

we named Burk's Tanks; watered our animals, during which time one of Bro. Noble's mules got afraid, missed the band and took the back track; one of the brethren followed some four miles, but returned without the mule, which we concluded would go to Pleasant Valley, so we drove three miles and nooned. After lunch, Bros. Burke and Tenney and son returned, we taking the direction for the river; in half a mile we crossed the Beal road, where Bro. Lot Smith parted with us, he going to Sunset. We then pass over a flat two and a half miles to divide, and follow down an open glade between two ridges of lava to the head of the Grand Falls of the Little Colorado River, 10 miles, and camped, making the distance from Pleasant Valley 45 miles. The opening of this road will be of great benefit to the Saints at Moynocopy, to obtain lumber at the saw mill, cutting off over 40 miles; also to those traveling to Southern Arizona.

October 26th and 27th.—We crossed the river at a good ford and travelled on our outward road down the river.

October 28th.—President Snow, Smith, Hinckley and myself drove by way of Moynocopy, where we met the Saints located, some three families. Here we learned that Bro. John W. Young was at the Moynocopy, to which place Bro. Wilken went on horseback with letter of instructions to the Saints at that place. After dinner, furnished by Sisters Lee and Smithson, we drove to Willow Springs, where we met the other brethren of our party who went direct to this place.

October 29th.—About 11 o'clock last night, Bros. John W. Young, Andrew S. Gibbon and A. Wilken arrived in camp, having come 16 miles on horseback with one pack animal, bringing us some grain and supplies. We were much pleased to see these brethren, also had an enjoyable time this morning. At 10 o'clock we bade adieu to Bros. Young and Gibbons and drove so Limestone Tanks, 35 miles. Here we met Mr. G. K. Gilbert and a party of surveyors in camp, and spent an agreeable evening in conversation.

October 30th.—Drove to Lee's Ferry, on the Colorado; crossed in safety, making two trips, and camped near Sister Lee's house. Before ascending the mountains on east side of the river, while the teams went on, President Snow, Hinckley and Nuttall walked to the bank of the river and examined as to the feasibility of establishing a new ferry about a mile and a half from the present one, and of making a road from the river, to avoid the crossing of this much-dreaded mountains, upon which we concluded a much better and safer road can be made, and with a suitable wire rope and new boat, which is much needed, for at least nine months in the year, a safer and much less dreaded crossing of this river and mountain can be had.

Oct. 31.—Sister Lee provided supper last night and breakfast this morning for the party, which was much appreciated, and we drove 30 miles to camp near Jacob's Pools.

Nov. 1.—Drove 30 miles to camp on Buckskin Mountain. In the evening, around our camp fire, we held a meeting, and each one expressed his good feelings towards each member of our little party, of our agreeable associations with each other, and well wishes for the future.

Nov. 2.—We drove 18 miles to Navajo Wells for breakfast. Here we made preparations for parting as Elders Smith, Hinkley, Starley and Wilken would go north to their homes, by way of Johnson, and President Snow, Elders Nuttall, Oliphant and Noble to Kanab. At forks of road we parted blessing each other. President Snow and brethren arrived at Kanab at 4 p.m. all well in health and spirits. At 7 p.m. President Snow and Elder Nuttall attended a meeting of the priesthood of Kanab Stake, appointed for this day, and spoke to the brethren.

Nov. 3.—President Snow attended meeting and occupied the time in an interesting practical discourse on the duties of Latter-day Saints. And at 2:30 started for Winsor on his way to St. George.

In making this visit the party traveled, in six weeks and 4 days, 1,300 miles, being from Johnson around and back to Kanab. Have held 21 meetings, located sites for eight settlements, organized and set in order the local priesthood in the settlements where there were sufficient numbers; called on and

visited with all the saints located on the Little Colorado River and its tributaries, and the southeastern and central portions of Arizona, finding them few in a place and far between camps. There are many desirable places for homes for faithful Latter-day Saints who will devote their lives to lengthen the cords and strengthen the stakes of Zion, redeeming the earth and dedicating themselves and all their substance to God for the building up of his kingdom on the earth. That such may enjoy this goodly land, and the Lord will bless you and brethren of the Council with all the faithful, is the prayer of your brother in the gospel.

L. JOHN NUTTALL.

BLOOMINGTON,
Bear Lake, Idaho.

Nov. 24th, 1878.

Editors Desert News:

Bear Lake Valley has received more than its due of bad reports, undoubtedly given by those not settled here; as it takes hardy and industrious people to settle and build up any and all the waste and barren places of these deserts. It is nothing to wonder at, that bad reports are circulated by discontent and would be easy going people. It is true that we have had more or less frost in past seasons, but we find by reading reports in the NEWS, that other parts which can boast of a milder climate, also get an occasional snap.

This last season we enjoyed good weather with no frost until late. Wheat, oats, corn, beans, squash, melons, apples and cucumbers ripened, one cabbage weighed 12 lbs., one potato, 3½ lbs. 38,000 bushels of grain has been raised in this town alone, an average of 480 bushels per family. 200,000 lbs of oats has been shipped and delivered at different stations of the Utah and Montana Stage-line, at an average of 2 cents per lb. Fall plowing is being done. We have had some snow and rain, but the roads are good.

The health of the people is good; two cases of diphtheria in one family, which has been brought from Salt Lake City recently; one case is mild, the other doubtful. Cooperation is favored a little; improvements are slowly progressing.

On the night of the 22nd inst. we were visited by a gale or wind-storm that made every frame house tremble; the oldest inhabitant says it was the strongest wind ever experienced in this valley, some fences blown down, stacks of hay and straw scattered about.

One day school exists, others may start soon. Here is room for more mechanics, farmers and capitalists; good, paying ore is being found near by, and who knows but Bloomington may become civilized after Salt Lake City fashion soon; but we hope not, as here is not a drinking saloon or any other house but what is filled with healthy children. We have good weather, and plenty to do.

Yours with respect,
LEON.

Utilization of Heat and other Forces.

In Physics, a noteworthy occurrence is the address delivered at Glasgow, by Dr. C. W. Siemens, "On the Utilization of Heat and other natural Forces," because he discusses in it the available sources of power when the supply of coal shall fail. Using at some central station water or wind power to drive dynamo-electric machines, the current generated could easily be reconverted into power where it is wanted, either for mechanical or other purposes. For light, for example, from 100 horse-power 125,000 candle-lights could be obtained, equivalent to 6,250 Argand burners of 20 candles each, consuming six feet per hour, or 37,500 cubic feet for all. To produce this amount of gas, 3½ tons of coal are required, while to produce the 100 horse-power only as many hundred-weights are necessary. In the case of Niagara, he computes that 100,000,000 tons of water fall every hour through a vertical height of 150 feet, giving 16,800,000 horse-powers, the only result being an elevation of the temperature of the water by one fifth of a degree Centigrade. To pump back the water would require an annual expenditure of 266,000,000 tons of coal (at four pounds coal per horse-power per hour)—an amount equal to the

total coal consumption of the world. Since, by electric means, one-half the energy supplied at the central station may be recovered at the distant one, the economy is greater than in the steam-engine. Greater care is the use of water and wind power is now possible, and the intermittent character of wind-power may be made permanent by using to raise water into a reservoir. Moreover, the force of falling water in its descent from reservoirs and lakes, to supply our large cities, might be utilized on the way by driving turbines, thus supplying light and mechanical power as well as water. — EDITOR'S SCIENTIFIC RECORD, in Harper's Magazine for November.

The Bottom of the Sea.

Here is an end of all romance about hidden ocean depths. We can speculate no longer about perils in chambers of pearl, or mermaids, or heaped treasures and dead men's bones whitening in coral caves. The whole ocean floor is now mapped out for us. The report of the expedition sent out from London in her Majesty's ship, Challenger, has recently been published. Nearly four years were given to the examination of the currents and floors of the four great oceans of the world. The Atlantic, we are told, if drained, would be a vast plain, with a mountain ridge in the middle running parallel with our coast. Another range crosses it from Newfoundland to Ireland, on the top of which lies a submarine cable. The ocean is thus divided into three great basins, no longer "unfathomable depths." The tops of these sea mountains are two miles below a sailing ship, and the basins, according to Reclus, are fifteen miles, which is deep enough for drowning, if not for mystery. The mountains are whitened for thousands of miles by a tiny, creamy shell. The depths are red in color, heaped with volcanic masses. Through the black, motionless water of these abysses move gigantic, abnormal creatures, which never rise to upper currents. There is an old legend, coming down to us from the first ages of the world, on which these scientific deep-sea soundings throw a curious light. Plato and Solon record the tradition, ancient in their days, of a country in the Western seas where flourished the first civilization of mankind, which, by volcanic action, was submerged and lost. The same story is told by the Central Americans, who still celebrate, in the fast of Izcalli, the frightful cataclysm which destroyed this land with its stately cities. De Bourbourg and other archaeologists assert that this lost land extended from Mexico beyond the West Indies. The shape of the plateau discovered by the Challenger corresponds with this theory. What if some keen Yankee should yet dredge out from its unfathomed slime the lost Atlantis? — New York Graphic.

A Full-Size Feline.

Ned Wallace, of Jesus Maria, killed a cougar the other day that measured eight feet in length. Mr. Wallace was out hunting, and during his search for game came across a couple of young cougars or panthers. Ned shot one of the cubs dead and wounded the other. The wounded cat set up a crying and whining that was heard by its mother, and before Wallace could reload his rifle he was startled by a scream so shrill and piercing that the sound seemed to penetrate to the marrow of his bones. Wallace is an experienced hunter and he well knew that it came from the female cougar, an animal that, when aroused and enraged, has no superior in strength, activity and felicity. A crash in the brush on the hill-side above him, and a repetition of the frightful scream that sounded almost human in its expression of demoniacal fury, warned Wallace of his perilous situation, and he prepared to face the danger. His rifle was empty. With the utmost celerity he threw a handful of powder into the barrel and shoved a bullet down after it without the formality of encasing the latter in a patch. As Wallace hurriedly finished capping the weapon and drew his knife, the cougar was within twenty feet of him preparing for the spring that would have landed the animal on the top of the hunter and probably would

have cost the latter his life. Quick as thought Wallace levelled his rifle and fired, the bullet luckily striking the panther in the breast, inflicting a fatal wound. The cougar leaped fully ten feet into the air and fell dead at Wallace's feet. Wallace is a man who has the reputation of being the possessor of considerable "sand," but he says his hair actually stood on end when he heard that panther screech. The skins of the cougar and her cub are on exhibition at the butcher shop in Jesus Maria. That of the full-grown animal measures eight feet in length. — Calaveras Chronicle.

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