that the Indians seemed very fond of them. ${ }^{\text {(1) }}$ Without at doult the visitors to the winter camp, whether white or red, were singularly impressed with the skill of the smiths and their fine relations with the Indians. So perhaps with more luck than premeditation, the leaders of the expedition found one of the secrets of successful Tndian diplomacy.

At two separate entries in the journal, the gunsmith is given credit for his skill in mending and repairing guns. According to Lewis, without the ingenuity of Shields, most of the guns would have been useless throughout the expedition. In summarizing the work of the men of the expedition, Lewis asked for extra compensation for Shields' work and reviewed his usefulness in this manner:
[Shields] Has received the pay only of a private. Nothing was more peculiarly useful to us, in various situations, than the skill and ingenuity of this man as an artist, in repairing our guns, accoutrements, \&c. and should it be thought proper to allow him something as an artificer, he has well deserved it. 40

The Lewis and Clark expedition in its two years on the western frontier followed a pattern of near starvation, constant danger and bare survival closely analogous to the life of the primitive Indian. Since the services of the gunsmith were paramount in the survival of the expedition, Lewis and Clark were convinced that the smith and his services were of similar value to the Indian on most frontiers. And in 1808, Lewis sent Willard to the Sauks and Foxes as a smith paid by the Federal Indian service. In like manner in 1809, Clark assigned him to the Shawnees and Delawares for the same purpose. ${ }^{41}$ By 1822 the Indian service was employing annually twenty-one smiths for service to the Indian. ${ }^{42}$ And so until the Indian learned the skills of the forge, the smith was an everyday necessity for the Indian and remained an essential factor in good Indian relations.

39 Francois-Antoine Laroque was the head of the Northwest Fur Company. See Letters of Lewis and Clark, 214n.
40 Ibid., 367.
41 Ibid., 372n.
42 House Document 110, Scventecnth Congress, First Session (April 8, 1822). This technical aid to the Indian to establish better relations anticipated the Peace Corps program of technical aid to undeveloped peoples by about
150 years.

## 150 years.

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## So (1967)

## GRANDFATHER WAS A FORTY-NINER

## Niles Anderson

IN the early summer of 1849 Thaddeus Levi Loomis,' graudfather of the present writer, accompanied by eight other venturesome youths from Illinois, succumbed to the gold fever of the mystic west. Styling themselves the "Independent Company from Illinois," the small party traveled alone across the plains and mountains to the Pacific with a tiny supply train of three mule-drawn wagons, conficlent in their own ability to cope with Indians and nature.

Letters home, transcribed below, are remarkable as much for their safe delivery as for their portrayal of a west of just two generations ago. Differing from the many published accounts of large convoys assembled for mutual protection on the trek west, ${ }^{2}$ these letters give a day-by-day, matter of fact portrayal of the experiences of one of the many small parties of eager youth, seeking adventure as much as gold. From such letters come the dreams of boyhood, and longing of the adult to know his own America better.

As the letters indicate, the little expedition crossed the Missouri River into Indian country at St. Joseph, Missouri. Relating to modern roads and states and towns, the route then led across northern Kansas to about Marysville, Kansas, where it intersected the main route from Independence, Missouri. The path then turned nortliwest into Nebraska, to cross the Little Blue River in the vicinity of Fairbury, Nebraska.

The path then followed the north bank of the Little Blue River to a point just south of Hastings, Nebraska, where it left the river to cut across the divide to the south lank of the Platte River at Fort Kearney, Nebraska. (Present-day Kearney is north of the river.) From Fort

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1 Born Salisbury, N. Y., September 28, 1825. Western trip followed graduation from Transylvania Law School, Louisville, Kentucky. Stayed four years in California and was alternate to territorial Constitutional Convention there. Returned home to Carlinville, Inlinois, via Panana, in 18.54. Julge there. Returned home to Carlinville, Ilinois, via Tanat
of Probate Court. Macoupin County, Illinois, 1861-6).
2 One of the better accounts, particularly in route description, is Areher Butler Hulbert, Forty-Nincrs, The Chronicle of the California Trail.

Kearney the route continued along the south bank of the I'latte River to the forks of the river, and continued westerly along the south bank of the South Platte River to approximately Big Spring, Nebraska, a point just above the northeasterly corner of Colorado.

The path then turned almost due north to strike the south bank of the main Platte River (north branch of the Platte) and then continued up its south bank to about Casper, Wyoming. From here the track bore southwest and through the South Pass of the Rocky Mountains to about Emigrant Springs, Wyoming. Veering to the northwest, the route struck present-day U.S. 30 at about Cokeville, Wyoming, close to the Idaho border. The path then went on into Idaho on the approximate line of U.S. 30 through Montpelier to Soda Springs, Idaho. From here it cut across country to Fort Hall, Idaho, the parting of the ways of the Oregon and California trails.

From Fort Hall the route followed the south bank of the Snake River to about Yale, Idaho, and then turned southwest into Nevada. In Nevada the trail reached the vicinity of Wells (intersection of U.S. 40 and U.S. 93) and then followed the general line of U.S. 40 and along the Humboldt River to about Lovelock, Nevada. The path then bore south across Carson Sink and reached the north bank of the Carson River in the vicinity of Weeks, Nevada. The north bank of the Carson River was followed to almost the California border, and finally the route crossed through Carson Pass of the Sierra Nevada Mountains and on through the Sacramento Valley of California to Sacramento.

Near Fort Childs [Ft. Kearncy, Neb.] May 20, 1849
Dear Father, Mother, William \& Horace
As the officer of the Fort sends an express to Ft. Leavenworth this week, I embrace the opportunity to write you once more before reaching California. As you are probably more anxious about my health than anything else concerning me, I will say that I never was so black, fat \& impudent in my life - my powers of endurance astonish myself and are much greater than any other one in the company. The hardships of the trip have had a far different effect upon many. The numerous graves by the wayside indicate that many a weary traveler has passed to another \& we hope a better world leaving many a fond relative to mourn his untimely end in the western wilds.

We crossed the river 3 miles above St. Doseph on the first of May \& encamped on the bluffs this side until the morn of the 5 th waiting for the grass to grow. We have been on the road 15 days \& have laid liy 2. Today will make 3 days \& have come about 275 miles, heing an average of about 20 miles per day. We have fed our mules 3 pints of corn each per day \& have enough left to last us 6 or 7 days. Considering the roads we have made good headway \& have passed 420 teams since leaving St. Jo. Up to 10 o'clock yesterday there had 652 teams passed the Fort, so that is the number ahead of us, \& we shall probably pass 4 or 5 hundred more before reaching California. Our progress is owing to the fact that we have light wagons \& good mules. Our mules are the best I have scen \& have gained considerable in flesh since we started. A great many mules \& oxen have already given out.

We were in company with Van Dorn, Page, Tappen \& Burton several days. They had a good ox team \& were all in good health. They are now alout 3 days bchind us. We passed the Jersey \& Green Co. companies about 60 miles this side of St. Jo. They were all well. We struck the Platte River 16 miles back. From thence we travel up the south bank 120 miles, then we cross the South Fork \& in about 20 miles further the North Fork, up which we travel about 320 miles to Ft. Laramie. ${ }^{3}$ Then we travel along the Oregon route 300 miles to the South Pass of the Rocky Mountains. Thence 160 miles to Ft. Hall ${ }^{4}$ where we leave the Oregon trail \& travel a southwesterly direction, leaving the great Salt Lake \& the Mormans 2 or 3 hundred miles to the south of us. (About $1 / 2$ of the emigration will go by the Morman settlement) Thence we travel to the Salmon Trout pass of the Sicra Neveda Mountains which we cross at an elevation of 9.000 feet amid snow \& ice. Thence about 360 miles to San Francisco. By looking on our large map you can see our route. The distance from St. Jo. to San Francisco is about 1,950 miles. I will now say something more about our journey so far.

The first day we made 13 miles. Grass good, country liroken very much. Some of the hills quite steep. In sight of the Mo river nearly all day. Camped near a beautiful spring of water. Next day about 10 o'clock we came to Wolf River, a stream about the size of the Macoupin, \& much swollen by recent rains. There we found about 30 teams waiting. They were quarelling as to the proper mode of constructing a pole bridge. We immediately made soundings of the water. Found by raising the beds of our waggons we conld go through. We

[^0]accordingly raised our beds about 10 inches \& put 8 of our best mules to our largest wagon \& a man on each mule \& went through amid the cheers of the bystanders for the "Independent CO from Ills" which is the name we have written on our wagon covers with the names of the members of the Co. We got over safely with our large wagon \& took the others over the same way. One old Tenneseeian standing by offered to bet "that Co. would beat every Co. to California \& could travel to H-11 if necessary." No one offered to take either bet. Thence we passed on to the station of the U.S. agent for the Iowa Indians. Nere we found a fine farm of some 700 acres under a high state of cultivation. We camped near by - dis. 17 miles.

The next morning we started early. About 9 o'clock we met some 20 Iowa Indians. They wanted whiskey but we had none for them. The Iowa Indians from their long connections with the whites have become a dwarfish cowardly set of beings \& have lost all those noble traits of character which we see in the Indians far removed from civilization. The road today has been over a beautiful prairie, just rolling enough to carry off water, with a dark soil much like the Ill. prairies. We see no timber on these western prairies until we arrive close to it, for the timber is always on the creek bottoms, the top of the trees being below the level of the priarie. To night we are encamped on the headwaters of Wolf River. Dis. 25 miles.

8th. Last night the wolves howled very much \& keep us awake nearly all night. They would come within 50 yds of camp. We did not fire upon them as we had all agreed that no gun should be fired at night except by the one on watch \& then only at Indians. Today we are traveling on the dividing ridge between the streams that flow into Kansas on the south \& the Big Platte on the north. There is no water on the road but we can get plenty by going out either side $1 / 2$ mile. We have seen no game worth killing except Prairie chikens. The wolves probably run off all the deer. Dis. 16 miles.

9th. The wolves made night hideous as usual. Nothing new occurred today. Dis. 20 miles.

10th. About 9 o'clock we broke one of our wagon tongues which caused us to lay by the rest of the day. We found a hickory close by which makes a much better one than the first. Part of the company washed clothes while the others worked at the Tongue. Dis. 5 miles.

11th. The Indians tried to get hold of our mules last [night] but failed. They wotld not venture within gun shot. The Indians when trying to approach camp in the night crawl on all fours \& imitate the howling of wolves to perfection, but the mules soon perceive the differ-
ence. They are not afraid of the wolves but snort \& kiek terribly when Indians are about. The prairie today has been almost a perfect level but the water never stands on it owing to a sulssoil of sand. Dis. 25 miles.

12th. This morning we crossed the Blue River, one of the tributaries of the Kansas. It is about $21 / 2$ deep, 150 feet wide, a rapid current with a hard gravelly bed. If it was only in 111s, it would be worth many thonsands for the water power it affords is immense. The timber on the bank of the rivers is about 100 ych . in width, consisting principally of cottonwood \& elm. A few miles this side we met 5 Crow Indians. They were bold, daring looking fellows, motuted on good horses \& armed with rifles and knives. They all spoke some English. About 2 o'clock today we arrived at the junction of the St. Ioseph \& Ludependence roads. ${ }^{5}$ Dis. 25 miles.
13. Today the plains have been quite sandy \& grass poor. We have crossed many small ravines about 10 yds. wide at bottom with banks almost perpendicular. Dis. 20 miles.

14th. Last night we had a terrible storm. The wind blew as I never saw it blow on land before. The rain fell in torrents for 3 long hours. I stood guard wet to the skin, the rain even penetrating my wil cloth coat. We divide the night into 3 watches \& as there is 9 of us my turn comes every 3 d night. We are now among the Pawnces, the most bold and skillful thieves of all the Indian tribes \& they always choose a dark stormy night to commit their depredations. A flash of lightning last night would occasionally reveal one in the distance, but they were careful to keep out of gun shot. It is reported this morning they stole 13 mules from the Cincinnatti Company last night. I have secn no guide books worth anything to the emigrant. They give incorrect descriptions of the country and wrong locations to the watering places. The weather is very cold for the time of the year. Tonight we are encamped 1 mile north of the Little Blue River. Dis. 20 miles.

15th. Today we travelled up hill \& down until we struck the bottom of the Little Blue up which we proceeded about 5 miles \& encamped. The soil of the bottom is apparently good but the grass is very poor. So little grows that the fire never runs over it. The Little Blue is a stream about 10 yds . in width, 2 feet deep, with a very rapid current. Its banks are skirted with a narrow strip of timber, principally elm \& cotton wood. Dis. 25 miles.

16th. Last night we set our hooks in the river \& this morning had

[^1]a fine mess of fish. We have travelled all day up the river bottom. We see many Buffaloe skeletons. They have apparently lain 4 or 5 years. Dis. 21 miles.

17th. Last night the Buffaloe knats \& musquitoes took us by storm. The bite of a Flea is bad, the bite of a Musquitoe worse, the bite of a Bed bug terrible but the bite of a Buffaloe Knat is maddening - appalling. We stuck in a mud hole today \& had to unload our largest wagon. We soon had everything right again. Tonight we are encamped at the foot of the bluff where the road leaves the bottom for the Platte. Near us is a large spring of water. We have seen several antelopes today but they are excedingly wild. We were not able to approach near than 400 yds . They allways stand on the highest ground. We have also seen several hares today. They are about 4 times the size of a rabbit \& resemble very much. Dis. 17 miles.

18th. Today we are crossing the plain between the Blue \& Platte for about 10 miles. In the morning the grass was quite good but this evening we have passed over a barren waste with hardly enough vegetation to support animal life. In fact I think no animal could live upon it. We saw none. As we neared the river the grass was better. We are camped about 3 miles from the river near a small stream of rumning water. Dis. 27 miles.

19th. Last night we had a terrible storm of rain, thunder $\&$ vivid lightning. It rained for $71 / 2$ hours \& about $61 / 4$ inches of water, the greatest fall of water I ever knew or heard of in the same length of time. This morning the waters cover the face of the earth but it will all be gone by noon, as the bottom is sandy. This morning we soon arrived at the Platte where the road from Ft. Kearney ${ }^{6}$ comes into ours.

The Platte is different from any other river I ever saw. Just imagine how it would seem to have $1 / 4$ of the Mississipi right through the prairie between our house \& Carlinville \& you have the Platte. It has no bluffs \& its banks are about 2 feet in height \& it never overflows its banks. Its waters are always muddy \& you would think to look at it it was 20 feet deep, but it can always be forded. It is about $1 / 4$ of mile wide. This afternoon a war party of the Sioux numbering about 530 passed us on their return home. They have been down fighting the Pawnees \& have burnt their villages \& almost exterminated the tribe. They were all mounted on good horses \& were whooping \& yelling like so many devils. The dress of some of the chiefs was rich \& fan-

6 South of Platte River, below Kearney, Nebraska.
tastic beyond anything 1 ever saw. I never beheld arything at it masquerade or theatre that would compare with it. They were armed with a tomahawk, scalping knife, bow \& arrow. I noticed many of their arrows were yet bloody. The Sioux are the most mumerons nation in the west. They are always at war \& have annihilated several nations. The Camanches are the only nation that are a match for them in battle. They are very friendly to the whites. We will arrive at their hunting grounds in about 2 days. We are now on the ground of the Fawnees from whence they have just been driven. The Sioux chiefs said we would find plenty of Buffaloe in 3 days travel from here.

This brings my journal up to last night or rather I have given brief extracts from my journal up to last night. Laist night we had another storm. It blew down our tent twice. Of course we got wet as drowned rats. We stood on our wagon wheels alsout an hour to keep the wagons from blowing over, a not unwise precaution for wagons not infrequently blow to atoms on these mighty prairies. It was my watch part of the night \& I positively blew down 3 times. We have joined no other company as yet \& dont intend to. We are almost through the worst nation - viz the I'awnees -- besides we are all well armed \& think oursclves a mateh for at least 500 ludians, lant in this we may be mistaken. In case of a fight I will crawl into a wagon as a reserve so I will be safe any way.

I have written all. Dont give yourselves any uneasiness about me. I never felt safer in my life. I almost feel in the situation described Byron "here is a smile for those that hate me \& wh'er sky is ahove me here is a heart for every fate."

With much Love to all Friends, Relations \& Kiudreal, I remain as I hope ever affectionately Your

Thadecus

> Sacramento City
> Aug. 12 th, 1849

Dear Father, Mother \& Brothers
I am yet in the land of the living and I believe somed in borly $\mathbb{\&}$ mind. I have been here 2 days. I have seen so many new \& strange things that I know not what to write first, but as everything must have a commencement I will speak of the Journey first.

You probably received a letter from me written at lit. Chilrs,7 275 7 Usually called Ft. Kearney.
miles this side of St. Joseph, giving a history of trip to that place. If you did not receive it, suffice it to say we experienced no hardship \& endured no privation to that place. True in the States it would be thought hard to walk in a cold rain all day, occasionally swimming a creek, and at night lay on the cold wet ground. But we soon became accustomed to it \& bore it cheerfully because it had to be done \& to have complained would subject one to the ridicule of his friends \& messmates. But after leaving the fort the trip of course commenced. We were then in advance of most the emigration \& would travel sometimes for 5 or 10 days without seeing a civilized man. We had 18 good mules upon which our lives depended \& to guard which from the depridations of the Indians needed the most careful watching.

The next fort was Larimie, Dis. 350 miles, a post belonging to the American Fur Company. Soon after leaving Ft. Childs we found if we did not keep in advance of most the emigrations we would find grass scarce. We accordingly made an estimate of the no. of lbs. of provisions that would last us 80 days \& threw the rest away. We then threw away everything not absolutely necessary for the trip, thereby lightning our 3 wagons 350 lbs each which would enable us to make several miles more every day. We then increased our speed to 30 miles a day. This would not be called speed in the States but with animals fed upon grass it is extraordinary. Our route to Ft. Larimie was up the Big Platte 150 miles, then up the South Fork 70 miles, then crossing it \& to the North Fork 30 miles. Thence up to Larimie 100 miles. The road most of the way apparently level but gradually ascending until at the Fort we were 4600 feet above the level of the sea.

From thence to the Ferry on the North Platte, ${ }^{8}$ a dis. of 120 miles, the country was somewhat broken. We reached the Ferry the 10 th of June at an elevation of 5200 feet. I will here speak briefly of the Platte rivers. The Plate below the Junction of the forks is about $11 / 2$ miles wide, water muddy, current rapid, water about $11 / 2$ feet deep \& can be forded any place without difficulty at all seasons of the year. The South Fork, where we crossed it, was $3 / 4$ mile wide, presenting the same appearance as the main river \& fordable without difficulty. Where we first struck the North Fork it presented the same appearance as the South Fork - if any difference, a little wider \& more shallow. As we ascended, its banks became narrower \& deeper until at the Ferry it had contracted to 300 yds in width with 12 feet water \& a current like a raceway.

The Ferry was owned \& manned by 6 Mormans. It was nothing more than 2 hollow logs lashed together, but this apparently frail structure took the wagons over safely one at a time. The stock had to swim the river. Here we saw the first timber we had seen for 300 miles : in fact since we first struck the Platte we had not seen timber enough to fence 40 acres. At the Ferry were 150 wagons waiting to be crossed. As they could cross but 50 per day and there were no Indians about, we took our mules about 6 miles to good grass \& made ourselves perfectly at home.

We were now in fine health \& spirits; our rifles had furnished us with plenty of Buffaloe, Deer \& Antelope for the last 300 miles, and every one around us appeared to enjoy themselves equally well. Here we saw the first mountains, though apparently not high, yct their elevation was sufficient to have their tops in many places covered with snow. Oglesby ${ }^{9}$ \& myself ascended several. Their sides were thickly covered with pine \& cedar among which were large numbers of Pheasants. We shot several with our Pistols. We slept one night on the highest mountain upon a bare rock. In the morning we found every thing frozen around us. We thought we were high up in the world but it was low compared to some motutains we have come over since.

On the 13th we crossed safely, swimming our mules. The water was cold but we had to do it. 2 men were drowned the day we crossed. The road from here to the South Pass lay over a broken country, much of which had evidently been subject to volcanic action within a few years. Game now became scarce \& we had to come down to bacon once more. Now was a great strife to see who would reach the Ferry on the Rio Colorado ${ }^{10}$ first - a dis, of 200 miles over a bad road $\& 80$ miles beyond the South Pass, 50 miles of which was without water. We made it in $71 / 2$ days, passing 123 teams. The Sonth Pass is in fact no pass at all, that is to say it does not come up to our idie of a mountain pass. The precise point of culmination has never been ascertained. Fremont says we are the highest when the Wind River Mountains are directly north of us. The elevation is 7490 feet \& for 3 or 4 days we travel at that elevation. We were in the part Fremont calls the pass on

9 Only companion mentioned by name. Law school classmate of grandfather. Three time Republican Governor of Illinois, U.S. Senator and Major General during Civil War. Family tradition has it that on one political campaign stop at Carlinville, Ill., Governor Oglesby recognized grandfather on the train platform and, ignoring his welcoming committer, strolled arm in arm with his old time western companion to the hotel, sharing reminiscences until he was late for his speech. At the time graudfather was a prominent local Democrat and retired l'robate Julge.
10 Green River
the 19 th of June. To the north of us at the dis. of 30 miles were the Wind River Mountains, covered with perpetual snow \& attaining an elevation of more than 13,000 feet. They can be seen from the south east at a dis. of 300 miles. I had forgotten to mention that in the pass we encountered a snow storm of $11 / 2$ hours duration.

After leaving the Ferry on the Colorado we crossed the Bear River Mountains at an elevation of 8000 feet, being higher than the South Pass. The weather was cool but clear \& pleasant when we crossed \& snow banks lay quite thickly around us. We then descended into the great American basin upon Bear River, the principal tributary of the Great Salt Lake. The great basin is a singular feature in the structure of the American continent. It is about 500 miles wide, 700 miles long, containing about 350,000 sq. miles, having its own system of lakes \& rivers, none of which have an outlet into the ocean but lose themselves in the sands of the great American desert.

Descending Bear River about 60 miles we came to the far famed soda springs, ${ }^{11}$ swimming with our mules \& wagons Thomas's Fork without accident. The stream is generally fordable but was now swollen by the melting of snows on the Bear River mountains. The water was very cold. The soda springs may be reckoned among the curiosities of the natural world. The water is superior to that of any soda fountain \& effervesses so much that you cannot drink without dipping it up in a cup. Some of the springs boil up to the height of 3 feet \& furnish water sufficient to run mills of the largest size. About a mile beyond the soda springs are several hot springs, the most noted of which is the Steam Boat spring. This spring issues from a hole in a rock. A jet is thrown up to the height 4 feet every 2 or 3 seconds, making a noise much like the puffing of a steamboat. The water is strongly impregnated with sulphur \& iron and exceedingly unpleasant to the taste.

From here to Ft. Hall, a dis of 65 miles, the road was splendid, crossing on the way the dividing ridge between the waters of the great Basin \& Pacific. The ascent \& descent of the ridge was gradual, the height being 6200 feet with no snow. Ft. Hall belongs to the Hudson Bay Fur Company. It is situated on the Lewis Fork of the Columbia ${ }^{12}$ - a bold rapid stream now about 600 yds. wide, being much swollen by melting of snows on the mountains. At the Fort we procured some milk, butter \& cheese made by a Morman family who keep a dairy for the Company.

[^2]From the lit to the Mary Sink River alias Humboll River, a dis. of 230 miles, the road was good with plenty of grass \& water. On the way we again crossed the ridge between the waters of Pacific \& Basin at an elevation of 5300 feet. We saw no snow but experienced some severe frosts among the mountains. On the head of Mary River we encamped 2 days to rest our mules. The grass on the bottom was luxurient, beyond anything I ever saw. It consisted of red \& white clover, hue grass, herds grass \& red top. It was ahout $31 / 2$ feet high \& would turn off 3 or 4 tons to the acre. On the bluffs \& hills aromud us there was no grass, but a great plenty of wild sage.

As we proceeded down the river it increased in size until below the junction of the South Fork it had become a stream with 13 feet water in channel \& $S 0$ yds widc, with a rapid current. It ran towards the Pacific but the sands of the desert prevent it from reaching even the foot of the Siera Nevada. The thought that we must cross a desert which swallows up the waters of this river made us shudder.

As we proceeded down the river its bottoms became almost destitute of vegetation. The water in the river tasted almost like strong lye \& even the springs that issued from the hills were so strongly impregnated with alkali that we preferred the river water to guench our burning thirst. We were now about 100 miles from the head of the river. It was yet 200 miles to the sink of it $\& 50$ from there to the nearest grass or water. We determined to increase the speed of our mules to 35 miles per day $\&$ keep a man several miles ahead to find grassy spots. By doing so we reached the sink in 6 days, passing by the wayside probably 200 dead oxen \& 40 or 50 mules \& horses. The river sinks in a kind of salt marsh. We arrived at the sink about 2 o'clock P.M., having traveled 25 miles that day.

At the sink we found no grass \& could find no water except salt water which rather increased our thirst. However towards night we found a sulphur spring of which we drank freely but our mules would drink none. As there was no grass nearer than 50 miles ahead, we lay till sundown. Started across to Carson River on the new Morman trail. The old trail goes to Truckie River. The distance on each trail to water is about the same. The night was exceedingly hot \& the sand was from 6 inches to a foot in depth so that our animals drew our wagons with great difficulty.

In the morning we found our mules nearly exhausted. We gave them some water we had brought for ourselves which, had as it was, they drank with eagerness. As the sun rose from the sands of the desert we had a beautiful view of the Siera Nevada at the distance of

150 miles, their snow caped summits piercing the clouds. How we wished for some of the snow! We would have given all our interest in this world for so much as we could eat of it, but we were far from it. As we had given all our water to the mules \& had walked all night in the deep sand without tasting any, our thirst was almost maddening. Not a living thing was to be seen \& to add to the horror of the scene, numerous skeletons of horses \& oxen lay around us and occasionally we would tread upon a human skeleton half buried in the sands.

As we were yet probably 20 miles from water, after resting an hour we started ahead. As we advanced the sand increased in depth \& the heat of the sun was oppressive, being far greater than any thing we had ever seen. About 2 o'clock P.M. we concluded we could not be more than 10 miles from water. As we were nearly exhausted, having walking in the sand for 20 hours without water, we concluded to leave our wagons, take our mules to water \& grass and come back for our wagons in a day or two. Accordingly we took the harness off \& mounting the strongest ones started. The mules appeared to understand the object of our movements \& traveled with a speed we thought them incapable of. After an hours travel we came in sight of timber at the dis. of probably 5 miles. Our mules appeared to perceive it \& increased their speed. We neared in rapidly. When we came in sight of the water our mules became unmanageable \& started on a full run. We concluded we could ride as fast as they could run so we made ourselves perfectly easy, knowing we would get a good ducking when we reached the river.

A mule is generally hard to drive into water but when they are exceedingly thirsty they would jump down Niagara with impunity. As we neared the river we saw it was deep \& rapid with high banks. But it was too late to stop so we went over a perpendicular bank of 25 feet or more with a whoop, our hair I presume on end, into the water. The water was probably 15 or 20 feet deep. Upon coming to the top we left our mules \& swam down to a sand bar where we quenched our thirst by drinking several quarts of water.

Our mules swam around until they had drank sufficient \& then came to us. We saw we were opposite the mouth of a small creek where the water looked shallow. We swam our mules over \& found it not more than 2 or 3 feet deep. We followed up the creek 200 yds \& came to a beautiful bottom with beautiful grass \& gigantic cotton wood trees. In the shade of one we immediately lay down, the sun being about at hour high, \& did not wake up until about 8 o'clock the next morning.

We woke up hungry as ravenous wolves. Seeing a smoke up the bottom about a mile we went up \& found a Co. of Miss. emigrants that had crossed over about a week before $\&$ were recruiting ${ }^{13}$ their animals. They with true Mississipp hospitality got us a hot breakfast which vanished with wonderful rapidity as we had eaten nothing for 36 homurs. They showed us a good place to recross the river.

Letting our mules rest till sundown, we then started to bring in our wagons. We got them to the river about day break. As there was no grass on that side, we lashed provisions sufficient for 4 days \& swam over again with our mules. We there remained 4 days. Our animals being then sufficiently recruited, we then started. Our route lay up the north bank of the river for 120 miles to the foot of the Siera Nevada, the road good with plenty of water \& grass. This route was first traveled by the Morman Battalion that returned from California last fall. It crosses the mountains in Lat. $39^{\circ} 15^{\prime}$, the old emigrant pass crossing some 60 miles northward.

In ascending the mountains we found but 2 bad places. One was rocky, the other was precipitous. We got up safely however and on the last of Aug. camped on top of the highest range of mountains in North America, some of the peaks reaching an clevation of 17,000 feet. We were camped at an elevation of about 11,500 fect, being 4,000 feet higher than the South Pass in the Rocky Mountains. We were 1,000 feet above perpetual snow.

We took our mules down in a valley to some bunch grass by the side of a snowhank. I have seen this grass growing in snow. We found a place where the snow had blown off the rocks to lay down our blankets \& sleep for the night. I found sleep impossible. The sky was blue as indigo, the moon \& stars shone with a brilliancy seen only by those in mountainous countries. I arose, took a book \& found I could read the finest print easily. I suppose it could not be after one o'clock when daylight appeared in the east. I expected to see the sun rise every moment for 3 hours. When it rose it appeared like a hall of fire. The water in our buckets froze \& everything around was white with frost. There is no danger in crossing these mountains in July \& August but at all other times it is dangerous.

From here to Sacramento City on the Sacramento River, a dis. of 100 miles, the road was good, being a descent all the way through pine forests until you strike the bottom of the river. The pine forests on the western slope of the Siera Nevada exceed in the size of trees any 13 i.e., resting.
thing I have ever seen or heard of elsewhere. Col. l'remont says in his history of California that he measured one 14 feet in diameter \& 285 feet high. We measured several whose height exceeded 300 feet \& whose diameter was from 10 to 13 feet. I have seen thousands of acres covered with trees that would average 200 feet high and 7 or 8 feet in diameter.

On the 9th we struck Sacramento Valley and on the 10 reached the city on the bank of the river. The city had been built up in 3 or 4 months \& now contains about 6000 inhabitants. The houses are mostly frames, the frames being brought around by ship, \& covered \& sided with Factory cloth as lumber is not to be had \& Factory can be had at New York prices. Moored to the shore are probably 100 ships \& scooners. Their crews desert to the mines immediately upon arrival. A steamboat will commence running in a few days from here to San Francisco.

Now as to Gold, Country \&c. First as to the country. It rains in the Sacramento \& San Joquin valleys, which is the only arable land in California, from November until the first of May. The rest of the year we have no rain. It never snows \& seldom freezes in these valleys. Grass is good all winter. Wheat, mellons, potatoes \&c grow well. Corn will not grow. The width of the valleys varies from 50 to 150 miles \& is about 500 miles long, that is to both together are 500 miles in length. Provisions are cheap \& plenty. Dry goods are selling at New York prices. Our sugar \& molasses are brought from the Sandwich Islands and are of the best quality.

Lastly gold. The Gold Region is 500 miles long \& averages 75 miles wide. There are probably 80,000 persons engaged in digging. Most of the rich mines are exhausted. The whole gold region has now been explored \& the extent of it is known to a certainty. A miner can make by hand work from 15 to 20 dollars per day \& no more. I say no more for it has been told in the States that men have made from $\$ 500$ to $\$ 5000$ per day, but such things are unheard of here. Labor is regulated by the quantity a man can dig in the mines. In town they are paying $\$ 8$ per cord for wood chopping, $\$ 15$ per day for other work.

Fortunes are not made much easier here than in the States. They might be made but a man will spend nearly all he can make the world over. I would advise all that can make a comfortable living in the States to stay at home and not come to a land where a mans life depends to some extent upon his skill with the Pistol \& Bowie Knife.

There is a code of laws in California but I have never seen them \& not one man in ten ever heard of them. Theft is of rare occurrence
here, the punishment for it being infored by Judge 1.ynch with certainty \& terrible severity. Private rights are seldom invaded for it is always done at the risk of the life of the invader.

We here see men from every nation under heaven. I can stand in the street \& see at a glance a native of China, of Turkey, of Sanwich Islands, natives of all the countries in South America \& Europe. They all have a great fear of the Americans - always treat them with the utmost respect.

I will say to all that think of coming to come by water. It is the least expensive, the most speedy \& much more agrecable than dodging arrows \& travelling across sandy deserts with in some places no water, \& in others none fit for a human to drink. This season probably 8,000 wagons left the States, about 100 have arrived, probably 1200 will get through in all, the loss of life will be great - how much you will hear before we will. The accounts you will see in the papers will not be exaggerated for exageration will be impossible.

I have been interrupted a thousand times in writing this letter $\&$ now in a few minutes have to mount my horse \& ride to a ranch 45 miles distant. I hope you are all well. You will see me again, maybe sooner than you expect. I shall go down to San Francisco in a few days where I hope to find a letter from home. It is 150 miles distant but only $11 / 2$ days journey for these powerful California horses \& I have one of the best in California.

There are several post offices established in the territory but there is no certainty in letters reaching further than San Francisco. From there to the States the mail goes monthly. I will write again in a few days. I will say to Wm . dont think of coming to this country; to Horace to go through college if possible, read everything \& think more than you read. I will again say my health never was better. I have not had a sick day since leaving home. Am black as a Mexican \& can already speak their language sufficient to trade with them.

That you may long live in the enjoyment of health is the prayer of Thaddeus.

Sacramento City
Oct. 21st/49
Dear Father, Mother \& Brothers
I received about an hour since the first letter from you dated June 24th. It should have come to hand 2 months ago as a monthly mail

line runs between San Pranciseo \& the States. But owing to the had management of the office at the Bay, letters are generally detained from 6 to 8 weeks after arrival before forwarding. But even if your letter had arrived I could not have received it, for I came to this city night before last, having been with a party of 3 men besides myself in the mountains for 2 months past, above all vestiges of civilization, among Indians \& Grizly bears.

We were on the headwaters of the Yuba River. We divided our time between digging gold, and exploring a country where white man never trod. I think we can say that we were the first to explore the region, for Fremont never saw it, and the Indians evinced the utmost surprise at the report of fire arms and were perfectly ignorant of their power until some of them were foolhardy enough to make it necessary for our safety to show them there was a wide difference between the spear of a savage and the rifle \& Colts revolver of the American when obliged to be used for self preservation. For provisions we hat to rely upon the deer and the salmon fish which the Indians spear in great numbers.

We remained with the Indians until the 3 d of Octoher when we commenced descending the river. We reached the mining region on the 13th. Then purchasing a skiff, we rapidly descended the Yuba to its junction with the Rio De Plumas, a distance of 90 miles. Thence down the latter to its junction with the Sacramento a distance of 60 miles; thence to this city a distance of 40 miles.

Our arrival created some little sensation here as it had been reported that we had been cut off by the Indians. We arrived, however, in the most vigorous health, dressed in Puckskin clothes, with long hair \& unshaven beards, and are now trying to make up a party to explore \& dig gold on the headwaters of the Gila River. a part of the boundary line between us \& Mexico. If we do not succeed we shall winter on the head waters of the San Joaquin.

So much for myself. I have seen nothing to change the opinion T expressed of California immediately upon my arrival in this country, namely, that it is totally unfit for a civilized being to inhabit \& that no one will stay here except for the purpose of making their fortumes, in which expectation $3 / 4$ will be disappointed. Even thousands are now leaving with less money than they brought, yet for one that leaves a hundred come to supply his place. Those that came to this comutry last year have done well, part that come this year will do better that they would have done in the States, but those that come next year will do
well if they make their board which is $\$ 21$ per week in this city \& much higher in the mines.

I see by your letter that William thinks of coming to this country. He knows I would like to see him \& would advise him to come if I could, consistently with my experience. But for him to leave home, and one of the best homes a son ever had, to come here where the chances of life are somewhat problematical and the chances of a fortune desperate in the first degree for those that come hereafter, would be the height of human folly. I speak warmly but no more so than I feel, and if after what I have written he should come, I would almost be tempted to meet him as a stranger in this distant land.

That I have never regretted coming I do not deny, for I have been blessed with good health \& good success in all my operations \& that too in a land where there has been more sickness \& misery \& privation in every shape without the cholera the past summer than there has been in the States, including the cholera. I hope the cholera in its giant strides may be checked before it desolates the beautiful prairies of Illinois, but I fear the worst.

I sometimes think that I shall never see you all again but I hope for the best. The cholera has not yet reached us; we think its pestilential breath can never cross the mighty wall of the Siera Nevada, and it will probably not cross unless we are deemed worthy of a special Judgment which our many sins here undoubtedly merit.

I have nothing more to write now. I will write again the first opportunity but it may be months before I will have one. In the meantime assure yourselves I am doing well. I will enclose a few scales of gold of my own digging. ${ }^{14}$

Affectionately yours
T. L. Loomis

Mr. Anderson preserved the spelling and punctuation of the original but placed the material in paragraphs for greater clarity and ease in reading.

14 In a small glass vial, now in possession of the writer, on temporary deposit at the Historical Society of Western Pennsylvania.

## SIGNIFICANCE OF THE UNITED STATES PUBLIC LAND SURVEY

Jerry $\Lambda$. O'Callagian

## Editorial Foreword

The speech which follows relates to an episode in American history that is intimately intertwined with Western Pennsylvanin tradition and has its roots deeply imbedded in its soil.

The survey of the Mason and Dixon Line had been started in 1766 and halted by Indian hostility in southern Bedford County, in 1767. Not until 1784 was it feasible to complete the project to its intended five degrees measured from the Delaware River. A noted panel of scientists made up the survey team: Dr. James Ewing, Provost of the University of Pemnsylvania; David Rittenhouse, mathematician and astronomer of the same institution; Dr. James Madison, Bishop of Virginia and President of the College of William and Mary; John Page of Virginia; John Lukens of Pennsylvania; Andrew Ellicott, surveyor of more state lines than any man of his day or since; and Thomas Hutchins.

Hutchins, it will be remembered, had been present at and rendered most valuable service at every important event at Fort Pitt. In Forbes' army he had merited favorable mention in reports, had been very useful to Engineer Captain Harry Gordon in building Fort Pitt, had assisted Gordon in the first mapping of the course of the Ohio River, had accompanied Bouquet, in 1760, to establish Fort Presqu' Isle, had been Bouquet's engineer on his never-to-be-forgotten expeclition into Ohio to quell Pontiac's Indian allies, in 1764, had been engineer in General Green's army in the South in the Revolution, and now enjoyed the appointment as Geographer of the United States. In most of these activities he had been based at, or operated from Pittsburgh, and lies buried in an unmarked grave in the quaint graveyard of Pittshurgh's First Presbyterian Church. ${ }^{1}$

[^3]
[^0]:    3 Ft. Laramic, Wyoming.
    4 Ft . Hall, Idaho.

[^1]:    5 Vicinity Marysville, Kansas.

[^2]:    11 Soda Springs, Idaho.
    12 Snake River.

[^3]:    Address of Jerry A. O'Callaghan, Chief, Office of Legislation and Cooperative Relations, Bureau of Land Management, U. S. Department of the Interior, at the dedication of the point of beginning of the United States Public Land Survey as a national historic landmark, Friday, September 30, 1966, at East Liverpool, Ohio.-Elitor
    1 Ann M. Quattrocchi, "Thomas Itutchims" (umpublished Doctoral Thesis, University of Pittsburgh, 1944), passim.

