Chains

Survey commenced June 1, 1915, and executed with a Young and Sons transit No.6517 with Smith solar attachment. The horizontal limb is provided with two double verniers placed opposite each other, reading to single minutes of arc, which is also the least count of the latitude and declination arcs. The instrument was approved by G. D. D. Kirkpatrick, Asst. Supervisor of Surveys for Utah and Nevada.

I examine the adjustments of the transit and correct the level and collimation errors, then to test the solar apparatus by comparing its indications, resulting from solar observations made during A.M. and P.M. hours, with a meridian determined by observations on Polaris, I proceed as follows: At the cor. of secs. 3, 4, 33 and 34, on the S. Bdy. of the township, in latitude 40°19'N., longitude 116°07'W., at 4 h 0 m p.m., l.m.t., I set off 40°19'N. on the lat. arc, 22°2'N. on the decl. arc, and determine a meridian with the solar, and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

June 1, 1915.

June 2, 1915.

At 2 h 53m A.M., l.m.t., I observe Polaris at eastern elongation in accordance with the Manual of Instructions and mark a point in the line thus determined on a peg driven in the ground 5 chs. N. of the corner.

At 7 h 45 m A.M., l.m.t., I lay off the azimuth of Polaris 1°30' to the west and mark the meridian thus determined on the stone set June 1, on which the meridian falls 0.8 ins. east of the mark determined by the solar.

At 8 h 0 m A.M., l.m.t., I set off 40°19'N. on the lat. arc, 22°7'N. on the decl. arc and determine a meridian with the solar, and mark a point thereof on the stone set 5 chs. N. of the corner. This point falls on the meridian established by the Polaris observation. The solar apparatus by P.M. and A.M. observations defines positions for meridians respectively about 0'42" west and coinciding with the meridian established by the Polaris observations, therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 h 30 m A.M. is N.18°15'W., the angle thus determined gives the magnetic declination 18°15'E.

The lines of this survey were measured with a 5 chain steel tape and slope angles taken with a clinometer.

The old corner of secs. 3, 4, 33 and 34 on the South Bdy. of the township, which is a stake 1½ ft. long, 2 ins. dia., badly decayed, marked with 3 notches on the E. and W. edges, and set in a mound of earth.

Thence I retrace

East between secs. 3 and 34.

40.00 Search diligently but find no trace of old ¼ sec. cor.

80.51 Find the cor. of secs. 2, 3, 34 and 35, falling 3.20 chs. N. of my line.

The course of this line is N.87°43'E., and the length 80.57 chs.

Corner is a granite stone 12x10 ins. by 8 ins. above ground, firmly set in the ground, marked with 4 notches on the W. and 2 notches on the E., and witnessed by pits and a mound of earth W. of cor.

From the cor. of secs. 2, 3, 34 and 35, I retrace

East between secs. 2 and 35.

40.90 Intersect the ¼ sec. cor. A volcanic stone 8x6 ins. by 8 ins. above ground, firmly set in the ground, marked ¼ on the N. face, and witnessed by pits and a