

# CORRESPONDENCE

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another.—Ed.]

## CONCRETE SPECIFICATIONS.

Sir,—Associate in his question of concrete specifications in your issue of January 3rd, 1908, has left out the most important part of the specification, which is that of the sand, also of the stone or gravel. The question would then be clear providing the material to be used conforms with the specification.

There should be no difficulty when clean sand and broken stone are used. But when gravel contains a proportional part of sand, the field engineer should conform to the clause which reads, "Unless otherwise specified," and obtain his proportions in accordance with the ratio of the sand to the stone, thus adding the cement to make his proportion for concrete as specified.

Yours truly,

Bala, January 9th, 1908.

E. L. Miles.

## CONCRETE HEATER.

Sir,—With reference to our letter in your issue of 10th inst., we beg to say that you would find it a good way of heating sand or gravel by taking an 18-inch cast-iron gas main, 8 inches to 12 inches long, and lighting your fire inside. This would give you a large heating surface and by blocking one end with bricks and putting a small pipe in you would have a good draft. This has been found an excellent way of heating sand as the sheet of cast-iron when it gets red hot is likely to bend and sink down in your fire.

Yours very truly,

G. L. Dobbin, Local Manager,  
Mussens Limited.

Toronto, Ont., January 11th, 1908.

## A CORRECTION.

Sir,—May I ask you to insert this correction of my small contribution to the columns of your issue of January 3rd, 1908, page 17. Towards the latter part the article should read as follows:—

EXAMPLE—Let  $y = 388 \text{ Chains } 41.2 \text{ Links} = 388 + 41.2$   
 $= 388.412 \text{ Chains.}$

then  $B_0 = y \left( \frac{1}{2} + \frac{1}{10} \right) = \begin{array}{r} 194.206 \\ 38.8412 \end{array}$

233.0472

$\therefore x = \begin{array}{r} 233.0472 \\ 23.30472 \end{array} \begin{array}{l} \dots\dots\dots = B_0 \\ \dots\dots\dots = B_1 \end{array}$   
 256.35192

The remainder is in order.

Yours very truly,

W. H. Pretty, 476 Alymer St., Peterboro, Ont.

January 6th, 1908.

## HEIGHT OF ARC LIGHTS.

Sir,—In your issue of January 3rd, Junior asked for information as to the height of arc lights.

In general, enclosed arc lamps for street lighting purposes are hung from 18 to 20 feet above the street level, a lower height being used on streets having shade trees. The

old open arc lamp was placed as high as twenty-five feet above the street. This is not necessary with the enclosed arc, the distribution of light from the arc being more horizontal than the old open arc.

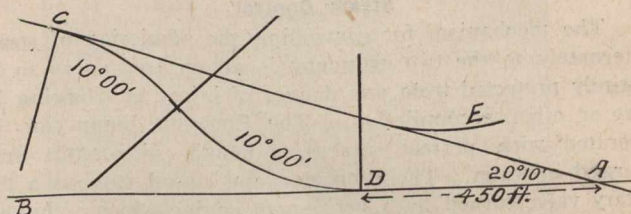
The illumination immediately under the enclosed arc lamp is good, and there are no heavy shadows.

Yours, Electrician.

Toronto, January 11th, 1908.

## RAILWAY CROSS-OVER.

Sir,—Two railroad lines, C. E. and B. D., run side by side. From the point D on B D we wish to run the shortest  $10^\circ$  reverse curve that will connect the two lines. The angle



of intersection of the centre lines of the two roads is  $20^\circ 10'$  the point D is 450 feet from the intersection point. I would be pleased to receive a solution from yourself or any of your readers, as I do not find this problem treated upon in our field books.

January 13th, 1908.

Yours, Rodman.

## ENGINEERING SOCIETIES.

CANADIAN RAILWAY CLUB.—President, W. D. Robb, G.T.R.; secretary, James Powell, P.O. Box 7, St. Lambert, near Montreal, P.Q.

CANADIAN STREET RAILWAY ASSOCIATION.—President, E. A. Evans, Quebec; secretary, Acton Burrows, 157 Bay Street, Toronto.

CANADIAN INDEPENDENT TELEPHONE ASSOCIATION.—President, J. F. Demers, M.D., Levis, Que.; secretary, F. Page Wilson, Toronto.

CANADIAN SOCIETY OF CIVIL ENGINEERS.—423 Dorchester Street West, Montreal. President, W. McLea Walbank; secretary, Prof. C. H. McLeod. Meetings will be held at Society Rooms each Thursday until May 1st, 1908. January 28th, 1908, annual meeting of the Society.

TORONTO BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.—96 King Street West, Toronto. President, E. H. Keating; secretary, T. C. Irving, Jr. Traders Bank Building.

ENGINEERS' CLUB OF TORONTO.—96 King Street West. President, J. G. Sing; secretary, R. B. Wolsey. Meeting every Thursday evening during the fall and winter months. January 23rd, 1908, "Water Transportation from the North-West," by Mr. F. L. Somerville.

CANADIAN ELECTRICAL ASSOCIATION.—President, R. S. Kelsch, Montreal; secretary, T. S. Young, Canadian Electrical News, Toronto.

CANADIAN MINING INSTITUTE.—413 Dorchester Street West, Montreal. President, Frederick Keffer, Greenwood, B.C.; secretary, H. Mortimer-Lamb.

NOVA SCOTIA SOCIETY OF ENGINEERS, HALIFAX.—President, R. McColl.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, TORONTO BRANCH:—Louis W. Pratt, secretary, 123 Bay Street, Toronto.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—29 West 39th Street, New York. President, H. L. Holman; secretary, Calvin W. Rice.