

Editorial

EMPLOYMENT FOR RETURNED ENGINEERS.

Since the outbreak of war many readjustments have been made necessary. These readjustments have invaded the field of the civil engineer in a very peculiar sense. The stress of war and the necessity of providing for its conduct has undoubtedly meant that money which in normal times might be used for public works of all kinds has been diverted to the coffers of the war chest. At the same time the volume of undertakings in which the civil engineer is involved has been rather striking during the past two years.

While it would be foolish to prophesy as to how long the war will go on, it is well that those interests which are concerned should begin now to provide ways and means by which those of the profession who are now on the firing line can be assimilated immediately they are liberated after peace has been declared.

In view of these facts it is incumbent upon public authorities of all kinds, railway companies and large corporations generally who can employ engineers, to make all preliminary arrangements possible to take care of these men when they return to Canada.

Engineers in large numbers have responded to the call for volunteers. They have done very wonderful work at the front. Is it too much to ask that those at home give this matter some serious thought?

It may be urged that the various local financial situations do not permit any such anticipatory measures. Nevertheless, the government might be called upon to advance the necessary loans to municipal authorities and public corporations in an effort to carry out undertakings of a profit-yielding character rather than the organization of benevolent schemes for the help of men who will be unable to find an outlet for their ability immediately upon their return to Canada.

VALUE OF COST DATA AND ITS COMPILATION.

Most engineers will recognize the desirability of comparison in costs on similar work under different organizations, and feel themselves under distinct obligation to the engineer who, recognizing how acceptable such data are, is willing to turn them over to his fellow engineers either through a paper or by publication in the engineering journals.

To learn from one's own experience takes time and sometimes costs money, and even then the experience of an individual is limited.

The periodical publication of cost data is simply the doing of one's "bit" toward a common good. It is unthinkable to expect one engineer to give inside information on his own costs unless he has reason to believe that some other engineer who has been engaged in similar work and perhaps under somewhat similar circumstances is willing in his turn to give him the benefit of his experience.

In preparing cost data there must be a due regard for comprehensiveness, clearness, conciseness, low expense of keeping, ease of keeping, regularity of compilation and last, but not least, their periodical publication.

CONSERVATION.

Slowly but surely the people of Canada are coming to a more intelligent appreciation of what the development of our water powers and the establishment of a sane and efficient forestry policy means. The question of conservation is one which comes a great deal closer to the province of engineering than many have realized. Public opinion is, however, being safely directed and is giving itself expression in the enactment of laws which, if enforced, will go a long way toward correcting the altogether too common opinion that conservation means merely to "save" and nothing more. Nothing could be further from the truth. Such saving would be, in reality, the very embodiment of wastefulness.

It might almost be said that all our resources, no matter what their character, are valuable just to the extent that they are used for the public benefit. True conservation, therefore, is the use of our resources to the best advantage so as to render the greatest good. Conservation of a tree, for instance, means to use the tree at the time it is most valuable and to adopt at the same time the best and most economical method of reproduction.

STUDY OF ACCIDENTS.

The following facts taken from the report of the Bureau of Accidents Prevention of the Portland Cement Association will be of interest:—

At the end of 1915 the Bureau had on file over 11,000 reports of accidents, 135 of which covered fatalities which occurred during 1913, 1914 and 1915. From a summary comparison of the accident figures for the three years in question it was found that in 1913 they averaged 62 $\frac{7}{10}$ per cent. per million barrels of cement produced. In 1914 the average was 74 $\frac{8}{10}$ per cent. and in 1915 64 per cent. In 1915 one hundred and thirty-five fatalities were reported to the Bureau, which shows a reduction of 50 per cent. in fatal accidents when compared with the figures for 1914. The majority of the causes of the accidents, as shown by a table in the report, were of the usual character, such as caught between belt and pulley, run over by railroad car or box car, drowning, falls from various distant heights, etc. From the summary it will be found that the commonest causes of the accidents, according to their classification, are falling objects, flying material and breaking or slipping of machine parts or objects. There is a marked difference shown in 1915 under the heading "caught between parts." This is due largely to the fact that much progress on the mechanical safe-guarding of plants has been made.

A distribution of fatalities for 1915 shows that the greatest number of accidents or fatalities occurring on any single day of the week was eight for Monday and also on Friday. These days are also charged with the greatest percent. of the total time lost on account of accidents.

Another table shows the distribution of accidents according to the hours of the day in which they occurred. In 1913 $\frac{1}{2}$ -hour periods were employed, but it was decided that the $\frac{1}{2}$ -hour periods were too small, and on