

CHAPTER II.

Baron La Hontan's description of the Falls—M. Charlevoix's letter to Madame Maintenon—Number of the Falls—Geological indications—Great projection of the rock in Father Hennepin's time—Cave of the Winds—Rainbows.

EVEN more exaggerated than Father Hennepin's is the next account of the Falls which has come down to us, and which was written by Baron La Hontan, in the autumn of 1687. Fear of an attack from the Iroquois, the relentless enemies of the French, made his visit short and unsatisfactory. He says: "As for the water-fall of Niagara, 'tis seven or eight hundred feet high, and half a league wide. Toward the middle of it we descry an island, that leans toward the precipice, as if it were ready to fall." Concerning the beasts and fish drawn over the precipice, he says they "serve for food" for the Iroquois, who "take 'em out of the water with their canoes"; and also that "between the surface of the water, that shelves off prodigiously, and the foot of the precipice, three men may cross in abreast, without further damage than a sprinkling of some few drops of water." Father Hennepin, it will be remembered, makes this space broad enough for four coaches, instead of three men.

From the Baron's declaration as to the manner in which the Indians captured the game which went over

the Falls, it would seem that the bark canoe of the Indian was the precursor of the white man's skiff and yawl, that serve as a ferry below the Falls. And the timid traveler of the present day, who hesitates about crossing in this latter craft, will probably pronounce the Indian foolhardy for venturing on those turbulent waters in his light canoe, whereas, in skillful hands, it is peculiarly fitted for such navigation.

A more correct estimate of the cataract than either of the preceding is that of M. Charlevoix, sent to Madame Maintenon, in 1721. After referring to the inaccurate accounts of Hennepin and La Hontan, he says: "For my own part, after having examined it on all sides, where it could be viewed to the greatest advantage, I am inclined to think we cannot allow it [the height] less than one hundred and forty or fifty feet." As to its figure, "it is in the shape of a horseshoe, and it is about four hundred paces in circumference. It is divided in two exactly in the center by a very narrow island, half a quarter of a league long." In relation to the noise of the falling water, he says: "You can scarce hear it at M. de Joncaire's [Fort Schlosser], and what you hear in this place [Lewiston] may possibly be the whirlpools, caused by the rocks which fill up the bed of the river as far as this."

Neither Baron La Hontan nor M. Charlevoix speaks of the number of water-falls. But Father Hennepin, it will be remembered, mentions three, two of which were to the south and west of Goat Island. And the Rev. Abbé Picquet, who visited the place in 1751,

seventy years after Father Hennepin, says (Documentary History, I., p. 283): "This cascade is as prodigious by reason of its height and the quantity of water which falls there, as on account of the variety of its falls, which are to the number of six principal ones divided by a small island, leaving three to the north and three to the south. They produce of themselves a singular symmetry and wonderful effect."

The geological indications are that Goat Island once embraced all the small islands lying near it, and also that it covered the whole of the rocky bar which stretches up stream some hundred and fifty rods above the head of the present island. At that period, from the depressions now visible in the rocky bed of the river, it would seem probable that the water cut channels through the modern drift corresponding with these depressions. In that case there would then have been a third fall in the American channel, north of Goat Island, lying between Luna Island and a small island then lying just north of the Little Horseshoe, and stretching up toward Chapin's Island. On the south side of Goat Island, there would have been a fall between its southern shore and an island then situated about two hundred feet farther south.

The highest point in the American Fall, the salient and beautiful projection near the shore at Prospect Park, is upheld by a more substantial foundation than is revealed at any other accessible portion of the face of the precipice. This is made manifest on entering the "Shadow-of-the-Rock," where the spectator sees a mass-



Luna Fall and Island in Winter.
Opposite page 11.

ive wall of thoroughly indurated limestone, disposed in regular layers more than two feet in thickness, with faces as smooth as if dressed with the chisel. Passing in front of this, across the American Fall, under the Horseshoe and Table Rock, there must have been formerly a broad cleft of soft, friable limestone, to the disintegration and removal of which was due the great overhanging of the upper strata noticed by Father Hennepin and Baron La Hontan.

For three miles above the Falls, the course of the river is almost due west. But after leaving the precipice it makes an acute angle with its former direction, and thence runs north-east to the railway suspension bridge. The formation of the rapids—one of the most beautiful features of the scene—is due to this change of direction. At no point below its present position could there have been such a prelude—musical as well as motional—to the great cataract. And when these rapids shall have disappeared in the receding flood it is not probable that there will be other rapids that can equal them in length, breadth, beauty, and power.

The declivity in the lower channel through the gorge is ninety feet; but on the surface of the upper banks there is a rise of more than one hundred feet in the same direction—that is, down the river. Hence, when the Falls were at Lewiston they were more than two hundred and fifty feet high. Now the greatest descent is one hundred and sixty-eight feet, the diminution being the result of retrocession in the line of the dip—from north-east to south-west—in the bed-rock. It is owing to this

dip that the surface of the water on the American side is ten feet higher than it is on the Canadian. The continuous column of water, however, is longest in the center of the Horseshoe, because of the fallen rock and *débris* lying at the foot of the other portions of the Fall. At this time the upward slope of the bed-rock is such that—if it shall prove to be sufficiently hard—the Falls, after receding four miles farther, will be two hundred and twenty feet high.

It is evident from the descriptions of Father Hennepin and of Baron La Hontan, that the upper stratum of rock over which the water falls must have projected beyond the face of the rock below much farther than it now does. The large masses of fallen rock lying at the foot of the American and Horse-shoe Falls are evidence of this fact. Travelers still go behind the sheet on the Canadian side, and into and through the Cave of the Winds, on the American side. But they do not expect to keep dry in so doing, nor to sun themselves on the rocks below, like the “rattlesnakes” of former days. Nevertheless, there is no more exciting nor exhilarating excursion to be made at the Falls than that through the Cave of the Winds.

Nowhere else are the prismatic hues exhibited in such wonderful variety, nor in such surpassing brilliancy and beauty. And although a rainbow is not a spraybow, it may be admitted that a spraybow is a rainbow, formed of drops of water, large or small. So here rainbow dust and shattered rainbows are scattered around; rainbow bars and arches, horizontal and perpendicular, are flashing and

forming, breaking and reforming, around and above the visitor in the most fantastic and delightful confusion of form and effect. And if his fancy prompts him, he may arrange himself as a portrait, at half or full length, in an annular bow. The enamored Strephon may literally place his charming Delia in a living, sparkling rainbow-frame, flecked all over with diamonds and pearls.