

*[Note: This information on Utah boundary markings was prepared by Harold Mitchell for a college surveying class he taught. Much of the information is from USGS Geological Survey Bulletin 1212 titled "Boundaries of the United States and the Several States" by Franklin Van Zandt published in 1966.]*

The Utah-Idaho line was surveyed and marked in 1871 under the direction of the General Land Office. The initial point was fixed by reference to an astronomical station near the Bear River. The position for the terminal mark was determined by a long series of observations for latitude with a zenith telescope. The initial mark was a wooden post 8½ feet by 12 inches by 7 inches, marked "34° WL" on the east, "UTAH" on the southwest, "IDAHO" on the northwest, and "42 L 1871" on the north which was surrounded by a large pile of stones. From this point a line was run due west a measured distance of 153 miles 56 chains to a point where an 8-foot cedar post was set in a mound of rocks and suitably marked for the common corners of Nevada and Utah on the Idaho line. A mark set in 1870 for these corners was destroyed, the new mark being placed 1 mile 12 chains farther south.

The Utah-Arizona boundary, on the 37<sup>th</sup> parallel of latitude, was surveyed and marked in 1901. The mark set in 180 for the southwest corner of Utah was destroyed because observations for latitude showed that it was 1 mile 31.51 chains too far north. A new corner mark was established 7.88 chains south of the 300<sup>th</sup> mile mark of the Nevada boundary survey of 1870. This mark consisted of a sandstone post 6 feet by 16 inches by 12 inches, set in a pile of stones and marked "NEVADA" on the northwest, "UTAH" on the northeast, "ARIZONA" on the southeast, and "37 N L 1901" on the southwest. [This location was remonumented in 2017]. The line was run thence due east, checked by 5 latitude stations, a measured distance of 277 miles 5.18 chains; the line intersected the post at the southwest corner of Colorado, set in 1875. The mark for each mile of this line is a stone post or iron pipe. Between the 152<sup>d</sup> mile and 153<sup>d</sup> mile marks, the line passes over a sandstone butte, the summit of which rises about 1,000 feet above the plain. Surveys by the General Land Office in 1927 shows that there is a break in this line near 110°30'W. (T.43 S., R. 13 E., Salt Lake base and meridian), mile post 197 being 33 chains (2,178 feet) farther north than milepost 199.

The Utah-Colorado line was surveyed in 1879 from the point established by Robbins in 1875 as the southwest corner of Colorado. The survey runs north to the Wyoming line, a measured distance of 276 miles 51.66 chains. It was expected that this line would intersect the south boundary of Wyoming about 30 chains west of the 261<sup>st</sup> mile mark, but the line as run was nearly 1 mile farther west (262 miles 28.58 chains). A sandstone block 30 by 20 by 6 inches was set 18 inches in the ground at this point and marked "WYO" on the northeast, "COL 32° W L" on the southeast and "UTAH 41, N L" on the southwest face. The Colorado-Utah line was retraced in 1885 and re-marked with stone or cedar posts from the south end as far north as milepost 209. Between mileposts 81 and 89 the line was found to diverge toward the west 7°10', an error which at least in part accounts for the failure to close as expected on

the Wyoming line. Between the 100<sup>th</sup> and 110<sup>th</sup> miles the positions of two boundary marks were determined by the Coast and Geodetic survey in 1893 showing that the line in this locality is nearly half a mile west of its statute position.

The south boundary of Wyoming was made under direction of the General Land Office in 1873. Beginning at a mark established in 1869 for the intersection of the 41<sup>st</sup> parallel and the 27<sup>th</sup> meridian west of Washington, the line was run westward, checked by six astronomic determinations of latitude, to the computed location for the 34<sup>th</sup> meridian west of Washington. To find the proper position for this meridian, an astronomic station was established in Evanston. From that station a line was run due south to a mark on the boundary and thence west 4 miles 4.54 chains, to a point where an 8-foot sandstone post, appropriately marked, was set 3 feet in the ground and surrounded by a pile of stones.

The west boundary of Wyoming was surveyed and marked in 1874. Beginning at the mark of 1873 at the southwest corner of the state, the line runs due north for a measured distance of 277 miles 72.66 chains. The position for the intersection with the south boundary of Idaho as marked in 1871 was 41.38 chains north of the 69-mile point and 55.70 chains west of the mark previously established for the initial point of the Utah-Idaho boundary survey.

The east boundary of Nevada, which follows the 37<sup>th</sup> meridian west of Washington, was surveyed in 1870. The longitude for the initial point was found by direct observation from Pilot Peak, whose latitude and longitude had been determined by triangulation from the Salt Lake City astronomic station. The initial point this selected was in the middle of the tract of the Central Pacific Railroad. From this point the line was run northward a measured distance of 46 miles 40 chains to a position which sextant observations indicated was the 42<sup>nd</sup> parallel of latitude. In 1871 a long series of observations with a zenith telescope showed that the mark at this point was too far north; consequently it was moved south 1 mile 12 chains in 1873. From the initial point the line was then run south to the Colorado River. At a point 1.16 chains south of the railroad track a granite shaft 8 feet high, its top dressed to 1 foot square and suitably marked was placed in a pile of rocks, and 289 miles 56 chains south of the railroad a mark was set for the southwest corner of Utah. This mark was later found to be too far north and in 1901 was moved 1 mile 31.51 chains south.

*Note: A chain is a unit of length equal to 66 feet. It is subdivided into 100 links or 4 rods. There are 80 chains in a statute mile.*