

head of Lake Superior; of this distance 71 miles are artificial navigation by means of canal, and 2,189 miles open navigation; from Port Arthur to Duluth, which is the principal port in that section of the United States for the produce of the Western States, is a further distance of 124 miles, making altogether 2,384 miles; when it is considered that by this means, unbroken water communication is afforded from Port Arthur and Duluth to Liverpool, a total distance of 4,618 miles, the importance of this system and the necessity for its thorough maintenance will be at once understood.

302. Lake Superior and Lake Huron are connected by the Ste. Marie River, which is not capable of navigation, owing to the numerous rapids. This difficulty has been overcome by the construction of a canal on the United States side of the river, which is rather more than one mile in length, and has one lock 515 feet long and 80 feet wide, with a rise of about 18 feet.

303. In addition to this the canals on the St. Lawrence system are the Welland, from Port Colborne on Lake Erie, to Port Dalhousie on Lake Ontario,  $26\frac{1}{2}$  miles in length by the enlarged or new line, with 27 locks, and a total rise of  $326\frac{3}{4}$  feet, and along the St. Lawrence, the Galops,  $7\frac{5}{8}$  miles in length, with three locks and a rise of  $15\frac{3}{4}$  feet; the Rapide Plat, four miles in length, with two locks and a rise of  $11\frac{1}{2}$  feet; Farran's Point, three quarters of a mile long, with one lock and a rise of 4 feet; the Cornwall,  $11\frac{1}{2}$  miles in length, with seven locks and a rise of 48 feet; the Beauharnois,  $11\frac{1}{4}$  miles in length, with nine locks, and a rise of  $82\frac{1}{2}$  feet, and the Lachine Canal,  $8\frac{1}{2}$  miles in length, with five locks, and a rise of 45 feet.

304. The difference in level between Lake Superior and tidewater is about 600 feet. The total number of locks on this system is 53, and the total height directly overcome by locks is 533 feet. The greatest navigable depth is 14 feet, and that at present is only to be found in the Welland and Lachine Canals, but it is intended to enlarge the other canals in the system to at least that depth.

305. The other canal systems of the country are as follow:—The Ottawa, which connects Montreal and the city of Ottawa, and the Rideau, which in conjunction with the Ottawa system, affords communication between Montreal and Kingston, a total distance of 246 miles. The lockage on this system (not including that of the Lachine Canal) is 509 feet, 345 rise and 164 fall, and the number of locks is 55. The Rideau Canal was originally built by the Imperial Government for military purposes. It was begun in 1826 and finished in 1834, at a cost of \$3,860,000.

306. The Richelieu and Lake Champlain system or Chambly Canal extends from the junction of the Rivers St. Lawrence and Richelieu, forty-six miles below Montreal, into Lake Champlain, a distance of eighty-one miles. There are ten locks, and a rise of 79 feet. By the Lake Champlain Canal communication is