

Chains.

meridian thus determined, by cutting a small groove in the stone set Aug. 30, on which the meridian falls 0.3 ins. east of the mark determined by the solar.

At 8 h. 10 m., l. p. m. t., I set off $41^{\circ} 22' N.$ on the lat. arc. $9^{\circ} 00' N.$ on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observations.

The solar apparatus, by p. m. and a. m. observations, defines positions for meridians, respectively about $0^{\circ} 16'$, E. and W. 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 8 h. 30 m., a. m., is $N 18.55^{\circ} W$, the angle thus determined gives the mag. decl. $18.55^{\circ} E$.

From the standard T. h. cor. already described, I retrace

E. on the 8th. Standard Parallel North, through R32E, and S. of sec. 31.

Since I have but one set of chainmen I measure the distances twice with the same set, instead of using two sets.

Difference bet. two measurements of 40.00 chs. by the same set of chainmen, is 4 lks.; position of middle point.

By 1st measurement, 40.02 chs.

By 2nd measurement, 39.98 chs., the mean of which is 40.00 chs., at which point I search diligently but find no standard $\frac{1}{4}$ sec. cor.

Difference bet. two measurements of 80.00 chs. by the same set of chainmen is 6 lks. position of middle point.

By 1st measurement, 80.03 chs.

By 2nd measurement 79.97 chs., the mean