

themselves until we had passed, now commenced whooping far below us, and we could see several of them following our trail. After much difficulty in urging our animals forward, and great fatigue to ourselves and them, we reached the summit of the ridge. Here we halted to take breath. Several of the Indians, whose whoops we had heard, came up to us. They were naked, and the most emaciated and wretched human objects I had ever seen. We shook hands, however, and greeted them kindly. The descent on the western side of the mountain, although steep, is not difficult, there being but few obstructions. Four miles from the summit brought us to a gentle slope, and to a faint stream which flows from the hills and sinks in the sands just below. Here we encamped for the day. Near us, on the slope, there is a grove of small cedars, the deep verdure of which is some relief to the brown and dead aspect of vegetable nature surrounding us. Distance 15 miles.

August 2.—Morning clear, with a soft breeze from the south. We were visited early by three miserable Digger Indians, calling themselves Soshonees. They were naked, with the exception of a few filthy, ragged skins, fastened around their loins. They brought with them a mixture composed of parched sunflower seed and grasshoppers, which they wished to exchange with us for some articles we possessed. We declined trading with them. One of them signified, that he knew where there was water over the next ridge of mountains. Water at the western base of the next range would diminish the long march without this necessary element, over the great Salt Plain, some ten or twelve miles. For a compensation in shirts and pantaloons, he consented to accompany and guide us to the water; but when we started, he declined his engagement.

Descending into the plain or valley before us, we took a north-west course across it, striking Capt. Fremont's trail of last year after we had commenced the ascent of the slope on the western side. The breadth of this valley at this point, from the base of one range of mountains to the other, is about twenty miles. Large portion of it are covered with a saline efflorescence of a snowy whiteness. The only vegetation is the wild sage; and

this is parched and shrivelled by the extreme drought. Not a solitary flower or green plant has exhibited itself. In our march we crossed and passed several deep ravines and chasms, plowed by the waters from the mountains during the melting of the snows, or hollowed out by the action of the winds. Not a living object, animal, reptile, or insect, has been seen during our day's march.

We encamped at two o'clock, P. M. There are a few dwarf cedars in our vicinity, and scattered bunches of dead grass. In a ravine near us the sand is moist; and by making an excavation, we obtained a scant supply of water, impregnated with salt and sulphur. A dense smoky vapor fills the valley and conceals the summits of the distant mountains. The sun shining through this, dispenses a lurid light, coloring the brown and barren desert with a more dismal and gloomy hue. As soon as our afternoon meal had been prepared and discussed, we commenced preparations for the march over the Salt Desert to-morrow, which employment occupied us until a late hour of the night. Distance 20 miles.

CHAPTER XIII.

March over the great Salt Desert—Preparations—Singular illusion—Volcanic debris—Distant view of the great Salt Plain—Utter desolation—The mirage—Gigantic phantoms—Fata Morgana—Spectral army—Tempest on the Salt Plain—Clouds of salt—Instinct of mules—Mule-race—Excessive thirst—Arrival at oasis, and spring—Buchanan's well.

AUGUST 3.—I rose from my bivouac this morning at half-past one o'clock. The moon appearing like a ball of fire, and shining with a dim and baleful light, seemed struggling downwards through the thick bank of smoky vapor that overhung and curtained the high ridge of mountains to the west of us. This ridge, stretching far to the north and the south as the eye can reach, forms the western wall (if I may so call it) of the desert.

valley we had crossed yesterday, and is composed of rugged, barren peaks of dark basaltic rock, sometimes exhibiting misshapen outlines; at others, towering upwards, and displaying a variety of architectural forms, representing domes, spires, and turreted fortifications.

Our encampment was on the slope of the mountain; and the valley lay spread out at our feet, illuminated sufficiently by the red glare of the moon, and the more pallid effulgence of the stars, to display imperfectly its broken and frightful barrenness, and its solemn desolation. No life, except in the little oasis occupied by our camp, and dampened by the sluggish spring, by excavating which with our hands we had obtained impure water sufficient to quench our own and our animals' thirst, existed as far as the eye could penetrate over mountain and plain. There was no voice of animal, no hum of insect, disturbing the tomb-like solemnity. All was silence and death. The atmosphere, chill and frosty, seemed to sympathize with this sepulchral stillness. No wailing or whispering sounds sighed through the chasms of the mountains, or over the gulfy and waterless ravines of the valley. No rustling zephyr swept over the scant dead grass, or disturbed the crumbling leaves of the gnarled and stunted cedars, which seemed to draw a precarious existence from the small patch of damp earth surrounding us. Like the other elements sustaining animal and vegetable life, the winds seemed stagnant and paralyzed by the universal dearth around. I contemplated this scene of dismal and oppressive solitude until the moon sunk behind the mountain, and object after object became shrouded in its shadow.

Rousing Mr. Jacob, who slept soundly, and after him the other members of our small party, (nine in number,) we commenced our preparations for the long and much-dreaded march over the great Salt Desert. Mr. Hudspeth, the gentleman who had kindly conducted us thus far from Fort Bridger as our pilot, was to leave us at this point, for the purpose of exploring a route for the emigrant wagons farther south. He was accompanied by three gentlemen, Messrs. Ferguson, Kirkwood, and Minter. Consequently, from this time forward we are without

a guide, or any reliable index to our destination, except our course westward, until we strike Mary's river and the emigrant trail to California, which runs parallel with it, some two hundred miles distant. The march across the Salt Plain, without water or grass, was variously estimated by those with whom I conversed at Fort Bridger, at from sixty to eighty miles. Captain Walker, an old and experienced mountaineer, who had crossed it at this point as the guide of Captain Fremont and his party, estimated the distance at seventy-five miles, and we found the estimate to be nearly correct.

We gathered the dead limbs of the cedars which had been cut down by Captain Fremont's party when encamped here last autumn, and igniting them, they gave us a good light during the preparation and discussion of our frugal breakfast; which consisted to-day of bread and coffee, bacon being interdicted in consequence of its incitement to thirst—a sensation which at this time we desired to avoid, as we felt uncertain how long it might be before we should be able to gratify the unpleasant cravings it produces.

Each individual of the party busied himself around the blazing fires in making his various little but important arrangements, until the first gray of the dawn manifested itself above the vapory bank overhanging the eastern ridge of mountains, when the word to saddle up being given, the mules were brought to the camp-fires, and every arm and muscle of the party was actively employed in the business of saddling and packing "with care!"—with unusual care, as a short detention during the day's march to readjust the packs might result in an encampment upon the desert for the coming night, and all its consequent dangers, the death or loss by straying in search of water and grass of our mules, (next to death to us,) not taking into the account our own suffering from thirst, which for the next eighteen or twenty hours we had made up our minds to endure with philosophical fortitude and resignation. A small powder-keg, holding about three or four pints of coffee, which had been emptied of its original contents for the purpose, and filled with that beverage made from the brackish spring near

our camp, was the only vessel we possessed in which we could transport water, and its contents composed our entire liquid refreshment for the march. Instructions were given to Miller, who had charge of this important and precious burden, to husband it with miserly care, and to make an equitable division whenever it should be called into use.

Every thing being ready, Mr. Hudspeth, who accompanied us to the summit of the mountain, led the way. We passed upwards through the *canada* [pronounced kanyeadá] or mountain-gorge, at the mouth of which we had encamped, and by a comparatively easy and smooth ascent reached the summit of the mountain after travelling about six miles. Most of us were shivering with cold, until the sun shone broadly upon us after emerging, by a steep acclivity, from the gorge through which we had passed to the top of the ridge. Here we should have had a view of the mountain at the foot of which our day's journey was to terminate, but for the dense smoke which hung over and filled the plain, shutting from the vision all distant objects.

Bidding farewell to Mr. Hudspeth and the gentleman with him, (Mr. Ferguson,) we commenced the descent of the mountain. We had scarcely parted from Mr. H. when, standing on one of the peaks, he stretched out his long arms, and with a voice and gesture as loud and impressive as he could make them, he called to us and exclaimed—"Now, boys, put spurs to your mules and ride like h—!" The hint was timely given and well meant, but scarcely necessary, as we all had a pretty just appreciation of the trials and hardships before us.

The descent from the mountain on the western side was more difficult than the ascent; but two or three miles, by a winding and precipitous path through some straggling, stunted, and tempest-bowed cedars, brought us to the foot and into the valley, where, after some search, we found a blind trail which we supposed to be that of Captain Fremont, made last year. Our course for the day was nearly due west; and following this trail where it was visible, and did not deviate from our course, and putting our mules into a brisk gait, we crossed a valley some eight or ten miles in width, sparsely covered with wild sage

(*artemisia*) and grease-wood. These shrubs display themselves and maintain a dying existence, a brownish verdure, on the most arid and sterile plains and mountains of the desert, where no other vegetation shows itself. After crossing the valley, we rose a ridge of low volcanic hills, thickly strewn with sharp fragments of basalt and a vitreous gravel resembling junk-bottle glass. We passed over this ridge through a narrow gap, the walls of which are perpendicular, and composed of the same dark scoriaceous material as the debris strewn around. From the western terminus of this ominous-looking passage we had a view of the vast desert-plain before us, which, as far as the eye could penetrate, was of a snowy whiteness, and resembled a scene of wintry frosts and icy desolation. Not a shrub or object of any kind rose above the surface for the eye to rest upon. The hiatus in the animal and vegetable kingdoms was perfect. It was a scene which excited mingled emotions of admiration and apprehension.

Passing a little further on, we stood on the brow of a steep precipice, the descent from the ridge of hills, immediately below and beyond which a narrow valley or depression in the surface of the plain, about five miles in width, displayed so perfectly the wavy and frothy appearance of highly agitated water, that Colonel Russell and myself, who were riding together some distance in advance, both simultaneously exclaimed—"We must have taken a wrong course, and struck another arm or bay of the Great Salt Lake." With deep concern, we were looking around, surveying the face of the country to ascertain what remedy there might be for this formidable obstruction to our progress, when the remainder of our party came up. The difficulty was presented to them; but soon, upon a more calm and scrutinizing inspection, we discovered that what represented so perfectly the "rushing waters" was moveless, and made no sound! The illusion soon became manifest to all of us, and a hearty laugh at those who were the first to be deceived was the consequence; denying to them the merit of being good pilots or pioneers, etc.

Descending the precipitous elevation upon which we stood,

we entered upon the hard smooth plain we had just been surveying with so much doubt and interest, composed of bluish clay, incrusting, in wavy lines, with a white saline substance, the first representing the body of the water, and the last the crests and froth of the mimic waves and surges. Beyond this we crossed what appeared to have been the beds of several small lakes, the waters of which have evaporated, thickly incrusting with salt, and separated from each other by small mound-shaped elevations of a white, sandy, or ashy earth, so imponderous that it has been driven by the action of the winds into these heaps, which are constantly changing their positions and their shapes. Our mules waded through these ashy undulations, sometimes sinking to their knees, at others to their bellies, creating a dust that rose above and hung over us like a dense fog.

From this point on our right and left, diagonally in our front, at an apparent distance of thirty or forty miles, high isolated mountains rise abruptly from the surface of the plain. Those on our left were as white as the snow-like face of the desert, and may be of the same composition, but I am inclined to the belief that they are composed of white clay, or clay and sand intermingled.

The mirage, a beautiful phenomenon I have frequently mentioned as exhibiting itself upon our journey, here displayed its wonderful illusions, in a perfection and with a magnificence surpassing any presentation of the kind I had previously seen. Lakes, dotted with islands and bordered by groves of gently waving timber, whose tranquil and limpid waves reflected their sloping banks and the shady islets in their bosoms, lay spread out before us, inviting us, by their illusory temptations, to stray from our path and enjoy their cooling shades and refreshing waters. These fading away as we advanced, beautiful villas, adorned with edifices, decorated with all the ornaments of suburban architecture, and surrounded by gardens, shaded walks, parks, and stately avenues, would succeed them, renewing the alluring invitation to repose, by enticing the vision with more than Calypsoan enjoyments or Elysian pleasures. These melting from our view as those before, in another place a vast city, with

countless columned edifices of marble whiteness, and studded with domes, spires, and turreted towers, would rise upon the horizon of the plain, astonishing us with its stupendous grandeur and sublime magnificence. But it is in vain to attempt a description of these singular and extraordinary phenomena. Neither prose or poetry, nor the pencil of the artist, can adequately portray their beauties. The whole distant view around, at this point, seemed like the creations of a sublime and gorgeous dream, or the effect of enchantment. I observed that where these appearances were presented in their most varied forms, and with the most vivid distinctness, the surface of the plain was broken, either by chasms hollowed out from the action of the winds, or by undulations formed of the drifting sands.

About eleven o'clock we struck a vast white plain, uniformly level, and utterly destitute of vegetation or any sign that shrub or plant had ever existed above its snow-like surface. Pausing a few moments to rest our mules, and moisten our mouths and throats from the scant supply of beverage in our powder-keg, we entered upon this appalling field of sullen and hoary desolation. It was a scene so entirely new to us, so frightfully forbidding and unearthly in its aspects, that all of us, I believe, though impressed with its sublimity, felt a slight shudder of apprehension. Our mules seemed to sympathize with us in the pervading sentiment, and moved forward with reluctance, several of them stubbornly setting their faces for a countermarch.

For fifteen miles the surface of this plain is so compact, that the feet of our animals, as we hurried them along over it, left but little if any impression for the guidance of the future traveller. It is covered with a hard crust of saline and alkaline substances combined, from one-fourth to one-half of an inch in thickness, beneath which is a stratum of damp whitish sand and clay intermingled. Small fragments of white shelly rock, of an inch and a half in thickness, which appear as if they once composed a crust, but had been broken by the action of the atmosphere or the pressure of water rising from beneath, are strewn over the entire plain and imbedded in the salt and sand.

As we moved onward, a member of our party in the rear

called our attention to a gigantic moving object on our left, at an apparent distance of six or eight miles. It is very difficult to determine distances accurately on these plains. Your estimate is based upon the probable dimensions of the object, and unless you know what the object is, and its probable size, you are liable to great deception. The atmosphere seems frequently to act as a magnifier; so much so, that I have often seen a raven perched upon a low shrub or an undulation of the plain, answering to the outlines of a man on horseback. But this object was so enormously large, considering its apparent distance, and its movement forward, parallel with ours, so distinct, that it greatly excited our wonder and curiosity. Many and various were the conjectures (serious and facetious) of the party, as to what it might be, or portend. Some thought it might be Mr. Hudspeth, who had concluded to follow us; others that it was some cyclopean nondescript animal, lost upon the desert; others that it was the ghost of a mammoth or Megatherium wandering on "this rendezvous of death;" others that it was the d—I mounted on an Ibis, &c. It was the general conclusion, however, that no animal composed of flesh and blood, or even a healthy ghost, could here inhabit. A partner of equal size soon joined it, and for an hour or more they moved along as before, parallel to us, when they disappeared, apparently behind the horizon.

As we proceeded, the plain gradually became softer, and our mules sometimes sunk to their knees in the stiff composition of salt, sand, and clay. The travelling at length became so difficult and fatiguing to our animals that several of the party dismounted, (myself among the number,) and we consequently slackened our hitherto brisk pace into a walk. About two o'clock, p. m., we discovered through the smoky vapor the dim outlines of the mountains in front of us, at the foot of which was to terminate our day's march, if we were so fortunate as to reach it. But still we were a long and weary distance from it, and from the "grass and water" which we expected there to find. A cloud rose from the south soon afterwards, accompanied by several distant peals of thunder, and a furious wind, rushing across the plain and filling the whole atmosphere

around us with the fine particles of salt, and drifting it in heaps like the newly fallen snow. Our eyes became nearly blinded and our throats choked with the saline matter, and the very air we breathed tasted of salt.

During the subsidence of this tempest, there appeared upon the plain one of the most extraordinary phenomena, I dare to assert, ever witnessed. As I have before stated, I had dismounted from my mule, and turning it in with the *caballada*, was walking several rods in front of the party, in order to lead in a direct course to the point of our destination. Diagonally in front, to the right, our course being west, there appeared the figures of a number of men and horses, some fifteen or twenty. Some of these figures were mounted and others dismounted, and appeared to be marching on foot. Their faces and the heads of the horses were turned towards us, and at first they appeared as if they were rushing down upon us. Their apparent distance, judging from the horizon, was from three to five miles. But their size was not correspondent, for they seemed nearly as large as our own bodies, and consequently were of gigantic stature. At the first view I supposed them to be a small party of Indians (probably the Utahs) marching from the opposite side of the plain. But this seemed to me scarcely probable, as no hunting or war party would be likely to take this route. I called to some of our party nearest to me to hasten forward, as there were men in front, coming towards us. Very soon the fifteen or twenty figures were multiplied into three or four hundred, and appeared to be marching forward with the greatest action and speed. I then conjectured that they might be Capt. Fremont and his party with others, from California, returning to the United States by this route, although they seemed to be too numerous even for this. I spoke to Brown, who was nearest to me, and asked him if he noticed the figures of men and horses in front? He answered that he did, and that he had observed the same appearances several times previously, but that they had disappeared, and he believed them to be optical illusions similar to the mirage. It was then, for the first time, so perfect was the deception, that I conjectured the prob-

able fact that these figures were the reflection of our own images by the atmosphere, filled as it was with fine particles of crystallized matter, or by the distant horizon, covered by the same substance. This induced a more minute observation of the phenomenon, in order to detect the deception, if such it were. I noticed a single figure, apparently in front in advance of all the others, and was struck with its likeness to myself. Its motions, too, I thought, were the same as mine. To test the hypothesis above suggested, I wheeled suddenly around, at the same time stretching my arms out to their full length, and turning my face sidewise to notice the movements of this figure. It went through precisely the same motions. I then marched deliberately and with long strides several paces; the figure did the same. To test it more thoroughly, I repeated the experiment, and with the same result. The fact then was clear. But it was more fully verified still, for the whole array of this numerous shadowy host in the course of an hour melted entirely away, and was no more seen. The phenomenon, however, explained and gave the history of the gigantic spectres which appeared and disappeared so mysteriously at an earlier hour of the day. The figures were our own shadows, produced and reproduced by the mirror-like composition impregnating the atmosphere and covering the plain. I cannot here more particularly explain or refer to the subject. But this phantom population, springing out of the ground as it were, and arraying itself before us as we traversed this dreary and heaven-condemned waste, although we were entirely convinced of the cause of the apparition, excited those superstitious emotions so natural to all mankind.

About five o'clock, P. M., we reached and passed, leaving it to our left, a small *butte* rising solitary from the plain. Around this the ground is uneven, and a few scattering shrubs, leafless and without verdure, raised themselves above the white sand and saline matter, which seemed recently to have drifted so as nearly to conceal them. Eight miles brought us to the northern end of a short range of mountains, turning the point of which and bending our course to the left, we gradually came

upon higher ground, composed of compact volcanic gravel. I was here considerably in the rear, having made a detour towards the base of the *butte* and thence towards the centre of the short range of mountains, to discover, if such existed, a spring of water. I saw no such joyful presentation nor any of the usual indications, and when I reached and turned the point, the whole party were several miles ahead of me, and out of sight. Congratulating myself that I stood once more on terra firma, I urged my tired mule forward with all the life and activity that spur and whip could inspire her with, passing down the range of mountains on my left some four or five miles, and then rising some rocky hills connecting this with a long and high range of mountains on my right. The distance across these hills is about seven or eight miles. When I had reached the most elevated point of this ridge the sun was setting, and I saw my fellow-travellers still far in advance of me, entering again upon a plain or valley of salt, some ten or twelve miles in breadth. On the opposite side of this valley rose abruptly and to a high elevation another mountain, at the foot of which we expected to find the spring of fresh water that was to quench our thirst, and revive and sustain the drooping energies of our faithful beasts.

About midway upwards, in a *cañada* of this mountain, I noticed the smoke of a fire, which apparently had just been kindled, as doubtless it had been, by Indians, who were then there, and had discovered our party on the white plain below; it being the custom of these Indians to make signals by fire and smoke, whenever they notice strange objects. Proceeding onward, I overtook an old and favorite pack-mule, which we familiarly called "Old Jenny." She carried our meat and flour—all that we possessed in fact—as a sustenance of life. Her pack had turned, and her burden, instead of being on her back was suspended under her belly. With that sagacity and discretion so characteristic of the Mexican pack-mule, being behind and following the party in advance, she had stopped short in the road until some one should come to rearrange her cargo and place it on deck instead of under the

keel. I dismounted and went through, by myself, the rather tedious and laborious process of unpacking and repacking. This done, "Old Jenny" set forward upon a fast gallop to overtake her companions ahead, and my own mule, as if not to be outdone in the race, followed in the same gait. "Old Jenny," however, maintained the honors of the race, keeping considerably ahead. Both of them, by that instinct or faculty which mules undoubtedly possess, had scented the water on the other side of the valley, and their pangs of extreme thirst urged them forward at this extraordinary speed, after the long and laborious march they had made, to obtain it.

As I advanced over the plain—which was covered with a thicker crust of salt than that previously described, breaking under the feet of the animals like a crust of frozen snow—the spreading of the fires in the *cañada* of the mountain appeared with great distinctness. The line of lights was regular like camp-fires, and I was more than half inclined to hope that we should meet and be welcomed by an encampment of civilized men—either hunters, or a party from the Pacific bound homewards. The moon shone out about nine o'clock, displaying and illuminating the unnatural, unearthly dreariness of the scenery.

"Old Jenny" for some time had so far beat me in the race as to be out of my sight, and I out of the sound of her footsteps. I was entirely alone, and enjoying, as well as a man could with a crust of salt in his nostrils and over his lips, and a husky mouth and throat, the singularity of my situation, when I observed, about a quarter of a mile in advance of me, a dark, stationary object standing in the midst of the hoary scenery. I supposed it to be "Old Jenny" in trouble once more about her pack. But coming up to a speaking distance, I was challenged in a loud voice with the usual guard-salutation, "Who comes there?" Having no countersign, I gave the common response in such cases, "A friend." This appeared to be satisfactory, for I heard no report of pistol or rifle, and no arrow took its soundless flight through my body. I rode up to the object and discovered it to be Buchanan sitting upon his mule, which had become so much exhausted that it occasionally refused to go

along, notwithstanding his industrious application of the usual incentives to progress. He said that he had supposed himself to be the "last man," before "Old Jenny" passed, who had given him a surprise, and he was quite thunderstruck when an animal, mounted by a man, came charging upon him in his half-crippled condition. After a good laugh and some little delay and difficulty, we got his mule under way again, and rode slowly along together.

We left, to us, in our tired condition, the seemingly interminable plain of salt, and entered upon the sagey slope of the mountain about 10 o'clock. Hallooing as loudly as we could raise our voices, we obtained, by a response, the direction of our party who had preceded us, and after some difficulty in making our way through the sage, grass, and willows, (the last a certain indication of water in the desert,) we came to where they had discovered a faint stream of water, and made their camp. Men and mules, on their first arrival, as we learned, had madly rushed into the stream and drank together of its muddy waters,—made muddy by their own disturbance of its shallow channel and sluggish current.

Delay of gratification frequently gives a temporary relief to the cravings of hunger. The same remark is applicable to thirst. Some hours previously I had felt the pangs of thirst with an acuteness almost amounting to an agony. Now, when I had reached the spot where I could gratify my desires in this respect, they were greatly diminished. My first care was to unsaddle my mule and lead it to the stream, and my next to take a survey of the position of our encampment. I then procured a cup of muddy water, and drank it off with a good relish. The fires before noticed were still blazing brightly above us on the side of the mountain, but those who had lighted them, had given no other signal of their proximity. The moon shone brilliantly, and Jacob, Buchanan, McClary, and myself, concluded we would trace the small stream of water until we could find the fountain spring. After considerable search among the reeds, willow, and luxuriant grass, we discovered a spring. Buchanan was so eager to obtain a draught of cold, pure water, that

in dipping his cup for this purpose, the yielding weeds under him gave way, and he sank into the basin, from which he was drawn out after a good "*ducking*," by one of those present. The next morning this basin was sounded to the depth of thirty-five feet, and no bottom found. We named this spring "Buchanan's well." We lighted no fires to-night, and prepared no evening meal. Worn down by the hard day's travel, after relieving our thirst we spread our blankets upon the ground, and laying our bodies upon them, slept soundly in the bright moonshine. Several of our party had been on the road upwards of seventeen hours, without water or refreshment of any kind, except a small draught of cold coffee from our powder-keg, made of the salt sulphur-water at our last encampment, and had travelled the distance of seventy-five miles. The Salt Plain has never at this place, so far as I could understand, been crossed but twice previously by civilized men, and in these instances two days were occupied in performing the journey. Distance 75 miles.

CHAPTER XIV.

The oasis—Anxiety respecting our animals—Prodigious tall grass—Deserted Indian huts—Old trail of lost wagons—Desert valley—Extinct volcanoes—Mountain spring—Elevated camp—Vast extent of the Salt Plain—Sublimity of scenery—Moonlight view—Sunrise—Indian picket or game-trap—Another oasis—Altercation—Extreme heat of the sun—Wells in the desert—More desert valleys—Stream of running water—View of Mary's River, and valley—Indian signal-fires.

AUGUST 4.—We did not rise from our grassy couches this morning until the sun shone broadly and bright upon us, above the distant mountain ridges to the east. The scene around, with the exception of the small but highly fertile oasis encircling our encampment, is a mixture of brown and hoary barrenness, aridity, and desolation, of which no adequate conception

can be conveyed by language. The fires in the *cañada* of the mountain were still smoking, but no blaze was discernible. Last night they appeared as if not more than half a mile or a mile distant; but considerably to our surprise this morning, by a daylight observation, we saw that the *cañada*, from whence the smoke was curling upwards in graceful wreaths, was some four or five miles from us.

Our first care was to look after and collect together the animals, which, upon our arrival last night, we had let loose to refresh themselves in the manner most agreeable to them. We found them busily employed in cropping the tall seeded grass of the oasis. The anxieties respecting the health, strength, and safety of our animals, constitute one of the most considerable drawbacks upon the pleasures of our trip,—pleasures, as the reader may suppose, derived almost exclusively from the sublime and singular novelties presented to the vision. The significance of the word is in no other respect applicable to this stage of our journey. To fathom the motives of an all-wise Providence, in creating so vast a field of desolation; to determine in our minds whether the little oases we meet with are the beginnings of a system or process of fertilization which is to ramify and extend, and to render this hitherto abandoned and uninhabitable waste a garden of flowers, teeming with its millions of life; or whether they are evidences of the last expiring struggles of nature to sustain animal and vegetable existence, which will leave this expansive region impenetrable to the curiosity of man, furnish a study for the thoughts, fruitful of interest and provocative of investigation.

For the purpose of resting and recruiting our over-labored mules, we had predetermined to remain encamped to-day. We cleared away with our hands and willow sticks the thickly-matted grass and weeds around "Buchanan's well," making a handsome basin, some five or six feet in diameter. The water is very cold and pure, and tasted to us more delicious than any of the invented beverages of the epicure to him. While engaged in this work, Brown brought forward a remarkable blade of grass which he had pulled up a short distance from us, to which