

shaped craters, side by side, each a quarter of a mile in diameter, the ridge between them being the highest point. These were full of snow, but their rocky rims were bare. We observed several holes in the snow by the edges, where the strong odor of sulphur indicated that heat had been given out not many months before. On the western edge there is a large chamber in the snow, and from a hole six or eight inches in diameter a continuous column of steam and sulphurous smoke arises, showing that the internal fires of Mount Rainier are not yet extinguished. We stood about it to warm ourselves, and endeavored to peer into the hole, with no other result than receiving a burnt hand and inhaling a disagreeable quantity of sulphur and brimstone fumes. Near this chimney hole we found a piece of lead with four names inscribed upon it. We examined the summit carefully, though we did not visit the western peak, which is about four hundred feet lower. The rocks are all volcanic, with considerable of scoria. Curiously enough we found a butterfly fluttering over the snow. We had observed numerous others in going up. The day was bright and clear, with no clouds and but little fog or smoke hanging over the low places, offering a splendid view of the surrounding country. It is a common but erroneous idea that the view from the top of our great mountains is grander than that afforded by lower altitudes. We found that the view does not increase in grandeur with the altitude. In this respect a high mountain is somewhat disappointing; the sight is much less impressive than one naturally expects, the one redeeming feature being the knowledge of the fact that the eye ranges over a vast extent of territory. It is too much like a bird's-eye map, like the prospect from a balloon; the range of vision is too comprehensive and the eye cannot take it all in. The view through gaps in lower mountains is far more impressive.

We spent much time in studying the details of the great panorama spread out before us, which, as a whole, was so confusing in its vastness. To the north Mount Baker, one hundred and fifty miles distant, seemed near at hand, and we could plainly see the mountains of British Columbia, more than twice the distance. We traced the shores of the Straits past Victoria far up the side of Vancouver Island. Below us the Cascade Range, with its peaks six and eight thousand feet high, seemed scarcely more than a potato patch. Westward, over the tops of the Olympic Mountains, the Pacific Ocean formed a level horizon, and nearer, through a semi-transparent sea of haze, were seen the tortuous outlines of Puget Sound. The cities were marked by their smoke, and even the steamboats announced their position in the same manner. The grain fields and prairies seemed like little islands in the vast blue sea of forest. To the south the sharp peaks of Adams and St. Helens loomed up grandly, with their long snow-covered sides. Oregon was shrouded in smoke, Mount Hood and a few other points alone lifting themselves above the gloom. On the east the spurs of the Rocky Mountains closed our horizon, though because of the smoky haze they were but dimly

seen. We could count seven distinct glaciers running down from the mountains, the heads of six rivers. We experienced no peculiar physical effects from the high altitude. It was not extremely cold, thawing a little in the sun and freezing in the shade; but a sharp, cold wind chilled us very quickly whenever we ceased exercising, and we were glad enough to start down again after spending an hour on the summit. The only actual fun of such a journey is in the descent. It took us eight hours to ascend and only two to return. Squatting on our feet, and using our alpine-stocks as a kind of third leg and break, we would sometimes slide down a half mile of smooth slope in about two minutes. We reached camp at six—satisfied, jolly and hungry.

New trials were in store for us. For three days we had been among the whitest snows, with the August sun shining. We had two pairs of goggles, but did not use them, because we could not see so well with them, and sometimes a misstep of an inch would have thrown us down a crevasse. However, we kept our faces in the vicinity of the eyes well blackened with charcoal. My two companions had been troubled more or less before, but that night their eyes became very much inflamed and pained them so that they could not sleep. The next morning they could scarcely see. We had only one day's rations, and there was the Carbon glacier to cross, which required the most careful watchfulness, and a mile of hard climbing, besides three of rough traveling to reach the trail. But it was a case of necessity, and we started, progressing slowly and painfully the first day, but more easily the second, as the sore eyes became better in the shade of the woods. We reached Tacoma thirteen days from our start, with hands and faces so burned that the skin was peeling off, but with added health of body and that satisfied condition of mind which comes only from success.

WARNER FOBES.

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**DON'T WORK ON AN EMPTY STOMACH.**—The errors that prevail with regard to early morning exercises are simply monstrous. Even the strong and athletic are liable to injure themselves by exercising long and vigorously in the early morning on an empty stomach, while the delicate, the dyspeptic and the nervous should not allow themselves to indulge in any sustained activity of the brain or muscles until the system has been fortified by at least a preliminary breakfast. Farmers sometimes injure themselves by working too long before breakfast. Moderate exercise, such as walking, the lighter forms of gymnastics and easy games, can be taken indiscriminately, just before or just after meals, without injury; but the severer tasks—rowing or active games—should usually be reserved for the middle of the forenoon or afternoon, or for the evening. It is not well to go to our meals in a condition of exhaustion, either of the brain or of the muscles. It is not well to be over fastidious about exercising just after meals, for our own feelings will usually guide us right. After a hearty meal we do not care to plunge into the severest kind of work.—*Dr. Geo. M. Beard.*