

The levels measured at Belly River were :—

|                                    | Above the sea. |
|------------------------------------|----------------|
| Present bed of the river.....      | 4024           |
| 1st. river level .....             | 4085           |
| 2nd. „ .....                       | 4176           |
| 3rd. the level of the valley ..... | 4226           |

These river levels are for the most part, on the lower portions of the branches of the Saskatchewan, on a somewhat larger scale in vertical height, than near the sources.

I was now on Belly River at about the same altitude as on Bow River at the site of Bow Fort, namely, 4000 feet above the sea, although eighty-seven miles (geographical) in a direct line s.s.e. from it. From this point the route of the party may be traced on the plan attached to this report. The plan does not include the country to the northward, which has no connection with the passes reported upon. I have, however, the whole country mapped on a smaller scale.

The bed and sides of this river are rocky, the strata of hard gray sandstone, much inclined, and the current obstructed in places by immense granite boulders. We found no difficulty in crossing, the water though running swiftly, being not deeper than three feet, and about 25 yards across.

Looking through the gap in the near range through which the river issues, I saw a conspicuously dome-shaped mountain. It afterwards proved to be when seen from the plains, and also from the top of a mountain in the Kootanie pass, the highest and almost only peak rising above the others in this part of the mountains. After the distinguished British naturalist, I named it "Gould's Dome." The gap through which I had seen this mountain was in the eastern or near range, of very regular form, extending, with the exception of this gap, for a distance of five and twenty miles without break. The crest of the range was of so regular a form, that no point could be selected as a peak, I therefore gave the whole the name of "Livingston's Range;" it is a very marked feature when seen from the forks of Belly River and the plain outside.

On leaving Belly River we rose considerably, and keeping along under Livingston's Range, the sun had dropped behind this great curtain before we camped. The spot was 540 feet above Belly River which we had left behind to the northward. Looking to the mountains ahead of us, I picked out the most prominent, and took bearings of them before the Indian who was in the rear hunting, came up. There were two near one another bearing thirty miles south, one of which, from the resemblance to a castle on its summit, I named "Castle Mountain;" to the East of these, but at a greater distance a portion of the Mountains stretched out to the eastward. From reports which I had previously heard, I took the most easterly one standing by itself to be the "Chief's Mountain," which the Indian on coming up confirmed, and pointed out the place where on the morrow we should turn into the mountains.

This offset range occurs, as I afterwards discovered, just at the 49th parallel or International Boundary line.

The morning of the 20th of August was thick and hazy, with occasional showers of rain, which entirely prevented me from obtaining the good view