

question was discussed at length and with considerable vigor. Has the question been dropped and consideration deferred until the next annual meeting?

Many are asking, "What do we get in return for our membership?" That is a question of some individual importance, but it is just as necessary to enquire, "What is each member giving to the Society?" Some are giving of their experience in prepared papers. In the matter of papers the Society is doing all that may be reasonably expected of it. But it must not rest there, for, after all, this is but a small part of their work.

Some few are giving their time to executive work, the classification of new members, the routine business of the Society. Their good work must not be overlooked nor their services valued too lightly.

The great majority of the membership, however, are doing little or nothing to advance the Society. A vast army of men in the wilderness waiting for a leader—men ready and willing to do their part, but uncertain as to what to do and of the reception their efforts will receive.

We do not propose to deal in this article with the greater questions before the Society, but will indicate one question which has been very much neglected and in which many members are interested.

On another page we have placed side by side copies of the standard specifications for Portland cement as issued by the Canadian Society and the American Society for Testing Materials. The comparison does not reflect any great credit on the Canadian Society.

There is no reason why our specifications should be incomplete and it is in neglecting these little things that our Society has failed to secure a hold on the young engineer in Canada.

Would it be possible to secure a report from the Committee on Cement Tests oftener than once in every five years?

#### ELECTRIC LINE CONDUITS—CITY LIGHTING—HARBOR IMPROVEMENTS.

(From Our Own Correspondent.)

Montreal, Oct. 21st, 1908.

For many years past overhead wires have been severely condemned by the business interests of Montreal, and many efforts have been made by the government of the city to abolish them and compel all companies to put them in underground conduits. The question of the ownership of these conduits has been prolific of much discussion, ownership by the city being generally deemed most advisable. Eventually, a committee of experts was appointed by the city council to report upon the matter. Mr. Ross, of Messrs. Ross & Holgate, engineers, made his report last week, showing that the Montreal Street Railway claimed that they were under no obligation to place their wires in a municipal conduit, the Montreal Light, Heat and Power Company decline to reply, but claiming that they had the right to go underground in a conduit laid parallel to the proposed civic one at any time. On the whole, Mr. Ross said, much opposition was met, and it was evident that the city would have to secure power from the Legislature to compel the different companies to act in unison with it.

The Lighting Committee of the city has recommended the following offer to be made the Montreal Light, Heat and Power Co. for public lighting for the next ten years: Arc lamps, each, per year, \$60; incandescent, 64 c.p., \$30, and 32 c.p., \$15 each. For lighting municipal buildings, etc., by meter, for incandescent and arc lighting, 9 cents per kilowatt hour for the current used. The company asked about 25 per cent. more.

The Dominion Car and Foundry Co. resumed operations this week with a normal force after having been practically shut down for months past. The C.P.R. has just placed an order for about 500 composite cars, and the car company expects that the activity will be sustained, and that they will be able to keep a large number of mechanics employed right along.

The erection of an electric plant, centrally situated along the harbor front, is the latest scheme upon which Mr. F. W. Cowie, the chief engineer of the Montreal Harbor Commissioners, is working. The idea is to supply from this plant all the current required for every purpose in connection with the Harbor Commissioners' property. The power will be obtained from a new source of supply, the location of which is not announced, although it is understood to be in the vicinity of the city. The construction of a drydock also will be proceeded with before a great length of time, although nothing very definite has yet been decided upon in this connection, save that it will be sufficiently capacious to accommodate any vessel reaching port. Another work now being planned for is the construction of a concrete wall along the piers to protect the piles from the action of the current and water.

In connection with the sub-contract let by P. McGovern to the J. W. Harris Co., the latter firm has requested the Water Committee to retain the sum of \$7,300 from what is due the former. It is alleged that this amount represents the cost of the excavation work performed by the Harris Company for McGovern, who has the contract for the construction of the new conduit for the city.

#### RESULTS OF THE USE OF WHITE PORTLAND CEMENT.\*

For a long time chemists and others connected with the Portland cement industry have been endeavoring to produce a Portland cement which should possess all the characteristics of the common product, and yet when mixed with the proper aggregates would give a concrete almost pure white. As the Portland cement industry grew by leaps and bounds, and the product became more universally known by the masses the demand was more insistent for a Portland which would permit of more artistic and ornate work than the material admitted of than was being manufactured. The great difficulty, however in producing such a cement was to find crude material of the proper chemical combinations free of the oxide of iron. Synthetic work has proved that the necessary compounds to make Portland cement are lime, silica and alumina. Iron is not necessary absolutely, although it aids as a flux the combination of the above constituents. Portland cement materials are found in about every State in the Union, but deposits containing no iron or but a trace of iron are extremely rare.

In giving this paper it will be necessary for me to talk about the results obtained through the use of the cement manufactured by the Art Portland Cement Co., of this State, because until very recently the product of this company was the only white Portland cement manufactured commercially.

The first cement was turned out in November, 1906, out of our factory, and we found out soon after we began to manufacture our product commercially that notwithstanding the fact that there was a great demand for a white cement, the user of the product was going to satisfy himself by exhaustive tests on the material that the cement was really a Portland and was not a make-shift so that while a great many orders were on the books from all over the United States and from many points in Canada, the cement was not selling like the ordinary Portland in 10,000 barrel lots, but with a few exceptions in sample lots of from one to ten barrels. In this way the cement was very widely distributed, and was very thoroughly tested in almost every imaginable way from the scientific Government and municipal method to the crude method of the small concrete block maker.

Now, as regards the results of the use of the white Portland cement. Fully 80 per cent. of the users of this

\* By M. M. Smith, in annual report of Indiana Engineering Society.