

As a very large proportion of the expenditure of Canada has to be made under the supervision of and to some extent through the engineers employed in the various branches of the government, it is, I think, right for us to consider their case. I am informed that in all the branches of the public service of Canada the engineers, perhaps the most important of the whole lot, are not included in the Civil Service of Canada. There are, I believe, one or two exceptions of engineers in some of the departments who are members of the Civil Service, but I am informed that in some of those cases, and they are very few, they are there not as engineers but as clerks, they draw salaries as chief clerks or clerks and not as engineers, not as members of the profession to which they belong and whose duties they perform. If that be correct, and I have the information on good authority, it justifies the statements I have made that the position of the engineering profession in the public service is not only anomalous but to a very great extent a false one. What course should the government take? The members of the engineers association are naturally proud of the profession to which they belong and object to their status not being equal to that of other branches in the public service. It may be gathered, from the few opening remarks I have made, particularly with reference to the past, that not much care is exercised in the admission of gentlemen into our public service as engineers. As I am informed, it has not been necessary for them to produce certificates or diplomas from any recognized engineering institute or credentials of any kind in order to get employment. It has not even been deemed necessary that they should produce any evidence of education, scientific, technical or general. But in saying this, I wish to be distinctly understood as not reflecting on the engineers now in the public service. On the contrary, I have a very high opinion of them, and it has been a source of astonishment to me that the government should have succeeded in procuring and retaining the services of such an excellent staff.

The first requisite for the government service should be high professional standing. That should be insisted on. While, as a rule, the engineers in the public service are well up in their profession, there are some exceptions, and I think that it would be in the interests of the service and of the engineers themselves that a fixed standard of efficiency should be enforced on admission. In other parts of the world, the importance of education, scientific and otherwise, is recognized by governments in the selection of their engineers, and it seems to me that a similar course should be followed here and a high standard insisted on. I know that the great majority

of the engineers of Canada are very anxious that should be done. They are not at all anxious that men should be admitted into the service as engineers who have not reached that high standard in the profession which ought to justify their appointment.

I have already referred briefly to the enormous expenditure of public money which takes place throughout the Dominion under the direction of engineers. Take for instance the Grand Trunk Pacific, on which hundreds of millions of dollars are being spent, a great part of it under the supervision of engineers. How vitally important it is in the interests of Canada that the men who superintend that expenditure should be thoroughly competent is self evident. But not only is there the expenditure of money to be considered. Enormous as that expenditure is, it is perhaps not the most important matter. By the expenditure of that money we are opening up and developing this great country, and this country could never have been developed as it has been were it not for the work of these engineers. On that work we have to depend for the opening up of the rich and fertile regions of the west; and unless the men we employ be competent, thoroughly trained to a high standard, it is almost hopeless to expect that the work will be done in a satisfactory manner. Therefore, I would suggest that before a man is admitted into our public service as an engineer, he should be required to possess a high standard of qualification. He should have gone through a proper technical school, a proper school of engineering, or have the certificate of some institute of engineers on which reliance can be placed. A distinguished English engineer, Mr. James Chas. Inglis, the newly elected president of the Institute of Civil Engineers, London, in his inaugural address said:

Several important departments of state rely to a considerable extent upon the work of the council, and in some cases, upon advice given by it with respect to questions of the qualification of the engineers and of their selection for public services. The result of all this strengthening of the efficiency of the institution is that a higher average technical proficiency is undoubtedly attained by the young engineers attached to it than was formerly the case, and this state of affairs has been notably marked by the action of the India office with respect to engineering appointments in the Public Works department; and, very recently, by the War Office which has entrusted to the council of the institution the important function of selecting and recommending young engineers for nomination to the newly organized reserve of officers for the Royal Engineers. . . . The War Office has assigned to the president of the institution the duty of selecting men for nomination to this reserve, as may be required from time to time.