

## Resurvey of the South Boundary of T. 34 N., Rs. 30 and 31 E.

Oct. 3, 1912: At 7 a. m. l. m. t., I lay off the azimuth of Polaris,  $1^{\circ}32'$  to the west, and mark the meridian thus determined, by driving a tack in the peg set October 2, on which the meridian intersects the point determined by the solar.

At  $8^h 0^m$  a. m. l. m. t., I set off  $40^{\circ}49' N.$  on the lat. arc;  $3^{\circ}57' S$  on the decl. arc; and mark a point in the meridian determined with the solar, by a pencil mark on the peg already set 5 ch. N. of my station; this mark falls on the point of the meridian established by the Polaris observation.

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

The magnetic bearing of the true meridian, at  $8^h 15^m$  a. m., is  $N. 18^{\circ}30' W.$ ; the angle thus determined gives the mag. decl.  $18^{\circ}30' E.$

A similar test was made for the Young and Sons transit, with Smith Solar attachment, including the level and collimation adjustments.

Having found the old cor. of Ts. 33 and 34 N., Rs 31 and 32 E, (which is a juniper stake,  $1\frac{1}{2} \times 1\frac{1}{2}$  ins., with distinct evidence of scribe marks, but not legible, and being alongside large mound of earth with pits.) by retracement of the E. bdy. of T. 33 N., R. 31 E., I retrace W. from said cor., on the S. bdy. of T. 34 N., Rs 31 and 30 E. I also retrace the W. bdy. of T. 33 N., R. 31 E., and also to many interior sec. cors., from said bdys. After all this retracement, with the exception of said E. bdy. of T. 33 N., R. 31 E., I find no evidence of any township, sec., or  $\frac{1}{4}$  sec. cors., after spending several days diligent search therefor.