

# The Canadian Engineer

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## THE PENALTY OF PARASITISM

It is pointed out in biology that certain living creatures have deprived themselves of any individual power of natural defence because they find borrowing too easy. Nature being inflexible in her laws, what is unused or otherwise provided for becomes atrophied; that in daily exercise thereby becomes strengthened. The penalty for disuse is merciless and certain inhibition.

We may not be such stuff as dreams are made of, but creatures of habit we certainly are and to escape penalty constant activity and struggle is the price exacted for continuous success.

The vice of imitation thus reacts upon its practitioner; it is impossible to imitate without suffering individual loss. Wrong thinking is in this respect of less moment than borrowed opinion. Individual thought is less easily led aside but is more amenable to reason because of the mental processes which led up to its conclusions.

To the credit of the trained man everywhere his desire is to originate, not to imitate, and this does not preclude him adding new ideas to his existing stock, but in the process it becomes absorbed and digested and when finally welded with existing idea it issues in a new form.

Obviously it is not the province of everyone to create but the habit of fundamental thinking is one to cultivate, and engineering training, by its insistence upon first principles, tends to this creative habit of mind. The attitude towards work thus engendered builds character and ultimately leads to new ideas. Even routine can be dignified and enlarged by reason of conscious study of reason.

Original thought pays large dividends, while parasitism atrophies he who follows so detrimental a course. There is need and room for more independent thought in every walk of life. It is useless to take over ready-made opinion or to follow without discrimination or reason a set formula or programme for which logic is refused.

Most general problems are as complex as those more directly technical, but the sinking of principle to expediency is not the province of an engineer nor does his training justify such a course. He must make selection from alternatives. This is granted, but he is swayed only by economic or other valid reason in his judgment.

The engineer may in his business be a pure materialist, dealing with objective problems, but in his diagnosis of this and the practical aspect of his work, though he is realist enough, these lead to a mentality flexible and comprehensive. This is a direct result of his training and work scarcely paralleled outside his own profession.

Above all, there are few parasites; to borrow is not easy, and his training rejects where close scrutiny is impossible.

## MUNICIPAL WAR PROGRAMMES

The duties devolving upon our city authorities are onerous at all times, but particularly so during the war. The period of readjustment following the war will call for even greater executive ability. The greatest problem, after providing for the present needs of the people, is to arrange for the time when the soldiers will return and when they and the civilians now employed on munitions will be seeking other employment.

The British government has called upon all municipalities to consider this matter, and a large number of them have prepared or are now formulating programmes of public works.

It is a pleasure to note that some public authorities in Canada are organizing schemes of highway construction, but these will take care of but a fraction of the number of men who will be seeking work, and, besides, that class of work will not suit all men. That some authorities are moving, does not constitute a solution of the problem. All municipalities must sooner or later evolve methods of providing work of economic usefulness. Moreover, every well-organized commercial concern will also develop broad plans, or the social cataclysm induced by peace may be very unpleasant in many localities.

## BRANCH MEMBERSHIP, CAN. SOC. C.E.

According to the report of council of the Canadian Society of Civil Engineers, the membership of the society's branches at December 31st, 1917, was as follows:—

|                | Members | Assoc. Members | Juniors | Students | Asso- ciates | Total |
|----------------|---------|----------------|---------|----------|--------------|-------|
| Calgary .....  | 40      | 9              | 5       | 1        | 1            | 56    |
| Edmonton ...   | 11      | 30             | 7       | 9        | —            | 57    |
| Manitoba ....  | 38      | 90             | 27      | 22       | —            | 177   |
| Ottawa .....   | 64      | 120            | 38      | 22       | 2            | 246   |
| Quebec .....   | 20      | 53             | 21      | 13       | 1            | 108   |
| Saskatchewan . | 10      | 50             | 4       | 5        | —            | 69    |
| Toronto .....  | 56      | 137            | 34      | 63       | 6            | 296   |
| Vancouver ...  | 47      | 71             | 10      | 4        | 1            | 133   |
| Victoria ..... | 26      | 39             | 9       | 2        | —            | 76    |
|                | 312     | 599            | 155     | 141      | 11           | 1,218 |