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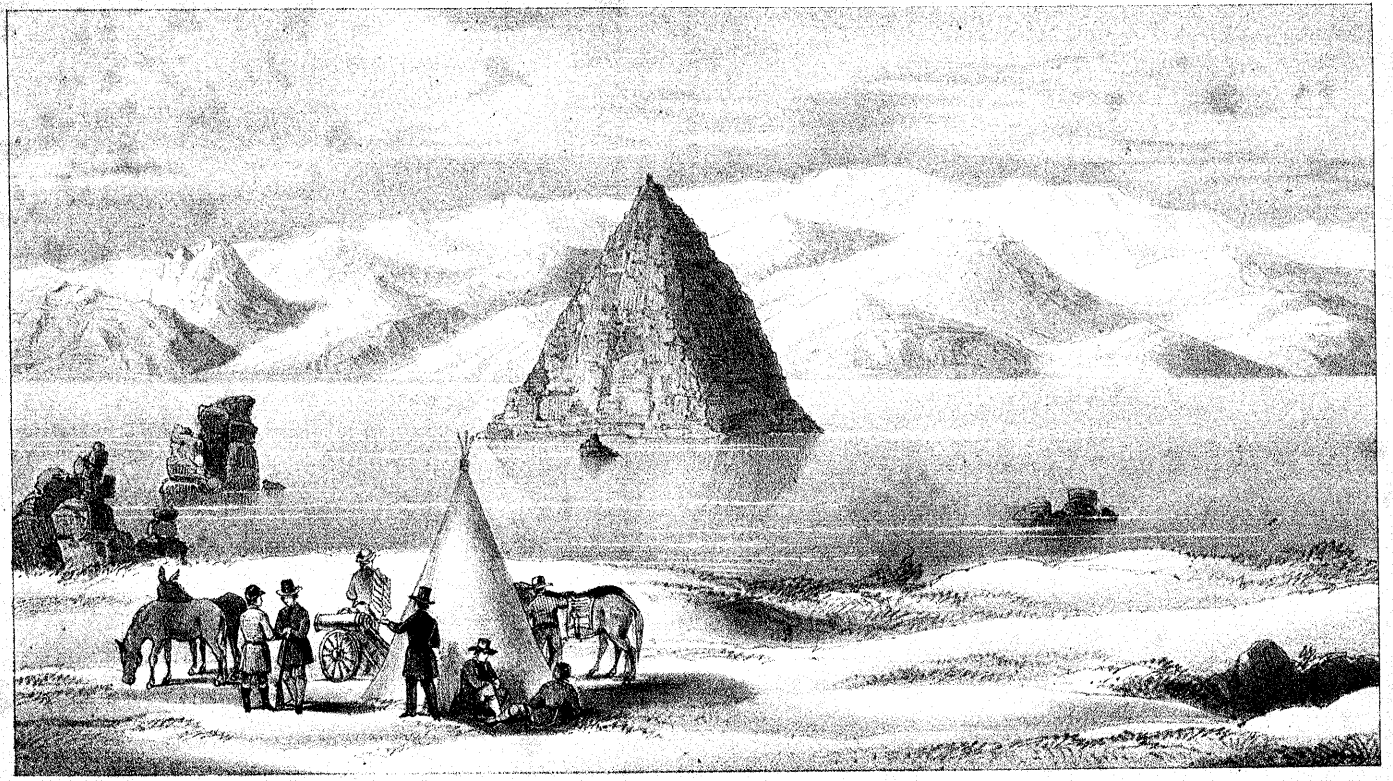
Niedersächsische Staats- und Universitätsbibliothek Göttingen
Georg-August-Universität Göttingen
Platz der Göttinger Sieben 1
37073 Göttingen
Germany
Email: gdz@sub.uni-goettingen.de



Day & Haghe, Lith.rs to the Queen.

THE PYRAMID LAKE.

London, Wiley & Putnam.

ance this morning, and we succeeded in getting one into the camp. He was naked, with the exception of a tunic of hare skins. He told us that there was a river at the end of the lake, but that he lived in the rocks near by. From the few words our people could understand, he spoke a dialect of the Snake language; but we were not able to understand enough to know whether the river ran in or out, or what was its course, consequently there still remained a chance that this might be Mary's lake.

Groves of large cotton-wood, which we could see at the mouth of the river, indicated that it was a stream of considerable size: and, at all events, we had the pleasure to know that now we were in a country where human beings could live. Accompanied by the Indian, we resumed our road, passing on the way several caves in the rock, where there were baskets and seeds, but the people had disappeared. We saw also horse tracks along the shore.

Early in the afternoon, when we were approaching the groves at the mouth of the river, three or four Indians met us on the trail. We had an explanatory conversation in signs, and then moved on together towards the village, which the chief said was encamped on the bottom.

Reaching the groves, we found the *inlet* of a large fresh-water stream, and all at once were satisfied that it was neither Mary's river nor the waters of the Sacramento, but that we had discovered a large interior lake, which the Indians informed us had no outlet. It is about 35 miles long, and, by the mark of the water-line along the shores, the spring level is about 12 feet above its present waters. The chief commenced speaking in a loud voice as we approached; and parties of Indians armed with bows and arrows issued from the thickets. We selected a strong place for our encampment—a grassy bottom, nearly enclosed by the river, and furnished with abundant firewood. The village, a collection of straw huts, was a few hundred yards higher up. An Indian brought in a large fish to trade, which we had the inexpressible satisfaction to find was a salmon trout; we gathered round him eagerly. The Indians were amused with our delight, and immediately brought in numbers, so that the camp was soon stocked. Their flavour was excellent; superior, in fact, to that of any fish I have ever known. They were of extraordinary size, about as large as the Columbia river salmon, generally from two to four feet in length. From the information of Mr. Walker, who passed among some lakes lying more to the eastward, this fish is common to the streams of the inland lakes. He subsequently informed me that he had obtained them weighing six pounds when cleaned and the head taken off, which corresponds very well with the size of those obtained at this place. They doubtless formed the subsistence of these people, who hold the fishery in exclusive possession.

I remarked that one of them gave a fish to the Indian we had

first seen, which he carried off to his family. To them it was probably a feast, being of the Digger tribe, and having no share in the fishery, living generally on seeds and roots. Although this was a time of the year when the fish have not yet become fat, they were excellent, and we could only imagine what they are at the proper season. These Indians were very fat, and appeared to live an easy and happy life. They crowded into the camp more than was consistent with our safety, retaining always their arms; and, as they made some unsatisfactory demonstrations, they were given to understand that they would not be permitted to come armed into the camp, and strong guards were kept with the horses. Strict vigilance was maintained among the people, and one-third at a time were kept on guard during the night. There is no reason to doubt that these dispositions, uniformly preserved, conducted our party securely through Indians famed for treachery.

In the mean time such a salmon trout feast as is seldom seen was going on in our camp; and every variety of manner in which fish could be prepared—boiled, fried, and roasted in the ashes—was put into requisition, and every few minutes an Indian would be seen running off to spear a fresh one. Whether these Indians had seen whites before we could not be certain, but they were evidently in communication with others who had, as one of them had some brass buttons, and we noticed several other articles of civilized manufacture. We could obtain from them but little information respecting the country. They made on the ground a drawing of the river, which they represented as issuing from another lake in the mountains three or four days' distant, in a direction a little west of south; beyond which they drew a mountain, and further still, two rivers, on one of which they told us that people like ourselves travelled. Whether they alluded to the settlements on the Sacramento, or to a party from the United States, which had crossed the Sierra about three degrees to the southward, a few years since, I am unable to determine.

I tried unsuccessfully to prevail on some of them to guide us for a few days on the road, but they only looked at each other and laughed.

The latitude of our encampment, which may be considered the mouth of the inlet, is 39° 51′ 13″ by our observations.

January 16.—This morning we continued our journey along this beautiful stream, which we naturally called the Salmon-trout river. Large trails led up on either side; the stream was handsomely timbered with large cotton-woods, and the waters were very clear and pure. We were travelling along the mountains of the great Sierra, which rose on our right, covered with snow; but below, the temperature was mild and pleasant. We saw a number of dams which the Indians had constructed to catch fish. After having made about 18 miles, we encamped under some large

cotton-woods on the river bottom, where there was tolerably good grass.

January 17.—This morning we left the river, which here issues from the mountains on the west. With every stream I now expected to see the great Buenaventura; and Carson hurried eagerly to search, on every one we reached, for beaver cuttings, which he always maintained we should find only on waters that ran to the Pacific; and the absence of such signs was to him a sure indication that the water had no outlet from the great basin. We followed the Indian trail through a tolerably level country, with small sage bushes, which brought us, after 20 miles' journey, to another large stream, timbered with cotton-wood, and flowing also out of the mountains, but running more directly to the eastward.

On the way we surprised a family of Indians in the hills, but the man ran up the mountain with rapidity, and the woman was so terrified, and kept up such a continued screaming, that we could do nothing with her, and were obliged to let her go.

January 18.—There were Indian lodges and fish dams on the stream. There were no beaver cuttings on the river; but below it turned round to the right; and, hoping that it would prove a branch of the Buenaventura, we followed it down for about three hours, and encamped.

I rode out with Mr. Fitzpatrick and Carson to reconnoitre the country, which had evidently been alarmed by the news of our appearance. This stream joined with the open valley of another to the eastward, but which way the main water ran it was impossible to tell. Columns of smoke rose over the country at scattered intervals—signals by which the Indians here, as elsewhere, communicate to each other that enemies are in the country. It is a signal of ancient and very universal application among barbarians.

Examining into the condition of the animals when I returned into the camp, I found their feet so much cut up by the rocks, and so many of them lame, that it was evidently impossible that they could cross the country to the Rocky Mountains. Every piece of iron that could be used for the purpose had been converted into nails, and we could make no further use of the shoes we had remaining. I therefore determined to abandon my eastern course, and to cross the Sierra Nevada into the valley of the Sacramento, wherever a practicable pass could be found. My decision was heard with joy by the people, and diffused new life throughout the camp.

Latitude, by observation, 39° 24′ 16″.

January 19.—A great number of smokes are still visible this morning, attesting at once the alarm which our appearance had spread among these people, and their ignorance of us. If they knew the whites, they would understand that their only object in coming among them was to trade, which required peace and

friendship; but they have nothing to trade—consequently, nothing to attract the white man; hence their fear and flight.

At daybreak we had a heavy snow, but set out, and, returning up the stream, went out of our way in a circuit over a little mountain, and encamped on the same stream, a few miles above, in latitude 39° 19′ 21″, by observation.

January 20.—To-day we continued up the stream, and encamped on it close to the mountains. The freshly fallen snow was covered with the tracks of Indians, who had descended from the upper waters, probably called down by the smokes in the plain.

We ascended a peak of the range, which commanded a view of this stream, behind the first ridge, where it was winding its course through a somewhat open valley, and I sometimes regret that I did not make the trial to cross here; but while we had fair weather below, the mountains were darkened with falling snow, and feeling unwilling to encounter them, we turned away again to the southward. In that direction we travelled the next day over a tolerably level country, having always the high mountains on the west. There was but little snow or rock on the ground, and after having travelled 24 miles, we encamped again on another large stream, running off to the northward and eastward, to meet that we had left. It ran through broad bottoms, having a fine meadow-land appearance.

Latitude 39° 01′ 53″.

January 22.—We travelled up the stream for about 14 miles to the foot of the mountains, from which one branch issued in the south-west, the other flowing from S.S.E. along their base. Leaving the camp below, we ascended the range through which the first stream passed, in a cañon; on the western side was a circular valley, about 15 miles long, through which the stream wound its way, issuing from a gorge in the main mountain, which rose abruptly beyond. The valley looked yellow with faded grass, and the trail we had followed was visible, making towards the gorge, and this was evidently a pass; but again, while all was bright sunshine on the ridge and on the valley where we were, the snow was falling heavily in the mountains. I determined to go still to the southward, and encamped on the stream near the forks, the animals being fatigued and the grass tolerably good.

The rock of the ridge we had ascended is a compact lava, assuming a granitic appearance and structure, and containing, in some places, small nodules of obsidian. So far as composition and aspect are concerned, the rock in other parts of the ridge appears to be granite, but it is probable that this is only a compact form of lava of recent origin.

By observation, the elevation of the encampment was 5,020 feet, and the latitude 38° 49′ 54″.

January 23.—We moved along the course of the other branch

towards the south-east, the country affording a fine road; and, passing some slight dividing grounds, descended towards the valley of another stream. There was a somewhat rough-looking mountain ahead, which it appeared to issue from, or to enter, we could not tell which; and, as the course of the valley and the inclination of the ground had a favourable direction, we were sanguine to find here a branch of the Buenaventura, but were again disappointed, finding it an inland water, on which we encamped after a day's journey of 24 miles. It was evident that, from the time we descended into the plain at Summer lake, we had been flanking the great range of mountains which divided the Great Basin from the waters of the Pacific, and that the continued succession, and almost connexion of lakes and rivers which we encountered, were the drainings of that range. Its rains, springs, and snows would sufficiently account for these lakes and streams, numerous as they were.

January 24.—A man was discovered running towards the camp as we were about to start this morning, who proved to be an Indian of rather advanced age—a sort of forlorn hope, who seemed to have been worked up into the resolution of visiting the strangers who were passing through the country. He seized the hand of the first man he met as he came up, out of breath, and held on, as if to assure himself of protection. He brought with him, in a little skin bag, a few pounds of the seeds of a pine tree, which to-day we saw for the first time, and which Dr. Torrey has described as a new species, under the name of *pinus monophyllus;* in popular language, it might be called the *nut pine.* We purchased them all from him. The nut is oily, of very agreeable flavour, and must be very nutritious, as it constitutes the principal subsistence of the tribes among which we were now travelling. By a present of scarlet cloth, and other striking articles, we prevailed upon this man to be our guide for two days' journey. As clearly as possible by signs, we made him understand our object, and he engaged to conduct us in sight of a good pass which he knew. Here we ceased to hear the Shoshonee language, that of this man being perfectly unintelligible. Several Indians, who had been waiting to see what reception he would meet with, now came into camp, and, accompanied by the new comers, we resumed our journey.

The road led us up by the creek, which here becomes a rather rapid mountain stream, 50 feet wide, between dark-looking hills without snow, but immediately beyond them rose snowy mountains on either side, timbered principally with the nut pine. On the lower grounds, the general height of this tree is 12 to 20 feet, and eight inches the greatest diameter; it is rather branching, and has a peculiar and singular but pleasant odour. We followed the river for only a short distance along a rocky trail, and crossed it at a dam, which the Indians made us comprehend had been built

to catch salmon-trout. The snow and ice were heaped up against it three or four feet deep entirely across the stream.

Leaving here the stream, which runs through impassable cañons, we continued our road over a very broken country, passing through a low gap between the snowy mountains. The rock which occurs immediately in the pass has the appearance of impure sandstone, containing scales of black mica. This may be only a stratified lava. On issuing from the gap, the compact lava, and other volcanic products usual in the country, again occurred. We descended from the gap into a wide valley, or rather basin, and encamped on a small tributary to the last stream, on which there was very good grass. It was covered with such thick ice that it required some labour with pick-axes to make holes for the animals to drink. The banks are lightly wooded with willow, and on the upper bottoms are sage and fremontia with *ephedra occidentalis*, which begins to occur more frequently. The day has been a summer one, warm and pleasant; no snow on the trail, which, as we are all on foot, makes travelling more agreeable. The hunters went into the neighbouring mountains, but found no game. We have five Indians in camp to-night.

January 25.—The morning was cold and bright, and as the sun rose the day became beautiful. A party of twelve Indians came down from the mountains to trade pine nuts, of which each one carried a little bag. These seemed now to be the staple of the country; and, whenever we met an Indian, his friendly salutation consisted in offering a few nuts to eat and to trade: their only arms were bows and flint-pointed arrows. It appeared that in almost all the valleys the neighbouring bands were at war with each other; and we had some difficulty in prevailing on our guides to accompany us on this day's journey, being at war with the people on the other side of a large snowy mountain which lay before us.

The general level of the country appeared to be getting higher, and we were gradually entering the heart of the mountains. Accompanied by all the Indians, we ascended a long ridge, and reached a pure spring at the edge of the timber, where the Indians had waylaid and killed an antelope, and where the greater part of them left us. Our pacific conduct had quieted their alarms; and though at war among each other, yet all confided in us—thanks to the combined effects of power and kindness—for our arms inspired respect, and our little presents and good treatment conciliated their confidence. Here we suddenly entered snow six inches deep, and the ground was a little rocky with volcanic fragments, the mountain appearing to be composed of such rock. The timber consists principally of nut pines (*pinus monophyllus*), which here are of larger size—12 to 15 inches in diameter; heaps of cones lying on the ground, where the Indians have gathered the seeds.

The snow deepened gradually as we advanced. Our guides

wore out their moccasins; and, putting one of them on a horse, we enjoyed the unusual sight of an Indian who could not ride. He could not even guide the animal, and appeared to have no knowledge of horses. The snow was three or four feet deep in the summit of the pass; and from this point the guide pointed out our future road, declining to go any further. Below us was a little valley; and beyond this the mountains rose higher still, one ridge above another, presenting a rude and rocky outline. We descended rapidly to the valley; the snow impeded us but little, yet it was dark when we reached the foot of the mountain.

The day had been so warm, that our moccasins were wet with melting snow; but here, as soon as the sun begins to decline, the air gets suddenly cold, and we had great difficulty to keep our feet from freezing—our moccasins being frozen perfectly stiff. After a hard day's march of 27 miles, we reached the river some time after dark, and found the snow about a foot deep on the bottom—the river being entirely frozen over. We found a comfortable camp, where there were dry willows abundant, and we soon had blazing fires. A little brandy, which I husbanded with great care, remained, and I do not know any medicine more salutary, or any drink (except coffee) more agreeable, than this on a cold night after a hard day's march. Mr. Preuss questioned whether the famed nectar even possessed so exquisite a flavour. All felt it to be a reviving cordial.

The next morning, when the sun had not yet risen over the mountains, the thermometer was 2° below zero; but the sky was bright and pure, and the weather changed rapidly into a pleasant day of summer. I remained encamped, in order to examine the country, and allow the animals a day of rest, the grass being good and abundant under the snow.

The river is fifty to eighty feet wide, with a lively current and very clear water. It forked a little above our camp, one of its branches coming directly from the south. At its head appeared to be a handsome pass; and from the neighbouring heigths we could see, beyond, a comparatively low and open country, which was supposed to form the valley of the Buenaventura. The other branch issued from a nearer pass, in a direction S. 75° W., forking at the foot of the mountain, and receiving part of its waters from a little lake. I was in advance of the camp when our last guides had left us; but, so far as could be understood, this was the pass which they had indicated, and, in company with Carson, to-day I set out to explore it. Entering the range, we continued in a north-westerly direction up the valley, which here bent to the right. It was a pretty, open bottom, locked between lofty mountains, which supplied frequent streams as we advanced. On the lower part they were covered with nut-pine trees, and above with masses of pine, which we easily recognised, from the darker colour of the foliage. From the fresh trails which occurred frequently during the morning, deer appeared to be remarkably numerous in the mountain.

We had now entirely left the desert country, and were on the verge of a region which, extending westward to the shores of the Pacific, abounds in large game, and is covered with a singular luxuriance of vegetable life.

The little stream grew rapidly smaller, and in about twelve miles we had reached its head, the last water coming immediately out of the mountain on the right; and this spot was selected for our next encampment. The grass showed well in sunny places; but in colder situations the snow was deep, and began to occur in banks, through which the horses found some difficulty in breaking a way.

To the left, the open valley continued in a south-westerly direction, with a scarcely perceptible ascent, forming a beautiful pass; the exploration of which we deferred until the next day, and returned to the camp.

To-day an Indian passed through the valley, on his way into the mountains, where he showed us was his lodge. We comprehended nothing of his language; and, though he appeared to have no fear, passing along in full view of the camp, he was indisposed to hold any communication with us, but showed the way he was going, and pointed for us to go on our road.

By observation, the latitude of this encampment was 38° 18′ 01″, and the elevation above the sea 6,310 feet.

January 27.—Leaving the camp to follow slowly, with directions to Carson to encamp at the place agreed on, Mr. Fitzpatrick and myself continued the reconnoissance. Arriving at the head of the stream, we began to enter the pass—passing occasionally through open groves of large pine trees, on the warm side of the defile, where the snow had melted away, occasionally exposing a large Indian trail. Continuing along a narrow meadow, we reached in a few miles the gate of the pass, where there was a narrow strip of prairie, about fifty yards wide, between walls of granite rock. On either side rose the mountains, forming on the left a rugged mass, or nucleus, wholly covered with deep snow, presenting a glittering and icy surface. At the time, we supposed this to be the point into which they were gathered between the two great rivers, and from which the waters flowed off to the bay. This was the icy and cold side of the pass, and the rays of the sun hardly touched the snow. On the left, the mountains rose into peaks; but they were lower and secondary, and the country had a somewhat more open and lighter character. On the right were several hot springs, which appeared remarkable in such a place. In going through, we felt impressed by the majesty of the mountain, along the huge wall of which we were riding. Here there was no snow; but immediately beyond was a deep bank, through which we dragged our horses with considerable effort. We then immediately struck upon a stream, which gathered itself rapidly, and descended quick, and the valley did not preserve the open character of the other side, appearing below to form a cañon. We therefore climbed one of the peaks on the right, leaving our horses below; but we were

so much shut up, that we did not obtain an extensive view, and what we saw was not very satisfactory, and awakened considerable doubt. The valley of the stream pursued a north-westerly direction, appearing below to turn sharply to the right, beyond which further view was cut off. It was, nevertheless, resolved to continue our road the next day down this valley, which we trusted still would prove that of the middle stream between the two great rivers. Towards the summit of this peak, the fields of snow were four or five feet deep on the northern side; and we saw several large hares, which had on their winter colour, being white as the snow around them.

The winter day is short in the mountains, the sun having but a small space of sky to travel over in the visible part above our horizon; and the moment his rays are gone, the air is keenly cold. The interest of our work had detained us long, and it was after nightfall when we reached the camp.

January 28.—To-day we went through the pass with all the camp, and, after a hard day's journey of twelve miles, encamped on a high point where the snow had been blown off, and the exposed grass afforded a scanty pasture for the animals. Snow and broken country together made our travelling difficult: we were often compelled to make large circuits, and ascend the highest and most exposed ridges, in order to avoid snow, which in other places was banked up to a great depth.

During the day a few Indians were seen circling around us on snow shoes, and skimming along like birds; but we could not bring them within speaking distance. Godey, who was a little distance from the camp, had sat down to tie his moccasins, when he heard a low whistle near, and, looking up, saw two Indians half hiding behind a rock about forty yards distant; they would not allow him to approach, but, breaking into a laugh, skimmed off over the snow, seeming to have no idea of the power of fire-arms, and thinking themselves perfectly safe when beyond arm's length.

To-night we did not succeed in getting the howitzer into camp. This was the most laborious day we had yet passed through, the steep ascents and deep snow exhausting both men and animals. Our single chronometer had stopped during the day, and its error in time occasioned the loss of an eclipse of a satellite this evening. It had not preserved the rate with which we started from the Dalles, and this will account for the absence of longitudes along this interval of our journey.

January 29.—From this height we could see, at a considerable distance below, yellow spots in the valley, which indicated that there was not much snow. One of these places we expected to reach to-night; and some time being required to bring up the gun, I went ahead with Mr. Fitzpatrick and a few men, leaving the camp to follow, in charge of Mr. Preuss. We followed a trail down a hollow where the Indians had descended, the snow being

so deep that we never came near the ground; but this only made our descent the easier, and, when we reached a little affluent to the river at the bottom, we suddenly found ourselves in presence of eight or ten Indians. They seemed to be watching our motions, and, like the others, at first were indisposed to let us approach, ranging themselves like birds on a fallen log on the hill-side above our heads, where, being out of reach, they thought themselves safe. Our friendly demeanour reconciled them, and, when we got near enough, they immediately stretched out to us handfulls of pine-nuts, which seemed an exercise of hospitality. We made them a few presents, and, telling us that their village was a few miles below, they went on to let their people know what we were. The principal stream still running through an impracticable cañon, we ascended a very steep hill, which proved afterwards the last and fatal obstacle to our little howitzer, which was finally abandoned at this place. We passed through a small meadow a few miles below, crossing the river, which depth, swift current, and rock, made it difficult to ford; and, after a few more miles of very difficult trail, issued into a larger prairie bottom, at the farther end of which we encamped, in a position rendered strong by rocks and trees. The lower parts of the mountain were covered with the nut-pine. Several Indians appeared on the hill-side, reconnoitring the camp, and were induced to come in; others came in during the afternoon; and in the evening we held a council. The Indians immediately made it clear that the waters on which we were also belong to the Great Basin, in the edge of which we had been since the 17th of December: and it became evident that we had still the great ridge on the left to cross before we could reach the Pacific waters.

We explained to the Indians that we were endeavouring to find a passage across the mountains into the country of the whites, whom we were going to see; and told them that we wished them to bring us a guide, to whom we would give presents of scarlet cloth, and other articles, which were shown to them. They looked at the reward we offered, and conferred with each other, but pointed to the snow on the mountain, and drew their hands across their necks, and raised them above their heads, to show the depth; and signified that it was impossible for us to get through. They made signs that we must go to the southward, over a pass through a lower range, which they pointed out; there, they said, at the end of one day's travel, we would find people who lived near a pass in the great mountain; and to that point they engaged to furnish us a guide. They appeared to have a confused idea, from report, of whites who lived on the other side of the mountain; and once, they told us, about two years ago, a party of 12 men like ourselves had ascended their river, and crossed to the other waters. They pointed out to us where they had crossed; but then, they said, it was summer time; but now it would be impossible. I

believe that this was a party led by Mr. Chiles, one of the only two men whom I know to have passed through the California mountains from the interior of the Basin—Walker being the other; and both were engaged upwards of 20 days, in the summer time, in getting over. Chiles's destination was the bay of San Francisco, to which he descended by the Stanislaus river; and Walker subsequently informed me that, like myself, descending to the southward on a more eastern line, day after day he was searching for the Buenaventura, thinking that he had found it with every new stream, until, like me, he abandoned all idea of its existence, and, turning abruptly to the right, crossed the great chain. These were both western men, animated with the spirit of exploratory enterprise which characterizes that people.

The Indians brought in during the evening an abundant supply of pine-nuts, which we traded from them. When roasted, their pleasant flavour made them an agreeable addition to our now scanty store of provisions, which were reduced to a very low ebb. Our principal stock was in peas, which it is not necessary to say contain scarcely any nutriment. We had still a little flour left, some coffee, and a quantity of sugar, which I reserved as a defence against starvation.

The Indians informed us that at certain seasons they have fish in their waters, which we supposed to be salmon trout; for the remainder of the year they live upon the pine-nuts, which form their great winter subsistence—a portion being always at hand, shut up in the natural storehouse of the cones. At present, they were presented to us as a whole people living upon this simple vegetable.

The other division of the party did not come in to-night, but encamped in the upper meadow, and arrived the next morning. They had not succeeded in getting the howitzer beyond the place mentioned, and where it had been left by Mr. Preuss in obedience to my orders; and, in anticipation of the snow banks and snow fields still ahead, foreseeing the inevitable detention to which it would subject us, I reluctantly determined to leave it there for the time. It was of the kind invented by the French for the mountain part of their war in Algiers; and the distance it had come with us proved how well it was adapted to its purpose. We left it, to the great sorrow of the whole party, who were grieved to part with a companion which had made the whole distance from St. Louis, and commanded respect for us on some critical occasions, and which might be needed for the same purpose again.

January 30.—Our guide, who was a young man, joined us this morning; and, leaving our encampment late in the day, we descended the river, which immediately opened out into a broad valley, furnishing good travelling ground. In a short distance we passed the village, a collection of straw huts; and a few miles below, the guide pointed out the place where the whites had been encamped before they entered the mountain. With our late start

we made but 10 miles, and encamped on the low river bottom, where there was no snow, but a great deal of ice; and we cut piles of long grass to lay under our blankets, and fires were made of large dry willows, groves of which wooded the stream. The river took here a north-easterly direction, and through a spur from the mountains on the left was the gap where we were to pass the next day.

January 31.—We took our way over a gently rising ground, the dividing ridge being tolerably low; and travelling easily along a broad trail, in 12 or 14 miles reached the upper part of the pass, when it began to snow thickly, with very cold weather. The Indians had only the usual scanty covering, and appeared to suffer greatly from the cold. All left us, except our guide. Half hidden by the storm, the mountains looked dreary; and, as night began to approach, the guide showed great reluctance to go forward. I placed him between two rifles, for the way began to be difficult. Travelling a little farther, we struck a ravine, which the Indian said would conduct us to the river; and as the poor fellow suffered greatly, shivering in the snow which fell upon his naked skin, I would not detain him any longer; and he ran off to the mountain, where he said there was a hut near by. He had kept the blue and scarlet cloth I had given him tightly rolled up, preferring rather to endure the cold than to get them wet. In the course of the afternoon, one of the men had his foot frost-bitten; and about dark we had the satisfaction to reach the bottoms of a stream timbered with large trees, among which we found a sheltered camp, with an abundance of such grass as the season afforded for the animals. We saw before us, in descending from the pass, a great continuous range, along which stretched the valley of the river; the lower parts steep, and dark with pines, while above it was hidden in clouds of snow. This we felt instantly satisfied was the central ridge of the Sierra Nevada, the great California mountain, which only now intervened between us and the waters of the bay. We had made a forced march of 26 miles, and three mules had given out on the road. Up to this point, with the exception of two stolen by Indians, we had lost none of the horses which had been brought from the Columbia river, and a number of these were still strong and in tolerably good order. We had now 67 animals in the band.

We had scarcely lighted our fires, when the camp was crowded with nearly naked Indians; some of them were furnished with long nets in addition to bows, and appeared to have been out on the sage hills to hunt rabbits. These nets were perhaps 30 to 40 feet long, kept upright in the ground by slight sticks at intervals, and were made from a kind of wild hemp, very much resembling in manufacture those common among the Indians of the Sacramento valley. They came among us without any fear, and scattered themselves about the fires, mainly occupied in gratifying their

astonishment. I was struck by the singular appearance of a row of about a dozen, who were sitting on their haunches perched on a log near one of the fires, with their quick sharp eyes following every motion.

We gathered together a few of the most intelligent of the Indians, and held this evening an interesting council. I explained to them my intentions. I told them that we had come from a very far country, having been travelling now nearly a year, and that we were desirous simply to go across the mountain into the country of the other whites. There were two who appeared particularly intelligent—one, a somewhat old man. He told me that, before the snows fell, it was six sleeps to the place where the whites lived, but that now it was impossible to cross the mountain on account of the deep snow; and showing us, as the others had done, that it was over our heads, he urged us strongly to follow the course of the river, which he said would conduct us to a lake in which there were many large fish. There, he said, were many people; there was no snow on the ground: and we might remain there until the spring. From their descriptions we were enabled to judge that we had encamped on the upper water of the Salmon trout river. It is hardly necessary to say that our communication was only by signs, as we understood nothing of their language; but they spoke, notwithstanding, rapidly and vehemently, explaining what they considered the folly of our intentions, and urging us to go down to the lake. *Tah-ve*, a word signifying snow, we very soon learned to know, from its frequent repetition. I told him that the men and the horses were strong, and that we would break a road through the snow; and spreading before him our bales of scarlet cloth and trinkets, showed him what we would give for a guide. It was necessary to obtain one, if possible; for I had determined here to attempt the passage of the mountain. Pulling a bunch of grass from the ground, after a short discussion among themselves, the old man made us comprehend that if we could break through the snow, at the end of three days we would come down upon grass, which he showed us would be about six inches high, and where the ground was entirely free. So far, he said, he had been in hunting for elk; but beyond that (and he closed his eyes) he had seen nothing; but there was one among them who had been to the whites, and, going out of the lodge, he returned with a young man of very intelligent appearance. Here, said he, is a young man who has seen the whites with his own eyes; and he swore, first by the sky, and then by the ground, that what he said was true. With a large present of goods, we prevailed upon this young man to be our guide, and he acquired among us the name Mélo—a word signifying friend, which they used very frequently. He was thinly clad, and nearly barefoot; his moccasins being about worn out. We gave him skins to make a new pair,

and to enable him to perform his undertaking to us. The Indians remained in the camp during the night, and we kept the guide and two others to sleep in the lodge with us—Carson lying across the door, and having made them comprehend the use of our fire-firms. The snow, which had intermitted in the evening, commenced falling again in the course of the night, and it snowed steadily all day. In the morning I acquainted the men with my decision, and explained to them that necessity required us to make a great effort to clear the mountains. I reminded them of the beautiful valley of the Sacramento, with which they were familiar from the descriptions of Carson, who had been there some fifteen years ago, and who, in our late privations, had delighted us in speaking of its rich pastures and abounding game, and drew a vivid contrast between its summer climate, less than a hundred miles distant, and the falling snow around us. I informed them (and long experience had given them confidence in my observations and good instruments, that almost directly west, and only about 70 miles distant, was the great farming establishment of Captain Sutter—a gentleman who had formerly lived in Missouri, and, emigrating to this country, had become the possessor of a principality. I assured them that, from the heights of the mountain before us, we should doubtless see the valley of the Sacramento river, and with one effort place ourselves again in the midst of plenty. The people received this decision with the cheerful obedience which had always characterized them; and the day was immediately devoted to the preparations necessary to enable us to carry it into effect. Leggings, moccasins, clothing—all were put into the best state to resist the cold. Our guide was not neglected. Extremity of suffering might make him desert; we therefore did the best we could for him. Leggings, moccasins, some articles of clothing, and a large green blanket, in addition to the blue and scarlet cloth, were lavished upon him, and to his great and evident contentment. He arrayed himself in all his colours; and, clad in green, blue, and scarlet, he made a gay-looking Indian; and, with his various presents, was probably richer and better clothed than any of his tribe had ever been before.

I have already said that our provisions were very low; we had neither tallow nor grease of any kind remaining, and the want of salt became one of our greatest privations. The poor dog which had been found in the Bear river valley, and which had been a *compagnon de voyage* ever since, had now become fat, and the mess to which it belonged requested permission to kill it. Leave was granted. Spread out on the snow, the meat looked very good; and it made a strengthening meal for the greater part of the camp. Indians brought in two or three rabbits during the day, which were purchased from them.

The river was 40 to 70 feet wide, and now entirely frozen

over. It was wooded with large cotton-wood, willow, and *grain de bœuf*. By observation, the latitude of this encampment was 38° 37′ 18″.

February 2.—It had ceased snowing, and this morning the lower air was clear and frosty: and six or seven thousand feet above, the peaks of the Sierra now and then appeared among the rolling clouds, which were rapidly dispersing before the sun. Our Indian shook his head as he pointed to the icy pinnacles, shooting high up into the sky, and seeming almost immediately above us. Crossing the river on the ice, and leaving it immediately, we commenced the ascent of the mountain along the valley of a tributary stream. The people were unusually silent; for every man knew that our enterprise was hazardous, and the issue doubtful.

The snow deepened rapidly, and it soon became necessary to break a road. For this service, a party of ten was formed, mounted on the strongest horses; each man in succession opening the road on foot, or on horseback, until himself and his horse became fatigued, when he stepped aside, and, the remaining number passing ahead, he took his station in the rear. Leaving this stream, and pursuing a very direct course, we passed over an intervening ridge to the river we had left. On the way we passed two low huts entirely covered with snow, which might very easily have escaped observation. A family was living in each; and the only trail I saw in the neighbourhood was from the door-hole to a nut-pine tree near, which supplied them with food and fuel. We found two similar huts on the creek where we next arrived; and, travelling a little higher up, encamped on its banks in about four feet depth of snow, Carson found near an open hill side, where the wind and the sun had melted the snow, leaving exposed sufficient bunch grass for the animals to-night.

The nut-pines were now giving way to heavy timber, and there were some immense pines on the bottom, around the roots of which the sun had melted away the snow; and here we made our camps and built huge fires. To-day we had travelled 16 miles, and our elevation above the sea was 6,760 feet.

February 3.—Turning our faces directly towards the main chain, we ascended an open hollow along a small tributary to the river, which, according to the Indians, issues from a mountain to the south. The snow was so deep in the hollow, that we were obliged to travel along the steep hill sides, and over spurs, where wind and sun had in places lessened the snow, and where the grass, which appeared to be in good quality along the sides of the mountains, was exposed. We opened our road in the same way as yesterday, but made only seven miles; and encamped by some springs at the foot of a high and steep hill, by which the hollow ascended to another basin in the mountain. The little stream below was entirely buried in snow. The springs were shaded by the boughs of a lofty cedar, which here made its first appearance; the usual

height was 120 to 130 feet, and one that was measured near by was six feet in diameter.

There being no grass exposed here, the horses were sent back to that which we had seen a few miles below. We occupied the remainder of the day in beating down a road to the foot of the hill, a mile or two distant; the snow being beaten down when moist, in the warm part of the day, and then hard frozen at night, made a foundation that would bear the weight of the animals the next morning. During the day several Indians joined us on snow shoes. These were made of a circular hoop, about a foot in diameter, the interior space being filled with an open network of bark.

February 4.—I went ahead early with two or three men, each with a led horse, to break the road. We were obliged to abandon the hollow entirely, and work along the mountain side, which was very steep, and the snow covered with an icy crust. We cut a footing as we advanced, and trampled a road through for the animals; but occasionally one plunged outside the trail, and slided along the field to the bottom, a hundred yards below. Late in the day we reached another bench in the hollow, where, in summer, the stream passed over a small precipice. Here was a short distance of dividing ground between the two ridges, and beyond an open basin, some ten miles across, whose bottom presented a field of snow. At the further or western side rose the middle crest of the mountain, a dark-looking ridge of volcanic rock.

The summit line presented a range of naked peaks, apparently destitute of snow and vegetation; but below, the face of the whole country was covered with timber of extraordinary size.

Towards a pass which the guide indicated here, we attempted in the afternoon to force a road; but after a laborious plunging through two or three hundred yards, our best horses gave out, entirely refusing to make any further effort; and, for the time, we were brought to a stand. The guide informed us that we were entering the deep snow, and here began the difficulties of the mountain; and to him, and almost to all, our enterprise seemed hopeless. I returned a short distance back, to the break in the hollow, where I met Mr. Fitzpatrick.

The camp had been all the day occupied in endeavouring to ascend the hill, but only the best horses had succeeded; the animals, generally, not having sufficient strength to bring themselves up without the packs; and all the line of road between this and the springs were strewed with camp stores and equipage, and horses floundering in snow. I therefore immediately encamped on the ground with my own mess, which was in advance, and directed Mr. Fitzpatrick to encamp at the springs, and send all the animals, in charge of Tabeau, with a strong guard, back to the place where they had been pastured the night before. Here was a small spot of level ground, protected on one side by the mountain, and on the other sheltered by a little ridge of rock. It was

an open grove of pines, which assimilated in size to the grandeur of the mountain, being frequently six feet in diameter.

To-night we had no shelter, but we made a large fire around the trunk of one of the huge pines; and covering the snow with small boughs, on which we spread our blankets, soon made ourselves comfortable. The night was very bright and clear, though the thermometer was only at 10°. A strong wind, which sprang up at sundown, made it intensely cold; and this was one of the bitterest nights during the journey.

Two Indians joined our party here; and one of them, an old man, immediately began to harangue us, saying that ourselves and animals would perish in the snow; and that if we would go back, he would show us another and better way across the mountain. He spoke in a very loud voice, and there was a singular repetition of phrase and arrangement of words, which rendered his speech striking, and not unmusical.

We had now begun to understand some words, and with the aid of signs, easily comprehended the old man's simple ideas. "Rock upon rock—rock upon rock—snow upon snow—snow upon snow," said he; "even if you get over the snow, you will not be able to get down from the mountains." He made us the sign of precipices, and showed us how the feet of the horses would slip, and throw them off from the narrow trails which led along their sides. Our Chinook, who comprehended even more readily than ourselves, and believed our situation hopeless, covered his head with his blanket, and began to weep and lament. "I wanted to see the whites," said he; "I came away from my own people to see the whites, and I wouldn't care to die among them; but here"—and he looked around into the cold night and gloomy forest, and, drawing his blanket over his head, began again to lament.

Seated around the tree, the fire illuminating the rocks and the tall bolls of the pines round about, and the old Indian haranguing, we presented a group of very serious faces.

February 5.—The night had been too cold to sleep, and we were up very early. Our guide was standing by the fire with all his finery on; and seeing him shiver in the cold, I threw on his shoulders one of my blankets. We missed him a few minutes afterwards, and never saw him again. He had deserted. His bad faith and treachery were in perfect keeping with the estimate of Indian character, which a long intercourse with this people had gradually forced upon my mind.

While a portion of the camp were occupied in bringing up the baggage to this point, the remainder were busied in making sledges and snow shoes. I had determined to explore the mountain ahead, and the sledges were to be used in transporting the baggage.

The mountains here consisted wholly of a white micaceous granite.

The day was perfectly clear, and, while the sun was in the sky, warm and pleasant.

By observation, our latitude was 38° 42′ 26″; and elevation, by the boiling point, 7,400 feet.

February 6. —Accompanied by Mr. Fitzpatrick, I set out to-day with a reconnoitring party, on snow shoes. We marched all in single file, trampling the snow as heavily as we could. Crossing the open basin, in a march of about ten miles we reached the top of one of the peaks, to the left of the pass indicated by our guide. Far below us, dimmed by the distance, was a large snowless valley, bounded on the western side, at the distance of about 100 miles, by a low range of mountains, which Carson recognised with delight as the mountains bordering the coast. "There," said he, "is the little mountain—it is 15 years ago since I saw it, but I am just as sure as if I had seen it yesterday." Between us, then, and this low coast range was the valley of the Sacramento; and no one who had not accompanied us through the incidents of our life for the last few months could realize the delight with which at last we looked down upon it. At the distance of apparently 30 miles beyond us were distinguished spots of prairie; and a dark line, which could be traced with the glass, was imagined to be the course of the river; but we were evidently at a great height above the valley, and between us and the plains extended miles of snowy fields and broken ridges of pine-covered mountains.

It was late in the day when we turned towards the camp, and it grew rapidly cold as it drew towards night. One of the men became fatigued, and his feet began to freeze, and building a fire in the trunk of a dry old cedar, Mr. Fitzpatrick remained with him until his clothes could be dried, and he was in a condition to come on. After a day's march of 20 miles, we struggled into camp one after another, at nightfall, the greater number excessively fatigued, only two of the party having ever travelled on snow shoes before.

All our energies were now directed to getting our animals across the snow; and it was supposed that, after all the baggage had been drawn with the sleighs over the trail we had made, it would be sufficiently hard to bear our animals. At several places between this point and the ridge, we had discovered some grassy spots, where the wind and sun had dispersed the snow from the sides of the hills, and these were to form resting places to support the animals for a night in their passage across. On our way across we had set on fire several broken stumps and dried trees, to melt holes in the snow for the camps. Its general depth was five feet, but we passed over places where it was 20 feet deep, as shown by the trees.

With one party drawing sleighs loaded with baggage, I advanced to-day about four miles along the trail, and encamped at the first grassy spot, where we expected to bring our horses. Mr. Fitzpatrick, with another party, remained behind, to form an intermediate station between us and the animals.

February 8.—The night has been extremely cold; but perfectly still, and beautifully clear. Before the sun appeared this morning the thermometer was 3° below zero, 1° higher when his rays struck the lofty peaks, and 0° when they reached our camp.

Scenery and weather combined must render these mountains beautiful in summer; the purity and deep-blue colour of the sky are singularly beautiful; the days are sunny and bright, and even warm in the noon hours; and if we could be free from the many anxieties that oppress us, even now we would be delighted here; but our provisions are getting fearfully scant. Sleighs arrived with the baggage about ten o'clock; and leaving a portion of it here, we continued on for a mile and a half, and encamped at the foot of a long hill on this side of the open bottom.

Bernier and Godey, who yesterday morning had been sent to ascend a higher peak, got in, hungry and fatigued. They confirmed what we had already seen. Two other sleighs arrived in the afternoon; and the men being fatigued, I gave them all tea and sugar. Snow clouds began to rise in the S.S.W.; and, apprehensive of a storm, which would destroy our road, I sent the people back to Mr. Fitzpatrick, with directions to send for the animals in the morning. With me remained Mr. Preuss, Mr. Talbot, and Carson, with Jacob.

Elevation of the camp, by the boiling point, is 7,920 feet.

February 9.—During the night the weather changed, the wind rising to a gale, and commencing to snow before daylight; before morning the trail was covered. We remained quiet in camp all day, in the course of which the weather improved. Four sleighs arrived toward evening, with the bedding of the men. We suffer much from the want of salt; and all the men are becoming weak from insufficient food.

February 10.—Taplin was sent back with a few men to assist Mr. Fitzpatrick; and continuing on with three sleighs carrying a part of the baggage, we had the satisfaction to encamp within two and a half miles of the head of the hollow, and at the foot of the last mountain ridge. Here two large trees had been set on fire, and in the holes where the snow had been melted away, we found a comfortable camp.

The wind kept the air filled with snow during the day; the sky was very dark in the south-west, though elsewhere very clear. The forest here has a noble appearance: the tall cedar is abundant; its greatest height being 130 feet, and circumference 20, three or four feet above the ground; and here I see for the first time the white pine, of which there are some magnificent trees. Hemlock

spruce is among the timber, occasionally as large as eight feet in diameter four feet above the ground; but in ascending, it tapers rapidly to less than one foot at the height of 80 feet. I have not seen any higher than 130 feet, and the slight upper part is frequently broken off by the wind. The white spruce is frequent; and the red pine, (*pinus colorado* of the Mexicans,) which constitutes the beautiful forest along the flanks of the Sierra Nevada to the northward, is here the principal tree, not attaining a greater height than 140 feet, though with sometimes a diameter of 10. Most of these trees appeared to differ slightly from those of the same kind on the other side of the continent.

The elevation of the camp, by the boiling point, is 8,050 feet. We are now 1,000 feet above the level of the South Pass in the Rocky Mountains; and still we are not done ascending. The top of a flat ridge near was bare of snow, and very well sprinkled with bunch grass, sufficient to pasture the animals two or three days; and this was to be their main point of support. This ridge is composed of a compact trap, or basalt, of a columnar structure; over the surface are scattered large boulders of porous trap. The hills are in many places entirely covered with small fragments of volcanic rock.

Putting on our snow shoes, we spent the afternoon in exploring a road ahead. The glare of the snow, combined with great fatigue, had rendered many of the people nearly blind; but we were fortunate in having some black silk handkerchiefs, which, worn as veils, very much relieved the eye.

February 11.—High wind continued, and our trail this morning was nearly invisible, here and there indicated by a little ridge of snow. Our situation became tiresome and dreary, requiring a strong exercise of patience and resolution.

In the evening I received a message from Mr. Fitzpatrick, acquainting me with the utter failure of his attempt to get our mules and horses over the snow; the half-hidden trail had proved entirely too slight to support them, and they had broken through, and were plunging about or lying half buried in snow. He was occupied in endeavouring to get them back to his camp, and in the mean time sent to me for further instructions. I wrote to him to send the animals immediately back to their old pastures, and, after having made mauls and shovels, turn in all the strength of his party to open and beat a road through the snow, strengthening it with branches and boughs of the pines.

February 12.—We made mauls, and worked hard at our end of the road all the day. The wind was high, but the sun bright, and the snow thawing. We worked down the face of the hill, to meet the people at the other end. Towards sundown it began to grow cold, and we shouldered our mauls, and trudged back to camp.

February 13.—We continued to labour on the road; and in the

course of the day had the satisfaction to see the people working down the face of the opposite hill, about three miles distant. During the morning we had the pleasure of a visit from Mr. Fitzpatrick, with the information that all was going on well. A party of Indians has passed on snow shoes, who said they were going to the western side of the mountain after fish. This was an indication that the salmon were coming up the streams; and we could hardly restrain our impatience as we thought of them, and worked with increased vigour.

The meat train did not arrive this evening, and I gave Godey leave to kill our little dog (Tlamath), which he prepared in Indian fashion, scorching off the hair, and washing the skin with soap and snow, and then cutting it up into pieces, which were laid on the snow. Shortly afterwards the sleigh arrived with a supply of horse meat, and we had to-night an extraordinary dinner—pea-soup, mule, and dog.

February 14.—The dividing ridge of the Sierra is in sight from this encampment. Accompanied by Mr. Preuss I ascended to-day the highest peak to the right, from which we had a beautiful view of a mountain lake at our feet, about 15 miles in length, and so entirely surrounded by mountains that we could not discover an outlet. We had taken with us a glass, but though we enjoyed an extended view, the valley was half hidden in mist, as when we had seen it before. Snow could be distinguished on the higher parts of the coast mountains; eastward, as far as the eye could extend, it ranged over a terrible mass of broken snowy mountains, fading off blue in the distance. The rock composing the summit consists of a very coarse, dark, volcanic conglomerate; the lower parts appeared to be of a slaty structure. The highest trees were a few scattering cedars and aspens. From the immediate foot of the peak we were two hours in reaching the summit, and one hour and a quarter in descending. The day had been very bright, still, and clear, and spring seems to be advancing rapidly. While the sun is in the sky the snow melts rapidly, and gushing springs cover the face of the mountain in all the exposed places, but their surface freezes instantly with the disappearance of the sun.

I obtained to-night some observations, and the result from these, and others made during our stay, gives for the latitude 38° 41′ 57″, longitude 120° 25′ 57″, and rate of the chronometer 25·82″.

February 16.—We had succeeded in getting our animals safely to the first grassy hill, and this morning I started with Jacob on a reconnoitring expedition beyond the mountain. We travelled along the crests of narrow ridges, extending down from the mountain in the direction of the valley, from which the snow was fast melting away. On the open spots was tolerably good grass, and I judged we should succeed in getting the camp down by way of

these. Towards sundown we discovered some icy spots in a deep hollow, and descending the mountain, we encamped on the head water of a little creek, where at last the water found its way to the Pacific.

The night was clear and very long. We heard the cries of some wild animals, which had been attracted by our fire, and a flock of geese passed over during the night. Even these strange sounds had something pleasant to our senses in this region of silence and desolation.

We started again early in the morning. The creek acquired a regular breadth of about 20 feet, and we soon began to hear the rushing of the water below the icy surface, over which we travelled to avoid the snow; a few miles below we broke through, where the water was several feet deep, and halted to make a fire and dry our clothes. We continued a few miles farther, walking being very laborious without snow shoes.

I was now perfectly satisfied that we had struck the stream on which Mr. Sutter lived; and, turning about, made a hard push, and reached the camp at dark. Here we had the pleasure to find all the remaining animals, 57 in number, safely arrived at the grassy hill near the camp: and here, also, we were agreeably surprised with the sight of an abundance of salt. Some of the horse-guard had gone to a neighbouring hut for pine-nuts, and discovered, unexpectedly, a large cake of very white fine-grained salt, which the Indians told them they had brought from the other side of the mountain; they used it to eat with their pine-nnts, and readily sold it for goods.

On the 19th the people were occupied in making a road and bringing up the baggage; and, on the afternoon of the next day, *February* 20, 1844, we encamped with the animals, and all the *materiel* of the camp, on the summit of the PASS in the dividing ridge, 1,000 miles, by our travelled road, from the Dalles of the Columbia.

The people who had not yet been to this point, climbed the neighbouring peak to enjoy a look at the valley.

The temperature of boiling water gave for the elevation of the encampment 9,338 feet above the sea.

This was 2,000 feet higher than the South Pass in the Rocky Mountains; and several peaks in view rose several thousand feet still higher. Thus, at the extremity of the continent, and near the coast, the phenomenon was seen of a range of mountains still higher than the great Rocky Mountains themselves. This extraordinary fact accounts for the Great Basin, and shows that there must be a system of small lakes and rivers here scattered over a flat country, and which the extended and lofty range of the Sierra Nevada prevents from escaping to the Pacific ocean. Latitude 38° 44′; longitude 120° 28′.

Thus this Pass in the Sierra Nevada, which so well deserves its name of Snowy Mountain, is eleven degrees west and about four degrees south of the South Pass.

February 21.—We now considered ourselves victorious over the mountain; having only the descent before us, and the valley under our eyes, we felt strong hope that we should force our way down. But this was a case in which the descent was *not* facile. Still deep fields of snow lay between, and there was a large intervening space of rough-looking mountains, through which we had yet to wind our way. Carson roused me this morning with an early fire, and we were all up long before day, in order to pass the snow-fields before the sun should render the crust soft. We enjoyed this morning a scene at sunrise, which even here was unusually glorious and beautiful. Immediately above the eastern mountains was repeated a cloud-formed mass of purple ranges, bordered with bright yellow gold; the peaks shot up into a narrow line of crimson cloud, above which the air was filled with a greenish orange; and over all was the singular beauty of the blue sky. Passing along a ridge which commanded the lake on our right, of which we began to discover an outlet through a chasm on the west, we passed over alternating open ground, and hard-crusted snow fields which supported the animals, and encamped on the ridge, after a journey of six miles. The grass was better than we had yet seen, and we were encamped in a clump of trees 20 or 30 feet high, resembling white pine. With the exception of these small clumps, the ridges were bare; and, where the snow found the support of the trees, the wind had blown it up into banks 10 or 15 feet high. It required much care to hunt out a practicable way, as the most open places frequently led to impassable banks.

We had hard and doubtful labour yet before us, as the snow appeared to be heavier where the timber began further down, with few open spots. Ascending a height, we traced out the best line we could discover for the next day's march, and had at least the consolation to see that the mountain descended rapidly. The day had been one of April; gusty, with a few occasional flakes of snow; which, in the afternoon, enveloped the upper mountain in clouds. We watched them anxiously, as now we dreaded a snow-storm. Shortly afterwards we heard the roll of thunder, and, looking towards the valley, found it all enveloped in a thunder-storm. For us, as connected with the idea of summer, it had a singular charm; and we watched its progress with excited feelings until nearly sunset, when the sky cleared off brightly, and we saw a shining line of water directing its course towards another, a broader and larger sheet. We knew that these could be no other than the Sacramento and the bay of San Francisco; but, after our long wandering in rugged mountains, where so frequently we had met with disappointments, and where the crossing of every ridge displayed some unknown lake or river, we were yet almost afraid

to believe that we were at last to escape into the genial country of which we had heard so many glowing descriptions, and dreaded again to find some vast interior lake, whose bitter waters would bring us disappointment. On the southern shore of what appeared to be the bay could be traced the gleaming line where entered another large stream: and again the Buenaventura rose up in our minds.

Carson had entered the valley along the southern side of the bay, and remembered perfectly to have crossed the mouth of a very large stream, which they had been obliged to raft; but the country then was so entirely covered with water from snow and rain, that he had been able to form no correct impression of watercourses.

We had the satisfaction to know that at least there were people below. Fires were lit up in the valley just at night, appearing to be in answer to ours; and these signs of life renewed, in some measure, the gaiety of the camp. They appeared so near, that we judged them to be among the timber of some of the neighbouring ridges; but, having them constantly in view day after day, and night after night, we afterwards found them to be fires that had been kindled by the Indians among the *tulares*, on the shore of the bay, 80 miles distant.

Among the very few plants that appeared here, was the common blue flax. To-night a mule was killed for food.

February 22.—Our breakfast was over long before day. We took advantage of the coolness of the early morning to get over the snow, which to-day occurred in very deep banks among the timber; but we searched out the coldest places, and the animals passed successfully with their loads the hard crust. Now and then, the delay of making a road occasioned much labour and loss of time. In the after part of the day we saw before us a handsome grassy ridge point; and, making a desperate push over a snow field 10 to 15 feet deep, we happily succeeded in getting the camp across; and encamped on the ridge, after a march of three miles. We had again the prospect of a thunder-storm below, and to-night we killed another mule—now our only resource from starvation.

We satisfied ourselves during the day that the lake had an outlet between two ranges on the right; and with this the creek on which I had encamped probably effected a junction below. Between these we were descending.

We continued to enjoy the same delightful weather; the sky of the same beautiful blue, and such a sunset and sunrise as on our Atlantic coast we could scarcely imagine. And here among the mountains, 9,000 feet above the sea, we have the deep blue sky and sunny climate of Smyrna and Palermo, which a little map before me shows are in the same latitude.

The elevation above the sea, by the boiling point, is 8,565 feet.

February 23.—This was our most difficult day; we were forced

off the ridges by the quantity of snow among the timber, and obliged to take to the mountain sides, where occasionally rocks and a southern exposure afforded us a chance to scramble along. But these were steep, and slippery with snow and ice; and the tough evergreens of the mountain impeded our way, tore our skins, and exhausted our patience. Some of us had the misfortune to wear moccasins with *parflêche* soles, so slippery that we could not keep our feet, and generally crawled across the snow beds. Axes and mauls were necessary to-day to make a road through the snow. Going ahead with Carson to reconnoitre the road, we reached in the afternoon the river which made the outlet of the lake. Carson sprang over, clear across a place where the stream was compressed among rocks, but the *parflêche* sole of my moccasin glanced from the icy rock, and precipitated me into the river. It was some few seconds before I could recover myself in the current, and Carson, thinking me hurt, jumped in after me, and we both had an icy bath. We tried to search a while for my gun, which had been lost in the fall, but the cold drove us out; and making a large fire on the bank, after we had partially dried ourselves we went back to meet the camp. We afterwards found that the gun had been slung under the ice which lined the banks of the creek.

Using our old plan of breaking the road with alternate horses, we reached the creek in the evening, and encamped on a dry open place in the ravine.

Another branch, which we had followed, here comes in on the left; and from this point the mountain wall, on which we had travelled to-day, faces to the south along the right bank of the river, where the sun appears to have melted the snow, but the opposite ridge is entirely covered. Here, among the pines, the hill side produces but little grass—barely sufficient to keep life in the animals. We had the pleasure to be rained upon this afternoon, and grass was now our greatest solicitude. Many of the men looked badly, and some this evening were giving out.

February 24.—We rose at three in the morning, for an astronomical observation, and obtained for the place a latitude of 38° 46′ 58″; longitude 120° 34′ 20″. The sky was clear and pure, with a sharp wind from the north-east, and the thermometer 2° below the freezing point.

We continued down the south face of the mountain; our road leading over dry ground, we were able to avoid the snow almost entirely. In the course of the morning, we struck a foot path, which we were generally able to keep, and the ground was soft to our animals' feet, being sandy or covered with mould. Green grass began to make its appearance, and occasionally we passed a hill scatteringly covered with it. The character of the forest continued the same; and, among the trees, the pine with sharp leaves and very large cones was abundant, some of them being noble trees. We measured one that had 10 feet diameter, though the

height was not more than 130 feet. All along, the river was a roaring torrent, its fall very great; and, descending with a rapidity to which we had long been strangers, to our great pleasure oak trees appeared on the ridge, and soon became very frequent; on these I remarked unusually great quantities of misletoe. Rushes began to make their appearance; and at a small creek where they were abundant, one of the messes was left with the weakest horses, while we continued on.

The opposite mountain side was very steep and continuous—unbroken by ravines, and covered with pines and snow; while on the side we were travelling innumerable rivulets poured down from the ridge. Continuing on, we halted a moment at one of these rivulets, to admire some beautiful evergreen trees, resembling live oak, which shaded the little stream. They were forty to fifty feet high and two in diameter, with a uniform tufted top; and the summer green of their beautiful foliage, with the singing birds, and the sweet summer wind which was whirling about the dry oak leaves, nearly intoxicated us with delight; and we hurried on, filled with excitement, to escape entirely from the horrid region of inhospitable snow, to the perpetual spring of the Sacramento.

When we had travelled about 10 miles, the valley opened a little to an oak and pine bottom, through which ran rivulets closely bordered with rushes, on which our half-starved horses fell with avidity; and here we made our encampment. Here the roaring torrent had already become a river, and we had descended to an elevation of 3,864 feet.

Along our road to-day the rock was a white granite, which appears to constitute the upper part of the mountains on both the eastern and western slopes; while between, the central is a volcanic rock.

Another horse was killed to-night, for food.

February 25.—Believing that the difficulties of the road were passed, and leaving Mr. Fitzpatrick to follow slowly, as the condition of the animals required, I started ahead this morning with a party of eight, consisting (with myself) of Mr. Preuss and Mr. Talbot, Carson, Derosier, Towns, Proue, and Jacob. We took with us some of the best animals, and my intention was to proceed as rapidly as possible to the house of Mr. Sutter, and return to meet the party with a supply of provisions and fresh animals.

Continuing down the river, which pursued a very direct westerly course through a narrow valley, with only a very slight and narrow bottom land, we made 12 miles, and encamped at some old Indian huts, apparently a fishing place on the river. The bottom was covered with trees of deciduous foliage, and overgrown with vines and rushes. On a bench of the hill near by was a field of fresh green grass, six inches long in some of the tufts, which I had the curiosity to measure. The animals were driven here; and I spent part of the afternoon sitting on a large rock among them, enjoying

the pauseless rapidity with which they luxuriated in the unaccustomed food.

The forest was imposing to-day in the magnificence of the trees; some of the pines, bearing large cones, were 10 feet in diameter; cedars also abounded, and we measured one 28½ feet in circumference, four feet from the ground. This noble tree seemed here to be in its proper soil and climate. We found it on both sides of the Sierra, but most abundant on the west.

February 26.—We continued to follow the stream, the mountains on either hand increasing in height as we descended, and shutting up the river narrowly in precipices, along which we had great difficulty to get our horses.

It rained heavily during the afternoon, and we were forced off the river to the heights above; whence we descended, at nightfall, the point of a spur between the river and a fork of nearly equal size coming in from the right. Here we saw, on the lower hills, the first flowers in bloom, which occurred suddenly and in considerable quantity; one of them a species of *gilia*.

The current in both streams (rather torrents than rivers) was broken by large boulders. It was late, and the animals fatigued; and not succeeding to find a ford immediately, we encamped, although the hill side afforded but a few stray bunches of grass, and the horses, standing about in the rain, looked very miserable.

February 27.—We succeeded in fording the stream, and made a trail by which we crossed the point of the opposite hill, which, on the southern exposure, was prettily covered with green grass, and we halted a mile from our last encampment. The river was only about 60 feet wide, but rapid, and occasionally deep, foaming among boulders, and the water beautifully clear. We encamped on the hill slope, as there was no bottom level, and the opposite ridge is continuous, affording no streams.

We had with us a large kettle; and a mule being killed here, his head was boiled in it for several hours, and made a passable soup for famished people.

Below, precipices on the river forced us to the heights, which we ascended by a steep spur 2,000 feet high. My favourite horse, Proveau, had become very weak, and was scarcely able to bring himself to the top. Travelling here was good, except in crossing the ravines, which were narrow, steep, and frequent. We caught a glimpse of a deer, the first animal we had seen, but did not succeed in approaching him. Proveau could not keep up, and I left Jacob to bring him on, being obliged to press forward with the party, as there was no grass in the forest. We grew very anxious as the day advanced and no grass appeared, for the lives of our animals depended on finding it to-night. They were in just such a condition that grass and repose for the night enabled them to get on the next day. Every hour we had been expecting to see open out before us the valley, which, from the mountain above,

seemed almost at our feet. A new and singular shrub, which had made its appearance since crossing the mountain, was very frequent to-day. It branched out near the ground, forming a clump eight to ten feet high, with pale green leaves of an oval form, and the body and branches had a naked appearance, as if stripped of the bark, which is very smooth and thin, of a chocolate colour, contrasting well with the pale green of the leaves. The day was nearly gone; we had made a hard day's march, and found no grass. Towns became light-headed, wandering off into the woods without knowing where he was going, and Jacob brought him back.

"Near nightfall we descended into the steep ravine of a handsome creek 30 feet wide, and I was engaged in getting the horses up the opposite hill, when I heard a shout from Carson, who had gone ahead a few hundred yards—"Life yet," said he, as he came up, "life yet; I have found a hill-side sprinkled with grass enough for the night." We drove along our horses, and encamped at the place about dark, and there was just room enough to make a place for shelter on the edge of the stream. Three horses were lost to-day—Proveau; a fine young horse from the Columbia, belonging to Charles Towns; and another Indian horse which carried our cooking utensils; the two former gave out, and the latter strayed off into the woods as we reached the camp.

February 29.—We lay shut up in the narrow ravine, and gave the animals a necessary day; and men were sent back after the others. Derosier volunteered to bring up Proveau, to whom he knew I was greatly attached, as he had been my favourite horse on both expeditions. Carson and I climbed one of the nearest mountains; the forest land still extended ahead, and the valley appeared as far as ever. The pack-horse was found near the camp, but Derosier did not get in.

March 1.—Derosier did not get in during the night, and leaving him to follow, as no grass remained here, we continued on over the uplands, crossing many small streams, and camped again on the river, having made six miles. Here we found the hill side covered (although lightly) with fresh green grass; and from this time forward we found it always improving and abundant.

We made a pleasant camp on the river hill, where were some beautiful specimens of the chocolate-coloured shrub, which were a foot in diameter near the ground, and 15 to 20 feet high. The opposite ridge runs continuously along, unbroken by streams. We are rapidly descending into the spring, and we are leaving our snowy region far behind; everything is getting green; butterflies are swarming; numerous bugs are creeping out, wakened from their winter's sleep; and the forest flowers are coming into bloom. Among those which appeared most numerously to-day was *dodecatheon dentatum.*

We began to be uneasy at Derosier's absence, fearing he might

have been bewildered in the woods. Charles Towns, who had not yet recovered his mind, went to swim in the river, as if it were summer, and the stream placid, when it was a cold mountain torrent foaming among rocks. We were happy to see Derosier appear in the evening. He came in, and sitting down by the fire, began to tell us where he had been. He imagined he had been gone several days, and thought we were still at the camp where he had left us: and we were pained to see that his mind was deranged. It appeared that he had been lost in the mountain, and hunger and fatigue, joined to weakness of body, and fear of perishing in the mountains, had crazed him. The times were severe when stout men lost their minds from extremity of suffering —when horses died—and when mules and horses, ready to die of starvation, were killed for food. Yet there was no murmuring or hesitation.

A short distance below our encampment the river mountains terminated in precipices, and, after a fatiguing march of only a few miles, we encamped on a bench where there were springs and an abundance of the freshest grass. In the mean time Mr. Preuss continued on down the river, and, unaware that we had encamped so early in the day, was lost. When night arrived, and he did not come in, we began to understand what had happened to him; but it was too late to make any search.

March 3.—We followed Mr. Preuss's trail for a considerable distance along the river, until we reached a place where he had descended to the stream below, and encamped. Here we shouted and fired guns, but received no answer; and we concluded that he had pushed on down the stream. I determined to keep out from the river, along which it was nearly impracticable to travel with animals, until it should form a valley. At every step the country improved in beauty; the pines were rapidly disappearing, and oaks became the principal trees of the forest. Among these, the prevailing tree was the evergreen oak (which, by way of distinction, we shall call the *live oak*); and with these occurred frequently a new species of oak bearing a long slender acorn, from an inch to an inch and a half in length, which we now began to see formed the principal vegetable food of the inhabitants of this region. In a short distance we crossed a little rivulet, where were two old huts, and near by were heaps of acorn hulls. The ground round about was very rich, covered with an exuberant sward of grass; and we sat down for a while in the shade of the oaks, to let the animals feed. We repeated our shouts for Mr. Preuss; and this time we were gratified with an answer. The voice grew rapidly nearer, ascending from the river; but when we expected to see him emerge, it ceased entirely. We had called up some straggling Indian—the first we had met, although for two days back we had seen tracks—who, mistaking us for his fellows, had been only undeceived on getting close up. It would have been pleasant to

witness his astonishment; he would not have been more frightened had some of the old mountain spirits they are so much afraid of suddenly appeared in his path. Ignorant of the character of these people, we had now an additional cause of uneasiness in regard to Mr. Preuss; he had no arms with him, and we began to think his chance doubtful. We followed on a trail, still keeping out from the river, and descended to a very large creek, dashing with great velocity over a pre-eminently rocky bed and among large boulders. The bed had sudden breaks, formed by deep holes and ledges of rock running across. Even here it deserves the name of *Rock* creek, which we gave to it. We succeeded in fording it, and toiled about three thousand feet up the opposite hill. The mountains now were getting sensibly lower; but still there is no valley on the river, which presents steep and rocky banks; but here, several miles from the river, the country is smooth and grassy; the forest has no undergrowth; and in the open valleys of rivulets, or around spring-heads, the low groves of live oak give the appearance of orchards in an old cultivated country. Occasionally we met deer, but had not the necessary time for hunting. At one of these orchard grounds, we encamped about noon to make an effort for Mr. Preuss. One man took his way along a spur leading into the river, in hope to cross his trail; and another took our own back. Both were volunteers; and to the successful man was promised a pair of pistols—not as a reward, but as a token of gratitude for a service which would free us all from much anxiety.

We had among our few animals a horse which was so much reduced, that, with travelling, even the good grass could not save him; and, having nothing to eat, he was killed this afternoon. He was a good animal, and had made the journey round from Fort Hall.

Dodecatheon dentatum continued the characteristic plant in flower; and the naked looking shrub already mentioned continued characteristic, beginning to put forth a small white blossom. At evening the men returned, having seen or heard nothing of Mr. Preuss; and I determined to make a hard push down the river the next morning, and get ahead of him.

March 4.—We continued rapidly along on a broad plainly-beaten trail, the mere travelling and breathing the delightful air being a positive enjoyment. Our road led along a ridge inclining to the river, and the air and the open grounds were fragrant with flowering shrubs; and in the course of the morning we issued on an open spur, by which we descended directly to the stream. Here the river issues suddenly from the mountains, which hitherto had hemmed it closely in; these now become softer, and change sensibly their character; and at this point commences the most beautiful valley in which we had ever travelled. We hurried to the river, on which we noticed a small sand beach, to which Mr. Preuss would naturally have gone. We found no trace of him,

but, instead, were recent tracks of bare-footed Indians, and little piles of muscle-shells, and old fires where they had roasted the fish. We travelled on over the river grounds, which were undulating, and covered with grass to the river brink. We halted to noon a few miles beyond, always under the shade of the evergreen oaks, which formed open groves on the bottoms.

Continuing our road in the afternoon we ascended to the uplands, where the river passes round a point of great beauty, and goes through very remarkable dalles, in character resembling those of the Columbia river. Beyond, we again descended to the bottoms, where we found an Indian village, consisting of two or three huts; we had come upon them suddenly, and the people had evidently just run off. The huts were low and slight, made like beehives in a picture, five or six feet high, and near each was a crate, formed of interlaced branches and grass, in size and shape like a very large hogshead. Each of these contained from six to nine bushels. These were filled with the long acorns already mentioned, and in the huts were several neatly made baskets, containing quantities of the acorns roasted. They were sweet and agreeably flavoured, and we supplied ourselves with about half a bushel, leaving one of our shirts, a handkerchief, and some smaller articles, in exchange. The river again entered for a space among hills, and we followed a trail leading across a bend through a handsome hollow behind. Here, while engaged in trying to circumvent a deer, we discovered some Indians on a hill several hundred yards ahead, and gave them a shout, to which they responded by loud and rapid talking and vehement gesticulation, but made no stop, hurrying up the mountain as fast as their legs could carry them. We passed on, and again encamped in a grassy grove.

The absence of Mr. Preuss gave me great concern; and, for a large reward, Derosier volunteered to go back on the trail. I directed him to search along the river, travelling upward for the space of a day and a half, at which time I expected he would meet Mr. Fitzpatrick, whom I requested to aid in the search; at all events, he was to go no farther, but to return to this camp, where a *cache* of provisions was made for him.

Continuing the next day down the river, we discovered three squaws in a little bottom, and surrounded them before they could make their escape. They had large conical baskets, which they were engaged in filling with a small leafy plant (*erodium cicutarium*) just now beginning to bloom, and covering the ground like a sward of grass. These did not make any lamentations, but appeared very much impressed with our appearance, speaking to us only in a whisper, and offering us smaller baskets of the plant, which they signified to us was good to eat, making signs also that it was to be cooked by the fire. We drew out a little cold horse meat, and the squaws made signs to us that the men had gone out after deer, and that we could have some by waiting till they came

in. We observed that the horses ate with great avidity the herb which they had been gathering; and here also, for the first time, we saw Indians eat the common grass—one of the squaws pulling several tufts, and eating it with apparent relish. Seeing our surprise, she pointed to the horses; but we could not well understand what she meant, except, perhaps, that what was good for the one was good for the other.

We encamped in the evening on the shore of the river, at a place where the associated beauties of scenery made so strong an impression on us, that we have given it the name of the Beautiful Camp. The undulating river shore was shaded with the live oaks, which formed a continuous grove over the country, and the same grassy sward extended to the edge of the water; and we made our fires near some large granite masses which were lying among the trees. We had seen several of the acorn *caches* during the day; and here there were two which were very large, containing each, probably, ten bushels. Towards evening we heard a weak shout among the hills behind, and had the pleasure to see Mr. Preuss descending towards the camp. Like ourselves, he had travelled to-day 25 miles, but had seen nothing of Derosier. Knowing, on the day he was lost, that I was determined to keep the river as much as possible, he had not thought it necessary to follow the trail very closely, but walked on, right and left, certain to find it somewhere along the river, searching places to obtain good views of the country. Towards sunset he climbed down towards the river to look for the camp; but, finding no trail, concluded that we were behind, and walked back until night came on, when, being very much fatigued, he collected drift wood and made a large fire among the rocks. The next day it became more serious, and he encamped again alone, thinking that we must have taken some other course. To go back would have been madness in his weak and starved condition, and onwards towards the valley was his only hope, always in expectation of reaching it soon. His principal means of subsistence were a few roots, which the hunters call sweet onions, having very little taste, but a good deal of nutriment, growing generally in rocky ground, and requiring a good deal of labour to get, as he had only a pocket knife. Searching for these, he found a nest of big ants, which he let run on his hand, and stripped them off in his mouth; these had an agreeable acid taste. One of his greatest privations was the want of tobacco; and a pleasant smoke at evening would have been a relief which only a voyageur could appreciate. He tried the dried leaves of the live oak, knowing that those of other oaks were sometimes used as a substitute; but these were too thick, and would not do. On the 4th he made seven or eight miles, walking slowly along the river, avoiding as much as possible to climb the hills. In little pools he caught some of the smallest kind of frogs, which he swallowed, not so much in the gratification of hunger, as in the hope of obtaining

some strength. Scattered along the river were old fire-places, where the Indians had roasted muscles and acorns; but though he searched diligently he did not there succeed in finding either. He had collected firewood for the night, when he heard at some distance from the river the barking of what he thought were two dogs, and walked in that direction as quickly as he was able, hoping to find there some Indian hut, but met only two wolves; and, in his disappointment, the gloom of the forest was doubled.

Travelling the next day feebly down the river, he found five or six Indians at the huts of which we have spoken; some were painting themselves black, and others roasting acorns. Being only one man, they did not run off, but received him kindly, and gave him a welcome supply of roasted acorns. He gave them his pocket-knife in return, and stretched out his hand to one of the Indians, who did not appear to comprehend the motion, but jumped back, as if he thought he was about to lay hold of him. They seemed afraid of him, not certain as to what he was.

Travelling on, he came to the place where we had found the squaws. Here he found our fire still burning, and the tracks of the horses. The sight gave him sudden hope and courage; and, following as fast as he could, joined us at evening.

March 6.—We continued on our road through the same surpassingly beautiful country, entirely unequalled for the pasturage of stock by anything we had ever seen. Our horses had now become so strong that they were able to carry us, and we travelled rapidly—over four miles an hour; four of us riding every alternate hour. Every few hundred yards we came upon a little band of deer; but we were too eager to reach the settlement, which we momentarily expected to discover, to halt for any other than a passing shot. In a few hours we reached a large fork, the northern branch of the river, and equal in size to that which we had descended. Together they formed a beautiful stream, 60 to 100 yards wide; which at first, ignorant of the nature of the country through which that river ran, we took to be the Sacramento.

We continued down the right bank of the river, travelling for a while over a wooded upland, where we had the delight to discover tracks of cattle. To the south-west was visible a black column of smoke, which we had frequently noticed in descending, arising from the fires we had seen from the top of the Sierra. From the upland we descended into broad groves on the river, consisting of the evergreen, and a new species of white oak with a large tufted top, and three to six feet in diameter. Among these was no brush-wood; and the grassy surface gave to it the appearance of parks in an old settled country. Following the tracks of the horses and cattle in search of people we discovered a small village of Indians. Some of these had on shirts of civilized manufacture, but were otherwise naked, and we could understand nothing from them; they appeared entirely astonished at seeing us.

We made an acorn meal at noon, and hurried on; the valley being gay with flowers, and some of the banks being absolutely golden with the Californian poppy (*eschscholtzia crocea*). Here the grass was smooth and green, and the groves very open; the large oaks throwing a broad shade among sunny spots. Shortly afterwards we gave a shout at the appearance on a little bluff of a neatly built *adobe* house with glass windows. We rode up, but, to our disappointment, found only Indians. There was no appearance of cultivation, and we could see no cattle, and we supposed the place had been abandoned. We now pressed on more eagerly than ever; the river swept round in a large bend to the right; the hills lowered down entirely; and, gradually entering a broad valley, we came unexpectedly into a large Indian village, where the people looked clean, and wore cotton shirts and various other articles of dress. They immediately crowded around us, and we had the inexpressible delight to find one who spoke a little indifferent Spanish, but who at first confounded us by saying there were no whites in the country; but just then a well-dressed Indian came up, and made his salutations in very well spoken Spanish. In answer to our inquiries, he informed us that we were upon the *Rio de los Americanos* (the river of the Americans), and that it joined the Sacramento river about 10 miles below. Never did a name sound more sweetly! We felt ourselves among our countrymen; for the name of *American*, in these distant parts, is applied to the citizens of the United States. To our eager inquiries he answered, "I am a *vaquero* (cow herd) in the service of Capt. Sutter, and the people of this *rancheria* work for him." Our evident satisfaction made him communicative; and he went on to say that Capt. Sutter was a very rich man, and always glad to see his country people. We asked for his house. He answered, that it was just over the hill before us; and offered, if we would wait a moment, to take his horse and conduct us to it. We readily accepted his civil offer. In a short distance we came in sight of the fort; and, passing on the way the house of a settler on the opposite side (a Mr. Sinclair), we forded the river; and, in a few miles, were met a short distance from the fort by Capt. Sutter himself. He gave us a most frank and cordial reception—conducted us immediately to his residence —and under his hospitable roof we had a night of rest, enjoyment, and refreshment, which none but ourselves could appreciate. But the party left in the mountains with Mr. Fitzpatrick were to be attended to; and the next morning, supplied with fresh horses and provisions, I hurried off to meet them. On the second day we met, a few miles below the forks of the Rio de los Americanos; and a more forlorn and pitiable sight than they presented, cannot well be imagined. They were all on foot—each man, weak and emaciated, leading a horse or mule as weak and emaciated as themselves. They had experienced great difficulty

in descending the mountains, made slippery by rains and melting snows, and many horses fell over precipices, and were killed; and with some were lost the *packs* they carried. Among these, was a mule with the plants which we had collected since leaving Fort Hall, along a line of 2,000 miles' travel. Out of 67 horses and mules with which we commenced crossing the Sierra, only 33 reached the valley of the Sacramento, and they only in a condition to be led along. Mr. Fitzpatrick and his party, travelling more slowly, had been able to make some little exertion at hunting, and had killed a few deer. The scanty supply was a great relief to them; for several had been made sick by the strange and unwholesome food which the preservation of life compelled them to use. We stopped and encamped as soon as we met; and a repast of good beef, excellent bread, and delicious salmon, which I had brought along, were their first relief from the sufferings of the Sierra, and their first introduction to the luxuries of the Sacramento. It required all our philosophy and forbearance to prevent *plenty* from becoming as hurtful to us now, as *scarcity* had been before.

The next day, March 8th, we encamped at the junction of the two rivers, the Sacramento and Americanos, and thus found the whole party in the beautiful valley of the Sacramento. It was a convenient place for the camp, and among other things, was within reach of the wood necessary to make the pack-saddles, which we should need on our long journey home, from which we were farther distant now than we were four months before, when from the Dalles of the Columbia we so cheerfully took up the homeward line of march.

Captain Sutter emigrated to this country from the western part of Missouri in 1838-39, and formed the first settlement in the valley, on a large grant of land which he obtained from the Mexican Government. He had at first some trouble with the Indians, but by the occasional exercise of well-timed authority, he has succeeded in converting them into a peaceable and industrious people. The ditches around his extensive wheat-fields,—the making of the sun-dried bricks, of which his fort is constructed,—the ploughing, harrowing, and other agricultural operations, are entirely the work of these Indians, for which they receive a very moderate compensation, principally in shirts, blankets, and other articles of clothing. In the same manner, on application to the chief of a village, he readily obtains as many boys and girls as he has any use for: there were at this time a number of girls at the fort in training for a future woollen factory, but they were now all busily engaged in constantly watering the gardens, which the unfavourable dryness of the season rendered necessary. The occasional dryness of some seasons I understood to be the only complaint of the settlers in this fertile valley, as it sometimes renders the crops uncertain. Mr. Sutter was about making ar-

rangements to irrigate his lands by means of the Rio de los Americanos. He had this year sown, and altogether by Indian labour, 300 fanegas of wheat.

A few years since, the neighbouring Russian establishment of Ross being about to withdraw from the country, sold to him a large number of stock, with agricultural and other stores, with a number of pieces of artillery and other munitions of war; for these a regular yearly payment is made in grain.

The fort is a quadrangular *adobe* structure, mounting 12 pieces of artillery (two of them brass), and capable of admitting a garrison of a thousand men; this at present consists of forty Indians, in uniform, one of whom was always found on duty at the gate. As might naturally be expected, the pieces are not in very good order. The whites in the employment of Captain Sutter—American, French, and German—amount, perhaps, to 30 men. The inner wall is formed into buildings, comprising the common quarters, with blacksmith's and other workshops; the dwelling-house, with a large distillery-house and other buildings, occupying more the centre of the area.

It is built upon a pond-like stream, at times a running creek, communicating with the Rio de los Americanos, which enters the Sacramento about two miles below; the latter is here a noble river, about 300 yards broad, deep and tranquil, with several fathoms of water in the channel, and its banks continuously timbered. There were two vessels belonging to Captain Sutter at anchor near the landing—one a large two-masted lighter, and the other a schooner, which was shortly to proceed on a voyage to Fort Vancouver for a cargo of goods.

Since his arrival, several other persons, principally Americans, have established themselves in the valley. Mr. Sinclair, from whom I experienced much kindness during my stay, is settled a few miles distant, on the Rio de los Americanos. Mr. Coudrois, a gentleman from Germany, has established himself on Feather river, and is associated with Captain Sutter in agricultural pursuits. Among other improvements, they are about to introduce the cultivation of rape-seed (*brassica rapus*), which there is every reason to believe is admirably adapted to the climate and soil. The lowest average produce of wheat, as far as we can at present know, is 35 fanegas for one sown; but as an instance of its fertility, it may be mentioned that Señor Valejo obtained, on a piece of ground where sheep had been pastured, 800 fanegas for eight sown. The produce being different in various places, a very correct idea cannot be formed.

An impetus was given to the active little population by our arrival, as we were in want of everything. Mules, horses, and cattle were to be collected; the horse-mill was at work day and night, to make sufficient flour; the blacksmith's shop was put in requisition for horse-shoes and bridle-bits; and pack-saddles,

ropes, and bridles, and all the other little equipments of the camp, were again to be provided.

The delay thus occasioned was one of repose and enjoyment, which our situation required, and anxious as we were to resume our homeward journey, was regretted by no one. In the meantime I had the pleasure to meet with Mr. Childs, who was residing at a farm on the other side of the River Sacramento, while engaged in the selection of a place for a settlement, for which he had received the necessary grant of land from the Mexican Government.

It will be remembered that we had parted near the frontier of the States, and that he had subsequently descended the valley of Lewis's fork, with a party of 10 or 12 men, with the intention of crossing the intermediate mountains to the waters of the bay of San Francisco. In the execution of this design, and aided by subsequent information, he left the Columbia at the mouth of *Malheur* river; and making his way to the head-waters of the Sacramento with a part of his company, travelled down that river to the settlements of the Nueva Helvetia. The other party, to whom he had committed his wagons, and mill-irons, and saws, took a course further to the south, and the wagons and their contents were lost.

On the 22nd we made a preparatory move, and encamped near the settlement of Mr. Sinclair, on the left bank of the Rio de los Americanos. I had discharged five of the party; Neal, the blacksmith (an excellent workman, and an unmarried man, who had done his duty faithfully, and had been of very great service to me), desired to remain, as strong inducements were offered here to mechanics. Although at considerable inconvenience to myself, his good conduct induced me to comply with his request; and I obtained for him, from Capt. Sutter, a present compensation of two dollars and a half per diem, with a promise that it should be increased to five, if he proved as good a workman as had been represented. He was more particularly an agricultural blacksmith. The other men were discharged with their own consent.

While we remained at this place, Derosier, one of our best men, whose steady good conduct had won my regard, wandered off from the camp, and never returned to it again, nor has he since been heard of.

March 24.—We resumed our journey with an ample stock of provisions and a large cavalcade of animals, consisting of 130 horses and mules, and about 30 head of cattle, five of which were milch cows. Mr. Sutter furnished us also with an Indian boy, who had been trained as a *vaquero*, and who would be serviceable in managing our cavalcade, great part of which were nearly as wild as buffalo; and who was, besides, very anxious to go along with us. Our direct course home was east; but the Sierra would

force us south, above 500 miles of travelling, to a pass at the head of the San Joaquin river. This pass, reported to be good, was discovered by Mr. Joseph Walker, of whom I have already spoken, and whose name it might therefore appropriately bear. To reach it our course lay along the valley of the San Joaquin—the river on our right, and the lofty wall of the impassable Sierra on the left. From that pass we were to move south-eastwardly, having the Sierra then on the right, and reach the "*Spanish trail*," deviously traced from one watering-place to another, which constituted the route of the caravans from *Puebla de los Angeles*, near the coast of the Pacific, to *Santa Fé* of New Mexico. From the pass to this trail was 150 miles. Following that trail through a desert, relieved by some fertile plains indicated by the recurrence of the term *vegas*, until it turned to the right to cross the Colorado, our course would be north-east until we regained the latitude we had lost in arriving at the Eutah lake, and thence to the Rocky Mountains at the head of the Arkansas. This course of travelling, forced upon us by the structure of the country, would occupy a computed distance of 2,000 miles before we reached the head of the Arkansas; not a settlement to be seen upon it; and the names of places along it all being Spanish or Indian, indicated that it had been but little trodden by *American* feet. Though long, and not free from hardships, this route presented some points of attraction, in tracing the Sierra Nevada—turning the Great Basin, perhaps crossing its rim on the south—completely solving the problem of any river, except the Colorado, from the Rocky Mountains on that part of our continent—and seeing the southern extremity of the Great Salt lake, of which the northern part had been examined the year before.

Taking leave of Mr. Sutter, who, with several gentlemen, accompanied us a few miles on our way, we travelled about 18 miles, and encamped on the *Rio de los Cosumnes*, a stream receiving its name from the Indians who live in its valley. Our road was through a level country, admirably suited to cultivation, and covered with groves of oak trees, principally the evergreen oak, and a large oak already mentioned, in form like those of the white oak. The weather, which here, at this season, can easily be changed from the summer heat of the valley to the frosty mornings and bright days nearer the mountains, continued delightful for travellers, but unfavourable to the agriculturists, whose crops of wheat began to wear a yellow tinge from want of rain.

March 25.—We travelled for 28 miles over the same delightful country as yesterday, and halted in a beautiful bottom at the ford of the *Rio de los Mukelemnes*, receiving its name from another Indian tribe living on the river. The bottoms on the stream are broad, rich, and extremely fertile; and the uplands are shaded with oak groves. A showy *lupinus*, of extraordinary beauty, growing four to five feet in height, and covered with spikes in

bloom, adorned the banks of the river, and filled the air with a light and grateful perfume.

On the 26th we halted at the *Arroyo de las Calaveras* (Skull creek), a tributary to the San Joaquin—the previous two streams entering the bay between the San Joaquin and Sacramento rivers. This place is beautiful, with open groves of oak, and a grassy sward beneath, with many plants in bloom; some varieties of which seem to love the shade of the trees, and grow there in close small fields. Near the river, and replacing the grass, are great quantities of *ammole* (soap plant), the leaves of which are used in California for making, among other things, mats for saddle-cloths. A vine with a small white flower (*melothria?*) called here *la yerba buena*, and which, from its abundance, gives name to an island and town in the bay, was to-day very frequent on our road—sometimes running on the ground or climbing the trees.

March 27.—To-day we travelled steadily and rapidly up the valley; for, with our wild animals, any other gait was impossible, and making about five miles an hour. During the earlier part of the day our ride had been over a very level prairie, or rather a succession of long stretches of prairie, separated by lines and groves of oak timber, growing along dry gullies, which are filled with water in seasons of rain; and, perhaps, also, by the melting snows. Over much of this extent, the vegetation was sparse; the surface showing plainly the action of water, which, in the season of flood, the Joaquin spreads over the valley. About one o'clock we came again among innumerable flowers; and a few miles further, fields of the beautiful blue-flowering *lupine*, which seems to love the neighbourhood of water, indicated that we were approaching a stream. We here found this beautiful shrub in thickets, some of them being 12 feet in height. Occasionally three or four plants were clustered together, forming a grand bouquet, about 90 feet in circumference, and 10 feet high; the whole summit covered with spikes of flowers, the perfume of which is very sweet and grateful. A lover of natural beauty can imagine with what pleasure we rode among these flowering groves, which filled the air with a light and delicate fragrance. We continued our road for about half a mile, interspersed through an open grove of live oaks, which, in form, were the most symmetrical and beautiful we had yet seen in this country. The ends of their branches rested on the ground, forming somewhat more than a half sphere of very full and regular figure, with leaves apparently smaller than usual.

The Californian poppy, of a rich orange colour, was numerous to-day. Elk and several bands of antelope made their appearance.

Our road now was one continued enjoyment; and it was pleasant riding among this assemblage of green pastures with varied flowers and scattered groves, and out of the warm green spring, to look at the rocky and snowy peaks where lately we had suffered so much. Emerging from the timber, we came suddenly upon the Stanislaus

river, where we hoped to find a ford, but the stream was flowing by, dark and deep, swollen by the mountain snows; its general breadth was about 50 yards.

We travelled about five miles up the river, and encamped without being able to find a ford. Here we made a large *corál*, in order to be able to catch a sufficient number of our wild animals to relieve those previously packed.

Under the shade of the oaks along the river, I noticed *erodium circutarium* in bloom, eight or ten inches high. This is the plant which we had seen the squaws gathering on the Rio de los Americanos. By the inhabitants of the valley, it is highly esteemed for fattening cattle, which appear to be very fond of it. Here, where the soil begins to be sandy, it supplies to a considerable extent the want of grass.

Desirous, as far as possible, without delay, to include in our examination the San Joaquin river, I returned this morning down the Stanislaus for 17 miles, and again encamped without having found a fording-place. After following it for eight miles further the next morning, and finding ourselves in the vicinity of the San Joaquin, encamped in a handsome oak grove, and, several cattle being killed, we ferried over our baggage in their skins. Here our Indian boy, who probably had not much idea of where he was going, and began to be alarmed at the many streams which we were rapidly putting between him and the village, deserted.

Thirteen head of cattle took a sudden fright, while we were driving them across the river, and galloped off. I remained a day in the endeavour to recover them; but, finding they had taken the trail back to the fort, let them go without further effort. Here we had several days of warm and pleasant rain, which doubtless saved the crops below.

On the 1st of April, we made 10 miles across a prairie without timber, when we were stopped again by another large river, which is called the *Rio de la Merced* (river of our Lady of Mercy). Here the country had lost its character of extreme fertility, the soil having become more sandy and light; but, for several days past, its beauty had been increased by the additional animation of animal life; and now, it is crowded with bands of elk and wild horses; and along the rivers are frequent fresh tracks of grizzly bear, which are unusually numerous in this country.

Our route had been along the timber of the San Joaquin, generally about eight miles distant over a high prairie.

In one of the bands of elk seen to-day, there were about 200; but the larger bands, both of these and wild horses, are generally found on the other side of the river, which, for that reason, I avoided crossing. I had been informed below, that the droves of wild horses were almost invariably found on the western bank of the river; and the danger of losing our animals among them, together with the wish of adding to our reconnoissance the numerous streams which

run down from the Sierra, decided me to travel up the eastern bank.

April 2.—The day was occupied in building a boat, and ferrying our baggage across the river; and we encamped on the bank. A large fishing eagle, with white head and tail, was slowly sailing along, looking after salmon; and there were some pretty birds in the timber, with partridges, ducks, and geese innumerable in the neighbourhood. We were struck with the tameness of the latter bird at Helvetia, scattered about in flocks near the wheat fields, and eating grass on the prairie; a horseman would ride by within 30 yards, without disturbing them.

April 3.—To-day we touched several times the San Joaquin river—here a fine-looking tranquil stream, with a slight current, and apparently deep. It resembled the Missouri in colour, with occasional points of white sand, and its banks, where steep, were a kind of sandy clay; its average width appeared to be about 80 yards. In the bottoms are frequent ponds, where our approach disturbed multitudes of wild-fowl, principally geese. Skirting along the timber, we frequently started elk; and large bands were seen during the day, with antelope and wild horses. The low country and the timber rendered it difficult to keep the main line of the river; and this evening we encamped on a tributary stream, about five miles from its mouth. On the prairie bordering the San Joaquin bottoms, there occurred during the day but little grass, and in its place was a sparse and dwarf growth of plants. The soil being sandy, with small bare places and hillocks, reminded me much of the Platte bottoms; but, on approaching the timber, we found a more luxuriant vegetation; and at our camp was an abundance of grass and pea-vines.

The foliage of the oak is getting darker; and everything, except that the weather is a little cool, shows that spring is rapidly advancing; and to-day we had quite a summer rain.

April 4.—Commenced to rain at daylight, but cleared off brightly at sunrise. We ferried the river without any difficulty, and continued up the San Joaquin. Elk were running in bands over the prairie and in the skirt of the timber. We reached the river again at the mouth of a large slough, which we were unable to ford, and made a circuit of several miles around. Here the country appears very flat; oak trees have entirely disappeared, and are replaced by a large willow, nearly equal to it in size. The river is about 100 yards in breadth, branching into sloughs, and interspersed with islands. At this time it appears sufficiently deep for a small steamer, but its navigation would be broken by shallows at low water. Bearing in towards the river, we were again forced off by another slough; and passing around, steered towards a clump of trees on the river, and, finding there good grass, encamped. The prairies along the left bank are alive with immense droves of wild horses; and they had been seen during the day at

every opening through the woods which afforded us a view across the river. Latitude, by observation, 37° 08′ 00″; longitude 120° 45′ 22″.

April 5.—During the earlier part of the day's ride, the country presented a lacustrine appearance; the river was deep, and nearly on a level with the surrounding country; its banks raised like a levee, and fringed with willows. Over the bordering plain were interspersed spots of prairie among fields of *tulé* (bulrushes), which in this country are called *tulares*, and little ponds. On the opposite side, a line of timber was visible, which, according to information, points out the course of the slough, which at times of high water connects with the San Joaquin river a large body of water in the upper part of the valley, called the Tulé lakes. The river and all its sloughs are very full, and it is probable that the lake is now discharging. Here elk were frequently started, and one was shot out of a band which ran around us. On our left, the Sierra maintains its snowy height, and masses of snow appear to descend very low towards the plains; probably the late rains in the valley were snow on the mountains. We travelled 37 miles, and encamped on the river. Longitude of the camp, 120° 28′ 34″, and latitude 36° 49′ 12″.

April 6.—After having travelled 15 miles along the river, we made an early halt under the shade of sycamore trees. Here we found the San Joaquin coming down from the Sierra with a westerly course, and checking our way, as all its tributaries had previously done. We had expected to raft the river; but found a good ford, and encamped on the opposite bank, where droves of wild horses were raising clouds of dust on the prairie. Columns of smoke were visible in the direction of the Tulé lakes to the southward—probably kindled in the tulares by the Indians, as signals that there were strangers in the valley.

We made on the 7th a hard march in a cold chilly rain from morning until night—the weather so thick that we travelled by compass. This was a *traverse* from the San Joaquin to the waters of the Tulé lakes, and our road was over a very level prairie country. We saw wolves frequently during the day, prowling about after the young antelope, which cannot run very fast. These were numerous during the day, and two were caught by the people.

Late in the afternoon we discovered timber, which was found to be groves of oak trees on a dry *arroyo*. The rain which had fallen in frequent showers, poured down in a storm at sunset, with a strong wind, which swept off the clouds, and left a clear sky. Riding on through the timber, about dark we found abundant water, in small ponds, 20 to 30 yards in diameter, with clear deep water and sandy beds, bordered with bog rushes (*juncus effusus*), and a tall rush (*scirpus lacustris*) 12 feet high, and surrounded near the margin with willow trees in bloom; among them one which resembled *salix myricoides*. The oak of the groves was the same

already mentioned, with small leaves, in form like those of the white oak, and forming, with the evergreen oak, the characteristic trees of the valley.

April 8.—After a ride of two miles through brush and open groves, we reached a large stream, called the River of the Lake, resembling in size the San Joaquin, and being about 100 yards broad. This is the principal tributary to the Tulé lakes, which collect all the waters in the upper part of the valley. While we were searching for a ford, some Indians appeared on the opposite bank, and, having discovered that we were not Spanish soldiers, showed us the way to a good ford several miles above.

The Indians of the Sierra make frequent descents upon the settlements west of the Coast Range, which they keep constantly swept of horses; among them are many who are called Christian Indians, being refugees from Spanish missions. Several of these incursions occurred while we were at Helvetia. Occasionally parties of soldiers follow them across the Coast Range, but never enter the Sierra.

On the opposite side we found some 40 or 50 Indians who had come to meet us from the village below. We made them some small presents, and invited them to accompany us to our encampment, which, after about three miles through fine oak groves, we made on the river. We made a fort, principally on account of our animals. The Indians brought otter skins, and several kinds of fish, and bread made of acorns, to trade. Among them were several who had come to live among these Indians when the missions were broken up, and who spoke Spanish fluently. They informed us that they were called by the Spaniards *mansitos* (tame), in distinction from the wilder tribes of the mountains. They, however, think themselves very insecure, not knowing at what unforeseen moment the sins of the latter may be visited on them. They are dark-skinned, but handsome and intelligent Indians, and live principally on acorns and the roots of the tulé, of which also their huts are made.

By observation, the latitude of the encampment is 36° 24′ 50″, and longitude 119° 41′ 40″.

April 9.—For several miles we had very bad travelling over what is called rotten ground, in which the horses were frequently up to their knees. Making towards a line of timber, we found a small fordable stream, beyond which the country improved, and the grass became excellent; and, crossing a number of dry and timbered *arroyos*, we travelled until late through open oak groves, and encamped among a collection of streams. These were running among rushes and willows; and, as usual, flocks of blackbirds announced our approach to water. We have here approached considerably nearer to the eastern Sierra, which shows very plainly, still covered with masses of snow, which yesterday and to-day has also appeared abundant on the Coast Range.

April 10.—To-day we made another long journey of about 40 miles, through a country uninteresting and flat, with very little grass and a sandy soil, in which several branches we crossed had lost their water. In the evening the face of the country became hilly; and, turning a few miles up towards the mountains, we found a good encampment on a pretty stream hidden among the hills, and handsomely timbered, principally with large cotton-woods (*populus*, differing from any in Michaux's Sylva). The seed-vessels of this tree were now just about bursting.

Several Indians came down the river to see us in the evening: we gave them supper, and cautioned them against stealing our horses; which they promised not to attempt.

April 11.—A broad trail along the river here takes out among the hills. "Buen camino" (good road), said one of the Indians, of whom we had inquired about the pass; and, following it accordingly, it conducted us beautifully through a very broken country, by an excellent way, which, otherwise, we should have found extremely bad. Taken separately, the hills present smooth and graceful outlines, but together make bad travelling ground. Instead of grass, the whole face of the country is closely covered with *erodium cicutarium*, here only two or three inches high. Its height and beauty varied in a remarkable manner with the locality, being, in many low places which we passed during the day, around streams and springs, two and three feet in height. The country had now assumed a character of aridity; and the luxuriant green of these little streams, wooded with willow, oak, or sycamore, looked very refreshing among the sandy hills.

In the evening we encamped on a large creek, with abundant water. I noticed here in bloom, for the first time since leaving the Arkansas waters, the *Mirabilis Jalapa*.

April 12.—Along our road to-day the country was altogether sandy, and vegetation meagre. *Ephedra occidentalis*, which we had first seen in the neighbourhood of the Pyramid lake, made its appearance here, and in the course of the day became very abundant, and in large bushes. Towards the close of the afternoon, we reached a tolerably large river, which empties into a small lake at the head of the valley; it is about 35 yards wide, with a stony and gravelly bed, and the swiftest stream we have crossed since leaving the bay. The bottoms produced no grass, though well timbered with willow and cotton-wood; and, after ascending it for several miles, we made a late encampment on a little bottom, with scanty grass. In greater part, the vegetation along our road consisted now of rare and unusual plants, among which many were entirely new.

Along the bottoms were thickets consisting of several varieties of shrubs, which made here their first appearance; and among these was *Garrya elliptica* (Lindley), a small tree belonging to a very peculiar natural order, and, in its general appearance (grow-

ing in thickets) resembling willow. It now became common along the streams, frequently supplying the place of *salix longifolia*.

April 13.—The water was low, and a few miles above we forded the river at a rapid, and marched in a south-easterly direction over a less broken country. The mountains were now very near, occasionally looming out through fog. In a few hours we reached the bottom of a creek without water, over which the sandy beds were dispersed in many branches. Immediately, where we struck it, the timber terminated; and below, to the right, it was a broad bed of dry and bare sands. There were many tracks of Indians and horses imprinted in the sand, which, with other indications, informed us it was the creek issuing from the pass, and which we have called Pass creek. We ascended a trail for a few miles along the creek, and suddenly found a stream of water five feet wide, running with a lively current, but losing itself almost immediately. This little stream showed plainly the manner in which the mountain-waters lose themselves in sand at the eastern foot of the Sierra, leaving only a parched desert and arid plains beyond. The stream enlarged rapidly, and the timber became abundant as we ascended. A new species of pine made its appearance, with several kinds of oaks, and a variety of trees; and the country changing its appearance suddenly and entirely, we found ourselves again travelling among the old orchard-like places. Here we selected a delightful encampment in a handsome green oak hollow, where, among the open bolls of the trees, was an abundant sward of grass and pea-vines. In the evening a Christian Indian rode into the camp, well dressed, with long spurs and a *sombrero*, and speaking Spanish fluently: it was an unexpected apparition, and a strange and pleasant sight in this desolate gorge of a mountain—an Indian face, Spanish costume, jingling spurs, and horse equipped after the Spanish manner. He informed me that he belonged to one of the Spanish missions to the south, distant two or three days' ride, and that he had obtained from the priests leave to spend a few days with his relations in the Sierra: having seen us enter the pass, he had come down to visit us. He appeared familiarly acquainted with the country, and gave me definite and clear information in regard to the desert region east of the mountains. I had entered the pass with a strong disposition to vary my route, and to travel directly across towards the Great Salt lake, in the view of obtaining some acquaintance with the interior of the Great Basin, while pursuing a direct course for the frontier; but his representation, which described it as an arid and barren desert that had repulsed by its sterility all the attempts of the Indians to penetrate it, determined me for the present to relinquish the plan, and, agreeably to his advice, after crossing the Sierra, continue our intended route along its eastern base to the Spanish trail. By this route a party of six Indians, who had come from a great river in the

eastern part of the desert to trade with his people, had just started on their return: he would himself return the next day to San Fernando, and as our roads would be the same for two days, he offered his services to conduct us so far on our way. His offer was gladly accepted. The fog, which had somewhat interfered with views in the valley, had entirely passed off, and left a clear sky; that which had enveloped us in the neighbourhood of the pass proceeded evidently from fires kindled among the tulares by Indians living near the lakes, and which were intended to warn those in the mountains that there were strangers in the valley. Our position was in latitude 35° 17′ 12″, and longitude 118° 35′ 03″.

April 14.—Our guide joined us this morning on the trail; and arriving in a short distance at an open bottom, where the creek forked, we continued up the right-hand branch, which was enriched by a profusion of flowers, and handsomely wooded with sycamore, oaks, cotton-wood, and willow, with other trees, and some shrubby plants. In its long strings of balls, this sycamore differs from that of the United States, and is the *platanus occidentalis* of Hooker—a new species, recently described among the plants collected in the voyage of the Sulphur. The cotton-wood varied its foliage with white tufts, and the feathery seeds were flying plentifully through the air. Gooseberries, nearly ripe, were very abundant on the mountain, and as we passed the dividing grounds, which were not very easy to ascertain, the air was filled with perfume, as if we were entering a highly cultivated garden; and, instead of green, our pathway and the mountain sides were covered with fields of yellow flowers, which here was the prevailing colour. Our journey to-day was in the midst of an advanced spring, whose green and floral beauty offered a delightful contrast to the sandy valley we had just left. All the day snow was in sight on the butt of the mountain, which frowned down upon us on the right; but we beheld it now with feelings of pleasant security, as we rode along between green trees, and on flowers, with humming-birds and other feathered friends of the traveller enlivening the serene spring air. As we reached the summit of this beautiful pass, and obtained a view into the eastern country, we saw at once that here was the place to take leave of all such pleasant scenes as those around us. The distant mountains were now bald rocks again; and below, the land had any colour but green. Taking into consideration the nature of the Sierra Nevada, we found this pass an excellent one for horses; and with a little labour, or perhaps with a more perfect examination of the localities, it might be made sufficiently practicable for wagons. Its latitude and longitude may be considered that of our last encampment, only a few miles distant. The elevation was not taken—our half-wild cavalcade making it too troublesome to halt before night, when once started.

We here left the waters of the bay of San Francisco, and,

though forced upon them contrary to my intentions, I cannot regret the necessity which occasioned the deviation. It made me well acquainted with the great range of the Sierra Nevada of the Alta California, and showed that this broad and elevated snowy ridge was a continuation of the Cascade Range of Oregon, between which and the ocean there is still another and a lower range, parallel to the former and to the coast, and which may be called the Coast Range. It also made me well acquainted with the basin of the San Francisco bay, and with the two pretty rivers and their valleys (the Sacramento and San Joaquin), which are tributary to that bay; and cleared up some points in geography on which error had long prevailed. It had been constantly represented, as I have already stated, that the bay of San Francisco opened far into the interior, by some river coming down from the base of the Rocky Mountains, and upon which supposed stream the name of Rio Buenaventura had been bestowed. Our observations of the Sierra Nevada, in the long distance from the head of the Sacramento, to the head of the San Joaquin, and of the valley below it, which collects all the waters of the San Francisco bay, show that this neither is nor can be the case. No river from the interior does, or can cross the Sierra Nevada—itself more lofty than the Rocky Mountains; and as to the Buenaventura, the mouth of which, seen on the coast, gave the idea and the name of the reputed great river, it is, in fact, a small stream of no consequence, not only below the Sierra Nevada, but actually below the Coast Range—taking its rise within half a degree of the ocean, running parallel to it for about two degrees, and then falling into the Pacific near Montery. There is no opening from the bay of San Francisco into the interior of the continent. The two rivers which flow into it are comparatively short, and not perpendicular to the coast, but lateral to it, and having their heads towards Oregon and Southern California. They open lines of communication north and south, and not eastwardly; and thus this want of interior communication from the San Francisco bay, now fully ascertained, gives great additional value to the Columbia, which stands alone as the only great river on the Pacific slope of our continent which leads from the ocean to the Rocky Mountains, and opens a line of communication from the sea to the valley of the Mississippi.

Four *companeros* joined our guide at the pass; and two going back at noon, the others continued on in company. Descending from the hills, we reached a country of fine grass, where the *erodium cicutarium* finally disappeared, giving place to an excellent quality of bunch grass. Passing by some springs where there was a rich sward of grass among groves of large black oak, we rode over a plain on which the guide pointed out a spot where a refugee Christian Indian had been killed by a party of soldiers which had unexpectedly penetrated into the mountains. Crossing a low

sierra, and descending a hollow where a spring gushed out, we were struck by the sudden appearance of *yucca* trees, which gave a strange and southern character to the country, and suited well with the dry and desert region we were approaching. Associated with the idea of barren sands, their stiff and ungraceful form makes them to the traveller the most repulsive tree in the vegetable kingdom. Following the hollow, we shortly came upon a creek timbered with large black oak, which yet had not put forth a leaf. There was a small rivulet of running water, with good grass.

April 15.—The Indians who had accompanied the guide returned this morning, and I purchased from them a Spanish saddle and long spurs, as reminiscences of the time; and for a few yards of scarlet cloth, they gave me a horse, which afterwards became food for other Indians.

We continued a short distance down the creek, in which our guide informed us that the water very soon disappeared, and turned directly to the southward along the foot of the mountain; the trail on which we rode appearing to describe the eastern limit of travel, where water and grass terminated. Crossing a low spur which bordered the creek, we descended to a kind of plain among the lower spurs; the desert being in full view on our left, apparently illimitable. A hot mist lay over it to-day, through which it had a white and glistening appearance; here and there a few dry-looking *buttes* and isolated black ridges rose suddenly upon it. "There," said our guide, stretching out his hand towards it, "there are the great *llanos* (plains); *no hay agua; no hay zacaté—nada:* there is neither water nor grass—nothing; every animal that goes out upon them dies." It was indeed dismal to look upon, and hard to conceive so great a change in so short a distance. One might travel the world over without finding a valley more fresh and verdant—more floral and sylvan—more alive with birds and animals—more bounteously watered—than we had left in the San Joaquin; here, within a few miles' ride, a vast desert plain spread before us, from which the boldest traveller turned away in despair.

Directly in front of us, at some distance to the southward, and running out in an easterly direction from the mountains, stretched a sierra, having at the eastern end (perhaps 50 miles distant) some snowy peaks, on which, by the information of our guide, snow rested all the year.

Our cavalcade made a strange and grotesque appearance; and it was impossible to avoid reflecting upon our position and composition in this remote solitude. Within two degrees of the Pacific Ocean; already far south of the latitude of Monterey; and still forced on south by a desert on one hand and a mountain range on the other; guided by a civilized Indian; attended by two wild ones from the Sierra; a Chinook from the Columbia; and our

own mixture of American, French, German—all armed; four or five languages heard at once; above a hundred horses and mules, half wild; American, Spanish, and Indian dresses and equipments intermingled—such was our composition. Our march was a sort of procession. Scouts ahead and on the flanks; a front and rear division; the pack animals, baggage, and horned cattle, in the centre; and the whole stretching a quarter of a mile along our dreary path. In this form we journeyed; looking more as if we belonged to Asia than to the United States of America.

We continued in a southerly direction across the plain, to which, as well as to all the country, so far as we could see, the *yucca* trees gave a strange and singular character. Several new plants appeared, among which was a zygophyllaceous shrub (*zygophyllum Californicum*, Torr. and Frem.), sometimes 10 feet in height; in form, and in the pliancy of its branches, it is rather a graceful plant. Its leaves are small, covered with a resinous substance; and particularly when bruised and crushed, exhale a singular but very agreeable and refreshing odour. This shrub and the *yucca*, with many varieties of cactus, make the characteristic features in the vegetation for a long distance to the eastward. Along the foot of the mountain, 20 miles to the southward, red stripes of flowers were visible during the morning, which we supposed to be variegated sandstones. We rode rapidly during the day, and in the afternoon emerged from the *yucca* forest at the foot of an *outlier* of the Sierra before us, and came among the fields of flowers we had seen in the morning, which consisted principally of the rich orange-coloured Californian poppy, mingled with other flowers of brighter tints. Reaching the top of the spur, which was covered with fine bunch grass, and where the hills were very green, our guide pointed to a small hollow in the mountain before us, saying, "*á este piedra hay agua.*" He appeared to know every nook in the country. We continued our beautiful road, and reached a spring in the slope, at the foot of the ridge, running in a green ravine, among granite boulders; here nightshade, and borders of buckwheat, with their white blossoms around the granite rocks, attracted our notice as familiar plants. Several antelopes were seen among the hills, and some large hares. Men were sent back this evening in search of a wild mule, with a valuable pack, which had managed (as they frequently do) to hide itself along the road.

By observation, the latitude of the camp is 34° 41′ 42″; and longitude 118° 20′ 00″. The next day the men returned with the mule.

April 17.—Crossing the ridge by a beautiful pass of hollows, where several deer broke out of the thickets, we emerged at a small salt lake in a *vallon* lying nearly east and west, where a trail from the mission of *San Buenaventura* comes in. The lake is

about 1,200 yards in diameter; surrounded on the margin by a white salty border, which by the smell reminded us slightly of Lake Abert. There are some cotton-woods, with willow and elder, around the lake; and the water is a little salt, although not entirely unfit for drinking. Here we turned directly to the eastward, along the trail, which from being seldom used, is almost imperceptible; and after travelling a few miles, our guide halted, and pointing to the hardly visible trail, "*aqui es camino*," said he, "*no se pierde—va siempre.*" He pointed out a black *butte* on the plain at the foot of the mountain, where we would find water to encamp at night; and giving him a present of knives and scarlet cloth, we shook hands and parted. He bore off south, and in a day's ride would arrive at San Fernando, one of several missions in this part of California, where the country is so beautiful that it is considered a paradise, and the name of its principal town (*Puebla de los Angeles*) would make it angelic. We continued on through a succession of valleys, and came into a most beautiful spot of flower fields; instead of green, the hills were purple and orange, with unbroken beds, into which each colour was separately gathered. A pale straw colour, with a bright yellow, the rich red orange of the poppy mingled with fields of purple, covered the spot with a floral beauty; and on the border of the sandy deserts, seemed to invite the traveller to go no farther. Riding along through the perfumed air, we soon after entered a defile overgrown with the ominous *artemisia tridentata*, which conducted us into a sandy plain, covered more or less densely with forests of *yucca*.

Having now the snowy ridge on our right, we continued our way towards a dark *butte*, belonging to a low sierra in the plain, and which our guide had pointed out for a landmark. Late in the day, the familiar growth of cotton-wood, a line of which was visible ahead, indicated our approach to a creek, which we reached where the water spread out into sands, and a little below sank entirely. Here our guide had intended we should pass the night; but there was not a blade of grass, and hoping to find nearer the mountain a little for the night, we turned up the stream. A 100 yards above, we found the creek a fine stream, 16 feet wide, with a swift current. A dark night overtook us when we reached the hills at the foot of the ridge, and we were obliged to encamp without grass; tying up what animals we could secure in the darkness, the greater part of the wild ones having free range for the night. Here the stream was two feet deep, swift and clear, issuing from a neighbouring snow-peak. A few miles before reaching this creek, we had crossed a broad dry river bed, which, nearer the hills, the hunters had found a bold and handsome stream.

April 18.—Some parties were engaged in hunting up the scattered horses, and others in searching for grass above; both were successful, and late in the day we encamped among some spring-

heads of the river, in a hollow which was covered with only tolerably good grasses, the lower ground being entirely overgrown with large bunches of the coarse stiff grass (*carex sitchensis*).

Our latitude, by observation, was 34° 27′ 03″; and longitude 117° 13′ 00″.

Travelling close along the mountain, we followed up, in the afternoon of the 19th, another stream, in hopes to find a grass-patch like that of the previous day, but were deceived; except some scattered bunch-grass, there was nothing but rock and sand; and even the fertility of the mountain seemed withered by the air of the desert. Among the few trees was the nut-pine (*pinus monophyllus*).

Our road the next day was still in an easterly direction along the ridge, over very bad travelling ground, broken and confounded with crippled trees and shrubs; and after a difficult march of 18 miles, a general shout announced that we had struck the great object of our search—THE SPANISH TRAIL—which here was running directly north. The road itself, and its course, were equally happy discoveries to us. Since the middle of December we had continually been forced south by mountains and by deserts, and now would have to make six degrees of *northing*, to regain the latitude on which we wished to cross the Rocky Mountains. The course of the road, therefore, was what we wanted; and, once more, we felt like going homewards. A *road* to travel on, and the *right* course to go, were joyful consolations to us; and our animals enjoyed the beaten track like ourselves. Relieved from the rocks and brush, our wild mules started off at a rapid rate, and in 15 miles we reached a considerable river, timbered with cotton-wood and willow, where we found a bottom of tolerable grass. As the animals had suffered a great deal in the last few days, I remained here all next day, to allow them the necessary repose; and it was now necessary, at every favourable place, to make a little halt. Between us and the Colorado river we were aware that the country was extremely poor in grass, and scarce for water, there being many *jornadas* (days' journey), or long stretches of 40 to 60 miles, without water, where the road was marked by bones of animals.

Although in California we had met with people who had passed over this trail, we had been able to obtain no correct information about it; and the greater part of what we had heard was found to be only a tissue of falsehoods. The rivers that we found on it were never mentioned, and others, particularly described in name and locality, were subsequently seen in another part of the country. It was described as a tolerably good sandy road, with so little rock as scarcely to require the animals to be shod; and we found it the roughest and rockiest road we had ever seen in the country, and which nearly destroyed our band of fine mules and horses. Many animals are destroyed on it every year by a disease called

the foot evil; and a traveller should never venture on it without having his animals well shod, and also carrying extra shoes.

Latitude 34° 34′ 11″; and longitude 117° 13′ 00″.

The morning of the 22nd was clear and bright, and a snowy peak to the southward shone out high and sharply defined. As has been usual since we crossed the mountains and descended into the hot plains, we had a gale of wind. We travelled down the right bank of the stream, over sands which are somewhat loose, and have no verdure, but are occupied by various shrubs. A clear bold stream, 60 feet wide, and several feet deep, had a strange appearance, running between perfectly naked banks of sand. The eye, however, is somewhat relieved by willows, and the beautiful green of the sweet cotton-woods with which it is well wooded. As we followed along its course, the river, instead of growing constantly larger, gradually dwindled away, as it was absorbed by the sand. We were now careful to take the old camping places of the annual Santa Fé caravans, which, luckily for us, had not yet made their yearly passage. A drove of several thousand horses and mules would entirely have swept away the scanty grass at the watering-places, and we should have been obliged to leave the road to obtain subsistence for our animals. After riding 20 miles in a north-easterly direction, we found an old encampment, where we halted.

By observation, the elevation of this encampment is 2,250 feet.

April 23.—The trail followed still along the river, which, in the course of the morning, entirely disappeared. We continued along the dry bed, in which, after an interval of about 16 miles, the water re-appeared in some low places, well timbered with cotton-wood and willow, where was another of the customary camping grounds. Here a party of six Indians came into camp, poor and hungry, and quite in keeping with the character of the country. Their arms were bows of unusual length, and each had a large gourd, strengthened with meshes of cord, in which he carried water. They proved to be the Mohahve Indians mentioned by our recent guide; and from one of them, who spoke Spanish fluently, I obtained some interesting information, which I would be glad to introduce here. An account of the people inhabiting this region would undoubtedly possess interest for the civilized world. Our journey homeward was fruitful in incident; and the country through which we travelled, although a desert, afforded much to excite the curiosity of the botanist; but limited time, and the rapidly advancing season for active operations, oblige me to omit all extended descriptions, and hurry briefly to the conclusion of this report.

The Indian who spoke Spanish had been educated for a number of years at one of the Spanish missions, and, at the breaking up of those establishments, had returned to the mountains, where he had been found by a party of *Mohahve* (sometimes called *Amuchaba*) Indians, among whom he had ever since resided.

He spoke of the leader of the present party as "*mi amo*" (my master). He said they lived upon a large river in the southeast, which the "soldiers called the Rio Colorado;" but that, formerly, a portion of them lived upon this river, and among the mountains which had bounded the river valley to the northward during the day, and that here along the river they had raised various kinds of melons. They sometimes came over to trade with the Indians of the Sierra, bringing with them blankets, and goods manufactured by the Monquis and other Colorado Indians. They rarely carried home horses, on account of the difficulty of getting them across the desert, and of guarding them afterwards from the Pa-utah Indians, who inhabit the Sierra, at the head of the *Rio Virgen* (river of the Virgin).

He informed us that, a short distance below, this river finally disappeared. The two different portions in which water is found had received from the priests two different names; and subsequently I heard it called by the Spaniards the *Rio de las Animas*, but on the map we have called it the *Mohahve* river.

April 24.—We continued down the stream (or, rather, its bed) for about eight miles, where there was water still in several holes, and encamped. The caravans sometimes continue below, to the end of the river, from which there is a very long *jornada* of perhaps 60 miles, without water. Here a singular and new species of acacia, with spiral pods or seed vessels, made its first appearance; becoming henceforward, for a considerable distance, a characteristic tree. It was here comparatively large, being about 20 feet in height, with a full and spreading top, the lower branches declining towards the ground. It afterwards occurred of smaller size, frequently in groves, and is very fragrant. It has been called by Dr. Torrey *spirolobium odoratum*. The zygophyllaceous shrub had been constantly characteristic of the plains along the river; and here, among many new plants, a new and very remarkable species of eriogonum (*eriogonum inflatum*, Torr. and Frem.) made its first appearance.

Our cattle had become so tired and poor by this fatiguing travelling, that three of them were killed here, and the meat dried. The Indians had now an occasion for a great feast, and were occupied the remainder of the day and all the night in cooking and eating. There was no part of the animal for which they did not find some use, except the bones. In the afternoon we were surprised by the sudden appearance in the camp of two Mexicans—a man and a boy. The name of the man was *Andreas Fuentes;* and that of the boy (a handsome lad, 11 years old), *Pablo Hernandez*. They belonged to a party consisting of six persons, the remaining four being the wife of Fuentes, the father and mother of Pablo, and Santiago Giacombe, a resident of New Mexico. With a cavalcade of about 30 horses, they had come out from Puebla de los Angeles, near the coast, under the guid-

ance of Giacome, in advance of the great caravan, in order to travel more at leisure, and obtain better grass. Having advanced as far into the desert as was considered consistent with their safety, they halted at the *Archilette,* one of the customary camping grounds, about eighty miles from our encampment, where there is a spring of good water, with sufficient grass; and concluded to await there the arrival of the great caravan. Several Indians were soon discovered lurking about the camp, who, in a day or two after came in, and, after behaving in a very friendly manner, took their leave, without awakening any suspicions. Their deportment begat a security which proved fatal. In a few days afterwards, suddenly a party of about 100 Indians appeared in sight, advancing towards the camp. It was too late, or they seemed not to have presence of mind to take proper measures of safety; and the Indians charged down into their camp, shouting as they advanced, and discharging flights of arrows. Pablo and Fuentes were on horse-guard at the time, and mounted according to the custom of the country. One of the principal objects of the Indians was to get possession of the horses, and part of them immediately surrounded the band; but, in obedience to the shouts of Giacombe, Fuentes drove the animals over and through the assailants, in spite of their arrows; and, abandoning the rest to their fate, carried them off at speed across the plain. Knowing that they would be pursued by the Indians, without making any halt except to shift their saddles to other horses, they drove them on for about 60 miles, and this morning left them at a watering-place on the trail, called Agua de Tomaso. Without giving themselves any time for rest, they hurried on, hoping to meet the Spanish caravan, when they discovered my camp. I received them kindly, taking them into my own mess, and promised them such aid as circumstances might put it in my power to give.

April 25.—We left the river abruptly, and, turning to the north, regained in a few miles the main-trail (which had left the river sooner than ourselves), and continued our way across a lower ridge of the mountain, through a miserable tract of sand and gravel. We crossed at intervals the broad beds of dry gulleys, where in the season of rains and melting snows there would be brooks or rivulets; and at one of these, where there was no indication of water, were several freshly-dug holes, in which there was water at the depth of two feet. These holes had been dug by the wolves, whose keen sense of smell had scented the water under the dry sand. They were nice little wells, narrow, and dug straight down, and we got pleasant water out of them.

The country had now assumed the character of an elevated and mountainous desert; its general features being black, rocky ridges, bald, and destitute of timber, with sandy basins between. Where the sides of these ridges are washed by gulleys, the plains below are strewed with beds of large pebbles or rolled stones, destructive

to our soft-footed animals, accustomed to the grassy plains of the Sacramento valley. Through these sandy basins sometimes struggled a scanty stream, or occurred a hole of water, which furnished camping grounds for travellers. Frequently in our journey across, snow was visible on the surrounding mountains; but their waters rarely reached the sandy plain below, where we toiled along, oppressed with thirst and a burning sun. But throughout this nakedness of sand and gravel were many beautiful plants and flowering shrubs, which occurred in many new species, and with greater variety than we had been accustomed to see in the most luxuriant prairie countries. This was a peculiarity of this desert; even where no grass would take root, the naked sand would bloom with some rich and rare flower, which found its appropriate home in the arid and barren spot.

Scattered over the plain, and tolerably abundant, was a handsome leguminous shrub, three or four feet high, with fine bright purple flowers. It is a new *psoralea*, and occurred frequently henceforward along our road.

Beyond the first ridge, our road bore a little to the east of north, towards a gap in a higher line of mountains; and, after travelling about 25 miles, we arrived at the *Agua de Tomaso*, the spring where the horses had been left; but, as we expected, they were gone. A brief examination of the ground convinced us that they had been driven off by the Indians. Carson and Godey volunteered with the Mexican to pursue them; and, well mounted, the three set off on the trail. At this stopping place there were a few bushes and very little grass. Its water was a pool; but near by was a spring, which had been dug out by Indians or travellers. Its water was cool—a great refreshment to us under a burning sun.

In the evening Fuentes returned, his horse having failed; but Carson and Godey had continued the pursuit.

I observed to-night an occultation of α^2 *Cancri*, at the dark limb of the moon, which gives for the longitude of the place 116° 23′ 28″; the latitude, by observation, is 35° 13′ 08″. From Helvetia to this place, the positions along the intervening line are laid down with the longitudes obtained from the chronometer, which appears to have retained its rate remarkably well; but henceforward, to the end of the journey, the few longitudes given are absolute, depending upon a subsequent occultation and eclipses of the satellites.

In the afternoon of the next day, a war-whoop was heard, such as Indians make when returning from a victorious enterprise; and soon Carson and Godey appeared, driving before them a band of horses, recognized by Fuentes to be part of those they had lost. Two bloody scalps, dangling from the end of Godey's gun, announced that they had overtaken the Indians as well as the horses. They informed us, that after Fuentes left them, from the failure of his horse, they continued the pursuit alone, and towards night-

fall entered the mountains, into which the trail led. After sunset the moon gave light, and they followed the trail by moonshine until late in the night, when it entered a narrow defile, and was difficult to follow. Afraid of losing it in the darkness of the defile, they tied up their horses, struck no fire, and lay down to sleep in silence and in darkness. Here they lay from midnight till morning. At daylight they resumed the pursuit, and about sunrise discovered the horses; and, immediately dismounting and tying up their own, they crept cautiously to a rising ground which intervened, from the crest of which they perceived the encampment of four lodges close by. They proceeded quietly, and had got within 30 or 40 yards of their object, when a movement among the horses discovered them to the Indians; giving the war shout, they instantly charged into the camp, regardless of the number which the *four* lodges would imply. The Indians received them with a flight of arrows shot from their long bows, one of which passed through Godey's shirt collar, barely missing the neck; our men fired their rifles upon a steady aim, and rushed in. Two Indians were stretched on the ground, fatally pierced with bullets; the rest fled, except a lad that was captured. The scalps of the fallen were instantly stripped off; but in the process, one of them, who had two balls through his body, sprung to his feet, the blood streaming from his skinned head, and uttering a hideous howl. An old squaw, possibly his mother, stopped and looked back from the mountain side she was climbing, threatening and lamenting. The frightful spectacle appalled the stout hearts of our men; but they did what humanity required, and quickly terminated the agonies of the gory savage. They were now masters of the camp, which was a pretty little recess in the mountain, with a fine spring, and apparently safe from all invasion. Great preparations had been made to feast a large party, for it was a very proper place for a rendezvous, and for the celebration of such orgies as robbers of the desert would delight in. Several of the best horses had been killed, skinned, and cut up; for the Indians living in mountains, and only coming into the plains to rob and murder, make no other use of horses than to eat them. Large earthen vessels were on the fire, boiling and stewing the horse beef; and several baskets, containing 50 or 60 pairs of moccasins, indicated the presence, or expectation, of a considerable party. They released the boy, who had given strong evidence of the stoicism, or something else, of the savage character, in commencing his breakfast upon a horse's head as soon as he found he was not to be killed, but only tied as a prisoner. Their object accomplished, our men gathered up all the surviving horses, 15 in number, returned upon their trail, and rejoined us at our camp in the afternoon of the same day. They had rode about 100 miles in the pursuit and return, and all in 30 hours. The time, place, object, and numbers, considered, this expedition of Carson and Godey may be considered among the boldest and most disinterested which the annals of

western adventure, so full of daring deeds, can present. Two men, in a savage desert, pursue day and night an unknown body of Indians into the defiles of an unknown mountain—attack them on sight, without counting numbers—and defeat them in an instant—and for what? To punish the robbers of the desert, and to avenge the wrongs of Mexicans whom they did not know. I repeat: it was Carson and Godey who did this—the former an *American*, born in the Boonslick county of Missouri; the latter a Frenchman, born in St. Louis—and both trained to western enterprise from early life

By the information of Fuentes, we had now to make a long stretch of 40 or 50 miles across a plain which lay between us and the next possible camp; and we resumed our journey late in the afternoon, with the intention of travelling through the night, and avoiding the excessive heat of the day, which was oppressive to our animals. For several hours we travelled across a high plain, passing, at the opposite side, through a cañon by the bed of a creek running *northwardly* into a small lake beyond, and both of them being dry. We had a warm, moonshiny night; and, travelling directly towards the north star, we journeyed now across an open plain between mountain ridges: that on the left being broken, rocky, and bald, according to the information of Carson and Godey, who had entered here in pursuit of the horses. The plain appeared covered principally with the *zygophyllum Californicum* already mentioned; and the line of our road was marked by the skeletons of horses, which were strewed to a considerable breadth over the plain. We were afterwards always warned, on entering one of these long stretches, by the bones of these animals, which had perished before they could reach the water. About midnight we reached a considerable stream bed, now dry, the discharge of the waters of this basin (when it collected any), down which we descended in a *north-westerly* direction. The creek bed was overgrown with shrubbery, and several hours before day it brought us to the entrance of a cañon, where we found water, and encamped. This word *cañon* is used by the Spaniards to signify a defile or gorge in a creek or river, where high rocks press in close, and make a narrow way, usually difficult, and often impossible to be passed.

In the morning we found that we had a very poor camping ground: a swampy, salty spot, with a little long, unwholesome grass; and the water, which rose in springs, being useful only to wet the mouth, but entirely too salt to drink. All around was sand and rocks, and skeletons of horses which had not been able to find support for their lives. As we were about to start, we found, at the distance of a few hundred yards, among the hills to the southward, a spring of tolerably good water, which was a relief to ourselves; but the place was too poor to remain long, and there-

fore we continued on this morning. On the creek were thickets of *spirolobium odoratum* (acacia) in bloom, and very fragrant.

Passing through the cañon, we entered another sandy basin, through which the dry stream bed continued its north-westerly course, in which direction appeared a high snowy mountain.

We travelled through a barren district, where a heavy gale was blowing about the loose sand, and, after a ride of eight miles, reached a large creek of salt and bitter water, running in a westerly direction, to receive the stream bed we had left. It is called by the Spaniards *Amargosa*—the bitter water of the desert. Where we struck it, the stream bends; and we continued in a northerly course up the ravine of its valley, passing on the way a fork from the right, near which occurred a bed of plants, consisting of a remarkable new genus of *cruciferæ*.

Gradually ascending, the ravine opened into a green valley, where, at the foot of the mountain, were springs of excellent water. We encamped among groves of the new *acacia*, and there was an abundance of good grass for the animals.

This was the best camping ground we had seen since we struck the Spanish trail. The day's journey was about 12 miles.

April 29.—To-day we had to reach the *Archilette*, distant seven miles, where the Mexican party had been attacked; and leaving our encampment early, we traversed a part of the desert, the most sterile and repulsive that we had yet seen. Its prominent features were dark *sierras*, naked and dry; on the plains a few straggling shrubs—among them, cactus of several varieties. Fuentes pointed out one called by the Spaniards *bisnada*, which has a juicy pulp, slightly acid, and is eaten by the traveller to allay thirst. Our course was generally north; and, after crossing an intervening ridge, we descended into a sandy plain, or basin, in the middle of which was the grassy spot, with its springs and willow bushes, which constitutes a camping place in the desert, and is called the *Archilette*. The dead silence of the place was ominous; and, galloping rapidly up, we found only the corpses of the two men: everything else was gone. They were naked, mutilated, and pierced with arrows. Hernandez had evidently fought, and with desperation. He lay in advance of the willow half-faced tent, which sheltered his family, as if he had come out to meet danger, and to repulse it from that asylum. One of his hands, and both his legs, had been cut off. Giacome, who was a large and strong-looking man, was lying in one of the willow shelters, pierced with arrows. Of the women no trace could be found, and it was evident they had been carried off captive. A little lap-dog, which had belonged to Pablo's mother, remained with the dead bodies, and was frantic with joy at seeing Pablo: he, poor child, was frantic with grief; and filled the air with lamentations for his father and mother. *Mi padre! Mi madre!*—was his incessant

cry. When we beheld this pitiable sight, and pictured to ourselves the fate of the two women, carried off by savages so brutal and so loathsome, all compunction for the scalped-alive Indian ceased; and we rejoiced that Carson and Godey had been able to give so useful a lesson to these American Arabs, who lie in wait to murder and plunder the innocent traveller.

We were all too much affected by the sad feelings which the place inspired to remain an unnecessary moment. The night we were obliged to pass there. Early in the morning we left it, having first written a brief account of what had happened, and put it in the cleft of a pole planted at the spring, that the approaching caravan might learn the fate of their friends. In commemoration of the event, we called the place *Agua de Hernandez*—Hernandez's spring. By observation, its latitude was 35° 51′ 21″.

April 30.—We continued our journey over a district similar to that of the day before. From the sandy basin, in which was the spring, we entered another basin of the same character, surrounded everywhere by mountains. Before us stretched a high range, rising still higher to the left, and terminating in a snowy mountain.

After a day's march of 24 miles, we reached at evening the bed of a stream from which the water had disappeared; a little only remained in holes, which we increased by digging; and about a mile above, the stream, not yet entirely sunk, was spread out over the sands, affording a little water for the animals. The stream came out of the mountains on the left, very slightly wooded with cotton-wood, willow, and acacia, and a few dwarf oaks; and grass was nearly as scarce as water. A plant with showy yellow flowers (*Stanleya integrifolia*) occurred abundantly at intervals for the last two days, and *eriogonum inflatum* was among the characteristic plants.

May 1.—The air is rough, and overcoats pleasant. The sky is blue, and the day bright. Our road was over a plain towards the foot of the mountain; *zygophyllum Californicum,* now in bloom with a small yellow flower, is characteristic of the country; and *cacti* were very abundant, and in rich fresh bloom, which wonderfully ornaments this poor country. We encamped at a spring in the pass, which had been the site of an old village. Here we found excellent grass, but very little water. We dug out the old spring, and watered some of our animals. The mountain here was wooded very slightly with the nut-pine, cedars, and a dwarf species of oak; and among the shrubs were *Purshia tridentata, artemisia,* and *ephedra occidentalis.* The numerous shrubs which constitute the vegetation of the plains are now in bloom, with flowers of white, yellow, red, and purple. The continual rocks, and want of water and grass, begin to be very hard on our mules and horses; but the principal loss is occasioned by their crippled feet, the greater part of those left being in excellent order, and

scarcely a day passes without some loss; and, one by one, Fuentes's horses are constantly dropping behind. Whenever they give out, he dismounts and cuts off their tails and manes, to make saddle girths; the last advantage one can gain from them.

The next day, in a short but rough ride of 12 miles, we crossed the mountain, and, descending to a small valley plain, encamped at the foot of the ridge, on the bed of a creek, where we found good grass in sufficient quantity, and abundance of water in holes. The ridge is extremely rugged and broken, presenting on this side a continued precipice, and probably affords very few passes. Many *Digger* tracks are seen around us, but no Indians were visible.

May 3.—After a day's journey of 18 miles, in a north-easterly direction, we encamped in the midst of another very large basin, at a camping ground called *las Vegas*—a term which the Spaniards use to signify fertile or marshy plains, in contradistinction to *llanos*, which they apply to dry and sterile plains. Two narrow streams of clear water, four or five feet deep, gush suddenly, with a quick current, from two singularly large springs; these, and other waters of the basin, pass out in a gap to the eastward. The taste of the water is good, but rather too warm to be agreeable; the temperature being 71° in the one, and 73° in the other. They, however, afforded a delightful bathing place.

May 4.—We started this morning earlier than usual, travelling in a north-easterly direction across the plain. The new acacia (*spirolobium odoratum*) has now become the characteristic tree of the country; it is in bloom, and its blossoms are very fragrant. The day was still, and the heat, which soon became very oppressive, appeared to bring out strongly the refreshing scent of the zygophyllaceous shrubs and the sweet perfume of the acacia. The snowy ridge we had just crossed looked out conspicuously in the north-west. In about five hours' ride, we crossed a gap in the surrounding ridge, and the appearance of skeletons of horses very soon warned us that we were engaged in another dry *jornada*, which proved the longest we had made in all our journey—between 50 and 60 miles without a drop of water.

Travellers through countries affording water and timber can have no conception of our intolerable thirst while journeying over the hot yellow sands of this elevated country, where the heated air seems to be entirely deprived of moisture. We ate occasionally the *bisnada*, and moistened our mouths with the acid of the sour dock (*rumex venosus*). Hourly expecting to find water, we continued to press on until towards midnight, when, after a hard and uninterrupted march of 16 hours, our wild mules began running ahead; and in a mile or two we came to a bold running stream—so keen is the sense of that animal, in these desert regions, in scenting at a distance this necessary of life.

According to the information we had received, Sevier river was

a tributary of the Colorado; and this, accordingly, should have been one of its affluents. It proved to be the *Rio de los Angeles* (river of the Angels)—a branch of the *Rio Virgen* (river of the Virgin).

May 5.—On account of our animals, it was necessary to remain to-day at this place. Indians crowded numerously around us in the morning; and we were obliged to keep arms in hand all day, to keep them out of the camp. They began to surround the horses, which, for the convenience of grass, we were guarding a little above, on the river. These were immediately driven in, and kept close to the camp.

In the darkness of the night we had made a very bad encampment, our fires being commanded by a rocky bluff within 50 yards; but, notwithstanding, we had the river and small thickets of willows on the other side. Several times during the day the camp was insulted by the Indians; but, peace being our object, I kept simply on the defensive. Some of the Indians were on the bottoms, and others haranguing us from the bluffs; and they were scattered in every direction over the hills. Their language being probably a dialect of the *Utah*, with the aid of signs some of our people could comprehend them very well. They were the same people who had murdered the Mexicans; and towards us their disposition was evidently hostile, nor were we well disposed towards them. They were barefooted, and nearly naked; their hair gathered up into a knot behind; and with his bow, each man carried a quiver with 30 or 40 arrows partially drawn out. Besides these, each held in his hand two or three arrows for instant service. Their arrows are barbed with a very clear translucent stone, a species of opal, nearly as hard as the diamond; and, shot from their long bow, are almost as effective as a gunshot. In these Indians, I was forcibly struck by an expression of countenance resembling that in a beast of prey; and all their actions are those of wild animals. Joined to the restless motion of the eye, there is a want of mind—an absence of thought—and an action wholly by impulse, strongly expressed, and which constantly recalls the similarity.

A man who appeared to be a chief, with two or three others, forced himself into camp, bringing with him his arms, in spite of my orders to the contrary. When shown our weapons, he bored his ear with his fingers, and said he could not hear. "Why," said he, "there are none of you." Counting the people around the camp, and including in the number a mule which was being shod, he made out 22. "So many," said he, showing the number, "and we—we are a great many;" and he pointed to the hills and mountains round about. "If you have your arms," said he, twanging his bow, "we have these." I had some difficulty in restraining the people, particularly Carson, who felt an insult of this kind as much as if it had been given by a more responsible

being. "Don't say that, old man," said he; "don't you say that —your life's in danger"—speaking in good English; and probably the old man was nearer to his end than he will be before he meets it.

Several animals had been necessarily left behind near the camp last night; and early in the morning, before the Indians made their appearance, several men were sent to bring them in. When I was beginning to be uneasy at their absence, they returned with information that they had been driven off from the trail by Indians; and, having followed the tracks in a short distance, they found the animals cut up and spread out upon bushes. In the evening I gave a fatigued horse to some of the Indians for a feast; and the village which carried him off refused to share with the others, who made loud complaints from the rocks of the partial distribution. Many of these Indians had long sticks, hooked at the end, which they used in hauling out lizards, and other small animals, from their holes. During the day they occasionally roasted and ate lizards at our fires. These belong to the people who are generally known under the name of *Diggers;* and to these I have more particularly had reference, when occasionally speaking of a people whose sole occupation is to procure food sufficient to support existence. The formation here consists of fine yellow sandstone, alternating with a coarse conglomerate, in which the stones are from the size of ordinary gravel to six or eight inches in diameter. This is the formation which renders the surface of the country so rocky, and gives us now a road alternately of loose heavy sands and rolled stones, which cripple the animals in a most extraordinary manner.

On the following morning we left the *Rio de los Angeles*, and continued our way through the same desolate and revolting country, where lizards were the only animals, and the tracks of the lizard eaters the principal sign of human beings. After 20 miles' march through a road of hills and heavy sands, we reached the most dreary river I have ever seen—a deep rapid stream, almost a torrent, passing swiftly by, and roaring against obstructions. The banks were wooded with willow, acacia, and a frequent plant of the country already mentioned (*Garrya elliptica*), growing in thickets, resembling willow, and bearing a small pink flower. Crossing it, we encamped on the left bank, where we found very little grass. Our three remaining steers, being entirely given out, were killed here. By the boiling point, the elevation of the river here is 4,060 feet; and latitude, by observation, 36° 41′ 33″. The stream was running towards the south-west, and appeared to come from a snowy mountain in the north. It proved to be the *Rio Virgen*—a tributary to the Colorado. Indians appeared in bands on the hills, but did not come into camp. For several days we continued our journey up the river, the bottoms of which were thickly overgrown with various kinds of brush; and the sandy soil

was absolutely covered with the tracks of *Diggers*, who followed us stealthily, like a band of wolves; and we had no opportunity to leave behind, even for a few hours, the tired animals, in order that they might be brought into camp after a little repose. A horse or mule, left behind, was taken off in a moment. On the evening of the 8th, having travelled 28 miles up the river from our first encampment on it, we encamped at a little grass plat, where a spring of cool water issued from the bluff. On the opposite side was a grove of cotton-woods at the mouth of a fork, which here enters the river. On either side the valley is bounded by ranges of mountains, everywhere high, rocky, and broken. The caravan road was lost and scattered in the sandy country, and we had been following an Indian trail up the river. The hunters the next day were sent out to reconnoitre, and in the meantime we moved about a mile farther up, where we found a good little patch of grass. There being only sufficient grass for the night, the horses were sent with a strong guard in charge of Tabeau to a neighbouring hollow, where they might pasture during the day; and, to be ready in case the Indians should make any attempt on the animals, several of the best horses were picketed at the camp. In a few hours the hunters returned, having found a convenient ford in the river, and discovered the Spanish trail on the other side.

I had been engaged in arranging plants, and, fatigued with the heat of the day, I fell asleep in the afternoon, and did not awake until sundown. Presently Carson came to me, and reported that Tabeau, who early in the day had left his post, and, without my knowledge, rode back to the camp we had left, in search of a lame mule, had not returned. While we were speaking, a smoke rose suddenly from the cotton-wood grove below, which plainly told us what had befallen him: it was raised to inform the surrounding Indians that a blow had been struck, and to tell them to be on their guard. Carson, with several men well mounted, was instantly sent down the river, but returned in the night without tidings of the missing man. They went to the camp we had left, but neither he nor the mule was there. Searching down the river, they found the tracks of the mule, evidently driven along by Indians, whose tracks were on each side of those made by the animal. After going several miles, they came to the mule itself, standing in some bushes, mortally wounded in the side by an arrow, and left to die, that it might be afterwards butchered for food. They also found in another place, as they were hunting about on the ground for Tabeau's tracks, something that looked like a little puddle of blood, but which the darkness prevented them from verifying. With these details they returned to our camp, and their report saddened all our hearts.

May 10.—This morning, as soon as there was light enough to follow tracks, I set out myself, with Mr. Fitzpatrick and several men, in search of Tabeau. We went to the spot where the ap-

pearance of puddled blood had been seen; and this, we saw at once, had been the place where he fell and died. Blood upon the leaves, and beaten down bushes, showed that he had got his wound about twenty paces from where he fell, and that he had struggled for his life. He had probably been shot through the lungs with an arrow. From the place where he lay and bled, it could be seen that he had been dragged to the river bank, and thrown into it. No vestige of what had belonged to him could be found, except a fragment of his horse equipment. Horse, gun, clothes—all became the prey of these Arabs of the New World.

Tabeau had been one of our best men, and his unhappy death spread a gloom over our party. Men who have gone through such dangers and sufferings as we had seen become like brothers, and feel each other's loss. To defend and avenge each other is the deep feeling of all. We wished to avenge his death; but the condition of our horses, languishing for grass and repose, forbade an expedition into unknown mountains. We knew the tribe who had done the mischief—the same which had been insulting our camp. They knew what they deserved, and had the discretion to show themselves to us no more. The day before, they infested our camp; now, not one appeared; nor did we ever afterwards see but one who even belonged to the same tribe, and he at a distance.

Our camp was in a basin below a deep cañon—a gap of 2,000 feet deep in the mountain—through which the *Rio Virgen* passes, and where no man or beast could follow it. The Spanish trail, which we had lost in the sands of the basin, was on the opposite side of the river. We crossed over to it, and followed it northwardly towards a gap which was visible in the mountain. We approached it by a defile, rendered difficult for our barefooted animals by the rocks strewed along it; and here the country changed its character. From the time we entered the desert, the mountains had been bald and rocky; here they began to be wooded with cedar and pine, and clusters of trees gave shelter to birds—a new and welcome sight—which could not have lived in the desert we had passed.

Descending a long hollow, towards the narrow valley of a stream, we saw before us a snowy mountain, far beyond which appeared another more lofty still. Good bunch grass began to appear on the hill sides, and here we found a singular variety of interesting shrubs. The changed appearance of the country infused among our people a more lively spirit, which was heightened by finding at evening a halting-place of very good grass on the clear waters of the *Santa Clara* fork of the *Rio Virgen*.

May 11.—The morning was cloudy and quite cool, with a shower of rain—the first we have had since entering the desert, a period of 27 days; and we seem to have entered a different climate, with the usual weather of the Rocky Mountains. Our

march to-day was very laborious, over very broken ground, along the Santa Clara river; but then the country is no longer so distressingly desolate. The stream is prettily wooded with sweet cotton-wood trees—some of them of large size; and on the hills, where the nut-pine is often seen, a good and wholesome grass occurs frequently. This cotton-wood, which is now in fruit, is of a different species from any in Michaux's Sylva. Heavy dark clouds covered the sky in the evening, and a cold wind sprang up, making fires and overcoats comfortable.

May 12.—A little above our encampment, the river forked; and we continued up the right-hand branch, gradually ascending towards the summit of the mountain. As we rose towards the head of the creek, the snowy mountain on our right showed out handsomely—high and rugged with precipices, and covered with snow for about 2,000 feet from their summits down. Our animals were somewhat repaid for their hard marches by an excellent camping ground on the summit of the ridge, which forms here the dividing chain between the waters of the *Rio Virgen*, which goes south to the Colorado, and those of Sevier river, flowing northwardly, and belonging to the Great Basin. We considered ourselves as crossing the rim of the basin; and, entering it at this point, we found here an extensive mountain meadow, rich in bunch grass, and fresh with numerous springs of clear water, all refreshing and delightful to look upon. It was, in fact, that *las Vegas de Santa Clara*, which had been so long presented to us as the terminating point of the desert, and where the annual caravan from California to New Mexico halted and recruited for some weeks. It was a very suitable place to recover from the fatigue and exhaustion of a month's suffering in the hot and sterile desert. The meadow was about a mile wide, and some 10 miles long, bordered by grassy hills and mountains—some of the latter rising 2,000 feet, and white with snow down to the level of the *vegas*. Its elevation above the sea was 5,280 feet; latitude, by observation, 37° 28′ 28″; and its distance from where we first struck the Spanish trail about 400 miles. Counting from the time we reached the desert, and began to skirt, at our descent from Walker's Pass in the Sierra Nevada, we had travelled 550 miles, occupying 27 days, in that inhospitable region. In passing before the great caravan, we had the advantage of finding more grass, but the disadvantage of finding also the marauding savages, who had gathered down upon the trail, waiting the approach of their prey. This greatly increased our labours, besides costing us the life of an excellent man. We had to move all day in a state of watch, and prepared for combat—scouts and flankers out, a front and rear division of our men, and baggage animals in the centre. At night, camp duty was severe. Those who had toiled all day had to guard, by turns, the camp and the horses all night. Frequently

one-third of the whole party were on guard at once, and nothing but this vigilance saved us from attack. We were constantly dogged by bands, and even whole tribes of the marauders; and although Tabeau was killed, and our camp infested and insulted by some, while swarms of them remained on the hills and mountain sides, there was manifestly a consultation and calculation going on to decide the question of attacking us. Having reached the resting-place of the *Vegas de Santa Clara*, we had complete relief from the heat and privations of the desert, and some relaxation from the severity of camp duty. Some relaxation, and relaxation only, for camp guards, horse guards, and scouts, are indispensable from the time of leaving the frontiers of Missouri until we return to them.

After we left the *Vegas*, we had the gratification to be joined by the famous hunter and trapper, Mr. Joseph Walker, whom I have before mentioned, and who now became our guide. He had left California with the great caravan; and perceiving, from the signs along the trail, that there was a party of whites ahead, which he judged to be mine, he detached himself from the caravan, with eight men (Americans), and ran the gauntlet of the desert robbers, killing two, and getting some of the horses wounded, and succeeded in overtaking us. Nothing but his great knowledge of the country, great courage and presence of mind, and good rifles, could have brought him safe from such a perilous enterprise.

May 13.—We remained one day at this noted place of rest and refreshment; and, resuming our progress in a north-eastwardly direction, we descended into a broad valley, the water of which is tributary to Sevier lake. The next day we came in sight of the Wah-satch range of mountains on the right, white with snow, and here forming the south-east part of the Great Basin. Sevier lake, upon the waters of which we now were, belonged to the system of lakes in the eastern part of the basin—of which the Great Salt lake, and its southern limb the Utah lake, were the principal—towards the region of which we were now approaching. We travelled for several days in this direction, within the rim of the Great Basin, crossing little streams which bore to the left for Sevier lake; and plainly seeing, by the changed aspect of the country, that we were entirely clear of the desert, and approaching the regions which appertained to the system of the Rocky Mountains. We met, in this traverse, a few mounted Utah Indians, in advance of their main body, watching the approach of the great caravan.

May 16.—We reached a small salt lake, about seven miles long and one broad, at the northern extremity of which we encamped for the night. This little lake, which well merits its characteristic name, lies immediately at the base of the Wah-satch range, and nearly opposite a gap in that chain of mountains through which

the Spanish trail passes; and which, again falling upon the waters of the Colorado, and crossing that river, proceeds over a mountainous country to Santa Fé.

May 17.—After 440 miles of travelling on a trail, which served for a road, we again found ourselves under the necessity of exploring a track through the wilderness. The Spanish trail had borne off to the south-east, crossing the Wah-satch range. Our course led to the north-east, along the foot of that range, and leaving it on the right. The mountain presented itself to us under the form of several ridges, rising one above the other, rocky, and wooded with pine and cedar; the last ridge covered with snow. Sevier river, flowing northwardly to the lake of the same name, collects its principal waters from this section of the Wah-satch chain. We had now entered a region of great pastoral promise, abounding with fine streams, the rich bunch grass, soil that would produce wheat, and indigenous flax growing as if it had been sown. Consistent with the general character of its bordering mountains, this fertility of soil and vegetation does not extend far into the Great Basin. Mr. Joseph Walker, our guide, and who has more knowledge of these parts than any man I know, informed me that all the country to the left was unknown to him, and that even the *Digger* tribes, which frequented Lake Sevier, could tell him nothing about it.

May 20.—We met a band of Utah Indians, headed by a well-known chief, who had obtained the American or English name of Walker, by which he is quoted and well known. They were all mounted, armed with rifles, and use their rifles well. The chief had a fusee, which he had carried slung, in addition to his rifle. They were journeying slowly towards the Spanish trail, to levy their usual tribute upon the great Californian caravan. They were robbers of a higher order than those of the desert. They conducted their depredations with form, and under the colour of trade and toll for passing through their country. Instead of attacking and killing, they effect to purchase—taking the horses they like, and giving something nominal in return. The chief was quite civil to me. He was personally acquainted with his namesake, our guide, who made my name known to him. He knew of my expedition of 1842; and, as tokens of friendship, and proof that we had met, proposed an interchange of presents. We had no great store to choose out of; so he gave me a Mexican blanket, and I gave him a very fine one which I had obtained at Vancouver.

May 23.—We reached Sevier river—the main tributary of the lake of the same name—which, deflecting from its northern course, here breaks from the mountains to enter the lake. It was really a fine river, from 8 to 12 feet deep; and, after searching in vain for a fordable place, we made little boats (or rather rafts) out of bulrushes, and ferried across. These rafts are readily made, and

give a good conveyance across a river. The rushes are bound in bundles, and tied hard; the bundles are tied down upon poles, as close as they can be pressed, and fashioned like a boat, in being broader in the middle and pointed at the ends. The rushes, being tubular and jointed, are light and strong. The raft swims well, and is shoved along by poles, or paddled, or pushed and pulled by swimmers, or drawn by ropes. On this occasion we used ropes—one at each end—and rapidly drew our little float backwards and forwards, from shore to shore. The horses swam. At our place of crossing, which was the most northern point of its bend, the latitude was 39° 22′ 19″. The banks sustained the character for fertility and vegetation which we had seen for some days. The name of this river and lake was an indication of our approach to regions of which our people had been the explorers. It was probably named after some American trapper or hunter, and was the first American name we had met with since leaving the Columbia river. From the *Dalles* to the point where we turned across the Sierra Nevada, near 1,000 miles, we heard Indian names, and the greater part of the distance none; from Nueva Helvetia (Sacramento) to *las Vegas de Santa Clara*, about 1,000 more, all were Spanish; from the Mississippi to the Pacific, French and American or English were intermixed; and this prevalence of names indicates the national character of the first explorers.

We had here the misfortune to lose one of our people, François Badeau, who had been with me in both expeditions; during which he had always been one of my most faithful and efficient men. He was killed in drawing towards him a gun by the muzzle; the hammer being caught, discharged the gun, driving the ball through his head. We buried him on the banks of the river.

Crossing the next day a slight ridge along the river, we entered a handsome mountain valley covered with fine grass, and directed our course towards a high snowy peak, at the foot of which lay the Utah lake. On our right was a bed of high mountains, their summits covered with snow, constituting the dividing ridge between the Basin waters and those of the Colorado. At noon we fell in with a party of Utah Indians coming out of the mountain, and in the afternoon encamped on a tributary to the lake, which is separated from the waters of the Sevier by very slight dividing grounds.

Early the next day we came in sight of the lake; and, as we descended to the broad bottoms of the Spanish fork, three horsemen were seen galloping towards us, who proved to be Utah Indians—scouts from a village, which was encamped near the mouth of the river. They were armed with rifles, and their horses were in good condition. We encamped near them, on the Spanish fork, which is one of the principal tributaries to the lake. Finding the Indians troublesome, and desirous to remain here a day,

we removed the next morning farther down the lake, and encamped on a fertile bottom near the foot of the same mountainous ridge which borders the Great Salt lake, and along which we had journeyed the previous September. Here the principal plants in bloom were two, which were remarkable as affording to the Snake Indians—the one an abundant supply of food, and the other the most useful among the applications which they use for wounds. These were the kooyah plant, growing in fields of extraordinary luxuriance, and *convollaria stellata,* which, from the experience of Mr. Walker, is the best remedial plant known among those Indians. A few miles below us was another village of Indians, from which we obtained some fish—among them a few salmon-trout, which were very much inferior in size to those along the Californian mountains. The season for taking them had not yet arrived; but the Indians were daily expecting them to come up out of the lake.

We had now accomplished an object we had in view when leaving the Dalles of the Columbia in November last: we had reached the Utah lake; but by a route very different from what we had intended, and without sufficient time remaining to make the examinations which were desired. It is a lake of note in this country, under the dominion of the Utahs, who resort to it for fish. Its greatest breadth is about 15 miles, stretching far to the north, narrowing as it goes, and connecting with the Great Salt lake. This is the report, and which I believe to be correct; but it is fresh water, while the other is not only salt, but a saturated solution of salt; and here is a problem which requires to be solved. It is almost entirely surrounded by mountains, walled on the north and east by a high and snowy range, which supplies to it a fan of tributary streams. Among these, the principal river is the *Timpan-ogo*—signifying Rock river—a name which the rocky grandeur of its scenery, remarkable even in this country of rugged mountains, has obtained for it from the Indians. In the Utah language, *og-wâh-be,* the term for river, when coupled with other words in common conversation, is usually abbreviated to *ogo; timpan* signifying rock. It is probable that this river furnished the name which on the older maps has been generally applied to the Great Salt lake; but for this I have preferred a name which will be regarded as highly characteristic, restricting to the river the descriptive term Timpan-ogo, and leaving for the lake into which it flows the name of the people who reside on its shores, and by which it is known throughout the country.

The volume of water afforded by the Timpan-ogo is probably equal to that of the Sevier river; and, at the time of our visit, there was only one place in the lake valley at which the Spanish fork was fordable. In the cove of mountains along its eastern shore, the lake is bordered by a plain, where the soil is generally good, and in greater part fertile; watered by a delta of prettily

timbered streams. This would be an excellent locality for stock farms; it is generally covered with good bunch grass, and would abundantly produce the ordinary grains.

In arriving at the Utah lake, we had completed an immense circuit of 12 degrees diameter north and south, and 10 degrees east and west; and found ourselves, in May, 1844, on the same sheet of water which we had left in September, 1843. The Utah is the southern limb of the Great Salt lake; and thus we had seen that remarkable sheet of water both at its northern and southern extremity, and were able to fix its position at these two points. The circuit which we had made, and which had cost us eight months of time and 3,500 miles of travelling, had given us a view of Oregon and of North California from the Rocky Mountains to the Pacific Ocean, and of the two principal streams which form bays or harbours on the coast of that sea. Having completed this circuit, and being now about to turn the back upon the Pacific slope of our continent, and to recross the Rocky Mountains, it is natural to look back upon our footsteps, and take some brief view of the leading features and general structure of the country we had traversed. These are peculiar and striking, and differ essentially from the Atlantic side of our country. The mountains all are higher, more numerous, and more distinctly defined in their ranges and directions; and, what is so contrary to the natural order of such formations, one of these ranges, which is near the coast, (the Sierra Nevada and the Coast Range,) presents higher elevations and peaks than any which are to be found in the Rocky Mountains themselves. In our eight months' circuit, we were never out of sight of snow; and the Sierra Nevada, where we crossed it, was near 2,000 feet higher than the South Pass in the Rocky Mountains. In height, these mountains greatly exceed those of the Atlantic side, constantly presenting peaks which enter the region of eternal snow; and some of them volcanic, and in a frequent state of activity. They are seen at great distances, and guide the traveller in his course.

The course and elevation of these ranges give direction to the rivers and character to the coast. No great river does, or can, take its rise below the Cascade and Sierra Nevada range; the distance to the sea is too short to admit of it. The rivers of the San Francisco bay, which are the largest after the Columbia, are local to that bay, and lateral to the coast, having their sources about on a line with the Dalles of the Columbia, and running each in a valley of its own, between the Coast Range and the Cascade and Sierra Nevada range. The Columbia is the only river which traverses the whole breadth of the country, breaking through all the ranges, and entering the sea. Drawing its waters from a section of ten degrees of latitude in the Rocky Mountains, which are collected into one stream by three main forks (Lewis's, Clark's, and the North fork) near the centre of the Oregon valley, this

great river thence proceeds by a single channel to the sea, while its three forks lead each to a pass in the mountains, which opens the way into the interior of the continent. This fact in relation to the rivers of this region gives an immense value to the Columbia. Its mouth is the only inlet and outlet to and from the sea; its three forks lead to the passes in the mountains; it is therefore the only line of communication between the Pacific and the interior of North America; and all operations of war or commerce, of national or social intercourse, must be conducted upon it. This gives it a value beyond estimation, and would involve irreparable injury if lost. In this unity and concentration of its waters, the Pacific side of our continent differs entirely from the Atlantic side, where the waters of the Alleghany mountains are dispersed into many rivers, having their different entrances into the sea, and opening many lines of communication with the interior.

The Pacific coast is equally different from that of the Atlantic. The coast of the Atlantic is low and open, indented with numerous bays, sounds, and river estuaries, accessible everywhere, and opening by many channels into the heart of the country. The Pacific coast, on the contrary, is high and compact, with few bays, and but one that opens into the heart of the country. The immediate coast is what the seamen call *iron bound*. A little within, it is skirted by two successive ranges of mountains, standing as ramparts between the sea and the interior country; and to get through which there is but one gate, and that narrow and easily defended. This structure of the coast, backed by these two ranges of mountains, with its concentration and unity of waters, gives to the country an immense military strength, and will probably render Oregon the most impregnable country in the world.

Differing so much from the Atlantic side of our continent in coast, mountains, and rivers, the Pacific side differs from it in another most rare and singular feature—that of the Great Interior Basin, of which I have so often spoken, and the whole form and character of which I was so anxious to ascertain. Its existence is vouched for by such of the American traders and hunters as have some knowledge of that region; the structure of the Sierra Nevada range of mountains requires it to be there; and my own observations confirm it. Mr. Joseph Walker, who is so well acquainted in those parts, informed me that, from the Great Salt lake west, there was a succession of lakes and rivers which have no outlet to the sea, nor any connection with the Columbia, or with the Colorado of the Gulf of California. He described some of these lakes as being large, with numerous streams, and even considerable rivers, falling into them. In fact, all concur in the general report of these interior rivers and lakes; and, for want of understanding the force and power of evaporation, which so soon establishes an equilibrium between the loss and supply of waters, the fable of whirlpools and subterraneous outlets has gained belief,

as the only imaginable way of carrying off the waters which have no visible discharge. The structure of the country would require this formation of interior lakes; for the waters which would collect between the Rocky Mountains and the Sierra Nevada, not being able to cross this formidable barrier, nor to get to the Columbia or the Colorado, must naturally collect into reservoirs, each of which would have its little system of streams and rivers to supply it. This would be the natural effect; and what I saw went to confirm it. The Great Salt lake is a formation of this kind, and quite a large one; and having many streams, and one considerable river, 400 or 500 miles long, falling into it. This lake and river I saw and examined myself; and also saw the Wah-satch and Bear river mountains which enclosed the waters of the lake on the east, and constitute in that quarter, the rim of the Great Basin. Afterwards along the eastern base of the Sierra Nevada, where we travelled for 42 days, I saw the line of lakes and rivers which lie at the foot of that Sierra; and which Sierra is the western rim of the basin. In going down Lewis's fork and the main Columbia, I crossed only inferior streams coming in from the left, such as could draw their water from a short distance only; and I often saw the mountains at their heads, white with snow, which all accounts said, divided the waters of the *desert* from those of the Columbia, and which could be no other than the range of mountains which form the rim of the basin on its northern side. And in returning from California along the Spanish trail, as far as the head of the Santa Clara fork of the Rio Virgen, I crossed only small streams making their way south to the Colorado, or lost in sand—as the Mo-hah-ve; while to the left, lofty mountains, their summits white with snow, were often visible, and which must have turned water to the north as well as to the south, and thus constituted, on this part, the southern rim of the Basin. At the head of the Santa Clara fork, and in the Vegas de Santa Clara, we crossed the ridge which parted the two systems of waters. We entered the Basin at that point, and have travelled in it ever since, having its south-eastern rim (the Wah-satch mountain) on the right, and crossing the streams which flow down into it. The existence of the Basin is therefore an established fact in my mind; its extent and contents are yet to be better ascertained. It cannot be less than 400 or 500 miles each way, and must lie principally in the Alta California; the demarcation latitude of 42° probably cutting a segment from the north part of the rim. Of its interior but little is known. It is called a *desert*, and, from what I saw of it, sterility may be its prominent characteristic; but where there is so much water, there must be some *oasis*. The great river, and the great lake, reported, may not be equal to the report; but where there is so much snow, there must be streams; and where there is no outlet, there must be lakes to hold the accumulated waters, or sands

to swallow them up. In this eastern part of the Basin, containing Sevier, Utah, and the Great Salt lakes, and the rivers and creeks falling into them, we know there is good soil and good grass, adapted to civilized settlements. In the western part, on Salmon-trout river, and some other streams, the same remark may be made.

The contents of this Great Basin are yet to be examined. That it is peopled, we know; but miserably and sparsely. From all that I heard and saw, I should say that humanity here appeared in its lowest form, and in its most elementary state. Dispersed in single families; without fire-arms; eating seeds and insects; digging roots (and hence their name)—such is the condition of the greater part. Others are a degree higher, and live in communities upon some lake or river that supplies fish, and from which they repulse the miserable *Digger*. The rabbit is the largest animal known in this desert; its flesh affords a little meat; and their bag-like covering is made of its skins. The wild sage is their only wood, and here it is of extraordinary size—sometimes a foot in diameter, and six or eight feet high. It serves for fuel, for building material, for shelter to the rabbits, and for some sort of covering for the feet and legs in cold weather. Such are the accounts of the inhabitants and productions of the Great Basin; and which, though imperfect, must have some foundation, and excite our desire to know the whole.

The whole idea of such a desert, and such a people, is a novelty in our country, and excites Asiatic, not American ideas. Interior basins, with their own systems of lakes and rivers, and often sterile, are common enough in Asia; people still in the elementary state of families, living in deserts, with no other occupation than the mere animal search for food, may still be seen in that ancient quarter of the globe; but in America such things are new and strange, unknown and unsuspected, and discredited when related. But I flatter myself that what is discovered, though not enough to satisfy curiosity, is sufficient to excite it, and that subsequent explorations will complete what has been commenced.

This account of the Great Basin, it will be remembered, belongs to the Alta California, and has no application to Oregon, whose capabilities may justify a separate remark. Referring to my journal for particular descriptions, and for sectional boundaries between good and bad districts, I can only say, in general and comparative terms, that, in that branch of agriculture which implies the cultivation of grains and staple crops, it would be inferior to the Atlantic states, though many parts are superior for wheat; while in the rearing of flocks and herds it would claim a high place. Its grazing capabilities are great; and even in the indigenous grass now there, an element of individual and national wealth may be found. In fact, the valuable grasses begin within 150 miles of the Missouri frontier, and extend to the Pacific Ocean.

East of the Rocky Mountains, it is the short curly grass, on which the buffalo delight to feed, (whence its name of buffalo,) and which is still good when dry and apparently dead. West of those mountains it is a larger growth, in clusters, and hence called bunch grass, and which has a second or fall growth. Plains and mountains both exhibit them; and I have seen good pasturage at an elevation of 10,000 feet. In this spontaneous product, the trading or travelling caravans can find subsistence for their animals; and in military operations any number of cavalry may be moved, and any number of cattle may be driven; and thus men and horses be supported on long expeditions, and even in winter, in the sheltered situations.

Commercially, the value of the Oregon country must be great, washed as it is by the North Pacific Ocean—fronting Asia—producing many of the elements of commerce—mild and healthy in its climate—and becoming, as it naturally will, a thoroughfare for the East India and China trade.

Turning our faces once more eastward, on the morning of the 27th we left the Utah lake, and continued for two days to ascend the Spanish fork, which is dispersed in numerous branches among very rugged mountains, which afford few passes, and render a familiar acquaintance with them necessary to the traveller. The stream can scarcely be said to have a valley, the mountains rising often abruptly from the water's edge; but a good trail facilitated our travelling, and there were frequent bottoms, covered with excellent grass. The streams are prettily and variously wooded; and everywhere the mountain shows grass and timber.

At our encampment on the evening of the 28th, near the head of one of the branches we had ascended, strata of bituminous limestone were displayed in an escarpment on the river bluffs, in which were contained a variety of fossil shells of new species.

It will be remembered, that in crossing this ridge about 120 miles to the northward in August last, strata of fossiliferous rock were discovered, which have been referred to the oolitic period; it is probable that these rocks also belong to the same formation.

A few miles from this encampment we reached the head of the stream; and crossing, by an open and easy pass, the dividing ridge which separates the waters of the Great Basin from those of the Colorado, we reached the head branches of one of its larger tributaries, which, from the decided colour of its water, has received the name of White river. The snows of the mountains were now beginning to melt, and all the little rivulets were running by in rivers, and rapidly becoming difficult to ford. Continuing a few miles up a branch of White river, we crossed a dividing ridge between its waters and those of the *Uintah*. The approach to the pass, which is the best known to Mr. Walker, was somewhat difficult for packs, and impracticable for wagons—all the streams being shut in by narrow ravines, and the narrow trail along the

steep hill sides allowing the passage of only one animal at a time. From the summit we had a fine view of the snowy Bear river range; and there were still remaining beds of snow on the cold sides of the hills near the pass. We descended by a narrow ravine, in which was rapidly gathered a little branch of the Uintah, and halted to noon about 1,500 feet below the pass, at an elevation, by the boiling-point, of 6,900 feet above the sea.

The next day we descended along the river, and about noon reached a point where three forks came together. Fording one of these with some difficulty, we continued up the middle branch, which, from the colour of its waters, is named the Red river. The few passes, and extremely rugged nature of the country, give to it great strength, and secure the Utahs from the intrusion of their enemies. Crossing in the afternoon a somewhat broken highland, covered in places with fine grasses, and with cedar on the hill sides, we encamped at evening on another tributary to the *Uintah*, called the *Duchesne* fork. The water was very clear, the stream not being yet swollen by the melting snows, and we forded it without any difficulty. It is a considerable branch, being spread out by islands, the largest arm being about a hundred feet wide; and the name it bears is probably that of some old French trapper.

The next day we continued down the river, which we were twice obliged to cross; and, the water having risen during the night, it was almost everywhere too deep to be forded. After travelling about 16 miles, we encamped again on the left bank.

I obtained here an occultation of δ *Scorpii* at the dark limb of the moon, which gives for the longitude of the place 112° 18′ 30″, and the latitude 40° 18′ 53″.

June 1.—We left to-day the Duchesne fork, and, after traversing a broken country for about 16 miles, arrived at noon at another considerable branch, a river of great velocity, to which the trappers have improperly given the name of Lake fork. The name applied to it by the Indians signifies great swiftness, and is the same which they use to express the speed of a racehorse. It is spread out in various channels over several hundred yards, and is everywhere too deep and swift to be forded. At this season of the year there is an uninterrupted noise from the large rocks which are rolled along the bed. After infinite difficulty, and the delay of a day, we succeeded in getting the stream bridged, and got over with the loss of one of our animals. Continuing our route across a broken country, of which the higher parts were rocky, and timbered with cedar, and the lower parts covered with good grass, we reached, on the afternoon of the 3rd, the Uintah Fort, a trading post belonging to Mr. A. Roubideau, on the principal fork of the Uintah River. We found the stream nearly as rapid and difficult as the Lake fork, divided into several channels, which were too broad to be bridged. With the aid of guides from the

fort, we succeeded, with very great difficulty, in fording it; and encamped near the fort, which is situated a short distance above the junction of two branches which make the river.

By an immersion of the first satellite (agreeing well with the result of the occultation observed at the Duchesne fork), the longitude of the post is 109° 56′ 42″, the latitude 40° 27′ 45″.

It has a motley garrison of Canadian and Spanish *engagés* and hunters, with the usual number of Indian women. We obtained a small supply of sugar and coffee, with some dried meat and a cow, which was a very acceptable change from the *pinoli* on which we had subsisted for some weeks past. I strengthened my party at this place by the addition of Auguste Archambeau, an excellent voyageur and hunter, belonging to the class of Carson and Godey.

On the morning of the 5th we left the fort * and the Uintah river, and continued our road over a broken country, which afforded, however, a rich addition to our botanical collection; and, after a march of 25 miles, were again checked by another stream, called Ashley's fork, where we were detained until noon of the next day.

An immersion of the second satellite gave for this place a longitude of 109° 27′ 07″, the latitude by observation being 40° 28′ 07″.

In the afternoon of the next day we succeeded in finding a ford; and, after travelling 15 miles, encamped high up on the mountain side, where we found excellent and abundant grass, which we had not hitherto seen. A new species of *elymus*, which had a purgative and ~~weakening~~ effect upon the animals, had occurred abundantly since leaving the fort. From this point, by observation 7,300 feet above the sea, we had a view of the Colorado below, shut up amongst rugged mountains, and which is the recipient of all the streams we had been crossing since we passed the rim of the Great Basin at the head of the Spanish fork.

On the 7th we had a pleasant but long day's journey, through beautiful little valleys and a high mountain country, arriving about evening at the verge of a steep and rocky ravine, by which we descended to "*Brown's Hole*." This is a place well known to trappers in the country, where the cañons through which the Colorado runs expand into a narrow but pretty valley, about 16 miles in length. The river was several hundred yards in breadth, swollen to the top of its banks, near to which it was in many places 15 to 20 feet deep. We repaired a skin boat which had been purchased at the fort, and, after a delay of a day, reached the opposite banks with much less delay than had been encountered on the Uintah waters. According to information, the lower

* This fort was attacked and taken by a band of the Utah Indians since we passed it; and the men of the garrison killed, and the women carried off. Mr. Roubideau, a trader of St. Louis, was absent, and so escaped the fate of the rest.

end of the valley is the most eastern part of the Colorado; and the latitude of our encampment, which was opposite to the remains of an old fort on the left bank of the river, was 40° 46′ 27″, and, by observation, the elevation above the sea 5,150 feet. The bearing to the entrance of the cañon below was south 20° east. Here the river enters between lofty precipices of red rock, and the country below is said to assume a very rugged character; the river and its affluents passing through cañons which forbid all access to the water. This sheltered little valley was formerly a favourite wintering-ground for the trappers, as it afforded them sufficient pasturage for their animals, and the surrounding mountains are well stocked with game.

We surprised a flock of mountain sheep as we descended to the river, and our hunters killed several. The bottoms of a small stream called the Vermillion creek, which enters the left bank of the river a short distance below our encampment, were covered abundantly with *F. vermicularis*, and other chenopodiaceous shrubs. From the lower end of Brown's hole we issued by a remarkably dry cañon, 50 or 60 yards wide, and rising, as we advanced, to the height of 600 or 800 feet. Issuing from this, and crossing a small green valley, we entered another rent of the same nature, still narrower than the other, the rocks on either side rising in nearly vertical precipices perhaps 1,500 feet in height. These places are mentioned, to give some idea of the country lower down on the Colorado, to which the trappers usually apply the name of a cañon country. The cañon opened upon a pond of water, where we halted to noon. Several flocks of mountain sheep were here among the rocks, which rung with volleys of small arms. In the afternoon we entered upon an ugly, barren, and broken country, corresponding well with that we had traversed a few degrees north, on the same side of the Colorado. The Vermillion creek afforded us brackish water and indifferent grass for the night.

A few scattered cedar trees were the only improvement of the country on the following day; and at a little spring of bad water, where we halted to noon, we had not even the shelter of these from the hot rays of the sun. At night we encamped in a fine grove of cotton-wood trees, on the banks of the Elk Head river, the principal fork of the Yampah river, commonly called by the trappers the Bear river. We made here a very strong *corál* and fort, and formed the camp into vigilant guards. The country we were now entering is constantly infested by war-parties of the Sioux and other Indians, and is considered among the most dangerous war-grounds in the Rocky Mountains; parties of whites having been repeatedly defeated on this river.

On the 11th we continued up the river, which is a considerable stream, 50 to 100 yards in width, handsomely and continuously wooded with groves of the narrow-leaved cotton-wood (*populus*

angustifolia); with these were thickets of willow and *grain du bœuf*. The characteristic plant along the river is *F. vermicularis*, which generally covers the bottoms; mingled with this are saline shrubs and artemisia. The new variety of grass which we had seen on leaving the Uintah fort had now disappeared. The country on either side was sandy and poor, scantily wooded with cedars, but the river bottoms afforded good pasture. Three antelopes were killed in the afternoon, and we encamped a little below a branch of the river, called St. Vrain's fork. A few miles above was the fort at which Frapp's party had been defeated two years since; and we passed during the day a place where Carson had been fired upon so close that one of the men had five bullets through his body. Leaving this river the next morning, we took our way across the hills, where every hollow had a spring of running water with good grass.

Yesterday and to-day we have had before our eyes the high mountains which divide the Pacific from the Mississippi waters; and entering here among the lower spurs, or foot hills of the range, the face of the country began to improve with a magical rapidity. Not only the river bottoms, but the hills were covered with grass; and among the usual varied flora of the mountain region, these were occasionally blue with the showy bloom of a *lupinus*. In the course of the morning we had the first glad view of buffalo, and welcomed the appearance of two old bulls with as much joy as if they had been messengers from home; and when we descended to noon on St. Vrain's fork, an affluent of Green river, the hunters brought in mountain sheep and the meat of two fat bulls. Fresh entrails in the river showed us that there were Indians above; and at evening, judging it unsafe to encamp in the bottoms, which were wooded only with willow thickets, we ascended to the spurs above, and forted strongly in a small aspen grove, near to which was a spring of cold water. The hunters killed two fine cows near the camp. A band of elk broke out of a neighbouring grove; antelopes were running over the hills, and on the opposite river plains, herds of buffalo were raising clouds of dust. The country here appeared more variously stocked with game than any part of the Rocky Mountains we had visited; and its abundance is owing to the excellent pasturage, and its dangerous character as a war-ground.

June 13.—There was snow here near our mountain camp, and the morning was beautiful and cool. Leaving St. Vrain's fork, we took our way directly towards the summit of the dividing ridge. The bottoms of the streams and level places were wooded with aspens; and as we neared the summit we entered again the piney region. We had a delightful morning's ride, the ground affording us an excellent bridle-path, and reached the summit towards midday, at an elevation of 8,000 feet. With joy and exultation we saw ourselves once more on the top of the Rocky Mountains, and

beheld a little stream taking its course towards the rising sun. It was an affluent of the Platte, called *Pullam's* fork, and we descended to noon upon it. It is a pretty stream, 20 yards broad, and bears the name of a trapper who, some years since, was killed here by the *Gros Ventre* Indians.

Issuing from the pines in the afternoon, we saw spread out before us the valley of the Platte, with the pass of the Medicine Butte beyond, and some of the Sweet Water mountains; but a smoky haziness in the air entirely obscured the Wind river chain.

We were now about two degrees south of the South Pass, and our course home would have been eastwardly; but that would have taken us over ground already examined, and therefore without the interest which would excite curiosity. Southwardly there were objects worthy to be explored, to wit: the approximation of the head waters of three different rivers—the Platte, the Arkansas, and the Grand River fork of the Rio Colorado of the gulf of California; the Passes at the heads of these rivers, and the three remarkable mountain coves, called Parks, in which they took their rise. One of these Parks was, of course, on the western side of the dividing ridge; and a visit to it would require us once more to cross the summit of the Rocky Mountains to the west, and then to recross to the east; making in all, with the transit we had just accomplished, three crossings of that mountain in this section of its course. But no matter. The coves, the heads of the rivers, the approximation of their waters, the practicability of the mountain passes, and the locality of the THREE PARKS, were all objects of interest, and, although well known to hunters and trappers, were unknown to science and to history. We therefore changed our course, and turned up the valley of the Platte instead of going down it.

We crossed several small affluents, and again made a fortified camp in a grove. The country had now become very beautiful —rich in water, grass, and game; and to these were added the charm of scenery and pleasant weather.

June 14.—Our route this morning lay along the foot of the mountain, over the long low spurs which sloped gradually down to the river, forming the broad valley of the Platte. The country is beautifully watered. In almost every hollow ran a clear, cool mountain stream; and in the course of the morning we crossed 17, several of them being large creeks, 40 to 50 feet wide, with a swift current, and tolerably deep. These were variously wooded with groves of aspen and cotton-wood, with willow, cherry, and other shrubby trees. Buffalo, antelope, and elk were frequent during the day; and, in their abundance, the latter sometimes reminded us slightly of the Sacramento valley.

We halted at noon on Potter's fork—a clear and swift stream, 40 yards wide, and in many places deep enough to swim our animals; and in the evening encamped on a pretty stream, where

there were several beaver dams, and many trees recently cut down by the beaver. We gave to this the name of Beaver Dam creek, as now they are becoming sufficiently rare to distinguish by their name the streams on which they are found. In this mountain they occurred more abundantly than elsewhere in all our journey, in which their vestiges had been scarcely seen.

The next day we continued our journey up the valley, the country presenting much the same appearance, except that the grass was more scanty on the ridges, over which was spread a scrubby growth of sage; but still the bottoms of the creeks were broad, and afforded good pasture grounds. We had an animated chase after a grizzly bear this morning, which we tried to lasso. Fuentes threw the lasso upon his neck, but it slipped off, and he escaped into the dense thickets of the creek, into which we did not like to venture. Our course in the afternoon brought us to the main Platte river, here a handsome stream, with a uniform breadth of 70 yards, except where widened by frequent islands. It was apparently deep, with a moderate current, and wooded with groves of large willow.

The valley narrowed as we ascended, and presently degenerated into a gorge, through which the river passed as through a gate. We entered it, and found ourselves in the New Park—a beautiful circular valley of 30 miles' diameter, walled in all round with snowy mountains, rich with water and with grass, fringed with pine on the mountain sides below the snow line, and a paradise to all grazing animals. The Indian name for it signifies "*cow lodge*," of which our own may be considered a translation; the enclosure, the grass, the water, and the herds of buffalo roaming over it, naturally presenting the idea of a park. We halted for the night just within the gate, and expected, as usual, to see herds of buffalo; but an Arapahoe village had been before us, and not one was to be seen. Latitude of the encampment, 40° 52′ 44″. Elevation by the boiling point, 7,720 feet.

It is from this elevated *cove*, and from the gorges of the surrounding mountains, and some lakes within their bosoms, that the Great Platte river collects its first waters, and assumes its first form; and certainly no river could ask a more beautiful origin.

June 16.—In the morning we pursued our way through the Park, following a principal branch of the Platte, and crossing, among many smaller ones, a bold stream, scarcely fordable, called Lodge Pole fork, and which issues from a lake in the mountains on the right, 10 miles long. In the evening we encamped on a small stream, near the upper end of the Park. Latitude of the camp, 40° 33′ 22″.

June 17.—We continued our way among the waters of the Park, over the foot hills of the bordering mountains, where we found good pasturage, and surprised and killed some buffalo. We fell into a broad and excellent trail, made by buffalo, where

a wagon would pass with ease; and, in the course of the morning, we crossed the summit of the Rocky Mountains, through a pass which was one of the most beautiful we had ever seen. The trail led among the aspens, through open grounds, richly covered with grass, and carried us over an elevation of about 9,000 feet above the level of the sea.

The country appeared to great advantage in the delightful summer weather of the mountains, which we still continued to enjoy. Descending from the pass, we found ourselves again on the western waters; and halted to noon on the edge of another mountain valley, called the Old Park, in which is formed Grand river, one of the principal branches of the Colorado of California. We were now moving with some caution, as, from the trail, we found the Arapahoe village had also passed this way. As we were coming out of their enemy's country, and this was a war ground, we were desirous to avoid them. After a long afternoon's march, we halted at night on a small creek, tributary to a main fork of Grand river, which ran through this portion of the valley. The appearance of the country in the Old Park is interesting, though of a different character from the New; instead of being a comparative plain, it is more or less broken into hills, and surrounded by the high mountains, timbered on the lower parts with quaking asp and pines.

June 18.—Our scouts, who were as usual ahead, made from a *butte* this morning the signal of Indians, and we rode up in time to meet a party of about 30 Arapahoes. They were men and women going into the hills—the men for game, the women for roots; and informed us that the village was encamped a few miles above, on the main fork of Grand river, which passes through the midst of the valley. I made them the usual presents; but they appeared disposed to be unfriendly, and galloped back at speed to the village. Knowing that we had trouble to expect, I descended immediately into the bottoms of Grand river, which were overflowed in places, the river being up, and made the best encampment the ground afforded. We had no time to build a fort, but found an open place among the willows, which was defended by the river on one side, and the overflowed bottoms on the other. We had scarcely made our few preparations, when about 200 of them appeared on the verge of the bottom, mounted, painted, and armed for war. We planted the American flag between us; and a short parley ended in a truce, with something more than the usual amount of presents. About 20 Sioux were with them; one of them an old chief, who had always been friendly to the whites. He informed me that, before coming down, a council had been held at the village, in which the greater part had declared for attacking us; we had come from their enemies, to whom we had doubtless been carrying assistance in arms and ammunition; but his own party, with some few of the

Arapahoes who had seen us the previous year in the plains, opposed it. It will be remembered that it is customary for this people to attack the trading parties which they meet in this region, considering all whom they meet on the western side of the mountains to be their enemies. They deceived me into the belief that I should find a ford at their village, and I could not avoid accompanying them; but put several sloughs between us and their village, and forted strongly on the banks of the river, which was everywhere rapid and deep, and over 100 yards in breadth. The camp was generally crowded with Indians; and though the baggage was carefully watched and covered, a number of things were stolen.

The next morning we descended the river for about eight miles, and halted a short distance above a cañon, through which Grand river issues from the Park. Here it was smooth and deep, 150 yards in breadth, and its elevation at this point 6,700 feet. A frame for the boat being very soon made, our baggage was ferried across; the horses, in the mean time, swimming over. A southern fork of Grand river here makes its junction, nearly opposite to the branch by which we had entered the valley, and up this we continued for about eight miles in the afternoon, and encamped in a bottom on the left bank, which afforded good grass. At our encampment it was 70 to 90 yards in breadth, sometimes widened by islands, and separated into several channels, with a very swift current and bed of rolled rocks.

On the 20th we travelled up the left bank, with the prospect of a bad road, the trail here taking the opposite side; but the stream was up, and nowhere fordable. A piney ridge of mountains, with bare rocky peaks, was on our right all the day, and a snowy mountain appeared ahead. We crossed many foaming torrents with rocky beds, rushing down to the river; and in the evening made a strong fort in an aspen grove. The valley had already become very narrow, shut up more closely in densely timbered mountains, the pines sweeping down the verge of the bottoms. The *coq de prairie* (*tetrao europhasianus*) was occasionally seen among the sage.

We saw to-day the returning trail of an Arapahoe party which had been sent from the village to look for Utahs in the Bayou Salade (South Park); and it being probable that they would visit our camp with the desire to return on horseback, we were more than usually on the alert.

Here the river diminished to 35 yards, and, notwithstanding the number of affluents we had crossed, was still a large stream, dashing swiftly by, with a great continuous fall, and not yet fordable. We had a delightful ride along a good trail among the fragrant pines; and the appearance of buffalo in great numbers indicated that there were Indians in the Bayou Salade (South Park), by whom they were driven out. We halted to noon under

the shade of the pines, and the weather was most delightful. The country was literally alive with buffalo; and the continued echo of the hunters' rifles on the other side of the river for a moment made me uneasy, thinking perhaps they were engaged with Indians; but in a short time they came into camp with the meat of seven fat cows.

During the earlier part of the day's ride, the river had been merely a narrow ravine between high piney mountains, backed on both sides, but particularly on the west, by a line of snowy ridges; but, after several hours' ride, the stream opened out into a valley with pleasant bottoms. In the afternoon the river forked into three apparently equal streams; broad buffalo trails leading up the left hand, and the middle branch, indicating good passes over the mountains; but up the right-hand branch, (which, in the object of descending from the mountain by the main head of the Arkansas, I was most desirous to follow,) there was no sign of a buffalo trace. Apprehending from this reason, and the character of the mountains, which are known to be extremely rugged, that the right-hand branch led to no pass, I proceeded up the middle branch, which formed a flat valley bottom between timbered ridges on the left and snowy mountains on the right, terminating in large *buttes* of naked rock. The trail was good, and the country interesting; and at nightfall we encamped in an open place among the pines, where we built a strong fort. The mountains exhibit their usual varied growth of flowers, and at this place I noticed, among others, *thermopsis montana*, whose bright yellow colour makes it a showy plant. This has been a characteristic in many parts of the country since reaching the Uintah waters. With fields of iris were *aquilegia cærulea*, violets, esparcette, and strawberries.

At dark, we perceived a fire in the edge of the pines, on the opposite side of the valley. We had evidently not been discovered, and, at the report of a gun, and the blaze of fresh fuel which was heaped on our fires, those of the strangers were instantly extinguished. In the morning, they were found to be a party of six trappers, who had ventured out among the mountains after beaver. They informed us that two of the number with which they started had been already killed by the Indians, one of them but a few days since, by the Arapahoes we had lately seen, who had found him alone at a camp on this river, and carried off his traps and animals. As they were desirous to join us, the hunters returned with them to their encampment, and we continued up the valley, in which the stream rapidly diminished, breaking into small tributaries, every hollow affording water. At our noon halt, the hunters joined us with the trappers. While preparing to start from their encampment, they found themselves suddenly surrounded by a party of Arapahoes, who informed them that their scouts had discovered a large Utah village in the Bayou Salade (South Park), and that a large war party, consisting of

almost every man in the village, except those who were too old to go to war, were going over to attack them. The main body had ascended the left fork of the river, which afforded a better pass than the branch we were on; and this party had followed our trail, in order that we might add our force to theirs. Carson informed them that we were too far ahead to turn back, but would join them in the bayou; and the Indians went off apparently satisfied. By the temperature of boiling water, our elevation here was 10,430 feet; and still the pine forest continued, and grass was good.

In the afternoon we continued our road, occasionally through open pines, with a very gradual ascent. We surprised a herd of buffalo, enjoying the shade at a small lake among the pines; and they made the dry branches crack, as they broke through the woods. In a ride of about three quarters of an hour, and having ascended perhaps 800 feet, we reached the SUMMIT OF THE DIVIDING RIDGE, which would thus have an estimated height of 11,200 feet. Here the river spreads itself into small branches and springs, heading nearly in the summit of the ridge, which is very narrow. Immediately below us was a green valley, through which ran a stream; and a short distance opposite rose snowy mountains, whose summits were formed into peaks of naked rock. We soon afterwards satisfied ourselves that immediately beyond these mountains was the main branch of the Arkansas river, most probably heading directly with the little stream below us, which gathered its waters in the snowy mountains near by. Descriptions of the rugged character of the mountains around the head of the Arkansas, which their appearance amply justified, deterred me from making any attempt to reach it, which would have involved a greater length of time than now remained at my disposal.

In about a quarter of an hour we descended from the summit of the pass into the creek below, our road having been very much controlled and interrupted by the pines and springs on the mountain side. Turning up the stream, we encamped on a bottom of good grass near its head, which gathers its waters in the dividing crest of the Rocky Mountains, and, according to the best information we could obtain, separated only by the rocky wall of the ridge from the head of the main Arkansas river. By the observations of the evening, the latitude of our encampment was 39° 20′ 24″, and south of which, therefore, is the head of the Arkansas river. The stream on which we had encamped is the head of either the *Fontaine-qui-bouit*, a branch of the Arkansas, or the remotest head of the south fork of the Platte; as which you will find it laid down on the map. But descending it only through a portion of its course, we have not been able to settle this point satisfactorily.

In the evening, a band of buffalo furnished a little excitement, by charging through the camp.

On the following day, we descended the stream by an excellent buffalo trail, along the open grassy bottom of the river. On our right, the bayou was bordered by a mountainous range, crested with rocky and naked peaks; and below, it had a beautiful park-like character of pretty level prairies, interspersed among low spurs, wooded openly with pine and quaking asp, contrasting well with the denser pines which swept around on the mountain sides. Descending always the valley of the stream, towards noon we descried a mounted party descending the point of a spur, and judging them to be Arapahoes—who, defeated or victorious, were equally dangerous to us, and with whom a fight would be inevitable —we hurried to post ourselves as strongly as possible on some willow islands in the river. We had scarcely halted when they arrived, proving to be a party of Utah women, who told us that on the other side of the ridge their village was fighting with the Arapahoes. As soon as they had given us this information, they filled the air with cries and lamentations, which made us understand that some of their chiefs had been killed.

Extending along the river, directly ahead of us, was a low piney ridge, leaving between it and the stream a small open bottom, on which the Utahs had very injudiciously placed their village, which, according to the women, numbered about 300 warriors. Advancing in the cover of the pines, the Arapahoes, about daylight, charged into the village, driving off a great number of their horses, and killing four men; among them, the principal chief of the village. They drove the horses perhaps a mile beyond the village, to the end of a hollow, where they had previously forted at the edge of the pines. Here the Utahs had instantly attacked them in turn, and, according to the report of the women, were getting rather the best of the day. The women pressed us eagerly to join with their people, and would immediately have provided us with the best horses at the village; but it was not for us to interfere in such a conflict. Neither party were our friends, or under our protection; and each was ready to prey upon us that could. But we could not help feeling an unusual excitement at being within a few hundred yards of a fight, in which 500 men were closely engaged, and hearing the sharp cracks of their rifles. We were in a bad position, and subject to be attacked in it. Either party which we might meet, victorious or defeated, was certain to fall upon us; and, gearing up immediately, we kept close along the pines of the ridge, having it between us and the village, and keeping the scouts on the summit, to give us notice of the approach of Indians. As we passed by the village, which was immediately below us, horsemen were galloping to and fro, and groups of people were gathered around those who were wounded and dead, and who were being brought in from the field. We continued to press on, and, crossing another fork, which came in from the right, after having made 15 miles from

the village, fortified ourselves strongly in the pines, a short distance from the river.

During the afternoon, Pike's Peak had been plainly in view before us, and, from our encampment, bore N. 87° E. by compass. This was a familiar object, and it had for us the face of an old friend. At its foot were the springs, where we had spent a pleasant day in coming out. Near it were the habitations of civilized men; and it overlooked the broad smooth plains, which promised us an easy journey to our home.

The next day we left the river, which continued its course towards Pike's Peak; and taking a south-easterly direction, in about ten miles we crossed a gentle ridge, and, issuing from the South Park, found ourselves involved among the broken spurs of the mountains which border the great prairie plains. Although broken and extremely rugged, the country was very interesting, being well watered by numerous affluents to the Arkansas river, and covered with grass and a variety of trees. The streams, which, in the upper part of their course, ran through grassy and open hollows, after a few miles all descended into deep and impracticable cañons, through which they found their way to the Arkansas valley. Here the buffalo trails we had followed were dispersed among the hills, or crossed over into the more open valleys of other streams.

During the day our road was fatiguing and difficult, reminding us much, by its steep and rocky character, of our travelling the year before among the Wind river mountains; but always at night we found some grassy bottom, which afforded us a pleasant camp. In the deep seclusion of these little streams, we found always an abundant pasturage, and a wild luxuriance of plants and trees. Aspens and pines were the prevailing timber; on the creeks, oak was frequent; but the narrow-leaved cotton-wood (*populus angustifolia*), of unusually large size, and seven or eight feet in circumference, was the principal tree. With these were mingled a variety of shrubby trees, which aided to make the ravines almost impenetrable.

After several days' laborious travelling, we succeeded in extricating ourselves from the mountains, and on the morning of the 28th encamped immediately at their foot, on a handsome tributary to the Arkansas river. In the afternoon we descended the stream, winding our way along the bottoms, which were densely wooded with oak, and in the evening encamped near the main river. Continuing the next day our road along the Arkansas, and meeting on the way a war party of Arapahoe Indians, (who had recently been committing some outrages at Bent's fort, killing stock and driving off horses,) we arrived before sunset at the Pueblo, near the mouth of the *Fontaine-qui-bouit* river, where we had the pleasure to find a number of our old acquaintances. The little settlement appeared in a thriving condition; and in the in-

terval of our absence another had been established on the river, some 30 miles above.

June 30.—Our cavalcade moved rapidly down the Arkansas, along the broad road which follows the river, and on the 1st of July we arrived at Bent's fort, about 70 miles below the mouth of the *Fontaine-qui-bouit.* As we emerged into view from the groves on the river, we were saluted with a display of the national flag and repeated discharges from the guns of the fort, where we were received by Mr. George Bent with a cordial welcome and a friendly hospitality, in the enjoyment of which we spent several very agreeable days. We were now in the region where our mountaineers were accustomed to live; and all the dangers and difficulties of the road being considered past, four of them, including Carson and Walker, remained at the fort.

On the 5th we resumed our journey down the Arkansas, travelling along a broad wagon road, and encamped about 20 miles below the fort. On the way we met a very large village of Sioux and Cheyenne Indians, who, with the Arapahoes, were returning from the crossing of the Arkansas, where they had been to meet the Kioway and Camanche Indians. A few days previous they had massacred a party of fifteen Delawares, whom they had discovered in a fort on the Smoky Hill river, losing in the affair several of their own people. They were desirous that we should bear a pacific message to the Delawares on the frontier, from whom they expected retaliation; and we passed through them without any difficulty or delay. Dispersed over the plain in scattered bodies of horsemen, and family groups of women and children, with dog trains carrying baggage, and long lines of pack horses, their appearance was picturesque and imposing.

Agreeably to your instructions, which required me to complete, as far as practicable, our examinations of the Kansas, I left at this encampment the Arkansas river, taking a north-easterly direction across the elevated dividing grounds which separate that river from the waters of the Platte. On the 7th we crossed a large stream, about 40 yards wide, and one or two feet deep, flowing with a lively current on a sandy bed. The discoloured and muddy appearance of the water indicated that it proceeded from recent rains; and we are inclined to consider this a branch of the Smoky Hill river, although, possibly, it may be the Pawnee fork of the Arkansas. Beyond this stream we travelled over high and level prairies, halting at small ponds and holes of water, and using for our fires the *bois de vache,* the country being without timber. On the evening of the 8th we encamped in a cotton-wood grove, on the banks of a sandy stream bed, where there was water in holes sufficient for the camp. Here several hollows, or dry creeks with sandy beds, met together, forming the head of a stream which afterwards proved to be the Smoky Hill fork of the Kansas river.

The next morning, as we were leaving our encampment, a number of Arapahoe Indians were discovered. They belonged to a war party which had scattered over the prairie in returning from an expedition against the Pawnees.

As we travelled down the valley, water gathered rapidly in the sandy bed from many little tributaries; and at evening it had become a handsome stream, 50 to 80 feet in width, with a lively current in small channels, the water being principally dispersed among quicksands.

Gradually enlarging, in a few days' march it became a river 80 yards in breadth, wooded with occasional groves of cotton-wood. Our road was generally over level uplands bordering the river, which were closely covered with a sward of buffalo grass.

On the 10th we entered again the buffalo range, where we had found these animals so abundant on our outward journey, and halted for a day among numerous herds, in order to make a provision of meat sufficient to carry us to the frontier.

A few days afterwards, we encamped, in a pleasant evening, on a high river prairie, the stream being less than a 100 yards broad. During the night we had a succession of thunder storms, with heavy and continuous rain, and towards morning the water suddenly burst over the banks, flooding the bottoms, and becoming a large river, 500 or 600 yards in breadth. The darkness of the night and incessant rain had concealed from the guard the rise of the water; and the river broke into the camp so suddenly, that the baggage was instantly covered, and all our perishable collections almost entirely ruined, and the hard labour of many months destroyed in a moment.

On the 17th we discovered a large village of Indians encamped at the mouth of a handsomely wooded stream on the right bank of the river. Readily inferring, from the nature of the encampment, that they were Pawnee Indians, and confidently expecting good treatment from a people who receive regularly an annuity from the Government, we proceeded directly to the village, where we found assembled nearly all the Pawnee tribe, who were now returning from the crossing of the Arkansas, where they had met the Kioway and Camanche Indians. We were received by them with the unfriendly rudeness and characteristic insolence which they never fail to display, whenever they find an occasion for doing so with impunity. The little that remained of our goods was distributed among them, but proved entirely insufficient to satisfy their greedy rapacity; and, after some delay, and considerable difficulty, we succeeded in extricating ourselves from the village, and encamped on the river about 15 miles below.*

* In a recent report to the department, from Major Wharton, who visited the Pawnee villages with a military force some months afterwards, it is stated that the Indians had intended to attack our party during the night we remained at this encampment, but were prevented by the interposition of the Pawnee Loups.

The country through which we had been travelling since leaving the Arkansas river, for a distance of 260 miles, presented to the eye only a succession of far-stretching green prairies, covered with the unbroken verdure of the buffalo grass, and sparingly wooded along the streams with straggling trees and occasional groves of cotton-wood; but here the country began perceptibly to change its character, becoming a more fertile, wooded, and beautiful region, covered with a profusion of grasses, and watered with innumerable little streams, which were wooded with oak, large elms, and the usual varieties of timber common to the lower course of the Kansas river.

As we advanced, the country steadily improved, gradually assimilating itself in appearance to the north-western part of the State of Missouri. The beautiful sward of the buffalo grass, which is regarded as the best and most nutritious found on the prairies, appeared now only in patches, being replaced by a longer and coarser grass, which covered the face of the country luxuriantly. The difference in the character of the grasses became suddenly evident in the weakened condition of our animals, which began sensibly to fail as soon as we quitted the buffalo grass.

The river preserved a uniform breadth of 80 or a 100 yards, with broad bottoms continuously timbered with large cotton-wood trees, among which were interspersed a few other varieties.

While engaged in crossing one of the numerous creeks which frequently impeded and checked our way, sometimes obliging us to ascend them for several miles, one of the people (Alexis Ayot) was shot through the leg by the accidental discharge of a rifle—a mortifying and painful mischance, to be crippled for life by an accident, after having nearly accomplished in safety a long and eventful journey. He was a young man of remarkably good and cheerful temper, and had been among the useful and efficient men of the party.

After having travelled directly along its banks for 290 miles, we left the river, where it bore suddenly off in a north-westerly direction, towards its junction with the Republican fork of the Kansas, distant about 60 miles; and, continuing our easterly course, in about 20 miles we entered the wagon road from Santa Fé to Independence, and on the last day of July encamped again at the little town of Kansas, on the banks of the Missouri river.

During our protracted absence of 14 months, in the course of which we had necessarily been exposed to great varieties of weather and of climate, no one case of sickness had ever occurred among us.

Here ended our land journey; and the day following our arrival, we found ourselves on board a steam-boat rapidly gliding down the broad Missouri. Our travel-worn animals had not been sold and dispersed over the country to renewed labour, but were placed

at good pasturage on the frontier, and are now ready to do their part in the coming expedition.

On the 6th of August we arrived at St. Louis, where the party was finally disbanded; a great number of the men having their homes in the neighbourhood.

Andreas Fuentes also remained here, having readily found employment for the winter, and is one of the men engaged to accompany me the present year.

Pablo Hernandez remains in the family of Senator Benton, where he is well taken care of, and conciliates good will by his docility, intelligence, and amiability. General Almonte, the Mexican minister at Washington, to whom he was of course made known, kindly offered to take charge of him, and to carry him back to Mexico; but the boy preferred to remain where he was until he got an education, for which he shows equal ardour and aptitude.

Our Chinook Indian had his wish to see the whites fully gratified. He accompanied me to Washington, and, after remaining several months at the Columbia college, was sent by the Indian department to Philadelphia, where, among other things, he learned to read and write well, and speak the English language with some fluency.

He will accompany me in a few days to the frontier of Missouri, whence he will be sent with some one of the emigrant companies to the village at the Dalles of the Columbia.

Very respectfully, your obedient servant,

J. C. FREMONT,

Bt. Capt. Topl. Engineers.