

Resurvey of the East Boundary of T. 30 N., R. 40 E.

Chains

with a tack driven in the hub already set 5-chs. N. of my station and on which the meridian falls 0.5 ins. east of the point determined with the solar.

At 8h. 00m., a.m., l.m.t., I set off $40^{\circ} 28'$ N. on the Lat. arc; $8^{\circ} 6'$ N. on the decl. arc; and mark a point in the meridian determined with the solar, on the hub already set 5-chs. N. of my station; this point is 0.2 ins. east of the meridian established by Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0' 26''$ west and $0' 10''$ east of 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 9h. 00' a.m., is N. $18^{\circ} 15'$ W., the angle thus determined gives the magnetic decl. $18^{\circ} 15'$ E.

Similar tests were made on Transit No. 8572 with Smith Solar attachment, and the instrument was found to vary less than $1'$ of arc from the meridian established by observation on Polaris.

Sept. 2, 1914.

Resurvey of the East Boundary by H.W. Reppert.

Aug. 15, 1914: I begin at the cor. of Tps. 29 and 30 N., Rs. 40 and 41 E., Latitude $40^{\circ} 25'$ N., Longitude $117^{\circ} 24'$ W., which is an iron post, heretofore described in the field notes of T. 29 N., R. 40 E. At this cor. I make a direct observation on the sun for latitude as follows:

Time of observation 10h. 04m. 29s., p.m., l.m.t.

Observed altitude of the sun,

Reading direct (lower limb) $63^{\circ} 42\frac{1}{2}'$

" reversed " " $63^{\circ} 45\frac{1}{2}'$

Mean observed altitude $63^{\circ} 44'$

From this data I calculate the latitude at this cor. to be $40^{\circ} 25'$ N. which agrees with the calculated latitude.

At this cor. I set off $40^{\circ} 25'$ N. on the lat. arc; 14°