Chains

Survey commenced August 31, 1915, and executed with a Young and Sons light mountain transit No. 8295, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct and was approved by the Assistant Supervisor of Surveys for Nevada, May 14, 1915.

I examine the adjustments of the transit, find them correct; 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 camp in the NE. quarter of sec. 29, T. 6 N., R. 68 E.; latitude, 38° 21'N., longitude, 114° 22'W.; I set off 38° 21'N. on the lat. arc; 8° 48½'N., on the decl. arc; and at 3h 01m p.m., l.m.t., determine a meridian with the solar and mark a point thereof, on a stake firmly driven in the ground 6 chs. N. of my station.

At 8h 58m p.m., l.m.t., I observe Polaris at approximate eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined on a stake driven in the ground 6 chs. N. of my station.

August 31, 1915.

September 1, 1915: At 6h 30m a.m., l.m.t., I lay off the aximuth of Polaris, 1° 28' to the west and mark a point in the meridian thus determined by a cross on the stake set August 31, the same coinciding with the mark determined with the solar.

At 7h 01m a.m., l.m.t., I set off 38° 21'N., on the lat. arc; 8° 35'N. on the decl. arc; and mark a point in the meridian determined with the solar by a cross on the stake already set 6 chs. N. of my station; this mark coincides with the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively coinciding with the meridian established by the Polaris observation; therefore I conlude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7h 15m a.m., is N. 16° 25'W.; the angle thus determined gives the magnetic decl. 16° 25'E.

A 3 ch. tape and clinometer was used on all measurements of this work.

September 1, 1915.

NORTH BOUNDARY T. 6 N., R. 68 EAST

Sept. 29, 1915: At 9h 51m a.m., l.m.t., I set off 38° 25' N., on the lat. arc; 2° 09½'S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 6 and 7 N., Rs. 68 and 69 E., which is an iron post, 3 ins. in diameter, 1 ft. above ground, firmly set, and marked and witnessed as described by the Surveyor General.

Thence I run

West on a random line, along the N. bdy. of T. 6 N., R. 68 E., setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.

40.00 Set temp. point for ¼ sec. cor.

Sept. 29: Impracticable to be on meridian at noon for latitude observation.