

the Metabeechuan, and coming from the southwest for a distance of about fourteen miles, appears to empty a narrow and deeply indented lake, with a northwest and southeast length of about five leagues. The other has the name of the Montreal River, and taking its source at the northern height of land, it would appear to flow for about sixty miles in an easterly direction, and then sixty miles more to the lake in the bearing which this assumes below. About six miles below these tributaries occurs the Keepawa on the opposite side. Its source is in a lake about sixty miles to the eastward, which gives origin also to the Rivière du Moine, flowing southward, and joined the Ottawa within four miles of the point from which our measurement commenced. Mr. Naldo McConnel informed me that each of these twin-rivers, at its exit from the parent lake, has water enough to permit the navigation of canoes. The Keepawa, though its source is but sixty miles from Temiscamang, appears to wind through a length of about ninety miles before reaching it, being in this space merely the connecting links of a succession of lakes; one of which, to within about six miles of the mouth, occupies a length of nearly fifty miles in a general bearing from the south of east, and offers a very irregular and ramified shape, studded with great and small islands. It has the same name as the river, and it is closely joined by other lakes, one of which is called the Mangachigan, poured in by short connecting channels from the north; and the area in which the whole are comprised, equal to about 2,500 square miles, presents an intricate labyrinth of waters, with every part of which even the oldest of the Indian hunters are scarcely acquainted. The elevation of Keepawa Lake, as estimated by our Assistant, Mr. McDougal, who examined the river up to the commencement of still water, a distance of six miles, is about 150 feet above Temiscamang, and one of the several cascades and rapids, which occur in the interval, gives about 120 feet of the amount.

Immediately below Lake Temiscamang there occurs a serious impediment in the navigation of the river in the existence of a succession of violent rapids, which occupy a distance of six and a quarter miles, with very little intermission of quiet water. The stream is crooked and seldom 300 yards in breadth the whole way, though frequently contracted to 100, and sometimes to fifty yards. Little solid rock, however, is seen in the contracted parts, and the whole obstruction seems due more to an accumulation of boulders, gravel and sand; but the effect of these is very probably assisted by the rock at no great distance beneath, for hills present themselves on each side of a bolder character than the banks further up. The hills appear to be part of a moderately high range here crossing the stream, but leaving between their flank and the margin a varying space on the left bank of one quarter to one half a mile, occupied by the detritus, with a surface sufficiently even to offer good ground for a road, should one hereafter be required. This collection of rapids bears the appellation of the Long Sault, and the total fall from the head to the foot is forty-nine feet, which, although the water is swift all the way, occurs chiefly in five distinct leaps, with a name to each, producing five portages to voyageurs going up stream; but canoes shoot the whole in descending, unless under particular conditions in the height of the water, which greatly varies at different periods of the year. Marks of a flood were seen at the lowest portage, fifteen feet over the level prevailing when we passed up; and Mr. R. McConnel informed us that the water was then three feet above its lowest summer height.

To the Long Sault succeeds a beautiful stretch of navigable water, having the name of the Seven League Lake, though measuring but seventeen miles. The breadth varies from half a mile in the upper to a

quarter of a mile in the lower part, and the banks, which are not indented with any great irregularities, are rather rocky, and moderately bold, presenting a pretty constant height of 100 to 200 feet, with the exception of such gaps as admit a few tributary streams, one of which, called the Siconaguisipi or Black Stone River, falls in on the right side about six miles and a quarter from the Sault. Mr. R. McConnel has built a comfortable *chantier* on its delta, which appears to be composed of sand, and juts out into the lake a couple of hundred yards. This stretch of the Ottawa presenting a slight curve, with the convex part to the southwest, is comparatively still water, a gentle current being perceptible only in some parts of it; but the remaining twelve miles to the mouth of the Mattawa, with a bolder curve in a contrary direction, the lower extremity of which is nearly north and south, has a swift current most of the way, and displays three powerful rapids, at intervals of about three miles and a half from one another, at each of which the river is contracted to a narrow space, and is impeded by ledges of solid rock projecting from the sides, or starting up in small islands. The upper one, called the Mountain Rapid, gives a fall of five feet five inches; the second, called the Erables, shews a descent of thirteen feet; and the third is divided into two steps, with the names of the Chaudron and the Cave, which are leaps of six feet, and five feet nine inches respectively. In the parts intermediate between the rapids and below them, the banks are bold, precipitous and rocky, with an average separation of a quarter of a mile from one another, and the river particularly towards the latter portion of the distance, runs in a section across a range of hills rising to heights of about 400 and 500 feet.

After cutting through this range and meeting with the Mattawa, the river changes its course from the general bearing mentioned of two points east of south, to an average one not many degrees south of east, maintained to the spot at which our measurement commenced at Bennett's Brook, leaving out of consideration all the curves of the stream. The water is swift for the chief part of the distance, and close below the mouth of the Mattawa there is a rapid, which with a slope existing in the course of a mile, gives a descent of five feet. Between this and the succeeding rapid, a space of eighteen miles and a half occurs, in several parts of which a strong current prevails, particularly at a strait about ten miles down, very difficult to stem with a canoe, where an island at the mouth of a tributary entering on the right, confines the channel to less than eighty yards; and another, five miles and a half still further on, where a cluster of islands on the left produces a second contraction. Down to this point, the north side is bold and mountainous, presenting a continuation of the range north of the Mattawa; but the south side is flat, and one or two clearings have been made in it. The breadth of the river is rather less than a quarter of a mile above the first strait, and rather over it between the two, and in the remainder of the distance to the rapid. In these three miles, flat land occurs on both sides of the stream, which, turning more southward than the average bearing, leaves the hills on the north and approaches another range. It then bends to the north of east, and three rapids occur in the space of two miles and a half. The upper one is termed the Levier, giving a fall of eight feet; the middle is just below the mouth of a tributary falling in on the left, called the Maganasipi, or River of Round Stones, and offers a descent of nearly nine feet, while the third, entitled the Deux Rivières, is a step of thirteen feet. Though obstructing ledges of solid rock rise above the water in the upper and middle rapids, and are boldly displayed on the left bank of the lower one, a vast accumulation of boulders, with, in some places, a flat sand-covered surface about twenty feet high, chiefly constitutes both margins of the river, particularly