Chains

At 7h. 0m. a. m., l. m. t., I lay off the azimuth of Polaris 1° 31' to the west and mark the point in the line of the meridian thus determined by a tack in the hub already set 5 chs. N. of my station. This point falls about 0.5 ins. E. of the point in the meridian determined with the solar on June 28.

At 8h. 0m. a. m., l. m. t., I set off 40° 27' N. on the lat. arc and 23° 17' N. on the decl. arc, and determine a meridian with the solar, which falls about 30" to the east of the meridian determined by Polaris observation.

The solar apparatus by a. m. and p. m. observations defines positions for meridians which vary from the meridian established by observation on Polaris by less than 1' of arc; therefore I conclude that the adjustment of the instrument is satisfactory.

The magnetic bearing of the true meridian at 8 h 10 m a.m., l.m.t. is N. 18° 15' W. and the angle thus determined gives the magnetic decl. 18° 15' E.

The above observations and tests were made with transit No. 8589. Similar tests were made with transit No. 8572 and the instrument found to vary less than 30" of arc from the true meridian.

June 29, 1914.

Retracement by H. W. Reppert.

June 29, 1914:- At 9h. 15m. a. m., l. m. t., I set off 40° 25' N. on the lat. arc, and 23° 16' N. on the decl. arc and determine a meridian with the solar at the cor. of Tps. 29 and 30 N., Rs. 42 and 43 E.

Thence I retrace

East bet. secs. 6 and 31.

40.25 Intersect N. and S. line 17 lks. N. of the old ¼ cor. of secs. 6 and 31, which is a wooden post 2½ X 2½ X 24 ins., set 10 ins. in the ground and marked and witnessed as described by the surveyor General.