Chains

Survey commenced Sept. 20, 1914 and executed with a Young and sons transit No. 8518, with Smith solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.
The instrument was approved by Assistant Supervisor of Surveys, G.D.D. Kirkpatrick.
I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours with a meridin determined by observation on Polaris, I proceed as follows:
At the cor. of Tps. 29 and 30 N., Rgs. 47 and 48 E., previously described, latitude 40° 24'N., longitude 116° 37'W.; I set off 40° 24'N. on the lat. arc, 1° 9'N. on the decl. arc and at 4h., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground 5 chs. N. of my cor.
At 7h., 37m., p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.
Sept. 20, 1914

Sept. 21, 1914.
At 7h.30m., a.m., l.m.t., I lay off the azimuth of Polaris 1° 31' to the west, and mark the meridian thus determined, by cutting a small groove in the stone set Sept. 20, on which the meridian falls 0.4 ins. east of the mark determined by the solar.
At 8h.a.m., l.m.t., I set off 40° 24'N. on the lat. arc, 0° 54'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 observation.
The solar apparatus by P.M. and A.M. observations, defines positions for meridians, respectively about 0' 20" west and 0' 16" 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 8h. 15m., a.m., is N.18° 35'W.; the angle thus determined gives the magnetic declination 18° 35'E.
The lines of this survey were measured with 5 ch. steel tape and clinometer.

From the cor. of Tps. 29 and 30 N., Rgs. 47 and 48 E.
I run
W. bet. secs. 1 and 36; on the N. bdy. of the tp.
Ascend gradual E. slope.

40.00 Set an iron post, 3 ft. long, 1 in. diam. 24 ins. in the ground for ¼ sec. cor. for sec. 36; with brass cap mkd.

$$\frac{S\ 36\ \frac{1}{4}}{1914}$$

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of corner.

56.35 30 ft. above tp. corner.
Set an iron post, 3 ft. long, 1 in. diam. 24 ins. in the ground for ¼ sec. cor. for sec. 1; with brass cap