

Retracement of S. bdy. T 34 N, R 47 E.

Chains

Survey commenced June 9, 1914 and executed with a Young & Sons transit No. 8518, with ^{a 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 approved by Assistant Supervisor of Surveys G.D.D. Kirkpatrick.

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 p.m. and a.m. hours, with a meridian determined by observations on Polaris I proceed as follows:

At the cor. of Tps. 33 and 34 N, Rgs. 47 and 48 E, which corner is a stake 2 ins. diam. by 2 ft. above ground, firmly set in the ground in a mound of earth and mkd. with 6 notches on each of its N., S., E. and W. edges; latitude $40^{\circ}45'N.$, longitude $116^{\circ}36'W.$; I set off $40^{\circ}45'N.$ on the lat. arc, $22^{\circ}56'N.$ on the decl. arc and at 4 h., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my cor.

June 9, 1914.

June 10, 1914.

At 2 h. 20 m., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 7 h. 50 m., a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}31'$ to the west, the meridian thus determined coincides with the meridian determined by the solar.

At 8 h., a.m., l.m.t., I set off $40^{\circ}45'N.$ on the lat. arc, $23^{\circ}N.$ on the decl. arc, and determine a meridian with the solar, and mark a point thereof on the stone already set 5 chs. N. of my station; this mark falls 1.2 ins. east