

RETRACEMENT OF INTERIOR LINES OF  
T. 30 N., R. 33 E., M.D.B. and M.

Chains

arc arc;  $21^{\circ}59'N$ . on the decl. arc; and mark a point in the meridian, determined with the solar by a tack in the stake already driven 5 chs. N. of my station; this mark falls 0.3 ins. W. of the meridian established by Polaris observations.

The solar apparatus, by p.m. and a.m. observations defines positions for meridians, respectively about 26" west and 16" west of the meridian established by the Polaris observations; therefore, I conclude the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h. 10m.

a.m. is  $N.18^{\circ}30'W$ .; the angle thus determined gives the mag. decl.  $18^{\circ}30'E$ . Similar tests were made on the Burt solar compass, including the correction of the level and collimation errors.

I begin at the cor. of secs. 10, 11, 14 and 15, which is an eruptive rock, 18x12x8 ins. above ground, firmly set and marked with 4 notches on the S. and 2 notches on the E. edge, with a mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high, W. of cor.

July 12, 1912; At 9h. 00m. a.m., 1.m.t., I set off  $40^{\circ}27'N$ . on the lat. arc; and  $21^{\circ}58\frac{1}{2}'N$ . on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15, above described.

Thence, I retrace,

East bet. secs. 11 and 14

20.00 After diligent search, I failed to find any trace of the old fractional cor. of secs. 11 and 14.

From the cor. of secs. 10, 11, 14 and 15, I then retrace South, bet. secs. 14 and 15.

40.19 Old  $\frac{1}{4}$  sec. cor. bears W. 1 lk.; a quartzite rock, 12x6x3 ins., loosely set in a mound of stone. On account of its small size, I re-establish this  $\frac{1}{4}$  sec. cor. at the same point as follows:-

Set an iron post, 3 ft long, 1 in. dia., 24 ins. in the ground, for  $\frac{1}{4}$  sec. cor., with brass cap mkd.;

$\frac{1}{4}$  S15. | S 14.

1912;