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THE HYDRAULIC DREDGE "J. ISRAEL TARTE"

(By A. W. ROBINSON, M. Can. Soc. C. E.)

This dredge was placed in service in June, 1902, in deepening the channel through Lake St. Peter in the River St. Lawrence. As it involves some new features both in design and mode of operation, and has achieved a remarkable result, a detailed account of the dredge and of the work on which it is engaged will be of interest.

The author has purposely refrained from publishing an earlier account of it, preferring to wait until it has been thoroughly tested in service, and the results made available. The present paper will deal with the conditions leading up to the construction of this dredge, a description of the dredge itself, and a statement of the results accomplished.

The Lake St. Peter Channel is part of the improvement in navigation of the River St. Lawrence between Montreal and Quebec. This work has for its aim the passage of ocean vessels to Montreal, making that city the point of trans-shipment of the inland lake and rail traffic by the St. Lawrence route to the sea. This section of the river is 160 miles long between the cities named, of which about 60 miles is dredged channel in about 20 different places.

The kind of material met with, varies in the different localities from soft clay to slate rock and stones. The dredging machines, therefore, must be different in their character for the different sections of the work.