

point and then comes a stretch of practically free navigation in Lake Nipissing extending 32 miles, at the end of which is a lock that elevates the east-bound craft from Lake Nipissing into Trout Lake. Here the summit is reached, 677 feet above sea level, and 24½ miles long, mainly free navigation, but requiring small cuttings at places where the channel is contracted. The channel leads directly into Lake Tallon (an expansion of the Mattawa River) which is to be raised 37 feet by a dam constructed at the head of Tallon Falls. The summit level, therefore, extends from Trout Lake to Tallon Falls. The run-off from the drainage area supplying this level, however, was not deemed, by the engineers, to be sufficient to work the canal system to its full capacity, and a painstaking search for additional supply was instituted. The river Amable du Fond, flowing, northward, empties into the Mattawa lower down, and it was found that

transportation of supplies, etc., so that the cost will be reduced to the minimum for this class of work.

From Mattawa to the city of Ottawa, below the Chaudiere Falls, there are 12 locks, with a total fall of 360 feet, and at three points locks are grouped in flights. One of these flights is to be at Ottawa to overcome the falls, a drop of 55 feet between the levels above and below the Chaudiere Falls. The other flights are to be at Chats Falls and the Rocher Capitaine Rapids. The single locks will be at Cheneaux Rapids, the Rocher Fender, the Paquet Rapids and Des Joachims.

From Ottawa to Montreal the main channel of the Ottawa River is followed, five single locks utilized to bring the proposed waterway to the level of the St. Lawrence. These locks would be at Hawkesbury, Point Fortune, Ste Anne and Verdun, and finally one opposite the custom house in Montreal.



Fig. 2.—Map Showing Advantageous Location of Georgian Bay Canal.

by means of a flume and tunnel it could be diverted so as to empty into the summit level, thus giving a large surplus of water.

Leaving the summit level the line passes to the north of the main channel of the Mattawa River, across quite a high divide and thence into the level below, through two flights of locks of 60 feet each, a drop of 120 feet. Following down the Mattawa, the Ottawa River is reached at the town of Mattawa. After a passage through three locks, one at Les Epines Rapids, one at Champlain Chute, above Mattawa, and one lock located at the town of Mattawa itself, a fall of 57 feet in the three, is a total drop of 177 feet from the summit.

This section involves the heaviest work of the whole line, but the close proximity of the line of the Canadian Pacific Railway eliminates the features of excessive cost of

On account of expected opposition to the adoption of the latter section of the route, because of the frequent crossings which it will involve of the trunk lines of railway centering in Montreal, another route which would obviate this difficulty has been investigated. It proceeds by the River Des Proiries lock of Montreal, and will debouch upon the St. Lawrence at Bout de Lisle, the descent being accomplished by three locks.

In all, the canal from Georgian Bay to Montreal will be 400 miles long. From Montreal to the summit the distance is 334 miles, with a difference of 659 feet in elevation; and from the summit westward it drops 99 feet in 83 miles. The locks are to be of sufficient capacity to pass the largest freight boats on the lakes, vessels which are gradually approaching 625 feet in length, and are even now 60 feet beam,