During the year the Streets Committee decided that untreated wood blocks manufactured by local firms should be used in place of procuring treated blocks from Vancouver. This was carried out against the engineer's advice, and it remains to be seen how the life-time of these blocks will compare with that of the treated ones.

The total expenditure for street cleaning during the year amounted to \$46,134.43. All cleaning was carried out by hand-brooms, pick-up carts and cans. The average cost was \$0.116 per 1,000 square yards daily. The cost last year was \$0.134 per thousand square yards. The business districts were covered more frequently.

During the past year 537,110 square yards of street surfaces were oiled, of which 27,326 square yards were given a second treatment. The unit cost per square yard was \$0.012. The total expenditure was \$6,438.98; divided as follows:—

Preparing street for oiling\$1.10 per 1,000 sq. yds. Oiling street, including cost of oil 7.21 per 1,000 sq. yds. Sanding streets after oiling, in-

cluding sand 3.92 per 1,000 sq. yds.

The cost last year was \$0.0123 per square yard.

Not only has the oiling of the streets practically stopped the dust nuisance which formerly existed in this city, but has added very much to the life-time of the macadam surface. These streets have now been oiled for the past four years and the surface has become in many instances practically impervious, thus prolonging the life-time.

During the winter of 1915-1916 some damage was done to Ross Bay sea-wall by southeasterly storms. To prevent a recurrence of this damage a contract was awarded for the driving of sheet piles at the toe of the wall. 1,370 feet were thus treated, and opposite 450 ft. of this wall heavy rock was deposited. The piling was carried out by Watson, Hall & Huntley, of Victoria, and \$4,130.50 was expended on this work, which has not yet been completed.

The north-west main sewer is now completed, 2,071 feet having been laid during the year. The entire work has been carried out by day labor. 7,449 feet of the sewer was in tunnel, of which 6,390 lineal feet was in rock, at an average depth below the surface of 44 feet. The work also included the laying of a submerged 36-inch steel pipe for the outfall and inverted siphons under Selkirk water, a distance of 491 feet.

The labor cost of tunnel work during the first couple of months was \$8.75 per lineal foot of tunnel. This was steadily reduced until during the last two months it was \$4.75 per linear foot. The estimated cost of the entire work as prepared by the engineers of the three interested municipalities, was \$365,223, and the total cost of the work has been \$298,853.

The total length of the sewer is 16,578 lineal feet, or 3.139 miles.

This completes the main part of the north-west sewer. Two branch mains, however, are now in progress. The average cost for open cut work for an average depth of 16 feet for the whole north-west main sewer was as follows (for labor only):—

Rock, for labor only, \$3.65 per cu. yd.; hardpan, \$1.69 per cu. yd.; dirt, 89c. per cu. yd.; backfill, 22c. per cu. yd.

The average cost per lineal foot for similar tunnel work was:----

Labor, excavating only, \$8.50; all labor, \$12.9⁸; 36-in. sewer complete, \$24.92.

Exclusive of the north-west sewer 14,467 ft., or 2.74 miles of sanitary sewers were constructed, bringing the total mileage in Victoria up to 120.

In October a number of leaks developed in the Sooke Lake conduit line. This occurred after a sudden change in the temperature, which during the day time was 60 degrees in the shade, and as low as 26 degrees at night. When the temperature rose and averaged about 40 de grees, the majority of these leaks stopped. The largest leaks, however, were on the big siphon at the east branch of the Sooke River, and were caused primarily by the settlement of one of the concrete bents. We propose during the coming year to take steps to prevent, if possible, a recurrence of this trouble.

During the year engineers, representing the Department of Agriculture of the U.S. Government, made a series of tests on the concrete flowline for the purpose of obtaining accurate records of the flow of water in concrete pipes.

The average amount of water passing through the meter at Humpback Reservoir is 5,050,741 Imp. gallons daily, equal to 100 gallons per head of population sup plied, whilst the average amount actually sold as recorded by the various meters, including the water supplied to Saanich, Oak Bay and the Empress Hotel, averages 2,200,000 Imp. gallons daily, or an average per capits of 40 gallons.

Making liberal allowance for the leakage on mains, the use of water for sewer flushing, water for fire purposes and for boulevards, there is still about 1,000,000 gallons daily not accounted for. Fortunately we have an ample supply of water and the city is put to no expense for pumping or filtration. We are now taking steps to ascertain, if possible, where this loss occurs.

MARCH RAILWAY RETURNS.

Comparisons of the Canadian Pacific Railway's returns of March gross and net earnings during the past eight years, are given in the following table:—

| March. | Gross. | Net. |
|--|--|--|
| 1917 | \$11,846,542 | \$3,937,317 |
| 1916 | 10,380,981 | 3,421,330 |
| 1915 | 7,852,989 | 2,973,014 |
| 1914 | 9,447,461 | 3,099,239 |
| 1913 | 11,111,892 | 3,855,410 |
| 1912 | 10,519,319 | 3,718,401 |
| 1911 | 8,800,640 | 3,156,560 |
| 1910 | 7,796,337 | 2,711,173 |
| The Grand Trunk Railway' uarter of 1917 are as follows :— | s net returns | for the first |
| January \$691,763 February 241,790 March 948,299 | inc. \$135,86 dec. 304,55 inc. 62,03 | 6 24.44 % 6 55.7 % 34 7 % |
| Canadian Northern Railway's spenses for March is as follows | s statement of | earnings and |
| 1917. otal gross earnings \$ 3,273,2 perating expenses | . 1916. 00 \$ 2,607,000 00 2,240,600 | Increase. + \$ 666,200 + 414,500 |

| et carmings | 010,100 | 300,400 | A MARTIN | |
|--------------------|------------|------------|----------|-----------|
| ings from July 1st | 30,095,900 | 24,134,600 | + | 5,961,300 |
| ggregate net earn- | | | | 2 800 |
| ings from July 1st | 7,504,500 | 6,275,700 | + | 1,220, |

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