

Section No. 4.

Grand Falls Shear Dam.—This shear dam is situated immediately above the falls on the eastern side of the river and at the mouth of Little River.

It was constructed in the year 1883-84, for the purpose of preventing logs and timber during times of freshets from being stranded on the rocks, and to direct them in their passage over the falls.

During the latter part of the winter and first part of spring, the sum of \$618.10 was expended in building a block at its outer end 21 feet 2 inches long, 21 feet wide and 14 feet high, or to within 6 feet of the top of the old work, thus leaving it in an unfinished state. Instructions, however, have been given for the completion of the block, and the sum of \$350 authorized out of the appropriation 1893-94, for that purpose.

Green River.—Green River empties into the St. John about 25 miles above Grand Falls. The lower portion is quite thickly settled, and a considerable amount of lumber is cut out on the upper branches.

During the fiscal year the sum of \$200 was expended in improving the tow-paths and channel, the work being of the same nature as that already described for the Tobique, etc.

River St. Francis.—The St. Francis empties into the St. John at the extreme north-western corner of the province, and forms part of the international boundary line between New Brunswick and the state of Maine.

During the fiscal year the sum of \$937.50 was expended by the department in improving the tow-paths from the mouth of the river to Glasier Lake, a distance of about 6 miles. The work consisted in cutting out trees and branches, and is similar to that already described for other works of a like nature along the river.

SHIPPEGAN.

Shippegan Harbour, Gloucester County, is situated near the entrance of Baie des Chaleurs, about 60 miles east of Bathurst.

At the southern end of Shippegan Harbour connection is made with the Gulf of St. Lawrence by "Shippegan Gully," a shoal and difficult channel, formerly used during fine weather by the smaller fishing boats and vessels of very light draught.

By the use of the "Gully" a saving in distance is made of from 25 to 40 miles for the fishermen going or returning to their homes from the fishing grounds situated off this part of the shore, while the harbour is also a most desirable shelter during storms, being perfectly protected from all winds, and largely used by all of the fishing vessels of the extensive fishing establishments of Caraquet, and other parts of the south shore of the bay.

To make the "Gully" available for vessels of a larger class, and permit of it being entered at all times of tide, or during stormy weather, the department in 1875, commenced the construction of a breakwater to protect the entrance, and a "dam" to close an opening known as the "east gully." Difficulty was had with the contractors, who suspended operations at the close of the summer of 1876, and the work was re-let in December, 1877, operations being resumed April, 1878, but the second contractors about the end of February stated their inability to proceed further with the work, and it was taken over by the department. At this time the "dam" was completed, about 900 feet of breakwater was raised to its proper height, and a further length of 500 feet partly built.

In October, 1879, a storm, during which the tide rose much higher than before known, seriously injured the "dam," while the unfinished outer 500 feet of the breakwater was completely destroyed, and the inner portion much damaged. In 1880-81, the dam was repaired, raised and strengthened by piles driven 10 feet apart, connected by caps and walings. During 1883, portions of it that had again settled were raised where deemed unsafe, and an extension of 120 feet added to the remains of the breakwater, a gap that had been made being closed, and the other portions of the structure raised.