

I certify that on the fourteenth day of November, 1922, I posted a copy of the written warrant attested by the Board of Education of said district at the place of meeting within named, and a like attested copy at the Police Station in the City of Concord, N. H., being a public place in said district.

(Signed) LOUIS J. RUNDLETT.

CONCORD, N. H., Nov. 20, 1922.

Personally appeared before me, on this date, the said Louis J. Rundlett, and made oath that the above certificate by him signed is true.

(Signed) WM. S. HUNTINGTON,
Justice of the Peace.

RECORD OF SPECIAL MEETING.

A special meeting of Union School District was held in Parker School Hall in Concord, N. H., on Wednesday, November 29, 1922, at 7.30 p. m., in accordance with the foregoing warrant.

The moderator read the warrant for the meeting, and stated that the proceedings of previous meetings would be published in the annual report and their reading would be dispensed with unless there was objection.

ARTICLE 1. Mr. Harry F. Lake offered the following vote and moved its adoption:

Voted: That the agreement dated November 13, 1922, between the City of Concord and Union School District acting through the properly qualified members of the Board of Education, relating to the issue of forty thousand dollars (\$40,000) of bonds of the City of Concord, the proceeds of which are to be used by said Union School District to the extent of thirty thousand dollars (\$30,000) in erecting the new school building in the Millville District, so called, and ten thousand dollars (\$10,000) in building the annex to the Morrill Training School building, and all other actions of the Board of Education and its respective building committees taken in reference to the said bonds, be and the same are hereby ratified, approved and confirmed as the acts of the district, said contract being as follows:

WHEREAS, Union School District in the City of Concord, New Hampshire, at a meeting duly called and held at the Auditorium, in the City of Concord, on the evening of Thursday, April 6, 1922, passed votes of which the following are copies.

(1) *Voted:* That a school building be erected and equipped upon the Millville School lot with accommodations for at least one hundred twenty pupils in place of the building now standing on said lot and that the Board of Education of Union School District be and hereby are appointed a committee with authority to determine the location of said school building upon said Millville School lot, to erect and furnish said building, to employ architects, agents and such other assistants as they may require and in the name and on behalf of Union School District to do such other acts and enter into such contracts and agreements as may be necessary to carry this vote into effect; that the sum of thirty thousand dollars (\$30,000) be and hereby is appropriated for the erection and completion of said building; that the indebtedness of the district arising from the erection, equipment, and completion of said building, be funded at a rate of interest not exceeding four and one-half per cent ($4\frac{1}{2}\%$) per annum and that a sufficient sum of money be assessed upon the polls and ratable estates within Union School District on the first day of April in each year thereafter to meet the payments of the interest and the principal of said indebtedness at the date or dates of maturity of principal and interest as the same may be fixed, as hereinafter provided; and that the money obtained by said assessments be and hereby is appropriated to make said payments; that the district request the City of Concord to aid in funding the indebtedness of the district arising from the construction and furnishing of said school building as the city is authorized to do by law, provided said city will borrow the money necessary for the purpose set forth in this vote and will allow the district to have the use of the money so borrowed, and further, that, if this request is complied with, the district will seasonably pay the city sufficient sums of money to enable the city to meet the payments of the principal and interest upon this indebtedness so created, as the same may fall due, and all incidental expenses, and will apply the money to be raised as herein provided to the payments aforesaid; and said committee is hereby further authorized

to make and request of the city the date or dates when the principal of said indebtedness and the interest thereon shall mature and do all other acts and things necessary to carry this vote into effect.

(2) *Voted:* That a permanent brick building be erected on the east side of and contiguous to the Morrill School of Mechanic Arts for the better accommodation of the pupils; that the Board of Education of Union School District be and hereby are appointed a committee with authority to erect and furnish said building, to employ architects, agents and such other assistants as they may require and in the name and on behalf of Union School District to do such other acts and enter into such contracts and agreements as may be necessary to carry this vote into effect; that the sum of ten thousand dollars (\$10,000) be and hereby is appropriated for the erection and completion of said building; that the indebtedness of the district arising from the erection, equipment, and completion of said building, be funded at a rate of interest not exceeding four and one-half per cent ($4\frac{1}{2}\%$) per annum and that a sufficient sum of money be assessed upon the polls and ratable estates within Union School District on the first day of April in each year thereafter to meet the payments of the interest and the principal of said indebtedness at the date or dates of maturity of principal and interest as the same may be fixed, as hereinafter provided; and that the money obtained by said assessments be and hereby is appropriated to make said payments; that the district request the City of Concord to aid in funding the indebtedness of the district arising from the construction and furnishing of said school building as the city is authorized to do by law, provided said city will borrow the money necessary for the purpose set forth in this vote and will allow the district to have the use of the money so borrowed, and further, that, if this request is complied with, the district will seasonably pay the city sufficient sums of money to enable the city to meet the payments of the principal and interest upon this indebtedness so created, as the same may

fall due, and all incidental expenses, and will apply the money to be raised as herein provided to the payments aforesaid; and said committee is hereby further authorized to make and request of the city the date or dates when the principal of said indebtedness and the interest thereon shall mature, and do all other acts and things necessary to carry this vote into effect.

AND WHEREAS, the Board of Aldermen of the City of Concord, in compliance with requests contained in the votes above copied, on Monday, the 11th day of September, 1922, passed an ordinance for the issue of city bonds to raise the money required by said district as above said, said ordinance being as follows:

Resolution, Authorizing the City of Concord to borrow money in aid of Union School District, in said Concord.

Resolved by the Board of Aldermen of the City of Concord, as follows:

Section 1. That for the purpose of paying for the new Millville School building and the addition to the Manual Training School, the city borrow the sum of forty thousand dollars (\$40,000) and issue bonds therefor, as provided in Chapter 89 of the Public Statutes and Chapter 129 of the Laws of 1917, and that the mayor and city treasurer be and hereby are authorized to make and execute, sign and affix the seal of said city thereto, bonds for the sum of forty thousand dollars (\$40,000), in accordance with the request and upon the terms contained in the vote of the district passed at its annual meeting held April 6, 1922,—said bonds to be forty in number, and of the denomination of one thousand dollars (\$1,000) each, to be dated October 1, 1922, and payable to bearer, with interest coupons attached, bearing interest at a rate not in excess of four and one-quarter per cent ($4\frac{1}{4}\%$) per annum, payable semi-annually, on the first day of April and the first day of October in each year; said bonds to become due and payable serially, \$2,000 to be

payable the first day of October, 1923, and \$2,000 on the first day of October of each succeeding year until and including October 1, 1942; the principal of said bonds and the interest coupons attached to be made payable at the National Shawmut Bank of Boston, Massachusetts, or at the office of the city treasurer, in Concord, New Hampshire.

Section 2. The city treasurer is hereby authorized to procure proposals for the sale of the bonds hereby authorized, and whichever bid seems for the best interest of the city shall be accepted by him, provided the same is approved by the Finance Committee. The right is reserved, however, to reject any and all bids.

Section 3. The mayor and city treasurer are hereby authorized to execute in the name and on behalf of the city such agreements in writing between it and said district as they may deem necessary and advisable to protect the rights of the respective parties growing out of this transaction.

Section 4. This Resolution shall take effect upon its passage. NOW, THEREFORE, this is to witness:

First: That in accordance with the said Resolution the City of Concord will issue and deliver to said district its bonds to the amount of forty thousand dollars (\$40,000), in the denomination of one thousand dollars (\$1,000), dated October 1, 1922, drawing interest at a rate not to exceed four and one-half per cent ($4\frac{1}{2}\%$) per annum, payable semi-annually, on the first day of April and the first day of October of each year.

Second: That said district is to have the use of the money received from the sale of said bonds until said bonds become due.

Third: That said district will seasonably pay to said city sufficient sums of money to enable the city to meet the payments of principal and interest of said bonds as the same become due, and incidental expenses growing out of their

issue; and will apply the money to be raised under said votes to said payments.

Fourth: That said district will indemnify the said city and save the same from all loss, costs, and expenses to which it may be subjected by reason of making and issuing said bonds.

Fifth: That when said district has fulfilled its agreements contained in Articles 3 and 4 above, it shall be discharged from all further liability to said city by virtue of this transaction within referred to.

IN WITNESS WHEREOF, the said parties have set their corporate names to this agreement in duplicate and interchangeably delivered the same this 13th day of November, 1922, by their respective agents duly authorized.

CITY OF CONCORD, N. H.,

By HENRY E. CHAMBERLIN, *Mayor.*

By CARL H. FOSTER, *Treasurer.*

UNION SCHOOL DISTRICT,

By JOSEPH S. OTIS,

*Chairman Millville School
Building Committee.*

HARRY F. LAKE,

Chairman School Board.

CHARLES DUNCAN,

*Chairman Morrill School Annex
Building Committee.*

The motion being duly seconded, on a *viva voce* vote the motion was declared unanimously adopted.

On motion duly made and seconded it was

Voted: To adjourn.

A true record. Attest:

RAY E. BURKETT,
Clerk.

IN MEMORIAM**DR. CHARLES R. WALKER**

Born at Concord, N. H., February 13, 1852

Died at Concord, N. H., April 22, 1922

Member of the Board of Water Commissioners, 1915-1922

Resolved: That the Board of Water Commissioners at this time record their appreciation of the faithful services of Dr. Charles R. Walker, who held it an honor to serve his native city as a member of the Board of Water Commissioners.

They also desire to express their deep sense of loss by his death, of a valued friend and wise counsellor.

WATER DEPARTMENT.

1922.

BOARD OF WATER COMMISSIONERS.

HENRY E. CHAMBERLIN, Mayor, *ex-officio*.

HARRY H. DUDLEY,	to March 31, 1926.
NATHANIEL E. MARTIN,	to March 31, 1926.
BURNS P. HODGMAN,	to March 31, 1925.
JOHN B. ABBOTT,	to March 31, 1925.
FRANK P. QUIMBY,	to March 31, 1924.
GEORGE T. KENNEY,	to March 31, 1924.
OLIVER J. PELREN,	to March 31, 1923.
CHARLES R. WALKER,	to April 22, 1922.
CARLOS H. FOSTER,	to March 31, 1923.

NATHANIEL E. MARTIN, *President*.

BURNS P. HODGMAN, *Clerk*.

SUPERINTENDENT.

P. R. SANDERS.

CLERK.

ALICE G. COCHRAN.

FOREMAN.

JAMES T. DAVIS.

ENGINEER.

HENRY A. ROWELL.

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,	94,184.95
C. H. Amsden, water and flowage rights,	5,000.00
Cost of property and rights of Torrent Aqueduct Association,	20,000.00
dam, gate-houses and appurtenances,	39,267.74
conduit and upper gate-house,	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,	421,134.20
service pipe,	75,636.19
reservoir, including land,	45,044.09

Cost of pumping station, shop, stable and storehouse, in- cluding land,	\$29,743.35	
pumping machinery,	20,706.72	
engineering and superintend- ence,	14,913.12	
incidentals,	6,875.97	
		<hr/>
Cost of works, January 1, 1923,		\$1,142,442.58
Less amount received for lumber, land and buildings sold,		7,919.11
		<hr/>
		\$1,134,523.47

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

<i>Due.</i>	<i>Rate.</i>	<i>Amount.</i>
January 1, 1923,	3½,	\$3,000.00
January 1, 1923,	4½,	18,000.00
January 1, 1924,	3½,	15,000.00
January 1, 1924,	4½,	18,000.00
January 1, 1925,	4½,	18,000.00
January 1, 1926,	4½,	18,000.00
January 1, 1927,	4½,	18,000.00
January 1, 1928,	4½,	18,000.00
January 1, 1929,	4½,	18,000.00
January 1, 1930,	4½,	18,000.00
January 1, 1931,	4½,	18,000.00
January 1, 1932,	4½,	18,000.00
January 1, 1933,	4½,	18,000.00
January 1, 1934,	4½,	18,000.00
January 1, 1935,	4½,	18,000.00
January 1, 1936,	4½,	18,000.00
January 1, 1937,	4½,	18,000.00
		<hr/>
		\$288,000.00

CITY OF CONCORD, WATER WORKS INCOME.

INVESTMENT ACCOUNT.

Amount of capital, January 1, 1923,	\$25,000.00
Invested in:	
U. S. First Liberty Loan, converted, $4\frac{1}{4}\%$ bonds,	\$5,000.00
U. S. Third Liberty Loan, $4\frac{1}{4}\%$ bonds,	10,000.00
U. S. Fourth Liberty Loan, $4\frac{1}{4}\%$ bonds,	10,000.00
	<hr/> \$25,000.00

CITY OF CONCORD, WATER WORKS PROFIT.

INCOME ACCOUNT.

Income received, 1922,	\$1,207.54
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**REPORT OF THE BOARD OF WATER
COMMISSIONERS.**

CONCORD, N. H., February 24, 1923.

To the Mayor and Board of Aldermen of the City of Concord:

We hereby submit the annual report of the superintendent for the year 1922 of the condition of the water system of the city.

The report shows the financial condition of the system and work done during the past year and many other details, and is so complete that nothing remains to be added.

The water system is in its usual first-class condition and giving perfect satisfaction.

Respectfully submitted,

NATHANIEL E. MARTIN,

HARRY H. DUDLEY,

FRANK P. QUIMBY,

BURNS P. HODGMAN,

JOHN B. ABBOTT,

GEORGE T. KENNEY,

OLIVER J. PELREN,

CARLOS H. FOSTER,

HENRY E. CHAMBERLIN, *ex-officio*,

Board of Water Commissioners.

REPORT OF THE SUPERINTENDENT.

To the Board of Water Commissioners:

I herewith present to you the fifty-first 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, 1922.

RECEIPTS.

For water from consumers at fixed rates,	\$10,314.41
For water from consumers by meter rates,	69,469.02
From delinquents,	96.65
For water for building purposes,	233.97
For wood and farm lands,	294.00
For labor and materials furnished on private fire lines,	1,090.12
For pipe and stock sold and labor,	615.36
For old iron and rubber,	25.04
From refund on bill,	1.75
	\$82,140.32
Deduct abatements,	49.90
Net receipts for 1922,	\$82,090.42

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 watering troughs,	280.00
Sewer flush tanks,	45.00
470 fire hydrants at \$25,	11,750.00
	\$13,196.50

EXPENDITURES.

MAINTENANCE ACCOUNT.

General care and maintenance:

Salaries and labor,	\$8,947.76	
Team account,	129.79	
Automobile account,	1,318.64	
Miscellaneous supplies and re-		
pairs,	560.23	
Tools,	435.76	
Repair of buildings,	22.66	
Telephone and lighting,	77.15	
Insurance,	540.53	
Repairs to sidetrack,	125.53	
Incidentals,	249.63	
	<hr/>	\$12,407.68

Office expenses:

Salaries and clerical work,	\$1,626.84	
Postage and printing,	359.54	
Miscellaneous supplies,	234.45	
Repairs,	9.40	
Telephone,	32.59	
	<hr/>	2,262.82

Care and repair of hydrants:

Stock,	\$82.44	
Labor,	581.27	
	<hr/>	663.71

Care and repair of meters:

Stock,	\$259.45	
Labor,	1,229.63	
	<hr/>	1,489.08

Relaying service pipes:

Stock,	\$330.64	
Labor,	1,559.63	
	<hr/>	1,890.27

Repairing leaks, labor,		\$338.46
Work at head of lake,		2,996.47
Care of wood-lots,		551.43
Penacook Park,		91.66
Taxes, town of Webster,		90.16
Dodge service truck,		950.00
Ford truck chassis,		399.38
Pumping station:		
Salaries,	\$1,619.00	
General supplies and repairs,	120.56	
Telephone and lighting,	59.96	
Electric pump:		
Power,	\$1,951.60	
Supplies and repairs,	202.28	
Heating,	49.80	
	<u>2,203.68</u>	
		<u>4,003.20</u>
Total maintenance account,		\$28,134.32

CONSTRUCTION ACCOUNT.

Distribution pipes:		
Stock,	\$3,761.90	
Labor,	3,037.60	
	<u>6,799.50</u>	\$6,799.50
Service pipes:		
Stock,	\$920.33	
Labor,	1,000.44	
	<u>1,920.77</u>	1,920.77
Hydrants:		
Stock,	\$107.40	
Labor,	102.98	
	<u>210.38</u>	210.38
Meters:		
Stock,	\$1,489.30	
Labor,	168.46	
	<u>1,657.76</u>	1,657.76
Total construction account,		\$10,588.41
Total expenditures 1922,		\$38,722.73

EXTENSIONS AND IMPROVEMENTS.

Distribution pipes laid in 1922:

Park Street, extended west from North Main Street, 62 feet of 10-inch pipe.

Hammond Street, east from Hall Street, 498 feet of 6-inch pipe, replacing 4-inch iron pipe.

Giles Street, Warren to School Street, 770 feet of 6-inch pipe, replacing 770 feet of 4-inch cement-lined pipe.

Dunklee Street, extended south from Pillsbury Street, 193 feet of 6-inch pipe, replacing 93 feet of $\frac{3}{4}$ -inch.

White Street, north from Rowell Street, 180 feet of 6-inch pipe, and south from Blanchard Street, 6 feet of 6-inch pipe; 300 feet of 1-inch discontinued.

Rowell Street, extended to White Street, 34 feet of 6-inch pipe.

Bradley Street, Perkins to Penacook Street, 260 feet of 6-inch pipe; 260 feet of 1-inch discontinued.

Penacook Street, east from Bradley Street, 153 feet of 6-inch pipe; 153 feet of 1-inch discontinued.

Martin Street, Albin to Walker Street, 400 feet of 6-inch pipe; 182 feet discontinued.

Walker Street, at Albin Street, 50 feet of 6-inch pipe, replacing 50 feet of 4-inch.

Washington Street, Rumford to Essex Street, 240 feet of 6-inch pipe; 501 feet of 6-inch cement-lined pipe discontinued.

Woodman Street, east from North Fruit Street, 254 feet of 4-inch pipe and 96 feet of 2-inch pipe, replacing 1-inch.

Also 230 feet of 1-inch pipe.

On hydrant branches, 14 feet of 8-inch pipe and 37 feet of 6-inch pipe; 11 feet of 4-inch iron and 14 feet of 6-inch cement-lined pipe discontinued.

Total length of main and distribution pipes now in use, 382,628 feet, or 72.50 miles.

Nine gates were added during the year; one was discontinued.

Total number of gates now in use, 1,075.

Two new hydrants have been set as follows: On Holly Street, at southeast corner of Dunklee Street; on South Main Street, Penacook, near East Canal Street.

One hydrant has been discontinued. Total number now in use, 471.

Fifty-three services have been laid, consisting of 772 feet of $\frac{3}{4}$ -inch; 357 feet of 1-inch; 22 feet of $1\frac{1}{4}$ -inch; 40 feet of 2-inch galvanized iron pipe; and 192 feet of 4-inch cast iron pipe.

Four 6-inch high service connections have been made for hydrant and sprinkler service for the following premises: Eagle Hotel, Patriot Building, Boston Store and Concord Lumber Co.

Sixteen services have been discontinued. Total number in use, 3,961.

Total length of service pipes, 93,750 feet, or 17.75 miles.

Eighty-five services have been relaid and curb valves placed on 43 old services.

Sixty-six new meters have been set and 9 meters have been removed, making total now in use 2,767.

The height of the water in Penacook Lake is shown by the following table:

HEIGHT.					
January	1,	182.35	July	1,	185.55
February	1,	182.60	August	1,	185.00
March	1,	182.50	September	1,	184.00
April	1,	185.20	October	1,	183.00
May	1,	185.30	November	1,	182.65
June	1,	185.00	December	1,	182.20

The lowest point in the height of the water was 181.85 on December 31, the highest was 185.80 on June 25, mean height for the year was 183.98, which was .02 feet higher than the mean height for 1921.

During the winter of 1921 and 1922 an inspection by the state forester of the white pine plantation and native growth on the Water Works property at Penacook Lake disclosed

the fact that there was some infection of the white pine blister rust. The fact has been established that the blister rust is spread by traveling from pine to the gooseberry and currant bushes, and back from the gooseberry and currant bushes to the pine. In order to prevent further spread of the disease it is necessary to remove the currant and gooseberry bushes from the infected areas. This method was followed over the land in control of the Water Works, covering an area of nearly 400 acres, and on a protective area of 700 acres on land adjoining the Water Works property. The state furnished a foreman and five men, who went carefully over the ground and removed 6,256 wild currant and gooseberry bushes. The cost of the foreman was borne by the state and the cost of men by the Water Works. The expense to the Water Works for the removal of these bushes was \$174.05, at an average cost per acre of 22.3 cents.

The highway at the head of the lake, which divides the small pond from the lake, has been raised about one foot and widened nearly ten feet. The embankments were rubbled with large field stones and a fence similar to that in use by the Highway Department was built on both sides of the road.

It is planned to plant the adjoining land purchased from Mr. Robert Crowley to Norway pines this coming spring.

I wish to make special mention of one branch of our work that is beginning to require a great deal of attention, and that is the relaying of service pipes. The condition of the pipes thus far removed would indicate that it would have been unwise to continue the services any longer.

In conclusion I wish to express to the members of the board my thanks for their advice and hearty co-operation during the year.

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, including boilers is in good working condition.

Both steam pumps have been turned over every two weeks by high service pressure to see that they were in good working order.

RECORD OF MOTOR-DRIVEN CENTRIFUGAL PUMPS.

MONTHS.	Total days pumping.	Total hours pumping.	Average hours pumping.	K. W. H. monthly.	Daily average K. W. H.	K. W. H. per 1,000,000 gallons.	Total gallons pumped Venturi meter.	Flits of oil.	Pounds of packing.	Pounds of waste.	Pounds of coal, heating.
January . . .	31	166:	5:21	13,400	432	502	26,662,000	10	2	9	6,288
February . . .	28	154:50	5:31	12,370	441	497	24,883,000	8	3	5	4,742
March	31	184:38	5:57	14,260	460	530	26,893,000	7	5	7	4,740
April	30	148:20	4:56	11,650	388	491	23,687,000	6	7	6	3,772
May	31	188:20	6: 4	14,840	478	495	29,970,000	10	4	5	982
June	30	151:15	5: 2	11,840	395	494	24,000,000	12	4	7	. . .
July	31	151:50	4:53	11,940	494	503	24,131,000	7	7	6
August	31	157: 5	5: 4	12,420	400	494	25,096,000	12	4	4
September . .	30	156:25	5:12	12,370	412	507	24,369,000	8	3	5
October	31	166:	5:11	13,310	429	500	26,592,000	6	4	4	801
November . . .	30	153:40	5: 7	12,280	406	502	24,420,000	6	7	4	2,002
December . . .	31	166:45	5:22	13,370	431	506	26,413,000	8	6	5	5,290
Total	365	1,945: 8		154,080			307,116,000	100	56	67	28,617
Daily average.			5:19		421	501	841,413				127

Respectfully submitted,

HENRY A. ROWELL,

Engineer.

CITY TREASURER'S CONDENSED STATEMENT
OF WATER WORKS ACCOUNT.C. H. FOSTER, *Treasurer*, in account with Concord Water
Works.

RECEIPTS.

Balance on hand, January 1, 1922,	\$19,307.52	
P. R. Sanders, superintendent,	82,090.42	
\$270,000 City of Concord, N. H., 4½s, due Jan. 1, 1923, to Jan. 1, 1937, at 100.78,	272,106.00	
Interest, two days,	67.50	
\$3,000 Victory 4¾ notes at 100.82,	3,024.60	
Interest,	41.69	
\$5,000 First Liberty Loan con- verted 4¼s bonds, at 100.16,	5,008.00	
Interest,	12.84	
\$1,000 City of Concord, N. H., 4% sewer refunding bond, matured,	1,000.00	
Transferred from income and in- vestment account by order of water commissioners,	11,167.23	
		\$393,825.80

EXPENDITURES.

Interest on bonds,	\$13,022.50	
Bonds paid, \$317,000,	317,000.00	
Orders paid,	38,744.23	
Cash on hand,	25,059.07	
		\$393,825.80

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
“ “ “	1906,	73,063.45

* No hydrant rental this year.

WATER DEPARTMENT.

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For the year ending December 31,	1907,	\$73,782.64
“ “ “	1908,	71,362.67
“ “ “	1909,	*67,307.84
“ “ “	1910,	68,673.71
“ “ “	1911,	71,881.34
“ “ “	1912,	76,145.13
“ “ “	1913,	76,154.45
“ “ “	1914,	74,422.15
“ “ “	1915,	78,940.06
“ “ “	1916,	75,052.72
“ “ “	1917,	77,092.10
“ “ “	1918,	78,077.15
“ “ “	1919,	73,671.71
“ “ “	1920,	78,589.63
“ “ “	1921,	77,323.78
“ “ “	1922,	82,090.42
		<hr/>
Total receipts for 50 years,		\$2,616,779.59

MEAN HEIGHT OF WATER EACH YEAR.

1873,	175.86	1887,	179.04
1874,	179.50	1888,	181.96
1875,	180.00	1889,	180.91
1876,	180.28	1890,	181.90
1877,	176.46	1891,	180.00
1878,	179.50	1892,	174.32
1879,	179.74	1893,	173.38
1880,	175.30	1894,	172.81
1881,	174.70	1895,	171.15
1882,	179.15	1896,	178.96
1883,	176.40	1897,	183.33
1884,	178.18	1898,	184.31
1885,	176.80	1899,	183.49
1886,	178.10	1900,	183.09

* No hydrant rental after 1908.

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CITY OF CONCORD.

1901,	183.86	1912,	178.86
1902,	184.98	1913,	179.20
1903,	184.75	1914,	179.55
1904,	184.40	1915,	180.00
1905,	183.37	1916,	184.15
1906,	183.94	1917,	183.81
1907,	183.59	1918,	181.84
1908,	183.41	1919,	183.32
1909,	181.40	1920,	184.28
1910,	180.22	1921,	183.96
1911,	177.60	1922,	183.98

SCHEDULE OF IRON AND CEMENT-LINED PIPES AND GATES.

STREETS.	BACK CON- DUIT.	LENGTH AND SIZE OF IRON PIPE IN FEET.										Number of gates.		
		30- in.	24- in.	20- in.	18- in.	16- in.	14- in.	12- in.	10- in.	8- in.	6- in.		4- in.	
Conduit.....	2220													
Reserve main.....	282													
Low service main.....		331	1905	75										7
Pump main.....		13598	58	75	147									6
Gate-houses and layout														29
Force main.....	240	2962		42	20									5
Pumping station and layout.....														8
Abbott.....										23	349			2
Academy.....										458				1
Albin.....								785						1
Alleyways.....								776		450	505			2
Allison.....										2492				4
Auburn.....					2182									1
Avon.....										724				2
Badger.....										5	689			1
Beacon.....										2145				3
Blake.....										265	250			2
Blanchard.....										475				1
Blossom Hill.....										1781				1
Bow.....										590				1
Bowery Avenue.....											245			4
Bradley.....								1577		260				1
Bridge.....								327		1123				1
Broadway.....							2278	2052						3
Cambridge.....										6	154			1
Capitol.....								508		763				5
Carter.....										1077				2
Centre.....								3529	2690					14
Chandler.....										306				1
Chapel.....										585	56			2
Charles.....											516			1
Chestnut.....										265				1
Church.....									21	1600	547			7
Clarke.....										196				1
Clinton.....								1942	180	1663				3
Columbus Avenue.....					2100									1
Concord.....										1593	286			5
Court.....										670				2
Curtice Avenue.....										422				2
Dakin.....										19	836			2
Dartmouth.....										590				2
Depot.....										387	242			2
Donovan.....										456				1
Downing.....										1977	92			4
Dunklee.....										1648				4
Durgin.....										265				1
Eastman.....										400	400			1
Electric.....										550				1
Elm.....										270	607			4
Engel.....										388				1
Essex.....										587				2
Essex, North.....										262				1
Fairbanks.....										165				1
Fayette.....										1187				3
Ferry.....									1000		1066			4
Fisher.....										343				1
Fiske.....		1045												1
Fiske Road.....										750				1

SCHEDULE OF IRON AND CEMENT-LINED PIPES AND GATES.—Continued.

STREETS.	BACK CON- DUIT.	LENGTH AND SIZE OF IRON PIPE IN FEET.										Number of gates.	
		30- in.	24- in.	20- in.	18- in.	16- in.	14- in.	12- in.	10- in.	8- in.	6- in.		4- in.
Ford Place.....												225	1
Forest.....										628			2
Poster.....										180			1
Franklin.....							2166	1546		1317			12
Freight.....								438		285			3
Fremont.....												590	2
Fruit, North.....										1078			1
Fruit, South.....										2874			3
Fuller.....												88	1
Garden.....										194			1
Gas.....								550					1
Giles.....									300	858			4
Gladstone.....										709			1
Glen.....										840			2
Granite Avenue.....												210	1
Green.....								431		1755			7
Grove.....										1093			4
Hall.....								1621	1068	2375			3
Hall's Court.....								905					1
Hammond.....										498		287	1
Hanover.....												600	2
Harrison.....										240		230	1
Harrod.....										4		329	1
Harvard.....										15		760	2
High.....								27		982			5
Highland.....										99		793	2
Hill's Avenue.....									69	312			2
Holly.....										710			1
Holt.....										646			1
Home Avenue.....										362			1
Hopkinton Road.....										615			1
Humphrey.....										498			2
Huntington.....										213			1
Hutchins, W. Concord.....			381				120			589			1
Iron Works Road.....										1332			1
Jackson.....										1576			3
Jefferson.....												311	1
Kensington Road.....									207				1
Kent.....										165			1
Kimball.....										400		334	1
Knight, W. Concord.....										350			1
Lake, W. Concord.....									1216	465			1
Langdon.....								360		358		357	4
Laurel.....										1550			2
Liberty.....						380	1311						3
Lincoln.....												367	2
Lyndon.....									508	726		300	5
Main, North.....			4209					5125		38			11
Main, South.....			300		2596	1026	1373	5179		1260		3650	15
Maitland.....										482			1
Maple.....										430		382	2
Marshall.....												330	1
Martin.....										400			1
McKinley.....										738			2
Merrimack.....										1729			6
Mill Road, S. P. School.....									750	124		2604	3
Mills.....										26		1294	4
Minot.....										860			2
Monroe.....										1289			2

SCHEDULE OF IRON AND CEMENT-LINED PIPES AND GATES.—Continued.

STREETS.	BACK CON- DUIT.	LENGTH AND SIZE OF IRON PIPE IN FEET.											Number of gates.
		30- in.	24- in.	20- in.	18- in.	16- in.	14- in.	12- in.	10- in.	8- in.	6- in.	4- in.	
West							1836	661		266			4
Westbourne Road										300			1
White										186			1
Wiggin										725			1
Winter										23	202		1
Woodman										366	254		1
Wyman										220			1
Hydrant branches								177	239	5235	126		358
Blow-offs								132		83	145		69
PENACOOK.													
Penacook, high service main						10584							8
Canal, East								225	8				2
Canal, West													1
Centre								247		467			4
Charles													3
Church													1
Crescent								635		58			3
Cross													2
Electric Avenue										653			1
Elliott										476			1
Fowler										1300			4
High										252			1
Linden										285			1
Main										150			4
Main, West										1678			2
Maple										327			1
Merrimack								70	37				5
Penacook										1923			2
Pine										364			1
Rolfe										1846			1
Spring													1
Stark													1
Summer								54					4
Summit										423			1
Union											261		1
Walnut and Bye										884			1
Washington									150	2205			4
Winter										450			1
Hydrant branches									41	583			69
Blow-offs												10	12
Totals	2220	522	28795	1963	2788	19788	24759	49084	23947	122870	30977		1075

SCHEDULE OF IRON AND CEMENT-LINED PIPES
AND GATES.—*Concluded.*

STREETS.	LENGTH AND SIZE OF CEMENT-LINED PIPE IN FEET.						
	18-in.	14-in.	12-in.	10-in.	8-in.	6-in.	4-in.
Old cement-lined main		2230					
Low service main	11391						
Chestnut						373	
Franklin						120	
High						1218	
Perkins							34
Rumford			5952	1203			
State, North			1764				
Valley						879	
Warren						11	
Hydrant branches						298	88
Blow-offs							44
PENACOOK.							
Penacook, high service main		13110	1221				
Canal, East					628		
Canal, West					422		
Centre					479	245	
Charles						1777	
Church						482	
Cross					734		
High						2100	
Main			2573				
Merrimack			57		1181	2023	
Spring					652		
Stark				529			
Summer					1149		276
Washington					1193		
Hydrant branches						675	
Blow-offs							55
Totals	11391	15340	11567	1732	6438	10201	497

HYDRANTS.

H, HIGH SERVICE; L, LOW SERVICE.

STREETS.	LOCATIONS.	Service.	Number.
North Main . . .	Southwest corner of Penacook	L	
	East side, near J. B. Walker's	L	
	Junction of Fiske	L	
	East side, near Larkin's store	H	
	Northwest corner of Franklin	H	
	East side, opposite Pearl	H	
	Northwest corner of Washington	L	
	West side, at West Garden	H	
	East side, opposite Chapel	L	
	Northwest corner of Court	L	
	Northwest corner of Pitman	H	
	Northwest corner of Montgomery	H	
	East side, opposite Montgomery	L	
	Northwest corner of Centre	H	
	Southeast corner of Bridge	L	
	Southwest corner of Park	L	
	East side, opposite Park	H	
	Northwest corner of Capitol	H	
	Northwest corner of School	L	
	West side, at Centennial Block	H	
	East side, opposite Centennial Block	L	
	East side, near Eagle Garage	H	
	East side, in rear Robinson's Store	H	
	East side, in rear Phenix Block	H	
	Northwest corner of Warren	L	
	West side, at Central Block	H	
	Northwest corner of Depot	L	
	Northwest corner of Pleasant	L	28
South Main . . .	Southeast corner of Pleasant	H	
	Northeast corner of Freight	L	
	East side, opposite Fayette	H	
	East side, opposite Thompson	L	
	Southeast corner of Chandler	H	
	Northwest corner of Wentworth Avenue	H	
	Northwest corner of Thorndike	L	
	East side, opposite St. John's Church	H	
	Northwest corner of Perley	L	
	West side, near Abbot & Downing Co.'s	H	
	East side, opposite Abbot & Downing Co.'s	L	
	East side, near West	H	
	Northeast corner of Gas	L	
	West side, opposite Holt Bros. Mfg. Co.	H	
	Southwest corner of South State	H	
	Northwest corner of Pillsbury	L	

HYDRANTS.—Continued.

STREETS.	LOCATIONS.	Service.	Number.		
South Main. . . .	East side, opposite Pillsbury.	H	21		
	West side, opposite entrance to R. R. shops.	H			
	West side, 110 feet north of McKinley.	L			
	West side, between McKinley and Rockingham.	L			
Water.	West side, below Wiggin.	L	1		
	West side, below Bridge.	L			
	Hall.	West side, opp. Rolfe and Rumford Asylum.		L	
		West side, below No. 18.		L	
	West side, at No. 32.	L			
	West side, opposite Hammond.	L			
	West side, opposite Home Avenue.	L			
	East side, at No. 85.	L			
	East side, near Rumford Field.	L			
	West side, near Nysten's.	L			
	West side, near Thompson's.	L			
	West side, at Gilman's.	L			
	Hammond.	North side, near Bridge.		L	10
	Railroad.	East side, opposite Ford & Kimball's.		L	1
Fiske.	West side, near North State.	H	2		
	West side, south line of Walker School.	H			
Summer.	Northeast corner of Pitman.	L	1		
Durgin.	East side, opposite Toof's laundry.	L	1		
North State.	Southwest corner of Penacook.	H	14		
	Northwest corner of Walker.	H			
	Northwest corner of Church.	L			
	Northeast corner of Franklin.	L			
	Northwest corner of Tremont.	L			
	Northeast corner of Washington.	L			
	West side, opposite Court.	L			
	Southwest corner of Maple.	L			
	Southeast corner of Centre.	L			
	Southeast corner of Park.	L			
	Southwest corner of School.	L			
	Southeast corner of Warren.	L			
	Northwest corner of Warren.	H			
	Northwest corner of Pleasant.	L			
South State.	Southeast corner of Pleasant.	H			
	East side, opposite Wall.	L			
	Southeast corner of Fayette.	L			
	Northwest corner of Thompson.	L			
	Southwest corner of Monroe.	L			
	East side, opposite Laurel.	L			
	Northeast corner of Downing.	L			
Mills.	Northeast corner of West.	L	9		
	Southwest corner of Harrison.	L			
	West side, at No. 22.	L			

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.
Mills	Northwest corner of Allison	L	2
Dakin	West side, 220 feet north of Allison	L	1
Glen	West side, at No. 10	L	1
Dunklee	West side, 150 feet south of West	L	
	Northwest corner of Allison	L	
	Northwest corner of Pillsbury	L	3
Broadway	West side, 80 feet north of Humphrey	L	
	Northwest corner of Allison	L	
	Northwest corner of Carter	L	
	Northwest corner of Stone	L	
	West side, at Rollins Park	L	
	West side, opposite McKinley	L	
	West side, between McKinley and Rockingham	L	7
Donovan	Northeast corner of Wiggin	L	1
Green	Northwest corner of Prince	H	
	East side, opposite Prince	L	
	Northwest corner of Warren	L	3
South	West side, opposite Wall	L	
	Northwest corner of Fayette	L	
	Northwest corner of Thompson	L	
	West side, opposite Monroe	L	
	West side, opposite Laurel	L	
	West side, below N. H. Memorial Hospital	L	
	West side, opposite Downing	L	
	West side, opposite Allison	L	
	West side, opposite Pillsbury	L	
	West side, near Paige's	L	
	West side, opposite I. W. Bushey's	L	
	Northwest corner of Iron Works Road	L	
	East side, at Quint's	L	
	West side, near Bow line	L	14
Bradley	Southwest corner of Penacook	H	
	Northwest corner of Walker	L	
	East side, opposite Highland	L	
	Northwest corner of Franklin	L	4
Union	Northwest corner of Maple	L	1
Jackson	Northeast corner of Church	H	
	North corner of Cole Court	L	2
Lyndon	Southwest corner of Tremont	H	
	East side, opposite Abbott	H	2
North Spring	Northeast corner of Maple	L	
	Southwest corner of Centre	H	
	West side, at High School	H	
	East side, opposite High School	L	
	Southwest corner of School	H	5
South Spring	Southwest corner of Oak	L	

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.
South Spring . . .	West side, opposite Thompson	L	
	West side, opposite Concord	L	
	West side, near Memorial Hospital	L	4
Academy	East side, at No. 10	H	1
Hanover	West side, at No. 10	L	1
Rumford	West side, south of cemetery gate	H	
	West side, opposite Perkins	L	
	Southeast corner of Walker	L	
	Northeast corner of Albin	L	
	Northeast corner of Franklin	L	
	Northwest corner of Beacon	H	
	Northeast corner of Abbott	L	
	Northeast corner of Cambridge	L	
	Northwest corner of Centre	H	
	Northeast corner of School	L	
	West side, at Morrill School	L	11
Huntington	West side, at head of Short	H	1
Tahanto	Northwest corner of School	H	1
Pine	Southwest corner of Centre	H	
	Southwest corner of Warren	H	2
Holt	East side, at No. 10	H	1
High	Northwest corner of Auburn	H	
	Northwest corner of Valley	H	
	East side, opposite Forest	H	
Gladstone	Southwest corner of Franklin	H	4
	West side, at No. 13	H	1
Valley	Northeast corner of Forest	H	1
Auburn	Northeast corner of Chestnut	H	
	Northeast corner of Forest	H	
Ridge Road	North side, between Centre and Forest	H	3
	West side, between Nos. 11 and 13	H	1
Westbourne Rd.	North side, 135 feet north of Centre	H	1
Dartmouth	Southwest corner of Clinton	L	
	Northwest corner of Noyes	L	2
Princeton	Southwest corner of Clinton	L	
	Northwest corner of Noyes	L	2
Fruit	Northeast corner of Woodman	H	
	West side, 700 feet south of Pleasant	L	
	East side, opposite No. 70	L	
Minot	East side, opposite No. 114	L	4
	West side, north of Odd Fellows' Home	H	
	West side, south of Odd Fellows' Home	H	
Kensington Rd.	Northwest corner of Pleasant	H	3
	Northwest corner of Pleasant	H	1
Stevens Ave.	Northeast corner of Pleasant	H	1
Penacook	South side, near Concord Lumber Co.	H	

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.
Penacook	South side, east of P. B. Co.'s storehouse.	L	
	South side, near P. B. Co.'s	H	
	South side, near P. B. Co.'s office	H	
	Southeast corner of North Main	H	
	Southwest corner of Rumford	H	
Walker	North side, opposite No. 69	H	
	Southeast corner of Columbus Avenue	H	8
	Southwest corner of Martin	L	
Albin	South side, 500 feet west from Rumford	L	2
	North side, 160 feet west of Bradley	L	1
Highland	North side, at No. 22	L	
	Northeast corner of Rumford	L	2
Church	South side, east of Bradley	L	
	North side, opposite Lyndon	H	
Franklin	Northeast corner of Rumford	H	3
	Northwest corner of Jackson	H	
	Northeast corner of Lyndon	H	
Chestnut	Southwest corner of Rumford	H	
	South side, opposite No. 64	H	
	North side, between High and Auburn	H	
	Northeast corner of Auburn	H	6
Tremont	Northwest corner of High	H	1
	North side, east of Harrod	L	
Pearl	Southwest corner of Jackson	H	2
	North side, at No. 14	L	1
Beacon	North side, opp. Merrimack Apartments	H	
	Northwest corner of Jackson	H	
	Southwest corner of Lyndon	H	
Rowell	North side, opposite White	H	5
	South side, opposite Charles	H	1
Blanchard	Northeast corner of White	H	1
	Northwest corner of Essex	H	1
Ferry	North side, opposite Ford's foundry	H	
	North side, near N. E. Granite Works	H	
	North side, east of C. & M. R. R.	L	
Washington	Northwest corner of Huntoon Avenue	H	4
	North side, opposite Rollins	L	
	North side, opposite Alert Hose House	L	
	Southwest corner of Union	L	
	Northeast corner of Lyndon	H	
Chapel	Northwest corner of Rumford	H	
	Northwest corner of North Essex	H	
	North side, opposite Perry Avenue	H	7
Montgomery	South side, near Methodist Church	L	1
Centre	South side, opposite No. 18	L	1
	Northeast corner of North State	H	

HYDRANTS.—Continued.

STREETS.	LOCATIONS.	Service.	Number.		
Centre.....	Southwest corner of Green.....	L			
	Northwest corner of Union.....	H			
	Northwest corner of North Spring.....	L			
	South side, opposite Essex.....	H			
	Southwest corner of Summit Avenue.....	H			
Bridge.....	South side, on east line of Dewey School lot..	H	8		
	Northeast corner of Ridge Road.....	H			
	South side, near easterly barn.....	L			
	North side, opposite Concord Coal Co.'s.....	H			
Park.....	North side, opposite Concord Shoe Factory..	H	3		
	North side, at St. Paul's Church.....	L	1		
Capitol.....	North side, at south gate of State House yard	H	2		
	Northeast corner of North State.....	H			
Garden.....	Northeast corner of Huntington.....	H	1		
	South side, west of Durgin.....	H			
School.....	Northwest corner of North State.....	H			
	Northeast corner of Green.....	H			
	Northwest corner of Green.....	L			
	Northwest corner of North Spring.....	L			
	Northwest corner of Rumford.....	H			
	Northwest corner of Merrimack.....	H			
	Northwest corner of Pine.....	H			
	Northeast corner of Liberty.....	H			
	North side, at No. 106.....	H			
	Southeast corner of Giles.....	H			
	Warren.....	Southeast corner of Odd Fellows Avenue....		H	11
		Southeast corner of Fremont.....		L	
		Northwest corner of North Spring.....		L	
Northwest corner of Rumford.....		H			
Southwest corner of Merrimack.....		H			
Northwest corner of Tahanto.....		H			
Northeast corner of Liberty.....		H			
Depot.....	Northeast corner of Giles.....	H	9		
	Junction of Pleasant, near Fruit.....	H			
	South side, at north end of train shed.....	H			
Blake.....	Northwest corner of Railroad Square.....	L	2		
	South side, opposite Nos. 8-10.....	L			
Orchard.....	South side, opposite No. 8.....	H	1		
	Southwest corner of Railroad Square.....	H			
Pleasant.....	Northwest corner of Railroad Square.....	L			
	South side, at South Congregational Church..	L			
	Southeast corner of South.....	L			
	Northeast corner of Fremont.....	L			
	Southwest corner of Spring.....	H			
	South side, opposite Rumford.....	H			
	South side, opposite Merrimack.....	H			

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.
Pleasant.....	South side, opposite Pine.....	H	13 1
	South side, opposite Liberty.....	H	
	North side, near city stable.....	H	
	South side, near Gale.....	H	
Kent.....	South side, opposite No. 220.....	H	
	North side, at Stevens Avenue.....	H	
Pleasant.....	South side, near Mrs. Eddy's cottage.....	H	
	South side, at Lavery's.....	H	
	South side, opposite No. 270.....	H	
	North side, near E. B. Chesley's.....	H	
	North side, opposite No. 291.....	H	
	North side, near J. McC. Hammond's.....	H	
	South side, opposite Fiske Road.....	H	
	Southwest corner of School Avenue.....	H	
	North side, at chapel.....	H	
	South side, opposite Lower School.....	H	
	South side, near new Upper School.....	H	
Fiske Road.....	East side, at Trask's.....	H	11 1
Hopkinton Rd., Mill Road, St. P. School..	South side, near new infirmary.....	H	1
Old Hopkinton Road.....	East side, near laboratory.....	H	3
	North side, at Orphans' Home.....	H	
	South side, at tenement No. 7.....	H	
Wall.....	Junction of Hopkinton road.....	H	1
Marshall.....	Northeast corner of Elm.....	L	1
Freight.....	North side, opposite Fuller.....	L	1
Hill's Avenue...	No. side, at southwest corner pass. station...	H	1
Fayette.....	Southwest corner of Railroad Square.....	L	2
	Northeast corner of South Main.....	L	
Thompson.....	Northwest corner of Elm.....	L	1
Chandler.....	North side, opposite Jefferson.....	L	1
Concord.....	South side, opposite Railroad.....	L	3
	Southwest corner of South State.....	L	
	Northwest corner of Jefferson.....	L	
Monroe.....	Northeast corner of South.....	L	2
	North side, opposite Grove.....	L	
Thorndike.....	South side, at Rumford School.....	L	5
	North side, between So. Main and So. State.....	L	
	Southwest corner of South State.....	L	
	Northeast corner of Grove.....	L	
Laurel.....	North side, opposite Pierce.....	L	2
	Northeast corner of South Spring.....	L	
	Northwest corner of Grove.....	L	
Perley.....	Northwest corner of Pierce.....	L	2
	Southwest corner of South State.....	L	

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.
Perley	Northwest corner of Grove	L	4
	Northeast corner of Pierce	L	
Downing	South side, at No. 75	L	3
	South side, opposite Grove	L	
Clinton	Southeast corner of Mills	L	5
	Southwest corner of Redwood Avenue	L	
	North side, opposite Harvard	L	
West	North side, opposite Avon	L	1
	Northeast corner of Fruit	L	
	North side, near No. 108	L	
	North side, at State Fair grounds	L	
Avon	North side, near South Main	L	5
	North side, near Badger	L	
Noyes	Northeast corner of Mills	L	1
	North side, opposite Dakin	L	
Harrison	Northwest corner of Broadway	L	2
	Northwest corner of South	L	
Humphrey	Northwest corner of Harvard	L	1
	Northwest corner of Yale	L	
Allison	Northwest corner of Morton	L	1
	North side, near Kimball	L	
Pillsbury	Northeast corner of Badger	L	3
	North side, opposite Foster Ward	L	
Carter	Northeast corner of Broadway	L	1
	Northwest corner of Kimball	L	
Stone	Northeast corner of Eastman	L	1
	North side, 300 feet from Bow	L	
Holly	North side, west of South Main	L	2
	Southeast corner of Dunklee	L	
McKinley	North side, at Dunklee St. proposed exten'n	L	1
	Northeast corner of Broadway	L	
Rockingham	North side, at Donovan	L	2
	South side, at Brown's	L	
Iron Works Rd.	Northwest corner of Granite Avenue	L	2
	East side, north of Granite Avenue	L	
Prospect	North side, 230 feet east of North State	L	1
	West side, at Water-Works storehouse	L	
Curtice Ave.	Northeast corner of Foster	L	1
	East side, at Tahanto School	L	
North State	Northeast corner of Curtice Avenue	L	H
	East side, near north entrance Blossom Hill Cemetery	H	
	West side, near Calvary Cemetery	L	
	East side, near No. 226	H	
	East side, near No. 252	H	
	East side, near No. 262	L	

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.
North State . . .	East side, near No. 272	H	
	West side, at south line of prison wall	L	
	West side, at north line of prison wall	L	
	East side, near No. 296	L	13
Palm	North side, west of Fairbanks	H	1
North State . . .	Northwest corner of Palm	H	
	West side, near Concord Woodworking Co.	L	
	East side, near No. 312	L	
	East side, near No. 324	H	
	East side, near No. 330	L	
	East side, opposite Dolan	L	
	East side, opposite No. 362	H	
	West side, opposite No. 382	L	
	East side, at No. 382	H	9
WEST CONCORD.			
North State . . .	Southeast corner of K	H	
	Northeast corner of Peabody	L	
	East side, at No. 426	H	
	East side, near engine house	H	
	East side, at No. 464	H	
	West side, near Crescent Mfg. Co.	H	
	East side, at No. 498	H	
	East side, at No. 516	H	
	East side, opposite No. 533	H	
	East side, near Sewall's Falls Road	H	10
Fisher	Southwest corner of Engel	L	1
View	Northeast corner of K	L	1
Electric	Northeast corner of North State	L	
	North side, near power station	L	2
Clarke	Northeast corner of Fisher	L	1
Lake	East side, near S. W. Kellom's	L	
	West side, at No. 13	H	
	West side, near Wilson's	H	
	East side, at No. 33	L	
	South side, near Quaker	H	5
Knight	South side, opposite railroad station	H	
	South side, at Quaker	L	2
Hutchins	North side, near No. 22	H	
	North side, near C. & C. Railroad	H	
	North side, at No. 40	H	3
First	North side, near A. H. Knight's	H	1
Sewall's Falls Road	East side, at north line of cemetery	H	1

HYDRANTS.—Continued.

STREETS.	LOCATIONS.	Service.	Number.
Penacook Rd. . .	West side, opposite Frost's	H	3
	West side, opposite Blanchard's	H	
	West side, near Warner Road	H	
PENACOOK.			
South Main. . . .	West side, at Harriman's	H	15
	West side, at Annis's	H	
	West side, at Garvin's	H	
	West side, south of Willow Hollow	H	
	West side, north of Willow Hollow	H	
	West side, at south end of Woodlawn Cem'y .	H	
	West side, at north end of Woodlawn Cem'y .	H	
	West side, opposite Stark	H	
	West side, near Hoyt's garage	H	
	West side, near No. 88	H	
	Southwest corner of Union	H	
	Washington Square, opp. Exchange Block . .	H	
	Northwest corner of Charles	H	
	North side, opposite East Canal	H	
West Main.	North side, near iron bridge	H	
	West side, opposite cemetery	H	2
High	West side, at Pine	H	2
	Northwest corner of Stark	H	4
	East side, opposite Summit	H	
	Northwest corner of Maple	H	
	Northwest corner of Spring	H	
Washington. . . .	South side, near South Main	H	6
	Southeast corner of Union	H	
	South side, at No. 41	H	
	South side, opposite Charles	H	
	South side, near Contocook bridge	H	
	North side, at Rolfe's sawmill	H	
Fowler.	West side, at Charles Holmes'	H	2
	East side, near Elliott's	H	1
Electric Ave. . . .	South side, junction of Washington	H	1
Elliott.	Northeast corner of Electric Avenue	H	1
Charles.	Southwest corner of Warren	H	3
	South side, at schoolhouse	H	
	North side, near No. 36	H	
West Canal. . . .	Southeast corner of Warren	H	1
East Canal. . . .	North side, near Contocook Mfg. Co.	H	2
	North side, near Crescent	H	
Crescent.	West side, north of Canal	H	1
Walnut.	North side, at Bye	H	1

HYDRANTS.—*Continued.*

STREETS.	LOCATIONS.	Service.	Number.	
Merrimack	South side, opposite Merrimack Avenue	H	8	
	North side, opposite Nos. 36-38-40	H		
	North side, opposite Cross	H		
	South side, opposite Bye	H		
	South side, opposite Rolfe's shop	H		
	South side, opposite Symonds' factory	H		
	North side, near road to Island	H		
	Northwest corner of Penacook	H		
	Summer	North side, opposite High		H
		Northeast corner of Centre		H
North side, opposite Church		H		
Spring	Northeast corner of Church	H	3	
Maple	Northeast corner of Pleasant	H	1	
Summit	Southeast corner of Pleasant	H	1	
Winter	North side, near Pleasant	H	1	
Centre	Northwest corner of Spring	H	2	
	West side, opposite No. 47	H		
Cross	Northwest corner of Spring	H	2	
	Southwest corner of Summer	H		
Rolfe	North side, near angle of street	H	3	
	South side, at No. 38	H		
	Northwest corner of Penacook	H		
Penacook	West side, opposite A. W. Rolfe's	H	3	
	West side, at No. 35	H		
	East side, at No. 41	H		
Whole number public hydrants			471	
PRIVATE HYDRANTS.				
	Abbott & Downing Co.	H	6	
	Boston & Maine Railroad, upper yard	L	3	
	Boston & Maine Railroad, shops	H	17	
	Boston & Maine Railroad, new round house	H	6	
	Boston & Maine Railroad, power house, West Concord	H	1	
	Standish Worsted Co.	H	3	
	Concord Gas Co.	L	1	
	Concord Shoe Factory	H	1	
	Concord Worsted Mills	H	2	
	Wm. B. Durgin Co.	H	1	
	Crawford Mfg. Co.	L	1	
	Rumford Printing Co.	H	1	
	N. E. Box Co.	H	3	
	N. H. Spinning Mill	H	6	

HYDRANTS.—*Concluded.*

STREETS.	LOCATIONS.	Service.	Number.
	N. H. State Hospital	H	16
	N. H. State Prison	H	4
	Page Belting Co.	H	9
	Page Belting Co.	L	1
	St. Paul's School	H	11
	John Swenson Granite Co.	H	2
	Water-Works pumping station	H	1
	Whole number private hydrants		96

SUMMARY OF STATISTICS.

FOR THE YEAR ENDING DECEMBER 31, 1922.

CONCORD WATER WORKS.

CITY OF CONCORD, COUNTY OF MERRIMACK, STATE OF NEW
HAMPSHIRE.

GENERAL STATISTICS.

Population by census of 1920—22,167.

Date of construction—1872.

By whom owned—City of Concord.

Source of supply—Penacook Lake.

Mode of supply—Gravity, also pumping to reservoir for
high service and fire protection.

PUMPING.

Builders of pumping machinery—Worthington Pump and
Machinery Corporation.

1 triple expansion horizontal engine, capacity, 2,000,000
gallons per 24 hours, 1893.

1 triple expansion horizontal engine, capacity, 2,000,000
gallons per 24 hours, 1904.

1 Worthington 8", type "BS," slow speed, horizontal
split casing, volute, centrifugal pump, capacity
3,500,000 gallons per 24 hours, 1919.

Motor, G. E., 100 H. P., A. C.

ELECTRIC PUMP.

1. Description of power:
 - a. Alternating, 3 phase, 60 cycles, 2,200 volts, 1,800 R. P. M.
 - b. Price per K. W. H., $\$0.01\frac{1}{3}$, 8 p. m. to 6 a. m.; maximum, \$1,800 per year, 300,000,000 gallons; \$6.00 per 1,000,000 gallons, over 300,000,000.
2. K. W. H. used for year, 154,080.
3. Total pumpage, by Venturi meter, 307,116,000 gallons.
4. Average static head against which pump works, 90 feet.
5. Average dynamic head against which pump works, 120 feet.
6. Gallons pumped per K. W. H., 1,993+.
7. K. W. H. used per 1,000,000 gallons pumped, 501.
8. Efficiency of pump,

$$\frac{307,116,000 \text{ (gallons pumped)} \times 8.34 \text{ (lbs.)} \times 120 \text{ (dynamic head)}}{154,080 \text{ (K. W. H.)} \times 33,000 \times 60 \times 1.34 \times 88.2 \text{ (efficiency motor and switch board)}} = 85.2 \%$$
9. Total pumping for year, steam and electric pumps, 307,116,000 gallons.
10. Cost of total pumping figured on pumping station expenses—\$4,003.20.
11. Per million gallons pumped—\$13.034.
12. Per million gallons raised one foot (dynamic)—\$0.109.

DISTRIBUTION.

MAINS.

1. Kind of pipe—cast iron and cement-lined.
2. Sizes—from two-inch to twenty-four-inch.
3. Extended—1,905 feet during year.
4. Relaid—1,574 feet during year.
5. Discontinued—1,350 feet during year.
6. Total now in use—72.50 miles.
7. Number of leaks per mile for year—
8. Length of pipes two inches and less diameter—3.39 miles.

9. Number of hydrants added during year—public, 1.
10. Number of hydrants now in use—public, 471; private, 96.
11. Number of stop gates added during year—8.
12. Number of stop gates now in use—1,075.
13. Number of stop gates smaller than four-inch—
14. Number of blow-off gates—81.
15. Range of pressure on mains at center of city—88 pounds high service and 48 pounds low service.

SERVICES.

16. Kind of pipe—cement-lined.
17. Sizes—three-fourths-inch to ten-inch.
18. Extended—1,383 feet.
19. Discontinued—496 feet.
20. Total now in use—93,750 feet.
21. Number of service taps added during year—37.
22. Number now in use—3,961.
23. Average length of service—23.66.
24. Average cost of service for the year—
25. Number of meters added during year—57.
26. Number now in use—2,767.
27. Percentage of services metered—69.85.
28. Percentage of receipts from metered water—86.81.
29. Number of elevators added—none.
30. Number now in use—9.
31. Number of standpipes for street watering—44.

FINANCIAL.

WATER DEPARTMENT.

RECEIPTS.	EXPENDITURES.
Balance brought forward:	Water-Works Maintenance:
(a) From ordinary (maintenance) receipts, \$19,286.02	AA. Operation (management and repairs), \$25,137.85
(b) From extraordinary receipts (bonds, etc.),	BB. Special,
Total, \$19,286.02	CC. Total maintenance, \$25,137.85
From Water Rates:	DD. Interest on bonds, 13,022.50
A. Fixture rates, \$10,081.23	EE. Payment of bonds, 317,000.00
B. Meter rates, 69,508.92	FF. Investment of net income,
C. Total from consumers,	Water-Works Construction:
D. For hydrants,	GG. Extension of mains, \$7,009.88
E. For fountains,	HH. Extension of services, 1,920.77
F. For street watering,	II. Extension of meters, 1,657.76
G. For public buildings:	JJ. Special, 2,996.47
School, \$474.00	KK. Total construction;
All others,	LL. Unclassified expenses:
H. For miscellaneous uses,	MM. Balance:
I. General appropriation,	(aa) Ordinary, \$25,059.07
J. Total from municipal departments, 474.00	(bb) Extraordinary,
K. From income investment account, 20,254.36	Total balance, \$25,059.07
L. From bond issue, 272,173.50	\$393,804.30
M. From other sources, 2,026.26	
N. Total, \$393,804.30	

O. Net cost of works to date, \$1,134,523.47.
P. Bonded debt at date, \$288,000.

Q. Average rate of interest, 4.43 per cent.
R. Value investment of net income, \$26,207.54.

INVENTORY.

OF THE PROPERTY OF THE WATER DEPARTMENT, INCLUDING
THE PLANT AND WATER RIGHTS, AND ALL THE REAL
ESTATE AND PERSONAL PROPERTY IN THEIR POSSESSION,
JANUARY 1, 1923.

Water rights—land, etc.,	\$1,142,442.58
Water office—furniture, etc.,	1,156.00
Pumping station—furniture, supplies, etc.,	2,000.00
Shop:	
Machinery, tools, meters, service pipe, etc.,	4,661.09
Trucks, roadster, wagons and supplies,	2,600.00
Storehouse—hydrants, water gates, special castings, etc.,	5,018.70
Pipe yard—cast-iron pipe,	3,977.10
Shop at West Concord—pipe, etc.,	50.00
	\$1,161,855.47

FIRE DEPARTMENT.

REPORT OF CHIEF ENGINEER.

To the Board of Aldermen:

In accordance with the requirements of the city ordinance, I herewith submit for your consideration the report of the Fire Department for the year 1922.

The department responded to 81 bell alarms and 323 still alarms.

	Bell.	Still.	Total.
Precinct,	49	240	289
Penacook,	18	65	83
East Concord,	8	5	13
West Concord,	6	13	19
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	81	323	404

This report will be found to contain statements in detail embracing the amount of expenditures, a complete roll of the department with residence and occupation of each member, a record of all fires and alarms which have occurred during the year and the causes thereof as nearly as could be ascertained, with the names of the owners or occupants and the value, loss, insurance, and insurance recovered in each case.

Again, as was the case in 1921, the number of fires and the monetary loss exceeds all previous records. The apparatus is in good condition. The bodies of three combination pieces were transferred to new chassis during the year.

The fire alarm system of the precinct and Penacook are in good condition, but, as is generally known, some circuits in the precinct are abnormally large.

Two alarm boxes, one public and one private, were added to the precinct system.

One thousand feet of hose were added to the complement, but failed to cover the amount condemned for fire purposes. Frequent and strenuous use of hose has made serious inroads in the complement, a condition which should be overcome at once.

Respectfully submitted,

W. C. GREEN,
Chief Engineer.

IN MEMORIAM.

CHARLES C. CHESLEY
Captain Alert Hose Co., No. 2
Died March 10, 1922

JAMES H. SANDERS
Engineer Kearsarge Engine Co., No. 2
Died April 26, 1922

JOHN E. HOWARD
Hoseman Alert Hose Co., No. 2
Died October 30, 1922

HIRAM E. QUIMBY
Hoseman Cataract Hose Co., No. 3
Died November 22, 1922

APPROPRIATION AND DISBURSEMENTS.

APPROPRIATION.

Appropriation,	\$54,054.00
Resolution, outstanding claims,	253.00
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	\$54,307.00

DISBURSEMENTS.

Permanent men,	\$27,900.00
Vacations,	973.06
Call men,	10,245.00
House man,	100.00
Rent, Veterans' Association,	210.00
Forage,	849.99
Fuel,	2,293.66
Lights,	740.73
Incidentals,	6,074.66
Horse shoeing,	150.75
Horse hire,	605.00
Fire alarm,	1,746.55
Penacook fire alarm,	345.67
Supplies auto combinations,	347.31
Hose,	1,200.00
Laundry,	83.35
Fire inspections,	441.27
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	\$54,307.00

1922.

ALARMS.

PRECINCTS.

STILL. January 2, 6.10 a. m. Chimney fire in residence of S. S. Richardson, 15 West Street. Extinguished by Combination 1. Loss trifling.

STILL. January 2, 1.58 p. m. A call to investigate cause of smoke in residence of Mary Gardner, 12 Park Street. Detail from Combination responded. Slight fire in covering of steam pipe. No loss.

STILL. January 2, 5.30 p. m. A call to investigate cause of smoke in Memorial Hospital Nurses' Home, 66 South Street. Detail from Combination 1 responded. Slight fire in dry room of laundry. Caused by overheated furnace. Loss trifling.

STILL. January 2, 6.35 p. m. Chimney fire in residence of John Dunn, South Street, below Wheeler's Corner. Extinguished by Combination 1. No loss.

STILL. January 2, 7.15 p. m. Chimney fire in residence of Dora Sennott, 76 South Street. Extinguished by Engine 2. No loss.

STILL. January 2, 7.43 p. m. Chimney fire in residence of Olsen Feusien, 256 No. State Street. Extinguished by Combination 1. No loss.

Box 24. January 3, 7.27 p. m. Slight fire in Elm Wood Hotel, Center Street. Caused by matches in clothing. Extinguished with chemicals. Recall 7.45 p. m.

	Value.	Loss.	Ins.	Ins. Paid
Building,	\$15,000.00	\$10.00	\$9,000.00	\$10.00

Building owned and occupied by Morris Bedick.

Box 23. January 4, 12.35 a. m. Shack near the new Rumford Press building damaged. Caught from boiler being in temporary use during construction of building. Four hundred and fifty feet of hose wet. Recall 1.05 a. m. Loss trifling.

STILL. January 4, 2.54 p. m. Slight fire in residence of N. S. Croteau, 86 West Street. Caused by oil stove. Combination 1 responded but no assistance was required. No loss.

STILL. January 7, 10.16 a. m. Chimney fire in residence of F. A. Lane, 66 Bridge Street. Extinguished by Combination 1. No loss.

STILL. January 7, 3.24 p. m. Chimney fire in residence of Mack Boardman, 8 Foster Street. Extinguished by Combination 1. No loss.