The Sierra were a "formidable and apparently impassable barrier...."
from What I Saw in California pg 230 8/26/1846

What Do We Do Now?! Part II - the Solution

"When we struck the main ridge of the mountains, every heart was filled with terror at the awful site [sic]."
quoted from So Rugged and Mountainous pg 243

I liked last month's front page pictures so I've repeated one here. Imagine having spent months crossing 2000 miles of the North American continent and you are approaching the end of journey. Maybe you can smell California you are so excited. Then you are confronted with the toughest challenge of the trip, the Sierra Nevada. William Tustin, in the quote above, was talking about Donner Pass, the subject of last month's newsletter. It took his party four days to get up and over it. At the end, he said, "The mountain was smeared with blood and hair from bottom to top. - It was the most awful sight I ever saw." Donner Pass was misery. There had to be a better way.
Given that there was no "road" up Donner Pass and in places wagons had to be hoisted up, there was great incentive to find another route. Donner Pass was used in 1844, 45, and at least partly in 1846. By 1846, though, emigrants had found another route over the mountains, Roller Pass, which was just a couple of miles south.

As you approach Donner Pass going west just before you arrive at Donner Lake, there is a left turn to make that takes you to the south of Schallenburger Ridge. There are a couple of gas stations at the intersection and the intersection is a freeway ramp. As you travel west in Coldstream Valley with high ridges on either side, you approach the picture on the previous page. Like Donner Pass the approach to Roller Pass looks terrible if you're looking for a way over, but there is a route. Actually there are two routes the but emigrants only found one, the harder. The other route, Coldstream Pass, was probably not used by emigrants.

Looking at the picture on the previous page you see three peaks. On the right is Donner Peak, in the center is Mt. Judah, and off to the left is Mt. Lincoln. All three make good hikes today. Between Mt. Judah and Mt. Lincoln is Roller Pass, the subject of this month's emigrant route.

Today you can take the Pacific Crest Trail from Donner Pass on Old Highway 40. Get off I-80 at the Soda Springs exit and head east a few miles to the top. Just before the Sugar Bowl Academy building which sits opposite Donner Ski Ranch, you will see the road into Sugar Bowl. Turn right and take the first left hand turn which is only a couple of hundred yards along and is just past the 1867 now unused train tunnel. That's Lake Mary Rd. At the sharp 90 degree bend where the pavement ends, you'll see the PCT trailhead signs. 2.16 miles up the trails is Roller Pass. It's an impressive sight looking down. You will wonder how anyone could get wagons up it. If you are adventurous, walk down and then back up. You will know the people in the old days were a lot tougher than we.

Nice picture taken on Schallenberger Ridge during exploration for this issue.
Roller Pass, discovered 1846, was much better than the rocks of the pass going up what is today the Old 40 route or Donner Pass.

From 1847 through 1850 it is estimated that less than 10,000 emigrants took Roller Pass (about 30% of those heading to California). No emigrants used Coldstream Pass despite a Trails West type marker indicating they did.

Dave Hollecker
OCTA and Trails West

Top picture here looking straight down Roller Pass.

Center picture, at the top just above the steep incline looking west.

Bottom picture, looking up from half way down or so.
The meadow at the bottom of Roller Pass where the wagons congregated waiting their one at a time turn to go up. There must have been, at times, dozens of wagons encamped and waiting. The meadow is the green area in the picture on page 2.

View at the top of Roller Pass looking east. Anderson Peak and Granite Chief are in the distance as is Lake Tahoe. The Pacific Crest Trail goes along the ridge to the right.

About the quotes in this newsletter.
The quotes of real people personalize the history and make it more human. Most of the quotes in the stories here come from Emigrant Trails, reviewed in our July newsletter. A few come from So Rugged and Mountainous which will be reviewed in a future newsletter - when there's room. Some quotes appear in both. One quote comes from The Look of the Elephant which will be reviewed at some future time too. That book is nothing but quotes of emigrants.
This is just a clever way to show how steep Roller Pass is. The picture is oriented so the trees are vertical.

Look at the angle of the trees to the slope. It’s really a hard climb on foot and the footing is treacherous.

Imagine going up and down, pushing, cajoling and cussing ornery (or smart) oxen. Imagine putting your back into one wagon after another to help them up the mountain, keep them from tipping over, and moving rocks so the wheels could roll.

Imagine carrying the kids up one at at time and some and then going back to carry some breakable family mementoes.

For those who are mathematically inclined take a look at the the next page.
Roller Pass

We arrived at the main difficulty from here to the summit is one mile it is as steep as the roof of a house.

Joseph Hackney, 1849

The Math of the Pass

Roller Pass is a 29% slope which is a 16 degree angle. In terms of precision, the limiting factor in the calculation was the two digit 0.16 miles for the base, so I limited the answer to 2 significant digits; this is the approach currently in use in science instruction. Another approach would be that the slope is 29.2 (+/- 2) % and angle is 16.3 (+/- 0.9) degrees.

-- Michael McKibban
Donner Summit Historical Society Mathematician

Elevation at Old 40 at the junction for hiking to Roller Pass: 7070
Elevation at the top of the pass: 7823
Distance from the trailhead to the pass: 2.16 miles
Distance down the incline to relatively flat bottom: .16 miles
Elevation as the bottom of the pass: 7576
Using Roller Pass

…the Sierra Nevada being very steep and our cattle very poor our pilot Mr. Greenwood, who had already informed us that we had arrived in California, advised us to follow the counsel of our fellow traveler Mr. Judson Green, who had proposed to make a roller, and fasten chains to the wagons, & pull them over the mountains wit the help of twelve yokes of oxen [a yoke is two oxen]; I consider it needless to say that Mr. Green’s plan worked admirably, and in a few days the whole party was safely placed at the top of the mountain.

Nicholas Carriger 1846

It was snowing…and in order to get the wagon over the precipitous slopes ten oxen were hitched to a wagon, then it was driven as far as it could go and then a chain was attached that worked on a roller on top of the mountains. With a man on each wheel the summit was at last reached.

Mary Jones 1946

We put about five yoke on a wagon, and had as many men with it as was necessary to keep it from sliding sideways. Then with five yoke on the summit letting down our long one hundred and fifty feet rope, and hitch it with the leader that were on the wagon, by this process we succeeded in getting all the wagons up safely.

Joseph Aram 1844

who possibly discovered Roller Pass

About nine o’clock we doubled teams and began the accent for the summit. While the teams were slowly toiling up the summit, Father, Mr. Buck. Margaret and I climbed one of the highest peaks near the road and were well repaid for our trouble by the splendid view. On one side the snow-capped peaks rise in majestic grandeur, on the other they are covered to their summits with pine and fir, while before us in the top of the mountains, apparently an old crater, lies a beautiful lake [Donner lake] in which the Truckee takes its rise.

Eliza McAuley 1852

Five miles farther brought us within 1/2 mile of the summit, where we in fact found "the Elephant." ...Some of Captain Karr’s wagons had 15 yoke of cattle attached at one time and even then stuck fast at times. We drew our wagons part way up the moutain with 4 yoke of cattle and the aid of a long rope around the end of the wagon, extending up by the side of the oxen and beyond The men pulled on the rope and aided materially not only in the ascent but in keep the oxen in line until we arrived at the most difficult point of ascent. Here we were obliged to double teams putting 8 yoke on the wagons and two yokes to the end of the rope that was continued on up.... In this way wwe were enabled to get all our wagons on the summit...without a single mishap. After giving three cheers we started for the valley on the west side.....

Charles Parke 1849

An old guess at how the emigrants got over Donner Summit.

Some Weddell signs still mark this route.
Finally, Summit Valley

What a feeling of relief the emigrants must have felt after taking days to get to the top of Donner or Roller Pass. They had conquered the hardest part of Sierra challenge. What a beatiful valley with water and grass and it's all downhill to California - well, it's mostly downhill.
Where Did They Go Next?

After reaching the top of the Pass the emigrants headed down and across Summit Valley, pictured left. Lake Van Norden was not there then.

At the other end they headed left of the hill you see. That hill is today Soda Springs ski area. They went uphill left to what is today Pahatsi Rd. and headed west. There is one 20 Mile Museum interpretive sign just below Pahatsi as well as a Trails West marker just below that.

Heading west the emigrants passed a number of lakes heading towards Devil's Peak. Some research says the trains dropped to what is now the freeway just at Cascade Lakes, but Trails West found a diary entry they placed on their marker on the north side of Devil's Peak (above).

If you can't read the inscription to the right, it says, "We nooned....to the left of the road and closet [sic] to the foot of a high rocky peak on the south, which I called Pinnacle Rock (some call it the Devils [sic] Peak). A fine spring rises here at its foot. Augustus Ripley Burbank, Sep 13, 1849"

Indeed it's a beautiful spot to camp. There's a little gurgling brook just to the left of the sign, coming perhaps from the spring at the foot of Devil's Peak.
In the 1860's there were no computers, televisions or radios, but there were cameras. To take pictures, all you needed was a camera, tripod, lenses, lots of chemicals, glass plates, maybe a helper, a wagon, and a horse. One special type of picture was the stereoview. To take this kind of photo, you needed another type of camera. It had two lenses and recorded two slightly different images at the same time, the same way your eyes see things from different angles.

Stereoviews became very popular, and photographers like C. E. Watkins traveled around with all their equipment taking stereo pictures like the top picture on this page of Donner Lake. Once back in their studios, they would print out the pictures and mount them on cards. To view them, you needed a Stereopticon. This gadget had two lenses and a holder for the cards. Looking at them through the viewer recreated the 3D effect.

In the 1950's there was a surge in popularity of stereo pictures, and most homes had a Viewmaster, with it's circular disc of pictures.
Then and Now with Art Clark, continued

Today, there are a few cameras which take stereo photos automatically, but you can do it with just about any digital camera and computer software. Take a picture, move sideways a few inches, and take another. Free software such as Stereo Photo Maker http://stereo.jpn.org/eng/stphmkr/index.html aligns the images and allows you to create Stereo Cards.

With the software you can also make red/blue stereo photos. These only need a pair of red/blue glasses to view.

After seeing some stereo cards of Donner Summit, Janet McMartin and I have been hiking around trying to find the exact spots where some of these were taken. By bringing along a print of the card, and trying to align cliffs, lakes, rocks, and sometimes trees, you can get to the general area. It can also mean a lot of "maybe just a little higher" and "we need to climb down and go over to the next gully" and "Darn, there's a tree in the way!"

When you get to the right spot, it's like Christmas: "Hey, look at that crack in the rock. It's right here!"

What, you don't have a Stereopticon? Don't despair. Most people are able to sit back, let their eyes relax, and begin to see them. There's a "How-To" here: http://terryfic3d.com/How-to-View-Stereo-Images_sku200.html

The pictures on the previous page were short from: 39° 18.963’N, 120° 19.297’W

Art Clark spends a lot of time on Donner Summit exploring for old signs and the trails they marked. Our DSHS website has a page about his exploits, http://www.donnersummithistoricalsociety.org/pages/sierraskiways.html Our December, 2010 newsletter also has an article about his efforts. So far he has found hundreds of old Ski Ways signs.
From the DSHS Archives

National Geographic January, 1926. "The mail plane made a successful landing in 12 feet of snow high up in the Sierras, on a frozen lake too small to permit a successful take-off." The road is on Donner Summit. Which frozen lake was it?

The opening of Highway 40 in 1932. The first year the "opening" was only one plowed lane. Division of Highway workers would wait for enough travelers to make up a caravan and then lead the vehicles over the Summit. Workers thought it was a treat to get to go the big town of Truckee and stay in the hotel until there was another caravan to lead back west. Imagine how long a trip took in those days.
Where else do you get such interesting historical artifacts?

Where else do you get such good historical entertainment?

Don't let your subscriptions lapse.
Addendum

Our first addendum.

In our last issue we covered the emigrant route up Donner Pass and Trails West's trail marker at the top east of Lake Angela.

Almost as soon as the newsletter came out we received an email from a trails expert, Marshall Fey (whose book Emigrant Trails was reviewed in our April issue).

The pictures here are his contribution regarding Roller Pass. They show the Boy Scouts' interpretive sign that sat right at Roller Pass. It's been gone a long time.

Marshall also sent us the picture of the ten foot rock cliff that he thinks is where the Stephens Party had to pull up their wagons. He asked that we not use that since he will be writing something about that which will include diary entries and pictures. Naturally, we're happy to wait for that.

We'd have waited for the December issue since the November issue has been done, but our editorial staff got excited and besides, the December issue is really going to be full of all kinds of things. Don't let your subscription lapse.

Emigrant Trails Redux

Marshall Fey believes it is clear that the emigrants had to go up Stephens Pass generally following the canyon to the top somewhere near where the old highway now goes. He does not believe the emigrants could have gone as described in the last issue, up to the north of Mt. Stewart where the Trails West marker is. Here is his rationale:

1. Common sense — The Stephens Party crossed on November 24 and time was of the essence. They did not have time to do much exploring. They wanted to get over quickly and chose the route they could see.

Taking the longer, higher mountain route the Stephens party would have had to check it out on horseback to see if this less obvious route was feasible for oxen and wagons. A delay would have probably cost the party another day. Neither the Murphy or Shallenberger accounts mention that they halted on the arduous climb up to the summit for the purpose of scouting for alternate routes.

2. Mr Fey has photos of evidence on what he thinks is the route. "I did it [photographing] in an attempt to verify the established route. [See Moses Schallenburger's reminiscences of 10 foot wall on the next page]."

3. "The 1866 Freeman map [next page] is the Holt-Atherton collection in the University of the Pacific. I believe this map was found By Irene Paden (Wake of the Prairie Schooners, 1943). They have 7 boxes of her trail research. Not detailed, the map does show the established route" and not anything about a route going near Lake Angela.
The snow on the mountains was now about two feet deep. Keeping up their course on the north side of the lake until they reached its head, they started up the mountain. All the wagons were unloaded and the contents carried up the hill. Then the teams were doubled and the empty wagons were hauled up. When about half way up the mountain they came to a vertical rock about ten feet high. It seemed now that everything would have to be abandoned except what the men could carry on their backs. After a tedious search they found a rift in the rock, just about the wide enough to allow one ox to pass at a time. Removing the yokes from the cattle, they managed to get them one by one through this chasm to the top of the rock. There the yokes were replaced, chains were fastened to the tongues of the wagons, and carried to the top of the rock, where the cattle were hitched to them. Then the men lifted at the wagons, while the cattle pulled at the chains, and by this ingenious device the vehicles were all, one by one, got across the barrier.

From George Stewart's, *Opening of the California Trail* page 102 "Overland in 1844," Moses Schallenburger's reminiscences set down for George Bancroft in 1885 and edited by George Stewart.

The quote is courtesy of Marshall Fey.

Moses Schallenburger was a 17 year old member of the Stephens Party who was left at Donner Lake for most of the winter and for whom Schallenburger Ridge, the ridge along the south side of Donner Lake, is named.