Moulin near the mill belnnging to the Baron of Longueuil. This was a mere cut, 200 feet long, without locks, and was excavated either in the bed of the river or through a projecting point of rock. The third canal was situated at the Split Rock Rapid. It consisted of one lock built in a side channel formed by a natural opening through the rocky shore. As will be seen by the plan submitted, very little work had to be done to secure the object aimed at. The natural walls of the channel were used to form the sides of the lock, as shown by the shape of the chamber. The last and most important of the series was located at Coteau-du-Lac. Its length was 900 feet and it had three locks. The aggregate length of those canals was about 1,700 feet with five locks. The work was commenced in 1779, and completed in 1783, under the direction of Captain Twiss, as stated above. A fairly complete record of the operations is to be found in extracts of reports from this engineer, published in the "Report on Canadian Archives," for 1886, pp. xxi-xxv. These original reports form a most precious collection, the reading of which the writer found extremely interesting.

These canals had only been in use for a short time when it was found that the locations adopted for the two lower ones were defective, the lock and other structures being injured by floating ice every spring. In 1800, Col. Gother Mann recommended certain changes to be made, viz., to increase the opening of the gates of the locks at Coteau-du-Lac and at Split Rock, from 6 9' 6", to give an additional breath of 2 feet to the canal prism and 4 feet to the lock chambers, and to deepen the whole 1'6 As to the canals at the Trou du Moulin and Faucille Rapids (Cascades Point) he proposed the replacing of them by one canal to avoid both rapids.

"At about nine hundred yards," he says, "above the Cascades, "on the stream leading to the Grand or Ottawa River, and at "nearly the same distance above the Mill Rapid on the Cataraqui "(St. Lawrence) River, a neck of land is formed, which presents "a favorable situation for a permanent canal. The length across "is fifteen hundred feet in a straight line on the course which I "should propose the canal to run . . . At the extremities of the "section line the waters of the Cataraqui or St. Lawrence River "were thirteen feet eight inches higher than those of the Ottawa "River . . . I propose to sink the canal three feet below the "surface of the waters, as they were when the level was taken, "at which period they were uncommonly low. This will be more "than sufficient to float the largest boats and will allow for a still "further decrease of the rivers. The canal should be ten feet wide "and the locks twenty feet wide, and, if they are each 120 feet long,