

powder fired at some intermediate point, which might be seen from Quebec and from the North-West Branch, or near it.

A spot was found which answered the purpose. It was in the high lands overlooking the St. Lawrence, about twenty miles from the North-West Branch and forty from Quebec. By a simple contrivance, flashes of powder were fired, of one-sixth of a pound to each charge, from the top of a tree. They were distinctly seen from Quebec, and from the top of a hill near the North-West Branch, to which Captain Robinson removed his transit. In this way the whole survey in the Valley of the St. John has been connected, in the most satisfactory way, with the Valley of the St. Lawrence. Quebec is made the principal point of the survey, and that which will be done next year on the 45th parallel of latitude, will be referred to it. Whilst, in the mean time, the absolute position of Quebec, in reference to Greenwich, will be determined by the observations of Lieutenant Pipon during this winter.

2ndly. *Survey*.—The first week in June I repaired to the height of land on the Kennebec Road, the place appointed for meeting the American Commissioner.

Captain Broughton and Mr. Featherstonhaugh, with the fourteen Sappers who had lately arrived in the country, and between seventy and eighty labourers, repaired to the same place.

Upon arrival they were divided into two parties; one under Mr. Featherstonhaugh, to survey towards the source of the south-west branch of the St. John, and the other under Captain Broughton, to survey towards Hall's Stream:

The object of this survey was to ascertain the general run of the dividing ridge, to mark it at intervals of about half a mile, and so to afford correcting points for the cutting parties who might be employed on the actual Boundary.

The nature of the survey adopted was to cut a main line in the general direction of the dividing ridge, as near as that could be ascertained by an occasional view of the country from an eminence or tree: to run offsets from that line over the dividing ridge, to waters flowing in the opposite way: to level those offsets; to establish summits on them; and to trace and survey the streams on both sides of the ridge.

The main line was to enable the surveyor to bring his work into position, that he might lay it down as he proceeded. It was to serve also as a communication for the bringing in provisions, all of which were to be carried on men's backs. This labour was severe, and it was difficult to induce the men to continue it, through the discouragement of fatigue, bad or hot weather, and paths which soon became deep and muddy. Many men would undertake the work, perform one journey, become discouraged, and give it up.

Mr. Featherstonhaugh, having surveyed to the source of the South-West Branch, returned to the Kennebec Road, and proceeded by Captain Broughton's main line to take up fresh ground from Arnold's River westward.

At the conclusion of the season Captain Broughton had completed the survey from the Kennebec Road to Arnold's River, and Mr. Featherstonhaugh had surveyed, first, from the Kennebec Road to the source of the south-west branch of the St. John, and secondly, from Arnold's River to Hall's Stream.

The amount of work done by both of the officers is very great, and I believe it to be as accurate as the nature of the survey will admit. It is difficult to give a correct idea of what their labours were; but I will state shortly; that they had to cut a vast number of lines; to survey the course of the streams, and to unravel the difficulties and intricacies of the waters, whose perplexing course through the woods frequently confounded their expectations.

Neither of these officers had finished until the latter end of November, when the snow was already deep.

3rdly. *Cutting of the Boundary*.—The want of an appropriation by Congress rendered it impossible for the United States' Commissioner to