

Department of Public Works.

PROVINCE OF MANITOBA.

DREDGING IN THE RED RIVER.

The Red River of the north has its source in Elbow Lake in the west of the State of Minnesota, in about lat. 47° 7' N., long. 95° 25' W., and after a course of about 665 miles, 525 of which are in the United States, it empties into Lake Winnipeg at a point 21 miles below Selkirk.

At a point about 18 miles from Selkirk the river is divided into three branches, known as the east, centre and west. The western has been adopted as the best in the interests of navigation, and it is at the mouth of this branch that the departmental dredge "Winnipeg" has been working for several seasons.

The bar at the mouth of this branch through which a channel has been dredged, is a little more than a mile in length, and like all bars at the mouths of rivers similar to the Red River, any channel dredged through it will yearly become more or less silted up. Dredging operations have, therefore been carried on for a number of seasons, to keep the channel, leading to Selkirk, the head of navigation, open. On the 15th August, 1892, operations in the west channel were resumed by the departmental dredge "Winnipeg" and were continued until the end of October, during which period 42,780 cubic yards of clay and sand were removed. Some dredging was done before the close of navigation, for the Department of Marine and Fisheries, at the site of the Fish Hatchery at West Selkirk, the dredge removing 3,600 cubic yards of material, and for the service rendered the department received the sum of \$251.50, the actual working expenses of the plant.

Owing to the severity of the winter of 1892, the high stage of the water, and the thickness of the ice when running out, an enormous quantity of silt and sand was carried to the mouth of the river, and the forks were so blocked that, unless a large portion of the season had been taken up in dredging in the west channel, navigation would have been very much impeded.

An examination of the different channels showed that the eastern could be improved in a shorter time than the western, and the dredge "Winnipeg," was accordingly put to work in this channel on the resumption of work in 1893, and at the close of the fiscal year had removed 9,180 cubic yards of sand and clay, and made that channel practicable for the lake vessels.

DREDGING IN THE WHITE MUD RIVER.

The White Mud River empties into Lake Manitoba, 9 miles to the westward of Westbourne, in the county of Marquette.

Westbourne is on the line of the Manitoba and North-western Railway, and is the place of transhipment to and from Lake Winnipeg, and is distant from Portage la Prairie 17 miles.

During the year 1892-93, owing to the bad state of the plant, the dredge was only able to work in the river; lake work being out of the question.

The water in the lake being higher than usual, no interruption to navigation occurred, and the work done in the river proved of great benefit.

The quantity of material excavated by the departmental dredge "Priestman" was 11,927 cubic yards of hard-pan and gravel.