

cess in this little incident diffused pleasure throughout the camp; and we immediately set about our preparations for ascending the mountains.

As will be seen on reference to a map, on this short mountain chain are the head-waters of four great rivers of the continent; namely, the Colorado, Columbia, Missouri, and Platte Rivers. It had been my design, after having ascended the mountains, to continue our route on the western side of the range, and, crossing through a pass at the northwestern end of the chain, about thirty miles from our present camp, return along the eastern slope, across the heads of the Yellowstone River, and join on the line to our station of August 7th, immediately at the foot of the ridge. In this way I should be enabled to include the whole chain, and its numerous waters, in my survey; but various considerations induced me, very reluctantly, to abandon this plan.

I was desirous to keep strictly within the scope of my instructions, and it would have required ten or fifteen additional days for the accomplishment of this object; our animals had become very much worn out with the length of the journey; game was very scarce; and, though it does not appear in the course of the narrative (as I have avoided dwelling upon trifling incidents not connected with the objects of the expedition), the spirits of the men had been much exhausted by the hardships and privations to which they had been subjected. Our provisions had well-nigh all disappeared. Bread had been long out of the question; and of all our stock, we had remaining two or three pounds of coffee and a small quantity of macaroni, which had been husbanded with great care for the mountain expedition we were about to undertake. Our daily meal consisted of dry buffalo-meat, cooked in tallow; and, as we had not dried this with Indian skill, part of it was spoiled; and what remained of good was as hard as wood, having much the taste and appearance of so many pieces of bark. Even of this, our stock was rapidly diminishing in a camp which was capable of consuming two buffaloes in every twenty-four hours. These animals had entirely disappeared; and it was not probable that we should fall in with them again until we returned to the Sweet Water.

Our arrangements for the ascent were rapidly completed. We were in a hostile country, which rendered the greatest vigilance and circumspection necessary. The pass at the north end of the mountain was generally infested by Blackfeet; and immediately opposite was one of their forts, on the edge of a little thicket, two or three hundred feet from our encampment. We were posted in a grove of beech, on the margin of the lake and a few hundred feet long, with a narrow *prairillon* on the inner side, bordered by the rocky ridge. In the upper end of this grove we cleared a circular space about forty feet in diameter, and, with the felled timber and interwoven branches, surrounded it with a breastwork five feet in height.

A gap was left for a gate on the inner side, by which the animals were to be driven in and secured, while the men slept around the little work. It was half hidden by the foliage; and, garrisoned by twelve resolute men, would have set at defiance any band of savages which might chance to discover them in the interval of our absence. Fifteen of the best mules, with fourteen men, were selected for the mountain party. Our provisions consisted of dried meat for two days, with our little stock of coffee and some macaroni. In addition to the barometer and a thermometer, I took with me a sextant and spyglass, and we had, of course, our compasses. In charge of the camp I left Bernier, one of my most trustworthy men, who possessed the most determined courage.

*August 12th.*—Early in the morning we left the camp, fifteen in number, well armed, of course, and mounted on our best mules. A pack-animal carried our provisions, with a coffee-pot and kettle, and three or four tin cups. Every man had a blanket strapped over his saddle, to serve for his bed, and the instruments were carried by turns on their backs. We entered directly on rough and rocky ground; and, just after crossing the ridge, had the good fortune to shoot an antelope. We heard the roar and had a glimpse of a waterfall as we rode along; and, crossing in our way two fine streams, tributary to the Colorado, in about two hours' ride we reached the top of the first row or range of the mountains. Here, again, a view of the most romantic beauty met our eyes. It seemed as if, from the vast expanse of uninteresting prairie we had passed over, nature had collected all her beauties together in one chosen place. We were overlooking a deep valley, which was entirely occupied by three lakes, and from the brink the surrounding ridges rose precipitously five hundred and a thousand feet, covered with the dark green of the balsam-pine, relieved on the border of the lake with the light foliage of the aspen. They all communicated with each other; and the green of the waters, common to mountain lakes of great depth, showed that it would be impossible to cross them. The surprise manifested by our guides when these impassable obstacles suddenly barred our progress proved that they were among the hidden treasures of the place, unknown even to the wandering trappers of the region. Descending the hill, we proceeded to make our way along the margin to the southern extremity. A narrow strip of angular fragments of rock sometimes afforded a rough pathway for our mules, but generally we rode along the shelving side, occasionally scrambling up, at a considerable risk of tumbling back into the lake.

The slope was frequently sixty degrees; the pines grew densely together, and the ground was covered with the branches and trunks of trees. The air was fragrant with the odor of the pines; and I realized, this delightful morning, the pleasure of breathing that mountain air which makes



a constant theme of the hunter's praise, and which now made us feel as if we had all been drinking some exhilarating gas. The depths of this unexplored forest were a place to delight the heart of a botanist. There was a rich undergrowth of plants, and numerous gay-colored flowers in brilliant bloom. We reached the outlet at length, where some freshly barked willows that lay in the water showed that the beaver had been recently at work. There were some small brown squirrels jumping about in the pines, and a couple of large mallard ducks swimming about in the stream.

The hills on this southern end were low, and the lake looked like a mimic sea as the waves broke on the sandy beach in the force of a strong breeze. There was a pretty open spot, with fine grass for our mules; and we made our noon halt on the beach, under the shade of some large hemlocks. We resumed our journey after a halt of about an hour, making our way up the ridge on the western side of the lake. In search of smoother ground, we rode a little inland; and, passing through groves of aspen, soon found ourselves again among the pines. Emerging from these, we struck the summit of the ridge above the upper end of the lake.

We had reached a very elevated point, and in the valley below, and among the hills, were a number of lakes at different levels; some two or three hundred feet above others, with which they communicated by foaming torrents. Even to our great height, the roar of the cataracts came up, and we could see them leaping down in lines of snowy foam. From this scene of busy waters we turned abruptly into the stillness of a forest, where we rode among the open bolls of the pines, over a lawn of verdant grass having strikingly the air of cultivated grounds. This led us, after a time, among masses of rock which had no vegetable earth but in hollows and crevices, though still the pine-forest continued. Toward evening we reached a defile, or rather a hole in the mountains, entirely shut in by dark pine-covered rocks.

A small stream, with a scarcely perceptible current, flowed through a level bottom of perhaps eighty yards' width, where the grass was saturated with water. Into this the mules were turned, and were neither hobbled nor picketed during the night, as the fine pasturage took away all temptation to stray; and we made our bivouac in the pines. The surrounding masses were all of granite. While supper was being prepared I set out on an excursion in the neighborhood, accompanied by one of my men. We wandered about among the crags and ravines until dark, richly repaid for our walk by a fine collection of plants, many of them in full bloom. Ascending a peak to find the place of our camp, we saw that the little defile in which we lay communicated with the long green valley of some stream, which, here locked up in the mountains, far away to the south found its way in a dense forest to the plains.

Looking along its upward course, it seemed to conduct, by a smooth gradual slope, directly toward the peak, which, from long consultation as we approached the mountain, we had decided to be the highest of the range. Pleased with the discovery of so fine a road for the next day, we hastened down to the camp, where we arrived just in time for supper. Our table service was rather scant; and we held the meat in our hands, and clean rocks made good plates on which we spread our macaroni. Among all the strange places on which we had occasion to encamp during our long journey, none have left so vivid an impression on my mind as the camp of this evening. The disorder of the masses which surrounded us; the little hole through which we saw the stars overhead; the dark pines where we slept; and the rocks lit up with the glow of our fires—made a night-picture of very wild beauty.

*August 13th.*—The morning was bright and pleasant, just cool enough to make exercise agreeable, and we soon entered the defile I had seen the preceding day. It was smoothly carpeted with a soft grass, and scattered over with groups of flowers of which yellow was the predominant color. Sometimes we were forced, by an occasional difficult pass, to pick our way on a narrow ledge along the side of the defile, and the mules were frequently on their knees; but these obstructions were rare, and we journeyed on in the sweet morning air, delighted at our good fortune in having found such a beautiful entrance to the mountains. This road continued for about three miles, when we suddenly reached its termination in one of the grand views which, at every turn, meet the traveller in this magnificent region. Here the defile up which we had travelled opened out into a small lawn, where, in a little lake, the stream had its source.

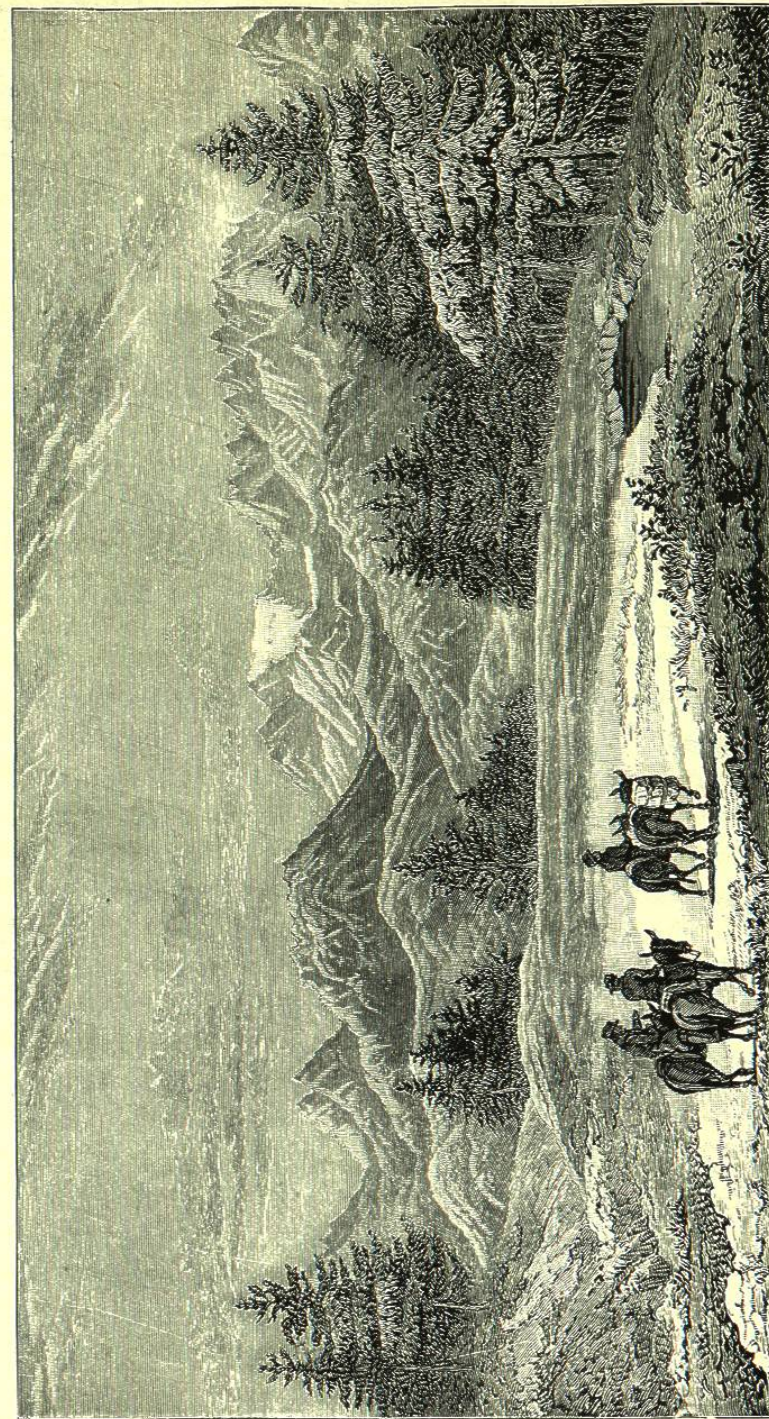
There were some fine *asters* in bloom, but all the flowering plants appeared to seek the shelter of the rocks, and to be of lower growth than below, as if they loved the warmth of the soil and kept out of the way of the winds. Immediately at our feet a precipitous descent led to a confusion of defiles, and before us rose the mountains as we have represented them in the annexed view. It is not by the splendor of far-off views, which have lent such a glory to the Alps, that these impress the mind; but by a gigantic disorder of enormous masses, and a savage sublimity of naked rock, in wonderful contrast with innumerable green spots of a rich floral beauty shut up in their stern recesses. Their wildness seems well suited to the character of the people who inhabit the country.

I determined to leave our animals here, and make the rest of our way on foot. The peak appeared so near that there was no doubt of our returning before night, and a few men were left in charge of the mules with our provisions and blankets. We took with us nothing but our arms and instruments, and, as the day had become warm, the greater part left their



coats. Having made an early dinner, we started again. We were soon involved in the most rugged precipices, nearing the central chain very slowly, and rising but little. The first ridge hid a succession of others; and when, with great fatigue and difficulty, we had climbed up five hundred feet, it was but to make an equal descent on the other side; all these intervening places were filled with small deep lakes, which met the eye in every direction, descending from one level to another, sometimes under bridges formed by huge fragments of granite, beneath which was heard the roar of the water. These constantly obstructed our path, forcing us to make long *détours*; frequently obliged to retrace our steps, and frequently falling among the rocks. Maxwell was precipitated toward the face of a precipice, and saved himself from going over by throwing himself flat on the ground. We clambered on, always expecting with every ridge that we crossed to reach the foot of the peaks, and always disappointed, until about four o'clock, when, pretty well worn out, we reached the shore of a little lake, in which there was a rocky island, and from which we obtained the view given here. We remained here a short time to rest, and continued on around the lake, which had in some places a beach of white sand, and in others was bound with rocks, over which the way was difficult and dangerous, as the water from innumerable springs made them very slippery.

By the time we had reached the farther side of the lake, we found ourselves all exceedingly fatigued, and, much to the satisfaction of the whole party, we encamped. The spot we had chosen was a broad flat rock, in some measure protected from the winds by the surrounding crags, and the trunks of fallen pines afforded us bright fires. Near by was a foaming torrent, which tumbled into the little lake about one hundred and fifty feet below us, and which, by way of distinction, we have called Island Lake. We had reached the upper limit of the piny region; as, above this point, no tree was to be seen, and patches of snow lay everywhere around us on the cold sides of the rocks. The flora of the region we had traversed since leaving our mules was extremely rich, and, among the characteristic plants, the scarlet flowers of the *Dodecatheon dentatum* everywhere met the eye in great abundance. A small green ravine, on the edge of which we were encamped, was filled with a profusion of alpine plants in brilliant bloom. From barometrical observations, made during our three days' sojourn at this place, its elevation above the Gulf of Mexico is ten thousand feet. During the day, we had seen no sign of animal life; but among the rocks here we heard what was supposed to be the bleat of a young goat, which we searched for with hungry activity, and found to proceed from a small animal of a gray color, with short ears and no tail—probably the Siberian squirrel. We saw a considerable number of them, and, with the exception



WIND RIVER CHAIN.



of a small bird like a sparrow, it is the only inhabitant of this elevated part of the mountains. On our return we saw, below this lake, large flocks of the mountain goat. We had nothing to eat to-night. Lajeunesse, with several others, took their guns and sallied out in search of a goat; but returned unsuccessful. At sunset the barometer stood at 20.522; the attached thermometer, 50°. Here we had the misfortune to break our thermometer, having now only that attached to the barometer. I was taken ill shortly after we had encamped, and continued so until late in the night, with violent headache and vomiting. This was probably caused by the excessive fatigue I had undergone, and want of food, and perhaps, also, in some measure, by the rarity of the air. The night was cold, as a violent gale from the north had sprung up at sunset, which entirely blew away the heat of the fires. The cold, and our granite beds, had not been favorable to sleep, and we were glad to see the face of the sun in the morning. Not being delayed by any preparations for breakfast, we set out immediately.

On every side as we advanced was heard the roar of water, and of a torrent, which we followed up a short distance, until it expanded into a lake about one mile in length. On the northern side of the lake was a bank of ice, or rather of snow covered with a crust of ice. Carson had been our guide into the mountains, and, agreeably to his advice, we left this little valley and took to the ridges again; which we found extremely broken, and where we were again involved among precipices. Here were ice-fields; among which we were all dispersed, seeking each the best path to ascend the peak. Preuss attempted to walk along the upper edge of one of these fields, which sloped away at an angle of about twenty degrees; but his feet slipped from under him, and he went plunging down the plane. A few hundred feet below, at the bottom, were some fragments of sharp rock, on which he landed; and, though he turned a couple of somersets, fortunately received no injury beyond a few bruises. Two of the men, Clément Lambert and Descoteaux, had been taken ill, and lay down on the rocks a short distance below; and at this point I was attacked with headache and giddiness, accompanied by vomiting, as on the day before. Finding myself unable to proceed, I sent the barometer over to Preuss, who was in a gap two or three hundred yards distant, desiring him to reach the peak, if possible, and take an observation there. He found himself unable to proceed farther in that direction, and took an observation where the barometer stood at 19.401; attached thermometer 50°, in the gap. Carson, who had gone over to him, succeeded in reaching one of the snowy summits of the main ridge, whence he saw the peak toward which all our efforts had been directed, towering eight or ten hundred feet into the air above him. In the meantime, finding myself grow rather worse than better, and doubtful how far my strength would carry me, I sent



Basil Lajeunesse, with four men, back to the place where the mules had been left.

We were now better acquainted with the topography of the country, and I directed him to bring back with him, if it were in any way possible, four or five mules, with provisions and blankets. With me were Maxwell and Ayot; and after we had remained nearly an hour on the rock, it became so unpleasantly cold, though the day was bright, that we set out on our return to the camp, at which we all arrived safely, straggling in one after the other. I continued ill during the afternoon, but became better toward sundown, when my recovery was completed by the appearance of Basil and four men, all mounted. The men who had gone with him had been too much fatigued to return, and were relieved by those in charge of the horses; but in his powers of endurance Basil resembled more a mountain goat than a man. They brought blankets and provisions, and we enjoyed well our dried meat and a cup of good coffee. We rolled ourselves up in our blankets, and, with our feet turned to a blazing fire, slept soundly until morning.

*August 15th.*—It had been supposed that we had finished with the mountains; and the evening before it had been arranged that Carson should set out at daylight, and return to breakfast at the Camp of the Mules, taking with him all but four or five men, who were to stay with me and bring back the mules and instruments. Accordingly, at the break of day they set out. With Preuss and myself remained Basil Lajeunesse, Clément Lambert, Janisse, and Descoteaux. When we had secured strength for the day by a hearty breakfast, we covered what remained, which was enough for one meal, with rocks, in order that it might be safe from any marauding bird; and, saddling our mules, turned our faces once more toward the peaks. This time we determined to proceed quietly and cautiously, deliberately resolved to accomplish our object if it were within the compass of human means. We were of opinion that a long defile which lay to the left of yesterday's route would lead us to the foot of the main peak. Our mules had been refreshed by the fine grass in the little ravine at the Island Camp, and we intended to ride up the defile as far as possible in order to husband our strength for the main ascent. Though this was a fine passage, still it was a defile of the most rugged mountains known, and we had many a rough and steep slippery place to cross before reaching the end. In this place the sun rarely shone; snow lay along the border of the small stream which flowed through it, and occasional icy passages made the footing of the mules very insecure, and the rocks and ground were moist with the trickling waters in this spring of mighty rivers. We soon had the satisfaction to find ourselves riding along the huge wall which forms the central summits of the chain. There at last it rose

by our sides, a nearly perpendicular wall of granite, terminating, from two to three thousand feet above our heads, in a serrated line of broken, jagged cones. We rode on until we came almost immediately below the main peak, which I denominated the Snow Peak, as it exhibited more snow to the eye than any of the neighboring summits. Here were three small lakes of a green color, each of perhaps a thousand yards in diameter, and apparently very deep. These lay in a kind of chasm; and, according to the barometer, we had attained but a few hundred feet above the Island Lake. The barometer here stood at 20.450, attached thermometer, 70°.

We managed to get our mules up to a little bench about a hundred feet above the lakes, where there was a patch of good grass, and turned them loose to graze. During our rough ride to this place, they had exhibited a wonderful surefootedness. Parts of the defile were filled with angular, sharp fragments of rock, three or four and eight or ten feet cube; and among these they had worked their way, leaping from one narrow point to another, rarely making a false step, and giving us no occasion to dismount. Having divested ourselves of every unnecessary encumbrance, we commenced the ascent. This time, like experienced travellers, we did not press ourselves, but climbed leisurely, sitting down so soon as we found breath beginning to fail. At intervals we reached places where a number of springs gushed from the rocks, and about one thousand eight hundred feet above the lakes came to the snow-line. From this point our progress was uninterrupted climbing. Hitherto I had worn a pair of thick moccasins, with soles of *parflèche*; but here I put on a light thin pair, which I had brought for the purpose, as now the use of our toes became necessary to a further advance. I availed myself of a sort of comb of the mountain, which stood against the wall like a buttress, and which the wind and the solar radiation, joined to the steepness of the smooth rock, had kept almost entirely free from snow. Up this I made my way rapidly. Our cautious method of advancing in the outset had spared my strength; and, with the exception of a slight disposition to headache, I felt no remains of yesterday's illness. In a few minutes we reached a point where the buttress was overhanging, and there was no other way of surmounting the difficulty than by passing around one side of it, which was the face of a vertical precipice of several hundred feet.

Putting hands and feet in the crevices between the blocks, I succeeded in getting over it, and, when I reached the top, found my companions in a small valley below. Descending to them, we continued climbing, and in a short time reached the crest. I sprang upon the summit, and another step would have precipitated me into an immense snow-field five hundred feet below. To the edge of this field was a sheer icy precipice; and then,