

Survey commenced April 17, 1912, and executed with W. & L. E. Gurley Transit No. 553, provided with solar attachment having two opposite double verniers on the horizontal limb, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

I establish a meridian at the United States Reclamation Service Headquarters in Fallon, Nevada, and test the solar apparatus thereby in the following manner:

I examine the adjustments of the transit and correct the level and collimation errors.

In the alley at the rear of the said headquarters, in the Southeast quarter of the Southwest quarter of Section 50, Township 19 North, Range 29 East, M.D.M., I set a post 24" x 3" x 4" firmly in the ground as the south end of the meridian. The latitude of this point is $39^{\circ}28'$ north; longitude $118^{\circ}46\frac{1}{2}'$ west, by the Carson Sink Atlas Sheet of the United States Geological Survey.

With position at the described point, at 9 hours, 59 minutes a.m., local mean time, I, having set off $39^{\circ}28\frac{1}{2}'$ on the latitude arc, and $10^{\circ}32\frac{1}{2}'$ on the declination arc, determine the meridian by solar attachment and mark a point thereon on a stake driven 5.54 chains to the north of and similar to that occupied by the transit.

With $39^{\circ}28'$ set on the latitude arc, and $10^{\circ}38\frac{1}{2}'$ set on the declination arc, at 3 hours 59 $\frac{1}{2}$ minutes p.m., local mean time, I again determine the meridian by solar attachment and mark a point thereon alongside that determined by the preceding observation.

April 18, at 5 hours 42 $\frac{1}{2}$ minutes a.m., local mean time, I observe Polaris at eastern elongation in accordance with the directions in the Manual of Surveying Instructions of the General Land Office, and mark the point on the line thus determined by a tack driven in a wooden hub set in the ground 5.54 chains north of my station.

At 10 a.m., I lay off the azimuth of Polaris, $1^{\circ}30'$ to the west, and mark the true meridian by a small nail driven in the stake set by the solar observations before recorded. One point obtained by solar falls east 22" of arc, and one west 36" of arc, from the true meridian by Polaris. I therefore conclude that the solar adjustments are satisfactory.

April 18, I proceed to Section 12, Township 18 North, Range 29 East, M.D.M., and institute search for the several section corner and quarter corner monuments necessary. At the west quarter corner is a 4" x 4" stake, set 18", and with 12" above ground. The stone is reported to have been washed out in floods of 1907, and replaced by ties to constructed works of the U.S. Reclamation Service, and is now accepted by interested land claimants as the true corner. I place a stone of lava 12" x 10" x 6", set 24" in the ground, marked $\frac{1}{2}$ on west.

The south quarter corner was obliterated. The records of the U.S. Reclamation Service show this monument to have been in place, and its structures now in existence and apparently unchanged, to have been built 0.68 chains south and 0.68 chains north, respectively, from the corner. I replace the corner by these measurements, finding them to check, and set a stone of lava 12" x 8" x 6", 12" in the ground, marked $\frac{1}{2}$ on north face. The point being in the county road, no pits were dug or mound raised.

The northwest corner of Section 12 has been obliterated, and the point found marked only by a small stake, in a roadway fill 2' deep over the original surface.

The records of the U.S. Reclamation Service show this monument to have been in place, and its structures now in existence and apparently unchanged, to have been 0.53 chains west, 0.45 chains south and 0.53 chains north thereof. I verify the position of the stake by these measurements and finding it correct, set a stone 16" x 10" x 3", 16" deep in the ground, marking 5 notches on the south and 1 notch on the east sides.

The north and east $\frac{1}{2}$ corners are found in place.

I can see all four of the $\frac{1}{2}$ corners of the section from the center of Section 12; therefore, with flags set on each of these corners, I range in with the transit, double centering on each