

NORTH BOUNDARY OF T.8 S., R.42 E.

Survey commenced, October 30, 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 cor. of Tps. 7 and 8 S., Rs. 42 and 43 E., on the Reese River Guide Meridian, which is a volcanic stone, 10x8x5 ins. above ground, marked and witnessed as described by the surveyor general, in approximate latitude $37^{\circ}15'N.$, longitude $117^{\circ}12'W.$; I set off $37^{\circ}15'N.$ on lat. arc, $13^{\circ}42'S.$, on decl. arc, and at 3h.44m., p.m., 1.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.

October 30, 1906.

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October 31: At 4h.47m., a.m., 1.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., 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 0.4 ins., east of the mark determined by the solar.

At 7h.44m., a.m., 1.m.t., I set off $37^{\circ}15'N.$ on lat. arc, $13^{\circ}55'S.$, 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