

tain range toward the south, in a place where they found food for their horses and water in abundance. The air was delightful; the forest protected them from the rays of the sun, and besides this the game was plentiful. Near the encampment, in a northwest direction, was a mountain ridge shooting up in sharp conical points and needle-shaped peaks, having a precipitous front. One of these peaks almost overhangs the valley, presenting a gray surface of naked rock two thousand feet high. The valley which adjoins is strewn over with boulders of white granite, similar to that already described. From this, there is little doubt that the ridge is formed of the same material. At meridian they reached a small valley bordering on the Destruction river, where they found a chalybeate spring. The water oozes out from the rocks, bubbling up freely, and is highly charged with carbonic acid gas. In taste it was found agreeable to both the riders and the animals. Its temperature was 50°, that of the air being 75°; about a gallon per minute is discharged. Around it there is a thick deposit of iron rust, and a few yards distant a small pond, the bottom of which was also coated with a ferruginous deposit. The rocks in the vicinity of the spring were of the trachytic and slightly cellular lava, which is speckled with grains of feldspar. The hunters said that the spring was in all respects similar to that on the Bear creek, which empties into the Youta Lake, known in the Rocky Mountains as the Soda Spring. Mr. Dana found some difficulty in accounting for this emission of carbonic acid, as no limestone was found or known to exist in the neighbourhood; yet he is inclined to believe, that it may be owing to the decomposition of sulphuret of iron. For further information upon this subject, I would refer to his Geological Report.

On this night they had a severe storm from the westward, and occasionally heard the crash produced by the falling of large pines.

The character of the country had now changed, and afforded a new and more extended botanical field, as well as new geological features. The general tendency of the ridges is north and south, but the whole may be classed as a series of valleys and hills thrown in all positions. The hills are, for the greater part, covered with soil, when it can find any place of deposit; and all are richly clothed with vegetation. The principal timber consists of pines and oaks; and there are many smaller plants, of which the flowers must be abundant in the proper season. As it was, our botanists reaped something of a harvest; for information respecting which, the Botanical Report is referred to.

They continued to follow Destruction river until the 9th, when it was joined by a stream from the northward and eastward, which was taken to be the northeast branch of Pitt river: it was larger than the