

4. Chazy limestone.
5. Birdseye, Black-River and Trenton limestones.
6. Utica slate.
7. Hudson-River group.
8. Oneida conglomerate.

The general characteristics of these formations have been so often described in previous Reports, that it will be sufficient on the present occasion, merely to point out their distribution, and the attitude they assume in the physical structure of the region; and in doing this I shall take up the description where it was, in the last Report, interrupted by the limits of the season's exploration. In that Report, it was stated that at the White Horse rapids, on the river Des-Prairies, a patch of black bituminous shales of the Utica formation, about a mile long and not half that in width, occupies a position not far below Isle-Bizard, showing a narrow strip on each side of the stream, which cuts it in two lengthwise. This is the deepest part of a shallow trough; on the south side of the trough the Trenton limestone, including the Black-River and Birdseye, coming from beneath the Utica slate, has a breadth of six miles extending to Pointe-Claire; on the north it probably does not reach a mile. The Chazy limestone crossing Lake St. Louis from Caughnawaga, outflanks the Trenton, entering on the island of Montreal above Point-Claire, between which and village of St.-Anne, the Calciferous sandrock and a small part of the Potsdam sandstone, in addition to the Chazy formation, occupy the interval. The Chazy is traceable to Ste.-Geneviève where it affords very fine building stone, and thence passes to Isle-Bizard, which it crosses about mid-length from the two ends, in a belt coming upon the Lake of Two Mountains at a point where a quarry is worked in it. In this quarry it is a grey limestone, exhibiting the peculiarity of pink or rose-red spots, and gives fine massive beds. The upper end of the island displays the Calciferous sandrock, and the lower the Trenton limestone, which is seen above and below the seigniorial mill on the river Des-Prairies. The Trenton is also displayed on the opposite side of this stream for some distance, commencing a little below the extreme upper point of Isle-Jésus. The Calciferous sandrock occurs a little below the same point on the opposite side of the island on the river St.-Jean or Jésus; so that the Chazy limestone, unless it is let down and buried by a fault, must enter on the island at the very extremity, in a very narrow band, which widening as it proceeds eastward, sweeps round by St. Martin and the river Des-Prairies above and at Lachapelle's bridge, the upper part of the formation crossing the river to the island of Montreal, somewhere in the vicinity of Isle-aux-Chats; the black limestone of the superior formation is seen a little to the westward of the quarries in the Chazy which are near the bridge above mentioned, and from these quarries the Chazy gains the neighborhood of St.-Laurent church. It is seen again on the north side of the cross-road between Côte-St.-Laurent and Côte-Ste.-Catherine, running close alongside of this cross-road to its junction with the Côte-Ste.-Catherine road, and then turning towards the Mile-End road, which it crosses about fifty yards on the city side of the first mile-stone beyond the toll-bar; here its junction with the Birdseye formation is plainly seen, the one distinguishable by the abundant occurrence of *Atrypa plena* and the other of *Phytopsis cellulosum*. The two formations in close proximity are traceable thence to the road crossing from Côte-de-la-Visitation to Côte-St.-Michel, at the junction of the cross-road with the latter; they then make a sharp turn, and the upper part of the Chazy again reaches the river Des-Prairies a little above the Sault-au-Recollet. Crossing the river, it sweeps round probably about a mile behind Les-Ecours, and the rocks of St.-Vincent-de-Paul, which are of the upper limestones, and gains a position on Isle-Jésus, a little way south of the village of Terrebonne. It here makes another sharp turn, and is traceable to the westward, keeping some distance to the south of the river St.-Jean,