

fixed by the British Commission at Schweltza Lake, but it was at the time rejected on account of the apparently large deflection of the plumb line, though the after experience of the most accurate instrumental observations in that mountainous country, led to the conclusion that the result at Schweltza was quite as trustworthy as any of the others. It is, however, not included in the final determinations.

At the first meeting of the Commissioners at Semiahmoo, August 13, 1858, it was concluded, after discussing plans for determining and marking the line as far as the Cascade Mountains, to be inexpedient at that time, in consequence of the great expense, consumption of time, and the impracticable nature of the country, to mark the whole boundary by cutting a track through the dense forest. It was therefore agreed to ascertain points on the line by the determination of astronomical points at convenient intervals on or near the boundary; and to mark such astronomical stations or points fixed on the parallel forming the boundary, by cutting a track of not less than 20 feet in width on each side for the distance of half a mile or more, according to circumstance. Further, that the boundary be determined and similarly marked where it crosses streams of any size, permanent trails, or any striking natural features of the country. In the vicinity of settlements, the line was to be cut a greater distance. Bessel's value of the figure of the earth was adopted.

From the two points on the parallel, dependent, respectively, on the Sumass and Schweltza astronomical stations, cuttings were made to connect the points. When the cuttings met, there was found to be a discrepancy of 8", say about 810 feet; they were, however, connected, though the line thus defined is obviously not strictly *the* boundary of the treaty. The distance is about  $9\frac{1}{4}$  miles. This relative deflection of the plumb line, 8", in so short a distance, is the largest on the whole 49th parallel, from the Lake of the Woods to the Pacific. When the cuttings on the parallel from Sumass and the British stations at Semiahmoo met, there was a discrepancy of 114 feet in the twenty miles, and between the United States astronomical station at the east