

best of merchantable timber and that the St. Maurice is one of the most suitable rivers for floating logs.

We referred, a moment ago, to the water-power at La Tuque. The gauging made by the engineer of the Quebec Government, shows that it is simply marvellous. The La Tuque rapids or falls are in the first range of the townships of Vallières and Mailhot. The flow of the river at that spot is 7,945 cubic feet per second and the head of water 88 feet which, according to the engineer, would give a total capacity of 79,000 horse-power. By damming the river above the rapids and raising the head of water to 100 feet, the engineer says that the capacity would attain 90,000 horse-power.

**Grandes Piles Falls.** This great cascade is opposite the southern end of the village of St. Jacques des Piles, at a spot where the St. Maurice is about a thousand feet wide.

The river, between Grandes Piles and Petites Piles—the latter are about three miles above the former—is very wide as a rule. At one spot it is over half a mile (about 3,000 feet) wide. At the Petites Piles it narrows considerably and is barely 250 feet wide.

The engineer, Mr. Gauvin, has calculated that, supposing the minimum flow to be 15,500 cubic inches per second and the maximum head of water 15 feet, the capacity of the Grandes Piles falls is 23,000 horse-power.

Nevertheless, when the same hydraulic engineer gauged this cascade on the 23rd May 1900, its capacity was then 74,000 horse-power.

Mr. Gauvin added the following remark in his report : "Let means be found of regulating the course of the St. Maurice between the Grandes Piles and the Petites Piles, that is to say of preventing the extensive variations that occur to-day in the level of the river between those two points and there will be at the Grandes Piles, one of the finest water-powers possible from the standpoint of easy development."

It should also be stated that the principal advantage of this cascade is that it is on a stream of such importance as the St. Maurice which is navigable for a distance of 65 miles above the Grandes Piles, that is to say, as far as La Tuque. It also has the further advantage of being almost on the very line of the Piles branch of the Canadian Pacific Railway.

**Manouan Falls.**—Situate on the Manouan river, in the county of Champlain. These cascades a little over four miles