

Since then, Canada has been engaged, almost without interruption, in the extension and development of her system of canals, the main purpose being to provide navigation facilities from Montreal through to the Great Lakes. From 1834 to 1856 the canals of the St. Lawrence River system were deepened to provide nine foot navigation and the enlargement of the Welland Canal was undertaken in order to increase its capacity.

Then seventeen years later the next great period in our canal history began and the further deepening of the canals to provide fourteen foot navigation was undertaken, though the project was in fact completed only in 1904.

Then, after a brief respite of only nine years, we were off again on the greatest undertaking of that time, the building of the Welland Ship Canal which was started in 1913. This was a massive project. The new canal, in place of the twenty-seven locks which existed formerly, consisted of only eight locks, three of which were twinned, or doubled. It cost Canada \$132,000,000 when it was completed in 1932, but what is particularly significant is that the locks have thirty feet of water over the sills and the twenty-seven mile canal has a depth of twenty-seven feet, except in a few places where it is only twenty-five.

And now, in this year of grace 1956, we find ourselves engaged in this great undertaking of our own time, the St. Lawrence Navigation and Power Project. It would be a waste of time to try to measure its magnitude against the yardsticks we have used in the past; it is obviously more important to place it in its setting as a vital part of the St. Lawrence-Great Lakes waterway which has been described - properly, I believe, and despite our aversion to superlatives - as the world's greatest inland navigation system. The fact that the waterway extends more than 2,000 miles from the Atlantic Ocean to the western end of Lake Superior fully justifies calling it the greatest, but if that is not adequate qualification, I suggest that the fact that it overcomes the difference of 600 feet between the level of the Atlantic and that of Lake Superior should clinch the title.

The Five Steps

It accomplishes this remarkable feat in five steps. The first, of course, is from the sea to the Port of Montreal and accounts for only 20 feet out of the 600; but it is one for which we have made substantial expenditures. Originally, though the Gulf of St. Lawrence as far as Quebec was navigable by the largest ships afloat, sections of the route between Quebec and Montreal were restricted by the natural depth of 10½ feet at low water. Canada commenced dredging operations as early as 1844 and has spent some \$300,000,000 developing the St. Lawrence Ship Channel which at low level now has a minimum depth of thirty-five feet. May I add that we are continuing with further dredging at this time in order to widen