

Editorial

THE DEVELOPMENT OF BRITISH COLUMBIA.

Lack of space in this issue precludes more than a cursory review of Mr. Gamble's address to the members of the Canadian Society of Civil Engineers assembled in Montreal last week. It is doubtful if the Province of British Columbia has in course of preparation, or already in its archives, a more interesting historical sketch of the growth of its transportation facilities. It is unlikely that the subject has previously received more thorough consideration and study than the retiring president of the Society must have given it in the preparation of his paper. He has enriched the literature of engineering by a volume of information that will be frequently turned to in future years, not only by his associates in the profession, but by many in other walks of life. His address is a most comprehensive resumé of the development, by land and sea, of transportation in British Columbia, and of the industries encouraged and increased thereby.

Mr. Gamble "goes back to the first," and his history of early days, earlier traditions and stories or hardship and adventure are in all probability as authoritative as they are interesting. His portrayal of the white man's awakening of inland solitudes, in search of the livelihood the world owed him, when roads were trails and railways were a myth, is indicative of the optimism and perseverance that have been potent factors in the development of the West. His references to early freight rates of 15 to 18 cents per pound between Yale and Barkerville, to hay as high as \$250 per ton and oats 35 cents per pound, signify that in 1867, as now, money in British Columbia persisted in having its say.

He deals with Pacific transportation in its initial stages, reviving our knowledge of the achievements of early navigators and explorers along the coast, notably Capt. Bering in 1741, Joan Perez in 1774, Capt. Jas. Cook in 1778, Capt. George Vancouver in 1792 and Alexander MacKenzie, who crossed the continent, reaching the coast in July, 1790. The establishment of trading posts by the Hudson's Bay Company, of Forts Vancouver and Victoria; the introduction into Pacific waters of the first steam vessel "Beaver" in 1836; the dangers to shipping along the treacherous coast and the establishment and growth of the present excellent system of safeguards to navigation, are subjects of extreme interest. The development within the province of the various railway systems and of coastal and oceanbound commerce is presented and, unconsciously perhaps, the manner of its presentation following a brief reference to the remarkable resources of the province is a thorough justification of the rapid expansion of facilities to trade and commerce in British Columbia.

CANADIAN WATER POWERS FOR CANADIAN NEEDS.

As one of the wealthiest countries of the world in water power resources, it is natural that Canada holds the attention of other countries as to the manner in which her water interests are investigated, controlled and utilized. We have made frequent reference in *The Canadian Engineer* to the extensive investigations of hydrographic and hydrologic nature that have been under way

during recent years in practically every province. Too much attention cannot be called to the valuable work of the engineers of the Water Power Branch, Department of the Interior; the Commission of Conservation, Canada; the Hydro-Electric Power Commission of Ontario; the International Joint Commission; the Quebec Streams Commission and the Nova Scotia Water Power Commission. To a certain extent the enormous amount of water power data which these organizations have accumulated toward the economic development and proper utilization of power, is a measure of what is being done by them for the direct benefit of the nation. Study and observation are unending, however, and increase in scope and responsibility with each succeeding year. Progress is slow, as stream flow data are necessarily years in attaining dependable value. Further, there are always questions demanding prompt attention regarding the water interests of the country, requiring, perhaps, special and detailed investigations; inquiries from individuals, corporations, government departments or from the governments of other countries, often demanding an intensity of research not anticipated by the applicant.

The report of Arthur V. White, consulting engineer to the Commission of Conservation, calls our attention to the administration of some very important problems at the present time. Presented at the recent annual meeting of the Commission in Ottawa, this report, which appears in part elsewhere in this issue, brings out a phase of water-power investigation which men are often apt to forget—the safeguarding to Canada of water power resources that are Canadian. Many of the questions referred to are those relating to waters along the boundary between Canada and the United States. It is worthy of note that these questions of international importance, upon a subject that is commanding great attention in both countries, are being, one by one, settled to the general satisfaction of both. The International Joint Commission is rendering a great service to the English-speaking nations of America, a service that will not be fully appreciated in a single decade or generation.

The same applies to the other forces mentioned above. Their work is highly important, for while Mr. White points out that the time will come when Canada will have uses for her share of all boundary water powers, the time will also come when there will be use for all her water powers. To safeguard them against incompetent and improper methods of utilization should be the aim of one and all.

NIAGARA RIVER POLLUTION.

The report of the International Joint Commission concerning the pollution of boundary waters will be presented this spring, in all probability. Investigations have been under way for several years, references to which have appeared from time to time in these columns. The findings and recommendations of the Commission with respect to the Niagara River will be awaited with much interest. At Niagara Falls, Ont., for instance, there are four sewer outlets, all of them discharging into the river. They are at Bender, Seneca, Park and Orchard Streets. It is to be expected, therefore, that a considerable readjustment of the city's disposal system may be required.