

CITY EXPENSES.

201

Paid Stockbridge & Sanders, record books	\$3.75	
George A. Place, typewriter and table	97.00	
		\$134.55
Unexpended balance		2,565.45
		<u>\$2,700.00</u>

RECAPITULATION.

State tax	\$34,705.00
County tax	38,468.98
Interest	6,701.69
City poor	1,137.51
Aid to dependent soldiers and families	610.94
Fire department	20,856.49
Incidental and land damages	5,579.76
Highway department	33,318.56
Street sprinkling	3,464.59
Police and watch	12,943.68
Printing and stationery	2,950.36
Legal expenses	118.00
Board of health	1,478.74
Committee service	1,410.00
Schools	53,887.25
School house taxes	542.40
Precinct	17,969.02
Water precinct	6,000.00
Salaries	11,981.15
White Park	3,249.70
Rollins Park	943.28
Penacook Park	94.15
Improving public commons	550.00
Public Library	5,713.49
Memorial Day	345.00
Margaret Pillsbury General Hospital	2,000.00
Engineering department	3,029.92
Blossom Hill Cemetery	2,500.00

Old North Cemetery	\$350.00	
West Concord Cemetery	85.25	
Old Fort Cemetery	299.15	
Pine Grove Cemetery	215.13	
Millville Cemetery	200.00	
Penacook sewerage precinct	1,808.82	
West Concord sewerage precinct	1,166.25	
East Concord sewerage precinct	475.36	
Lighting streets, Penacook	1,300.00	
Open air concerts	300.00	
City history commission	134.55	
		<u>\$278,884.17</u>

SCHOOL DISTRICT NO. 20.

Balance unexpended	\$20.00	
Appropriation by district for interest	60.00	
" for payment of bonds	500.00	
		<u>\$580.00</u>
Bond paid	\$500.00	
Interest paid	80.00	
		<u>\$580.00</u>

DOG LICENSES.

Received from dog licenses		\$1,411.72
Paid as follows :		
Mary C. Guernsey, hens killed	\$29.20	
Frank P. Curtis, appraiser	7.00	
Willis H. Hoyt, sheep killed	11.00	
John B. Sanborn, "	12.00	
George E. Runnells, "	2.50	
Willis E. Runnells, "	44.00	
David F. Dudley, appraiser	4.40	
Eugene H. Davis, "	1.00	
Perry B. Flanders, "	1.00	
N. H. Democratic Press Co., advertising	15.15	
		<u>\$127.25</u>
Balance carried to school fund		1,284.47
		<u>\$1,411.72</u>

LIQUOR AGENCY.

Received from sale of liquors . . .	\$2,225.00	
Appropriation to cover deficit . . .	388.81	
	<u> </u>	\$2,608.81

Paid as follows :

Moses Ladd, agent	\$600.00	
" cash paid	19.35	
M. S. Brown, liquors purchased . . .	1,468.46	
Adams, Taylor & Co., liquor	139.50	
Concord Light and Power Co., gas . .	9.06	
Joseph Stickney, rent	283.00	
Samuel H. Connor, deputy collector .	25.00	
A. T. Sanger, vacation liquor agent .	24.00	
Concord Coal Co., coal	40.44	
	<u> </u>	\$2,608.81

STONE QUARRIES.

Frank R. Clark, quarries 1894	\$25.00	
L. O. & H. B. Peabody, rent of quarries	75.00	
J. A. Cochran, " "	12.50	
L. O. Peabody, " "	10.00	
George M. Davis, " "	12.50	
C. A. Giles, " "	75.00	
George W. Waters, " land	25.00	
	<u> </u>	\$235.00

WATER DEPARTMENT.

Receipts.

Cash on hand, January 1, 1896	\$14,337.60
Received from consumers at fixed rates .	\$36,961.01
" " " at meter rates	19,216.72
From delinquents	88.73
For water used for building purposes . .	119.43

For rents	\$210.00	
For shutting off and turning on water	2.00	
For pipe and stock sold, etc.	169.19	
		<u>\$56,767.08</u>
Deduct abatements	209.27	
		<u>\$56,557.81</u>
Total receipts for 1896	\$56,557.81	\$56,557.81
		<u>\$70,895.41</u>

Expenditures.

GENERAL EXPENSES.

Paid pay-rolls, salaries and labor	\$4,972.10
Nathaniel White, Jr., rent of office and heating	350.00
S. G. Sanborn, rent of shop in Penacook and labor	25.20
Republican Press Association, stamped envelopes and printing	151.75
Ira C. Evans, stamped envelopes and printing	44.40
Stockbridge & Sanders, books, etc.	21.05
Silby & Son, stationery, etc.	15.33
Arthur H. Chase, clerk of water board and auditor, 1895	26.00
Concord Light & Power Co., gas	19.74
Concord Land & Water Power Co., electric light	2.00
New England Telephone & Telegraph Co., telephones	134.48
C. W. Dadmun, electric wiring and fixtures	42.00
J. M. Stewart & Sons Co., office furnishings	3.23
Library Bureau, card index	31.00
Humphrey-Dodge Co., hardware	62.17
Thompson & Hoague, "	68.67
Chandler Eastman & Son, wagon	85.00

CITY EXPENSES.

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Batchelder & Co., grain, oil, etc.	\$25.22
Frank Coffin & Co., grain	37.50
Fred H. Savory, grain and straw	17.04
Arthur N. Day, " "	15.56
C. H. Martin & Co., lead, oil, etc.	13.29
A. Perley Fitch, " "	6.96
R. S. Emery, posts	21.20
Kimball, Corser & Powell, oil clothing	5.00
Woodworth & Co., cement	30.10
E. E. Fisher, dynamite	4.00
John T. Fiske & Co., dynamite	4.45
Sewall & Day Cordage Co., manilla rope	7.70
R. D. Wood & Co., cast-iron pipe	2,467.46
Davis & Farnum Manufacturing Co., castings	58.68
Builders Iron Foundry, castings	35.78
Ford & Kimball, "	25.70
Concord Foundry Co., "	9.95
Chapman Valve Manufacturing Co., hydrants	180.85
Ludlow Valve Manufacturing Co., gates	118.96
Smith & Thayer Co., gate curbs	23.79
Hays Manufacturing Co., service-boxes	1.60
Morss & Whyte, copper netting for screens	58.80
Chadwick Lead Works, pig lead and lead pipe	440.15
Gilchrist & Taylor, wrought-iron pipe	75.27
J. H. Cunningham Co., pipe and fittings	58.15
Braman, Dow & Co., " "	37.71
Walworth Manufacturing Co., tools and fittings	33.64
E. H. Randall, fittings, etc.	14.93
M. J. Drummond, lead furnace	25.50
Stoughton Rubber Co., washers	4.63
National Meter Co., meters	2,243.50
Union Water Meter Co., "	580.00

Hersey Manufacturing Co., meters . . .	\$274.90
Thomson Meter Co., meters . . .	59.40
W. S. Davis & Son, repairs . . .	11.30
J. D. Johnson & Son, " . . .	6.85
J. H. Rowell & Co., repairing concrete	10.50
Highway department, labor . . .	2.00
E. B. Hanchay, smith-work . . .	41.69
Ross W. Cate, " . . .	18.45
Rowell & Plummer, mason-work . . .	41.98
L. R. Fellows & Son, " . . .	14.36
George Abbott, Jr., painting . . .	12.22
George L. Theobald, team-work . . .	43.70
O. F. Richardson & Son, team-work and labor	51.00
Boston & Maine Railroad, freight . . .	34.50
Concord street railway	10.00
American Bank Note Co., bond-plate . . .	55.00
Engineering News	5.00
Morrill & Danforth, insurance . . .	27.50
Eastman & Merrill, " . . .	22.50
Incidentals	147.84
V. C. Hastings, cash paid out . . .	45.29
Penacook and Boscawen water precinct	2,000.00
	<hr/>
	\$15,673.17

PUMPING STATION EXPENSES.

Paid pay-rolls, engineer and firemen	\$1,376.50
Concord Coal Co., coal . . .	504.39
labor, unloading coal . . .	10.50
E. A. Boutwell & Son, wood . . .	41.25
for wood	31.42
Vacuum Oil Co., oil	51.83
Humphrey-Dodge Co., hardware and packing	11.06
Thompson & Hoague, hardware and packing	14.73

CITY EXPENSES.

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Paid Perrin, Seamans & Co., packing	\$16.14	
E. H. Randall, fittings . . .	7.36	
Concord Foundry Co., castings .	3.00	
A. Perley Fitch, soda ash . . .	3.25	
George Abbott, Jr., painting . .	12.77	
J. M. Stewart & Sons Co., fur- nishings	18.07	
Concord Light and Power Co., gas	11.61	
H. A. Rowell, cash paid out . . .	2.33	
	<hr/>	\$2,116.21
Total expenditures for 1896		\$17,789.38
Paid interest on water-works bonds		27,677.34
Bonds paid		10,500.00
Unexpended balance, cash on hand		14,928.69
		<hr/>
		\$70,895.41

DEPARTMENT REPORTS.

WATER DEPARTMENT.

FINANCIAL.

MAINTENANCE.

Receipts.	Expenditures.
From consumers (mostly for domestic uses and at fixed rates) . . . \$56,387.89	For management and repairs . . . \$3,687.13
From rents . . . 210.00	For new distribution pipes . . . 4,022.45
From pipe sold, etc. . . 169.19	For new service pipes . 1,026.34
	For maintenance of pumping station . 2,116.21
	For inspection . . . 525.00
	For reservoir grounds . 102.95
	For meter account . 3,883.51
	For work around Pen- acook lake . . . 149.67
	For water supply from Penacook and Bos- cawen Water Precinct 2,000.00
	For incidentals . . . 276.12
	For abatements . . . 209.27
	<hr/>
	\$17,998.65
	Amount required to pay interest on bonded indebtedness 27,425.00
	Balance . . . 11,343.43
	<hr/>
<hr/>	<hr/>
\$56,767.08	\$56,767.08

REPORT OF WATER COMMISSIONERS.

To the City Council :

The board of water commissioners submit herewith their report for the year ending December 31, 1896, together with the report of the superintendent, giving details of the working of the system during the year, all of which is respectfully submitted for your careful consideration.

The plant, as in former years, has shown a continual improvement along all lines. Nothing in the way of extended work or outlay has been attempted during the year. Owing to the change of grade in some of the thoroughfares, some pipe has had to be relaid but no great extensions have been made.

The income shows a very gratifying gain, and the continued use of meters has demonstrated their practicability and more will be added each year. The plan, as stated in former reports, will be adhered to.

The pumping plant has been maintained at practically the same expense as the previous year, and continues to do good work.

The capacity of the high pressure system for fire protection was finely shown in October by an exhibition of the pressure on Main street. The large six-way hydrants at the corners of Capitol, Park, and Centre streets were turned on, and at one time eighteen solid streams were pouring a volume of water, before which the severest fire would give way. The works have never before been given such a test and the results were most gratifying, and should prove valuable to our citizens in securing reasonable rates of insurance on their property.

Extension of the high pressure system to the new railroad shops has been asked for and the commissioners have granted the same, and the extension will be made in the spring. For this purpose we have had to buy some pipe.

The recommendation of the superintendent for the extension of the 20-inch iron pipe from the pumping station north towards the lake is a movement in the right direction, and plans will be made looking towards the consummation of this in the near future. The condition of the pipe lines of the city is a matter of some importance, and has been considered by the commissioners. Much of the cement-lined pipe has been in use twenty-four years, and while good results have been obtained, yet there is an increasing liability of serious leaks and consequent damage. This can be remedied by relaying from year to year the old pipe lines with cast iron, and should be done as fast as the means will allow.

The contract with the Penacook and Boscawen Water Precinct which has been in force one year, terminated December 1, 1896, and the water was shut off. The present condition of the supply in Penacook lake did not warrant the expenditure of a large sum in this direction, hence the action of the board.

November 1, 1896, bonds to the amount of \$10,000, became due and were paid from the income of the works, reducing the indebtedness to \$680,000. Bonds will mature each succeeding year, and it is hoped that without any extraordinary expenditure, these will mostly be redeemed as they become due.

The same careful and efficient management of the work by the superintendent and his assistants has been continued during the year.

Respectfully submitted,

JOHN WHITAKER,
E. B. HUTCHINSON,
WILLIAM M. MASON,
EDSON J. HILL,
WILLIAM P. FISKE,
WILLIAM E. HOOD,
SOLON A. CARTER,
FRANK D. ABBOT,
HENRY ROBINSON, *ex officio*,
Water Commissioners.

REPORT OF THE SUPERINTENDENT.

To the Board of Water Commissioners :

I herewith present to you the twenty-fifth annual report of the operations of this department, showing the receipts, expenditures, and abatements, together with a statement of extensions and improvements made during the year ending December 31, 1896.

RECEIPTS.

For water from consumers by fixed rates	\$36,961.01
For water from consumers by meter rates	19,216.72
From delinquents	88.73
For water used for building purposes	119.43
For rents	\$210.00
For shutting off and turning on water	2.00
For pipe and stock sold, etc.	169.19
	\$56,767.08
Deduct abatements	209.27
	\$56,557.81
Total receipts for 1896	\$56,557.81

EXPENDITURES.

GENERAL EXPENSES.

Paid pay-rolls, salaries and labor	\$4,972.10
Nathaniel White, Jr., rent of office and heating	350.00
S. G. Sanborn, rent of shop in Penacook and labor	25.20
Republican Press Association, stamped envelopes and printing	151.75
Ira C. Evans, stamped envelopes and printing	44.40
Stockbridge & Sanders, books, etc.	21.05
Silsby & Son, stationery, etc.	15.33

Arthur H. Chase, clerk of water board and auditor, 1895	\$26.00
Concord Light & Power Co., gas	19.74
Concord Land & Water Power Co., elec- tric light	2.00
New England Telephone & Telegraph Co., telephones	134.48
C. W. Dadmun, electric wiring and fixtures	42.00
J. M. Stewart & Sons Co., office fur- nishings	3.23
Library Bureau, card index	31.00
Humphrey-Dodge Co., hardware	62.17
Thompson & Hoague, "	68.67
Chandler Eastman & Son, wagon	85.00
Batchelder & Co., grain, oil, etc.	25.22
Frank Coffin & Co., grain	37.50
Fred H. Savory, grain and straw	17.04
Arthur N. Day, " "	15.56
C. H. Martin & Co., lead, oil, etc.	13.29
A. Perley Fitch, " "	6.96
R. S. Emery, posts	21.20
Kimball, Corser & Powell, oil clothing	5.00
Woodworth & Co., cement	30.10
E. E. Fisher, dynamite	4.00
John T. Fiske & Co., dynamite	4.45
Sewall & Day Cordage Co., manilla rope	7.70
R. D. Wood & Co., cast-iron pipe	2,467.46
Davis & Farnum Manufacturing Co., castings	58.68
Builders Iron Foundry, castings	35.78
Ford & Kimball, "	25.70
Concord Foundry Co., "	9.95
Chapman Valve Manufacturing Co., hydrants	180.85
Ludlow Valve Manufacturing Co., gates	118.96
Smith & Thayer Co., gate curbs	23.79
Hays Manufacturing Co., service-boxes	1.60

Morss & Whyte, copper netting for screens	\$58.80
Chadwick Lead Works, pig lead and lead pipe	440.15
Gilchrist & Taylor, wrought-iron pipe	75.27
J. H. Cunningham Co., pipe and fittings	58.15
Braman, Dow & Co., " "	37.71
Walworth Manufacturing Co., tools and fittings	33.64
E. H. Randall, fittings, etc.	14.93
M. J. Drummond, lead furnace	25.50
Stoughton Rubber Co., washers	4.63
National Meter Co., meters	2,243.50
Union Water Meter Co., "	580.00
Hersey Manufacturing Co., meters	274.90
Thomson Meter Co., meters	59.40
W. S. Davis & Son, repairs	11.30
J. D. Johnson & Son, "	6.85
J. H. Rowell & Co., repairing concrete Highway department, labor	10.50
E. B. Hanchay, smith-work	2.00
Ross W. Cate, "	41.69
Rowell & Plummer, mason-work	18.45
L. R. Fellows & Son, "	41.98
George Abbott, Jr., painting	14.36
George L. Theobald, team-work	12.22
O. F. Richardson & Son, team-work and labor	43.70
Boston & Maine Railroad, freight	51.00
Concord Street Railway	34.50
American Bank Note Co., bond-plate	10.00
Engineering News	55.00
Morrill & Danforth, insurance	5.00
Eastman & Merrill, "	27.50
Incidentals	22.50
V. C. Hastings, cash paid out	147.84
Penacook and Boscawen Water Precinct	45.29
	2,000.00
	<hr/> \$15,673.17

PUMPING STATION EXPENSES.

Paid pay-rolls, engineer and fireman	\$1,376.50	
Concord Coal Co., coal	504.39	
labor, unloading coal	10.50	
E. A. Boutwell & Son, wood	41.25	
for wood	31.42	
Vacuum Oil Co., oil	51.83	
Humphrey-Dodge Co., hardware and packing	11.06	
Thompson & Hoague, hardware and packing	14.73	
Perrin, Seamans & Co., packing	16.14	
E. H. Randall, fittings	7.36	
Concord Foundry Co., castings	3.00	
A. Perley Fitch, soda ash	3.25	
George Abbott, Jr., painting	12.77	
J. M. Stewart & Sons Co., fur- nishings	18.07	
Concord Light and Power Co., gas	11.61	
H. A. Rowell, cash paid out	2.33	
		\$2,116.21
Total expenditures for 1896		\$17,789.38

The expenses are divided as follows :

General Expenses.

For management and repairs	\$3,687.13	
new service pipes	1,026.34	
new distribution pipes	4,022.45	
inspection	525.00	
reservoir grounds	102.95	
meter account	3,883.51	
work around Penacook lake	149.67	
water supply from Penacook and Boscawen Water Precinct	2,000.00	
incidentals	276.12	
		\$15,673.17

Pumping Station Expenses.

For salaries, engineer and fireman	.	\$1,376.50	
fuel used	.	587.56	
oil, packing, and other supplies	.	152.15	
		<u> </u>	\$2,116.21

EXTENSIONS AND IMPROVEMENTS.

Main and distribution pipes have been laid and hydrants set during the year, as follows :

In Rumford street,

north from Wyman street to Highland street, 131 feet
8-inch pipe.

In Ridge road,

north from Centre street, 217 feet 6-inch pipe.

In Morton street,

extended north to West street pipe, 36 feet 6-inch pipe.

In Essex street,

extended south to Centre street pipe, 24 feet 6-inch pipe.

In Hopkinton road,

north from Pleasant street, 475 feet 4-inch pipe.

In Harvard street,

extended south to Noyes street, 415 feet 4-inch pipe.

In Langdon street,

east from Turnpike street, 357 feet 4-inch pipe.

In Turnpike street,

120 feet 6-inch cast-iron pipe, relaid in place of 6-inch
cement-lined pipe.

On hydrant branches,

18 feet 6-inch pipe

7 feet 4-inch pipe.

Summary of the Foregoing.

<i>Pipes.</i>	<i>Hydrants.</i>	<i>Stop-Gates.</i>
1-in., 535 feet.	Main line, near	4-in., 2
4-in., 1,254 "	A. L. Gay's . 1	6-in., 4
6-in., 295 "	Main line, at	
8-in., 131 "	stone cut, 1	
<hr/>	Main street, West	
2,215 feet,	Concord, near	
equal to .41 mile.	Sewall's Falls	
	road, 1	
	<hr/>	<hr/>
	3	6
Total length of main and distribution pipes now in use, 299,676 feet, equal to 56.75 miles.	Total number of hy- drants now in use, 246.	Total number of gates now in use, 688.

SERVICE PIPE.

There have been laid during the year and connected with the main pipes, 61 service pipes, consisting of—

60 1-inch,	1,600 feet.
1 4-inch,	4 "
<hr/>	<hr/>
61	1,604 feet.

Whole number of service pipes, 3,116; number discontinued, 1; number in use at the present time, 3,115.

Total length of service pipes, 73,156 feet or 13.87 miles.

As you will notice by the record of pipe laid, no important extensions have been made. We have, however, purchased our usual amount of pipe; the price has been lower than ever before, and we have thus provided a considerable stock at low cost for extensions in small sizes of pipe. We have now on hand 1,296 feet of 4-inch, 7,212 feet of 6-inch, 648 feet of 8-inch, and 1,118 feet of 10-inch pipe.

All the water rents for the year have been collected and we have not been compelled to shut off the water in any case to enforce the payment.

We have set 235 meters during the year; 4 have been taken out, making the total number now in use, 502.

We have built 1,287 feet of substantial wire fence on the north and west sides of the Cooledge lot; also 253 feet on the west side of the avenue leading from the Hopkinton road to the cottage at the lake, and 172 feet of picket fence in front of the cottage.

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

January . . .	174.35	July . . .	180.50
February . . .	174.60	August . . .	180.00
March . . .	175.70	September . . .	179.60
April . . .	179.90	October . . .	179.50
May . . .	181.10	November . . .	180.00
June . . .	181.00	December . . .	180.40

The lowest point reached was January 1, being 174.35; the highest was May 1, 181.10; mean height, 178.96, which was 7.81 feet higher than the mean height for the year 1895.

At its highest record, the water stood 12 feet above the lowest record of 1895, and 7.85 feet above the highest point of that year.

Our immediate locality has been unusually favored by the rainfall of the year; the spring freshet and rains of the summer and fall came with great advantage to the lake, and the continued and steady rise of water makes us confident that there will be no occasion for anxiety in regard to low water for several years. The first record of height of water when the works were completed, was January 1, 1874, 175.90; during that year, the water rose to 182.50, and except for a few months early in 1877, this high level, with the slight variations incident to the change of seasons, was continued until 1880-81. In the latter part of 1880, the water began to fall, and February 10, 1881, the lowest point was reached, 172.

The spring rains, however, soon brought the lake back, and although for several seasons the winter months lowered the record slightly, the average height continued to rise, until on May 29, 1888, the water stood at 185.60, the highest point since the construction of the works, and above high water level. Unusually high water prevailed until 1892, when the general drought throughout New England began to make itself felt in water supplies. The mean height for the past few years has accordingly been low in comparison with former records, but after a careful study of this rise and fall of Penacook lake we feel sure that another period of high water has begun which will continue for a number of years.

The cement-lined pipe in the works has been laid twenty-four years; during the past year we have had a number of serious breaks on some streets, thus increasing the expense of management and repairs; it is probable that this trouble will continue and increase through the coming years; moreover some of these original pipes are hardly large enough to furnish good hydrant service along with the increased consumption which must of necessity come with the growth of twenty-four years. I would therefore recommend that as a beginning of relaying this pipe, 1,700 feet of 20-inch cast-iron pipe be laid from the pumping station to a little north of the cemetery gate, to take the place of the original 14-inch cement-lined main laid in 1872; a 6 or 8-inch pipe on Rumford street, from Franklin to near Abbott street, a distance of about 1,000 feet; and in Monroe street from South State street to Grove street, 600 feet of 6-inch pipe.

In closing this report I desire to extend to the president and members of the water board, and the employees of the department, my sincere thanks for their uniform courtesy and co-operation in the discharge of the duties of my position.

Respectfully submitted,

V. C. HASTINGS,

Superintendent.

REPORT OF THE ENGINEER OF THE PUMPING STATION.

PUMPING STATION, CONCORD WATER-WORKS.

V. C. HASTINGS, *Superintendent* :

SIR,—I would report that the machinery at the pumping station is in a very good working condition.

Following will be found 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.

108 tons, 51 lbs. Pocahontas coal.
39 cords of wood.
58 gallons of oil.
21 lbs. of waste.

ENGINE RECORD.

Date.	Pumping time. <i>h. m.</i>	Water pumped.	Daily average pumped.	Total coal burned.	Daily average coal burned.	*Gallons pumped per pound of coal.
January	112: 00	9,904,650	319,504	22,771	735	435
February	112: 15	9,933,700	331,123	20,825	718	477
March.....	112: 45	9,940,035	320,646	20,253	659	490
April.....	86: 15	8,559,670	285,322	17,180	572	488
May.....	126: 50	11,020,870	355,511	22,203	716	496
June.....	127: 15	11,072,985	369,099	21,891	729	505
July.....	128: 30	11,053,560	356,566	21,751	701	508
August.....	117: 45	10,291,540	331,985	20,318	655	506
September....	101: 30	8,619,660	287,322	17,217	573	500
October.....	124: 30	10,500,280	338,718	20,931	675	501
November....	96: 45	8,155,985	271,866	16,377	546	498
December....	119: 45	9,637,375	310,882	20,254	653	475
Total	1,366: 05	118,690,310	325,178	241,971	661	490
Daily average	3: 44	325,178	.....	661	.....	.....

*Amount of coal consumed includes that used for heating the building.

∧ Amount of coal consumed per thousand gallons pumped, 2.03 pounds.

HENRY A. ROWELL,
Engineer.

APPENDIX.

A.

Receipts for each Year since the Completion 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 " " 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
Total receipts for 24 years			\$787,468.01

B.

Mean Height of the Water Each Year.

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

D.
FIRE-HYDRANTS.

STREETS.	LOCATIONS.	Number.	Total.
North Main.	Southwest corner North Main and Penacook.....	1	
"	East side North Main, near J. B. Walker's.....	1	
"	Junction North Main and Fiske.....	1	
"	East side North Main, near Larkin's store.....	1	
"	Northwest corner North Main and Franklin.....	1	
"	East side North Main, opposite Pearl.....	1	
"	Northwest corner North Main and Washington.....	1	
"	West side North Main, opp. Historical Society rooms.....	1	
"	East side North Main, opposite Chapel.....	1	
"	Northwest corner North Main and Court.....	1	
"	Northwest corner North Main and Pitman.....	1	
"	Northwest corner North Main and Montgomery.....	1	
"	East side North Main, opposite Montgomery.....	1	
"	Northwest corner North Main and Centre.....	1	
"	Southeast corner North Main and Bridge.....	1	
"	Southwest corner North Main and Park.....	1	
"	East side North Main, opposite Park.....	1	
"	Northwest corner North Main and Capitol.....	1	
"	Northwest corner North Main and School.....	1	
"	West side North Main, at Centennial block.....	1	
"	East side North Main, opposite Centennial block.....	1	
"	East side North Main, in rear Eagle Hotel.....	1	
"	East side North Main, in rear Woodward block.....	1	
"	Northwest corner North Main and Warren.....	1	
"	West side North Main, at Central block.....	1	
"	Southeast corner North Main and Depot.....	1	
South Main.	Northwest corner North Main and Pleasant.....	1	27
"	Southeast corner South Main and Pleasant.....	1	
"	Northeast corner South Main and Freight.....	1	
"	East side South Main, opposite Fayette.....	1	
"	East side South Main, opposite Thompson.....	1	
"	Southeast corner South Main and Chandler.....	1	
"	Northwest corner South Main and Wentworth avenue.....	1	
"	Northwest corner South Main and Thorndike.....	1	
"	East side South Main, opposite St. John's church.....	1	
"	Northwest corner South Main and Perley.....	1	
"	West side South Main, near Abbot-Downing Co.'s.....	1	
"	East side South Main, opposite Abbot-Downing Co.'s.....	1	
Turnpike.	Northwest corner South Main and West.....	1	12
"	East side Turnpike, near West.....	1	
"	West side Turnpike, opposite Gas.....	1	
"	West side Turnpike, near J. B. Weeks's.....	1	
"	West side Turnpike, at J. H. Lamprey's.....	1	
"	West side Turnpike, at W. J. Sawyer's.....	1	5
Water.	West side Water, near Capt. James Thompson's.....	1	1
Hall.	West side Hall, below Rolfe and Rumford Asylum.....	1	1
Hammond.	North side Hammond, near Bridge.....	1	1
Fiske.	West side Fiske, near North State.....	1	1
Summer.	Northeast corner Summer and Pitman.....	1	1
Durgin.	West side Durgin, near Toof's laundry.....	1	1
North State.	Southwest corner North State and Penacook.....	1	
"	Northwest corner North State and Walker.....	1	
"	Northwest corner North State and Church.....	1	
"	Northwest corner North State and Tremont.....	1	
"	Northeast corner North State and Washington.....	1	
"	West side North State, opposite Court.....	1	
"	Northwest corner North State and Maple.....	1	
"	Northeast corner North State and Centre.....	1	
"	East side North State, opposite government building.....	1	
"	Southwest corner North State and School.....	1	
"	Northwest corner North State and Warren.....	1	
South State.	Northwest corner North State and Pleasant.....	1	12
"	East side South State, opposite Wall.....	1	

FIRE-HYDRANTS.— *Continued.*

STREETS.	LOCATIONS.	Number.	Total.
South State.	Northwest corner South State and Thompson.....	1	
"	Southwest corner South State and Monroe.....	1	
"	East side South State, opposite Laurel.....	1	
"	Southeast corner South State and Downing.....	1	
"	Northeast corner South State and West.....	1	
"	Junction of South State and Turnpike.....	1	7
Mills.	Southeast corner Mills and Downing.....	1	
"	West side Mills, near Levi Call's.....	1	2
Dakin.	West side Dakin, near C. E. Harriman's.....	1	1
Dunklee.	Northwest corner Dunklee and Pillsbury.....	1	1
Broadway.	West side Broadway, near precinct line.....	1	1
Green.	Northwest corner Green and Prince.....	1	
"	East side Green, opposite Prince.....	1	2
South.	West side South, opposite Wall.....	1	
"	Northwest corner South and Thompson.....	1	
"	West side South, opposite Monroe.....	1	
"	West side South, opposite Laurel.....	1	
"	West side South, opposite Downing.....	1	
"	West side South, opposite Allison.....	1	
"	West side South, near Abbot farm.....	1	
"	West side South, opposite Smith farm.....	1	
"	Northwest corner South and Rockingham.....	1	9
Bradley.	Southwest corner Bradley and Penacook.....	1	
"	West side Bradley, opposite Walker.....	1	
"	East side Bradley, opposite Highland.....	1	3
Union.	Northwest corner Union and Maple.....	1	1
Lyndon.	Southwest corner Lyndon and Tremont.....	1	1
No. Spring.	Southwest corner North Spring and Centre.....	1	1
So. Spring.	Southwest corner South Spring and Oak.....	1	
"	West side South Spring, opposite Concord.....	1	
"	West side South Spring, opp. Perley proposed extens'n.....	1	3
Rumford.	West side Rumford, opposite Perkins.....	1	
"	Northeast corner Rumford and Franklin.....	1	
"	West side Rumford, opposite Beacon.....	1	
"	Northeast corner Rumford and Abbott.....	1	
"	Northeast corner Rumford and Cambridge.....	1	
"	Northeast corner Rumford and School.....	1	6
Tahanto.	Northwest corner Tahanto and School.....	1	1
Pine.	Southwest corner Pine and Centre.....	1	1
High.	Northwest corner High and Auburn.....	1	
"	East side High, opposite Forest.....	1	
"	Southwest corner High and Franklin.....	1	3
Giles.	Southeast corner Giles and School.....	1	1
Fruit.	Northeast corner Fruit and Clinton.....	1	
"	East side Fruit, opposite Wm. W. Critchett's.....	1	
"	Northwest corner Fruit and Woodman.....	1	3
Minot.	West side Minot, near Odd Fellows' Home.....	1	1
Penacook.	South side Penacook, near P. B. Co.'s bark house.....	1	
"	South side Penacook, near P. B. Co.'s office.....	1	
"	Southeast corner Penacook and North Main.....	1	
"	Southwest corner Penacook and Rumford.....	1	
"	Southeast corner Penacook and Columbus avenue.....	1	5
Highland.	Northeast corner Highland and Rumford.....	1	1
Church.	North side Church, opposite Lyndon.....	1	
"	Northeast corner Church and Rumford.....	1	2
Franklin.	Northwest corner Franklin and Jackson.....	1	
"	Southwest corner Franklin and Rumford.....	1	
"	South side Franklin, opposite W. J. Ahern's.....	1	
"	Northeast corner Franklin and Auburn.....	1	4
Beacon.	Northwest corner Beacon and Jackson.....	1	1
Blanchard.	Northwest corner Blanchard and Essex.....	1	1
Ferry.	North side Ferry, east of C. & M. Railroad.....	1	1
Washington.	Southwest corner Washington and Union.....	1	

FIRE-HYDRANTS. — *Continued.*

STREETS.	LOCATIONS.	Number.	Total.
Washington.	Northwest corner Washington and Rumford.....	1	
"	North side Washington, opposite Perry avenue.....	1	3
Valley.	North side Valley, opposite Forest.....	1	1
Auburn.	Northwest corner Auburn and Forest.....	1	1
Centre.	Northeast corner Centre and North State.....	1	
"	Southwest corner Centre and Green.....	1	
"	Northwest corner Centre and Union.....	1	
"	Northwest corner Centre and North Spring.....	1	
"	Northwest corner Centre and Rumford.....	1	
"	South side Centre, opposite Essex.....	1	
"	Southwest corner Centre and Summit avenue.....	1	7
Bridge.	South side Bridge, near easterly barn.....	1	1
Capitol.	Northeast corner Capitol and North State.....	1	1
School.	Northwest corner School and Green.....	1	
"	Northwest corner School and North Spring.....	1	
"	Northwest corner School and Merrimack.....	1	
"	North side School, near city storehouse.....	1	
"	North side School, opposite E. B. Woodworth's.....	1	5
Depot.	Northwest corner Depot and Railroad square.....	1	
"	South side Depot, at end of train shed.....	1	2
Warren.	Northwest corner Warren and Green.....	1	
"	Northwest corner Warren and North Spring.....	1	
"	Northwest corner Warren and Rumford.....	1	
"	Southwest corner Warren and Merrimack.....	1	
"	Northwest corner Warren and Tahanto.....	1	
"	Northeast corner Warren and High.....	1	
"	Junction Warren and Pleasant, near Fruit.....	1	7
Pleasant.	Northwest corner Pleasant and Railroad square.....	1	
"	Northwest corner Pleasant and Green.....	1	
"	Northwest corner Pleasant and Rumford.....	1	
"	South side Pleasant, opposite Pine.....	1	
"	South side Pleasant, opposite Liberty.....	1	
"	North side Pleasant, near Salem.....	1	
"	South side Pleasant, near Mrs. Eddy's.....	1	
"	North side Pleasant, near Mrs. Lane's.....	1	
"	North side Pleasant, near J. McC. Hammond's.....	1	
"	South side Pleasant, opposite Pond road.....	1	
"	South side Pleasant, near J. Milnor Coit's.....	1	
"	North side Pleasant, opposite infirmary.....	1	
"	South side Pleasant, near the mill.....	1	13
Mill road.	East side Mill road, near Upper School cottage.....	1	
St. P. School.	North side Mill road, at Orphan's Home.....	1	2
Marshall.	North side Marshall, opposite Fuller.....	1	1
Freight.	North side Freight, at southwest corner pass'r station.....	1	1
Hill's ave.	Northeast corner Hill's avenue and South Main.....	1	
"	Southwest corner Hill's avenue and Railroad square..	1	2
Fayette.	Northwest corner Fayette and Elm.....	1	1
Chandler.	South side Chandler, opposite railroad.....	1	1
Concord.	South side Concord, opposite Jefferson.....	1	1
Thorndike.	Northeast corner Thorndike and Grove.....	1	1
Laurel.	Northeast corner Laurel and Pierce.....	1	1
Perley.	Northwest corner Perley and Grove.....	1	
"	South side Perley, near old brook.....	1	2
West.	North side West, near Badger.....	1	
"	North side West, opposite Dakin.....	1	
"	North side West, at intersection Broadway.....	1	3
Harrison.	Northwest corner Harrison and Morton.....	1	1
Allison.	Northwest corner Allison and Mills.....	1	1
Rockingham.	Northeast corner Rockingham and Broadway.....	1	1
Prospect.	Northwest corner Prospect and Granite avenue.....	1	1
Curtice ave.	North side Curtice avenue, near John C. Kenney's.....	1	1
On main line.	West side West Concord road, at water wk's storehouse	1	
"	Northeast corner West Concord road and Foster.....	1	

FIRE-HYDRANTS. — *Continued.*

STREETS.	LOCATIONS.	Number.	Total.
On main line.	East side West Concord road, near cemetery gate	1	
"	West side West Concord road, near Calvary Cemetery.	1	
"	East side West Concord road, near Asa L. Gay's	1	
"	East side West Concord road, near C. R. Farnum's	1	
"	East side West Concord road, near stone cut.	1	7
WEST CONCORD.			
Main.	East side Main, near old city farm	1	
"	East side Main, near engine house	1	
"	East side Main, opposite D. Holden's	1	
"	West side Main, near north mill	1	
"	East side Main, opposite Geo. W. Brown's	1	
"	East side Main, near Mr. Harrington's	1	
"	East side Main, opposite A. Hollis's	1	
"	East side Main, near Sewall's Falls road	1	8
Electric.	Northeast corner Electric and Main	1	
"	North side Electric, near power station	1	2
Lake.	East side Lake, near S. W. Kellom's	1	
"	East side Lake, near Mrs. G. E. Holden's	1	2
Knight.	South side Knight, opposite railroad station	1	1
Hutchins.	North side Hutchins, near B. T. Putney's	1	
Penac'k road.	North side Hutchins, near C. & C. Railroad	1	2
"	West side Penacook road, near Warner road	1	
"	West side Penacook road, near Mr. Currier's	1	2
PENACOOK.			
Main.	West side Main, opposite Stark	1	
"	West side Main, near Mr. Prescott's	1	
"	Southwest corner Main and Union	1	
"	Washington square, opposite Washington	1	
"	Northwest corner Main and Charles	1	
"	North side Main, opposite East Canal	1	
"	North side Main, near iron bridge	1	7
West Main.	West side West Main, opposite cemetery	1	1
High.	East side High, opposite Summit	1	
"	Northwest corner High and Maple	1	
"	Northwest corner High and Spring	1	3
Washington.	Southeast corner Washington and Union	1	
"	South side Washington, opposite John Whitaker's	1	
"	South side Washington, opposite Charles	1	
"	South side Washington, near Contoocook bridge	1	4
Charles.	Southwest corner Charles and Warren	1	
"	North side Charles, near Geo. W. Corey's	1	2
West Canal.	Southeast corner West Canal and Warren	1	1
East Canal.	North side East Canal, near Contoocook Mfg. Co	1	
"	North side East Canal, near Crescent	1	2
Crescent.	North side Crescent, east of Canal	1	1
Merrimack.	South side Merrimack, opposite Merrimack avenue	1	
"	North side Merrimack, opposite D. W. Fox's	1	
"	North side Merrimack, opposite Cross	1	
"	South side Merrimack, opposite Rolfe's shop	1	
"	North side Merrimack, near road to island	1	
Summer.	Northwest corner Merrimack and Penacook	1	6
"	North side Summer, opposite High	1	
"	Northeast corner Summer and Centre	1	2
Spring.	Northeast corner Spring and Church	1	1
Centre.	Northwest corner Centre and Spring	1	1
Cross.	Southwest corner Cross and Summer	1	1
Rolfe.	North side Rolfe, near James Corbett's	1	
"	Northwest corner Rolfe and Penacook	1	2
Penacook.	West side Penacook, opposite A. W. Rolfe's	1	1
Whole number public hydrants			246

FIRE-HYDRANTS. — *Concluded.*

LOCATIONS.	Number.	Total.
PRIVATE HYDRANTS.		
Concord Railroad yard, 3 post and 3 flush hydrants....	6	
Northern Railroad yard, 4 post hydrants.....	4	
New state prison.....	3	
Abbot-Downing Co.'s yard.....	6	
Page Belting Co.'s yard.....	6	
W. P. Ford & Co.'s yard.....	1	
N. H. Asylum for Insane yard.....	1	
Concord Gas Light Co.'s yard.....	1	
St. Paul's School.....	1	
Water-works pumping station grounds.....	1	30
Whole number private hydrants.....		30

HIGHWAY DEPARTMENT.

REPORT OF COMMISSIONER OF HIGHWAYS.

To the City Council:

GENTLEMEN,—In accordance with custom, I hereby submit the annual report of the highway department for the year ending December 31, 1896.

At first, I would call the attention of your honorable body to the appropriations as made for 1896 and the different items of expense to be met from them. The amount appropriated for roads and bridges was \$30,000.00. But very little of this amount is available for any permanent work on highways and bridges as the expense of building and cleaning catch basins, the spring and fall cleaning of streets, the weekly night cleaning in the business section, and the expense of caring for snow must be taken from it. This year the cost of building and caring for catch basins was about \$900.00. The removal of garbage in the spring and fall as required by the ordinance of 1895, brought an additional expense of \$2,000.00. The weekly cleaning and burning of garbage from the alleyways of the business blocks costs nearly \$1,000.00 and without doubt the district must soon be extended as calls are constantly being made for city teams to remove ashes, etc. Besides this, the macadam, concrete, and paving must be kept clean and gutters cleared, which calls for \$1,000.00 more. By far the largest expense is for the care of snow and ice, which, while keeping the roads passable leaves nothing to show for the money expended. Our last winter was exceptionally favorable for this department and therefore left a portion of the appropriation. All these

items aggregated amount to quite a sum, but still the care of drinking fountains and watering troughs, and supplies for the department must come from this appropriation, and for two years past we have had a heavy expense on account of the spring freshets. Therefore, I would recommend that separate appropriations be made for permanent work, cleaning streets, catch basins, and general maintenance, instead of the one now made for roads and bridges.

The spring freshet did considerable damage on account of the great amount of ice, and the Gully Hill and East Concord roads were impassable for several days, being covered for some distance with solid ice from six to ten feet deep. Water and Hall streets, at the south end of the city, were quite badly washed. The Turnpike bridge, across the Soucook river, in Egypt district, was also carried away. As there is another bridge near by, the matter of discontinuing the road was considered. The town of Pembroke decided to do so, but our city thought it best to rebuild the bridge. Bids were called for, for a bridge similar to the one across the Soucook river at Clough's Mills, so called. Five bids were received and the bid of George G. Jenness being the lowest, was accepted. The total cost of the bridge was \$1,654.78, one half of which was paid by the town of Pembroke. Bids for painting the same were received by this department, and the bid of A. C. Leavitt for \$24.75 was accepted. The bridge was opened for public travel about September first. The lower Soucook bridge was carried off the abutments, but with new plank and timber was replaced at an expense of \$25.92.

Besides these, considerable repairing has been done on the bridges within the city. The iron bridge at Penacook was thought to need new stringers and roadway, but after commencing the repairs it was found that nearly all stringers were in good condition. The roadway and sidewalk were replanked, putting the bridge in good condition at less expense than first expected. A new bridge was built on the Canterbury road, across Hackett's brook, in North Concord

district. Expense \$198.79. The bridge across Turkey river at St. Paul's School was replanked at an expense of \$39.81. The Twin bridge at Penacook is in an extremely bad condition and needs immediate attention. Last year it was strengthened and repaired, but I find it is still settling in the centre.

During the past season, considerable macadamizing has been done. Pleasant street from Main to State, Main street from Pleasant to Concord, Warren street from State to Spring, and prepared for concrete from State to Main, South State street from Thompson to Perley, and Park street from Main to State. Besides, our roller was rented to the city of Franklin for ten days. The macadam of last season has shown that it is a practical road to build, as it has stood the very severe weather and heavy teaming well. Little repairs have been necessary except in cases of opening the street which is becoming too common a practice. The streets are constantly being dug up to put in gas, sewer, or water pipes. Under the present system the commissioner has no knowledge when or by whom the work is done. As he is responsible for the good condition of the streets, it seems that the granting of permits for opening and obstructing them should belong to this department.

There are a number of streets in our city which are in a very bad condition, for example, the Penacook road from West Concord to Penacook, and Merrimack street from Rolfe street to Penacook street, in Penacook. There has been no permanent work done on these roads for many years, having only been patched and the material on them is now completely worn out. To place them in anything like fair condition it would necessitate considerable expense. If our city had a portable stone crusher which could be moved to these roads and the stone there used, they might be macadamized and placed in an excellent condition at less expense, as the cost of carting stone to and from the crusher would be saved, than to repair them with the means we now have. Main street from Centre to Pitman is in very poor condition. After rains and

in the spring it is very muddy, as it is impossible to drain it west of the Street Railway track. I would recommend that the street be paved and hope the council will take some action on it. Bridge street from Main to the railroad bridge should receive like attention, as traffic on it has increased largely of late.

In July, a petition was presented to this department asking for the concreting of Warren street from State to Main. After a meeting of the board of aldermen to consider the advisability of granting it, it was referred to the commissioner with full power. As the petition was considered a strong one, inasmuch as it was signed by forty-five real estate owners, the work was done. Although there was some opposition to it, since it has been completed the citizens seem satisfied with the work. Another petition has since been received for concreting School street from the Capital Fire Insurance building to State street. This would place the street in good condition and I hope the work will be done next season.

Very little work has been done on new streets. Langdon street, at the new railroad shops, has been filled with grade from Turnpike street, Park ridge and Ridge road have been made passable, but not much work done on them. Engel street, at West Concord, has been laid out and put in good condition. In the past two years, portions of the River road in Penacook, from the Borough to the Horse Hill bridge, which were very sandy, have been hardened and greatly improved. Considerable work has been done on concrete walks the past season. The matter of laying a concrete walk from Waverly street to Blossom Hill Cemetery, which was granted six years ago, is still unsettled. It ought to be laid as there is much travel to the cemetery.

The effects of the maple tree borer of last season were plainly seen in the spring, by the number of trees dead and dying. The shade trees have been quite free of pests the past season, but trees in all parts of the city are dying fast, which in many cases is caused, I think, by defective gas pipes.

The new shed, for storage purposes, which I recommended in my last report, was erected on the city lot early in the spring. Bids were received and the contract awarded to the Hutchinson Building Co., the lowest bidder. The sprinkling the past season has been done quite satisfactorily, and if the precinct is not extended, the present appropriation is sufficient. In April, the state board of agriculture issued a call for a Good Roads Convention to be held in Concord, May 13 and 14. Circulars were sent to the different manufacturers of road making machinery, inviting them to exhibit their goods. Our city was asked to have their steam roller and other improved machinery on exhibition and to furnish material for those exhibiting. In response to the invitation to exhibit, the Climax Road Machine Co., of Marathon, N. Y., sent two road machines and one portable stone crusher; American Road Machine Co., Boston, Mass., a full line of street and road working machinery; F. C. Austin Manufacturing Co., Chicago, Ill., one road machine and one portable stone crusher. Although the number of machines sent were small the advantage of the improved implements for good road making was fully shown. During the first day of the convention, the portable crushers were at work on the city lot on School street, and our steam roller on Park street, which was macadamized from Main to State street. On the second day, road machines were given a trial on Penacook street. The mayors, superintendents of streets, and selectmen of the towns were invited and although the attendance was small much interest was manifested.

In conclusion, I desire to return my thanks to his honor the mayor, the city council, the committees on streets and sidewalks and roads and bridges, for their many courtesies and consideration in dealing with matters relating to the highway department.

Respectfully submitted,

ALFRED CLARK,
Commissioner of Highways.

EXPENSE OF LABOR ON STREETS.

Building gravel sidewalks on Ferry.	street . . .	\$16.50
“ “ “ Mills	“ . . .	70.67
“ “ “ Concord	“ . . .	7.25
“ “ “ Holt	“ . . .	7.60
“ “ “ Albin	“ . . .	10.00
“ “ “ Hammond	“ . . .	5.10
“ “ “ Clinton	“ . . .	8.60
“ “ “ School	“ . . .	1.50
“ “ “ Harvard	“ . . .	13.60
“ “ “ Gale	“ . . .	12.90
“ “ “ Prospect	“ . . .	49.20
“ “ “ corner of Forest and Valley streets		8.63
Building gravel sidewalks on Chestnut	street . . .	3.40
“ “ “ Granite avenue . . .		22.00
“ “ “ and filling on south side of School street from Giles street west		20.85
Building gravel sidewalk on Morton street		12.00
“ “ “ west side of Water street		18.75
Building gravel sidewalk on west side of Church street at Rumford street		11.50
Building gravel sidewalks on Warren and Pine streets		20.00
Building gravel sidewalks on Broadway and Allison streets		3.50
Building gravel sidewalk on west side of Ridge road from Centre street north 150 feet		8.37
Building gravel sidewalk corner West and Turnpike streets		2.47
Building gravel sidewalk on Pleasant street		3.50
“ “ “ west side Curtice avenue		22.00
“ “ “ Rumford street		2.20
Putting sidewalk to grade on School and Giles streets		38.08
Cutting sidewalk to grade on Pleasant street by Kent's		30.00
Filling sidewalk on east side Dakin street		5.25

Repairing sidewalks on Auburn street	\$0.67
“ “ Centre “	1.00
“ “ Morton “	10.00
“ “ Turnpike “	1.60
“ “ North Main street	1.20
“ “ North State “	7.00
“ “ Water “	4.30
“ “ at Gas House bridge	5.00
Repairing sidewalks and putting in box drain on Pleasant street	5.83
Repairing gravel walk on Allison street	3.47
“ “ “ Hill’s avenue	9.60
“ “ “ Holt street	3.00
“ “ “ Thompson “	1.13
“ “ “ Pillsbury “	5.00
“ sidewalk and gutter on North State street opposite the pumping station	9.67
Repairing sidewalk on State street south from Warren street and putting in 50 feet 3 inches new edgestone	24.33
Laying over brick walk on Green street	28.50
Grading sidewalk on Morton street	8.10
Filling back of sidewalk on Centre street	6.80
Grading sidewalk for concrete on Warren and Pine streets	3.42
Grading sidewalk for concrete on west side of Lyndon street south of Tremont	3.50
Grading sidewalk for concrete on Perley street west of Pierce	3.00
Grading sidewalk for concrete on Jackson street north of Beacon	4.00
Grading sidewalk for concrete on east side of Lyndon street at Washington	4.00
Grading sidewalk for concrete on south side Franklin street to concrete west of Jackson street	6.50
Grading sidewalk for concrete on Centre street by F. N. Ladd’s	31.10
Grading sidewalk for concrete on east side of Morton street opposite Thompson’s house 71 feet	2.60

HIGHWAY DEPARTMENT.

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Grading sidewalk for concrete on south side West street from ward house line 66 feet west past Quimby's lot	\$2.85
Grading sidewalk for concrete and cutting east side Auburn street from Granite to Franklin street	67.08
Grading sidewalk for concrete on west side Badger street	17.50
Grading sidewalk for concrete on west side Turnpike street south of West street	26.00
Grading sidewalk for concrete on North Main street by J. B. Walker's	8.25
Repairing crossing on Main street, opposite state house	2.00
Relaying crossings on State and Warren streets	11.29
" " Forest street	3.50
Removing crossing on State street between School and Warren	7.38
Grading around crossing on Centre street at Green	4.00
Building gravel crossing on Monroe street	3.50
" " " West street at Dakin	1.97
" stone " Elm street at Wall	5.50
" gravel " Rumford street at Beacon	3.50
" " " Pine street to Warren	2.00
" " " Warren street to Pine	2.00
Setting edgestone on Warren street opposite police station	69.55
Setting edgestone on Pine street	95.30
" " Green "	19.00
" " Lyndon "	4.50
" " Centre street opposite F. N. Ladd's	61.10
Setting edgestone on the east side of Holt street at School street	7.00
Setting edgestone north side of Court street from state east 178 feet	29.29
Setting edgestone on Turnpike and West streets and grading for concrete	75.01
Resetting edgestone on Short street	5.21
" 86 feet of edgestone on Blake street	4.51
" " " Centre "	3.50

Drawing and setting edgestone and grading for concrete sidewalk at St. Paul's School	\$205.15
Laying up bank wall on Hall street sidewalk . . .	4.00
Drawing and laying stone for bank wall on Water street	18.00
Putting up railing and relaying bank wall on Water street	23.76
Repairing fence on Hanover street	5.90
Putting up railing on East Concord road	10.50
“ “ Bridge street	1.75
“ “ Turnpike “	9.32
Putting up railing on bridge near Turkey pond . .	2.50
Putting up railing and topping out culvert on Clinton street	12.79
Repairing watering trough on Gully hill	1.50
Relaying foundation of watering trough on Pleasant street at Blanchard's store	9.33
Repairing culvert on Pleasant street	2.70
“ “ on Birch “	7.95
“ “ on Allison “	2.00
Laying over culvert on East Concord road	4.00
Extending stone culvert on Clinton street	45.40
Extending stone culvert on School street west of Giles	48.80
Building stone culvert on River road in District No. 4	60.50
Laying 69 feet pipe drain on Clinton street	21.06
“ 57 feet “ on Pillsbury “	1.50
Laying 57 feet pipe on Bridge street at the foot of Gully hill	7.00
Putting in driveway box on Badger street	2.00
“ “ “ Centre “	2.50
“ “ “ Glover hill	2.50
Putting in box drain across Clinton street sidewalk . .	.95
Repairing driveway box on Centre street	1.14
Filling culvert on Bog road	6.50
“ well on Centre street	2.50
“ old reservoir on Thompson street	8.00
Building culvert on Hopkinton road at Ash brook . .	176.96
Running road machine on Penacook street	15.50

HIGHWAY DEPARTMENT.

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Running road machine on Hall street	\$7.00
“ “ “ on South “	21.00
“ “ “ on Iron Works road	14.00
“ “ “ on Tim Chase “	15.45
“ “ “ and grading on West Penacook street from Rumford street to Perkins' farm house	56.62
Running road machine on Forest and Eastman streets	7.00
“ “ “ on Clough's Mill road	22.22
“ “ “ on North Pembroke road	13.78
Removing limbs and trees on State street	11.50
“ “ “ Spring street	4.00
“ “ “ Washington street	2.66
“ “ “ Hanover street	25.25
“ “ “ Pine street	1.08
“ “ “ Auburn street	8.20
“ “ “ Pleasant street	17.50
“ “ “ Main street	3.00
“ “ “ Centre street	2.00
“ “ “ School street	6.00
“ “ “ South street	7.50
“ “ “ Green street	9.00
“ “ “ Monroe street	3.50
“ “ “ Thompson street	2.00
“ “ “ Perley street	1.50
“ “ “ Chapel street	1.50
“ “ “ Union street	2.50
Drawing and crushing stone on hand	407.47
Filling sand houses	59.12
Repairs at crematory	23.12
Cleaning streets in spring and fall	1,993.27
Scraping and cleaning paving and macadam	183.53
Building and painting new shed on city lot	315.92
Painting sprinklers	162.36
Macadamizing Main street from Pleasant to Thompson street	549.65
Macadamizing Main from Thompson to Concord street west of street railway track	165.43

Macadamizing Park street between Main and State streets	\$114.13
Macadamizing Pleasant street from Main to State	79.96
Macadamizing Warren street from State street to Spring	145.48
Macadamizing South State street from Thompson to Perley street	552.41
Macadamizing Warren street from Main to State for concrete	180.62
Concreting Warren street from State to Main	676.90
Paving Main street at Pleasant street	94.60
“ State “ corner Downing street	3.66
“ Green “ “ Warren “	2.34
“ Short “	1.00
Relaying paving on North Main street	12.00
Paving gutter on south side Franklin street from Charles street to High street 126 feet by 4 feet	12.00
Paving gutter on west side State street by Dr. Adams'	3.50
Paving gutter on Church street from Main to State street 270 feet by 4 feet	20.03
Paving gutter on north side Beacon street from point opposite old prison to Jackson street 482 feet by 4 feet	26.36
Paving gutter on Centre street from State street east past state library 95 feet by 5 feet	18.20
Paving gutter on east side Main street from Hill's avenue to Fayette street 70 feet by 5 feet	10.10
Paving gutter on Ferry street	7.50
“ “ Centre “ by F. N. Ladd's	29.10
“ “ north side Franklin street from Main to State street 262 feet	28.60
Paving gutter on south side Pleasant street from State street to crossing opposite South Church 171 feet by 4 feet	22.07
Paving gutter on south side Franklin street 290 feet	20.10
“ “ east “ Rumford “ from Albin to Highland street	20.60
Paving gutter on Rumford street from Franklin to Church street 916 feet by 4 feet	75.00

Paving gutter on Charles street from Beacon street north 250 feet by 4 feet	\$25.33
Paving gutter on Rumford street from Highland street south 60 feet by 4 feet	8.90
Paving gutter on Turnpike street corner West 118 feet by 4 feet	12.95
Paving gutter on West street corner Turnpike 102 feet by 4 feet	7.95
Relaying gutter on Academy street 176 by 4 feet	10.32
“ “ Church “	8.10
Paving for sewer on Main street	6.50
Cutting gutters on Auburn street from Chestnut street south to 70 feet north of Franklin street	28.68
Cutting and filling gutters on Church street	10.00
Digging out gutters on Forest street	4.50
Repairing gutters on Turnpike street	8.00
Opening gutters on Rockingham street	2.43
Cleaning ice from Bridge street on account of freshet	24.50
“ “ “ East Concord road on account of freshet	99.25
Cleaning ice from Ferry street on account of freshet	7.00
Repairing lower Soucook bridge on account of freshet	25.92
Replanking iron bridge at Penacook	394.64
Rebuilding Turnpike street and grading on account of freshet	1,196.50
Rebuilding bridge across Hackett's brook in North Concord district	198.79
Drawing rubble to lower bridge on account of freshet	77.72
Filling South Pembroke road and putting in plank water-course	6.28
Filling Langdon street	238.30
“ Holt “	2.25
“ Stickney avenue	208.52
“ South Pembroke road	29.79
“ Badger street	15.70
“ Turnpike “ by brick yard	22.55
“ School “	26.77
“ Noyes “	20.23

Filling at junction of Water and Hall streets . . .	\$98.30
Cutting Turnpike street opposite hospital . . .	203.15
“ West “ corner Turnpike . . .	80.70
“ and filling Pillsbury street from Eastman to Broadway	87.03
Grading Beacon street	5.14
“ and filling Water street on account of freshet	239.80
“ Ferry street	57.00
“ Church “	132.45
“ Mills “	182.40
“ River road in No. 4 District	60.85
“ Penacook street west of reservoir	242.82
“ Bridge street on account of freshet	113.15
“ “ “ from Main street to railroad bridge	48.27
“ Bog road	15.30
“ Pembroke road on account of freshet	290.54
“ Hammond street on account of freshet	20.01
“ Hall street on account of freshet	256.70
“ Intervale road east of tannery on account of freshet	46.93
“ Franklin street	16.00
“ School street from Green to Spring street and rolling with steam roller	35.50
“ School and Giles streets	24.03
“ Ridge road	81.40
“ Tuttle street	17.00
“ Gale “	49.35
“ Depot “	8.80
“ Wyman “	18.00
“ East Concord road	45.00
“ Pleasant street from Pine to Liberty street	28.44
“ River road in Penacook district	264.40
“ Washington street in Penacook district	93.42
“ Merrimack “ “ “	122.37
“ East Canal “ “ “	212.58

EXPENSE ON CATCH BASINS.

One on Mills street at corner of West, No. 18 . . .	\$31.08
One on Mills street at corner of Allison, No. 16 . . .	21.36
One on Court street, No. 16	14.74
One on Rumford street at corner of Albin, No. 18 . . .	24.26
Two on Centre street at corner of High, No. 18 . . .	31.67
One on Rumford street at corner of Walker, No. 16 . . .	17.99
Two on Church street at corner of Rumford, No. 16 and No. 18	33.45
One on Forest street at corner of Valley, No. 16 . . .	20.86
One on Warren street at corner of Holt, No. 16 . . .	17.47
One on Warren street at corner of Liberty, No. 18 . . .	15.14
One on Centre street at corner of Union, No. 16 . . .	16.33
One on Rollins court, No. 16	12.10
One on Broadway at corner of Allison, No. 18 . . .	21.95
Two on Spring street at corner of Clinton, No. 16 and No. 18	29.39
One on West street at corner of Turnpike, No. 18 . . .	19.59
One on Washington street, No. 18	16.94
One on Prospect street, No. 16	12.21
One on Spring street, No. 16	17.54
One on Grove street at corner of Laurel, No. 16 . . .	14.58
One on Hammond street at corner of Hall, No. 16 . . .	19.60
One on West street at corner of Morton, No. 18 . . .	19.24
Two on West street at corner of Mills, No. 16 . . .	35.77
One on Grove street at corner of Perley, No. 16 . . .	26.52
One on Odd Fellows avenue, No. 14	14.36
Repairing one on Blake street	1.95
Repairing one on Thompson street	1.50
Repairing two on North Main street	3.00
Cleaning catch basins in spring and fall	534.35
One No. 16 catch basin outfit complete	4.00

COST OF PATCHING STREETS WITH GRAVEL.

Allison	\$9.32	Lyndon	\$2.50
Auburn	7.00	Maple	4.00
Avon	3.80	Main	11.00
Beacon	1.23	Marshall	3.50
Bog road	13.20	Merrimack	2.50
Bradley	6.00	Mills	1.63
Bridge	50.72	Monroe	7.35
Broadway	30.26	Montgomery	6.00
Centre	26.62	Myrtle	2.50
Chapel	1.00	Noyes	12.79
Church	12.50	Orchard . . . . .	.88
Clinton	18.23	Odd Fellows avenue	3.00
Clough's Mill road	3.93	Pearl	2.33
Concord	4.00	Penacook	93.97
Court	6.00	Perley	13.40
Downing	8.00	Pierce . . . . .	.80
Elm	2.80	Pillsbury	13.57
Fayette	5.50	Pine	5.50
Franklin	2.73	Pitman	1.76
Fremont . . . . .	.90	Pleasant	10.00
Fruit	1.77	Rockingham	3.00
Gale	4.50	Rumford	19.88
Gas	3.00	School	3.98
Glen	2.20	Silver hill	4.87
Grove . . . . .	.80	South	47.01
Gully hill	7.10	South Pembroke road	2.34
Hall	3.00	Spring	50.21
Hammond	4.55	State	121.80
Harvard	8.19	Sugar Bowl hill	13.20
High . . . . .	.85	Summer	1.50
Highland	12.50	Tahanto	2.50
Iron Works road	3.84	Thompson	5.00
Laurel	10.00	Thorndike	10.70
Liberty	4.00	Turnpike	76.33
Loudon road	24.57	Tuttle	10.00
Long Pond road	8.00	Union	14.50