APPENDIX No. 6.

WELLAND CANAL.

Description of the works and repairs executed during the fiscal year ending 30th June, 1869, by S. D. Woodruff, Superintendent.

(No. 7,509.)

WELLAND CANAL OFFICE,

St. Catherines, July 24th, 1869.

F. Braun, Esquire, Secretary,

Department of Public Works, Ottawa.

SIR.—I have the honor to submit the following report of the works on this canal, for the fiscal year ending 30th June.

This canal was opened on the 21st day of April, and closed on the 9th day of De-

cember last.

Although the canal was opened on the above named day, vessels (except an occasional steamer.) could not leave or enter it, in consequence of the great quantity of ice in Lake Erie, until about the first of May, when it was carried away by the easterly winds, and caused no further impediments to the navigation.

Previous to opening the canal an unprecedented flood arose in the Grand River, caused by a heavy fall of rain on the 18th of April, by which some portions of the emtankments, on the south side of the dam at Dunnville, were carried away on the 20th and 21st, and that village, and the lands lying to the eastward of it, for a considerable area, were flooded.

The flood water rose nearly two feet above that of any previous high water, thereby causing much damage in carrying away the canal works, and inundating the village, and

the low lands lying eastward of it.

In repairing the main breach in the embankment, much difficulty was experienced in consequence of the foundation being composed of quicksand material, and the delay attendant on bringing materials a distance of several miles to effect that object. Ultimately these difficulties were overcome, and the breaches made up, (under a force of six feet head of water,) without causing any interruption to the traffic through the main line of the canal, although it was necessary for a short time to suspend the navigation of of the feeder, in consequence of low water, and the overloading of scows which caused detention, and obstructed the transportation of materials used in making the repairs of these breaches. From the foregoing, it will be seen that the difficulties attending these repairs have been extraordinary, and I believe that I am safe in saying, without a precedent, as I am not aware of the repair of a breach upon any public work having been made while the navigation was maintained, and under so great a head and force of water.

On the 4th of November last, an interruption in the navigation was occasioned by a propeller running through the gates of the lock at Allanburgh, while a vessel was being locked. This casuality caused the vessel to sink in the channel below, and rendered its removal necessary before the spare gates could be brought up to the lock. The vessel was removed, the gates got up and hung, and the navigation resumed after four and a half days' interruption.

The cost of replacing the gates was levied upon the propeller.

Construction.

Under the head of construction are embraced the new works required to complete the canal.

Towards finishing the canal, with a view to bringing the water in the canal down to the level of Lake Erie, there has been completed during the past year: 25