Chains

Survey commenced July 18, 1914 and executed with a Young and Sons light mountain transit No. 6517, with Smith 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 24, 1914. I examine the adjustments of the transit, find them correct; then to test the solar apparatus by comparing it's indications, resulting from solar observations made during a.m. and p.m. hours, with ameridian determined by observations on Polaris, I proceed as follows:
At camp in the center of sec. 22, T. 8 N., R. 49 E.; latitude 38° 32'N., longitude 116° 28'W.; at 11h 49m 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 5 chs. N. of my station.

July 18,1914.

July 19,1914: At 7h 00m a.m., l.m.t., I lay off the azimuth of Polaris 1° 28½' to the west and mark a point in the true meridian thus determined on a stake driven in the ground 5 chs. N. of my station.
At 8h 06m a.m., l.m.t., I set off 38° 32'N., on the lat. arc; 20° 57'N., on the decl. arc and determine a meridian with the solar; the meridian thus determined coincides with the true meridian established by the Polaris observation.
At 12h 06m l.m.t., I set off 20° 55'N., on the decl. arc and observe the sun on the meridian; the resulting lat. is 38° 32'.
At 3h 06m p.m., l.m.t., I set off 38° 32'N., on the lat. arc; 20° 54'N., on the decl. arc and determine a meridian with the solar; the meridian thus determined coincides with the true meridian established by the Polaris observation.
The solar apparatus by a.m. and p.m. observationscoincide with the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.
The magnetic bearing of the true meridian at 3h 30m p.m. is N17°35'W.; the angle thus determined gives the mag. decl. 17° 35'E.
A five chain tape and clinometer was used on all measurements of this work.

July 19,1914.

August 5, 1914: At 9h 06m a.m., l.m.t., I set off 38° 29½' N., on lat. arc; 17° 06'N., on decl. arc; and determine a meridian with the solar at the cor. of secs. 1,2, 35 and 36 on the S. bdy. of the Tp., heretofore described.
Thence I run
N.0° 01'W. bet. secs. 35 and 36.
Over rugged mountainous land through medium growth of cedars and pinon pine and scattering undergrowth of sage brush, shadscale and grass.
Ascend.