

can comfortably navigate the fourteen foot canals between Prescott and Montreal. The mention of this difference makes it opportune at this point to compare the two types of vessels.

The lakers, of which there are a number operating in the Great Lakes, may be as long as 700 feet, carry some 20,000 to 25,000 tons of cargo, or 700,000 to 800,000 bushels of grain, and operate with a crew of thirty-two to thirty-five. Canallers, on the other hand, whose length and draft are severely limited by the locks in the St. Lawrence canals, can carry only 2,000 to 3,000 tons of cargo, or 70,000 to 80,000 bushels of grain, and need a crew of about twenty-five. I know that these figures are not all of the pertinent factors, but they are sufficient, I am sure, to convince you that economics favour the larger type vessel; but unfortunately at the present time it cannot operate through the barrier between Prescott and Montreal.

It is the provision of facilities for deep draft vessels between Prescott and Montreal that is the purpose of the navigation works now under way but, as you know, the seaway project also concerns the development of power. It is not practicable to consider the one without the other.

The principal works are to be carried out in the International Rapids section of the river. Those for the development of power are being undertaken by the Power Authority of the State of New York and by the Hydro-Electric Commission of Ontario at an estimated cost of \$600,000,000. They are in the process of damming the river on both sides of Barnhart Island and the power-house will span that part of the river lying between that island and the mainland of Ontario. The development will produce 2,200,000 H.P., to be divided by New York and Ontario, both of which have need of additional hydro-electric energy.

When the dams are completed and closed they will raise the level of the river about eighty feet and will back up the water to a point near Iroquois Island, thereby creating an enormous pool or lake, submerging the existing fourteen foot locks and canals to the west of Cornwall.

Another dam across the river is to be built at Iroquois, not for power purposes but in order to regulate and control the flow of water from Lake Ontario.

To enable shipping to pass through these two dams, locks are in process of being built. Two are being built at Barnhart Island on the United States side of the river by the Saint Lawrence Seaway Development Corporation at an estimated cost of about \$85,000,000, while at Iroquois Island the St. Lawrence Seaway Authority is building a lock on the Canadian side at a cost of about \$15,000,000.

Though dredging is to be done in the vicinity of Cornwall Island and in Lake St. Francis, the next important