"BENCHES" OF BRITISH COLUMBIA. [FEB. 27, 1871.

Being informed that this bench formation uniformly, *i.e.* everywhere, extended from a point below Lytton to some point above Lilloett, Mr. Robinson might naturally conceive that the formation extended uniformly, that is, regularly, and so might ask his third question, viz. whether the bench at Lytton rises or falls as you travel up the stream, and whether it finally dies out at Lilloett.

The distance from Lytton to Lilloett is 43 to 45 miles, and this may seem a considerable extent of bench formation when compared with Glen Roy, which extends but 20 miles. But the bench formation in British Columbia extends the whole distance of Fraser River so soon as the delta is left, as far as I have travelled up it, *i.e.* full 400 miles, and then the benches are seen running on, miles ahead. Wherever the formation has a chance of showing itself from Hope upwards, *i.e.* wherever it is not interrupted by precipices, or chasms, or denudations, there are benches more or less clear and regular. Up the Quesnello River, and on Cottonwood, an affluent of Fraser River next above Quesnelle, and Lightning, affluent of Cottonwood, up to within 25 miles of the Bald Mountain, the backbone of the Cariboo range, I still found exactly similar benches. The formation extends all up Thomson River, far above Kamloops, along both forks, as far as I could see. There are several well defined terraces on the Okanagan; in particular on the "Rivière du Sable," halfway down the lake, mounds like truncated pyramids, or rather a pile of four or five truncated sections of pyramids. On the only portion of the Columbia River which I have travelled, viz. Fort Shepherd to Fort Colville, the formation is just as distinct and striking as on Fraser River, and I am informed and fully believe that it is guite uninterrupted down to Snake River, in lat. 46°. The largest benches, both in length and breadth, that I have seen are in the valley of the Upper Kootenay River, about long. 115° 30' w. (Lilloett being 122° w.). At Rock Creek, and all along Kettle River, the trails run for miles and miles along just such benches, and so too all along the Similkameen River and the Nicola River, not only at its influx into the Thomson, where there are six or eight heaped one upon top of another, but all along its course to the Nicola Lake. In fact, it may be said that everywhere in the Colony on the east side of Fraser River, wherever there is a river of any size, and the hills or mountains are near, but not too near, you find yourself on one of these benches, more or less regularly formed, but even when externally irregular, bearing traces of original regularity.

Just the same appearances are presented on the only parts west of Fraser River over which I have travelled, viz., along what was **FEB.** 2

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