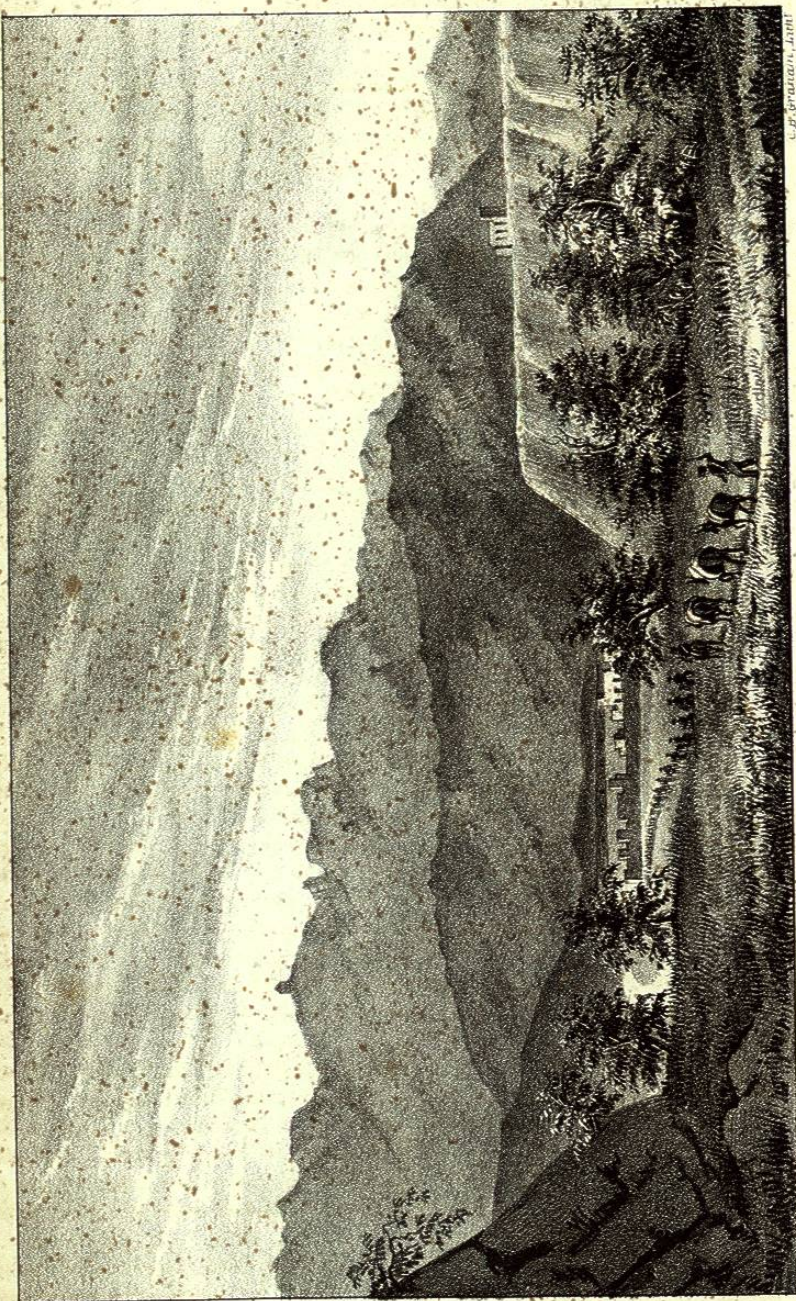


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was the principal operator in these mines, and is said to have amassed an immense fortune. On his first arrival in the country he was suspected to be an agent of the United States, and thrown into prison in Sonora, where he was kept in irons for eleven years. He is said to have stated that the gold found in the ore of these mines paid all the expenses of mining, and the transportation of the ore to the city of Mexico, where it was reduced.

We were disappointed in not meeting the Apaches yesterday and to-day. This afternoon three men came in dressed very much like the Mexicans, mounted on horses. They held a talk, but I do not know the purport. This afternoon I found the famous mezcal, (an agave,) about three feet in diameter, broad leaves, armed with teeth like a shark; the leaves arranged in concentric circles, and terminating in the middle of the plant in a perfect cone. Of this the Apaches make molasses, and cook it with horse meat.

We also found to-day the dasylyrion graminifolium, a plant with a long, narrow leaf, with sharp teeth on the margin, with a stalk eighteen feet high. According to Doctor Torrey, it has lately been "described by Zuccarini," who says "four species of this genus are now known; all of them Mexican or Texan."

The elevation of this camp was 6,167 feet.

October 19.—I tried last night to get observations for latitude, &c.; but the early part was cloudy, and we fell asleep and did not wake till broad daylight. In the afternoon there was a thunderstorm to the west, which swept around towards the north, where it thundered and lightened till nearly 9 o'clock. The country passed over in the first part of to-day was beautiful in the extreme; a succession of high, rolling hills, with mountains in the distance. The soil rich, and waving with grama. The latter part was more barren, and covered with artemisias.

The spring of San Lucia, 13½ miles from the copper mines, very large and impregnated with sulphur, is in a beautiful valley, surrounded, at the distance of ten or fifteen miles, with high mountains. This was the place appointed for meeting the Apaches, at 11, a. m.; but arriving at 12, and not finding them as we expected, and the grass all eaten up, we moved on to Night creek, making 30 miles. We halted at night on unknown ground, by the side of a creek, so miry that the mules, some of which had not drunk since morning, refused to approach it. It was dark; many of the men mistook the trail and got on the wrong side of the treacherous creek. The mules began to bray for water, and the men to call out for their messmates; all were in confusion. My thoughts of last night came vividly to my mind, as I heard the voice of my chronometer man on the other side, asking to be shown the way across. I sent him word to retrace his steps two or three miles.

The assembly call was sounded, which seemed to settle all things; and, as far as the clouds would allow me, I obtained observations. This is only the second time since leaving the 100th degree of longitude that I have been interrupted by clouds in my observations. Nothing has been heretofore more rare than to see the heavens overcast.

An Apache has just come in, and says the people who agreed to meet us at the spring yesterday are coming on with some mules to trade.

Three miles from the camp of last night we had reached the "divide," and from that point the descent was regular and continuous to Night creek. The ravines on either side of the "divide" are covered with fragments of blue limestone and rich specimens of the magnetic oxides of iron.

October 20.—My curiosity was excited to see by daylight how my camp was disposed and what sort of place we were in. It was quite certain the broad, level valley we had been traveling the last few miles was narrowing rapidly, by the intrusion of high precipices; and the proximity of great mountains in confused masses indicated some remarkable change in the face of the country. We were, in truth, but a few miles from the Gila, which I was no less desirous of seeing than the Del Norte.

The general sent word to the Apaches he would not start till 9 or 10. This gave them time to come in, headed by their chief, Red Sleeve. They swore eternal friendship to the whites, and everlasting hatred to the Mexicans. The Indians said that one, two or three white men might now pass in safety through their country; that if they were hungry, they would feed them; or, if on foot, mount them. The road was open to the American now and forever. Carson, with a twinkle of his keen hazel eye, observed to me, "I would not trust one of them."

The whole camp was now busily engaged in attempting to trade. The Indians had mules, ropes, whips and mezcal. We wished to get a refit in all save the mezcal, offering to give in exchange red shirts, blankets, knives, needles, thread, handkerchiefs, &c., &c.; but these people had such extravagant notions of our wealth, it was impossible to make any progress. At length the call of "boots and saddles" sounded. The order, quickness and quietude of our movements seemed to impress them. One of the chiefs, after eyeing the general with great apparent admiration, broke out in a vehement manner: "You have taken New Mexico, and will soon take California; go, then, and take Chihuahua, Durango and Sonora. We will help you. You fight for land; we care nothing for land; we fight for the laws of Montezuma and for food. The Mexicans are rascals; we hate and will kill them all." There burst out the smothered fire of three hundred years! Finding we were more indifferent than they supposed to trade, and that the column was in motion, they became at once eager for traffic.

They had seen some trumpery about my camp which pleased them, and many of them collected there. My packs were made. One of my gentlest mules at that moment took fright, and went off like a rocket on the back trail, scattering to the right and left all who opposed him. A large, elegant looking woman, mounted a straddle, more valiant than the rest, faced the brute and charged upon him at full speed. This turned his course back to the camp; and I rewarded her by half a dozen biscuit, and through her intervention, succeeded in trading two broken down mules for two



MOUTH OF NIGHT CREEK

good ones, giving two yards of scarlet cloth in the bargain. By this time a large number of Indians had collected about us, all differently dressed, and some in the most fantastical style. The Mexican dress and saddles predominated, showing where they had chiefly made up their wardrobe. One had a jacket made of a Henry Clay flag, which aroused unpleasant sensations, for the acquisition, no doubt, cost one of our countrymen his life. Several wore beautiful helmets, decked with black feathers, which, with the short shirt, waist belt, bare legs and buskins gave them the look of pictures of antique Grecian warriors. Most were furnished with the Mexican cartridge box, which consists of a strap round the waist, with cylinders inserted for the cartridges.

These men have no fixed homes. Their houses are of twigs, made easily, and deserted with indifference. They hover around the beautiful hills that overhang the Del Norte between the 31st and 32d parallels of latitude, and look down upon the States of Chihuahua and Sonora; and woe to the luckless company that ventures out unguarded by a strong force. Their hills are covered with luxuriant grama, which enables them to keep their horses in fine order, so that they can always pursue with rapidity and retreat with safety. The light and graceful manner in which they mounted and dismounted, always upon the right side, was the admiration of all. The children are on horseback from infancy. There was amongst them a poor deformed woman, with legs and arms no longer than an infant's. I could not learn her history, but she had a melancholy cast of countenance. She was well mounted, and the gallant manner in which some of the plumed Apaches waited on her, for she was perfectly helpless when dismounted, made it hard for me to believe the tales of blood and vice told of these people. She asked for water, and one or two were at her side; one handed it to her in a tin wash basin, which, from its size, was the favorite drinking cup.

We wended our way through the narrow valley of Night creek. On each side were huge stone buttes shooting up into the skies.

At one place we were compelled to mount one of these spurs almost perpendicular. This gave us an opportunity of seeing what a mule could do. My conclusion was, from what I saw, that they could climb nearly as steep a wall as a cat. A pack slipped from a mule, and, though not shaped favorably for the purpose, rolled entirely to the base of the hill, over which the mules had climbed.

A good road was subsequently found turning the spur and following the creek, until it debouched into the Gila, which was only a mile distant.

Some hundred yards before reaching this river the roar of its waters made us understand that we were to see something different from the Del Norte. Its section, where we struck it, (see the map,) 4,347 feet above the sea, was 50 feet wide and an average of two feet deep. Clear and swift, it came bouncing from the great mountains which appeared to the north about 60 miles distant. We crossed the river, its large round pebbles and swift current causing the mules to tread wearily.

We followed its course, and encamped under a high range of symmetrically formed hills overhanging the river. Our camp resembled very much the centre of a yard of huge stacks.

We heard the fish playing in the water, and soon those who were disengaged were after them. At first it was supposed they were the mountain trout, but, being comparatively fresh from the hills of Maine, I soon saw the difference. The shape, general appearance, and the color are the same; at a little distance, you will imagine the fish covered with delicate scales, but on a closer examination you will find that they are only the impression of scales. The meat is soft, something between the trout and the cat-fish, but more like the latter. They are in great abundance.

We saw here also, in great numbers, the blue quail. The bottom of the river is narrow, covered with large round pebbles. The growth of trees and weeds was very luxuriant; the trees chiefly cotton-wood, a new sycamore, mezquite, pala, (the tallow tree of our hunters,) a few cedars, and one or two larch. There were some grape and hop vines.

16 circum-meridian observations *beta aquarii*, and 9 of *polaris*, give the latitude of this camp $32^{\circ} 50' 08''$. Its approximate longitude is $108^{\circ} 45' 00''$.

October 21.—After going a few miles, crossing and recrossing the river a dozen times, it was necessary to leave its bed to avoid a cañon. This led us over a very broken country, traversed by huge dykes of trap and walls of basalt. The ground was literally covered with the angular fragments of these hard rocks.

From one of these peaks we had an extended view of the country in all directions. The mountains run from northwest to southeast, and rise abruptly from the plains in long narrow ridges, resembling trap dykes on a great scale. These chains seem to terminate at a certain distance to the south, leaving a level road, from the Del Norte about the 32d parallel of latitude, westward to the Gila. These observations, though not conclusive, agree with the reports of the guides, who say Colonel Cooke will have no difficulty with his wagons.

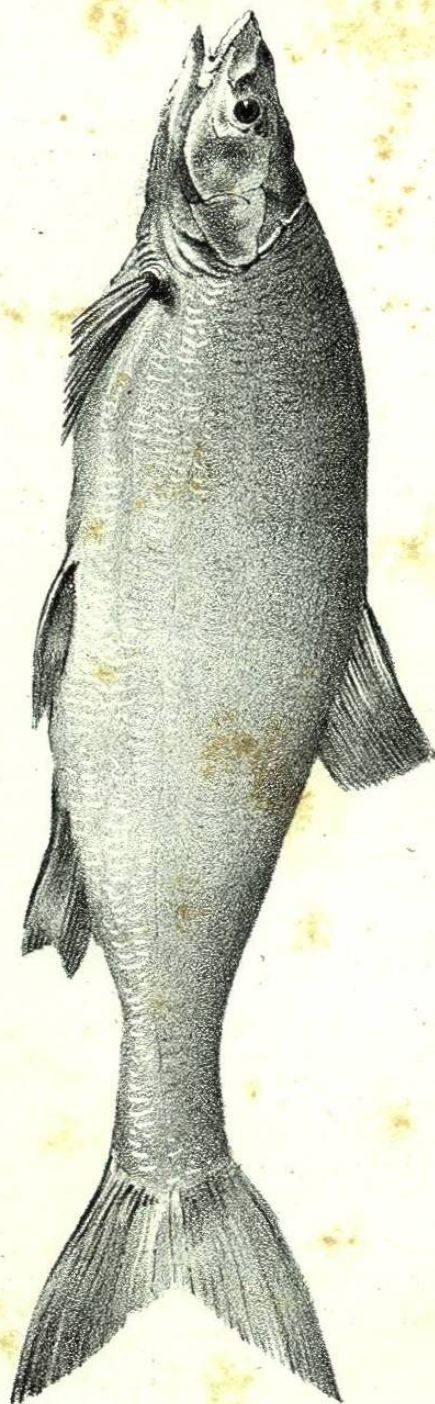
The mountains were of volcanic rock of various colors, feldspathic granite, and red sand stone, with a dip to the northwest, huge hills of a conglomerate of angular and rounded fragments of quartz, basalt, and trap cemented by a substance that agrees well with the description I have read of the *puzzolana* of Rome.

The earth in the river bed, where it was not paved with the fragments of rocks, was loose, resembling volcanic dust, making it unsafe to ride out of the beaten track. A mule would sometimes sink to his knee; but the soil was easily packed, and three or four mules in advance made a good firm trail.

This was a hard day on the animals, the steep ascents and descents shifting the packs, and cutting them dreadfully.

The howitzers did not reach camp at all.

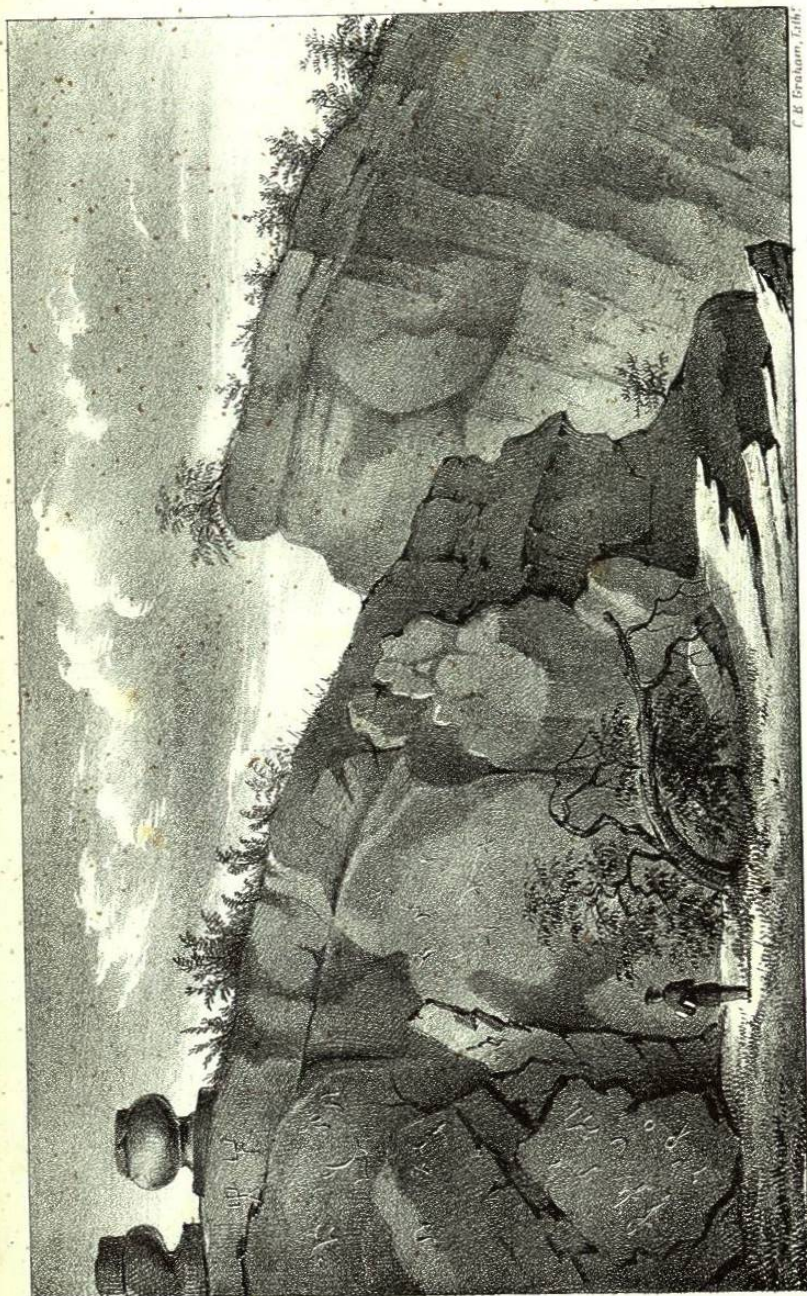
A few pounds of powder would blast the projections of rock from the cañon, and make it passable for packs, and possibly for wagons also. The route upon which the wagons are to follow is,



GILA TROUT.

E. B. Graham, lith.

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however, to the south of this. Under this date, in the catalogue of plants will be found many differing from those heretofore observed; amongst them the zanschneria Californica, also a new shrub with an edible nut, a grass allied to the grama, Adam's needle, artemisia cana, and many varieties of mezquite.

October 22.—The howitzers came up about nine o'clock, having, in the previous day's work, their shafts broken, and, indeed, everything that was possible to break about them. We again left the river to avoid a cañon, which I examined in several places, and saw no obstacles to a good road. The cañon was formed by a seam of basalt, overlaying limestone and sand-stone in regular strata. Through these the river cuts its way.

Many deep arroyos have paid tribute to the Gila, but in none have we yet found water. Following the bed of one of these, to examine the eccentric geological formation it displayed, I found unknown characters written on a rock, copies of which were made, but their antiquity is questionable.

We were now fast approaching the ground where rumor and the maps of the day place the ruins of the so called Aztec towns. This gave the characters alluded to additional interest; they were indented on a calcareous sandstone rock, chrome colored on the outside, presenting a perfectly white fracture. This made them very conspicuous, and easily seen from a distance. The coloring matter of the external face of the rock may proceed from water, as there was above the characters a distinct water-line, and every appearance that this gorge had more than once been the scene of overflows and devastation.

We encamped on a bluff high above the river, in view of a rock which we named, from its general appearance, Steeple rock.

Latitude of our camp to-night, by 17 circum-meridian altitudes of beta aquirii, $32^{\circ} 38' 13''$. Longitude $109^{\circ} 07' 30''$.

October 23.—Last night the heavens became overcast, the air damp, and we expected for the first time since leaving Santa Fé, (a month to-morrow,) to have a sprinkle of rain; but, at 9 this morning, the clouds had all been chased away, and the sun careered up in undisputed possession of all above the horizon. The atmosphere resumed its dryness and elasticity, and at night the stars looked brighter, and the depth of the spaces between greater, than ever.

The changes of temperature are very great, owing to the distance from the influence of large masses of water, and, if they were accompanied by corresponding changes in humidity, they would be insupportable. Last night we went to bed with the thermometer at 70° Fahrenheit, and awakened this morning shivering, the thermometer marking 25° ; yet, notwithstanding, our blankets were as dry as though we had slept in a house.

The table land, 150 feet above the river, was covered so thick with large paving pebbles, as to make it difficult to get a smooth place to lie upon.

The growth of to-day and yesterday, on the hills and in the valleys, very much resembles that on the Del Norte, the only exceptions being a few new and beautiful varieties of the cactus. After

leaving our last night's camp, for a mile, the general appearance, width of the valley, and soil, much resemble the most fertile parts of that river. This, so far, has decidedly the best soil, and the fall of the river being greater, makes it more easy to irrigate.

To-day we passed one of the long sought ruins. I examined it minutely, and the only evidences of handicraft remaining, were immense quantities of broken pottery, extending for two miles along the river. There were a great many stones, rounded by attrition of the water, scattered about; and, if they had not occasionally been disposed in lines forming rectangles with each other, the supposition would be, that they had been deposited there by natural causes.

October 24.—To-day we laid by to recruit. Although the moon was not in a favorable position, I availed myself of the opportunity to get a few lunar distances. 18 circum-meridian altitude of beta aquarii, and 12 altitudes of polaris, give for the latitude of the place $32^{\circ} 44' 52''$, and 8 distances between α and Fomalhaut give for the longitude $109^{\circ} 22' 00''$. We feasted to-day on the blue quail and teal, and at night Stanly came in with a goose. "Signs" of beaver and deer were very distinct; these, with the wolf, constitute the only animals yet traced on the river.

October 25.—The general character of the country is much the same as before represented; but towards camp, it broke into irregular and fantastic looking mountains. A rose-colored tint was imparted to the whole landscape, by the predominance of red felspar. The road became broken and difficult as it wound its way around two short cañons.

We were now in the regions made famous in olden times by the fables of Friar Marcos, and eagerly did we ascend every mound, expecting to see in the distance what I fear is but the fabulous "Casa Montezuma." Once, as we turned a sharp hill, the bold outline of a castle presented itself, with the tops of the walls horizontal, the corners vertical, and apparently one front bastioned. My companion agreed with me that we at last beheld this famed building; on we spurred our unwilling brutes; restless for the show, I drew out my telescope, when to my disappointment a clay butte, with regular horizontal seams, stood in the place of our castle; but to the naked eye the delusion was complete. It is not impossible that this very butte, which stands on an imposing height in the centre of a vast amphitheatre of turreted hills, has been taken by the trappers, willing to see, and more especially to report marvellous things, for the "Casa Montezuma." The Indians here do not know the name Aztec. Montezuma is the outward point in their chronology; and as he is supposed to have lived and reigned for all time preceding his disappearance, so do they speak of every event preceding the Spanish conquest as of the days of Montezuma.

The name, at this moment, is as familiar to every Indian, Puebla, Apache, and Navajoe, as that of our Saviour or Washington is to us. In the person of Montezuma, they unite both qualities of divinity and patriot.



VALENCIA, NEW MEXICO

We passed to-day the ruins of two more villages similar to those of yesterday. The foundation of the largest house seen yesterday was 60 by 20 feet; to-day, 40 by 30. About none did we find any vestiges of the mechanical arts, except the pottery; the stone forming the supposed foundation was round and unhewn, and some cedar logs were also found about the houses, much decayed, bearing no mark of an edged tool. Except these ruins, of which not one stone remained upon another, no marks of human hands or footstep have been visible for many days, until to-day we came upon a place where there had been an extensive fire. Following the course of this fire, as it bared the ground of the shrubbery, and exposed the soil, &c., to view, I found what was to us a very great vegetable curiosity, a cactus, 18 inches high, and 18 inches in its greatest diameter, containing 20 vertical volutes, armed with strong spines. When the traveller is parched with thirst, one of these, split open, will give sufficient liquid to afford relief. Several of these cacti were found nearly torn from the earth, and lying in the dry bed of a stream.

These and the mezquite, acacia, prosopis odorata, and prosopis glandulosa, now form the principal growth. Under the name mezquite, the voyageur comprises all the acacia and prosopis family.

Last night, about nine o'clock, I heard the yell of a wolf, resembling that of a four months' old pup. In a few minutes there was a noise like distant thunder. "Stampede!" shouted a fellow, and in an instant every man was amongst the mules. With one rush they had broken every rope; and this morning, when we started, one of our mules was missing, which gave us infinite annoyance. Our party is so economically provided that we could not afford to lose even a mule, and I left four men to look it up, who did not rejoin us till night.

A question arose involving a serious point of mountain law, which differs somewhat from prairie law. One of my party captured a beautiful dun colored mule, which was claimed by another party; the one claiming the prize for having first seen the animal and then catching it with the lazo. The other pleaded ownership of the rope, used as a lazo, as its title. It was settled to the satisfaction of the first.

The mule was one which Carson had left on his way out, and on being asked why he did not claim it, he said it was too young to be useful in packing, and as we now had plenty of beef, it would not be required for food, and he did not care about it.

October 26.—Soon after leaving camp, the banks of the river became gullied on each side by deep and impassable arroyos. This drove us insensibly to the mountains, until at length we found ourselves some thousand feet above the river, and it was not until we had made sixteen miles that we again descended to it. This distance occupied eight and a half hours of incessant toil to the men, and misery to our best mules. Some did not reach camp at all, and when the day dawned one or two, who had lost their way, were seen on the side of the mountain, within a few steps of a high precipice, from which it required some skill to extricate them. The men named this pass "the Devil's turnpike," and I see no reason to