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JUDGE MIGNAULT'S SUCCESSOR

NOW that parliament is again in session, it is most likely that the Cabinet will soon discuss the question of a successor to Judge Mignault as a member of the International Joint Commission. Despite rumours to the contrary, *The Canadian Engineer* is officially advised that the vacancy in the ranks of the Commission has not yet been filled.

The Engineering Institute of Canada and all other engineering and technical societies in Canada should grasp without delay the opportunity of making forcible representations to the government regarding the appointment of an engineer to this vacancy.

Attention has frequently been called in these columns to the fact that the work of the International Joint Commission is almost entirely of an engineering nature. Law and legal procedure have entered comparatively little into the discussions and decisions of the Commission. One lawyer on the Commission should be sufficient to give adequate legal advice. The present legal commissioner, Henry A. Powell, is quite capable of looking after that end of the Commission's responsibility.

Hon. Charles A. Magrath, chairman of the Canadian section of the Commission, is an experienced parliamentarian, but he is also a Dominion Topographical Surveyor, a Dominion Land Surveyor and a member of the Engineering Institute of Canada, and is therefore closely in touch with engineering problems and their solution. When Mr. Magrath was appointed to the Commission, one of the members of the government is said to have explained to the House of Commons that he was appointed because of his judicial mind. Apparently the government thought it necessary to apologize for appointing an engineer instead of a lawyer.

The appointment of a third member to fill the vacancy caused by the elevation of Judge Mignault to the Supreme Court bench, should be based solely and admittedly upon the appointee's engineering ability, and not upon his judicial or

legal capability, because the services of another skilled engineer can be used to the greatest advantage in the work of the International Joint Commission.

As we have said before, it does not require a lawyer to decide how much water can be diverted from a stream for power purposes without interfering with navigation. The "K. C." hardly qualifies a man to decide the extent to which boundary streams can be polluted with sewage without endangering the health of communities which use those streams as water supply. Acquaintance with judicial procedure is no recommendation of one's ability in deciding the value of a lake as a storage pond for water power development. Blackstone is not the reference to whom one would turn in deciding the effect upon the great lakes of the water diversion through the Chicago Drainage Canal, or the effect upon the St. Lawrence River level of the construction of a submerged weir or of a dam.

The formal appointments to the International Joint Commission rest chiefly with the British authorities, we believe, but there would appear to be little doubt that Judge Mignault's successor will be named solely upon the recommendation of the Dominion Cabinet. The members of the Cabinet therefore, should be educated without delay to the necessity of appointing an engineer, so that Premier Borden, while he is in England, can discuss the matter with the Imperial government.

ELECTRIC GENERATION IN CANADA

ARE there 470 or 565 central electric generating stations in Canada? In a summary of central station statistics recently given out by the Dominion Water Power Branch, who co-operated with the Dominion Census and Statistics Office in taking a census of central electric stations throughout Canada, the number was stated to be 470. But the directory of central electric generating stations which has just been published by the Commission of Conservation as a report on "Electric Generation and Distribution in Canada," says that there are 565 such stations. The statistics in the latter directory also apparently "find" 263,172 more installed horse-power capacity than do the Census Office's figures. Of this, 153,957 h.p. is additional hydro-electric power; 108,002 h.p. is developed by steam; and 1,213 h.p. by internal combustion engines.

Following is a comparison of the principle statistics quoted in the Commission's report with those given out recently by the Census Office:—

	Conservation Commission.	Census Office.
Number of central generating stations	565	470
Capacity, h.p.	2,107,743	1,844,571
Number of private plants	358	296
Capacity, h.p.	1,655,235	1,444,314
Number of public plants	207	174
Capacity, h.p.	452,508	400,257
Number of hydraulic plants	270
Capacity, h.p.	1,806,618	1,652,661
Number of steam plants	201
Capacity, h.p.	288,202	180,200
Number of internal combustion plants	94
Capacity, h.p.	12,923	11,710
Installed electrical equipment, k.v.a. ..	1,684,615	1,387,521

Has the Census Office missed 95 generating stations and 263,172 h.p.? Or has the Conservation Commission's report been compiled upon a different basis? That seems to be the inevitable question.

Of course the manner in which the figures were gathered might make considerable difference in all of the totals, and even in the number of plants. For instance, the totals of hydraulically-developed horse-power installed might vary according to whether they represent the rated power of the turbines, the power at the generator couplings or the power measured at the switchboard; also according to the manner of listing plants that are central stations only in part. If