

Third Standard Parallel South, through Range 47 East.

Chains

Survey commenced May 8, 1906, and executed with a J.C. Sala Light Mountain Transit, No. 909 with solar attachment. The horizontal limb is provided with two opposite verniers reading to 30" of arc, which is also the least count of the vernier of the declination arc. The vernier of the latitude arc reads to single minutes.

I begin at the Std. Cor. of Tps. 12 S. Rgs. 47 and 48 E. heretofore described.

Latitude $36^{\circ}48'N.$, Longitude $116^{\circ}40'W.$

In order to test the solar apparatuses by comparing the results of observations on the sun, made during a.m. and p.m. hours with a true meridian determined by observation on Polaris, I proceed as follows:

May 8, 1906, at 3h. 55m. p.m. l.m.t. I set off $36^{\circ}48'N.$ on the lat. arc, $17^{\circ}03'30''N.$ on the decl. arc and mark the meridian thus determined with the solar by a cross on a stone firmly set in the ground 5 chs. N. of the instrument.

May 8, 1906.

May

May 9, 1906, I observe Polaris at Eastern elongation, in accordance with instructions in the Manual, and mark the line thus determined by a tack driven in a wooden peg set in the ground 5 chs. N. of my station.

At 6h. 30m. a. m. , I lay off the azimuth of Polaris, $1^{\circ}27'$ to the West and marked the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. West of the mark determined by the solar.

At 7h. 50m. a.m. l.m.t. I set off $36^{\circ}48'N.$ on the lat. arc, $17^{\circ}14'30''N.$ on decl. arc, and marked the true meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls at 0.33 ins. West of the meridian established by the Polaris observation.