

sample taken 22nd May last of Worcester city sewage showed the oxygen absorbed figure to be as high as 9.74 and the albuminoid ammonia 1.48 parts.

The temperature diagram shown herewith is of especial interest as the temperatures were taken during a spell of cold weather; the lowest atmospheric temperature recorded is 22° F., or as low as usually experienced in a normal English winter.

It will be noticed that the temperature of the sewage was always higher than the temperature of the tap water, averaging 4° F. higher, and that the temperature of the effluent after aeration was never lower than that of the sewage, but on eight days it was actually higher. It will also be noticed that the greatest difference between the tap water and sewage temperature was during the coldest weather.

The diagram explains why spells of cold weather do not affect the character of the effluent materially, and further gives reason to expect that the process will be found more suitable for cold climates than exposed trickling filters.

### TORONTO ENGINEERS REVISING BY-LAWS.

At an open meeting of the Toronto Branch held May 1st, 1917, it was moved by Prof. Haultain that a committee be elected to revise the by-laws of the Toronto Branch of the Canadian Society of Civil Engineers and to study means of increasing the prestige and influence of the branch. The executive committee of the branch now announce that in accordance with this motion they are prepared to receive nominations up to and including August 1st for members to serve on this committee. Nominations will be by mail and a committee of five members will be elected by letter ballot.

### WINNIPEG AQUEDUCT WORK TO CONTINUE.

Mayor Davidson, of Winnipeg, and Commissioners R. D. Waugh and J. H. Ashdown, of the Winnipeg Water District, recently made a visit to Montreal on which they were successful in completing arrangements for the further financing of the Winnipeg aqueduct work. A syndicate having charge of the matter has been arranged by the Bank of Montreal and includes Wood, Gundy & Co., the Dominion Securities Corporation, C. Meredith & Co., and a number of other important financial houses. Arrangements are under way for a public offering of the bonds in the near future. Already a substantial portion of this issue has been sold. The Winnipeg Water District was created in 1913 to provide a suitable water supply for the city of Winnipeg and surrounding suburbs. The district has an area of 91.79 square miles, with an assessment of \$226,492,739, and a population of 220,426. The bonds are secured by a direct charge on all of the land in the district, including the entire city of Winnipeg.

### CORRECTION.

In the personal column of our issue of June 14th there appeared an item regarding Mr. J. W. Seens, manager of the Structural Steel Co., Montreal. *The Canadian Engineer* is in receipt of a letter from Mr. Seens stating that it is true that the Structural Steel Co. will discontinue operations during the present summer owing to expiration of lease of shop rented from the Montreal Locomotive Co., but that any information regarding his having joined the engineering staff of any other bridge company is decidedly premature, and it is unlikely that he will discontinue serving in his present capacity as manager of the Structural Steel Co., Limited, for some considerable time.

A \$150,000 lawsuit has been brought against the contracting firm of Grant, Smith & Co., by the Seattle Construction Co., the amount claimed being for damage done to a floating dock which capsized and smashed while under use by Grant, Smith & Co. during the construction of the breakwater at Victoria, B.C. The case will be heard either in Vancouver or Victoria on September 17th.

### CANADA FACED WITH COAL SHORTAGE.

"Canada is faced with a coal shortage of very alarming proportions, and by next winter, if conditions do not change, a great many industrial concerns and householders will be unable to supply themselves with sufficient coal to carry them through the cold weather." Such is the gist of a statement made in Montreal by Mr. A. D. MacTier, general manager of the eastern lines of the Canadian Pacific Railway. He continued as follows: "The present and prospective difficulties in the way of bringing coal into eastern Canada may be attributed to a number of causes, principal amongst which are dearth of mining labor and shortage of coal-carrying equipment at the mines. The situation in some of the mining territories at the present time is that, even with the labor shortage, mine operators are able to turn out coal at a greater rate than they can obtain cars to carry it away. It, therefore, naturally follows that more coal can be brought into Canada if the car supply is increased.

"Unfortunately, it is out of the question to obtain any number of new cars at this time, and the situation can be met only by obtaining more service from the present rolling stock. To do this, cars must be moved promptly between the mines and destination, and must be unloaded as soon as they reach consignees."

### INDUSTRIAL CONDITIONS IN CANADA.

Labor conditions render it increasingly difficult to meet the continued heavy demand for munitions. Loss of time through trade disputes and desultory work are as great an obstacle to the full utilization of the country's industrial resources as the actual shortage in the supply of labor. Unless some more effective regulation of labor is introduced, which will bring about more regular and more permanent service, it may not be possible to sustain the present volume of exports of manufactured goods, essential as it is to the maintenance of our financial position. Labor and ocean transportation difficulties are, perhaps, equally responsible for the falling off in exports which were less in April by \$21,000,000 than the imports for that month, the first unfavorable balance since February, 1915.

The reports of industrial companies recently issued show remarkable profits for the twelve-month periods which they cover, but it is noticeable that the output of coal is less and that strikes in that industry are having a far-reaching effect. In southern British Columbia an important smelting plant has been closed down since the first of May owing to the shortage of coke caused by the strike in the Crow's Nest Pass collieries, and at the end of May the prospects of a settlement were regarded as being somewhat remote. The indirect results of this strike are no less serious. Railways are handicapped by a shortage of fuel for their engines, and, consequently, the movement of freight is obstructed and business is affected in endless ways. The effect of recent strikes in the coal mines, in the shoe industry in Quebec, in the steel industry in the maritime provinces, in the mines of Ontario and elsewhere has been to cause a serious decrease in production. An undesirable result of the prevailing high wages has been that a few weeks of work is followed by a few weeks of holiday. Contrary to expectations, high wages have not in many cases contributed to labor stability or efficiency.—Canadian Bank of Commerce.

A new British coaling plant has recently been erected at Port Natal. The plant is stated to be the only one of its kind in South Africa, and it is claimed that it is one of the largest belt-conveyer installations at present in operation for coaling vessels. The plant was designed to load 600 tons of coal per hour. This result has been easily attained, and it is estimated that, under favorable conditions, it is capable of loading 1,000 tons per hour. Power is supplied by three 150 horse-power motors and nine of smaller capacity, supplying an aggregate of about 1,000 horse-power for the various operations of the plant. The main—horizontal—conveyer belt is 525 ft. long, and has a speed of 450 ft. per minute; a smaller—incline—belt is 230 ft. long. A feature of the plant is the care that has been taken to avoid undue breakage of the coal. A direct fall is obviated, and the coal is gradually lowered into the ship's hold.