

EAST BOUNDARY OF T.4 S., R.48 E.

Survey commenced, November 8, 1906, and executed with the instrument described in book "A", of this survey.

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 standard cor. of Tps. 4 S., Rs. 48 and 49 E., heretofore described on the First Standard Parallel South, in approximate latitude $37^{\circ}30'N.$, longitude $116^{\circ}35'W.$, I set off $37^{\circ}30'N.$ on lat. arc, $16^{\circ}29'S.$ on decl. arc, and at 3h.44m., 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 the cor.

November 8, 1906.

November 9: At 4h.12m., a.m., l.m.t., I observe Polaris at western 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 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}30'$ to the east, and mark the meridian thus determined, by cutting a small groove in the stone, set last evening, on which the meridian falls 0.5 ins. east of the mark determined by the solar.

At 7h.44m., a.m., l.m.t., I set off $37^{\circ}30'N.$ on lat. arc, $16^{\circ}41'S.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.4 ins. east of the meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0'26''$ west and $0'21''$ east of the meridian established by the Polaris