

Lake St. Clair. A canal through what is called the St. Clair Flats was projected in 1866 for the purpose of obtaining a straight channel (in place of the tortuous natural channel), 13 feet deep, 300 feet wide and about $1\frac{1}{2}$ miles in length, each side being protected by timber dikes resting on piles; the cribs thus formed being filled with material dredged from the channel and backed by dredged material. In 1873 the channel was deepened to 16 feet by dredging a width of 100 feet on each side of the channel axis. Here also it was found necessary to deepen and enlarge the channel for the enlarging commerce. The project now contemplates a double row of sheet piling to a depth of 26 feet along the channel face of each of the old dikes, dredging the area between the dikes to a depth of 20 feet, and continuing the channel above and below the canal to the same depth in the river and in the lake. On this work there has been expended nearly \$700,000.

The Lime Kiln Crossing at the mouth of the Detroit River is also being deepened to 20 feet. The depths demanded by and obtained for the increasing commerce through these channels have been as follows:—

1858	9 $\frac{1}{2}$ ft.	1871	12 ft.
1874	13 "	1885	16 "
1890	20 "		

WELLAND CANAL.

The history of this important artificial water-way connecting Lakes Erie and Ontario, by flanking Niagara Falls and surmounting a height of about 326 feet, is too varied in its nature and has too many details to burden this paper with more than a brief summary. It is nearly three-quarters of a century since the building of this canal was taken under serious consideration. The first project was to build a canal and railroad combined, that was in 1824, but the railroad feature was dropped, and the work began with wooden locks 110 feet long, 22 feet wide, with 8 feet of water on the miter sills. Water was let into the canal in 1829, and two vessels were taken from Lake Ontario to Port Robinson on the Welland River in that year. The financial embarrassments of the Company, however, compelled it to obtain a grant from the Canadian Government, one of the requirements of which was the extension southward to Lake Erie on nearly the same line as now exists. The canal was open to the passage of vessels in 1833. The channel was narrow as well as the locks. In 1841 the Government appropriated some money towards the enlargement and improvement