

Fract. Retracement of Eighth Standard Parallel N., R. 27 E. 1

Chains

Survey commenced September 27, 1915, and executed with a Young and Sons light mountain transit, No. 8390, with Smith solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was approved by Mr. G.D.D. Kirkpatrick, Assistant Supervisor of Surveys, at Salt Lake City, Utah.

All measurements were made with steel tapes, 5.00 chs. in length, the first 100 lks. being graduated to links and the remainder to 10 links. Vertical angles were read with a clinometer.

I examine the adjustments of the transit and correct the level errors, then to test the solar apparatus by comparing its indications resulting from observations made during a.m. and p. m. hours with a meridian determined by observations on Polaris I proceed as follows:

At my camp in T. 41 N., R. 28 E., sec. 17, lat. 41° 28.5' N., long. 118° 50' W., at 9h. 0m. a.m., l.m.t., I set off 41° 28.5' on the lat. arc and 1° 22'S. on the decl. arc, determine a meridian with the solar, and mark a point on that meridian on a stake firmly driven in the ground, about 5 chs. N. of my station.

At this station, I set off 1° 25.5'S. on the decl. arc and at about 11h. 51m. a.m., l.m.t., observe the sun on the meridian. The resulting latitude is 41° 28.5' N.

At 3h. 0m. p.m., l.m.t., I set off 41° 28.5' on the lat. arc and 1° 28'S. on the decl. arc and determine with the solar a meridian, which I note differs less than 30" from that marked this a.m.

At 7h. 11.m., p.m., l.m.t., I observe Polaris at Eastern Elongation in accordance with the instructions in the Manual, and mark a point in the line thus determined on a stake firmly driven in the ground about 5 chs. N. of my station.

September 27, 1915.

September 28: At 7 a.m., I lay off the azimuth of Polaris 1° 31' 38" to the West and note that the true meridian coincides with that determined yesterday a.m. with the solar.

I conclude therefore that the adjustments of my instrument are satisfactory.

September 28, 1915.

October 2: From the old Standard Corner of Tps. 41 N., Rs. 27 and 28 E., hereinafter described, I retrace West, on S. bdy. of sec. 36.

26.27 The old Closing Corner of Tps. 40 N., Rs. 27 and 28 E., hereinafter described, bears S. 5.95 chs. dist.

44.10 Fall 6.21 chs. N. of the standard 1/4 sec. cor. hereinafter described.

Therefore the bearing of this half mile is N. 81° 59' E. Traveling at noon, therefore it was impossible to take observation for latitude.

October 2, 1915.

FRACL. RESURVEY OF EIGHTH STANDARD PARALLEL N., R. 27 E.

October 4: The standard 1/4 sec. cor. on S. bdy. of sec. 36, which I find to be a wooden post, 1 in. sq., 30 ins. long, lying on top of the ground, with no marks discernible and with indications of pits E. and W. of cor. 4 1/2 ft. dist., I reestablish it by setting at the same point an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, with brass cap mkd.,