

parallel, where it strikes the Red River. One of these was the Canadian Custom House, another was the Hudson Bay Post, which was surrounded with a palisade; the others were mere huts, inhabited by Half-breeds. The exact position of the boundary was not known; by some persons it was supposed to be three-quarters of a mile north of all these buildings, though the general opinion placed it very much where it was eventually found to be. Major Twining, of the United States Engineers, was already engaged in observations for latitude with the zenith telescope; and the British astronomers commenced to do the same on a meridian conveniently near to that of the American observatory tent.

The group of buildings mentioned above was at that time called North Pembina, the village of Pembina being two miles further south, where the river of the same name flows into Red River. The United States custom house is in this village, and Fort Pembina, which contains a garrison of three companies of United States infantry, is one and a half miles further south again, on the west bank of Red River.

The British and United States Commissioners having agreed upon a plan of operations for the autumn, the British Commission was divided into the following working parties:—

3 Astronomical parties; 3 Surveying parties; Staff.

The astronomical parties were in charge of Captain Anderson, Captain Featherstonhaugh, and Lieut. Galwey, R.E.; and the surveying parties were under Colonel Forrest, of the Canadian Militia, P.L.S.,* Mr. A. L. Russell, P.L.S.,* and Sergeant Kay, R.E., respectively.

Each astronomical party was equipped with a zenith telescope, a portable transit instrument, a sextant, two sidereal and one meantime chronometers, a 7-inch transit theodolite, chain and arrows, &c. Each surveying party had a 5-inch transit theodolite, three prismatic compasses, chain and arrows, sketching cases, and mathematical instruments sufficient for plotting the traversing.

While the various parties were preparing for the field, a snowstorm of great violence commenced on the day following the equinox, and continued for 48 hours. It had been preceded by the passage of large flocks of wild geese to the south, which went screaming over the camps, being generally at a great elevation. This storm, though sufficiently unpleasant, was taken by the local people as a presage of a late winter, and this proved to be the case.

The following plan of operations for the autumn and winter was agreed upon between the Commissioners. The position of the north-west angle of the Lake of the Woods, as marked in 1826, was to be identified, and the necessary surveys of the shore were to be made; the meridian line from here southwards to the 49th parallel was to be traced and marked; the intersection of the western shore of the Lake of the Woods by the said parallel was to be determined by joint astronomical observations; and as many intermediate points as possible between the Lake and the Red River were to be established, taking into consideration the nature of the country and the lateness of the season. The joint determina-

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