

STILL. November 1, 4.00 p. m. Chimney fire in residence 12 Gay Street, owned by John E. Gay and occupied by Alexander McLeod.

	Value.	Loss.	Ins.	Ins. paid.
Building,	\$1,200.00	\$7.00	\$1,200.00	\$7.00

STILL. November 26, 3.00 p. m. Chimney fire in residence of Joel Kellom, 9 Lake Street. No loss.

STILL. December 14, 6.00 a. m. Chimney fire in residence of H. B. Annis, Penacook road. No loss.

STILL. December 18, 6.00 a. m. Chimney fire in residence of William Lynch, 446 No. State Street. No loss.

STILL. December 20, 11.30 a. m. Chimney fire in residence of J. E. Shepard, 30 Hutchins Street. No loss.

SUMMARY—YEAR 1916

	Value.	Loss.	Insurance.	Insurance paid.	Net loss.
BUILDINGS.					
Precinct.....	\$374,111 00	\$7,723 79	\$147,250 00	\$6,008 79	\$1,715.00
Penacook.....	25,650.00	1,552 04	18,150 09	1,478 82	73.22
East Concord.....	1,300 00	1,125 00	600 00	60 00	1,065.00
West Concord.....	8,400 00	3,572 00	5,900 00	1,072 00	2,500.00
	\$409,461 00	\$13,972 83	\$171,900 00	\$8,619 61	\$5,353 22
CONTENTS.					
Precinct.....	\$41,000 00	\$3,482 23	\$28,200 00	\$2,582 23	\$900.00
Penacook.....	5,900.00	1,511 80	2,000 00	1,296 80	215.00
East Concord.....	100 00	100 00	.	.	100.00
West Concord.....	2,000 00	560 00	1,500 00	560 00
Total.....	\$49,000 00	\$5,654 03	\$31,700 00	\$4,439 03	\$1,215.00
Buildings.....	409,461 00	13,972 83	171,900 00	8,619 61	5,353 22
Buildings and contents	\$458,461 00	\$19,626 86	\$203,600 00	\$13,058 64	\$6,568.22

APPARATUS AND FORCE.

The apparatus and force of the department is as follows:

Precinct, located at the Central Fire Station, one first-class Amoskeag engine, "Eagle," with modern hose wagon, attached to Eagle Steam Fire Engine Company (13 men); one second-class Amoskeag engine, "Kearsarge," and modern hose wagon, attached to the Kearsarge Steam Fire Engine Company (14 men); one second-class Amoskeag engine, "Governor Hill," relief engine, in charge of an engineer and fireman; and one auto-combination car in charge of five permanent men; one ladder truck, "City of Concord," attached to Hook and Ladder Company (21 men); one house man at Central Fire Station. There are ten horses kept at this station. There are 10 permanent men located at the Central Fire Station and one permanent man at each fire station within the precinct.

The Alert Hose Company (11 men), located on Washington Street, has a modern hose wagon with permanent man and two horses.

The Good Will Hose Company (11 men), located on the corner of Concord and South State Streets, has an auto-combination car with permanent man.

Veterans' Auxiliary Company (30 men).

One hook and ladder truck, one hose reel, one chemical engine, one hand engine and two wagons in reserve.

The "Pioneer" Engine Company, No. 3 (28 men), at Penacook, has a third-class Metropolitan engine, with two hose wagons.

The Cataract Company (30 men), at West Concord, has an auto-combination car and a modern hose wagon.

Old Fort (30 men), East Concord, has a 4½-inch cylinder Hunneman hand engine and hand ladder truck, and one hand-drawn chemical engine, 50-gallon, single tank, and one auto-combination car.

HOSE.

Precinct,	10,650 feet cotton, rubber lined.
Penacook,	3,200 " " " "
West Concord,	1,400 " " " "
East Concord,	500 " " " "
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	15,750 " " " "

PUBLIC RESERVOIRS.

	Capacity Cubic Feet.
1. Main Street, rear Court House,	2,000
2. State Street, corner Washington Street,*	2,000
3. Rumford Street, near Mrs. Josiah Minot's,	1,000
4. Orchard Street, corner of Pine Street,*	4,000
5. School Street, corner of Summit Street,*	3,500

FIRE-ALARM TELEGRAPH.

NUMBER, LOCATION, ETC.

For the purpose of uniformity in numbering the fire-alarm boxes, the city is divided into six districts, viz.:

DISTRICT 1. Embraces that section of the city north and west of Washington Street, Box 17 of this division being located on the south side of the street.

DISTRICT 2. Embraces all between School and Washington Streets.

DISTRICT 3. Embraces all between Pleasant and School Streets.

DISTRICTS 4, 5 AND 6. Embrace all south of Pleasant Street.

The first figure of the box number will indicate the district.

DISTRICT No. 1.

- 9. New Hampshire State Prison.
- 12. Curtice Avenue.

*Brick cemented.

13. Franklin and Rumford.
14. Bradley and Walker.
15. Main and Church.
16. Franklin and Jackson.
17. Alert Hose House.
18. C. S. Gale's Store.
19. Centre and Liberty.
131. Franklin and Charles.
191. Auburn and Granite.

DISTRICT No. 2.

21. State, opposite Court.
23. Main and Chapel.
24. Main and Centre.
25. Main and School.
26. Centre and Union.
27. School and Merrimack.
28. School and Spring.
29. Centre and Essex.

DISTRICT No. 3.

32. Warren and Pine.
34. Central Fire Station.
35. Martin's Drug Store.
36. Pleasant and Spring.
37. Pleasant and North Fruit.
38. Orchard and Merrimack.

DISTRICT No. 4.

41. South and Thompson.
42. Good Will Hose House.
43. Main and Fayette.
45. Nelson & Durrell's Store.
46. Perley and Grove.
47. South, opposite Downing.
48. Thorndike and South.
49. West and Mills.

- 412. Wall and Elm.
- 413. Main, opposite Thorndike.
- 414. State and West.
- 471. Clinton and South Fruit.

DISTRICT No. 5.

- 51. Boston & Maine Railroad, new shops.
- 52. South Main and Allison.
- 53. Hall and Hammond.
- 54. Broadway and Pillsbury.
- 56. St. Paul's School.
- 57. Pleasant View.
- 521. Broadway and Rockingham.
- 522. South Main and Holly.

DISTRICT No. 6.

- 62. South Main, opposite Holt Bros.

PRIVATE BOXES.

- 5. Boston & Maine Railroad, north end passenger depot.
- 6. The Abbot & Downing Company.
- 7. New Hampshire State Hospital.
- 8. Page Belting Company.
- 9. Three boxes inside New Hampshire State Prison.
- 33. State House.
- 39. Odd Fellows' Home.
- 55. Boston & Maine Railroad, old repair shops.
- 92. New England Box Company.

FIRE-ALARM SIGNALS.

Alarms rung in from Boxes 41, 42, 43, 45, 46, 47, 48, 49, 412, 413, 414, 471, 51, 52, 53, 54, 55, 56, 57, 62, 521 and 522, will not be responded to by the Alert Hose Company until signaled. The signal to proceed to the fire will be four blows or second alarm, excepting alarms rung in from Box 56.

Alarms rung in from Boxes 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, 131, 191, 21, 23, 26, 27, 29, 32, 37, 39, 92 and 56 will not be responded to by the Good Will Hose Company until signaled. It will be governed by the same signals governing Alert Hose Company. The Alert Hose and Good Will Hose Companies will hitch up and remain in readiness 20 minutes after the first alarm, to all boxes not responded to on first alarm. Then, receiving no signal, the officers in charge shall dismiss their companies.

Alarms rung in from Boxes 12, 37, 53, 54, 57, 191, 471 and 521 will not be responded to by the Kearsarge Company on first alarm.

The signal to proceed to the fire will be two blows, four blows, or second alarm, as circumstances may warrant.

Kearsarge Steamer to all calls except 51.

Eagle Hose Company to all calls.

Eagle Steamer to Box 6, on first alarm; to Boxes 23, 24, 25, 33, 34, 35, 42, 43, 45 and 413, on second; to all others on third, except 9 and 56.

Governor Hill Steamer will respond to Boxes 7, 8, 9, 39 and 92 on first alarm; to Boxes 5, 6, 12, 13, 14, 15, 16, 17, 18, 19, 131, 191, 21, 26, 27, 28, 29, 32, 36, 37, 38, 41, 46, 47, 48, 49, 412, 414, 471, 52, 54, 55, 57, 62, 521 and 522, on second; to all others on third.

Combination Company will respond to all box alarms.

Veterans' Auxiliary Company will respond to all third alarms occurring before the recall, whether emanating from same box or not.

Two rounds of 11 strokes each will signalize the requirement of assistance out of town, and will be responded to by a detail of three men from each company, appointed for the purpose, and by those alone.

Two additional blows will indicate that the call for assistance emanates from East Concord. Such apparatus will be detailed as circumstances warrant. In case further aid is necessary, Box 34 (Central Station) will follow.

All-out signal, three strokes of the bell.

BRUSH FIRE SIGNAL.

Three rounds of four strokes each will be sounded on the bells and will be responded to by a detail of four men from each company, appointed for the purpose, and by those alone.

MILITARY SIGNAL.

Two rounds of 3-1-2.

SIGNALS FOR CLOSING SCHOOLS.

Two strokes of the bell given three times, with a pause of 15 seconds between the rounds.

The signal to close for the forenoon session will be given at 8 o'clock a. m.

The signal to close for the afternoon session will be given at 1 o'clock p. m.

The signal to close all schools for one session will be given at 11.30 a. m.

TESTING SIGNALS.

For the purpose of testing the condition and accuracy of the fire-alarm telegraph, a box alarm will be rung in every Monday afternoon at 4.30 o'clock precisely. It will be one single round only, indicating by the strokes on the bells the number of the box. The boxes used for this purpose will vary each week, alternating in the circuits.

Upon each other week-day a single blow upon the bells will be rung in from a box, alternating as before mentioned.

THE FIRE-ALARM TELEGRAPH.

is the "Gamewell" patent. It embraces 42 miles of wire.

On the lines are 46 fire-alarm boxes belonging to the city, and 9 private boxes—in all, 55. There are three alarm bells, one of 3,724 pounds (bell metal), one of 3,740 pounds (bell metal), and one of 2,000 pounds (American steel). There are also 16 mechanical tappers, 40 direct action tappers, one four-circuit repeater, and six indicators.

The battery consists of 259 storage battery cells.

The alarm system was installed in 1880 by the Gamewell Fire-Alarm Telegraph Company.

DIRECTIONS FOR GIVING AN ALARM.

Above all things, keep cool.

To obtain the key to the box, break the glass in the key box located beneath the alarm box.

In each box there is a small bell called a "tell-tale," designed expressly for the purpose of informing you whether an alarm is being transmitted the instant you open the door.

Open the box, and if this bell is not heard, pull down the hook once only and let go.

But if this bell should be heard, it would indicate that another box had been pulled, and it would be useless to attempt to pull another until the one already pulled had performed its mission.

Wait until 20 seconds have elapsed after the "tell-tale" has stopped ringing, close the door, which will restore the armature to the position it left when the door was opened.

Open the door, pull down the hook once only and let go.

Should there be no response, pull it again.

Then should there be no response, go to the next box.

Unless your presence is most urgently required at the scene of the fire, remain at the box to direct the department.

Never open the box or touch anything pertaining to it except in case of fire.

Never given an alarm for a fire seen at a distance.

Be reasonably sure that there is a fire before giving an alarm.

Never give an alarm for a chimney fire unless there is imminent danger of the building catching.

PENACOOK FIRE-ALARM TELEGRAPH.

NUMBER, LOCATION, ETC.

W. C. Green, Chief Engineer:

I herewith submit for your consideration the following report of the Penacook fire-alarm telegraph system: The system is the Gamewell patent, and consists of five miles of No. 9 iron wire. On the lines are fourteen boxes owned by the city, two private boxes, one 1,500-pound bell, one indicator, three mechanical gongs and 4 direct-action tappers. The battery consists of forty-two storage battery cells. I would respectfully recommend the addition to the system of one new box the coming year.

Respectfully submitted,

FRED M. DODGE,
Superintendent of Fire-Alarm.

LOCATION OF BOXES.

31. Elm Street, near S. N. Brown's house.
34. Charles Street, near schoolhouse.
35. Washington Square.
36. Washington, near sawmill.
37. Washington Street, near outlet.
38. Junction of West Main and South Main Streets.
39. South Main Street, near cemetery.
41. Corner of Centre and East Canal Streets.
42. High Street, opposite Maple Street.
43. Spring and Centre Streets.
45. Summer Street, opposite Church Street.
46. Merrimack Street, opposite Cross Street.
47. Merrimack Street, near Hose House.
48. Corner Penacook and Rolfe Streets.

PRIVATE BOXES.

25. Hoyt Electrical Instrument Works.
62. Concord Axle Works.

ALL-OUT SIGNAL.

Three strokes of the bell.

BRUSH FIRE SIGNAL.

Three rounds of four strokes each.

OUT OF TOWN SIGNAL.

Two rounds of eleven strokes each.

FOR FIRE ON BOSCAWEN SIDE.

Box 35, with two additional strokes.

SIGNALS FOR CLOSING SCHOOLS.

After this date the High School and Summer Street School will not be closed by signal.

The Charles Street School and the Elementary Grades in Main Street School will be closed whenever the signal is sounded. When sounded at 7.30 a. m., there will be no morning session of these schools; when sounded at 12.15 p. m., there will be no afternoon session.

The signal used will be the same as heretofore:—Two strokes of the fire-alarm bell given three times with a pause of fifteen seconds between the rounds (2—2—2.) Jan. 25, 1915.

TESTING SIGNALS.

For the purpose of testing the condition and accuracy of the fire-alarm telegraph, a box alarm will be rung in every Saturday afternoon at 12.50 o'clock precisely. It will be one single round only, indicating by the strokes on the bells the number of the box. The boxes used for this purpose will vary each week, alternating in the circuits.

Upon each other week-day a single blow upon the bells will be rung in from a box, alternating as before mentioned.

The Penacook fire-alarm system was installed in June, 1908, under direction of the chief engineer.

REVISED ORDINANCE.

CHAPTER XVIII.

FIRE DEPARTMENT.

SECTION

1. Fire department — how constituted.
2. Tenure of office, vacancies.
3. Chief engineer, salary.
4. Chief engineer, powers and duties.
5. Assistant engineer, powers and duties in absence of chief.
6. Foremen, duties of inspection, etc.
7. Foremen, duties at fires.
8. Stewards, Alert and Good Will Hose companies.
9. Apparatus to be cleaned, etc.
10. Badges and uniforms.
11. Salaries and pay.
12. Extra services, charges for.
13. Apparatus and firemen to be kept in city.
14. Engineers to inspect buildings; to take means for speedy extinguishment of fires.
15. Absence, neglect of duty.
16. Volunteer companies.
17. Parade, drill, and inspection.
18. Engineers—full control at fire.
19. Regulations concerning shavings and combustibles.
20. Board of engineers to make regulations.

SECTION

21. Disobedience and neglect of duty; qualifications of members.
22. Applications for membership; officers and members not to take part in political matters.
23. Fire-alarm telegraph—chief engineer to have control.
24. Vacation without loss of pay, when.
25. Supplies, purchase of.
26. Removal and protection of property endangered by fire.
27. Hydrants to be personally examined by chief engineer.
28. Pay-roll of department.
29. Care and control of fire department buildings in Wards 1, 2, and 3.
30. Stewards of companies in outside wards.
31. Regulations concerning drivers and permanent men; chief engineer to be furnished with horse and wagon.
32. Brush and forest fires.
33. Veteran Firemen's Associations made auxiliary branch.
34. Appropriation for.

SECTION 1. The fire department shall consist of a chief engineer, two assistants within the precinct, one engineer each from Ward 1, Ward 2 and Ward 3; two steamer and hose companies, one company to consist of thirteen men, including driver, and one company to consist of fourteen men, including driver; one relief steamer (company) to consist of two men; two hose companies to consist of eleven men, including driver; [*a chemical engine company to consist of two men]; a hook and ladder company to consist of twenty-one men, including driver; a house man at Cen-

*Displaced by Combination Company No. 1, December 9, 1913.

tral Fire Station; steamer Pioneer, not less than twenty nor more than forty men; hand engine companies No. 2 and No. 3, not less than twenty nor more than thirty men each. Each company shall be allowed three substitutes, except Hook and Ladder Company, No. 1, which shall have five, to be approved by the chief engineer. The engineers shall exercise the powers of fire-wards, and those within the precinct shall constitute the board of engineers.

SECT. 2. The chief engineer and assistant engineers and all other members of the fire department shall hold their respective offices and places until they are removed, or their offices or places are otherwise vacated. The board of mayor and aldermen, for cause, and after a due hearing, may at any time remove from office or place the chief engineer, any assistant engineer, or any officer or member of the department. In case of vacancies from any cause in the department, of officers or men connected in any manner with the fire service, such vacancies shall be filled by the board of mayor and aldermen.

SECT. 3. The chief engineer shall give his entire time to the duties of his office, unless herein otherwise provided, and shall not engage in or be connected with any other business or occupation, and shall reside in a house to be furnished by the city free from rent. He shall receive in full for his services as chief, in addition to the use of said house, rent free, the sum of twelve hundred and fifty dollars per annum.

SECT. 4. The chief engineer shall have the sole command at fires over all persons, whether members of the fire department or not. He shall direct all proper measures for extinguishing fires, protecting property, preserving order and enforcing the laws, ordinances, and regulations respecting fires; and shall examine into the condition of the fire engines and all other fire apparatus, and of the fire engine houses and other houses belonging to the city and used by the department, and by the companies thereto attached, as often as once a week, and whenever directed to do so by the mayor, or the committee on fire department through its

chairman. He shall certify all bills and submit the same for inspection monthly to the joint standing committee on fire department. He shall report to the board of aldermen annually a statement of the receipts and expenditures of the fire department, the condition of the fire engines and all other fire apparatus, a detailed schedule of the property in his charge, the names of the officers and members, and all other facts in relation to the department. Whenever the fire engines or other fire apparatus require repairs he shall, under the direction of the committee on fire department, cause the same to be made, and as far as practicable he shall examine into the location and condition of fire apparatus belonging to corporations or private individuals within the limits of the city. He shall require permanent men, when not otherwise engaged, to perform such other duties and do such other work as in his judgment may be deemed proper. He shall be responsible for the proper care of all property connected with the fire department. He shall keep fair and exact rolls of the respective companies, specifying the time of admission and discharge, and the age of each member and shall report annually, or oftener if directed, all accidents by fire which may happen within the city, with the causes thereof, the number and description of the buildings destroyed or injured, and the amount of loss and insurance on the same, together with the names of owners or the occupants, and shall make returns as required by the public statutes. He shall visit each department house as often as practicable, and inspect the men, the books of the house, and see that the quarters are properly conducted and in good order. He shall have the power to suspend any officer or member of the department for insubordination, disorderly conduct or neglect of duty, said suspension to continue pending the action of the mayor and aldermen. The chief engineer shall examine all places where shavings and other combustible materials may be collected or deposited, and cause the same to be removed by the tenants or occupants of such places, or

at their expense, whenever in his opinion such removal is necessary for the security of the city against fires.

SECT. 5. In the absence of the chief engineer, the next assistant engineer in rank, who may be present, shall have the powers and perform the duties of the chief engineer and the seniority in rank of the engineers shall be determined by the board of engineers at their first meeting.

SECT. 6. The captain of each engine, hose, and hook and ladder company, immediately after every fire at which said company may have attended, shall examine into the condition of the fire apparatus belonging to his respective company, and report any deficiency which may exist to the chief engineer. He shall keep, or cause to be kept by the clerk of his company, exact rolls, specifying the time of admission, discharge, and age of each member, and accounts of all city property entrusted to the care of the several members, and of all cases of absence and tardiness, in a book provided for that purpose by the city, which rolls and record books are always to be subject to the order of the chief engineer and mayor. They shall also make, or cause to be made, to the chief engineer, true and accurate returns of all members, with their ages, and of the apparatus entrusted to their care, whenever called upon so to do.

SECT. 7. The captain of each company shall, under the direction of the chief engineer, have charge and management of his company at fires; the lieutenant shall assist the captain in the discharge of his duties, and act as clerk of the company, and in the absence of the captain assume his authority. The captain and lieutenant shall be appointed by the chief engineer.

SECT. 8. The stewards of the Alert and Good Will Hose Companies shall act as drivers of hose carriages, take charge of and properly care for and exercise the horses used by each company. They shall be permanently engaged and devote their whole time to the department, and sleep in their respective stations at night; and for the proper execution of all duties required of them shall be subject to the direction of the chief engineer.

SECT. 9. It shall be the duty of every engine, hose, and hook and ladder company, to have its engine, hose and other apparatus cleaned, washed, oiled, reeled and housed immediately after its return from any fire or service, and at all times to maintain the same in good condition, and the members of the several companies shall perform any necessary duties which the chief engineer or their respective captain may direct.

SECT. 10. All members of the department when on duty shall wear some suitable badge, to be designated by the board of engineers. The chief and permanent members shall wear at all times when on duty the regulation uniform worn by the fire department.

SECT. 11. The pay-rolls for the board of engineers and the several fire companies shall be made up by the chief and clerk of the board of engineers semi-annually, on the first day of January and July. Captains and clerks of companies will forward their pay-rolls to the board of engineers for approval and after the action of said engineers and the committee on accounts and claims, said pay-rolls shall be passed over to the city tax collector, under whose sole direction all sums for services of call firemen shall be disbursed.

SECT. 12. No charge for extra services will be allowed any member of the department unless upon an order of a member of the board of engineers.

SECT. 13. No engine, hose, or hook and ladder carriage shall be taken to a fire out of the city without permission from the chief engineer, except steamer Pioneer, which may be taken to any fire in the village of Penacook, nor shall any apparatus of the fire department be taken from the city except in case of fire, without permission from the board of mayor and aldermen; and in sending any apparatus to aid in extinguishing fires in neighboring localities, the chief in all cases will authorize his assistant next in rank available to take charge of the direction of such apparatus, and not allow any firemen, at such an emergency, to leave the city, except such a number as is actually required to man

the apparatus, and no member to leave without permission or direction from the chief engineer.

SECT. 14. It shall be the duty of engineers and firemen, whenever there is an alarm of fire in the city, to repair immediately to the place of such fire, wearing a suitable badge, and the engineers shall take proper measures that the several engines and other apparatus be arranged and duly worked for the speedy and effectual extinguishment of the fire. The engineers shall inspect and make themselves familiar with all shops, hotels, tenement blocks, and all public buildings, halls, churches, schoolhouses and asylums once in each six months and study the location of all hydrants and reservoirs in the city, and generally inform themselves in all matters pertaining to their duties as engineers. No engineer shall interfere with or attempt to give orders relative to the location or use of a line of hose, when he has ascertained that another has command of it, unless by consent of the engineer in command of it, or by orders of the officer in command of the fire; and it shall be his duty to inquire if there is an officer in charge.

SECT. 15. For each absence from fire, or neglect of duty, the chief engineer, the assistant engineers, and engineers of steamers shall be fined three dollars, and each other member of the department one dollar; provided, however, that any fireman liable as above may in case of sickness have power of substitution by giving notice, each assistant engineer to the chief, each captain to an engineer, and each other member to the captain of his company. All fines shall be paid to the clerks of respective companies at the first regular meeting after they are incurred. The clerks of companies shall disburse the fines to substitutes answering for absent members in cases where there were substitutes. In cases where there were no substitutes the fines shall be paid to the city.

SECT. 16. Any volunteer company using the apparatus of the city at any fire shall be under the control and command of the chief engineer and his assistants, agreeably to the foregoing provisions of this chapter.

SECT. 17. The department shall appear for public parade, drill and inspection at such times as the chief engineer and committee on fire department shall order, for which purpose three hundred dollars may be expended annually. The companies in Wards 1, 2 and 3 will attend by invitation and voluntarily. Each company in the department under the direction of the chief engineer or assistants shall take out their respective engines and apparatus for exercise and drill as often as he shall direct, such exercise and drill to take place in public, not oftener than once a month, and at least once in two months, between the first of April and November.

SECT. 18. The engineers shall have control of all persons appointed to serve in any company of the fire department and power to direct and control the labor of all persons present at any fire. An engineer may and shall cause any fire deemed by him to be dangerous in any place to be extinguished or removed.

SECT. 19. The engineers may establish such regulations respecting the kindling, guarding and safe-keeping of fires and for the removal of shavings and other combustibles from any building or place, as they shall think expedient. Such regulations shall be signed by a majority of the engineers. Such regulations shall be approved by the mayor and aldermen, recorded by the city clerk, and copies attested by him posted up in two or more places in the city thirty days, when they shall take effect. Penalties not exceeding twenty dollars for each offense may be prescribed by the engineers for the breach of such regulations, and such regulations shall remain in force until altered or annulled.

SECT. 20. The board of engineers may from time to time make and enforce such regulations for the government of the department as may be deemed proper, subject to the approval of the board of mayor and aldermen.

SECT. 21. If any member of any of the several companies shall wilfully neglect or refuse to discharge his duty, or shall be guilty of disorderly conduct or disobedience to

any officer or to any engineer, he shall for any such offense be forthwith dismissed from the department by direction of the chief engineer. No person shall be a member of, or serve in, the fire department, who is under the age of twenty years, and no person whose occupation is carried on outside the city shall be appointed a member of the fire department.

SECT. 22. All applicants for membership shall be nominated by the chief engineer, and shall receive pay and be considered members of the department from the date of their confirmation by the board of mayor and aldermen.

No person shall hereafter be appointed to any position in the fire department unless and until the committee on fire department shall have certified in writing to the board of mayor and aldermen that such person has been examined by them, or under their supervision, and is in their opinion qualified to perform the duties of the position to which he is nominated.

No officer or member of the permanent, or officer of the call, force shall attend any political convention as a delegate, distribute tickets at any election, or take any part whatever in political matters other than to exercise the right of suffrage, and no political or religious discussion shall be permitted in any of the department houses.

SECT. 23. The chief engineer shall have the care and management of the rooms, apparatus, machinery, wires, poles and signal boxes connected with the fire-alarm telegraph. He shall prepare rules and directions for giving alarms of fire through the telegraph. He shall have the superintendence, and under the direction of the joint standing committee on fire department have control of the several stations, the apparatus, the furniture therein, and all other property appertaining to the department. He shall, with the assistance of the permanent men at the Central Station, make the necessary repairs and take care of the fire-alarm system, including the batteries, all alarm boxes, and everything pertaining to the fire-alarm system. He shall per-

sonally be able to master the fire-alarm in every particular, and every permanent man at the Central Station shall be obliged to understand the fire-alarm system, in order that the chief engineer may call upon any of them to attend to and repair any part of the same. This provision shall not be construed to prevent the chief engineer from employing extra linemen when necessary, or from acting promptly in any emergency.

SECT. 24. Permanent officers and men of the department shall be entitled to a vacation without loss of pay of fourteen days in each year. [In addition they shall be entitled to be off duty without loss of pay two days in each month, such two days not to be taken in the same week. In the weeks that they are not off duty for a day, under the above provision, they shall be entitled to be off duty for one night without loss of pay.] All vacations and absences from duty under the above to be under the direction of the chief engineer. [Amended, One day in seven granted. Affective April 1st. 1916.]

SECT. 25. The standing committee on fire department, subject to the board of mayor and aldermen, shall by themselves or agent purchase all supplies in connection with the fire department, and direct all repairs of apparatus; and all bills contracted for the department must receive their approval before being passed on by the committee on accounts and claims. They shall hold stated meetings at least once each month at the Central fire station, and all communications to the city government from the fire department must come through said committee, and annually at the call of the finance committee, in connection with the chief engineer, they shall make recommendations as to the amount of appropriations the wants of the department will require for the coming year.

SECT. 26. The city marshal and regular police officers shall have in charge all matters relating to the removal and protection of personal property endangered by fire, and any person entering a building or removing property contrary to the orders of the city marshal or such police

officers shall be fined five dollars; and in the absence of firemen at fires from their respective department houses, the policemen in that vicinity will take charge of said houses.

SECT. 27. It shall be the duty of the chief engineer to cause all snow and ice or other obstructions to be removed from and around all fire hydrants owned by the city, so that at all times the fire department can make immediate connection of the hose to the hydrants.

SECT. 28. The annual pay of the members of the fire department shall be as follows, and in full for all services in said department:

Chief, twelve hundred and fifty dollars per annum and house-rent; permanent force at Central fire station, eight hundred and forty dollars each, drivers at Good Will and Alert hose houses, eight hundred and forty dollars each, the members of the chemical company nine hundred and twelve dollars each, per annum, payable semi-monthly; assistant engineers, within the precinct, one hundred and forty-five dollars each; engineers of steamers, within the precinct, one hundred and thirty-five dollars each; captains of companies, within the precinct, each one hundred and ten dollars per annum; lieutenants of companies, within the precinct, one hundred and five dollars per annum; members of steamer, hose, and hook and ladder companies, within the precinct, and house man at Central fire station one hundred dollars per annum; outside the precinct, engine companies Nos. 2 and 3, three hundred and forty dollars each, and Pioneer Steamer company No. 3 [*six hundred dollars], said sums to be divided among the members as each company shall direct; engineer of steamer at Penacook, seventy-five dollars per annum; assistant engineer at Penacook [†twenty-five dollars]; assistant engineer at East Concord, twenty dollars; and assistant engineer at West Concord, twenty dollars.

SECT. 29. The several engineers residing in Wards 1,

* Advanced to one thousand dollars. Effective January 1, 1913.

† Advanced to seventy-five dollars. Effective July 1, 1913.

2 and 3 shall have the entire care and control, under the direction of the chief engineer, of the buildings and appurtenances occupied in part by the fire department situated in said wards, respectively, to whom all applications for the use of the halls, or any other part of such building, shall be made. Said engineers may severally appoint janitors, at annual salaries not to exceed fifteen dollars, who shall serve under the exclusive direction of the engineer having the care and control of the building where said janitor shall be appointed. Each of said engineers shall annually, in the month of December, render a detailed statement, in writing, to the mayor and aldermen, of all receipts and expenditures for the preceding year on account of such buildings.

SECT. 30. Stewards for the Pioneer Steamer Company and Engine Companies Nos. 2 and 3 shall be appointed by the mayor and aldermen, and shall receive for all services performed by them in that capacity the following sums: For Pioneer Steamer Company, thirty dollars per annum, and when performing the duties of janitor of the building an additional sum of forty-five dollars per annum; and for stewards of Engine Companies Nos. 2 and 3, thirty dollars per annum each. No steward shall be allowed to purchase supplies for such building, or for the department, unless by the authority and direction of the committee on fire department; and in no case shall he have any care or control of the building or its appurtenances occupied by the company of which he is a member, except in the immediate service of the company, unless he shall be appointed janitor thereof, when he shall be under the direction of the engineer, as provided in the foregoing section.

SECT. 31. The permanent men and horses at all of the fire stations in Concord shall at all times be on duty at their respective stations to attend to fire-alarms calls; and neither the permanent men nor the permanent horses connected with the fire department shall engage in any work for any other department of the city.

The men at the different fire stations shall do such work in connection with the station and apparatus as the chief engineer or his assistants may direct. All permanent men shall lodge in their respective stations (except the chief), and in all cases of absence a substitute must be furnished; and in all cases when any extra service is required, the chief, with the sanction of the committee on fire department, shall have power to hire the same; the chief may also increase as far as possible the number of call men who wish to lodge at any fire station, subject to the regulations of the fire department. The chief engineer shall be furnished with a horse and wagon, to be maintained by the city, for his use at all times.

SECT. 32. All alarms for brush or for forest fires shall be responded to by members of the fire department under such rules and regulations as shall be prescribed by the chief engineer.

SECT. 33. The Veteran Firemen's Association is hereby constituted and made an auxiliary branch of the regular fire department of this city, the members of said association to be considered as honorary and to organize a cooperative working force to serve in emergency, without compensation, such service to be under the direction and control of the officers of the regular organization in allegiance and compliance thereto.

SECT. 34. The standing committee of the board of aldermen on fire department is authorized and directed to rent, at an expense not exceeding one hundred and fifty dollars a year, suitable rooms for the accommodation of said Veteran Firemen's Association, the same to be selected by said association, the same to be charged to the regular appropriation for fire department.

ADDITIONAL REGULATIONS.

ARTICLE 1. Any engine or hose company running out a line of hose from a hydrant or steamer shall be entitled to the pipe, although the hose of other companies may be attached, in order to reach the fire. And any company coming to a fire, and finding an incompleated line of hose laid out from a hydrant or steamer, shall attach to and lengthen out such line, in lieu of laying a line of its own.

ART. 2. When two or more engine companies are playing in a continuous line, the pipe shall belong to the company attaching to hydrant or steamer as provided in the foregoing article; but any company furnishing the entire line, and receiving water from a steamer, the pipe shall belong to such company so receiving.

ART. 3. Hose companies shall attach first lines to high pressure hydrants where accessible; steamers attaching to those of low pressure, or reservoir.

ART. 4. No company shall take possession of a hydrant or reservoir unless their hose and apparatus for attaching to the same are at hand and ready for use.

ART. 5. In proceeding to, working at, or returning from fires, noisy demonstrations are strictly prohibited, and it is required of officers of companies to maintain perfect order and decorum in their respective commands during all such service.

ART. 6. In case of fire the captain first arriving shall be in command until the arrival of an engineer.

ART. 7. Drivers are strictly enjoined, in proceeding to a fire, to use the utmost care and caution consistent with promptness. Racing between companies is forbidden under any circumstances. Any collision or casualty occurring to horses or apparatus will be considered a sufficient cause for the suspension of the driver in charge at the time.

ART. 8. Fire hats are furnished by the city for the protection and identification of the firemen, and they must be

worn at all times except in the severest weather, when caps may be worn.

ART. 9. While attending fires it shall be the duty of members of the department, when not performing active service, to concentrate about their respective pieces of apparatus.

ART. 10. All engine and hose companies responding to second or general alarms will connect, but will not lay their lines until they have reported to the officer in command for orders.

ART. 11. The wearing of badges shall not be regarded by members of the department as conveying to them the privilege of free access to premises after fire has been extinguished.

ART. 12. All members of the department shall address all officers by their respective titles while on duty at fires.

ART. 13. The roll of each company shall be called as soon as the apparatus is housed, and no member will be excused except in case of sickness. Rolls must be called after every alarm. No officer or member will be marked present on the company roll unless present at fires and returns to house with apparatus, unless excused by an engineer.

ART. 14. All orders issued by the chief or an assistant engineer shall be promptly obeyed. At all fires occurring in the night, the chief engineer shall be identified by a red light, assistant engineers by blue lights.

ART. 15. Members of the department are expected to cheerfully comply with all rules and regulations which are adopted or which may be adopted. Captains will be held responsible for all lack of promptness and efficiency in their commands.

ROLL OF THE FIRE DEPARTMENT, 1916.

Permanent Chief Engineer.

WILLIAM C. GREEN, Office, Central Fire Station.

Assistant Engineers.

PRECINCT.

WALTER J. COFFIN, 1st Asst., Shipping clerk, 60 Pleasant Street.
 SYLVESTER T. FORD, 2d Asst., Molder, 41 So. Main Street.
 WALTER J. COFFIN, Clerk of the Board.

WARD 1.

FRED M. DODGE, Electrical Inst. maker, 61 Merrimack Street.

WARD 2.

ELBRIDGE EMERY, Butcher, Potter St., East Concord.

WARD 3.

GEORGE W. KEMP, Overseer, 16 Fisher St., West Concord.

KEARSARGE STEAM FIRE ENGINE AND HOSE
COMPANY, NO. 2.

OFFICERS.

J. EDWARD MORRISON, *Captain.* CHARLES POWELL, *Lieutenant and Clerk.*
 JAMES H. SANDERS, *Engineer and Treasurer.*

MEMBERS.

<i>Badge Nos.</i>	<i>Names.</i>	<i>Occupations.</i>	<i>Residences.</i>
1	J. Edward Morrison,	Machinist,	8 Thorndike Street.
2	Charles Powell,	Machinist,	75 Centre Street.
3	James H. Sanders,	Carriage painter,	45 Perley Street.
4	Thomas J. Morrison,	Carriage painter,	32 Downing Street.
5	George B. Davis,	Carriage painter,	32 Pleasant Street.
6	Herbert M. Sanders,	Collector,	2 No. State Street.
7	Harry P. Blake,	Machinist,	12 Hanover Street.
8	Harry L. Messer,	Machinist,	3 Broadway
9	W. C. B. Saltmarsh,	Carriage trimmer,	154 No. Main Street.
10	George L. Livingston,	Gas inspector,	38 Jackson Street.
11	Harry C. Taylor,	Machinist,	109 So. State Street.
12	George H. Abbott,	Shipping clerk,	63 School Street.
13	Joseph H. Brunel,	Permanent driver,	Central Station.
14	Henry E. Drew,	Permanent driver,	Central Station.

EAGLE STEAM FIRE ENGINE AND HOSE COMPANY, NO. 1

OFFICERS.

J. C. MCGILVRAY, *Captain.*D. J. ADAMS, *Lieutenant and Clerk.*

MEMBERS.

<i>Badge Nos.</i>	<i>Names.</i>	<i>Occupations.</i>	<i>Residences.</i>
18	John C. McGilvray,	Jig-sawyer,	9 Pearl Street.
19	David J. Adams,	Janitor,	107 No. Main Street.
20	Charles H. Sanders,	Machinist,	11 Chapel Street.
23	John M. Inman,	Custodian,	16 Wall Street.
24	John B. McLeod,	Electrician,	5 Rumford Street.
26	Charles W. Bateman,	Plumber,	3 Maple Street.
28	Frank H. Fowler,	Electrician,	88 No. Main Street.
25	Willis J. Sawyer,	Machinist,	102 So. State Street.
22	Eli Langlois, Jr.,	Painter,	5 Perry Avenue
27	Philip J. O'Connell,	Silver-smith,	38 No. Spring Street.
21	Charles W. Downing,	Clerk,	12 South Street.
29	Fred J. Johnston,	Gas fitter,	10 Abbott Street.
30	C. Cunningham,	Permanent driver,	Central Fire Station.

GOVERNOR HILL STEAMER, NO. 4.

RELIEF ENGINE.

<i>Badge Nos.</i>	<i>Names</i>	<i>Occupations.</i>	<i>Residences.</i>
34	Elmer H. Farrar, <i>Engineer,</i>	Machinist,	78 So. State Street.
35	Henry O. Powell, <i>Fireman,</i>	Blacksmith,	81 So. State Street.

ALERT HOSE COMPANY, NO. 2.

OFFICERS.

ERNEST E. SABEN, *Captain.*CHARLES C. CHESLEY, *Lieutenant and Clerk.*
J. M. DAVIS, *Treasurer.*

MEMBERS.

<i>Badge Nos.</i>	<i>Names.</i>	<i>Occupations.</i>	<i>Residences.</i>
36	E. E. Saben,	Car-builder,	88 No. State Street.
37	C. C. Chesley,	Builder,	11 Prince Street.
39	C. J. French,	Stonecutter,	5 Perkins Street.
40	C. H. Rowell,	Builder,	5 Abbott Court.
42	F. P. McKenna,	Clerk,	19 Franklin Street.
43	J. M. Davis,	Blacksmith,	4 Tahanto Street.
45	M. G. Davis,	Builder,	6 Beacon Street.
41	J. E. Howard,	Wood-worker,	31 Union Street.
44	D. J. Murphy,	Molder,	2 No. State Street.
8	E. E. Bartlett,	Carpenter,	13 Prince Street.
46	F. H. Silver,	Permanent driver,	Alert Station.

GOOD WILL HOSE COMPANY, NO. 3.

OFFICERS.

HIRAM T. DICKERMAN, *Captain.* FRANK S. PUTNAM, *Lieutenant and Clerk.*
ALBERT W. THOMPSON, *Treasurer.*

MEMBERS.

<i>Badge Nos.</i>	<i>Names.</i>	<i>Occupations.</i>	<i>Residences.</i>
50	Hiram T. Dickerman,	Painter,	36 Broadway.
51	Frank S. Putnam,	Wood-worker,	48 So. Main Street
52	George H. Sawyer,	Blacksmith,	5 Allison Street.
54	Jasper R. Mudgett,	Wood-worker,	98 So. State Street.
55	Henry H. Ash,	Machinist,	23½ Perley Street.
57	Albert W. Thompson,	Janitor,	74 Allison Street.
58	Harry L. Peacock,	Painter,	36 Warren Street.
59	Herbert F. Ferrin,	Electrician,	104 So. State Street.
53	John W. McGowan,	Plumber,	Good Will Station.
56	J. E. Cochran,	Molder,	38 Downing Street.
60	William T. Happy,	Permanent Chauffeur,	Good Will Station.

CITY OF CONCORD HOOK AND LADDER COMPANY, NO. 1.

OFFICERS.

WILL A. KING, *Captain.* ED. E. LANE, *Lieutenant and Clerk.*

MEMBERS.

<i>Badge Nos.</i>	<i>Names</i>	<i>Occupations.</i>	<i>Residences.</i>
64	Will A. King,	Machinist,	38 Franklin Street.
65	Ed. E. Lane,	Wood-worker,	5 Fremont Street.
66	Frank T. Bean,	Wood-worker,	16 Avon Street.
67	Benjamin Ouillette,	Wood-worker,	10 Jefferson Street.
68	Henry V. Tittmore,	Teamster,	57 Dunklee Street.
69	Lucius D. Caldon,	Wood-worker,	13 West Street.
70	George W. Grover,	Wood-worker,	29 Thorndike Street.
71	Daniel Crowley,	Coachman,	130 Warren Street.
72	Stephen P. Foster,	Wood-worker,	14 Wall Street.
73	Sam B. Morgan,	Wood-worker,	10 Avon Street.
74	Bion W. Hall,	Carpenter,	15 Humphrey Street.
75	Edwin H. French,	Wood-worker,	30 Green Street.
76	D. Charles Parker,	Renovater,	63 South Street.
77	Ned E. Herrin,	Carpenter,	Ins. Blk., School Street.
78	Carmi L. King,	Machinist,	13 Warren Street.
79	Louis Cote,	Carpenter,	34 Downing Street.
80	Clarence L. Clark,	Clerk,	71 South Street.
81	Bert J. Heath,	Wood-worker,	154 No. Main Street.
82	William H. Reagan,	Steam fitter,	53 So. Main Street.
83	Harry Leary,	Plumber,	22 Fremont Street.
84	Oscar E. Eastman,	Permanent driver,	Central Station.

OLD FORT ENGINE COMPANY, NO. 2.

East Concord.

OFFICERS.

GEORGE O. ROBINSON, *Captain.*
C. E. ROBINSON, *Lieut. and Clerk.*

JOHN C. HUTCHINS, *Treasurer.*
MICHAEL LACROIX, *Steward.*

MEMBERS.

<i>Badge Nos.</i>	<i>Names.</i>	<i>Occupations.</i>	<i>Residences.</i>
120	George O. Robinson,	Water-dealer,	Penacook Street.
121	C. E. Robinson,	Clerk,	Penacook Street.
122	John C. Hutchins,	Engineer,	Penacook Street.
125	Samuel G. Potter,	Milk-dealer,	Appleton Street
126	William E. Virgin,	Carpenter,	Penacook Street.
127	Rufus C. Boynton,	Belt-maker,	Penacook Street.
128	Shad Cate,	Farmer,	Pembroke Street.
129	Ross W. Cate,	Horseshoer,	Penacook Street.
130	Herbert Knowles,	Carpenter,	Penacook Street.
131	Parker French,	Janitor,	Penacook Street.
132	Westley Field,	Milkman,	Penacook Street.
133	John W. Sanborn,	Farmer,	Penacook Street.
134	Walter C. Sanborn,	Wood-worker,	Portsmouth Street.
136	Arthur P. Swain,	Moulder,	Penacook Street.
123	Michael Lacroix,	Blacksmith,	Penacook Street.
137	Clarence Tibbetts,	Clerk,	Penacook Street.
138	Reuben L. Cate,	Carpenter,	Cemetery Street.
135	John T. Cate,	Carpenter,	Shawmut Street.
140	C. A. Chamberlin,	Farmer,	Shawmut Street.
139	William F. Paige,	Painter,	Shawmut Street.
143	H. A. Stuart,	Storekeeper,	Penacook Street.
144	Hiram Gardner,	Blacksmith	Pembroke Street.
145	John Canney,	Carpenter,	Pembroke Street.
146	Thomas Morrison,	Machinist,	Kearsarge Street.
147	Fred Gardner,	Wood-worker,	Pembroke Street.
149	Fred J. Carter,	Stonecutter,	Penacook Street.
148	Claude H. Swain,	Clerk,	Penacook Street.
142	William E. Batchelder,	Machinist,	Penacook Street.
141	Herbert F. Piper,	Carpenter,	Pembroke Street.
124	William Cate,	Farmer,	Pembroke Street.

CATARACT ENGINE COMPANY, NO. 3.

West Concord.

OFFICERS.

ALFRED J. FRASER, *Captain.*ABRAM D. CUSHING, *Lieut. and Clerk.*ANDREW J. ABBOTT, *Treasurer.*FRANK C. BLODGETT, *Steward.*

MEMBERS.

<i>Names.</i>	<i>Occupations.</i>	<i>Residences.</i>
Alfred J. Fraser,	Stonecutter,	10 River Street.
A. D. Cushing,	Blacksmith,	9 Lake Street.
Hiram E. Quimby,	Stonecutter,	490 No. State Street.
Andrew Abbott,	Farmer,	382 No. State Street.
Jeremiah Cotter,	Blacksmith,	5 Engel Street.
Patrick Ryan,	Stonecutter,	50 Hutchins Street.
Abial C. Abbott,	Quarryman,	513 No. State Street.
Edward Lovering,	Stonecutter,	1 Clark Street.
Joseph Daly,	Blacksmith,	455 No. State Street.
Robert Henry,	Silver-smith,	513 No. State Street.
Benjamin Kemp,	Laborer,	3 River Street.
Frank Peterson,	Stonecutter,	346 No. State Street.
Matthew H. Peabody,	Stationary engineer,	14 View Street.
Carl A. Anderson,	Stationery engineer,	9 Lake Street.
Carl A. Eckstrom,	Stonecutter,	Gladstone Avenue.
Oscar Johnson,	Stonecutter,	516 No. State Street.
Axel Swanson,	Paving cutter,	434 No. State Street.
Henry Richardson,	Foreman,	6 Dam Street.
William Nelson,	Stonecutter,	556 No. State Street.
Frank C. Blodgett,	Stonecutter,	436 No. State Street.

VETERANS' AUXILIARY COMPANY.

OFFICERS.

FRANK F. MORSE, *Captain.*EBEN F. RICHARDSON, *Second Lieutenant.*S. S. UPHAM, *First Lieutenant.*

MEMBERS.

Dennis Halloran,	Earl C. Bodwell,	Fred O. Libby,
Alber P. Davis,	D. P. Wheeler,	M. F. Thompson,
H. H. Carpenter,	Henry Tucker,	E. J. Brown,
Edward D. Ashley,	O. H. Thompson,	A. L. Dickerman,
Elba F. Horne,	W. K. Wingate,	H. W. Hillson,
Arthur H. Britton,	Fred L. Johnson,	Chas. C. Moore.

WATER DEPARTMENT.

1916.

BOARD OF WATER COMMISSIONERS.

NATHANIEL W. HOBBS, Mayor, *ex-officio*.

FRANK P. QUIMBY,	to March 31, 1920.
GEORGE T. KENNEY,	to March 31, 1920.
EDSON J. HILL,	to March 31, 1919.
CHARLES R. WALKER,	to March 31, 1919.
HARRY H. DUDLEY,	to March 31, 1918.
NATHANIEL E. MARTIN,	to March 31, 1918.
SOLON A. CARTER,	to March 31, 1917.
BURNS P. HODGMAN,	to March 31, 1917.

SOLON A. CARTER, *President*.

EDSON J. HILL, *Clerk of Board*.

SUPERINTENDENT.

P. R. SANDERS.

CLERK.

ALICE G. COCHRAN.

FOREMAN.

JAMES T. DAVIS.

INSPECTOR.

HARRY E. STEVENS.

ENGINEER.

HENRY A. ROWELL.

CITY WATER BOARD.

Date of election and length of service of members.

Abraham G. Jones,* <i>ex officio</i> ,	1872—three months.
John M. Hill,*	1872—1878.
Benjamin A. Kimball,	1872—1878.
Josiah Minot,*	1872. Resigned Jan. 10, 1874.
David A. Ward,*	1872—1874.
Edward L. Knowlton,*	1872. Resigned Sept. 25, 1875.
Benjamin S. Warren,*	1872—1873.
John Kimball,* <i>ex officio</i> ,	1872—1876.
John Abbot,*	1873—1876.
John S. Russ,*	1874—1877.
Abel B. Holt,*	1874—1877.
Samuel S. Kimball,*	1875. Resigned July 1, 1891.
Geo. A. Pillsbury,* <i>ex officio</i> ,	1876—1878.
Luther P. Durgin,*	1876—1885.
John Kimball,*	1877. Resigned July 1, 1891.
William M. Chase,	1877. Resigned July 1, 1891.
Horace A. Brown,* <i>ex officio</i> ,	1878—1880.
James L. Mason,*	1878—1893.
James R. Hill,*	1878. Died in 1884.
Geo. A. Cummings,* <i>ex officio</i> ,	1880—1883.
Edgar H. Woodman,* <i>ex officio</i> ,	1883—1887.
Joseph H. Abbot,*	1884—1893.
George A. Young,*	1885—1894.
John E. Robertson, <i>ex officio</i> ,	1887—1889.
Stillman Humphrey,* <i>ex officio</i> ,	1889—1891.
Henry W. Clapp,* <i>ex officio</i> ,	1891—1893.

*Deceased.

Willis D. Thompson,	1891-1895.
William P. Fiske,*	1891-1902.
James H. Chase,*	1891. Died in 1893.
John Whitaker,*	1892. Died in 1903.
Henry E. Conant,*	1892. Resigned Jan. 8, 1895.
Parsons B. Cogswell,* <i>ex officio</i> ,	1893-1895.
Solon A. Carter,	1893. Now in office.
Frank D. Abbot,	1893-1901.
William M. Mason,*	1893-1899.
William E. Hood,	1894-1902.
Henry Robinson, <i>ex officio</i> ,	1895-1897.
Ebenezer B. Hutchinson;*	1895. Resigned Jan. 10, 1899.
Edson J. Hill,	1895. Now in office.
Albert B. Woodworth,* <i>ex officio</i> ,	1897-1899.
Nathaniel E. Martin, <i>ex officio</i> ,	1899-1901.
Henry E. Conant,*	1899. Died in 1911.
Timothy P. Sullivan,	1899. Resigned May 14, 1901.
Harry G. Sargent,* <i>ex officio</i> ,	1901-1903.
Obadiah Morrill,	1901-1905.
George D. B. Prescott,	1901-1915.
Harry H. Dudley,	1902. Now in office.
Nathaniel E. Martin,	1902. Now in office.
Charles R. Corning, <i>ex officio</i> ,	1903-1909.
Henry C. Holbrook,	1903-1916.
Harley B. Roby,*	1905. Resigned Jan. 24, 1911.
Charles J. French, <i>ex officio</i> ,	1909-1916.
Nathan' l W. Hobbs, <i>ex officio</i>	1916. Now in office.
Burns P. Hodgman,	1911. Now in office.
Frank P. Quimby,	1911. Now in office.
Charles R. Walker,	1915. Now in office.
George T. Kenney,	1916. Now in office.

* Deceased.

PRESIDENTS OF THE BOARD.

Josiah Minot,*	1872. Resigned Jan. 10, 1874.
Benjamin A. Kimball,	1874-1875.
Edward L. Knowlton,*	1875. Resigned Sept. 25, 1875.
John Kimball,*	1875-1876.
Benjamin A. Kimball,	1876-1878.
John Kimball,*	1878. Resigned July 1, 1891.
William P. Fiske,*	1891-1902.
Solon A. Carter,	1902. Now in office.

SUPERINTENDENTS.

V. C. Hastings,*	1873.. Died March 14, 1907.
P. R. Sanders,	1907. Now in office.

*Deceased.

CONSTRUCTION.

Cost of land damages, flowage and water rights:

Paid B. F. & D. Holden, for water rights,	\$60,000.00
Concord Manufacturing Co., for water rights,	83,000.00
W. P. Cooledge, for mill privilege and land,	5,500.00
Humphrey & Farnum, for kit-shop privilege,	5,000.00
flowage rights around Penacook Lake,	4,375.61
for land at Penacook Lake,	64,182.41
C. H. Amsden, water and flowage rights,	5,000.00
Cost of property and rights of Torrent Aqueduct Association,	20,000.00
dam, gate-house and appurtenances,	34,146.05
conduit and gate-houses,	29,818.94
mains (low service main and pump main from the dam to Penacook Street, force main from the pump to the reservoir, fire main through North and South Main Streets, and high service main from Penacook Street to Stark Street, Penacook),	182,241.70
distribution pipe,	399,851.56
service pipe,	66,395.27
reservoir, including land,	45,044.09

Cost of pumping station, shop, stable and storehouse, in- cluding land,	\$29,265.35	
pumping machinery,	17,000.42	
engineering and superin- tendence,	14,913.12	
incidentals,	6,531.19	
		<hr/>
Cost of works, January 1, 1917,		\$1,072,265.71
Less amount received for lumber, land and buildings sold,		7,736.61
		<hr/>
		\$1,064,529.10

Bonds of the city have been issued to pay a part of said cost, of which the following are still outstanding:

When due.	Rate.	Amount.
Jan. 1, 1917,	4,	2,000.00
Jan. 1, 1918,	4,	10,000.00
Jan. 1, 1919,	4,	10,000.00
Nov. 1, 1920,	3,	4,000.00
Nov. 1, 1921,	3,	3,000.00
April 1, 1921,	3½,	5,000.00
Jan. 1, 1922,	4,	333,000.00
Jan. 1, 1922,	3½,	8,000.00
April 1, 1922,	3½,	26,000.00
Jan. 1, 1923,	3½,	3,000.00
Jan. 1, 1924,	3½,	15,000.00
		<hr/>
		\$419,00.00

REPORT OF BOARD OF WATER COMMISSIONERS.

OFFICE OF THE BOARD OF WATER COMMISSIONERS,

CONCORD, N. H., February 16, 1917.

To His Honor the Mayor and the Board of Aldermen:

The Board of Water Commissioners has the honor to transmit herewith the report of the superintendent for the calendar year 1916. His report is so comprehensive and in such detail as to furnish full and complete information in regard to the operations of the department for the period covered and it leaves little to be added.

The Board, however, desires to express its appreciation of the faithful service rendered by the superintendent and all the employees under his supervision.

We take pleasure in calling special attention to these features in the report of the superintendent:

1st. In regard to the quantity and quality of the supply.

2d. The reduction of the debt of the water precinct by the retirement of bonds.

For many years, the Board has been embarrassed by questions in regard to the rights of the public to the use of the waters of Penacook Lake and its tributaries for certain purposes and in two instances litigation has resulted. One suit is still pending. The attitude of the Board has been to await the judicial determination of the questions, *i. e.*, the rights of the public and the rights and duties of the Board in the premises.

The questions at issue in the suit now pending were considered by the late Chief Justice of the Superior Court, Hon. Robert G. Pike, and his finding of facts in the case filed with

the Superior Court apparently substantiate in full all of the contentions of the Board and it is expected that a decree based upon these findings will shortly be entered.

Respectfully submitted,

FRANK P. QUIMBY,
GEORGE T. KENNEY,
EDSON J. HILL,
CHARLES R. WALKER,
HARRY H. DUDLEY,
NATHANIEL E. MARTIN,
SOLON A. CARTER,
BURNS P. HODGMAN,
NATHANIEL W. HOBBS, *ex-officio*,
Board of Water Commissioners.

REPORT OF THE SUPERINTENDENT.

To the Board of Water Commissioners:

I herewith present to you the forty-fifth annual report of the operations of this department, showing the receipts, expenditures and abatements, together with a statement of the extensions and improvements made during the year ending December 31, 1916.

RECEIPTS.

For water, from consumers by fixed rates,	\$11,506.40
For water, from consumers by meter rates,	62,984.85
From delinquents,	99.73
For water for building purposes,	45.50
pipe and stock sold and labor,	253.04
old brass and iron sold,	77.84
hay,	130.00
freight and insurance refunded,	16.98
	\$75,114.34
Deduct abatements,	61.62
	\$75,052.72

There has also been furnished the city free of charge the following use of water:

Public buildings,	\$179.50
Parks and playgrounds,	60.00
Cemeteries,	108.00
Street department,	774.00
Drinking fountains and water- ing troughs,	280.00
Sewer flush tanks,	45.00
455 fire hydrants at \$25,	11,375.00
	\$12,821.50

EXPENDITURES.

MAINTENANCE ACCOUNT.

General care and maintenance:

Salaries and labor,	\$5,438.69	
Maintenance of team,	122.57	
Maintenance of autos,	762.98	
Teaming and livery,	80.50	
Miscellaneous supplies and repairs,	339.42	
Tools,	120.95	
Repairs of buildings,	101.64	
Shrubbery at pumping station grounds,	60.13	
Bond and liability insurance,	497.08	
Telephones and lighting,	83.50	
Incidentals,	119.44	
	<u> </u>	\$7,726.90

Office expenses:

Salaries,	\$950.72	
Postage and printing,	314.14	
Miscellaneous supplies,	155.00	
Telephone,	33.85	
	<u> </u>	1,453.71

Care and repair of hydrants,

Stock,	\$71.11	
Labor,	231.84	
	<u> </u>	302.95

Care and repair of meters,

Stock,	\$211.27	
Labor,	564.20	
	<u> </u>	775.47

Relaying service pipes,

Stock,	\$39.82	
Labor,	182.55	
	<u> </u>	222.37

WATER DEPARTMENT.

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Repairing leaks,		
Stock,	\$6.38	
Labor,	108.98	
	<hr/>	\$115.36
Repairing culvert,	285.72	
Work at Lake,	629.56	
Care of wood-lots,		
Planting pines,	\$380.04	
General care,	156.42	
	<hr/>	536.46
Protection of water supply,	341.45	
Penacook Park,	185.27	
Taxes, town of Webster,	48.00	
Incidentals,	29.13	
Pumping Station:		
Salaries and labor,	\$2,335.94	
Fuel,	1,152.69	
Supplies and repairs,	548.75	
Telephone and lighting,	44.87	
	<hr/>	4,082.25
		<hr/>
Total maintenance account,		\$16,734.60

CONSTRUCTION ACCOUNT.

Distribution pipes,		
Stock,	\$2,322.60	
Labor,	133.73	
	<hr/>	\$2,456.33
Service Pipes,		
Stock,	\$241.01	
Labor,	93.33	
	<hr/>	334.34
Hydrants,		
Stock,	\$517.18	
Labor,	84.12	
	<hr/>	601.30

Meters,		
Stock,	\$1,211.75	
Labor,	103.77	
	<u> </u>	\$1,315.52
 		<u> </u>
Total construction account,		\$4,707.49
Auto truck,		1,844.94

LAND AT PENACOOK LAKE.

Leary, Bartlett and Clement,	\$1,800.00	
John Jordan,	300.00	
Recording deeds,	3.24	
	<u> </u>	2,103.24
 		<u> </u>
Total expenditures for 1916,		\$25,390.27

EXTENSIONS AND IMPROVEMENTS.

Cast-iron distribution pipes have been laid and gates and hydrants set during the year as follows:

In Dartmouth Street,

extended south, 62 feet 6-inch pipe.

On hydrant branches,

21 feet 8-inch and 58 feet 6-inch pipe.

There was also laid 892 feet of 1½ inch pipe.

Total amount laid during the year, 1,033 feet.

Total length of main and distribution pipes now in use,
374,357 feet, equal to 70.90 miles.

There have been set during the year 8 gates.

Total number of gates now in use, 1,047.

Seven new hydrants have been set as follows:

On Rumford Street, at Walker Street.

On Fiske Street, at Walker School.

On Rumford Street, at Morrill School.

On North State Street, West Concord, at Andrew J.
Abbott's.

On Knight Street, West Concord, at Quaker Street.

On Charles Street, Penacook, at school-house.

On Cross Street, Penacook, at Spring Street.

Total number of hydrants now in use, 455.

SERVICE PIPES,

There have been laid during the year and connected with the main pipes, 23 service pipes, consisting of

18 ¾-inch,	421 feet.
5 1-inch,	143 feet.
—	—
23	564 feet.

There have been discontinued, 8; total number of service pipes at the present time, 3,873; total length of service pipes, 91,585 feet, or 17.34 miles.

There have been relaid 22 services and 36 curbs have been placed on old services.

We have set 74 meters during the year; removed, 5; total number now in use, 2,528.

The following table shows the height of water in Penacook Lake on the first day of each month:

January,	180.70	July,	185.40
February,	181.20	August,	184.90
March,	182.00	September,	184.70
April,	183.00	October,	184.95
May,	184.90	November,	184.45
June,	185.20	December,	184.75

The lowest point reached during the year was on January 1, being 180.70; the highest was on July 11 and was 185.90; mean height for the year was 184.15, which was 4.15 feet higher than the mean height for the year 1915 and the highest record since 1904. Water was running over the overflow 155 days during the year.

The Venturi meter has now been in operation through out one year and the use of water has averaged 2,362,000 gallons per day.

Estimating the population of the city supplied with water from our system as 20,000, the daily consumption is about 118 gallons per capita.

Owing to the continued advance in prices of materials and the scarcity of labor, we have done very little construction work and the year has been occupied with the routine work of the maintenance of the system.

We have continued the work of reforestation at Penacook Lake, setting out 27,000 additional pine seedlings procured from the state nurseries.

We have purchased an auto truck of 2000 pounds' capacity built by Abbot & Downing Co. of this city which is giving excellent service.

The rules and regulations of your Board governing boating and fishing on Penacook Lake have been strictly adhered to.

Buoys were placed one-quarter mile from the intake and no boating whatever was allowed on this part of Penacook Lake nor on Forge Pond. All persons fishing or boating on other parts of Penacook Lake have applied for permits which were granted and the conditions have been complied with satisfactorily.

Respectfully submitted,

PERCY R. SANDERS,
Superintendent.

REPORT OF THE ENGINEER AT PUMPING
STATION.

PUMPING STATION, CONCORD WATER WORKS.

P. R. Sanders, Superintendent:

SIR: I would report that the pumping machinery at the pumping station is in good working condition.

The boilers are in good condition, and will need but few repairs; the fire boxes will have to be relined in a few months.

Following is a statement of coal and other supplies used at the pumping station during the year, with a table showing the work for each month.

STATEMENT.

109.51 tons of New River coal.
10 tons of Carbon Forge coal.
105.26 tons of Beacon Smithing coal.
107 gallons valve oil.
6 gallons engine oil.
22 pounds of waste.
11 pounds of grease.
2 cords of slab wood.
23 gallons of peroline boiler compound.

ENGINE RECORDS.

MONTHS.	No. days pumping engine No. 1.			No. days pumping engine No. 2.			Total hours pumping.	Average time pumping.	Total gallons of water pumped.	Daily average pumped.	Total coal consumed.	Daily average coal consumed.	Total pounds of wood consumed.	Gallons pumped per pound of coal.
	No. days	No. days	Total days	No. days	No. days	Total days								
January	11	20	31	H. M.	H. M.									
February	9	21	29	275:	8:52	23,614,844	761,769	46,804	1,500					504
March	14	18	31	273:30	9:25	23,915,020	771,465	46,747	1,507					511
April	13	12	30	279:	9:	24,337,047	785,066	47,549	1,533					511
May	10	22	31	244:30	8: 5	20,711,150	690,038	40,729	1,357			732		508
June	16	15	30	270:	8:42	23,537,292	759,287	44,117	1,423					533
July	16	15	31	264:30	8:49	22,047,587	734,919	42,594	1,419					517
August	12	19	31	253:	8: 9	20,537,883	682,512	38,493	1,241			767		533
September	15	15	30	254:30	8:20	21,468,011	692,516	39,203	1,264					547
October	18	17	31	239:30	7:59	19,888,402	662,946	37,970	1,265			744		523
November	16	15	30	267:	8:39	22,946,691	740,214	41,981	1,354					546
December	12	18	30	242:30	8: 5	20,390,386	679,679	37,746	1,265					645
				252:30	8: 8	21,651,385	698,431	39,556	1,276			714		547
Total	167	207	365	3,115:30		265,045,707		503,489				3,602		525
Daily average					8.33		728,147	1,383						

Coal consumed for the year, 224.77 tons.

Pounds of wood consumed ÷ 3 = equivalent amount of coal, 3,602 pounds.

Total equivalent coal consumed for the year includes that used for pumping, starting fires, banking fires and heating buildings, 226.38 tons.

Amount of equivalent coal consumed per thousand gallons pumped, 1.91.

HENRY A. ROWELL,
Engineer.

**CITY TREASURER'S CONDENSED STATEMENT OF
WATER WORKS ACCOUNT.**

ISAAC HILL, *Treasurer*, in account with Concord Water Works.

RECEIPTS.

Balance on hand, January 1, 1916,	\$25,331.70
P. R. Sanders, superintendent,	75,052.72
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	\$100,384.42

EXPENDITURES.

Interest on bonds,	\$17,888.78
Bonds paid,	38,000.00
Orders paid,	25,399.27
Cash on hand,	19,096.37
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	\$100,384.42

APPENDIX.

A.

RECEIPTS FOR EACH YEAR SINCE THE CONSTRUCTION OF
THE WORKS.

For the year ending January 31, 1874,	\$4,431.10
For fifteen months ending April 1, 1875,	17,535.00
For the year ending April 1, 1876,	16,921.24
“ “ “ 1877,	19,001.07
“ “ “ 1878,	20,763.03
“ “ “ 1879,	21,869.86
“ “ “ 1880,	22,451.53
“ “ “ 1881,	26,744.58
For nine months ending December 31, 1881,	25,534.01
For the year ending December 31, 1882,	27,243.06
“ “ “ 1883,	28,255.48
“ “ “ 1884,	28,915.65
“ “ “ 1885,	30,222.54
“ “ “ 1886,	30,862.64
“ “ “ 1887,	34,047.52
“ “ “ 1888,	38,441.32
“ “ “ 1889,	40,237.53
“ “ “ 1890,	42,133.41
“ “ “ 1891,	46,075.16
“ “ “ 1892,	48,351.52
“ “ “ 1893,	52,299.66
“ “ “ 1894,	53,230.10
“ “ “ 1895,	55,343.19
“ “ “ 1896,	56,557.81
“ “ “ 1897,	55,156.42
“ “ “ 1898,	59,147.54
“ “ “ 1899,	*53,953.13
“ “ “ 1900,	*57,003.71
“ “ “ 1901,	62,253.61
“ “ “ 1902,	63,430.85
“ “ “ 1903,	65,088.45
“ “ “ 1904,	68,570.48
“ “ “ 1905,	71,076.44

* No hydrant rental this year.