Chains

Survey commenced Sept. 14, 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 P.M. and A.M. hours with a meridian determined by observations on Polaris I proceed as follows:
At the cor. of Tps. 28 and 29 N., Rs. 47 and 48 E; latitude 40° 19'N. longitude 116° 37'W.; which corner is a pine post 3x3ins. by 15 ins. above ground; set in the ground in a mound of earth and stone, and marked with 6 notches on the N., S., E. and W. edges, I set off 3° 29'N. on the decl. arc 40° 19'N. on the lat. arc and at 4h. p. m., l.m.t., determine a meridian with the solar and mark a point thereof on a stone firmly set in the ground, 5 chs. N. of the cor.
At 8h., 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. 14, 1914.

Sept. 15, 1914.
At 8h. a.m., l.m.t., I lay off the azimuth of Polaris 1° 30' to the west, and mark the meridian thus determined, by cutting a small groove in the stone set Sept. 14, on which the meridian falls 0.8 ins. east of the mark determined by the solar.
At 8h. 10m., a.m., l.m.t., I set off 40° 19'N. on the lat. arc, 3° 13' 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 the cor.; this mark falls 0.75 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 0'43" west and 0' 40" 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. 30m., a.m., l.m.t., is N. 18° 45'W., the angle thus determined gives the mag. decl. 18° 45'E.
All the lines of this survey were measured with 5 ch. steel tape and clinometer.

From the tp. cor. already described, I retrace,
W. on the S. bdy. of the tp. bet. secs. 1 and 36
40.00 Search, find nothing.
80.53 Find old cor. of secs. 1, 2, 35 and 36, falling 1.64 chs. N. of my line, it is a limestone 11x8x4 ins., set in the ground in a small mound of earth and stone and marked with 5 notches on the W. and 1 notch on the E. edge.
Course of this mile is N.88° 50'W. Length 80.55 chs.

From the cor. of secs. 1, 2, 35 and 36, I retrace
W. on the S. bdy. of the tp. bet. secs. 2 and 35.