- 1224. From Engine House No. 8 to Prince and Salem streets.
- 2123. From Chemical House No. 10 to Harrison avenue and Eustis street.
- 2275. From Amory and Dimock streets to Columbus avenue and Dimock street.
- 5121. From Pratt street, near Wadsworth street, to Pratt and Ashford streets.
- 784. From baseball park to Columbus avenue and Walpole street.

BOXES REMOVED FROM SERVICE.

- 456. Charlestown Almshouse. (Institution abolished.)
- 684. James Otis School, Marion street.
- 1324. American House, Hanover street. (Building vacated.)
- 1623. Theater, at Washington and Motte streets. (Reconstruction.)
- 1635. Hub Theater, Washington and Dover streets. (Building demolished.)

The numbers of 234 boxes were changed.

FIRE ALARM BOXES IN SERVICE.

Total number	1,117
Owned by Fire Department	819
Owned by Schoolhouse Department	149

Owned by Auxiliary Fire Alarm Company	65
Private ownership	84
Department boxes:	
On lamp-posts	373
On poles	423
On buildings with lights over them	16
On buildings not lighted	4
Equipped with keyless doors	767
Equipped with keyless doors with handle under glass guard	47
Equipped with key doors	5
Equipped with auxiliary attachments	15
Schoolhouse boxes:	
On lamp-posts	12
On poles	18
On outside of school buildings	62
Inside of school buildings	57
Equipped with keyless doors	92
Equipped with key doors	57
Auxiliary Fire Alarm Company boxes:	
On lamp-post	1
On poles	6
On outside of buildings	19
Inside of buildings	39
Equipped with keyless doors	10
Equipped with key doors	55
Private boxes:	
On poles	6
On outside of buildings	20
Inside of buildings	58
Equipped with keyless doors	9
Equipped with key doors	75

POSTS AND TEST BOXES.

Lamp-posts in service	386
Lamp-posts set but not in service	15
Test posts in service	63
Pole test boxes in service	185

CLASSIFICATION OF FIRE ALARM BOX STATIONS.

1 Academies	5251-5252-5276-5188-5189	4 5
2 Asylums	3232-2277-1458	3 3
3 Car barns		5 5
4 Cemetery		1 1
5 Church		1 1
6 Homes for aged people		2 2
7 Hospitals	3284-2285-1657	17 19
8 Hotels	1652	5 5
9 Manufacturing plants		22 23
10 Milk depot		1
City yard	1655	6 13

FIRE DEPARTMENT.

27

11 Museum	1	63
12 Navy Yard	6	1
13 Newspaper office	1	1
14 Office building	1	1
15 Police station (Chelsea)	1	1
16 Power stations	5	5
17 Prison	1	1
18 Public buildings (Office)	2	2
19 Public hall	1	1
20 Railroad shops	4	4
21 Railroad stations	5	5
22 Railroad yards	15	11
23 Restaurant	1	1
24 Retail stores	6	6
25 Schoolhouses	162	172
26 Stables	2	2
27 Stock yards	2	2
28 Street (public) boxes*	805	815
29 Theaters	27	28
30 Warehouses	1	3
31 Wharves	5	10
32 Wholesale houses	2	4
Total	1,117	1141

CIRCUITS.

Number of box circuits	61
Number of tapper circuits	14
Number of gong circuits	13
Number of telephone circuits to department stations	45
Number of telephone circuits to New England Telephone and Telegraph Company, Beach Exchange	7
Special telephone circuit to New England Telephone and Telegraph Company, Back Bay Exchange	1
Special telephone circuit to Police Headquarters	1
Special telephone circuit to A. D. T. office	1
Telephone connection to Boston Automatic Company office	1
Telephone connection with Boston Protective Department	1

The above telephone service is from department exchange board.

WIRE, CABLE AND CONDUIT.

Line wire in service	1,328,100
Aerial cable in service	122,228

* Many of the schoolhouse and private boxes are accessible to the public but are not counted as street boxes.

	Feet.
Conductors in same	694,145
Aerial cable conductors in service	485,751
Underground cable in service	686,507
Conductors in same	10,874,743
Underground cable conductors in service	6,474,809
Conduits owned by Fire Department	52,694
Ducts in Fire Department conduit	67,493
Ducts in New England Telephone and Telegraph Company's system used by Fire Department	479,919
Ducts in Postal Telegraph Company's system used by Fire Department	1,411

FIRE ALARM APPARATUS.

Tappers in service	144
Boston tappers in adjacent towns and cities	6
Tappers connected to adjacent systems in Boston	6
Fire Department stations	117
Gongs in service	24
Registers in service in department stations	13
Relays in service in department stations	1
Tower bell in service	137
Telephones in department system	

PUBLIC CLOCKS.

Twenty-seven tower clocks, twenty-three of which are owned by the city, are kept in operation by this department.

Seventy-two reports of clock troubles, most of which were of minor importance, were attended to during the year.

SUMMARY OF WORK DONE.

	Feet.
New line wire used	88,440
Old wire removed from poles	95,040
Aerial cable installed (new work)	7,036
Conductors in same	41,710
Conductors in same in service	19,688
Aerial cable removed from service	800
Conductors in same	4,800
Underground cable installed in New England Telephone and Telegraph Company ducts	30,940
Conductors in same	375,343
Underground cable installed in department ducts	5,132
Conductors in same	62,969
Total underground cable installed (new work)	36,072
Conductors in same	438,312
Cable used for repairs on account of new subway,	3,769
Conductors in same	107,113
Underground cable removed from service	665
Conductors in same	6,650

FIRE DEPARTMENT.

	Feet.
Conduits laid by this department	6,590
Ducts in same	7,994
Fire alarm ducts discontinued	637
Manholes and handholes built	7
Pole set	1
Crossarms used	660

FIRE ALARM BOXES INSTALLED.

By Fire Department	30
By Schoolhouse Department	1
By Auxiliary Fire Alarm Company	5
By private owners	3
Fire alarm lamp-posts set (addition to service)	34
Fire alarm lamp-posts reset	6
Fire alarm test posts set (addition to service)	2
Fire alarm test posts replaced by new	3
Fire alarm pole test boxes installed	12

GEORGE L. FICKETT,
Superintendent Fire Alarm.

686,567
18,306
704,873

SUPERINTENDENT OF REPAIR SHOP.

Boston, February 10, 1917.

FROM: SUPERINTENDENT OF REPAIR SHOP.

TO: THE FIRE COMMISSIONER.

SUBJECT: ANNUAL REPORT.

I respectfully submit the following statement showing the number of repairs on horse-driven apparatus made in and outside of the Repair Shop Branch and the cost.

The number of repair jobs and cost for the upkeep of department company houses which was done by department mechanics and where stock was furnished, repairs being made by company members, is shown; also repairs on company quarters other than those made by department members and mechanics.

Repairs on furniture and bedding both in repair shop and by outside firms are included.

HORSE-DRIVEN APPARATUS REPAIRS.

Number of repair jobs done in repair shop	1,850
Cost of material and labor	\$19,325
Number of repair jobs by outside firms	299
Cost of repair jobs by outside firms	\$5,515

SUMMARY OF APPARATUS REPAIRS.

- 115 Solid rubber tires were applied to apparatus wheels.
- 62 Running gear springs were attached to apparatus.
- 13 Broken ladders were repaired.
- 25 Broken apparatus poles were replaced by new poles.
- 15 Band brakes were renewed.
- 6 Ladder trucks, 10 fire engines, 5 hose wagons and 3 chemical engines were overhauled in repair shop and put back into service.
- 8 Old district chief's buggies were altered and are now used as salt wagons.
- Numerous small jobs such as fitting handles to axes, sledges and hammers, repairing hames and harnesses are everyday repairs.

HOUSE REPAIRS BY PAINTERS, PLUMBERS, CARPENTERS AND STEAM FITTER.

Number of jobs by the above	1,375
Cost of material and labor	\$21,000
House repairs by outside firms	190
Cost of repairs by outside firms	\$4,934
Stock furnished, work done by company members	\$225

FURNITURE AND BEDDING.

Cost of repairs by outside firms	\$940
Cost of materials and labor in shop	\$275
Cost of stock furnished, repairs made by company members	\$24

A boiler room and engine room are connected with the Repair Shop Branch which give heat and power to the shop and the Fire Alarm Branch. The Dover Street Bath House is heated from the same source.

To keep the fire apparatus up to the highest efficiency repairs of every nature are made in the Repair Shop Branch, enabling it to respond to alarms with safety and dispatch. To keep company quarters up to a high standard, making them comfortable and sanitary for officers and men to live in, every description of repair work is done by the department carpenters, painters, plumbers and steam fitter, all of which is under the immediate supervision of the superintendent of the Repair Shop Branch.

AMOUNT OF HOSE PURCHASED AND CONDEMNED DURING THE YEAR.

Purchased.		Condemned.	
	Feet.		Feet.
Leading cotton	22,220	Leading cotton	14,350
Leading rubber	—	Leading rubber	500
Chemical	1,000	Chemical	1,400
Deck	200	Deck	200
Flexible suction	200	Flexible suction	148
Four-inch rubber suction	73½	Four-inch rubber suction	63
Two and one-half inch rubber suction	—	Two and one-half inch rubber suction	—
Deluge hose	—	Deluge hose	124
Total	23,693½	Total	16,785

AMOUNT OF HOSE IN USE AND IN STORE FEBRUARY
1, 1917.

<i>In Use.</i>	<i>Feet.</i>	<i>In store.</i>	<i>Feet.</i>
Leading cotton . . .	117,695	Leading cotton . . .	5,370
Leading rubber . . .	4,850	Leading rubber . . .	—
Chemical . . .	13,950	Chemical . . .	450
Deck . . .	900	Deck . . .	—
Flexible suction . . .	537½	Flexible suction . . .	66
Four-inch rubber suction . . .	1,134	Four-inch rubber suction . . .	63
Two and one-half inch rubber suction . . .	—	Two and one-half inch rubber suction . . .	40
Deluge hose . . .	768	Deluge hose . . .	75
Total . . .	<u>139,834½</u>	Total . . .	<u>6,064</u>

Respectfully submitted,

E. M. BYINGTON,
Superintendent.

MOTOR APPARATUS.

Boston, February 13, 1917.

FROM: SUPERVISOR OF MOTOR APPARATUS.

TO: THE FIRE COMMISSIONER:

SUBJECT: ANNUAL REPORT.

I respectfully submit the following statement showing the number of motor repairs which were made on apparatus in the Repair Shop Branch and the number by outside firms, with the cost for both, for the fiscal year of 1916.

APPARATUS REPAIRS.

Number of jobs in shop 1,364
Cost of material and labor \$11,750
17 Were on combinations, 24 on water towers, 31 on chemicals,
32 on engines, 52 on ladder trucks, 81 on pumping engines
and 620 on district chief's cars.

REPAIRS BY OUTSIDE FIRMS.

Number of jobs 256
Cost of the above \$1,700
These repairs were mostly on radiators, running gear springs,
mudguards and wind shields.

APPARATUS OVERHAULED IN REPAIR SHOP.

8 District chief's cars, 5 ladder trucks, 3 tractors, 2 pumping
engines, 2 delivery trucks, 1 combination and 1 chemical.
7 District chief's cars were repainted.
500 Repairs were made in company quarters and on the street
which were of an emergency nature.

SUMMARY OF REPAIRS MADE IN REPAIR SHOP.

110 Automobile springs were attached to apparatus.
51 Radiators were taken off and replaced.
30 Mudguards were taken off and replaced.
15 Headlights were taken off and replaced.
10 Wind shields were taken off and replaced.

REPAIRS AND NEW EQUIPMENT.

291 Pneumatic shoes were purchased.
233 Inner tubes were purchased.
45 Pneumatic shoes were repaired and vulcanized.

550 Inner tubes were repaired and vulcanized.
 86 Inner tubes were scrapped.
 291 Pneumatic shoes were scrapped.
 55 Prest-O-Lite tanks were recharged.
 15 Oxygen tanks were recharged.
 35 Storage batteries were purchased.
 15 Storage batteries were repaired.
 275 Storage batteries were recharged at repair shop.

PURCHASE OF NEW APPARATUS.

4 Cars for district chiefs.
 4 Tractors, three put in service.
 2 Light delivery trucks for Fire Alarm Branch.
 5 Combinations, 1 put in service.
 1 750-gallon motor apparatus pumping engine.
 1 Seven-passenger touring car for Fire Commissioner.
 1 3½-ton emergency truck with hoisting gear.

LECTURE COURSES.

A lecture course at the "School of Officers" was conducted by the supervisor of motor apparatus, subject, "Motor Apparatus." Also a special course was conducted for chauffeurs, the men comprising it being taken from six engine, one ladder and one chemical companies.

STOREROOM.

New steel racks were installed in the automobile section of the storeroom of the repair shop for miscellaneous automobile supplies and parts.

EFFICIENCY OF AUTO DEPARTMENT.

It is the aim of the supervisor of motor apparatus to keep the motor apparatus to the highest standard of efficiency, and to that end he and his assistants often have been obliged, on account of accidents and emergency jobs, to work nights, Sundays and holidays.

The motor squad is composed of uniform men detailed to the repair shop and automobile machinists of the Repair Shop Branch, and, as we are continually adding new motor apparatus, it will be necessary to employ additional mechanics.

Respectfully submitted,

CHARLES E. STEWART,
Supervisor of Motor Apparatus.

BOSTON FIRE DEPARTMENT VETERINARY HOSPITAL.

Boston, February 8, 1917.

FROM: THE DEPARTMENT VETERINARIAN.
 TO: THE FIRE COMMISSIONER.
 SUBJECT: ANNUAL REPORT.

I respectfully submit a report of the general health and condition of the horses of this department as very good. The following is a statement of the whole number of horses in the service and those that were purchased, sold, died, destroyed and killed in the service during the year ending January 31, 1917.

Total number on hand February 1, 1916	290
Total number on hand February 1, 1917	274
Horses purchased	13
Horses sold	13
Horses pensioned	6
Horses died	3
Horses destroyed	5
Horses killed	2

Respectfully submitted,

DANIEL P. KEOGH, M. D. V.

HEADQUARTERS FIRE DEPARTMENT.

Boston, February 1, 1917.

FROM: THE MEDICAL EXAMINER.
TO: THE FIRE COMMISSIONER:
SUBJECT: ANNUAL REPORT.

I respectfully submit the following report for the year ending January 31, 1917:

Number of cases of illness	298
Number of cases of injury	764
Number injured but remained on duty	558

EXAMINATIONS.

For appointment as probationary firemen	49
General examinations, including probationers at the expiration of their terms	1,460
House and hospital visits	89

The installation of the card index system to this branch in August, 1916, has added greatly to general efficiency, thus permitting accurate records to be readily available.

In August, 1916, pulmotors were permanently placed on Ladders 1, 4 and 17, and have proven their worth in the conservation of life of citizens as well as firemen. All pulmotors are examined once a month and an actual demonstration of operating same given to firemen.

Medicine chests carried on the different apparatus have been regularly inspected and promptly refilled after use in emergency cases.

"First aid" treatment of firemen and citizens at various times on record indicates intelligent effort and efficiency of commanding officers and men in the performance of this special line of duty.

The general health of the men throughout the year has been excellent, the number of injuries not out of proportion to the hazardous occupation.

Especial commendation should be given to men, although injured, who remained on duty.

DEATHS.

William C. Lutz, Ladder 9, May 12, 1916, fracture of skull, multiple fractures, fell from staging.

Engineer John T. Stewart, Engine 26-35, June 10, 1916, pernicious anemia and dilatation of heart.

Lieut. Ronald J. McDonald, Ladder 18, February 26, 1916, myocarditis, following operation for gastric ulcer.

Florence Donoghue, Ladder 15, January 4, 1917, acute dilatation of stomach, la grippe, bronchitis.

John P. Foley, Engine 28, January 13, 1917, chronic tuberculosis of the lungs, dilatation of heart (sudden death).

I am pleased herewith to express my thanks and utmost appreciation for the generous assistance rendered me by you and your commanding officers, also the honorable and faithful attitude of the men, the value of which has been a strong factor for all around general efficiency in the performance of my duties.

Respectfully submitted,

W. J. McNALLY,
Medical Examiner.

THE DEPARTMENT ORGANIZATION.

Commissioner, JOHN GRADY.
 Chief Clerk, BENJAMIN F. UNDERHILL.
 Chief of Department, PETER F. McDONOUGH.
 Superintendent of Construction and Repairs, EUGENE M. BYINGTON.
 Supervisor of Motor Apparatus, CHARLES E. STEWART.
 Superintendent of Fire Alarms, GEORGE L. FICKETT.
 Chief Operator and Assistant Superintendent of Fire Alarms, RICHARD DONAHUE.
 Veterinarian, DANIEL P. KEOGH.
 Medical Examiner, WILLIAM J. McNALLY.

CLERKS.

George F. Murphy, Daniel J. Quinn, James P. Maloney,
 Edward L. Tierney, Herbert J. Hickey, John J. Coholan,
 William J. Hurley, Nathan Cohen.

STRENGTH AND PAY.

HEADQUARTERS.

	Per annum.
1 Commissioner	\$5,000
1 Chief clerk	2,500
1 Medical examiner	1,500
1 Bookkeeper	2,100
2 Clerks	1,800
1 Clerk	1,600
1 Clerk	1,400
1 Clerk	1,200
1 Assistant engineer (messenger) *	1,400

10

FIRE-FIGHTING BRANCH.

1 Chief of department	\$4,500
2 Deputy chiefs	3,500
15 District chiefs	3,000
59 Captains	2,000
88 Lieutenants	1,800
1 Private, aid to commissioner *	1,400
1 Private, aid to chief *	1,400
3 Engineers (marine)	1,700

* Detailed from fire-fighting branch.

FIRE DEPARTMENT.

39

	Per annum.
49 Engineers	\$1,500
48 Assistant engineers	1,400
1 Assistant engineer	1,300
4 Assistant engineers	1,200
1 Assistant engineer	1,100
700 Privates:	
484	1,400
44	1,300
81	1,200
33	1,100
10	1,000
33	900
15	720

973

REPAIR SHOP BRANCH.

1 Supervisor of motor apparatus	\$3,500
1 Superintendent	3,000
1 Captain, assistant superintendent *	2,000
1 Lieutenant, foreman of hose and harness shop *,	1,800
1 Engineer (master plumber) *	1,600
1 Hoseman (master carpenter) *	1,600
1 Hoseman (master painter) *	1,600
1 Hoseman (automobile engineer) *	1,500
1 Foreman automobile machinists	1,400
6 Privates *	1,400

Employees.

1 Clerk	\$1,500
1 Clerk	1,000
1 Clerk *	1,400
1 Storekeeper *	1,800
	Per day.
1 Engineer	\$3 50
3 Firemen	3 25
2 Plumbers	4 40
1 Steam fitter	4 00
7 Painters	3 50
2 Wheelwrights	3 75
1 Machinist	4 00
7 Machinists	3 75
1 Foreman blacksmith	4 00
4 Blacksmiths	3 75
5 Blacksmith's helpers	2 75
3 Carpenters	3 50
1 Vulcanizer	3 00
2 Hose and harness repairers	3 50
1 Hose and harness repairer	2 50

* Detailed from fire-fighting branch.

1 Chauffeur	Per day.
2 Teamsters	\$3 00
	2 50

63

FIRE ALARM BRANCH.

	Per annum.
1 Superintendent	\$3,000
1 Chief operator and assistant superintendent	2,500
4 Principal operators	1,800
3 Operators	1,600
4 Assistant operators	1,400
4 Assistant operators	1,200

Construction Force.

1 Foreman	\$2,200
1 Assistant foreman	1,600
1 Stockman	1,400
	Per day.
1 Machinist	\$4 25
2 Machinists	3 75
19 Repairers, linemen and wiremen (average)	3 73
1 Watchman	2 75

43

VETERINARY HOSPITAL BRANCH.

	Per annum.
1 Veterinarian	\$3,000
1 Captain, assistant to veterinarian *	2,000
	Per day.
3 Hostlers (average)	\$2 50
1 Horseshoer	3 50

6

1,095

CHIEF OF DEPARTMENT.

PETER F. McDONOUGH.

Headquarters, Engine House 26-35, Mason Street.

The Chief is in charge of the fire protection of the city, which is divided into two divisions, each commanded by a deputy chief, which are subdivided into fifteen districts, each commanded by a district chief.

DIVISION 1.

Deputy Chief, JOHN O. TABER.

Headquarters, Ladder House 8, Fort Hill Square.

This division comprises Districts 1, 2, 3, 4, 5, 6 and 7.

District 1.

District Chief, ALBERT J. CAULFIELD.

Headquarters, Ladder House 2, Paris Street, East Boston.

All that portion of the city which is included within the district known as East Boston.

Apparatus Located in the District.—Engines 5, 9, 11, 40, 47 (fireboat), Ladders 2, 21, Chemical 7.

District 2.

District Chief, ALLAN J. MACDONALD.

Headquarters, Ladder House 9, Main Street, Charlestown.

All that portion of the city which is included within the district known as Charlestown.

Apparatus Located in the District.—Engines 27, 32, 36, Ladders 9, 22, Chemicals 3, 9.

District 3.

District Chief, STEPHEN J. RYDER.

Headquarters, Ladder House 18, Pittsburgh Street.

All that portion of the city which is included within a line beginning at the intersection of State and Devonshire streets, thence easterly through State street to the waterfront, thence southeasterly across the harbor to the extension of C street, South Boston, thence southerly through C street to Cypher street, thence northwesterly through Cypher street to B street, thence southwesterly through B street to West First street, thence westerly through West First street to Atlantic Avenue Bridge, thence through Atlantic Avenue Bridge and Atlantic avenue to Summer street, thence westerly through Summer street to Devonshire street, thence through Devonshire street to the point of beginning.

Apparatus Located in the District.—Engines 25, 38, 39, 44 (fireboat), Ladders 8, 18, Water Tower 3.

District 4.

District Chief, EDWARD J. SHALLOW.

Headquarters, Engine House 4, Bulfinch Street.

All that portion of the city which is included within a line beginning at the intersection of State and Devon-

shire streets, thence through Devonshire street southerly to Water street, thence westerly through Water street to Washington street, thence southerly through Washington street to School street, thence through School street and Beacon street to Charles street, thence northerly through Charles street to Pinckney street, thence westerly through Pinckney street to the Cambridge boundary line, thence northerly along said Cambridge boundary line to its intersection with the tracks of the Eastern Division of the Boston & Maine Railroad, thence northeasterly to the Warren Avenue Drawbridge, thence easterly to the Charlestown Drawbridge, thence northeasterly and then southerly around the waterfront to the extension of State street, thence through State street to the point of beginning.

Apparatus Located in the District.—Engines 4, 6, 8, 31 (fireboat), Ladders 1, 24, Chemical 1, Water Tower 1.

District 5.

District Chief, WILLIAM COULTER.

Headquarters, Engine House 26-35, Mason Street.

All that portion of the city which is included within a line beginning at the intersection of Devonshire and Water streets, thence running westerly through Water street to Washington street, thence southerly through Washington street to School street, thence through School street and Beacon street to Charles street, thence northerly through Charles street to Pinckney street, thence westerly through Pinckney street to the Cambridge boundary line, thence southerly along said boundary line to the extension of Otter street, thence through Otter street to Beacon street, thence easterly through Beacon street to Arlington street, thence through Arlington street to Boylston street, thence easterly through Boylston street to Church street, thence through Church street to Providence street, thence through Providence street to Columbus avenue, thence through Columbus avenue to Church street, thence through Church street to Tremont street, thence northerly through Tremont street to Pleasant street, thence southeasterly through Pleasant street and Broadway extension to Fort Point channel, thence northerly through Fort Point channel to Atlantic Avenue Bridge, thence through Atlantic Avenue Bridge and Atlantic avenue to Summer street, thence westerly through Summer street

to Devonshire street, thence through Devonshire street to the point of beginning.

Apparatus Located in the District.—Engines 7, 10, 26, 35, Ladder 17, Chemical 2.

District 6.

District Chief, FRANCIS J. JORDAN.

Headquarters, Engine House 1, Dorchester Street, South Boston.

All that portion of the city which is included within a line beginning at the intersection of Atlantic Avenue Bridge and Fort Point channel, thence southerly through Atlantic Avenue Bridge to West First street, thence through West First street to B street, thence northerly through B street to Cypher street, thence through Cypher street to C street, thence northerly through C street to the waterfront, thence by the waterfront southeasterly, then westerly to the extension of Columbia road, thence through Columbia road to Mt. Vernon street, thence through Mt. Vernon street to Willow court, thence through Willow court to Massachusetts avenue, thence through Massachusetts avenue to the New York, New Haven & Hartford Railroad tracks (inclusive), thence northerly along said tracks (inclusive) to the South bay, thence northerly to Fort Point channel, thence through Fort Point channel to the point of beginning.

Apparatus Located in the District.—Engines 1, 2, 15, 43, Ladders 5, 19, 20, Chemical 8.

District 7.

District Chief, PETER E. WALSH.

Headquarters, Engine House 22, Warren Avenue.

All that portion of the city which is included within a line beginning at the intersection of Beacon and Otter streets, thence easterly through Beacon street to Arlington street, thence through Arlington street to Boylston street, thence easterly through Boylston street to Church street, thence through Church street to Providence street, thence through Providence street to Columbus avenue, thence through Columbus avenue to Church street, thence through Church street to Tremont street, thence northerly through Tremont street to Pleasant street, thence easterly through Pleas-

ant street and Broadway extension to Fort Point channel, thence southerly through Fort Point channel to the Roxbury canal, thence southerly through the Roxbury canal to Massachusetts avenue, thence northwesterly through Massachusetts avenue to the Cambridge boundary line, thence northeasterly along said boundary line to a point opposite the extension of Otter street, thence through Otter street to the point of beginning.

Apparatus Located in the District—Engines 3, 22, 33, Ladders 3, 13, 15, Chemical 4, Water Tower 2.

DIVISION 2.

Deputy Chief, DANIEL F. SENNOTT.

Headquarters, Ladder House 4, Dudley Street.

This division comprises Districts 8, 9, 10, 11, 12, 13, 14 and 15.

District 8.

District Chief, WILLIAM J. GAFFEY.

Headquarters, Ladder House 12, Tremont Street.

All that portion of the city within a line beginning at the intersection of Massachusetts avenue and the Cambridge boundary line, thence through Massachusetts avenue to Washington street, thence southerly through Washington street to Marcella street, thence by Marcella street to Centre street, by Centre street to New Heath street, thence by New Heath street to Heath square to Heath street, thence by South Huntington avenue to Huntington avenue, thence by Huntington avenue to the Brookline boundary line, thence northerly and easterly along the Brookline boundary line to the Cottage Farm Bridge (inclusive), thence northerly through Essex street to the Cambridge boundary line, thence easterly by said Cambridge boundary line to the point of beginning.

Apparatus Located in the District.—Engines 13, 14, 37, Ladders 12, 26, Chemical 12.

District 9.

District Chief, JOSEPH H. KENNEY.

Headquarters, Engine House 12, Dudley Street.

All that portion of the city within a line beginning at the intersection of the extension of Columbia road and

the Old Harbor, thence running westerly through Columbia road to Mt. Vernon street, thence through Mt. Vernon street to Willow court, thence through Willow court to Massachusetts avenue, thence through Massachusetts avenue to the New York, New Haven & Hartford Railroad tracks (exclusively), thence northerly along said tracks (exclusive) to the South bay, thence westerly along said South bay to the Roxbury canal, thence southerly through the Roxbury canal to Massachusetts avenue, thence northwesterly through Massachusetts avenue to Washington street, thence southerly through Washington street to Elmore street, thence easterly through Elmore street to Munroe street, thence easterly through Munroe street to Warren street, thence southeasterly through Warren street to Sunderland street, thence through Sunderland street to Stanwood street, thence through Stanwood street to Columbia road, thence northeasterly through Columbia road to Stoughton street, thence easterly through Stoughton street to Pleasant street, thence through Pleasant street to Savin Hill avenue, thence easterly and northerly through Savin Hill avenue to Evandale terrace, thence through Evandale terrace to waterfront, thence northerly along waterfront to the point of beginning.

Apparatus Located in the District.—Engines 12, 21, 23, 24, Ladder 4, Chemical 10.

District 10.

District Chief, WALTER M. McLEAN.

Headquarters, Engine House 18, Harvard Street, Dorchester.

All that portion of the city within a line beginning at the intersection of the extension of Evandale terrace and Dorchester bay, thence through Evandale terrace to Savin Hill avenue, thence northerly and westerly through Savin Hill avenue to Pleasant street, thence northerly through Pleasant and Stoughton streets to Columbia road, thence southerly through Columbia road to Blue Hill avenue, thence southerly through Blue Hill avenue to Canterbury street, thence through Canterbury street to Morton street, thence southerly through Morton street to Blue Hill avenue, thence northerly through Blue Hill avenue to Woodrow avenue, thence through Woodrow avenue to Norfolk street, thence through Norfolk street to Centre street, thence through

Centre street to Adams street, thence northerly through Adams street to Mill street, thence through Mill street to Preston street, thence through Preston street to Freeport street, thence southerly through Freeport street to Dorchester bay, thence northerly along the waterfront to the point of beginning.

Apparatus Located in the District.—Engines 17, 18, Ladders 7, 29, Chemical 11.

District 11.

District Chief, HENRY A. FOX.

Headquarters, Engine House 41, Harvard Avenue, Brighton.

All that portion of the city included within the district known as Brighton which is west of the Cottage Farm Bridge and Essex street.

Apparatus Located in the District.—Engines 29, 34, 41, Ladders 11, 14, 31.

District 12.

District Chief, MICHAEL J. MULLIGAN.

Headquarters, Engine House 28, Centre Street, Jamaica Plain.

All that portion of the city known as West Roxbury and Jamaica Plain within a line beginning at the intersection of Washington and Morton streets, thence by Morton street to Canterbury street, thence by Canterbury street to Blue Hill avenue, thence by Blue Hill avenue to Columbia road, thence by Columbia road to Stanwood street, thence by Stanwood and Sunderland streets to Warren street, thence by Warren street to Munroe street, thence by Munroe street to Elmore street, thence by Elmore street to Washington street, thence by Washington street to Marcella street, thence by Marcella street to Centre street, thence by Centre street to New Heath street, thence by New Heath street to Heath square, thence through Heath square to Heath street, thence by Heath street to South Huntington avenue, thence by South Huntington avenue to Huntington avenue, thence by Huntington avenue to the Brookline boundary line, thence southeasterly along said Brookline boundary line to Perkins street, thence by

Perkins street to Prince street, thence by Prince street to the Arborway, thence by the Arborway to the point of beginning.

Apparatus Located in the District.—Engines 28, 42, Ladders 10, 23, 30, Chemical 5.

District 13.

District Chief, MICHAEL J. KENNEDY.

Headquarters, Engine House 45, Corner Washington and Poplar Streets, Roslindale.

All that portion of the city beginning at the intersection of Washington and Morton streets, thence by Morton street to Harvard street, thence by Harvard street to Ashland street, thence by Ashland street to and across the New York, New Haven & Hartford Railroad tracks, thence southerly along the New York, New Haven & Hartford Railroad tracks to the boundary line of Ward 24, thence southwesterly along the said boundary line of Ward 24 to the Dedham boundary line, thence along the Dedham boundary line to the Newton boundary line, thence northeasterly along the Newton boundary line to the Brookline boundary line, thence southeasterly and thence northerly along said Brookline boundary line to Perkins street, thence by Perkins street to Prince street, thence by Prince street to the Arborway, thence by the Arborway to the point of beginning.

Apparatus Located in the District.—Engines 30, 45, Ladders 16, 25, Chemical 13.

District 14.

District Chief, MAURICE HEFFERNAN.

Headquarters, Engine House 46, Peabody Square, Dorchester.

All that portion of the city within a line beginning at the intersection of Dorchester bay and Freeport street (Commercial Point), thence northerly through Freeport street to Preston street, thence through Preston street to Mill street, thence through Mill street to Adams street, thence southerly through Adams street to Centre street, thence through Centre street to Norfolk street, thence through Norfolk street to Woodrow avenue, thence through Woodrow avenue to Blue Hill avenue, thence southerly through Blue Hill avenue to Morton street, thence northwesterly through Morton

street to Harvard street, thence southerly through Harvard street to Oakland street, thence through Oakland street to Rexford street, thence through Rexford street to Blue Hill avenue, thence northerly through Blue Hill avenue to Fremont street, thence through Fremont street to the Neponset river, thence along the Neponset river and Dorchester bay northwesterly to the point of beginning.

Apparatus Located in the District.—Engines 16, 20, 46, Ladders 6, 27.

District 15.

District Chief, JOSEPH A. DOLAN.

Headquarters, Engine House 48, Corner Harvard Avenue and Winthrop Street, Hyde Park.

All that portion of the city within a line beginning at the intersection of the extension of Fremont street and the Milton boundary line, thence through Fremont street to Blue Hill avenue, thence southerly through Blue Hill avenue to Rexford street, thence through Rexford street to Oakland street, thence westerly through Oakland street to Ashland street, thence through Ashland street to the New York, New Haven & Hartford Railroad tracks (inclusive), thence southerly along the New York, New Haven & Hartford Railroad tracks (inclusive) to the boundary line of Hyde Park, thence along the Hyde Park boundary line to the Dedham boundary line, thence southeasterly along the Dedham boundary line to the Milton boundary line, thence along the Milton boundary line to the point of beginning.

Apparatus Located in the District.—Engines 19, 48, Ladder 28, Chemical 14, Hose 49.

NOTE.—Wherever a street, channel or bridge is named the center line of each will be the line used. Inspections of the following-named islands will be made under special orders issued by the Chief of Department: Apple, Castle, Gallop's, George's, Governor's, Long, Lovell's, Rainsford, Deer, Thompson's and Spectacle.

FIRE STATIONS.

LOCATION AND VALUATION.

LOCATION.	Number of Feet in Lot.	Assessed Valuation.	Occupied by
Dorchester and Fourth streets.....	8,167	\$25,800	Engine 1 and Ladder 5.
Corner of O and Fourth streets.....	4,000	16,200	Engine 2.
Bristol street and Harrison avenue....	4,000	30,000	Engine 3 and Ladder 3.
Bulfinch street.....	6,098	96,000	Engine 4, Chemical 1 and Tower 1.
Marion street, East Boston.....	1,647	9,000	Engine 5.
Leverett street.....	2,269	40,000	Engine 6.
East street.....	1,893	39,200	Engine 7.
Salem street.....	2,568	32,300	Engine 8.
Paris street, East Boston.....	4,720	33,300	Engine 9 and Ladder 2.
River street.....	1,886	29,500	Engine 10.
Saratoga and Byron sts., East Boston,	10,000	40,000	Engine 11 and Ladder 21.
Dudley street.....	7,320	25,000	Engine 12.
Cabot street.....	4,832	14,800	Engine 13.
Centre street.....	5,713	14,600	Engine 14.
Dorchester avenue.....	2,803	18,600	Engine 15.
Corner River and Temple streets.....	12,736	19,200	Engine 16 and Ladder 6.
Meeting House Hill, Dorchester.....	9,450	17,300	Engine 17 and Ladder 7.
Harvard street, Dorchester.....	9,440	18,800	Engine 18.
Norfolk street, Dorchester.....	7,683	14,500	Engine 19.
Walnut street, Dorchester.....	9,000	17,300	Engine 20 and Ladder 27.
Columbia road, Dorchester.....	10,341	17,100	Engine 21.
Warren avenue.....	7,500	62,500	Engine 22 and Ladder 13.
Northampton street.....	3,445	11,200	Engine 23.
Corner Warren and Quincy streets....	4,186	18,100	Engine 24.
Fort Hill square.....	4,175	100,600	Engine 25 and Ladder 8.
Mason street.....	5,023	223,000	Engines 26 and 35.
Elm street, Charlestown.....	2,600	17,500	Engine 27.
Centre street, Jamaica Plain.....	10,377	28,300	Engine 28 and Ladder 10.
Chestnut Hill avenue, Brighton.....	14,358	37,200	Engine 29 and Ladder 11.
Centre street, West Roxbury.....	12,251	25,000	Engine 30 and Ladder 25.

Fire Stations.—*Concluded.*

LOCATION.	Number of Feet in Lot.	Assessed Valuation.	Occupied by
521 Commercial street, on land of Public Works Department.	.....	\$10,000	Engine 31, fireboat.
Bunker Hill street, Charlestown.....	8,188	25,000	Engine 32.
Corner Boylston and Hereford streets,	5,646	108,000	Engine 33 and Ladder 15.
Western avenue, Brighton.....	4,637	17,800	Engine 34.
Monument street, Charlestown.....	5,668	21,000	Engine 36 and Ladder 22.
Corner Longwood and Brookline aves.,	5,231	14,300	Engine 37 and Ladder 26.
Congress street.....	4,000	40,000	Engines 38 and 39.
Summer street, East Boston.....	4,010	18,000	Engine 40.
Harvard avenue, near Cambridge street, Brighton.	6,112	34,500	Engine 41 and Ladder 14.
Washington street, at Egleston square,	3,848	22,900	Engine 42 and Ladder 30.
Andrew square.....	5,133	19,600	Engine 43 and Ladder 20.
Northern Avenue Bridge.....	.....	30,000	Engine 44, fireboat.
Washington and Poplar streets, Ros- indale.	14,729	22,400	Engine 45 and Ladder 16.
Dorchester avenue, Ashmont.....	4,875	23,200	Engine 46.
Adjoining South Ferry, East Boston..	11,950	31,000	Engine 47, fireboat.
Harvard avenue and Winthrop street, Hyde Park.	9,450	40,100	* Engine 48, Ladder 28 and Chemical 14.
Church street.....	3,412	23,600	Chemical Engine 2.
Winthrop and Soley streets.....	5,230	15,400	Chemical 3.
Shawmut avenue.....	889	4,300	Chemical Engine 4.
Saratoga street, East Boston.....	9,300	40,600	Chemical Engine 7.
B street.....	1,800	7,800	Chemical Engine 8.
Corner Callender and Lyford streets,	7,200	13,200	Chemical 11 and Ladder 29.
Corner Walk Hill and Wenham streets,	11,253	17,800	Chemical 13.
Friend street.....	1,676	37,200	Ladder 1.
Dudley street.....	3,923	26,000	Ladder 4 and Chemical 10.
Main street, Charlestown.....	4,290	16,000	Ladder 9 and Chemical 9.
Tremont street.....	4,311	25,600	Ladder 12 and Chemi- cal 12.
Harrison avenue.....	2,134	23,800	Ladder 17.
Pittsburgh street, South Boston.....	8,964	39,900	Ladder 18 and Tower 3.
Fourth street.....	3,101	10,700	Ladder 19.
Washington street, Dorchester.....	6,875	21,400	Ladder 23 and Chemi- cal 5.
North Grove street.....	3,918	19,800	Ladder 24.
Oak square, Brighton.....	9,889	42,000	Ladder 31.
Sprague and Milton streets, Hyde Park district, on land owned by the New York, New Haven & Hartford Railroad.	.....	3,000	Hose 49.

Headquarters Building, Bristol street, 15,679 feet
of land \$113,000
Water Tower No. 2 is in Headquarters Building.

OTHER BUILDINGS.

Repair Shop, 363 Albany street, 8,000 feet of
land \$68,000
Veterinary Hospital, Atkinson street, 64,442 feet
of land 75,000
Coal station, Dorchester street, 1,610 feet of land,
Coal station, Main street, Charlestown, 2,430 feet
of land 3,100
Coal station, Charles River avenue, on land of
Public Works Department, building cost 6,500
Building No. 11 Wareham street, used by the Fire
Alarm Branch as workshop and storeroom,
8,500 feet of land 1,200
40,000
Total value of land, wharves and buildings . . . 2,256,200

LEASED BUILDINGS.

Part of building 240-256 Dover street used as store-
house for spare apparatus.
About 800 square feet of shed on Sleeper street (New
Haven Terminal Stores) used as a coal station.
Part of building 11 Atherton street used for storage.

CANNEL COAL STATIONS.

DIVISION 1.

DISTRICT.	Location.	Capacity. (Tons.)	Wagons.
1.....	Engine 11.....	12	1
1.....	Engine 40.....	20	2
2.....	Engine 36.....	35	1
2.....	Ladder 9.....	35	1
2.....	Chemical 3.....	15	1
3.....	Sleeper st.....	45	2
3.....	Engines 38 and 39.....	6	1
3.....	Ladder 18.....	1	
4.....	Engine 8.....	5	1
4.....	Ladder 24.....	16	2
4.....	Charles River avenue.....	50	2
5.....	Engine 26.....	20	1
5.....	Chemical 2.....	35	3
6.....	Engine 2.....	20	1
6.....	Dorchester street, 330.....	20	2
7.....	Engine 33.....	25	1

DIVISION 2.

8.....	Engine 13.....	40	1
8.....	Engine 14.....	10	1
8.....	Engine 37.....	20	1
9.....	Engine 12.....	5	1
9.....	Engine 21.....	6	1
9.....	Engine 23.....	5	1
9.....	Engine 24.....	7	1
10.....	Engine 17.....	3	1
10.....	Engine 18.....	5	1
11.....	Engine 29.....	7	1
11.....	Engine 34.....	7	1
11.....	Engine 41.....	10	1

Division 2.—Concluded.

DISTRICT.	Location.	Capacity. (Tons.)	Wagons.
11.....	Ladder 31.....	10	
12.....	Engine 28.....	20	1
12.....	Engine 42.....	9	1
13.....	Engine 30.....	9	1
13.....	Engine 45.....	9	1
14.....	Engine 16.....	5	1
14.....	Engine 20.....	7	1
14.....	Engine 46.....	4	
15.....	Engine 19.....	8	1
15.....	Engine 48.....	10	1
15.....	Hose 49.....	1	

APPARATUS.

Engines.—45 in service, 9 in reserve.

Ladder Trucks.—31 in service, 7 in reserve.

Chemical Engines.—13 in service, 3 in reserve.

Water Towers.—3 in service, 1 in reserve.

Fireboats.—3 in service.

Hose Wagons.—34 in service, 8 in reserve.

Automobiles.—26 in service, 3 in reserve.

Delivery Trucks.—4 in service.

Motor Combination Wagons.—6 in service, 2 in reserve.

Miscellaneous.—41 fuel wagons, 3 manure wagons, 1 emergency motor truck.

ENGINES.

Number.	Built by	Put in Service.	Rebuilt by	Date.	Diameter of Cylinder.	Diameter of Pump.	Stroke.	Size.	Weight (Pounds).
1.....	Clapp & Jones Manufacturing Company.	April, 1890	American Fire Engine Company....	1899	8½	5	7	Second.	9,175
2.....	Sibley Manufacturing Company.....	1890	American Fire Engine Company....	1904	8	4½	8	Second.	9,100
3.....	American Fire Engine Company.....	Jan., 1904	.....	.....	9	5½	8	First.	10,000
4.....	International Power Company.....	Jan., 1907	.....	.....	8½	5	8	First.	10,220
5.....	American Fire Engine Company.....	June, 1907	.....	.....	8	4½	8	Second.	9,435
6.....	Anoskeng Manufacturing Company..	1870	American British Company.....	1914	7½	4½	8	Second.	8,500
7.....	American Fire Engine Company.....	Feb., 1893	American-La France Fire Engine Company.	1907	9	5½	8	First.	9,900
8.....	American-La France Fire Engine Company.	May, 1907	.....	.....	9	5½	8	First.	10,450
9.....	Sibley Manufacturing Company.....	April, 1890	American Fire Engine Company....	1902	8	4½	8	Second.	9,150
10.....	(American-La France Tractor.....)	Aug. 31, 1914	.....	June, 1914	.....	.....	.....	.....	14,500
11.....	Sibley Manufacturing Company.....	April, 1890	American Fire Engine Company....	1903	8	4½	8	Second.	8,900
12.....	American-La France Fire Engine Company. (Pumping engine.)	July 3, 1914	.....	June, 1914	5½	*	6	First.	11,200
13.....	International Power Company.....	Dec., 1911	.....	.....	7½	4½	8	Second.	9,250
	Clapp & Jones Manufacturing Company.	April, 1890	American Fire Engine Company....	1899	8½	5	7	Second.	9,150

FIRE DEPARTMENT.

Number.	Built by	Put in Service.	Rebuilt by	Date.	Diameter of Cylinder.	Diameter of Pump.	Stroke.	Size.	Weight (Pounds).
14.....	Seagrave Company.....	Aug. 12, 1916	.....	.....	5½	†	6½	First.	15,420
15.....	American Locomotive Works.....	Dec., 1904	.....	.....	8½	5	8	First.	10,450
16.....	Anoskeng Manufacturing Company,	July, 1872	American British Company.....	1910	7½	4½	8	Second.	8,740
17.....	(Christie Tractor.....)	Jan. 7, 1916	International Power Company.....	1907	7½	4½	8	Second.	12,380
18.....	Anoskeng Manufacturing Company,	1872	.....	.....	6½	4	8	Fourth.	8,175
19.....	Manchester Locomotive Works.....	Nov., 1890	Manchester Locomotive Works.....	1905	6½	4	8	Third.	7,950
20.....	Manchester Locomotive Works.....	Feb., 1896	.....	.....	6½	4½	8	Second.	9,465
21.....	Sibley Manufacturing Company.....	Aug., 1882	American Fire Engine Company....	1900	8	4½	8	Second.	12,500
22.....	(Christie Tractor.....)	Jan. 12, 1916	International Power Company.....	1907	7½	4½	8	Second.	9,400
23.....	Anoskeng Manufacturing Company,	Sept., 1870	.....	.....	7½	4½	8	Second.	9,215
24.....	Manchester Locomotive Works.....	Nov., 1896	.....	.....	7½	4½	8	Second.	8,415
25.....	Sibley Manufacturing Company.....	April, 1890	American Fire Engine Company....	1901	8	4½	8	Second.	16,000
26.....	Anoskeng Manufacturing Company,	July, 1887	American Locomotive Works.....	1904	7½	4½	8	Second.	10,475
27.....	(Christie Tractor.....)	May 15, 1915	.....	.....	9	5½	8	First.	9,118
28.....	American-La France Fire Engine Company.	Dec., 1910	.....	.....	8½	5½	8	First.	12,900
29.....	International Power Company.....	Feb., 1909	.....	.....	8	4½	8	Second.	9,250
30.....	Sibley Manufacturing Company.....	Jan. 12, 1916	American Fire Engine Company....	1892	7½	4½	8	Second.	8,375
	(Christie Tractor.....)	Oct., 1887	American Locomotive Company....	1904	7½	4½	8	Second.	
	Anoskeng Manufacturing Company,	Jan., 1911	.....	.....	7½	4½	8	Second.	
	American British Company.....	Nov., 1890	International Power Company....	1910	6½	4	8	Fourth.	

† Centrifugal.

* Rotary.

Engines.—*Concluded.*

Number.	Built by	Put in Service.	Rebuilt by	Date.	Diameter of Cylinder.	Diameter of Pump.	Stroke.	Size	Weight (Pounds.)
31.....	G. F. Blake Manufacturing Company.	1914			17	10	11	1 pump, 3,000 gallons.	104 tons.
32.....	International Power Company.....	June, 1907			7½	4½	8	Second.	9,100
33.....	Christie Tractor.....	July 28, 1915			7½	4½	8	Second.	13,150
34.....	International Power Company.....	Feb., 1909			7½	4½	8	Second.	8,300
35.....	Anoskog Manufacturing Company, Dec., 1899	Dec., 1899	American British Company.....	1914	7½	4½	8	Second.	18,200
36.....	Manchester Locomotive Works. (Self-propeller.)	Jan., 1898	American British Company.....	1915	9½	5½	8	Double extra first.	10,450
37.....	International Power Company.....	Nov., 1909			8½	5½	8	First.	14,000
38.....	(American-La France Tractor.....	Aug. 10, 1914			6½	4½	8	Third.	8,375
39.....	Manchester Locomotive Works. (Self-propeller.)	March, 1896	International Power Company.....	1907	9½	5½	8	Double extra first.	18,170
40.....	Manchester Locomotive Works.....	June, 1901	American British Company.....	1915	8½	5	8	First.	10,355
41.....	American Locomotive Company.....	Jan., 1906			8½	5	8	First.	10,350
42.....	Robinson Fire Apparatus Company, St. Louis, Mo. (Pumping engine.)	Dec. 14, 1914			6½	6	9	First.	15,790
43.....	Manchester Locomotive Works.....	March, 1884	International Power Company.....	1907	6½	4½	8	Third.	8,175

43.....	Christie Tractor.....	Dec. 20, 1915	American Locomotive Company.....	1904	7½	4½	8	Second.	12,580
44.....	Anoskog Manufacturing Company.....	Nov., 1897			12½ H. P., 18 L.	10	11	2 sets of pumps, 6,000 gallons.	178 tons.
45.....	American Fire Engine Company.....	Aug., 1895			5½	*	6	First.	11,540
46.....	American-La France Fire Engine Company. (Pumping engine.)	Aug. 2, 1914			7½	4½	8	Second.	13,020
47.....	Christie Tractor.....	March, 1915			12 H., 22 L.	10	11	2 sets of pumps, 6,000 gallons.	179 tons.
48.....	International Power Company.....	Nov., 1909			6½	4	8	Fourth.	8,200
49.....	G. F. Blake Manufacturing Company, Aug., 1909	Aug., 1909							
50.....	Manchester Locomotive Works.....	1902							
51.....	Hose.								

* Rotary.

In Reserve.

Number.	Built by	Put in Service.	Rebuilt by	Date.	Diameter of Cylinder.	Diameter of Pump.	Stroke.	Size.	Weight (Pounds.)
C.	Ansokong Manufacturing Company.	Nov., 1872	Manchester Locomotive Works....	1898	6½	4½	8	Third.	7,510
D.	American Fire Engine Company.	June, 1895	American-La France Fire Engine Company.	1907	9	5½	8	First.	9,900
26.	(Christie Tractor.)	Oct. 17, 1916			8½	5	8	First.	10,000
33.	Manchester Locomotive Works....	July, 1903							
38.	Manchester Locomotive Works....	April, 1901			7½	4½	8	Third.	9,125
39.	Manchester Locomotive Works....	Oct., 1882	Fire Department Repair Shop....	1904	7½	4½	8	Third.	7,970
40.	Ansokong Manufacturing Company.	March, 1879	Manchester Locomotive Works....	1905	6½	4½	8	Third.	8,300
41.	Manchester Locomotive Works....	May, 1886	Manchester Locomotive Works....	1906	6½	4½	8	Third.	8,490
42.	(Christie Tractor.)	Oct. 24, 1916			7½	4½	8	Third.	12,100
43.	Manchester Locomotive Company.	1906							
44.	Manchester Locomotive Works....	March, 1882	Manchester Locomotive Works....	1904	6½	4½	8	Third.	

CHEMICAL ENGINES.

Number.	Built by	Put in Service.	Remarks.	Capacity.	Weight.
1.	American-La France Fire Engine Company.	Dec., 1910		Gallons.	Pounds.
2.	Babcock Manufacturing Company.	April 25, 1874		100	5,400
3.	Fire Extinguisher Manufacturing Company.	April 29, 1898		160	5,780
4.	Babcock Manufacturing Company.	May, 1876	Rebuilt by Hiram, 1886; rebuilt at Peabody Fire Department Repair Shop, April, 1906.	70	5,900
5.	American-La France Fire Engine Company.	May 14, 1913	Combination, motor driven....	160	5,735
7.	Babcock Manufacturing Company.	Sept. 27, 1886	Altered by Hiram.	35	7,750
8.	Babcock Manufacturing Company.	Oct. 27, 1887	Altered by Hiram.	100	4,880
9.	Babcock Manufacturing Company.	July 17, 1889	Altered by Hiram.	160	5,735
10.	Seagrave Company.	Feb. 10, 1917	Combination, motor driven....	100	4,640
11.	American-La France Fire Engine Company.	April 18, 1913	Combination, motor driven....	235	11,360
12.	Babcock Manufacturing Company.	Oct., 1890	Combination, motor driven....	40	8,799
13.	Knox Automobile Company.	Dec. 3, 1914	Combination, motor driven....	100	4,580
14.	Babcock Manufacturing Company.	1881	Combination, motor driven....	35	9,100
				100	3,900

In Reserve.

NUMBER.	Built by	Put in Service.	Capacity.	Weight.
Reserve 1.....	Babcock Manufacturing Company.....	1890	Gallons.	Pounds.
Reserve 5.....	Babcock Manufacturing Company (altered by Hinman).....	Sept. 21, 1870	100	4,580
Reserve 9.....	Babcock Manufacturing Company (altered by Hinman).....	May 1, 1870	100	4,270
Reserve 10.....	Babcock Manufacturing Company (altered by Hinman).....	Sept. 13, 1889	100	4,700

LADDER TRUCKS.

NUMBER.	Built by	Put in Service.	Rebuilt by	Feet of Ladders.	Number of Ladders.	Weight. (Pounds.)
1.....	J. Ryan Company.....	1880	Fire Department Repair Shop.....	513	12	10,900
2.....	Abbott-Downing Company.....	1899	.....	439	12	10,800
3.....	Abbott-Downing Company.....	June 2, 1886	Fire Department Repair Shop.....	472	14	9,450
4.....	American-La France Fire Engine Company.....	Sept. 28, 1914	Motor driven.....	332	Extension.	21,040
5.....	Hunsman & Co.....	March, 1870	Charles Waugh & Co.....	426	17	10,625
6.....	C. N. Perkins & Co.....	Aug., 1895	.....	232	17	8,350
7.....	Robinson Fire Apparatus Company, St. Louis, Mo., motor driven.....	Dec. 9, 1914	.....	267	12	12,000
8.....	Seagrave Company.....	April 22, 1915	Motor driven.....	404	Extension.	25,130
9.....	Abbott-Downing Company.....	Dec. 24, 1915	.....	367	15	10,040
10.....	Christie Tractor.....	March 18, 1909	.....	307	12	13,010
11.....	American-La France Fire Engine Company.....	Jan., 1907	.....	397	14	10,050
12.....	Christie Tractor.....	April, 1915	.....	300	Extension.	17,630
	American-La France Fire Engine Company.....	April, 1891	.....			

FIRE DEPARTMENT.

13.....	Christie Tractor.....	July 21, 1915	.....	317	Extension.	16,600
14.....	Fire Department Repair Shop.....	1907	.....	316	Extension.	17,660
15.....	Robinson Tractor.....	Jan. 4, 1915	.....	335	Extension.	18,000
16.....	American-La France Fire Engine Company.....	Feb. 26, 1915	.....	298	15	13,440
17.....	Christie Tractor.....	Dec. 21, 1915	.....	281	Extension.	17,100
18.....	Fire Department Repair Shop.....	Sept., 1888	.....	362	Extension.	17,625
19.....	Christie Tractor.....	July 27, 1915	.....	172	8	6,937
20.....	Seagrave Company.....	June, 1911	.....	242	8	13,100
21.....	Christie Tractor.....	May 21, 1915	.....	245	10	11,500
22.....	Fire Extinguisher Manufacturing Company.....	April, 1910	.....	207	9	8,225
23.....	Charles N. Perkins & Co.....	Oct. 27, 1915	Motor driven.....	197	9	7,300
24.....	American-La France Fire Engine Company.....	Dec., 1898	.....	221	7	7,100
25.....	Charles T. Holloway & Co.....	Oct., 1901	.....	166	7	7,000
26.....	Charles T. Holloway & Co.....	April 25, 1909	.....	262	7	6,435
27.....	American-La France Fire Engine Company.....	Nov., 1908	.....	224	9	8,000
28.....	Charles N. Perkins & Co.....	Nov., 1901	.....	366	12	5,700
29.....	Seagrave Company.....	Nov., 1910	.....	263	10	8,900
30.....	American-La France Fire Engine Company.....	Jan. 23, 1913	Motor driven.....	263	10	8,900
31.....	American-La France Fire Engine Company.....	March 5, 1913	Motor driven.....	263	10	8,900
	American-La France Fire Engine Company.....	Feb. 24, 1913	Motor driven.....	263	10	8,900

In Reserve.

Description.	Built by	Weight. (Pounds.)
Relief E.....	Fire Department Repair Shop.....	8,000
Reserve Ladder 11.....	Hunneman & Co.....	8,000
Relief D.....	Hunneman & Co.....	8,500
Former Ladder 7 (Christie Tractor).....	Charles T. Holloway (Christie Tractor, July, 1915).....	12,650
Former Ladder 9 (Christie Tractor).....	Waugh & Co.....	15,200
Ladder 21.....	Charles T. Holloway.....	7,230
New truck.....	American-La France Fire Engine Company.....	6,500
Number 1.....	Hunneman & Co. *.....	10,000

* Rebuilt by Charles Waugh & Co. Feet of ladders, 513. Number of ladders, 12.

WATER TOWERS.

Number.	Built by	Put in Service.	Weight. (Pounds.)
1.....	American-La France Fire Engine Company.....	Oct. 30, 1912	14,500
2.....	Kansas City Fire Department Supply Company.....	May 17, 1890	10,000
3.....	International Fire Engine Company.....	Nov. 2, 1903	12,650
4.....	Kansas City Fire Department Supply Company.....	Dec. 18, 1893	10,000

Towers 1, 2, 3 and 4 are equipped with American British Company tractors.

TOOLS AND MACHINERY IN REPAIR SHOP.

Blacksmith Shop.	Boiler Room.	Hose and Harness Shop.	Engine Room.	Wheelwright and Machine Shop.
5 forges. 1 power hammer. 1 gas tire heater. 1 tire spatter. 1 punch and shears. 1 lever shears. 1 tire roller. 2 rubber tire setters. 1 bolt cutter. 1 fan blower.	3 Manning vertical tubular boilers, each 75 horse power. 2 Blake boiler feed pumps.	1 Buckley electric hose testing and expanding engine. 2 electrically-driven sewing machines. Numerous tools and appliances for repairing hose and harnesses.	1 25 horse power steam engine cylinder, 9 by 31. 1 Knaples triplex pump for hose testing. 1 15 horse power motor. 2 dynamos and engines which supply current to fire alarm central station.	1 each engine lathe, with foot beds, 28 by 12; 16 by 12; 16 by 9; 14 by 8 and 14 by 6. 1 16 by 10 speed lathe. 1 16 by 10 wood lathe. 1 26 by 26 planer, 8-foot bed. 1 planer, 16 by 20, shaper. 1 radial drill. 2 upright drills. 1 wall drill. 1 circular saw. 1 band saw. 1 boring and mortising machine. 2 buzz planers. 1 grindstone. Numerous small tools.

Also tools for the repair of automobile apparatus.

NUMBER OF RUNS EACH COMPANY HAD FROM
FEBRUARY 1, 1916, TO FEBRUARY 1, 1917.

COMPANY.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	Total.
Engine 1.....	16	15	13	21	18	15	15	15	23	24	17	19	211
Engine 2.....	9	7	9	11	8	5	8	4	12	11	7	10	101
Engine 3.....	27	26	19	35	17	25	15	23	23	19	22	32	283
Engine 4.....	35	47	35	36	20	32	41	35	47	38	35	48	449
Engine 5.....	24	21	17	18	10	11	19	16	22	25	11	16	210
Engine 6.....	37	44	33	33	19	26	37	27	43	26	22	54	401
Engine 7.....	11	25	13	23	14	9	17	15	22	18	11	21	199
Engine 8.....	29	36	32	28	21	25	27	25	34	32	18	26	333
Engine 9.....	29	26	18	20	15	12	25	16	22	24	13	21	241
Engine 10.....	27	25	24	21	14	12	18	18	20	14	24	26	245
Engine 11.....	23	14	14	17	7	4	12	15	17	21	8	13	165
Engine 12.....	35	34	17	23	26	16	17	18	29	25	17	30	287
Engine 13.....	28	33	16	27	22	31	26	30	26	27	28	34	328
Engine 14.....	26	27	13	19	22	25	25	23	39	25	26	35	305
Engine 15.....	27	22	14	22	21	15	13	21	22	23	20	19	239
Engine 16.....	7	9	18	7	4	2	....	6	9	11	5	6	84
Engine 17.....	14	18	17	21	17	15	14	5	21	40	18	25	225
Engine 18.....	20	22	13	13	13	15	11	10	21	27	12	24	201
Engine 19.....	8	10	18	14	6	5	4	5	11	22	9	9	121
Engine 20.....	3	3	3	8	5	5	4	5	10	27	7	6	86
Engine 21.....	17	19	22	19	18	12	12	7	17	24	9	26	202
Engine 22.....	31	34	25	38	17	25	18	26	30	23	31	38	336
Engine 23.....	34	35	25	31	26	22	24	19	34	25	24	30	329
Engine 24.....	28	29	11	14	12	11	10	15	22	14	14	28	208
Engine 25.....	16	21	18	26	15	10	17	14	23	21	21	16	224
Engine 26.....	27	44	26	32	21	21	27	20	32	21	29	40	340
Engine 27.....	22	23	16	26	13	13	12	13	15	20	13	15	201
Engine 28.....	10	8	11	11	12	14	6	12	17	20	15	19	155
Engine 29.....	4	8	19	10	8	12	5	9	16	36	12	14	153
Engine 30.....	15	15	10	12	13	17	9	17	20	13	13	18	172
Engine 31.....	3	7	6	6	4	4	7	9	10	7	8	3	74
Engine 32.....	15	17	12	16	17	13	9	15	13	17	11	14	169

Number of Runs of Each Company.—Continued.

COMPANY.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	Total.
Engine 33.....	22	29	20	25	14	15	21	18	28	17	28	32	269
Engine 34.....	4	8	18	12	8	14	5	6	17	31	12	14	149
Engine 35.....	2	2	....	2	....	1	1	....	1	1	1	2	13
Engine 36.....	13	16	13	18	11	10	9	11	11	16	12	9	149
Engine 37.....	19	20	18	17	13	17	18	14	25	21	22	20	224
Engine 38.....	2	4	1	4	....	....	....	1	1	1	1	2	17
Engine 39.....	21	21	14	26	19	9	14	13	23	21	16	19	216
Engine 40.....	20	17	13	21	10	12	20	11	17	19	9	15	184
Engine 41.....	10	12	22	20	12	14	6	15	16	39	17	24	207
Engine 42.....	19	16	9	14	12	15	10	16	19	9	13	23	175
Engine 43.....	23	16	19	27	20	20	19	14	32	25	20	19	254
Engine 44.....	13	7	10	20	5	8	5	9	13	12	8	11	121
Engine 45.....	6	9	20	24	9	3	4	6	7	19	11	17	135
Engine 46.....	12	15	20	15	15	16	6	9	28	39	16	22	213
Engine 47.....	11	13	3	16	14	5	9	1	8	17	6	10	113
Engine 48.....	4	4	12	8	5	3	3	4	13	24	10	8	98
Hose 49.....	5	4	10	7	5	3	1	4	13	16	9	5	82
Ladder 1.....	40	51	50	43	25	32	41	42	55	45	36	55	515
Ladder 2.....	25	22	17	18	12	11	21	16	20	22	14	16	214
Ladder 3.....	25	16	19	31	11	20	11	22	22	18	21	28	244
Ladder 4.....	38	32	21	23	23	23	21	19	28	29	21	31	309
Ladder 5.....	15	16	15	22	17	15	16	15	27	23	19	27	227
Ladder 6.....	6	5	17	6	3	2	1	4	8	11	6	4	73
Ladder 7.....	20	19	16	19	14	16	17	6	18	29	12	22	208
Ladder 8.....	25	45	27	37	22	28	31	24	46	37	29	36	387
Ladder 9.....	13	19	15	18	17	10	11	13	13	18	13	10	170
Ladder 10.....	10	7	7	12	9	13	5	11	15	10	10	16	125
Ladder 11.....	4	8	12	12	6	12	4	7	16	25	8	15	129
Ladder 12.....	29	30	17	29	24	28	26	27	41	25	32	32	340
Ladder 13.....	28	30	26	36	17	23	19	21	29	22	33	36	320
Ladder 14.....	*	*	9	13	10	12	4	8	10	23	11	12	112
Ladder 15.....	15	29	18	19	9	11	15	14	24	17	28	29	228
Ladder 16.....	3	5	5	5	5	1	2	1	5	6	6	8	52
Ladder 17.....	25	35	18	25	15	18	15	18	33	18	24	26	270
Ladder 18.....	13	11	9	16	12	6	14	9	21	10	8	18	147
Ladder 19.....	13	8	5	14	10	5	9	6	9	11	9	11	110

* Not in service.

Number of Runs of Each Company.—*Concluded.*

COMPANY.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	Total
Ladder 20.....	14	10	19	18	13	12	16	11	18	20	13	14	178
Ladder 21.....	23	15	11	11	7	4	12	12	11	20	6	11	143
Ladder 22.....	14	16	13	20	13	10	9	12	11	14	10	8	150
Ladder 23.....	24	30	9	15	16	14	16	12	25	21	16	29	227
Ladder 24.....	23	22	20	18	9	12	22	13	18	5	12	26	200
Ladder 25.....	2	4	6	4	6	1	3	4	1	3	5	5	44
Ladder 26.....	7	9	7	8	6	12	9	7	17	9	11	10	112
Ladder 27.....	5	5	5	9	8	6	4	4	10	32	8	9	105
Ladder 28.....	4	3	8	8	5	3	2	4	10	13	8	7	75
Ladder 29.....	16	16	22	12	8	18	6	8	22	26	15	14	183
Ladder 30.....	15	15	10	12	13	17	9	17	20	13	13	18	172
Ladder 31.....	4	6	15	4	3	4	2	10	15	6	5	74	
Chemical 1.....	46	66	44	50	27	35	46	46	58	52	38	56	564
Chemical 2.....	30	44	27	39	26	27	25	27	40	29	41	45	400
Chemical 3.....	8	10	5	12	10	4	7	9	13	7	7	5	97
Chemical 4.....	23	27	21	33	10	16	17	21	21	19	24	28	260
Chemical 5.....	17	24	8	11	12	13	13	8	19	15	11	17	168
Chemical 7.....	20	20	15	17	11	12	19	16	19	21	10	15	195
Chemical 8.....	15	18	19	21	15	15	15	21	28	28	20	18	233
Chemical 9.....	10	13	10	15	7	9	8	9	3	10	8	5	107
Chemical 10.....	*	*	*	*	*	*	*	*	21	25	17	25	88
Chemical 11.....	13	13	17	11	8	14	6	7	16	15	14	13	147
Chemical 12.....	19	25	16	20	19	22	25	19	31	18	21	25	260
Chemical 13.....	9	10	18	18	9	5	3	7	10	14	9	18	130
Chemical 14.....	4	3	7	8	5	3	3	5	11	14	9	6	78
Tower 1.....	11	10	4	10	7	8	6	7	16	11	9	11	110
Tower 2.....	5	9	3	4	9	3	3	4	4	5	5	6	60
Tower 3.....	4	9	5	9	6	1	3	5	4	10	2	4	62

* Not in service.

EXPENDITURES FOR THE YEAR.

Personal Service:		
Permanent employees	\$1,539,634 02	
Temporary employees	70 00	
Unassigned	2,669 31	
		\$1,542,373 33
Service Other than Personal:		
Printing and binding	\$108 67	
Postage	320 82	
Advertising and posting	46 20	
Transportation of persons	727 65	
Cartage and freight	550 19	
Hire of teams	1,867 50	
Light and power	9,173 19	
Rent, taxes and water	5,151 61	
Communications	1,896 96	
Motor vehicle repairs and care	5,400 19	
Motorless vehicle repairs	1,115 20	
Cleaning	1,563 02	
Removal of ashes and dirt	144 13	
Examinations	527 00	
Testing materials and supplies	176 00	
Expert and architect	1,160 40	
Stenographic and copying	10 00	
Towing	165 00	
Fees, etc.	2 79	
Boiler inspection	228 00	
Photographic and blueprinting	1,155 88	
General plant	32,868 56	
Horseshoeing and clipping	15,379 17	
		79,738 13
Equipment:		
Cable, wire, etc.	\$11,552 67	
Electrical	6,934 35	
Motor vehicles	70,882 06	
Motorless vehicles	500 00	
Stable	1,948 34	
Furniture and fittings	4,219 46	
Office	485 87	
Marine	43 11	
Tools and instruments	27,474 79	
Live stock	3,876 77	
Wearing apparel	639 37	
General plant	1,664 17	
		130,220 96
Supplies:		
Office	\$3,809 12	
Food and ice	633 40	
Carried forward	\$4,442 52	\$1,752,332 42

<i>Brought forward</i>	\$4,442 52	\$1,752,332 42
Fuel	42,164 38	
Forage and animal	43,137 87	
Medical, surgical, laboratory	48 05	
Veterinary	419 30	
Laundry, cleaning, toilet	1,769 38	
Motor vehicle	8,201 79	
Chemicals and disinfectants	2,616 77	
Marine	24 20	
General plant	3,342 53	
Cloth	3,664 14	

109,830 93

Materials:		
Building	\$13,520 60	
Machinery	3 50	
Electrical	3,305 57	
General plant	21,017 94	

37,847 61

Special Items:		
Pensions and annuities	\$150,714 21	
Workingmen's compensation	520 00	

151,234 21

\$2,051,245 17*Fire Station, Hyde Park.*

Payments on account:		
Expert services	\$75 00	

\$75 00*Remodeling House, Engine 8.*

Payments on account:		
Contractor, P. H. Rose Construction Company	\$7,650 00	
Architect, Joseph McGinniss	1,063 12	
Blueprints	56 01	
Advertising	4 00	

\$8,773 13

Temporary quarters, James F. Flaherty	1,100 00	
---------------------------------------	----------	--

\$9,873 13*Remodeling House, Engine 14.*

Payments on account:		
Contractor, D. R. McKillop	\$13,453 30	
Architect, Joseph McGinniss	1,395 33	
Blueprints	49 42	
Removing pipe rails	8 70	

\$14,906 75*Remodeling House, Ladder 4.*

Payments on account:		
Contractor, M. D. Mealey & Co.	\$11,282 90	
Architect, Joseph McGinniss	1,187 52	
Repairing heating apparatus	322 69	
Blueprints	45 69	

\$12,838 80*Remodeling Municipal Court Building, Dorchester Street.*

Payments on account:		
Contractor, Crowley & Hickey	\$12,340 30	
Architect, Joseph McGinniss	1,746 90	
Blueprints	41 95	
Advertising	4 00	

\$14,133 15

RECAPITULATION.

Fire Department	\$2,051,245 17
Fire Station, Hyde Park	75 00
Remodeling House, Engine 8	9,873 13
Remodeling House, Engine 14	14,906 75
Remodeling House, Ladder 4	12,838 80
Remodeling Municipal Court Building, Dorchester street	14,133 15

\$2,103,072 00

INCOME.

Permits for fires in open spaces, fireworks, blasting, transportation and storage of explosives	\$3,632 75
Sale of uniform cloth	2,943 75
Sale of old material	1,086 15
Sale of badges	955 00
Sale of manure	142 25
Damage to cable	134 75
Damage to hose	67 50
Rent	44 00
Damage to automobile	34 62
Services of employees	15 75

\$9,056 52

ALARMS, FIRE LOSSES AND INSURANCE.

Months.	ALARMS RECEIVED.						Loss.		Insurance.		ALARMS.				Not in Building.	Out of City.	Damage None.	Damage Slight.	Damage Considerable.	Totally Destroyed.			
	ALARMS RECEIVED.						Buildings.	Contents.	Buildings.	Contents.	ALARMS.												
	ALARMS RECEIVED.										Buildings.	Contents.	ALARMS.										
	Members.	Police.	Citizens.	Telephone.	Automatic.	Unknown.							Total.	Buildings.							Contents.	Pre.	False.	Needless.	Pre.	Needless.
January.....	5	15	284	77	13	15	409	\$240,848	\$161,622	\$3,769,726	203	15	16	139	26	281	9	59	2	127	146	6	2
February.....	12	14	238	52	13	12	341	135,722	207,281	1,916,850	150	13	15	125	28	248	7	27	...	98	141	7	2
March.....	5	12	262	78	8	9	374	102,444	177,319	3,903,844	191	8	13	120	35	285	6	20	6	120	158	6	1
April.....	5	11	237	143	17	11	424	90,386	75,088	1,626,120	165	10	9	199	29	198	2	104	2	91	105	1	1
May.....	11	10	262	108	16	13	420	94,328	188,628	2,237,528	189	12	13	159	37	227	5	114	7	114	109	4	...
June.....	4	9	170	68	11	23	285	43,966	55,380	1,386,874	121	23	9	103	20	151	4	73	...	77	82	1	...
July.....	7	8	107	69	11	26	318	39,016	43,557	1,463,188	133	23	20	97	34	164	...	64	2	81	90	1	...
August.....	4	9	204	52	17	14	300	29,079	29,383	1,007,200	127	14	16	105	26	172	2	57	3	90	80	1	...
September.....	4	3	208	66	14	14	309	22,847	44,703	969,150	129	13	17	112	30	163	1	77	1	88	74	1	...
October.....	7	12	206	87	15	43	460	47,403	65,066	2,116,145	192	42	17	164	34	209	2	146	1	108	101	...	...
November.....	11	18	208	150	17	25	514	94,192	151,976	3,043,442	212	25	23	223	30	292	1	227	6	91	108	2	1
December.....	8	17	217	104	20	11	377	71,223	100,832	3,919,044	147	11	16	153	39	243	2	50	5	124	114	4	1
Totals.....	83	138	2,868	1,054	172	216	4,531	\$1,071,544	\$1,309,945	\$11,328,429	1,937	209	184	1,099	338	2,543	41	1,078	35	1,290	1,290	35	9

FIRE DEPARTMENT.

CAUSES OF FIRES AND ALARMS FROM JANUARY 1, 1916, TO JANUARY 1, 1917.

Alarms, false, needless, bell and still	751	Hot ashes in wooden receptacle	58
Alarms out of city	35	Incendiary and supposed	52
Automatic alarms, false and accidental	124	Lamp upsetting, explosion	53
Automobiles	122	Miscellaneous	30
Brush, rubbish, etc.	816	Oil stove, careless use and explosion	28
Careless use lamp, candle	71	Overheated furnace, stove, boiler	158
Careless use of matches and set by rats	523	Set by boys	49
Careless use pipe, cigar and cigarette	189	Sparks from chimneys, stove	112
Chimneys, soot burning	197	Sparks from locomotive, engine	39
Clothes near stove	34	Spontaneous combustion	124
Defective chimney, stove, pipe, boiler	61	Thawing	50
Electric wires, motors	116	Unknown	543
Fireworks and firecrackers	4	Total	4,531
Gas jet, gas stove	83		
Gasoline, naphtha, benzine	50		
Grease in ventilator	59		

1916.	FIRE EXTINGUISHED BY						
	Extinguishers.	Buckets of Water.	Chemical Engines.	Hydrant Streams.	Steamers.	Miscellaneous.	Citizens.
January.....	78	51	84	23	62	41	1
February.....	65	44	67	6	58	34	1
March.....	71	51	92	8	45	38	...
April.....	67	51	59	50	40	92	3
May.....	76	52	80	40	49	42	2
June.....	45	55	39	21	35	27	2
July.....	52	43	51	32	26	23	1
August.....	71	56	42	16	17	26	1
September.....	57	53	64	22	16	27	1
October.....	86	57	68	43	43	51	7
November.....	69	49	71	68	47	119	6
December.....	67	48	59	11	38	67	3
Totals.....	804	610	776	340	476	587	28

FIRES WHERE LOSS EXCEEDED \$15,000.

DATE.	Location and Owner.	Loss.
Jan. 7.....	2406-2420 Washington street, J. P. Collins <i>et al.</i>	\$15,548
Jan. 15.....	101-103 Green street, P. Meehan <i>et al.</i>	22,706
Jan. 15.....	47-49 Utica street, Hide and Skin Importing Company.....	29,921
Jan. 23.....	176 Tremont street, E. D. Codman, Trustee, <i>et al.</i>	90,993
Jan. 29.....	36-40 Columbus avenue, M. P. Tenney <i>et al.</i>	58,461
Jan. 30.....	2173-2187 Washington street, Green Brothers Company <i>et al.</i>	25,817
Feb. 5.....	263-267 Atlantic avenue, H. & L. Chase <i>et al.</i>	41,989
Feb. 10.....	38-40 Washington street, Puritan Clothing Company.....	31,324
Feb. 15.....	57-63 Franklin street, J. W. Gerry <i>et al.</i>	40,023
Feb. 28.....	Navy Yard, United States Government.....	40,700
March 3.....	112-128 Bedford street, Bedford Trust <i>et al.</i>	54,352
March 7.....	232 Summer street, J. H. Daniels & Son, Inc., <i>et al.</i>	22,921
March 15.....	580 Commonwealth avenue, David Goodman <i>et al.</i>	43,200
March 27.....	Boston & Maine Railroad yard, freight shed and twenty-five cars.....	75,191
April 11.....	5-11 Mishawum street, Bay State Leather Company.....	24,035
April 25.....	North Beacon street, Boston & Albany Railroad yard.....	73,745
May 10.....	347 Congress street, Merchants Towel Supply and Laundry Company.....	26,308
May 11.....	Opposite 3748 Washington street, Boston Elevated Railway.....	21,003
May 14.....	325 Marginal street, International Glue Company <i>et al.</i>	15,350
May 17.....	212-218 High street, Dodge-Haley <i>et al.</i>	129,367
June 10.....	Rear 45 Union avenue, Eastern Chemical Company <i>et al.</i>	26,615
July 3.....	59 Cambridge street, Stanley Harlow Hamlin, Inc.....	22,813
Aug. 15.....	18-20 Henley street, Jameson Brothers.....	15,175
Sept. 12.....	97-99 K street, International Waste Company.....	30,887
Oct. 21.....	18 Oxford street, Elliot Manufacturing Company.....	17,987
Nov. 10.....	179-183 Summer street, C. E. Stubenrauch <i>et al.</i>	36,060
Nov. 24.....	81 Wareham street, Gordon Supply Company <i>et al.</i>	129,303
Nov. 27.....	73-79 Essex street, Simons, Hatch & Whitten Company....	21,131
Dec. 12.....	338-344 Boylston street, P. L. Carbone <i>et al.</i>	18,719
Dec. 21.....	Rainsford Island, Suffolk School.....	15,000
Dec. 22.....	183-185 Tremont street, Meyer Jonasson Company.....	43,842

STATISTICS.

Population, January 1, 1917	767,589
Area, square miles	47.34
Number brick, etc., buildings	30,586
Number of wooden buildings	74,876
Fires in brick and stone buildings	1,431
Fires in wooden buildings	1,112
Out of city	35
Not in buildings, false and needless	1,953

Total alarms 4,531

FIRE LOSS FOR THE YEAR ENDING DECEMBER 31, 1916.

Buildings, loss insured	\$1,024,161
Contents, loss insured	1,126,318
	<u>\$2,150,479</u>
Buildings, loss not insured	\$47,383
Contents, loss not insured	174,627
	<u>222,010</u>
Total loss buildings and contents	<u>\$2,372,489</u>
Marine loss	<u>\$101,312</u>

YEARLY LOSS FOR THE PAST FIFTEEN YEARS.

Year ending February 1, 1903	\$1,762,619
" " 1, 1904	1,674,333
" " 1, 1905	2,473,980
" " 1, 1906	2,130,146
" " 1, 1907	1,130,334
" " 1, 1908	2,268,074
" " 1, 1909	3,610,000
" " 1, 1910	1,680,245
" " 1, 1911 (11 months)	3,159,989
" January 1, 1912	2,232,267
" " 1, 1913	2,531,017
" " 1, 1914	* 3,138,373
" " 1, 1915	3,013,269
" " 1, 1916	3,004,600
" " 1, 1917	† 2,372,489

* Does not include marine loss of \$1,116,475, steamship "Templemore."

† Does not include marine loss of \$101,312, steamship "City of Naples" et al.

NOTE.—January loss, 1911, amounting to \$165,001, deducted from previous year and included in calendar year January 1, 1911, to January 1, 1912.

ALARMS FOR THE PAST TEN YEARS.*

YEAR.	Bell.	Still and Automatic.	Totals.
1916.....	2,350	2,181	4,531
1915.....	2,847	2,590	5,437
1914.....	2,945	2,589	5,534
1913.....	2,594	2,322	4,916
1912.....	2,812	2,432	5,244
1911.....	2,291	2,142	4,433
1910 (11 months)†.....	1,804	1,801	3,605
1909.....	2,101	1,677	3,778
1908.....	2,210	1,700	3,910
1907.....	2,441	1,600	4,041

* Each fire is treated as having only one alarm.

† 202 bell and 196 still alarms deducted from year 1910-11 and included in calendar year January 1, 1911, to January 1, 1912.

BOX ALARMS BY DISTRICTS.*

	ALARMS, 1915.					ALARMS, 1916.				
	First.	Second.	Third.	Fourth.	Fifth.	First.	Second.	Third.	Fourth.	Totals.
1.....	255	1	1	1	258	187	3	.....	.....	190
2.....	148	2	.....	.....	150	2	145	5	.....	151
3.....	57	4	3	1	65	35	4	1	1	41
4.....	448	12	8	.....	468	348	8	1	1	358
5.....	121	6	3	2	132	115	2	3	1	121
6.....	202	2	1	1	207	215	7	4	.....	226
7.....	316	8	2	.....	326	7	256	3	2	263
8.....	235	4	.....	.....	239	8	205	5	1	211
9.....	234	7	1	.....	242	9	232	5	2	240
10.....	174	2	3	.....	179	10	134	.....	.....	134
11.....	170	1	1	.....	172	11	121	1	.....	122
12.....	155	1	.....	.....	156	12	122	3	1	126
13.....	61	.....	.....	.....	61	13	52	.....	.....	52
14.....	154	3	1	.....	158	14	121	.....	.....	121
15.....	110	3	1	.....	114	15	68	.....	.....	68
Totals.....	2,846	56	25	5	2,933	Totals.....	2,356	46	16	2,424

* Each fire is treated as having only one alarm.

ROLL OF MERIT, BOSTON FIRE DEPARTMENT.

Thomas J. Muldoon, Captain, Engine Company 20.
 Michael J. Teehan, Captain, Engine Company 24.
 Denis Driscoll, Captain, Engine Company 37.
 James F. McMahon, Captain, Ladder Company 1.
 Frederick F. Leary, Captain, Ladder Company 3.
 Thomas H. Downey, Captain, Engine Company 22.
 Michael J. Dacey, Lieutenant, Ladder Company 20.
 Joseph P. Hanton, Lieutenant, Ladder Company 13.
 Timothy J. Heffron, Lieutenant, Chemical Company 9.
 Patrick E. Keyes, District Chief, retired.
 Martin A. Kenealy, Captain, retired.
 Charles W. Conway, Captain, retired.
 James E. Downey, Hoseman, retired.
 James F. Bailey, Ladderman, retired.

CHANGES FROM FEBRUARY 1, 1916, TO FEBRUARY 1, 1917.

Number of men appointed to fire force	44
Number of men reappointed to fire force	5
All others	8
Resigned	14
Pensioned	19
Deaths	6
Pensioners died	15

MEMBERS PENSIONED FROM FEBRUARY 1, 1916, TO FEBRUARY 1, 1917.

John E. Madison.	William J. Connell.
John F. Reynolds.	William F. Crowley.
John E. F. Griffin.	Thomas H. Ramsey.
Edward J. Lynch.	Melvin P. Mitchell.
James T. Prendergast.	Frank O. Turner.
James A. Higgins.	Walter H. Wells.
James Quinn.	John W. Godbold.
Patrick Curran.	Chauncey R. Delano.
Charles A. Winchester.	Coleman E. Clougherty.
Daniel F. Greenlaw.	

DEATHS OF MEMBERS FROM FEBRUARY 1, 1916, TO FEBRUARY 1, 1917.

Ronald J. McDonald.	Florence Donoghue.
Frank J. Griffin.	John P. Foley.
John T. Stewart.	William C. Lutz.

DEATHS OF PENSIONERS FROM FEBRUARY 1, 1916, TO FEBRUARY 1, 1917.

William C. Greeley.	William T. McCormack.
Uzziel Putnam.	Waldo C. Burt.
Joseph W. Brown.	Ignatius H. Dooley.
Henry P. Pitcher.	Jason Gordon.
John Neal.	Oliver J. Booker.
Leonard F. Merrill.	John F. Mitchell.
Charles M. Wandless.	Jennie M. Needham.
George B. Reiley.	

BOSTON FIREMEN'S RELIEF FUND.

Report of the treasurer of the Boston Firemen's Relief Fund February 1, 1916, to January 31, 1917, inclusive.

The following was the condition of the fund:

City of Boston 3½ per cent bonds	\$148,000 00
City of Boston 4 per cent bonds	65,000 00
Chicago, Burlington & Quincy Railroad bonds	8,000 00
Six shares of Boston & Albany Railroad, par value	600 00
Six shares of Fitchburg Railroad, par value	600 00
Two shares of Old Colony Railroad, par value	200 00
Four shares of Boston & Lowell Railroad, par value	400 00
Eight shares of Massachusetts Gas Company, par value	800 00
One share of Edison Electric Illuminating Company, par value	100 00
Nine shares of American Telephone and Telegraph Company, par value	900 00
Two shares of Western Union Telegraph, par value	200 00
Carried forward	\$224,800 00

<i>Brought forward</i>	\$224,800 00
Three shares of Boston & Maine Railroad, par value	300 00
One share of West End Street Railway	50 00
Two shares of New York, New Haven & Hartford Railroad	200 00
Three shares of Old South Building Association, par value	300 00
Cash on hand	21,981 06
	<u>\$247,631 06</u>

RECEIPTS.	PAYMENTS.
Interest and income earned	Benefits . . . \$26,703 41
Annual ball . . . \$9,162 79	Treasurer's bond . . . 62 50
Donations . . . 15,246 06	Salaries . . . 400 00
Checks returned . . . 575 00	Printing . . . 69 04
Bonds matured . . . 224 16	Expenses . . . 67 50
Bank loan . . . 13,000 00	Balance in bank February 1, 1917 . . . 21,981 06
Cash on hand February 1, 1916. . . 3,000 00	
<u>\$49,283 51</u>	<u>\$49,283 51</u>

	Cash.	Securities.	Total.
February 1, 1916.....	\$8,075 50	\$246,650 00	\$254,725 50
February 1, 1917.....	21,981 06	225,650 00	247,631 06

*President, JOHN GRADY,
Fire Commissioner.*

ALEXANDER F. MITCHELL, Treasurer.

JOHN F. HARDY, Secretary.