

E. boundary of T. 30 N., R. 31 E.

Chains

the solar, which meridian agrees exactly with the one established by my Polaris observation. The solar apparatus by both a.m. and p.m. observations defines positions which are exactly identical with the meridian established by my Polaris observations, therefore, I conclude that the adjustments of the instrument are satisfactory.

Similar tests were made on Young and Sons Transit No. 8538. The magnetic bearing of the true meridian is $N 18^{\circ} 31' W$ which gives the magnetic declination $18^{\circ} 31' E$ Sept. 22, 1912

Sept. 25. At 8h a.m., l.m.t. I set off $40^{\circ} 24.5' N$ on the lat. arc; $0^{\circ} 51.5'$ on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 29 and 30 N., R. 31 and 32 E. previously described. This cor. is in lat $40^{\circ} 24' 12'' N$, long. $118^{\circ} 12' 6'' W$.

hence I run north on a true line bet. secs. 31 and 36 over rolling land, descend.

12.00 Wash, 20 lbs. wide course $N. 40^{\circ} E$

12.60 Upld. wagon road, bears $N 40^{\circ} E$

40.00 Set an iron post 3 ft. long, 1 in. diam., 24 ins. in the ground for $\frac{1}{4}$ cor. of secs. 31 and 36, with brass cap inked;

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and raise a mound of stone, 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor.

46.50 Wash, 10 lbs. wide, course $N. 76^{\circ} E$

52.00 Wash, 15 lbs. wide, course $N. 60^{\circ} E$; asc.

63.00 Top of low spur, bears $N 40^{\circ} E$ and $S. 40^{\circ} W$; descend.