

**POISONOUS METALS.—None.**

Water should not contain more than 0.03 part of lead, or copper, or more than 0.05 part zinc.

**IRON.—Trace.**

Good water ought not to contain more than 0.1 part iron.

**SEDIMENT.—Very little.**

Good water should deposit no sediment, or scarcely any.

**MICROSCOPIC EXAMINATION AND BIOLOGICAL CHARACTER OF SEDIMENT.—Diatoms and algae.****NUMBER OF BACTERIA PER CUBIC CENTIMETRE GROWING AT BLOOD TEMPERATURE IN ALKALINE AGAR MEDIUM.—2.****NUMBER OF BACTERIA PER CUBIC CENTIMETRE GROWING AT BLOOD TEMPERATURE IN AGAR MEDIUM CONTAINING PARIETTI'S SOLUTION.—None.**

Disease germs grow at the temperature of the body. Many harmless bacteria also flourish at this temperature. If a sample of water contains none which grow at this temperature, disease germs are evidently absent. The disease germ more usually found in waters of this latitude is the typhoid bacillus. The bacillus coli communis, whose original habitat is in the intestines, though not strictly a disease germ, is preëminently the sewage bacterium, and consequently all waters in which it is found should be condemned. The presence of any other sewage bacterium should also condemn a water for drinking purposes. The typhoid bacillus, the coli communis, and a few others will grow in agar medium, containing Parietti's solution, but to distinguish and identify them, special cultures and examinations must be made. Bacteria multiply very rapidly after water is taken from its source and raised to summer temperature. Since the kind of bacteria is more important than their number, the delay necessarily caused by transportation of the sample, if not too long, is favorable instead of objectionable, because a very few disease germs in a large quantity of water might escape discovery, but detection of them would be much more certain after their multiplication.

**DISEASE GERMS.—None.**

This is good water.

EDMUND R. ANGELL.

August 13, 1897.

## REPORT OF ENGINEER OF PUMPING STATION.

Pumping Station, Concord Water-Works.

V. C. Hastings, Superintendent:

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

Following will be found a statement of the coal and supplies used at the pumping station during the year, with a table showing the work for each month:

## STATEMENT.

101 tons, 1,366 lbs. Pocahontas coal.

45 cords of wood.

43 gallons of oil.

27 pounds of waste.

## ENGINE RECORD.

| Date.           | Pumping time.<br>h. m. | Gallons water pumped. | Daily average pumped. | Total coal burned. | Daily average coal burned. | *Gallons pumped per pound of coal. |
|-----------------|------------------------|-----------------------|-----------------------|--------------------|----------------------------|------------------------------------|
| January.....    | 111:30                 | 9,557,125             | 308,294               | 21,228             | 684                        | 450                                |
| February.....   | 111:30                 | 8,994,685             | 321,238               | 20,332             | 729                        | 442                                |
| March.....      | 116:00                 | 9,683,205             | 312,361               | 20,538             | 662                        | 471                                |
| April.....      | 97:45                  | 8,011,815             | 267,060               | 17,378             | 579                        | 461                                |
| May.....        | 97:00                  | 8,308,335             | 268,010               | 17,937             | 578                        | 468                                |
| June.....       | 99:45                  | 8,655,010             | 288,500               | 18,567             | 466                        | 467                                |
| July.....       | 111:25                 | 9,674,840             | 312,091               | 19,691             | 635                        | 491                                |
| August.....     | 88:30                  | 7,776,510             | 250,885               | 16,187             | 522                        | 480                                |
| September.....  | 106:15                 | 9,125,760             | 304,192               | 18,498             | 616                        | 493                                |
| October.....    | 107:45                 | 9,345,665             | 301,473               | 19,022             | 613                        | 491                                |
| November.....   | 98:45                  | 8,546,405             | 284,880               | 17,392             | 579                        | 491                                |
| December.....   | 121:10                 | 10,206,280            | 329,234               | 20,836             | 672                        | 489                                |
| Total.....      | 1,267:10               | 107,885,635           | 295,577               | 227,606            | 623                        | 474                                |
| Daily average.. | 3:28                   | 295,577               | .....                 | 623                | .....                      | .....                              |

\*Amount of coal consumed includes that used for heating the building and banking fires.

Amount of coal consumed per thousand gallons pumped, 2.10 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           |
| “ “ “ 1897.....                               |  |  |  | 56,156.42           |
| Total receipts for 25 years.....              |  |  |  | <u>\$843,624.43</u> |

## B.

## Mean Height of the Water Each Year.

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











FIRE-HYDRANTS.

| STREETS.     | LOCATIONS.   | Number. | Total. |
|--------------|--|---------|--------|
| North Main.  | South-west 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       |        |
| "            | North-west corner North Main and Franklin.....               | 1       |        |
| "            | East side North Main, opposite Pearl.....                    | 1       |        |
| "            | North-west corner North Main and Washington.....             | 1       |        |
| "            | West side North Main, opposite Historical Society rooms..... | 1       |        |
| "            | East side North Main, opposite Chapel.....                   | 1       |        |
| "            | North-west corner North Main and Court.....                  | 1       |        |
| "            | North-west corner North Main and Pitman.....                 | 1       |        |
| "            | North-west corner North Main and Montgomery.....             | 1       |        |
| "            | East side North Main, opposite Montgomery.....               | 1       |        |
| "            | North-west corner North Main and Centre.....                 | 1       |        |
| "            | South-east corner North Main and Bridge.....                 | 1       |        |
| "            | South-west corner North Main and Park.....                   | 1       |        |
| "            | East side North Main, opposite Park.....                     | 1       |        |
| "            | North-west corner North Main and Capitol.....                | 1       |        |
| "            | North-west 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       |        |
| "            | North-west corner North Main and Warren.....                 | 1       |        |
| "            | West side North Main, at Central block.....                  | 1       |        |
| "            | South-east corner North Main and Depot.....                  | 1       |        |
| "            | North-west corner North Main and Pleasant.....               | 1       | 27     |
| South Main.  | South-east corner South Main and Pleasant.....               | 1       |        |
| "            | North-east corner South Main and Freight.....                | 1       |        |
| "            | East side South Main, opposite Fayette.....                  | 1       |        |
| "            | East side South Main, opposite Thompson.....                 | 1       |        |
| "            | South-east corner South Main and Chandler.....               | 1       |        |
| "            | North-west corner South Main and Wentworth avenue.....       | 1       |        |
| "            | North-west corner South Main and Thorndike.....              | 1       |        |
| "            | East side South Main, opposite St. John's church.....        | 1       |        |
| "            | North-west 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       |        |
| "            | North-west corner South Main and West.....                   | 1       | 12     |
| Turnpike.    | East side Turnpike, near West.....                           | 1       |        |
| "            | West side Turnpike, opposite Gas.....                        | 1       |        |
| "            | West side Turnpike, opposite Holt Bros. Mfg Co.....          | 1       |        |
| "            | Southwest corner Turnpike and South State.....               | 1       |        |
| "            | Northwest corner Turnpike and Pillsbury.....                 | 1       |        |
| "            | East side Turnpike, opposite Pillsbury.....                  | 1       |        |
| "            | West side Turnpike, at J. H. Lamprey's.....                  | 1       |        |
| "            | West side Turnpike, at W. J. Sawyer's.....                   | 1       | 8      |
| 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.      | North-east corner Summer and Pitman.....                     | 1       | 1      |
| Durgin.      | West side Durgin, near Toof's laundry.....                   | 1       | 1      |
| North State. | South-west corner North State and Penacook.....              | 1       |        |
| "            | North-west corner North State and Walker.....                | 1       |        |
| "            | North-west corner North State and Church.....                | 1       |        |
| "            | North-west corner North State and Tremont.....               | 1       |        |
| "            | North-east corner North State and Washington.....            | 1       |        |
| "            | West side North State, opposite Court.....                   | 1       |        |
| "            | North-west corner North State and Maple.....                 | 1       |        |
| "            | North-east corner North State and Centre.....                | 1       |        |
| "            | East side North State, opposite government building.....     | 1       |        |
| "            | South-west corner North State and School.....                | 1       |        |
| "            | North-west corner North State and Warren.....                | 1       |        |
| "            | North-west corner North State and Pleasant.....              | 1       | 12     |
| South State. | East side South State, opposite Wall.....                    | 1       | 1      |

FIRE-HYDRANTS.—*Continued.*

| STREETS.     | LOCATIONS.  | Number. | Total. |
|--------------|---|---------|--------|
| South State. | North-west corner South State and Thompson.....                 | 1       |        |
| "            | South-west corner South State and Monroe.....                   | 1       |        |
| "            | East side South State, opposite Laurel.....                     | 1       |        |
| "            | South-east corner South State and Downing.....                  | 1       |        |
| "            | North-east corner South State and West.....                     | 1       |        |
| "            | Junction of South State and Turnpike.....                       | 1       | 7      |
| Mills.       | South-east 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.     | North-west corner Dunklee and Pillsbury.....                    | 1       | 1      |
| Broadway.    | West side Broadway, near precinct line.....                     | 1       | 1      |
| Green.       | North-west corner Green and Prince.....                         | 1       |        |
| "            | East side Green, opposite Prince.....                           | 1       | 2      |
| South.       | West side South, opposite Wall.....                             | 1       |        |
| "            | North-west 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       |        |
| "            | North-west corner South and Rockingham.....                     | 1       | 9      |
| Bradley.     | South-west corner Bradley and Penacook.....                     | 1       |        |
| "            | West side Bradley, opposite Walker.....                         | 1       |        |
| "            | East side Bradley, opposite Highland.....                       | 1       | 3      |
| Union.       | North-west corner Union and Maple.....                          | 1       | 1      |
| Lyndon.      | South-west corner Lyndon and Tremont.....                       | 1       | 1      |
| No. Spring.  | South-west corner North Spring and Centre.....                  | 1       | 1      |
| So. Spring.  | South-west corner South Spring and Oak.....                     | 1       |        |
| "            | West side South Spring, opposite Concord.....                   | 1       |        |
| "            | West side South Spring, opposite Perley proposed extension..... | 1       | 3      |
| Rumford.     | West side Rumford, opposite Perkins.....                        | 1       |        |
| "            | North-east corner Rumford and Franklin.....                     | 1       |        |
| "            | West side Rumford, opposite Beacon.....                         | 1       |        |
| "            | North-east corner Rumford and Abbot.....                        | 1       |        |
| "            | North-east corner Rumford and Cambridge.....                    | 1       |        |
| "            | North-east corner Rumford and School.....                       | 1       | 6      |
| Tahanto.     | North-west corner Tahanto and School.....                       | 1       | 1      |
| Pine.        | South-west corner Pine and Centre.....                          | 1       | 1      |
| High.        | North-west corner High and Auburn.....                          | 1       |        |
| "            | East side High, opposite Forest.....                            | 1       |        |
| "            | South-west corner High and Franklin.....                        | 1       | 3      |
| Giles.       | South-east corner Giles and School.....                         | 1       | 1      |
| Fruit.       | North-east corner Fruit and Clinton.....                        | 1       |        |
| "            | East side Fruit, opposite Wm. W. Critchett's.....               | 1       |        |
| "            | North-west 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       |        |
| "            | South-east corner Penacook and North Main.....                  | 1       |        |
| "            | South-west corner Penacook and Rumford.....                     | 1       |        |
| "            | South-east corner Penacook and Columbus avenue.....             | 1       | 5      |
| Highland.    | North-east corner Highland and Rumford.....                     | 1       | 1      |
| Church.      | North side Church, opposite Lyndon.....                         | 1       |        |
| "            | North-east corner Church and Rumford.....                       | 1       | 2      |
| Franklin.    | North-west corner Franklin and Jackson.....                     | 1       |        |
| "            | South-west corner Franklin and Rumford.....                     | 1       |        |
| "            | South side Franklin, opposite W. J. Ahern's.....                | 1       |        |
| "            | North-east corner Franklin and Auburn.....                      | 1       | 4      |
| Beacon.      | North-west corner Beacon and Jackson.....                       | 1       | 1      |
| Blanchard.   | North-west corner Blanchard and Essex.....                      | 1       | 1      |
| Ferry.       | North side Ferry, east of C. & M. Railroad.....                 | 1       | 1      |
| Washington.  | South-west corner Washington and Union.....                     | 1       |        |
| "            | North-west corner Washington and Rumford.....                   | 1       |        |
| "            | North side Washington, opposite Perry avenue.....               | 1       |        |
| Valley.      | North side Valley, opposite Forest.....                         | 1       |        |

FIRE-HYDRANTS.—Continued.

| STREETS.       | LOCATIONS.   | Number. | Total. |
|----------------|--|---------|--------|
| Auburn.        | North-west corner Auburn and Forest.....                       | 1       | 1      |
| Centre.        | North-east corner Centre and North State.....                  | 1       |        |
| "              | South-west corner Centre and Green.....                        | 1       |        |
| "              | North-west corner Centre and Union.....                        | 1       |        |
| "              | North-west corner Centre and North Spring.....                 | 1       |        |
| "              | North-west corner Centre and Rumford.....                      | 1       |        |
| "              | South side Centre opposite Essex.....                          | 1       |        |
| "              | South-west corner Centre and Summit avenue.....                | 1       |        |
| "              | Northeast corner Centre and Bridge Road.....                   | 1       |        |
| Bridge.        | South side Bridge, near easterly barn.....                     | 1       |        |
| Capitol.       | North-east corner Capitol and North State.....                 | 1       | 1      |
| School.        | North-west corner School and Green.....                        | 1       | 5      |
| "              | North-west corner School and North Spring.....                 | 1       |        |
| "              | North-west corner School and Merrimack.....                    | 1       |        |
| "              | North side School, near city storehouse.....                   | 1       |        |
| "              | North side School, opposite E. B. Woodworth's.....             | 1       |        |
| Depot.         | North-west corner Depot and Railroad square.....               | 1       | 2      |
| "              | South side Depot at end of train shed.....                     | 1       |        |
| Warren.        | North-west corner Warren and Green.....                        | 1       | 7      |
| "              | North-west corner Warren and North Spring.....                 | 1       |        |
| "              | North-west corner Warren and Rumford.....                      | 1       |        |
| "              | South-west corner Warren and Merrimack.....                    | 1       |        |
| "              | North-west corner Warren and Tabanto.....                      | 1       |        |
| "              | North-east corner Warren and High.....                         | 1       |        |
| "              | Junction Warren and Pleasant, near Fruit.....                  | 1       |        |
| Pleasant.      | North-west corner Pleasant and Railroad Square.....            | 1       | 15     |
| "              | North-west corner Pleasant and Green.....                      | 1       |        |
| "              | Southwest Corner Pleasant and Spring.....                      | 1       |        |
| "              | South side Pleasant, opposite Rumford.....                     | 1       |        |
| "              | South side Pleasant, opposite Merrimack.....                   | 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       |        |
| Mill Road.     | East side Mill road, near Upper School cottage.....            | 1       | 2      |
| St. P. School. | North side Mill road, at Orphans' Home.....                    | 1       |        |
| Marshall.      | North side Marshall, opposite Fuller.....                      | 1       | 1      |
| Freight.       | North side Freight at south-west corner passenger station..... | 1       | 1      |
| Hill's ave.    | North-east corner Hill's avenue and South Main.....            | 1       | 2      |
| "              | South-west corner Hill's avenue and Railroad square.....       | 1       |        |
| Fayette.       | North-west corner Fayette and Elm.....                         | 1       | 1      |
| Chandler.      | South side Chandler, opposite Railroad.....                    | 1       | 1      |
| Concord.       | South side Concord, opposite Jefferson.....                    | 1       | 1      |
| Thorndike.     | North-east corner Thorndike and Grove.....                     | 1       | 1      |
| Laurel.        | North-east corner Laurel and Pierce.....                       | 1       | 1      |
| Perley.        | North-west corner Perley and Grove.....                        | 1       | 2      |
| "              | South side Perley, near old brook.....                         | 1       |        |
| West.          | North side West, near Badger.....                              | 1       |        |
| "              | North side West, opposite Dakin.....                           | 1       | 3      |
| "              | North side West, at intersection Broadway.....                 | 1       |        |
| Harrison.      | North-west corner Harrison and Morton.....                     | 1       |        |
| Allison.       | North-west corner Allison and Mills.....                       | 1       | 1      |
| Rockingham.    | North-east corner Rockingham and Broadway.....                 | 1       | 1      |
| Prospect.      | North-west 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-works storehouse.....    | 1       | 1      |
| "              | North-east corner West Concord road and Foster.....            | 1       |        |
| "              | East side West Concord road, near cemetery gate.....           | 1       |        |
| "              | West side West Concord road, near Calvary cemetery.....        | 1       |        |

FIRE-HYDRANTS.—*Concluded.*

| STREETS.                          | LOCATIONS.  | Number. | Total. |
|-----------------------------------|---|---------|--------|
| WEST CONCORD.                     |   |         |        |
| On main line                      | 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      |
| 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.                         | North-east corner of 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       |        |
| "                                 | North side Hutchins, near C. & C. Railroad.....       | 1       | 2      |
| Pen'c'k Road                      | 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       |        |
| "                                 | South-west corner Main and Union.....                 | 1       |        |
| "                                 | Washington square, opposite Washington.....           | 1       |        |
| "                                 | North-west 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       |        |
| "                                 | North-west corner High and Maple.....                 | 1       |        |
| "                                 | North-west corner High and Spring.....                | 1       | 3      |
| Washington.                       | South-east corner Washington and Union.....           | 1       |        |
| "                                 | South side Washington, opposite John Whitaker's.....  | 1       |        |
| "                                 | South side Washington, opposite Charles.....          | 1       |        |
| "                                 | South side Washington, near Contocook bridge.....     | 1       | 4      |
| Charles.                          | South-west corner Charles and Warren.....             | 1       |        |
| "                                 | North side Charles, near Geo. W. Corey's.....         | 1       | 2      |
| West Canal.                       | South-east corner West Canal and Warren.....          | 1       | 1      |
| East Canal.                       | North side East Canal, near Contocook 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       |        |
| "                                 | North-west corner Merrimack and Penacook.....         | 1       | 6      |
| Summer.                           | North side Summer, opposite High.....                 | 1       |        |
| "                                 | North-east corner Summer and Centre.....              | 1       | 2      |
| Spring.                           | North-east corner Spring and Church.....              | 1       | 1      |
| Centre.                           | North-west corner Centre and Spring.....              | 1       | 1      |
| Cross.                            | South-west corner Cross and Summer.....               | 1       | 1      |
| Rolfe.                            | North side Rolfe, near James Corbett's.....           | 1       |        |
| "                                 | North-west corner Rolfe and Penacook.....             | 1       | 2      |
| Penacook.                         | West side Penacook, opposite A. W. Rolfe's.....       | 1       | 1      |
| Whole number public hydrants..... |   |         | 252    |

FIRE-HYDRANTS.—*Continued.*

| STREETS.          | LOCATIONS.   | Number. | Total. |
|-------------------|--|---------|--------|
| PRIVATE HYDRANTS. |  |         |        |
|                   | Boston & Maine Railroad, upper yard, 6 post and 3 flush hydrants ..... | 6       |        |
|                   | Boston & Maine Railroad, new shops .....                               | 14      |        |
|                   | 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       | 40     |
|                   | Whole number private hydrants .....                                    |         | 40     |

# HIGHWAY DEPARTMENT.

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## REPORT OF COMMISSIONER OF HIGHWAYS

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### *To the City Council:*

Gentlemen:—In submitting my annual report as commissioner of highways, I will touch briefly upon the work accomplished during the past year.

Not much has been done on new streets, McKinley street being the only one of much importance. This street was nearly finished to grade. There has been a fill made on Langdon street of 704 loads which makes it passable, and a temporary plank walk built from Turnpike street to the railroad shops for the accommodation of the employees of the works.

A petition for the grading of High street from Centre to Franklin was presented to the city council in March and referred to the committee on streets and sidewalks. By them it was recommended that the matter be referred to the commissioner of highways and that the street be graded as far as practicable this season. Work on the same was commenced in June. The material excavated was a good quality of gravel and was used to advantage in repairing the streets. About 1,200 loads of stone and 1,833 loads of gravel were removed. This gravel was very valuable, as the many heavy rains caused numberless washouts and the stone was crushed with our portable plant at a small expense. There is still considerable work to be done on the street which will make a fine street when completed and be a great improvement to that part of the city.

Of the work done on bridges this year \$137.39 was expended in replanking and repairing the "Twin bridge" at Penacook. In March this bridge was inspected by a bridge builder and

thought to be safe for another season, but it should soon be replaced with an iron bridge. The bridge on the South Pembroke road over the Soucook river was repaired by the city, the Town of Pembroke paying one half the expense of \$67.60. The stringers of the bridge over the Turkey river at St. Paul's School are decayed and will have to be replaced next year. There is considerable travel over this bridge and a new one with sidewalks is needed, and I think the School would bear a portion of the expense of constructing a modern iron bridge. The Loudon and Federal bridges across the Merrimack, the Iron bridge at Penacook and the one at Horse Hill across the Contoocook will have to be painted next season, which will be quite an expense.

In June, the heavy rainfall raised Penacook lake, the source of the city water supply, so that it overflowed and did considerable damage. Hutchins street from the lake to West State street was badly washed. The culvert on Quaker street proved insufficient to carry the water and was therefore enlarged at an expense of \$144.49. At this same time the culvert over Bow brook on Clinton street was enlarged, the expense being \$36.95. A portion of the culvert on West State street opposite the Concord Manufacturing Company's mill will have to be rebuilt next year.

The work of cleaning streets this year has been done under a separate appropriation. The spring and fall cleaning work increases each year, and this season 2,595 loads of garbage were removed. This work is a great help toward the good appearance of our city. The residents seem to take more pride in keeping their yards and vacant lots neat, since the city removes the ashes and rubbish. This season the work of keeping Main street from Pleasant to Centre and Warren and Capitol streets from State to Main clean, was given to one man with a handcart. The method has proved very satisfactory and another year, I think, it would be advisable to add another cart and to extend the work over a larger portion of the city. The business section has been cleaned by night as years before. There are still many calls to have the section extended.

The snows of the past winter have been removed from the

sidewalks by the owners or occupants of the premises. Several hundred notices were sent out during the season ordering the walks cleaned, but in only a few cases were second notices necessary. One case was referred to the city solicitor for action and the matter was brought before the police court. An appeal was made to the higher court for a decision, but the case is still unsettled.

During the summer there were many hard rain storms, often three or four in succession. This, of course, filled up the catch-basins and necessitated considerable work on them. The number is large and increasing each year, and therefore the appropriation of \$800 was soon exhausted and the city asked to appropriate more money. From the money collected by the department \$300 was transferred to the appropriation. This sum was still insufficient and more money called for. By this may be seen that a much larger sum will have to be appropriated next year.

The appropriations for the Highway Department for 1897 were made under different heads as follows: General maintenance and repairs, \$18,000; permanent work, \$8,000; cleaning streets, \$4,000; sidewalks and crossings, \$4,500; construction and cleaning catch-basins, \$800; making a total of \$35,300. This amount was formerly appropriated in one sum, excepting that for sidewalks and crossings, and the public generally understood that it was expended wholly on the streets and thought that we had but little to show for the money expended. By the appropriation being divided it may be seen just what the amounts are expended for. I hope that the appropriation for permanent work may be increased another year.

In my last report I recommended the purchase of a portable stone crusher plant, which the city thought advisable to buy this season. At the meeting of the city council in May, a resolution was passed appointing a committee of three, consisting of the Mayor, Commissioner of Highways and Alderman Rowell, to purchase a portable stone crusher for the city with full power to make selection as in their judgment the interests of the city demanded. The committee examined plants in operation in several places and found that they all gave satisfaction. Bids were

called for and six were received, which were as follows: Earl C. Bacon, Farrel Crusher, \$2,040; Good Roads Machinery Co., Champion, \$1,677; S. C. Nightingale & Childs, Austin, \$1,795; Climax Road Machine Co., Climax, \$1,462; Austin & Western Co., Western, \$1,500; Gates Iron Works, Invincible, \$1,950. The bid of the Climax company being the lowest, it was accepted. We experienced considerable delay in receiving the crusher, but by the last of July it was installed at a gravel bank on the main road between Penacook and West Concord. It was difficult to obtain much stone only by running the gravel through the crusher. This, of course, gave a large amount of fine stone, but about 600 loads were crushed and used on the Penacook road below Willow Hollow. From there the crusher was moved to High street where it was used during the remainder of the season, and it may be used there another season to good advantage.

A portion of the appropriation for permanent work was expended for the new portable stone crusher and the remainder for macadamizing. The following table shows the work done:

PERMANENT WORK.

| Work.             | Street.             | From              | To                   | Length. | Width. | Lods crushed stone. | Cost of excavat-<br>ing. | Cost of spread-<br>ing, rolling,<br>etc. | Total cost. |
|-------------------|---------------------|-------------------|----------------------|---------|--------|---------------------|--------------------------|--|-------------|
| Macadamizing..... | No. State.....      | Franklin.....     | Church.....          | 458'    | 29'    | 196                 | \$69.00                  | \$280.91                                 | \$349.91    |
| "                 | "                   | Church.....       | Fiske.....           | 657'    | 31'    | 369                 | 87.83                    | 573.93                                   | 661.76      |
| "                 | So. State.....      | Perley.....       | Downing.....         | 290'    | 31'    | 144                 | 67.55                    | 253.04                                   | 320.59      |
| "                 | "                   | Downing.....      | West.....            | 475'    | 32'    | 328                 | 110.82                   | 471.68                                   | 582.50      |
| "                 | So. Main.....       | Concord.....      | Thorndike.....       | 450'    | 26'    | 122                 | 81.55                    | 163.17                                   | 244.72      |
| "                 | "                   | Thorndike.....    | Perley.....          | 513'    | 38'    | 137                 | 309.07                   | 253.49                                   | 562.56      |
| "                 | "                   | Perley.....       | Abbot's shop.....    | 254'    | 34'    | 108                 | 203.72                   | 158.56                                   | 362.28      |
| "                 | "                   | Abbot's shop..... | Watering-trough..... | 254'    | 34'    | 166                 | 126.65                   | 245.80                                   | 372.45      |
| "                 | Merrimack.....      | Penacook.....     | .....                | 800'    | 18'    | 191                 | 155.73                   | 693.53                                   | 849.26      |
| "                 | Penacook Road*..... | .....             | .....                | 2,100'  | 16'    | 597                 | 198.70                   | 1,550.25                                 | 1,748.95    |
|                   |                     |                   |                      | 6,251'  | .....  | 2,858               | \$1,410.62               | \$4,644.36                               | \$6,054.98  |

\* South of Willow Hollow.

The stone for these several pieces of work was the material from High street crushed with the portable crusher, with the exception of that used on North State street, which came from the stationary crusher and that on Merrimack street in Penacook. Material was not plenty there and it was found that it could be delivered there from Suncook at less expense. Another year, I think it would be advisable to expend a portion of this appropriation for a good piece of paving. There has been a petition presented to the city council for the paving of Bridge street from Main street to the Railroad bridge, but no action has been taken. North Main street from Centre to Pitman is still in poor condition and it seems that paving would be the thing for the place. All the freight and travel from the railroad station is over Freight street and I think the public deserves a better street. On account of the heavy traffic, paving is certainly what is needed.

I would recommend the establishing of the street line on the Hopkinton road from Fruit street to Pleasant View, the home of Mrs. Mary B. G. Eddy, and putting in a macadam road from Fruit street to St. Paul's School. There is more pleasure driving over this road than any other leading from the city and macadam would doubtless be greatly appreciated.

The matter of moving the street railway track at Penacook, which has been before the city government for many years, was finally settled at the October meeting. By an agreement with the street railway company the location was to be excavated and filled by the city according to plans and specifications drawn up by the city engineer and the railway company to move their tracks and pay the sum of \$75 toward the work of excavating and filling. The contract was awarded Henry Morrill of Penacook for \$552.20, and the work completed by him in December. It is expected that the railway company will move their tracks early in the spring and when that is done it will be necessary to put in a bank wall opposite the premises of John Wilde and Harry A. Cleveland.

In November the railway company commenced the work of laying new rails on North Main street, which was rather late in the season for work of that kind. The paving had to be taken

up and as the cold weather soon came on it was impossible to get it back in good condition. The thaw and rains which followed took the frost out of the ground and left the street in a terrible condition. The company repaired it as well as they could, but it will all have to be relaid another year.

The city council this year amended the City Ordinances in regard to the issuing of permits for opening and obstructing streets. There had been no written permits issued but by the amendment of the ordinances the matter was left with the Commissioner of Highways. A form of permit was made out and approved by the city council. Although it is not yet generally understood in regard to obtaining permits, the people have in most cases, obtained them before commencing the work. The permits give the name of the person calling for the same, the street and number, length and width of obstruction or opening, date of issuing, date when work is to be completed, and the rules and regulations governing the work. This is signed by the person obtaining the permit and a duplicate copy given him which is to be returned when the work is completed and is filed with the original permit. They are valuable as a protection to the city and have proved so in cases where the street has not been left in a proper condition, as there has been some means of reaching the party doing the work.

In closing, I desire to thank His Honor the Mayor, the city council, the committees on streets and sidewalks, roads and bridges and city solicitor for the many courtesies extended the highway department.

Respectfully submitted,

ALFRED CLARK,  
Com. of Highways.

## RECORD OF LABOR ON STREETS.

## WARD ONE.

|   |         |
|---|---------|
| Merrimack Avenue:   |         |
| Repairing sidewalk.....   | \$ 0.57 |
| Summer Street:  |         |
| Repairing sidewalk.....   | 13.53   |
| Cross Street:   |         |
| Repairing sidewalk between Merrimack and<br>Summer streets..... | 2.13    |
| Church Street:  |         |
| Repairing sidewalk.....   | 2.13    |
| Spring Street:  |         |
| Repairing sidewalk.....   | 4.27    |
| Horse Hill Road:  |         |
| Raking stones.....  | .67     |
| Elm Street:   |         |
| General repairs by Hardy's and Colby's.....                     | 32.35   |
| Grading walk for concrete at Main.....                          | 50.57   |
| Building gravel walk on north side.....                         | 57.63   |
| Centre street:  |         |
| Grading walk for concrete at Spring.....                        | 36.93   |
| High Street:  |         |
| General repairs.....  | 2.59    |
| Setting edgestones at C. E. Foote's.....                        | 29.58   |
| Pleasant Street:  |         |
| General repairs.....  | 4.46    |
| River Road:   |         |
| Repairing culverts.....   | 15.03   |
| Merrimack Street:   |         |
| General repairs.....  | 4.94    |
| Grading near Fowler's.....                                      | 65.67   |
| Putting in drive box at B. F. Varney's.....                     | 1.00    |
| Repairing sidewalk.....   | 22.44   |
| Macadamizing near R. R. station.....                            | 854.36  |

|   |         |
|---|---------|
| Main Street:                              |         |
| General repairs.....                      | \$ 8.47 |
| Repairing gutters.....                    | 15.06   |
| Repairing sidewalks.....                  | 29.50   |
| Grading on hill near hotel.....           | 148.77  |
| Moving Street Railway per contract.....   | 552.20  |
| General repairs account moving track..... | 70.37   |
| Washington Street:                        |         |
| General repairs.....                      | 21.12   |
| Grading .....                             | 16.57   |
| Repairing sidewalks.....                  | 6.88    |
| Repairing fountain in square.....         | 47.70   |
| Warren street:                            |         |
| Repairing gutter.....                     | .17     |
| East Canal and Walnut Street:             |         |
| General repairs.....                      | 17.93   |
| Repairing Twin Bridge.....                | 137.39  |
| Grading sidewalk.....                     | 25.67   |
| Repairing gutters.....                    | .40     |
| Repairing sidewalks.....                  | 1.41    |

## WARD TWO.

|                                       |          |
|---------------------------------------|----------|
| Curtis Road:                          |          |
| General repairs.....                  | \$ 18.00 |
| East Clinton Street:                  |          |
| General repairs.....                  | 8.10     |
| Penacook Street:                      |          |
| General repairs.....                  | 16.50    |
| Grading .....                         | 107.30   |
| Laying rubble drain.....              | 6.60     |
| Repairing culvert at Bowen brook..... | 8.40     |
| Pembroke street:                      |          |
| General repairs.....                  | 41.10    |
| Grading .....                         | 9.53     |
| Repairing sidewalks.....              | 6.60     |
| Shaker Road:                          |          |
| General repairs.....                  | 82.34    |
| Repairing culverts.....               | 7.33     |

HIGHWAY DEPARTMENT.

225

|   |        |
|---|--------|
| Eastman Street:                             |        |
| General repairs.....                        | 1.30   |
| Portsmouth Street:                          |        |
| General repairs.....                        | 13.70  |
| Kearsarge Street:                           |        |
| Grading .....                               | 11.02  |
| Mills Street:                               |        |
| General repairs.....                        | 1.60   |
| Grading .....                               | 11.70  |
| Mountain Road (No. Concord District):       |        |
| General repairs on hill by schoolhouse..... | 9.21   |
| Penacook Road (No. Concord District):       |        |
| General repairs.....                        | 45.78  |
| Loudon Road (No. Concord District):         |        |
| General repairs.....                        | 114.52 |

WARD THREE.

|  |         |
|--|---------|
| Quaker Street:   |         |
| Painting fence.....  | \$ 1.11 |
| Repairing sidewalk.....                                    | 1.57    |
| Rebuilding culvert and building wall at ice house          | 144.49  |
| Knight Street:   |         |
| General repairs.....                                       | 4.37    |
| Grading .....  | 11.10   |
| Building sidewalk and paving gutter by H. H. Chase's ..... | 12.22   |
| Peabody Street:  |         |
| Grading .....  | 6.42    |
| "Kit Shop" Road:   |         |
| General repairs.....                                       | 2.17    |
| West Parish Road:  |         |
| General repairs.....                                       | 47.88   |
| Hutchins Street:   |         |
| General repairs.....                                       | 15.35   |
| Grading sidewalk.....                                      | 14.78   |
| Painting fence.....  | 2.99    |
| Repairing sidewalk.....                                    | 1.79    |

|  |        |
|--|--------|
| Repairing culvert at Crossman's.....                           | 8.61   |
| Building blind drain by Deacon Barrett's.....                  | 144.28 |
| Filling washouts account of pond overflow.....                 | 50.87  |
| Engel Road:  |        |
| General repairs.....   | 6.07   |
| Bog Road:  |        |
| General repairs.....   | 7.61   |
| Lake Street:   |        |
| General repairs.....   | 5.61   |
| Painting fence.....  | 2.92   |
| Repairing sidewalk.....  | 4.37   |
| Building culvert under walk.....                               | 2.68   |
| West State Street:   |        |
| General repairs.....   | 185.43 |
| General repairs account overflow.....                          | 43.75  |
| Painting fence.....  | 4.92   |
| Repairing sidewalk by Moses Farnum's, account<br>washout ..... | 8.99   |
| Repairing sidewalks.....                                       | 91.30  |
| Repairing culverts.....  | 7.86   |
| Building sidewalk at Swenson's and Farnum's...                 | 42.01  |
| View Street:   |        |
| Repairing sidewalk.....  | 5.90   |
| Second Street:   |        |
| General repairs.....   | 54.66  |
| Sewall's Falls Road:   |        |
| General Repairs.....   | 19.36  |
| Building sidewalk.....   | 35.78  |
| Laying over culvert.....                                       | 6.98   |

## WARD FOUR.

|                        |          |
|------------------------|----------|
| Chapel Street:         |          |
| General repairs.....   | \$ 25.93 |
| Building sidewalk..... | 22.55    |
| Court Street:          |          |
| General repairs.....   | 2.66     |
| Maple Street:          |          |
| General repairs.....   | 11.63    |

HIGHWAY DEPARTMENT.

227

|   |        |
|---|--------|
| Abbott Street:  |        |
| Building sidewalk on south side.....  | 24.22  |
| Building sidewalk on north side.....  | 23.33  |
| Grading walk for concrete.....  | 4.97   |
| Building crossing at Rumford.....   | 3.40   |
| Pearl Street:   |        |
| General repairs.....  | 10.70  |
| Rollins Court:  |        |
| General repairs.....  | 1.83   |
| White Street:   |        |
| General repairs.....  | 1.50   |
| Vernon Street:  |        |
| General repairs.....  | 1.92   |
| Ridge Road:   |        |
| Cutting to grade.....   | 211.13 |
| Building sidewalk.....  | 20.90  |
| Building plank walk.....  | 3.93   |
| Beacon Street:  |        |
| General repairs.....  | 24.46  |
| Washington Street:  |        |
| General repairs.....  | 50.72  |
| Grading walk for concrete on south side between<br>Academy and Rumford..... | 8.23   |
| Repairing walk on south side between State and<br>Main .....                | 1.93   |
| Repairing walk on south from Perry avenue....                               | 1.65   |
| Grading off banking between Academy and<br>Rumford .....                    | 12.07  |
| Removing trees.....   | 3.84   |
| Park Ridge:   |        |
| Building sidewalk.....  | 11.13  |
| Jackson West Court:   |        |
| Repairing sidewalk.....   | 4.40   |
| Chestnut Street:  |        |
| General repairs.....  | 18.82  |
| Valley Street:  |        |
| Repairing sidewalks.....  | 14.28  |

|  |       |
|--|-------|
| Perry Avenue:  |       |
| General repairs.....                                       | 15.07 |
| Repairing sidewalks.....                                   | 2.23  |
| Essex Street:  |       |
| General repairs.....                                       | .28   |
| Forest Street:   |       |
| General repairs.....                                       | 1.43  |
| Academy Street:  |       |
| General repairs.....                                       | 2.74  |
| Albin Street:  |       |
| Repairing sidewalks.....                                   | 41.92 |
| Lyndon Street:   |       |
| General repairs.....                                       | 23.63 |
| Grading walk for concrete from Abbott Street<br>west ..... | 4.36  |
| Repairing sidewalk between Franklin and Tre-<br>mont ..... | 4.33  |
| Pitman Street:   |       |
| General repairs.....                                       | 10.19 |
| Union Street:  |       |
| General repairs.....                                       | 34.45 |
| Trimming trees.....  | 3.96  |
| Tremont Street:  |       |
| General repairs.....                                       | 10.92 |
| Setting edgestone and grading walk for concrete            | 77.13 |
| Paving gutter.....   | 27.40 |
| Montgomery Street:   |       |
| General repairs.....                                       | 3.02  |

## WARD FIVE.

|                        |         |
|------------------------|---------|
| Woodman Street:        |         |
| General repairs.....   | \$ 7.53 |
| Repairing culvert..... | 14.75   |
| Removing tree.....     | 3.35    |
| Prince Street:         |         |
| General repairs.....   | 1.47    |
| Tahanto Street:        |         |
| General repairs.....   | 3.37    |
| Trimming trees.....    | 2.65    |

## HIGHWAY DEPARTMENT.

229

|  |       |
|--|-------|
| Blake Street:  |       |
| General repairs.....   | 1.37  |
| Removing tree.....   | 33.12 |
| Setting edgestone and grading walk for concrete                          | 42.32 |
| West Washington Street:  |       |
| Building sidewalk.....   | 70.62 |
| Garden Street:   |       |
| General repairs.....   | 1.38  |
| Liberty Street:  |       |
| General repairs.....   | 2.84  |
| Repairing sidewalk between Centre and School..                           | 1.80  |
| Grading walk for concrete by Chas. Clarke's....                          | 6.89  |
| Merrimack Street:  |       |
| General repairs.....   | 1.18  |
| Huntingdon Street:   |       |
| Building sidewalk on east side between School<br>and Garden streets..... | 6.18  |
| Holt Street:   |       |
| Building sidewalk.....   | 9.67  |
| Odd Fellow's Avenue:   |       |
| General repairs.....   | 1.73  |
| Drawing and setting edgestone.....                                       | 79.17 |
| Building plank walk.....   | 5.80  |
| Park Street:   |       |
| General repairs.....   | 7.38  |
| Short Street:  |       |
| General repairs.....   | 5.98  |
| Paving gutter on south side.....   | 35.75 |
| Re-setting edgestone.....  | 4.40  |
| Pine Street:   |       |
| General repairs.....   | 7.65  |
| Repairing gutter by Mrs. Clough's.....                                   | 23.22 |
| Repairing sidewalks between School and Centre<br>streets .....           | 1.47  |
| Setting edgestone and grading walk for concrete                          | 62.06 |
| Green Street:  |       |
| General repairs.....   | 7.88  |

|  |        |
|--|--------|
| Giles Street:  |        |
| General repairs.....   | .57    |
| Warren Street:   |        |
| General repairs.....   | 74.49  |
| Paving gutter between Liberty and Blanchard's<br>store .....             | 132.93 |
| Repairing culvert at Bow Brook.....                                      | 9.10   |
| Setting edgestone and grading walk for concrete<br>by J. C. Derby's..... | 102.32 |
| Setting edgestone and grading walk for concrete<br>by Mrs. Gannon's..... | 38.22  |
| Setting edgestone and grading walk for concrete<br>by Seth Dole's.....   | 26.38  |
| Setting edgestone and grading walk for concrete<br>by J. Crowley's.....  | 30.08  |
| Setting edgestone on north side opposite police<br>station .....         | 17.60  |
| Repairing walk on north side between Liberty<br>and Washington.....      | 4.87   |
| Repairing drive box at jail.....   | 3.54   |
| Macadamizing at Green.....   | 19.62  |
| School Street:   |        |
| General repairs.....   | 96.17  |
| Repairing culvert at Bow Brook.....                                      | 4.83   |
| Setting stone step at 116 School street.....                             | 5.02   |
| Relaying gutter at Gustavus Walker's.....                                | 2.40   |

## WARD SIX

|                                  |          |
|----------------------------------|----------|
| Pierce Street:                   |          |
| Grading .....                    | \$ 29.55 |
| Thompson Street:                 |          |
| Paving gutter on both sides..... | 30.07    |
| Jefferson Street:                |          |
| Grading .....                    | 8.55     |
| Wall Street:                     |          |
| General repairs.....             | 1.73     |

HIGHWAY DEPARTMENT.

231

|   |       |
|---|-------|
| Beaver Street:                                    |       |
| Grading .....                                     | 3.73  |
| Repairing sidewalk.....                           | 3.87  |
| Grove Street:                                     |       |
| General repairs.....                              | 25.52 |
| Monroe Street:                                    |       |
| General repairs.....                              | 21.71 |
| Removing tree.....                                | 1.86  |
| Clough Avenue:                                    |       |
| General repairs.....                              | 1.50  |
| Fayette street:                                   |       |
| General repairs.....                              | 10.25 |
| Repairing gutter between State and Main.....      | 6.47  |
| Re-setting edgestone between State and Main...    | 3.75  |
| Concord Street:                                   |       |
| General repairs.....                              | 16.94 |
| Grading .....                                     | 45.20 |
| Paving gutters on both sides east of State street | 36.09 |
| Repairing walk between Beaver and Jefferson...    | 14.53 |
| Repairing walk between Beaver and State.....      | 10.17 |
| Thorndike Street:                                 |       |
| General repairs.....                              | 49.70 |
| Removing tree.....                                | 2.78  |
| Paving gutter on both sides from Main street west | 35.33 |
| Building sidewalk.....                            | 10.75 |
| Myrtle Street:                                    |       |
| General repairs.....                              | 1.25  |
| Elm Street:                                       |       |
| General repairs.....                              | 2.15  |
| Grading walk for concrete.....                    | 3.58  |
| South Spring Street:                              |       |
| General repairs.....                              | 40.93 |
| Paving gutter.....                                | 47.00 |
| Perley Street:                                    |       |
| General repairs.....                              | 2.18  |
| Setting edgestone between Main and State.....     | 72.25 |

## WARD SEVEN.

|   |         |
|---|---------|
| Birchdale Road:   |         |
| General repairs.....  | \$ 8.03 |
| Cutting bushes.....   | 3.47    |
| Repairing bridge.....   | 2.27    |
| Hall Street:  |         |
| General repairs.....  | .70     |
| Rockingham Street:  |         |
| General repairs.....  | 14.59   |
| Langdon Street:   |         |
| Filling .....   | 114.07  |
| Building plank walk.....  | 41.58   |
| Pillsbury Street:   |         |
| General repairs.....  | 4.37    |
| Birch Street:   |         |
| General repairs.....  | 8.47    |
| West Street:  |         |
| General repairs.....  | 14.48   |
| Cutting hill to grade and re-setting curb by<br>Brooks's store..... | 143.90  |
| Mills Street:   |         |
| General repairs.....  | 5.59    |
| St Paul's School Road:  |         |
| Grading .....   | 15.05   |
| Minot Street:   |         |
| General repairs.....  | 11.85   |
| Noyes Street:   |         |
| General repairs.....  | 3.74    |
| Tuttle Street:  |         |
| General repairs.....  | 16.13   |
| Bow Street:   |         |
| General repairs.....  | 4.31    |
| Building sidewalk.....  | 9.90    |
| Iron Works Road:  |         |
| General repairs.....  | 31.74   |

HIGHWAY DEPARTMENT.

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|   |        |
|---|--------|
| Allison Street:                                   |        |
| General repairs.....                              | 35.73  |
| Building sidewalk between Eastman and Broad-      |        |
| way .....   | 34.08  |
| Harrison Street:                                  |        |
| Laying drain.....                                 | 1.66   |
| Building sidewalk.....                            | 21.37  |
| Gas Street:                                       |        |
| General repairs.....                              | 3.13   |
| Delano Road:                                      |        |
| Cutting bushes.....                               | 4.36   |
| “Mose Brown” Road:                                |        |
| General repairs.....                              | 8.11   |
| Tamblyne Road:                                    |        |
| General repairs.....                              | 16.41  |
| Abbott Road:                                      |        |
| General repairs.....                              | 11.36  |
| Saltmarsh Road:                                   |        |
| General repairs.....                              | 32.80  |
| Stickney Hill Road:                               |        |
| General repairs.....                              | 36.95  |
| Planking bridge over Turkey river.....            | 38.15  |
| Silk Farm Road:                                   |        |
| General repairs.....                              | 5.65   |
| Cutting bushes.....                               | 3.47   |
| Hopkinton New Road:                               |        |
| General repairs.....                              | 41.55  |
| Hopkinton Old Road:                               |        |
| General repairs.....                              | 33.07  |
| Fiske Road:                                       |        |
| General repairs.....                              | 105.26 |
| Repairing walk by St. Paul’s School.....          | 2.13   |
| Dimond Hill Road:                                 |        |
| General repairs.....                              | 89.25  |
| Broadway:   |        |
| Building sidewalk from Pillsbury to Carter street | 7.70   |
| McKinley Street:                                  |        |
| Cutting and grading.....                          | 280.11 |

|   |        |
|---|--------|
| Water street:   |        |
| Rubbling around lower bridge.....   | 14.90  |
| General repairs.....  | 27.56  |
| Removing tree.....  | 1.85   |
| Glen Street:  |        |
| General repairs.....  | 18.61  |
| Cutting to grade.....   | 145.09 |
| Bog Road:   |        |
| General repairs.....  | 399.67 |
| Clinton Street:   |        |
| General repairs.....  | 81.11  |
| Enlarging culvert over Bow Brook.....   | 36.95  |
| Turnpike Street:  |        |
| General repairs.....  | 73.52  |
| Building fence opposite Railroad shops.....                                     | 17.12  |
| Building sidewalk on west side between McKinley<br>and Rockingham streets.....  | 16.40  |
| Building sidewalk on west side at Langdon street                                | 28.80  |
| Repairing sidewalk on west side between Pills-<br>bury and Allison streets..... | 7.97   |
| Repairing sidewalk on west side opposite hospital                               | 3.37   |
| Hopkinton Road:   |        |
| General repairs and grading.....  | 393.39 |
| Building sidewalk.....  | 129.56 |
| Repairing bridge by laundry at St. Paul's School...                             | 45.55  |
| Laying over culverts.....   | 37.38  |

## WARD EIGHT.

|  |        |
|--|--------|
| South Pembroke Road:                     |        |
| General repairs.....                     | 239.10 |
| Repairing bridge over Soucook river..... | 67.60  |
| Pembroke Road:                           |        |
| General repairs.....                     | 16.31  |
| Pittsfield Road:                         |        |
| General repairs.....                     | 117.57 |
| East Pembroke Road:                      |        |
| General repairs.....                     | 2.27   |

HIGHWAY DEPARTMENT.

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|                              |        |
|------------------------------|--------|
| “Sheep Davis” Road:          |        |
| General repairs.....         | 6.13   |
| Chandler Street:             |        |
| General repairs.....         | 1.83   |
| Hill’s Avenue:               |        |
| General repairs.....         | 8.59   |
| Freight Street:              |        |
| General repairs.....         | 24.78  |
| Depot Street:                |        |
| General repairs.....         | 22.38  |
| Turnpike Road:               |        |
| General repairs.....         | 12.94  |
| Sugar Bowl Road:             |        |
| General repairs.....         | 5.10   |
| Break O Day Road:            |        |
| Cutting bushes.....          | 9.00   |
| “Tim Chase” Road:            |        |
| General repairs.....         | 10.08  |
| Loudon Road:                 |        |
| General repairs.....         | 150.65 |
| Ferry Street:                |        |
| General repairs.....         | 81.65  |
| Bridge Street:               |        |
| General repairs.....         | 96.78  |
| Repairing Loudon bridge..... | 9.10   |

WARD NINE.

|  |         |
|--|---------|
| Highland Street:   |         |
| General repairs.....                                     | \$ 4.23 |
| Setting edgestone at Louis Boulay’s.....                 | 106.02  |
| Repairing walk between Jackson and Bradley streets ..... | 5.93    |
| Charles Street:  |         |
| General repairs.....                                     | 1.88    |
| Paving gutter on east side.....                          | 34.81   |
| Repairing sidewalk.....                                  | 2.13    |
| Foster Street:   |         |
| Grading .....  | 26.25   |
| Building sidewalk.....                                   | 6.37    |

|  |          |
|--|----------|
| Long Pond Road:  |          |
| General repairs ward 3.....  | 222.08   |
| General repairs ward 7.....  | 24.24    |
| General repairs ward 9.....  | 89.24    |
| Laying over culvert at Crowley's, ward 9.....  | 3.05     |
| Building culvert west of John Jordan's, ward 9..                                       | 4.67     |
| Repairing culvert by Frank Griffin's, ward 9....                                       | 5.70     |
| East Concord Road:   |          |
| General repairs ward 4.....  | 28.90    |
| General repairs ward 8.....  | 4.00     |
| General repairs ward 9.....  | 3.19     |
| Grading ward 8.....  | 117.43   |
| South Street:  |          |
| General repairs ward 6.....  | 104.79   |
| General repairs ward 7.....  | 34.09    |
| Removing trees at Downing and Clinton streets<br>ward 7.....                           | 6.50     |
| Penacook Road:   |          |
| Grading with stone chips, ward 3.....  | 275.32   |
| General repairs, ward 1.....   | 22.60    |
| General repairs, ward 3.....   | 74.43    |
| Macadamizing below Willow Hollow, ward 1..   | 1,748.95 |
| Auburn Street:   |          |
| General repairs, ward 4.....   | 30.25    |
| General repairs, ward 9.....   | 13.23    |
| Rumford Street:  |          |
| General repairs, ward 4.....   | 14.94    |
| General repairs, ward 5.....   | .74      |
| General repairs, ward 9.....   | 12.08    |
| Repairing sidewalk between Church and Frank-<br>lin streets, ward 4.....               | 6.58     |
| Repairing sidewalk near Washington street,<br>ward 4.....                              | 2.70     |
| Building sidewalk on east side between Washing-<br>ton and Abbott streets, ward 4..... | 25.07    |
| Cutting sidewalk to grade on west side between<br>Church and Wyman, ward 9.....        | 18.37    |
| Removing tree at B. S. Rolfe's, ward 5.....  | 4.65     |

HIGHWAY DEPARTMENT.

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|  |          |
|--|----------|
| North Main street:   |          |
| General repairs, ward 4.....   | 69.80    |
| General repairs, ward 5.....   | 3.69     |
| General repairs, ward 8.....   | 39.68    |
| Grading between Fiske and Penacook streets,<br>ward 4.....                         | 32.68    |
| Repairing macadam, ward 4.....   | 6.48     |
| Relaying paving between Warren and School<br>streets, ward 5.....                  | 129.59   |
| Removing tree at Larkin's store, ward 4.....                                       | 22.77    |
| Removing tree at Dr. Carter's, ward 4.....   | 4.57     |
| Trimming tree at S. S. Kimball's, ward 4.....                                      | 13.70    |
| Trimming tree at J. B. Walker's, ward 4.....                                       | 11.05    |
| Pleasant Street:   |          |
| General repairs, ward 5.....   | 51.65    |
| General repairs, ward 6.....   | 16.49    |
| General repairs, ward 7.....   | 31.16    |
| High Street:   |          |
| Cutting to grade, ward 4.....  | 920.20   |
| Building sidewalk, ward 5.....   | 9.30     |
| Penacook Street:   |          |
| General repairs, ward 4.....   | 3.32     |
| General repairs, ward 9.....   | 28.69    |
| Repairing sidewalk with crushed stone between<br>Main St. and Tannery, ward 4..... | 28.95    |
| North State Street:  |          |
| General repairs, ward 4.....   | 38.38    |
| General repairs, ward 5.....   | 34.46    |
| General repairs, ward 9.....   | 61.15    |
| Setting edgestone at Miss H. S. Ordway's,<br>ward 4.....                           | 9.12     |
| Setting edgestone and grading for concrete walk<br>at Ola Anderson's, ward 9.....  | 51.30    |
| Paving gutter between Franklin and Church<br>streets, ward 4.....                  | 40.10    |
| Macadamizing between Franklin and Fiske<br>streets, ward 4.....                    | 1,011.67 |

|   |        |
|---|--------|
| Removing trees between Pleasant and Blake,<br>ward 5.....                   | 3.25   |
| Removing trees at Franklin street, ward 4.....                              | 4.57   |
| Removing trees at Church street, ward 4.....                                | 2.98   |
| Trimming trees at Fosterville, ward 9.....                                  | 1.82   |
| Repairing walk between Chapel and Court streets                             | 1.63   |
| South State Street:   |        |
| General repairs, ward 6.....  | 80.80  |
| Removing trees between Pleasant and Fayette<br>streets, ward 6.....         | 22.27  |
| Trimming trees at J. Foley's, ward 7.....                                   | 2.30   |
| Macadamizing from Perley to Downing street,<br>ward 6.....                  | 320.59 |
| Macadamizing from Downing to West, ward 7..                                 | 582.50 |
| Filling stone drain opposite Penacook school,<br>ward 7.....                | 108.15 |
| South Main Street:  |        |
| General repairs, ward 6.....  | 120.83 |
| General repairs, ward 7.....  | 32.47  |
| General repairs, ward 8.....  | 6.75   |
| Setting edgestone at Morrill's block, ward 8....                            | 28.58  |
| Relaying paving at Morrill's block, ward 8....                              | 5.33   |
| Relaying brick walk opposite Mrs. Pickering's..                             | 11.07  |
| Macadamizing between Concord and Thorndike<br>street, ward 6.....           | 244.72 |
| Macadamizing between Thorndike and Perley<br>street, ward 6.....            | 562.56 |
| Macadamizing between Perley street and Abbot-<br>Downing shop, ward 6.....  | 362.28 |
| Macadamizing between Abbot-Downing shop<br>and watering trough, ward 7..... | 372.45 |
| North Spring Street:  |        |
| General repairs, ward 4.....  | 6.20   |
| General repairs, ward 5.....  | 3.51   |
| Downing Street:   |        |
| General repairs, ward 6.....  | 1.30   |
| General repairs, ward 7.....  | 14.37  |

| HIGHWAY DEPARTMENT.   | 239   |
|---|-------|
| Repairing gutter, ward 6.....   | 2.80  |
| Repairing sidewalk between South and Pierce<br>street, ward 6.....                  | 2.83  |
| Fruit Street:   |       |
| General repairs, ward 5.....  | 2.20  |
| General repairs, ward 7.....  | 3.98  |
| Church Street:  |       |
| General repairs, ward 4.....  | 5.15  |
| Grading walk for concrete at Schoolcraft's,<br>ward 4.....                          | 1.95  |
| General repairs, ward 9.....  | 1.93  |
| Walker Street:  |       |
| General repairs, ward 4.....  | 8.88  |
| Repairing sidewalk on north side between State<br>and Bradley, ward 4.....          | 21.53 |
| Repairing walk on south side between Rumford<br>and Bradley, ward 9.....            | 10.60 |
| Setting edgestone at Louis Comolli's, ward 9...                                     | 26.72 |
| Bradley Street:   |       |
| General repairs, ward 4.....  | 4.93  |
| General repairs, ward 9.....  | .28   |
| Repairing sidewalk on east side between Walker<br>and Penacook streets, ward 9..... | 9.79  |
| Setting edgestone at R. A. Jeffers', ward 4.....                                    | 68.22 |
| Centre Street:  |       |
| General repairs, ward 4.....  | 55.90 |
| General repairs, ward 5.....  | 40.58 |
| Taking down tree at Union, ward 4.....  | 3.85  |
| Grading walk for concrete from Mrs. Barnes'<br>east line to Ridge Road, ward 4..... | 7.68  |
| Setting edgestone by Mrs. Barnes's, ward 4....                                      | 32.97 |
| Jackson Street:   |       |
| General repairs, ward 4.....  | 38.23 |
| General repairs, ward 9.....  | 1.34  |
| Repairing sidewalk on west side between Wash-<br>ington and Church, ward 4.....     | 25.89 |

|   |       |
|---|-------|
| Franklin Street:  |       |
| General repairs, ward 4.....  | 26.30 |
| General repairs, ward 9.....  | 41.45 |
| Paving gutter, ward 4.....  | 10.32 |
| Paving gutter opposite Charles Street, ward 9..   | 41.43 |
| Setting edgestone and grading walk for concrete on north side opposite Stewart's and Jeffers's, ward 4..... | 96.69 |

There has been paid to the city treasurer the sum of \$1,032.47 collected of abutters for their proportion of concrete sidewalks as follows:

|                                |          |
|--------------------------------|----------|
| Henry W. Stevens, Trustee..... | \$ 82.60 |
| L. D. Caldon.....              | 22.05    |
| Louis Boulay.....              | 92.52    |
| D. W. Chellis.....             | 11.51    |
| M. S. Schoolcraft.....         | 9.18     |
| W. C. Davis.....               | 10.91    |
| Foote & Sanders.....           | 28.75    |
| C. E. Foote.....               | 11.78    |
| J. W. Bean.....                | 48.75    |
| E. W. Brooks.....              | 87.09    |
| Bridget Gannon.....            | 24.90    |
| Mrs. W. C. Leavitt.....        | 19.08    |
| S. C. Morrill.....             | 28.24    |
| D. E. Murphy.....              | 33.75    |
| Mrs. Fred Gould.....           | 19.45    |
| Jeremiah Crowley.....          | 24.10    |
| S. R. Dole.....                | 17.06    |
| W. P. Ford.....                | 5.70     |
| Louis Comolli.....             | 7.49     |
| A. C. Stewart.....             | 30.34    |
| H. A. Foster.....              | 10.85    |
| J. F. Cook.....                | 10.68    |
| Mrs. Georgie Barnes.....       | 24.15    |
| Mrs. Ellen Callahan.....       | 12.28    |
| William H. Hurd.....           | 8.65     |
| Masonic Building Asso.....     | 41.85    |

HIGHWAY DEPARTMENT.

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|                           |            |
|---------------------------|------------|
| George Abbott, Jr.....    | 13.54      |
| Ida Greenleaf.....        | 11.65      |
| Nancy J. Langmaid.....    | 25.32      |
| Miss H. S. Ordway.....    | 6.94       |
| Horace Groves.....        | 4.67       |
| F. N. Marden.....         | 11.32      |
| Ola Anderson.....         | 34.58      |
| Mrs. H. V. Clough.....    | 38.40      |
| James C. Manning.....     | 4.46       |
| R. A. Jeffers.....        | 85.45      |
| J. W. Rankin.....         | 24.83      |
| C. W. Clark.....          | 15.67      |
| Mrs. Grace E. Foster..... | 7.19       |
| C. S. Woods.....          | 6.77       |
| Frank Adams.....          | 8.53       |
| F. E. Coates.....         | 5.00       |
| Joseph Eastman.....       | 4.44       |
|                           | <hr/>      |
|                           | \$1,032.47 |

The following concrete bills remain unpaid:

|                                      |           |
|--------------------------------------|-----------|
| A. O. Mansur.....                    | \$ 10.39  |
| T. Murphy.....                       | 18.22     |
| Howard Trevette.....                 | 21.11     |
| Mrs. C. G. Blanchard Estate.....     | 149.72    |
| John Healy.....                      | 7.60      |
| F. E. Coates.....                    | 3.33      |
| Jackman & Hall.....                  | 47.96     |
| James Coleman.....                   | 16.96     |
| George W. Brown.....                 | 10.00     |
| Mrs. Lewis Brown.....                | 8.55      |
| Concord Water Works, labor, etc..... | 115.01    |
|                                      | <hr/>     |
|                                      | \$ 408.85 |

Paid to the city treasurer the sum of \$170.50, received for labor, crushed stone, etc.

|                                   |         |
|-----------------------------------|---------|
| C. N. Barton, crushed stone.....  | \$ 1.20 |
| Robert Wilson, crushed stone..... | 10.00   |

|   |          |
|---|----------|
| True S. Swett, use of pump.....             | .50      |
| Mead, Mason & Co., crushed stone.....       | 22.50    |
| W. C. Edwards, crushed stone.....           | 11.25    |
| Town of Hopkinton, labor.....               | 4.70     |
| Asa Gage, crushed stone.....                | 1.25     |
| H. C. Holbrook, crushed stone.....          | 1.25     |
| E. H. Runnells, crushed stone.....          | 10.00    |
| Town of Pembroke, repairing bridge.....     | 33.79    |
| J. L. A. Chellis, crushed stone.....        | 1.25     |
| Daniel Holden, crushed stone.....           | 3.00     |
| John S. Moses, crushed stone.....           | 4.00     |
| John Walker, crushed stone.....             | 17.50    |
| N. H. Asylum for Insane, crushed stone..... | 28.75    |
| Geo. W. Chesley, crushed stone.....         | 1.25     |
| Lee Bros., labor.....                       | 4.20     |
| Stratton & Co., flushing sewer.....         | 1.66     |
| Sam'l. S. French, crushed stone.....        | 1.25     |
| F. M. Knowles, labor.....                   | 1.25     |
| Concord Sewer Dept., labor.....             | 9.95     |
|   | <hr/>    |
|   | \$170.50 |

## SEWERS AND DRAINS.

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### REPORT OF COMMITTEE ON SEWERS AND DRAINS.

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To the City Council: The committee on sewers and drains held eight meetings during the year, and the members thereof made frequent inspections of the work while it was in progress. The extension of the "South end sewer," so-called, was the most important work of the season and was built under contract by Mr. John Walker of Newmarket, N. H. Proposals were asked for and the following were received: Lyman R. Fellows & Son and George L. Theobald, Concord, N. H., \$22,513; A. W. Bryne Construction Co., West Medford, Mass, \$20,880; P. H. Harrison & Sons, Hartford, Conn., \$20,459.52; T. H. & G. M. Bryne, West Medford, Mass, \$18,668.92; John Walker, Newmarket, N. H., \$17,861.02. During the year 85 permits for sewer connections were issued by the clerk of the committee. The amount received for rent of pumps was \$90.76 to the credit of the city precinct, and \$7.50 to the credit of the West Concord precinct. No new work was done in the East Concord precinct. In the West Concord precinct a small amount was expended for flushing and ordinary repairs. In the Penacook precinct the usual repairs and flushing were made; none of the outside precincts expended any large amounts during the past season.

#### PETITIONS RECEIVED AND ACTION TAKEN.

Mary J. Sanders and others, for sewer in Pillsbury street; granted and built.

Charles S. Brown, for sewer in Broadway; granted and built.

F. H. Hill and others, for lowering sewer in Abbott street; petitioners were given leave to withdraw.

W. A. Sleeper and others, for sewer in White street; further time asked.

George H. Morey and others, for sewer in Broadway; granted and built.

W. D. Kimball and others, for sewer in South street; granted and built.

Mead, Mason & Co., for sewer in Cedar court; granted and built.

Mrs. A. Chase and others, for sewer in Pleasant street; further time asked.

Amos Blanchard and others, for sewer in Warren and Pleasant streets; granted and partially built.

G. J. Johnson and others, for sewer in Clinton street; granted and built.

Levi W. Everett and others, for sewer in Winter street (Penacook); further time asked.

George A. Cummings and others, for sewer in Broadway; granted.

Western Cofran and others, for sewer in North Spring street; granted.

Charles F. Nichols and others, for sewer in Park Ridge and Ridge Road; granted and partially built.

W. B. HOWE,  
Clerk of Committee.

## ELECTRICAL DEPARTMENT.

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*To His Honor the Mayor and the City Council:*

The work done during the past year under this department has been all that we could reasonably ask for. The several companies have maintained their lines up to the usual good condition.

### DEAD WIRES.

There has been a large amount of dead wires taken down that were abandoned by the owners. There still remains a large amount to be removed, and is being cared for as fast as circumstances will permit.

### PRIVATE LINES.

I would call the attention of your honorable body again to the custom of granting permits for private lines. It seems to me that there should be some arrangement whereby the permits granted should be referred to the inspector of electric wires, as these lines are often put up by incompetent parties and in a short time abandoned and left to be cared for by the city, and in many cases become a source of danger by their crossing with other wires of a high potential.

In conclusion, I think as a whole, our electrical service will compare favorably with any of a like nature. The city has been free from any accidents caused by electrical wires, either by fire or otherwise, during the past year.

Respectfully submitted,

F. W. LANDON,  
Inspector of Electrical Wires.

## REPORT OF THE COLLECTOR OF TAXES.

*To the City Council:*

I herewith submit the report of collection of taxes to the close of business December 31, 1897.

### 1896 REPORT.

|  |              |
|--|--------------|
| Resident list as committed . . . . .                                   | \$259,654.42 |
| Errors and omissions (res. list) as per last report                    | 2,673.74     |
| “ “ “ added since last report  | 103.25       |
|  | \$262,431.41 |
| Resident list, as corrected to date, Dec. 31, 1897                     | \$262,431.41 |
| Non-resident list as committed . . . . .                               | 934.63       |
| “ “ errors corrected to date, Dec. 31, 1897 . . . . .                  | 1.00         |
| Int. collected at time of last report, Dec. 31, 1896                   | 37.72        |
| “ since last report . . . . .  | 885.29       |
| Unadjusted account . . . . .   | 25.18        |
|  | \$264,315.23 |
| Cash paid treasurer as per last report,                                |              |
| Dec. 31, 1896 . . . . .  | \$218,856.79 |
| Cash paid treasurer since last report to                               |              |
| Dec. 31, 1897 . . . . .  | 34,706.00    |
| Discounts . . . . .  | 3,611.31     |
| Abatements as per last report Dec. 31, 1896 . . . . .                  |              |
|  | 4,773.02     |
| Abatements since last report, Dec. 31, 1896 to Dec. 31, 1897 . . . . . |              |
|  | 2,008.36     |
| Cash in office Dec. 31, 1897, . . . . .                                | 3.30         |
| Uncollected* . . . . .   | 356.45       |
|  | \$264,315.23 |

\* Of this amount \$285 is secured by real estate.

## 1897 REPORT.

|   |              |
|---|--------------|
| Resident list as committed . . . . .                | \$232,743.44 |
| Errors and omissions (resident list) . . . . .      | 1,036.56     |
|   | <hr/>        |
| Resident list as corrected . . . . .                | \$233,780.00 |
| Non-resident list as committed . . . . .            | 957.44       |
| Interest collected to date, Dec. 31, 1897 . . . . . | 24.99        |
|   | <hr/>        |
| Total . . . . .                                     | \$234,762.43 |
| <br>  |              |
| Cash paid treasurer . . . . .                       | \$193,125.00 |
| Discounts . . . . .                                 | 3,404.02     |
| Abatements . . . . .                                | 3,151.07     |
| Cash in office at closing Dec. 31, 1897 . . . . .   | 85.72        |
| Uncollected at closing Dec. 31, 1897 . . . . .      | 34,996.62    |
|   | <hr/>        |
| Total . . . . .                                     | \$234,762.43 |

Very respectfully :

WENDELL P. LADD, *Collector.*

Concord, Jan. 10, 1898.

## REPORT OF CITY ENGINEER.

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To His Honor the Mayor and the City Council of the city of Concord: Gentlemen,—I herewith submit the report of the work done in the city engineer's and sewer departments for the year ending December 31, 1897:

The following statement shows the expenses of the engineer's department for the year:

|                     |            |
|---------------------|------------|
| Paid for salaries,  | \$2,457.25 |
| for supplies,       | 98.49      |
| for repairs,        | 14.15      |
| for rent,           | 204.00     |
| for incidentals,    | 210.08     |
|                     | <hr/>      |
|                     | \$2,983.97 |
| Appropriation,      | \$3,000.00 |
| Total expenditure,  | 2,983.97   |
|                     | <hr/>      |
| Unexpended balance, | \$16.03    |

The cost attending the construction of all sewers built during the season of 1897 will be found upon the following pages. Considerable time was spent by this department upon the preparation of plans, etc., for the construction of the extension of the "South End sewer," so-called, from the junction of Allison and South streets to the junction of Giles and Centre streets. The greater portion of this sewer was through private property, which was so of necessity, owing to the contour of the city, to meet the demands of the district to be drained.

The completion of this main will relieve a section of the city hitherto without any sewer facilities, which, from a sanitary view, were greatly in need of relief; it also provides an outlet for some years to come, for the westerly portion of the city, which was cut off from the older system of sewers.

The work on this sewer was done under contract, by Mr. John Walker of Newmarket, N. H., at a price about \$4,600 below the bid of local parties. The cost of this work will be found in the statement of cost of sewers attached to this report. Unusual expenses attended the repairs upon the sewers, especially in North State street, at Walker street, and in North Main street, near the store of P. H. Larkin, caused by the excessive rains of the past season.

So much of the time of this department was required on sewer work that the work upon the general survey of the city was cut short, and we were not able to complete the work mapped out for the season.

The demands upon this office for information concerning street lines and grades have steadily increased, and the necessity for saying that the lines of some streets are indefinite, is at times somewhat embarrassing.

I will quote from my report of 1895: "At the time when many of our streets were laid out the value of the land taken was very small, and in many cases the land was given, for the street, by the owners. To-day the values are different, and each abuttor, probably honestly, claims more land than the old records indicate. In many cases the old lines are described as 'starting at a pair of bars and ending near an apple tree,' both the bars and the apple tree have long since disappeared, and the 'oldest inhabitant' has no knowledge of them. In view of these facts I would respectfully recommend that a little work be done, each year, in establishing and permanently marking the lines of some of these streets; this would greatly assist the heads of all departments in their work upon them."

I would again respectfully submit that some of this work should be taken up before further encroachments are made upon the highways.

The employees of this department during the season of 1897 were: Frank W. Brown, assistant engineer; Fred W. Lang, transitman; Charles H. Chandler, H. C. Hill, and C. F. Moore, rodmen, who have cheerfully attended to the duties entrusted to them.

## GRADES ESTABLISHED.

- West sidewalk, Park Ridge.
- East and west sidewalks, Ridge Road.
- North sidewalk, Highland street from Bradley street west, 132.5 feet.
- West sidewalk, Bradley street from Highland to Albin street.
- West sidewalk, Broadway south from Pillsbury street, 350 feet.
- South sidewalk, West street opposite L. D. Caldon's.
- South sidewalk, Allison street from Eastman to Kimball street.
- West sidewalk, Holt street.
- South sidewalk, Abbott street.
- South sidewalk, Warren street from Liberty street west.
- West sidewalk, Lyndon street from Abbott street northerly, 54 feet.
- West sidewalk, Main street (Penacook) from Elm street to the iron bridge.
- South sidewalk, Spring street (Penacook) from Centre street west.
- North sidewalk, Centre street (Penacook) from Spring street southerly.
- South sidewalk, Elm street (Penacook) from Main street west 137.4 feet.
- North sidewalk, Tremont street from State to Jackson street.
- South sidewalk, Knight street (West Concord).
- South sidewalk, Wyman street.
- Wyman street.
- West sidewalk, Rumford street from Wyman street southerly.
- East and west sidewalks, Glen street.
- North sidewalk, Harrison street.
- East sidewalk, Liberty street, opposite the premises of C. W. Clarke.
- South sidewalk, Washington street east from Academy street, 81 feet.
- East sidewalk, Odd Fellows' avenue.
- North sidewalk, Abbott street.