

possession of by the Canadian fur traders in this northern latitude, so the reflux from west to east of the army of gold miners was northward and eastward, by the valley of the Fraser, to the northern Rocky Mountain gold region, aside from the central and later developed country. Thus, from all points of view, it has been deemed best to commence detailed surveys of this mining region first.

Instrumental work.

By the Canadian Pacific Railway surveys in 1871-6, instrumentally measured lines were carried almost completely round the Cariboo region, while the central and mining portion, with the exception of the small part explored by Lieut. Palmer in 1863, has been only sketched.

Trend of Mining Belt.

To lay the foundation for our geography, the road traverse already mentioned, with Barkerville as a centre, was next extended by means of measuring wheels in the hands of two assistants working independently, along the principal roads and trails of the mining region. The trend of the richly auriferous district so covered, embracing 64.7 miles of traverse, from Sugar Creek on the north to Quesnelle Forks on the south, is from N.N.W. to S.S.E., or, more precisely, from N. 39° W. to S. 39° E., running with the drainage parallels of the Quesnelle, Cottonwood and Willow Rivers, C D and E F. These closely repeat the axial trend A B, of the Upper Fraser and Columbia River Valleys, as shown on the map.

Triangulation.

While this work was in progress, a triangulation and topographical party occupied the prominent mountains of the mining region with the transit, and delineated the intermediate and outlying country in sight. The plateau surface, 6,000 feet above the sea, surveyed by the topographical party, and the erosions or valleys followed by the traverse party, are so unlike each other as scarcely to be recognizable as belonging to the same country. A series of latitude observations with a good Troughton & Sims sextant, was taken at Barkerville. And when in September and October the advancing winter drove us down out of the mountains, the position in longitude of the whole was fixed by measuring from Quesnelle southwards along the waggon road, to a connecting point at Lac La Hache with the Provincial land surveys, which join with the railway surveys and the several longitude stations recently established by the aid of the telegraph.

Latitude.

Longitude.

Distances measured.

The total distances measured with the wheel amounted to 255.5 miles. This included surveys of the diggings and mining camps, which usually follow the valley of a stream for two or three miles, and were plotted on a larger scale, of 12½ inches to the mile. In carrying out this work bearings were taken with the prismatic compass, with frequent observations for variation of the needle by means of the solar transit. The wheels used were metallic hoops; one made of brass with brass hub and wire spokes, by Vipond of Victoria, the other of iron and wood, contrived with a carriage screw and washers, by ourselves; both of them light and strong. These were driven with one hand, and were so arranged that each revolution represented one-thousandth of a mile, or 5.28 feet. Revolutions were counted, added up into miles, and courses were plotted in the field, to enable details to be recorded on the spot. At convenient times in camp all these courses were separately calculated by latitudes and departures, to establish fixed points for the final map.

Table of distances.

Following is a table of distances so obtained, and plotted on a scale of 2½ inches to one mile:—

Going eastward from Quesnelle (H. B. Co.'s corner)—

To Four-Mile Creek	3.8 miles.
„ Wallace's ranch	13.3 „
„ Bohannan's, Cottonwood	20 „
„ Cottonwood Ranch	21.5 „
„ Boyd's Cold-Spring House	25.2 „
„ Beaver Pass House	38.3 „
„ Stanley Post-office	44.8 „
„ Eagle Creek Bridge	47.5 „
„ Barkerville	56.5 „

TABLE
NORTH
ALONG