

Sketches of the Saline Valley and the Salt Tram

by William Jack Mann "aka Shortfuse"

Swansea Salt Tram by Max Rosan

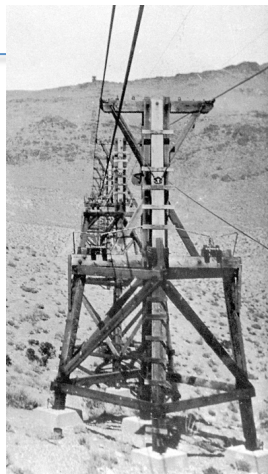
Some people are curious as to why there are two cables operating each tram car. The principle is similar to a ski gondola car: the upper cable is the "suspension" cable, supporting the weight of the cars.

It does not move. The lower cable is the "traction" cable, pulling the cars uphill and regulating the descent speed downhill. The traction cable runs through a clutch mechanism on each car. As tram cars were being loaded or unloaded, they were declutched, allowing the car to remain stationary as the traction cable slipped through the clutch. The traction cable continued to move other cars on their way to or from either end. Once the car was loaded or unloaded, the clutch was re-engaged and the car was on its way.

At the summit control station, the suspension cable ended and the cars' suspension pulleys merged onto a track, similar to a railroad track but much smaller, around two inches tall. Once inside the building and on the track, cars needing maintenance would be declutched, and pulled by hand over to a track switch and onto a side track, where they would be out of the way of incoming cars. In this manner, any necessary maintenance or repairs could be made. Once a car was ready for service, it would be walked back to the switch and onto the main track, the clutch lever engaged, and the car dispatched along its way.

When I first visited the summit station around 1975, all the tracks and the switch were intact, which is how I envisioned the above explanations. Sadly, vandalism has taken its toll on this historic structure and engineering feat, and all the tracks, and switches, are now gone. The only major remaining feature of this once-operational tram system is the massive brake disc, situated near the western end of the building, probably because it is too large and heavy to steal. The braking device was necessary in case the traction cable needed to be halted, as the traction cable was inherently unbalanced with westbound cars heavily laden with salt, and empty ones heading back to the Saline Valley.

A similar suspension and traction cable system was used for the ore cars on the Cerro Gordo tram. This can be seen at the lower end of the line just down from the lower canyon narrows, where a solitary ore car still hangs from its suspension cable, the traction cable on one end snapped and dropping down to the canyon floor below.



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Interview With Charley J. Southey And William A. Kemp about their experiences on the Saline Valley Salt Tram.
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Part 1

The Summit Control Station and Power House can be seen at the top of Daisy Canyon northwest of Cerro Gordo ghost town. The control operator's house has been restored, and is a pleasant spot for modern backcountry travelers to pause for a picnic and ponder over the construction of the great salt tramway in the early 1900's.

In the early 1900's salt was still used as a preservative for foods. The Saline Valley had plenty of salt, so a tram was built to carry the salt over the Inyo Mountains, to the Owens Valley, and off to market by rail. Work began on the tramway in 1910 and was completed in 1913. Gondola cars carrying 800 pounds of salt, traveled at a rate of 20 tons per hour over those mountains. A total of 30,000 tons of high grade salt was carried over the tramway on and off through the early 1930's.

The main salt tram summit control station straddles the crest of the Inyo Mountains. It once was totally enclosed with metal siding.



The salt tram consisted of a series of tramways, 13.5 miles long. A unique crossover system allowed the gondolas to go from one tramway to the other without stopping. Electricity was provided by the Edison Power Plant located in Cottonwood Canyon in the Sierra Nevada Mountains on the western side of Owens Valley.

Salt tram towers seen from the Swansea Grade on the west side of the Inyo Mountains. No two

towers are exactly alike.

Before the salt could be transported on the tramway, it had to be harvested from the Saline Valley lake bed. Fresh water was pumped from a large spring into shallow ponds that were built on the lake bed. The hot sun baked down on the brine solution in the ponds. As the water evaporated, the salt crystals that remained were raked into piles. The salt was then shoveled into wooden railway cars that were pulled into a large storage hopper, where tramway gondolas automatically were loaded with salt.

The unique system was capable of filling 56 gondolas per hour, or 20-24 tons per hour. As many as 40 - 60 men were employed at the salt tram, enduring summer temperatures which could reach as high as 120 degrees.

Following its trek over the Inyo Mountains, gondolas ended up at Owens Lake, northwest of Swansea. Here the salt was dried, screened, and prepped before railroad shipment. The first buckets of salt reached the Owens Lake railhead on July 2, 1913. "The World's Purest Salt" was endlessly transported over the tramway for seven years.

The high cost of the construction of the great tramway over the Inyo Mountains, prevented salt mining from being a profitable venture, unfortunately. Ownership changed hands on and off until the depression hit and the gondolas stopped forever. The remains of the towers can be seen here and there as you travel the Swansea Grade today.

Part 2 - The Electric Crew Comes to Saline Valley

In the 1920's two men, Charley J. Southey and William A. Kemp, worked on electrical lines that were needed for the salt operations. In July, they ran across a prospector in Big Pine who advised them how to survive working in the hot summer sun. Work was impossible after 2 p.m. when temperatures peaked, so they were told to head for Saline Valley early in the morning, around 6 a.m., and not quit for lunch, just grab a donut or sandwich that could be eaten quickly while continuing to work. Charley and Bill heeded the old prospectors advice and worked their eight hour shifts straight through until 2 p.m.



The living area at Saline Valley in those days, was supplied with a six inch pipe that brought water in from Hunter Springs to flow into a big bathtub. The men would wet their shirts before they put them on, then wet blankets and hang from the ridgepole of their tent to keep cool.

Charley and Bill went to Saline Valley with a mule team by way of Waucoba, and came out on the tram. Once the tram started running, they would ride from the valley up to Station 7, the first station above Saline Valley. From there they had to walk back down to their work place. The equipment they used for their work was hauled on the tram also, and snaked backed down by hand to where they could use it. The sides of the mountain were way to steep for the teams of mules. On the tram was a refrigerator car that was kept cool with ice. Fresh meat and vegetables came in twice a week. Dried beans, cereals, and other staples kept the men satiated in

between time. The cook was noted as being very good, and the men talked of wonderful meals including such innovative dishes as cantaloupe pie. The living quarters were near fresh water from Hunter Creek, so water was never a problem.

When Charley and Bill first arrived to work, salt was not being transported out of Saline. Machinery for the salt operations had broken down and was being worked on, but the tram itself was running. Electricity was being put in the valley to replace the gasoline engines that strained to work in the summer heat. Valves were known to burn and gears would run dry. Bill Kemp remembered that much of the equipment the salt company used had rawhide gears that failed often and needed to be replaced.

One trip into Saline by truck was nothing but trouble. At Bunker Hill Mine, near Willow springs, all the rubber was lost off of the wheels and chains were broken. They were stranded until word was gotten out to a man named Laney who came in and helped them unload. Everything was then teamed down into the Valley. At Willow Springs, the men remembered grapes growing there, and enjoyed them by the handful before heading down into Saline Valley. Everyone walked into Saline except William Kemp and the mule skinner. William played the banjo and sang, as they traveled by the light of the moon at night when temperatures were more comfortable.

The gondolas, or buckets of the salt tram were comfortable for the men to ride in. Two men at a time could sit inside, facing each other. The bottom of the buckets had drain holes on them and a line of salt could be seen on the ground beneath the tram line. When Charley and Bill rode the tram in 1920 there were no lids on the buckets, but in its early days there were.

The ride on the tram must have been daunting. As they traversed over Daisy Canyon, the men could see cars lying on the canyon floor. They would look up ahead and wonder when the next bucket would break loose, and come back to smack them. One afternoon, after a hard day's work, Charley and Bill were coming back down to Saline Valley, and chose to hike up to Station 7 and ride a bucket back to camp. Charley was in the bucket below Bill Kemp when the power went off. Time lingered forever. Another man, by the name of Bill Southey, and others hadn't loaded up yet, so took hand lines and threw them over the cable and walked down to the stranded bucket. Other hand lines were added on as they needed them. Bill Kemp was about 125 feet above the ground when they arrived at the bucket, and he came down hand-over hand on the double line. Charley was about 300 feet off the ground by the time they got to him. His hands slipped and he burned his hands and legs, but somehow made it down. The tram remained out of operation until sometime that night, so the men were glad they were not left hanging there the entire time.



Part 3 - Prospectors Traveling Through

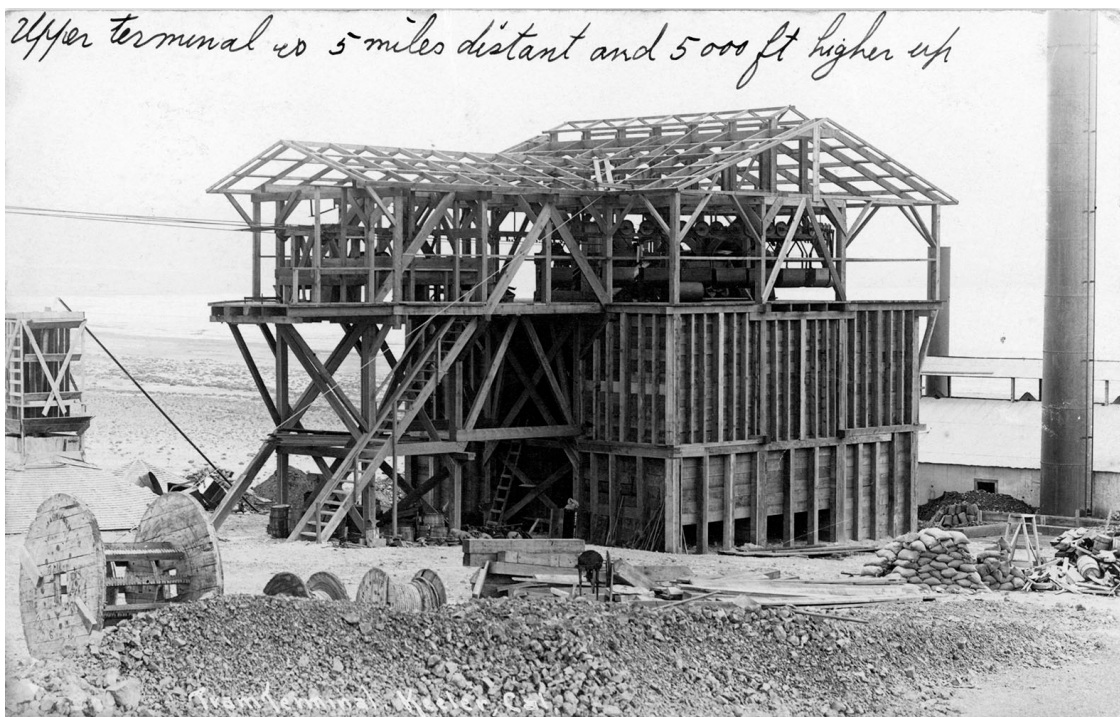
The vast beds of pure grade salt in Saline Valley were passed over by miners as they rushed through the valley seeking their fortunes in the yellow ore they would eventually find in the nearby mountains. Even in the 1920's as William Kemp and Charley Southey put in electrical lines for salt operations, and automated vehicles were beginning to replace mules and wagons, prospectors still combed the hills. William Kemp remembered them in this story told in his own words:

“While we were in the Valley, there were two young chaps from Keeler who borrowed or bought a burro and started across the mountains. The burro (evidently carrying their food and water) got away from them but they kept coming without it. One of them--a young chap 20 or 21 years old--made it to our camp in Saline. By the time he got there his tongue was so thick from thirst that he couldn't talk. He kept pointing back the way he had come, trying to tell us that there was another fellow back there.

It just happened that when this fellow from Keeler came into camp, two men who had a claim in the Ubehebe's were at our camp in Saline Valley. Right away they got a couple of horses from the Indians and an Indian went along with them. I remember they took canned tomatoes and canned pears with them, plus water. That's all they took.

They found the other poor chap. He had all the skin wore off his fingers trying to get out of a conglomerate wash. He as still alive and they brought him in and revived him. I don't know what became of him--they must have sent him out on the tram.

The two men who had the claim in the Ubehebe's would hike out to Owens Valley about once a month or so. They would pick out their high grade ore and put it n packs on their backs and start out from there and hike into Hunter Canyon. All they would bring along would be raisins and cheese, plus their canteens of water and a wet cloth on their heads under their hats. They'd stay all day in Hunter Canyon--they walked only on moonlight nights--and then hike out to Keeler. From there they would come up to Lone Pine and Independence and peddle their ore. They would buy the groceries that they needed and hike back into their claim over the same route. These remarkable young men, thy packed out 40 pounds of ore each. The 80 pounds of ore had to be rich enough to buy them groceries for the next month.”



Saline Valley Valley Salt tram terminus north of Swansea, CA on the SPNG.