EXHIBITORS AND EXHIBITIONS.

Already we are commencing to anticipate the exhibition spirit, which will soon be manifest from one end of the country to the other. There never were so many opportunities offered for the display of machinery and all classes of engineering manufactures as there now are. From Halifax to Victoria, every city and town has its exhibition, lasting from two days to two weeks. A few years ago manufacturers made special effort to have large displays at these exhibitions, and just now the leading firms are again vieing with one another in the largeness and completeness of their displays.

Development and improvement have taken place in all countries, and the engineer takes the opportunity afforded at these exhibitions to familiarize himself with the machinery displays that come from some distance. It also affords him an opportunity to compare the product of different firms and to become acquainted with the men who are the spirit of the business which they are conducting.

Competition is becoming keen, and with the increased competition a desire for publicity. For this, these exhibitions offer splendid opportunity.

To trace direct results from displays at the largest exhibitions may sometimes be difficult, and it is not to be wondered at that manufacturers hesitate spending several thousand dollars when in the past they have not been able to trace direct results. Still, experience has shown that to neglect, for one year, proper publicity will cause a large decrease in inquiries and subsequent sales.

The exhibition managers should do everything they can to assist and encourage machinery exhibits, for they are something every sightseer is interested in. The manufacturers who exhibit will find that this kind of publicity is as effective as he could wish.

EDITORIAL NOTES.

Many of the citizens of Toronto are disgusted with the dock arrangements and dock facilities afforded by Toronto harbor. The arrival of the "Keystorm" and the primitive methods being adopted to unload her is an example of the lack of facilities for steamship transportation at that port. Time and again the City Engineer and the Dominion Government Resident Engineer have submitted detailed plans for harbor improvement. Time and again the council have shelved these reports. The municipality is now reaping the fruits of their folly in not providing for the city's future requirements.

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Elsewhere in this journal will be found a complete review of the report on the Lindsay ozone water purification plant. This report has been issued by Dr. Charles A. Hodgetts, secretary of the Provincial Board of Health, Parliament Buildings, Toronto. In a couple of weeks the secretary will be in a position to furnish a limited number of copies to those interested in water purification.

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For some time past there has been a difference of opinion between the power companies of Niagara Falls and the Queen Victoria Niagara Falls Park Commissioners as to the proper method to be adopted for payment of power generated in excess of the amount stated in the agreement with the companies, the companies wishing to pay by the average load, the Commissioners wishing to receive pay as per the peak load. By the 1st of November, 1909, the C.N.P. Co. were owing, by the average load method, some $56,765, but by the peak load they would be owing $83,101. The Ontario Power Co.'s figures are $10,323 and $23,717, and the Electric Div. Co.'s, up to August 1st, 1909, were $8,157 and $39,875.

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A circular of May 16th from a United States metals house says: "Although the American public can spend hundreds of millions of dollars for automobiles, we seem to be unable to finance our own railroads, and have to go abroad for new capital. This is equivalent to mortgaging our properties to Europe in order to continue our present extravagance and to maintain our commodity prices at a point which is out of touch with the rest of the world. The figures for April showed that our balance of trade is getting worse rather than improving; and, like the man who lives beyond his income, or too close to it, we find that we are increasing the business of the merchants we patronize, but probably have to ask accommodation from our banker. It is useless to disguise the fact that, after eight months of record-breaking consumption and production of almost all products, we have already entered into a stage of reduced operations. The best guide we have, which is the iron and steel trade, clearly points this out to us."

WATERPROOFING AND CONCRETE

One section of the sewers of Louisville, Ky., was very close to Bear Grass Creek. In view of this fact, considerable attention was given to the study of waterproofing compound, and H. P. Eddy, in his report to the commissioners of sewage of Louisville, describes the method of waterproofing and results of tests made upon various kinds of mixtures. In addition to the test as to seepage, similar material was subjected to a tensile stretch, and table 2 gives the results of these tests.

The method used for determining the permeability of different concretes was similar to that employed in the Government Laboratory for testing structural materials, located at St. Louis. Specimens of concrete were made ten inches in diameter and four inches thick. These blocks were placed between iron castings, bolted firmly together in such a way as to allow the application of water under different pressures to a surface six inches in diameter. In order to provide water at definite pressure, an air-tight iron tank containing filtered water was connected with another tank containing compressed air. The pressure was communicated from the air tank to the surface of the water in the other tank from which pipes properly controlled by valves conducted the water to the specimen.

In table 1 are given the amount of seepage through the different specimens examined.

These tests were made upon concrete, the constituent parts of which were so proportioned as to form a theoretically perfectly graded mixture; concrete—one part cement, two parts Ohio River sand and four parts Ohio River gravel; concrete—1:2:4—to which various commercial waterproofing compounds were added; and concrete in which a portion of the Ohio River sand was replaced by a equal portion of very fine sand and clay. Where hydrated lime, Medusa, Maumee and Toxement were used the amount added was a definite proportion of the quantity of cement used, but the quantity of cement was not reduced. The McCormick compound was furnished already mixed with cement and was said to have been mixed at the time of grinding. The Ceresit