

mountains, which further examination may prove to assimilate the geology of the New to that of the Old World in a rare particular, which had not before been discovered in either of the two Americas. Unhappily, much of what we had collected was lost by accidents of serious import to ourselves, as well as to our animals and collections. In the gorges and ridges of the Sierra Nevada, of the Alta California, we lost fourteen horses and mules, falling from rocks or precipices into chasms or rivers, bottomless to us and to them, and one of them loaded with bales of plants collected on a line of two thousand miles of travel; and, when almost home, our camp on the banks of the Kansas was deluged by the great flood which, lower down, spread terror and desolation on the borders of the Missouri and Mississippi, and by which great damage was done to our remaining perishable specimens, all wet and saturated with water, and which we had no time to dry. Still, what is saved will be some respectable contribution to botanical science, thanks to the skill and care of Dr. Torrey; and both in geology and botany the maps will be of great value, the profile view showing the elevations at which the specimens were found, and the geographical map showing the localities from which they come.

The astronomical observations, taken with good instruments, have been tested, where they were most important, by a three-fold computation: one by Professor Walker, of Philadelphia, whose astronomical reputation is so great; another by Mr. Joseph C. Hubbard, a promising young mathematician from Connecticut; the third by myself; so that the correctness of the longitudes and latitudes may well be relied upon.

In sketching the topographical features of the country, a branch of science in which he had been professionally educated, Mr. Charles Preuss had been my assistant in both expeditions; and to his extraordinary skill, supported by the pleasure he felt in the execution of his duties, I am indebted for the continuous topographical sketches of the regions through which we passed, and which were never interrupted by any extremity of fatigue or privation.

The barometrical and meteorological observations were carefully made with good instruments, and admit of no material error beyond the minute deviations inseparable from such operations.

The third expedition, now commencing, is undertaken with more ample means than the two former; and, being directed to a region so interesting in itself, and so new to science, can hardly fail to require the enterprise which explores it.

The report, or narrative, of this extended expedition, like the maps which illustrate it, will be strictly confined to what was seen, and to what is necessary to show the face and character of the country, and to add