ficient to carry away the ice, of which an enormous amount passes over the Falls every spring.

"The various projects want to divert 50 per cent. or more of the flow from the rapids through new channels (canals and tunnels); and if they are allowed to do this, then the remainder of the water flowing through the Gorge (in which the rapids are) will not be enough to carry off the ice, which will at once cause an ice jam.

"This ice bridge or jam is liable to be a hundred feet or more in height and will result in the destruction of all the existing power plants at the Falls; for when the jam breaks, all the new power plants below the ice jam will be carried away. All power development in the Niagara River would cease for a year or two. This can easily be understood by those who saw the jam, a few years ago, which lasted for eight hours and, in breaking, stripped the banks to a height of 20 to 40 ft. for miles down—destroying wharves, etc., at Queenston and Lewiston.

"The Niagara River should be developed to give the maximum amount of power at minimum cost and at the same time to preserve the beauty of the falls. This result can only be obtained by an international agreement in which the entire question should be treated as a unit—not as a 'crazy quilt' patchwork. Otherwise, the consumer pays the bill."

When considering Dr. Thomson's letter in connection with the proposed Hydro development, it should be borne in mind that the danger he refers to is based upon an assumption that 50 per cent. or more of the 220,000 sec.-ft. is to be diverted from the rapids.

The Hydro scheme, as at present constituted, calls for the diversion of only 17,790 sec.-ft. (even including the 11,180 sec.-ft. now developed at the Ontario Power Co.'s existing plant) and could include only 36,000 sec.-ft. even if the other two Canadian companies at the Falls were to be purchased and all their water rights diverted to the Queenston plant.

The United States has the right, of course, to divert from the rapids the same amount of water as is so diverted by Canada, but by the time proper allowance is made for the amount diverted through the Chicago and Erie Canals, the total diversion from the present rapids would not very greatly exceed 50,000 sec.-ft., or only about 25 per cent. of the present flow, instead of 50 per cent.

There is a wide variation of opinion concerning the amount of water necessary to keep the river clear of ice. Some engineers who are also closely in touch with the conditions, assert that 40,000 sec.-ft. would keep the river free from any dangerous jams.

Dr. Thomson's apparent anxiety regarding the "beauty of the present Falls and the rapids below," and his description of the "magnificent spectacle" which they afford, are strangely inconsistent with the attitude which he adopted only last summer when urging the Ontario government to adopt the Thomson-Porter scheme of development whereby a dam which he desired to build above Queenston would have completely drowned out the rapids and the whirlpool, leaving only a comparatively gentle and sluggish five-mile stretch from the Falls to Queenston.

However, inconsistency does not invalidate Dr. Thomson's remarks, to which the engineers in charge of Niagara's development will no doubt give proper heed and study. As Emerson says, "a foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines. With consistency a great soul has simply nothing to do. He may as well concern himself with his shadow on the wall. Out upon your guarded lips! Sew them up with pack thread, do. Else, if you would be a man, speak what you think to-day in words as hard as cannon balls, and to-morrow speak what to-morrow thinks in hard words again, though it contradict everything you said to-day. Why drag about this monstrous corpse of your memory, lest you contradict somewhat you have stated in this or that public place? Suppose you should contradict yourself; what then?"

PERSONALS

J. A. MacGillivray, assistant bridge engineer of the Manitoba Good Roads Department, has resigned.

E. W. M. James, A.M.Can.Soc.C.E., has been appointed bridge engineer with the Manitoba Good Roads Department.

Flight-Lieut. T. C. Hoidge has been awarded the Military Cross. He is a graduate of the School of Practical Science, Toronto University, Toronto.

C. W. Peeling, local manager of the Oshawa Electric Light and Power Co., has been appointed manager of the Cornwall (Ont.) Street Railway Light and Power Co.

Harry Clifford Rose, B.A.Sc., who was lieutenant in the 219th Field Company, Royal Engineers, and a 1916 graduate of the School of Practical Science, Toronto, has been wounded.

Melville P. White has been appointed manager of works of the Canadian Allis-Chalmers, Limited. In this column last week it was erroneously stated that Mr. White had been appointed general superintendent.

William J. Lynch has been appointed general manager of the Quebec Railway Light, Heat and Power Co., Limited, in succession to the late H. G. Matthews, and C. Piggot has been appointed chief engineer.

Allan O. Leach, of the engineering department of the Canadian Northern Railway, has been appointed by the United States War Department as supervising engineer in charge of the construction of Camp Dodge, Des Moines, Iowa.

Albert G. Langley, M.E., consulting mining engineer of Vancouver, has been appointed district engineer of the eastern mineral survey district. He will immediately assume his new duties at Revelstoke, B.C., his headquarters.

A. R. Roberts, B.Sc., of Toronto, is no longer representing the Cement-Gun Co., Inc., of Allentown, Pa., having decided to join the Burns Cement-Gun Construction Co., Limited, and take on contracts for gunite work instead of selling cement-guns. Mr. Roberts is also a partner in the firm of Burns & Roberts, manufacturers' agents, and is the representative for all Canada, excepting British Columbia, of the Chapman Valve Manufacturing Co.

OBITUARIES

Archibald Downie, of the firm of Watson & Downie, contractors, Calgary, died from injuries received by a fall at a building under construction by the firm.

Prof. Nathan F. Dupuis, for many years dean of practical science at Queen's University, Kingston, died on July 20th at Long Branch, California, where he went for the benefit of his health. He was 81 years of age and was connected with Queen's for fifty years.