

Editorial

NIAGARA POWER IN UNITED STATES.

New York users of power are working in co-operation with the power companies to secure more water from the Niagara River. At present there are 4,400 c.f.s. unallotted of the United States treaty portion, and it is held under the jurisdiction of the United States Secretary of War. A strong effort is being made to have this released immediately. The power companies on the United States side have machinery installed which is not working to capacity, and they could immediately place extra water in service.

This 4,400 c.f.s. would relieve present conditions only for a comparatively short time, so consequently those interested in power in the United States have made representations that much greater diversion than is provided for by the boundary waters treaty, should be made available by amendment to treaty or by supplementary treaty.

The Cline bill, which is before the United States committee on foreign affairs, makes a strong feature of the efficient use of the waters of Niagara,—that is, under full head. Possibly the Federal legislators may carry out such provisions, if enacted in law, by insisting that the 20,000 c.f.s. allotted to the United States be used under its full head. To do this would increase the power available in the United States by probably 40 per cent., but the question of amount of water that can be diverted from the rapids would have to be considered.

The recommendations respecting efficiency in the Cline bill are exemplified in the Chippawa Creek project of the Ontario Hydro-Electric Power Commission, where about 300 ft. head will be used. The committee on foreign affairs held final hearings in Washington August 1st, when representatives from Buffalo and vicinity who sought to obtain the unappropriated 4,400 c.f.s., made strong representations that this water should be allotted to New York State for the benefit of all the people, and as a nucleus for a state system of hydro-electric development similar to the Ontario Hydro-Electric Power Commission development.

Other parties reported to the committee that the water should be given to the State and that the State should be allowed its own discretion, and if thought desirable, the water should be leased by the State on rental to existing or other power companies.

The whole situation is a difficult one on account of the power shortage on both sides of the boundary. Congress will probably adjourn the end of August or early in September. It will be interesting to observe whether any relief can be obtained by those who are short of power in New York State in the brief time which remains before adjournment; also to observe what sort of reception the Cline bill will have when finally presented to Congress. There may not be sufficient time for a measure of this kind to go through all the steps which will have to be taken before Congress adjourns.

During the week of July 24, a meeting was held of the committee on foreign affairs, and it was reported by one of the gentlemen present at this meeting, that he understood that arrangements were then made whereby 1,000 c.f.s. of the unappropriated 4,400 c.f.s. would be made available for use,—it may be only temporarily—by

the United States power companies at Niagara Falls, in order to help out the power shortage at Buffalo.

Sooner or later this important subject of Niagara power will be prominently before the public both in Canada and in the United States.

DEPRECIATION OF MACHINERY.

We are afraid that engineers and engineering contractors do not, when purchasing equipment, give due attention to the matter of depreciation.

Depreciation is made up of two factors—age and actual deterioration—each important as the other.

Furthermore, these two elements cannot in the very nature of things be combined satisfactorily, as the latter bears a direct relation to the volume of work done by the machine, but no such relationship is borne by the former. For example, if a concrete mixer is driven to its utmost capacity day and night its liability to become out of date is not increased. On the other hand, its life is shortened.

It is not a difficult matter to keep an efficient tool in order. To do so, it is necessary that due attention be paid to defects as soon as they show themselves—the renewing of wearing parts just as soon as they show signs of wear—as well as careful handling whilst in use. Depreciation on such a machine will be very small, provided the tool is maintained at a high efficiency.

Another matter which calls for care in purchasing machinery is the question of a tool being bought to-day which may be superseded to-morrow. This should be taken into account when the subject of depreciation is under consideration. It may not have an effective life of many months, as another tool may at any moment be designed which will render it financially unsound to keep the original machine in use. It is of vital importance that liberal provision be made for this risk when purchase of equipment is being made.

BRITISH TRADE WITH CANADA.

The report of Mr. C. Hamilton Wickes, His Majesty's Trade Commissioner in the Dominion of Canada and Newfoundland, for the year 1915 contains a number of facts which ought to be of interest alike to both Canadian engineers and engineering contractors, as well as the British manufacturer of engineering equipment.

Under the heading of "Agencies," Mr. Wickes says: "A representative from a United Kingdom manufacturing firm, making a visit to Canada, with the object of securing orders, should keep clearly before him the conditions under which his firm intend to carry on their business connection after he has returned from his visit. If, as is generally the case, it is intended to leave the business in the hands of a local Canadian firm as agent, the travelling representative should make his prices to cover the agent's commission in the future, and the additional duty which will be payable on the commission when it appears on the invoice to the customers.

"Moreover, the manufacturer will need to protect his agent as far as possible, in cases where direct applications are received from buyers who may have seen the agents'