

Test of Instrument

3

Chains

Mean observed altitude $= 67^{\circ} 39' 30''$ Reduced latitude $= 39^{\circ} 48' 32''$

Mean watch time of observations = 11h 55m 09.5s

Watch slow of local mean time = 4.01m 12 s.

At 3h 0m p.m. app. t., at the same station, with the lat. arc unchanged, I set off $17^{\circ} 31' N.$, on the decl. arc; and determine a meridian with the solar which I find to agree with the true meridian.

As all of the solar observations during the usual hours of solar work come within $1' 30''$ of the true meridian, I conclude that the adjustments of the instrument are satisfactory.

Measurements are made with a 5.00 ch. Lallie steel tape, tested by comparison with a Lufkin Standard steel tape.

Measurements are reduced to true horizontal distances by the use of the transit and clinometers.

Retracements of the Boundaries of secs. 27, 34 and 35.

T. 22.N., R. 20 E.

Beginning at the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., hereinafter described, retrace S. $89^{\circ} 58' W.$, on S. bdy. sec. 35,

39.76 Fall, 5.8 lks. S. of the $\frac{1}{4}$ sec. cor., hereinafter described.

The true course of this $\frac{1}{2}$ mile is therefore S. $89^{\circ} 57' E.$, and the length 39.76 chs.

From the $\frac{1}{4}$ sec. cor. for sec. 35, retrace West, on S. bdy. sec. 35, continuing with measurement.

79.61 Fall, 15 lks. N. of the cor. of secs. 34 and 35, hereinafter described.

The true course of this $\frac{1}{2}$ mile is therefore N. $89^{\circ} 47' E.$, and the length 39.85 chs.