Editorial

SELECTION OF ENGINEER OFFICERS.

At the last annual meeting of the Canadian Society of Civil Engineers, a resolution was framed offering to co-operate with the Dominion Government in the training of competent officers for the engineering branches of the service. The resolution also tried to impress upon the government the importance of requiring that all engineer officers should have had practical engineering training before receiving commissions. This resolution was duly forwarded to Sir Robert Borden and Sir Sam Hughes.

The Council of the Society has not as yet made public the replies that it received, but it is unofficially understood that the replies were of a most unsatisfactory character. If this is true, it is most unfortunate. The Canadian Society of Civil Engineers is in the best possible position to assist the government, not only in the training of engineer officers, but, what is more important still, in the selection of those officers. The military authorities cannot be so well posted regarding the engineering ability of the various applicants, as are the members of Council and the branch executives of the Canadian Society.

The Canadian authorities would be well advised were they to follow the lead of the British authorities in this regard. In England no person is admitted to the Royal Engineers except on certification by the president of the Institution of Civil Engineers. An inspection of the form that must be used by all who apply in England for appointment to a commission in the regular army during the war, shows that a candidate for a cavalry regiment must apply to the officer commanding a cavalry regiment; that a candidate for an infantry regiment must apply to the officer commanding a service battalion or a battalion of the special reserve; that a candidate for the Royal Artillery or for the Army Service Corps must apply to the War Office; and that *a candidate for the Royal Engineers must apply to the president of the Institution of Civil Engineers.*

CIVIC IMPROVEMENT LEAGUE.

Every opportunity offers to the Civic Improvement League to do noteworthy work. If political patronage and personal glorification are not allowed to dictate the actions of this body, some real good can be expected to result from their efforts. We suppose it is only natural that in launching any national movement of this sort, some persons must be included in the organization who have little or no contribution to make excepting nice-sounding speeches.

It will be unfortunate, however, if too many politicians and self-seekers are permitted to mould the affairs of the League. The chairman of the Dominion Council of the League undoubtedly has borne this in mind, however, because the list of provincial and national representatives that he has named appears to be more free from this sort of thing than one might expect.

It is worthy of comment, however, that among the list, as published in the daily newspapers, there does not appear the name of any representative of any engineering organization. One could reasonably suppose that the Canadian Society of Civil Engineers would be represented very strongly in this movement. Engineers should take, and should be permitted to take, not only a large part but the largest part in this movement, because, by their training, engineers are most fitted to deal with questions of civic improvement. And as a matter of fact, even among the engineers, the only ones who are fully competent of doing any real work in this regard are those who have been specially trained in the department in question.

LETTER TO THE EDITOR.

Re "An Interesting Point in Retaining Wall Design."

Sir,—Referring to Mr. E. M. Proctor's letter, which appeared in your issue of February 17th, entitled "An Interesting Point in Retaining Wall Design," I beg to submit the following reply to his enquiries:—

The analysis in Case No. 1 is correct, providing the tension in the back of the wall is taken care of by reinforcing rods. This condition could also exist without the presence of the reinforcing rods, provided the tensile value of the concrete is sufficient to take care of the tensile stress and is not destroyed by the development of cracks.

The analysis in Case No. 2 is correct, providing the tensile value of the concrete is zero and reinforcing rods are omitted. This condition will occur when no reinforcing steel is used and cracks have developed in the back of the wall, thus destroying the tensile value of the concrete. The appearance of cracks in the back of a wall, which is almost sure to be the result if Case No. 2 is used, is exceedingly undesirable and also detrimental to the safety of the wall.

The analysis in Case No. 3 is not correct, as the wall cannot be assumed as a beam under simple bending, because we have in this case both simple bending and direct stress in the section of wall under consideration. The formulae $fc = \frac{M}{\frac{1}{2} k j b d^2}$ is applicable only to reinforced concrete beams under simple bending and therefore cannot be applied in the above case.

R. L. HEARN.

Toronto, February 25th, 1916.

CIVIL SERVICE COMMISSION OF CANADA.

The Civil Service Commissioners announce that applications for two technical clerkships for temporary employment in the topographical branch of the Department of the Interior will be considered from graduates in Applied Science or honor mathematics of some recognized university or those who have passed the final examination for Dominion Land Surveyor or an equivalent examination. Salary will be at the rate of $100 a month and application forms must be filed in the office of the Civil Service Commission, Ottawa, by the 20th of March. Application forms may be obtained by addressing the Secretary of the Commission at Ottawa.