

## Department of Public Works.

### DREDGING AT NEWCASTLE.

The harbour of Newcastle is on the north shore of Lake Ontario, 47 miles east of Toronto.

On the 21st August, 1892, the dredge "Nipissing" commenced the removal of a sand bar from between the piers and into the harbour, making two cuts, one 700 the other 600 feet in length, the width of the excavation being 50 feet, to a depth of 10½ feet, finishing work on the 12th September. Again, from the 30th April to 5th June, 1893, the same dredge was engaged in removing a further accumulation of sand from between the piers, two cuts 1,100 and 700 feet each being made and having 14 feet at low water. The total quantity removed at Newcastle by this dredge was 16,170 cubic yards of sand.

### DREDGING AT NORTHPORT.

Northport, Prince Edward County, is situated on the Bay of Quinté, 12 miles from Belleville.

On 1st June, 1893, the dredge "Nipissing" did half a day's work at this place, taking out a cut 95 feet long, 25 feet wide and 9 feet in depth on the west side of the wharf. Three old piers were also removed on the east side. In all 395 cubic yards of clay and stone were excavated and placed in the wharf.

### DREDGING AT OWEN SOUND.

Owen Sound is situated in the township of Sydenham, county of Grey and at the mouth of the Sydenham River, it is the terminus of the Canadian Pacific Railway (Toronto Grey and Bruce Division) and of the company's line of steamers on the upper lakes.

For expenditure during 1892-93, \$15,000 was voted for dredging purposes at this place, and on the 17th August last, a contract was entered into with Mr. David Porter, of Wiarton, to dredge to a depth of 16 feet at low water at the rate of 11½ cents per cubic yard scow measurement, over the area as shown on the plan submitted to the tenderers.

Work was commenced on the 12th September, 1892, and up to the end of the fiscal year 119,100 cubic yards had been removed.

The department has now under contract the dredging of a new channel approach to this harbour, 150 feet wide and about half a mile in length. It is intended to dredge to a depth of 16 feet below zero of the gauge, now established, in order to give sufficient depth for vessels to enter at all stages of water level; the zero of the gauge is the lowest level known, and as recorded in February, 1892.

The material taken from the bed of Owen Sound Harbour both in the river and at the approach, is a fine *alluvium* earth and still finer sand. The material runs into the cuttings made by dredging and continues to do so until the sides of the cuttings form a natural slope. This will account for the large amount of dredging done, at this place, and the comparatively small result.

### DREDGING AT PENETANGUISHENE.

Penetanguishene is situated on the north of the Eastern Peninsula in Georgian Bay. It is the terminus of one of the branches of the Grand Trunk Railway.

There having been appropriated for expenditure in 1892-93, the sum of \$2,500 for dredging the harbour, work was commenced on the 18th August, and completed on the 1st September, the dredge working 160 hours and removing 13,261 cubic yards material. The amount expended was \$2,491.28.