

miles off, where they would ask for more pay or more food. After a fortnight, only half-a-dozen of these men were able to continue at work, the others breaking down through want of stamina. They were all miserably clad, and the working in the icy water of the still unfrozen swamps was very severe upon them; they were, however, useful in carrying loads when the camp was shifted southwards along the line, or when supplies were being brought up. About three weeks after the cutting had been commenced, the frost set in, and greatly improved matters by giving a hard and dry footing, the timber became less thick and of smaller size, and three white men having been engaged as axemen, the work progressed more quickly. As the Lake of the Woods was approached, the woods merged gradually into small half dead tamaracs, which were replaced in the immediate vicinity of the shore by willow bushes. The length of this cutting was 16 miles and 397 feet, the ground passed over was all swampy, with the exception of a ridge of red granite (in situ) 6 miles south of the N.W. Point. The timber was birch, cedar, and tamarac.

On the 21st November the cutting was finished, and marks having been left by which the permanent iron monuments might be erected as soon as they could be provided, Captain Anderson withdrew his party and returned to North Pembina. Here observations for longitude were commenced, the local time being compared by means of the electric telegraph with that of Chicago in the State of Illinois, U.S. The local time at North Pembina was obtained with a portable transit, Lieut. Galwey taking the observations; while the electric signals for comparing the chronometer with that at Chicago were sent by Captain Anderson. Mr. Lindsay Russell, Deputy Surveyor General of the Dominion of Canada, undertook the necessary work at the Chicago end of the wire. The weather was unfavourable, being cloudy and very cold; but the result was satisfactory, the probable error being about two seconds of arc, or 130 feet.

Meanwhile Captain Featherstonhaugh, who had finished the observations for latitude at North Pembina, took his party to Lake Roseau, which is about 60 miles east of the Red River, in order to establish an astronomical station, and mark the boundary in the vicinity. Between the Lake of the Woods and Pointe d'Orme on the Roseau river, mentioned just now, there are, on the boundary, about 50 miles of almost continuous swamp, in the midst of which are ridges covered with valuable pine timber. Some firm ground was reported to exist on the shores of Lake Roseau, which was represented on the maps as being intersected by the boundary. Captain Featherstonhaugh and party, accompanied by a guide, after a long detour to the south to avoid being entangled prematurely in the swamps, reached the lake and found that the parallel was 6 miles north of it. After some trouble, a gravelly ridge was discovered to the north-west, which was sufficiently near to the parallel of 49 deg., and the astronomical instruments were set up here on the 27th October. Considerable advantage was derived in getting through the soft parts of the journey from the presence of a pair of oxen amongst the teams. These animals, though apt to be looked upon as encumbrances when they are in company with horses because they travel slowly, and can only do 15 miles a day, will take a load through bogs, in