

HOMESTEAD ENTRY SURVEY NO. 213
 SIUSLAW NATIONAL FOREST
 STATE OF OREGON

CHAINS

Entryman: Leonard Fletcher Wilson

H.E. No. 09836, dated November 13, 1914

Land Office: Roseburg, Oregon

Survey commenced August 27, 1917 and executed with a W. & L. E. Gurley light mountain transit No. 12985 with Burt solar attachment; the horizontal limb having 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 examined, tested on the true meridian at Portland, Oregon, found correct and was approved by the Assistant Supervisor of Surveys for Oregon and Washington, April 11, 1917.

All measurements, unless otherwise specified, are made with a 1/8 inch steel tape, 5 chains in length, compared with a Chesterman Standard Steel tape. Clinometers are used to determine slope angles, and measurements are reduced to true horizontal distances.

I examine the adjustments of the transit and correct all 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:

August 27, 1917: At cor. No. 1 of this survey, hereinafter described, in lat. $43^{\circ}41'N$. (from Special Instructions and hereinafter verified) long. $123^{\circ}56'W$. (obtained from G.L.O. map of Oregon), I set off $43^{\circ}41'N$. on the lat. arc, $10^{\circ}02'N$. on the decl. arc, and at 4h00m p.m., l.m.t., determine a meridian with the solar, marking a point thereof on a peg firmly set in the ground 5 chs. north of my station.

At 7h15m p.m., l.m.t., I obs. Pol. and mark the line thus determined by a tack driven in a wooden peg set in the ground, 5 chs. north of my station.

L.M.T. of obsn. of Pol., August 27, 1917	7h15m p.m.
U.C. Pol., Aug. 27, 1917	3h 12.1m a.m.
Corr. for long.	1.3m
L.M.T. U. C. Pol.	3h 10.8m a.m.
Elapsed time and hour angle	3h10.8m a.m.
Abstract from	16h04.2m
Time argument	23h56.1m
Azimuth of Pol., 82 minutes east.	7h51.9m

August 27, 1917.

August 28, 1917: At 7h30m a.m., l.m.t., I lay off the azimuth of Pol. 82 minutes to the west and mark the mer. thus determined, by a tack in the peg previously set, on which the mer. falls 0.5 ins. east of the mark determined by the solar.

At 8h00m a.m., l.m.t., I set off $43^{\circ}41'N$. on the lat arc; $9^{\circ}48'N$. on the decl. arc, and mark a point in the mer. determined with the solar, by a tack in the peg already set in the ground, 5 chs. north of the cor.; this mark falls 0.3 ins. west of the mer. established by the Pol. obsn.

The solar apparatus by a.m. and p.m. obsns. defines positions for the mer. within 2 minutes of arc of the mer. established by the Pol. obsn.; therefore I conclude that the adjustments of the instrument are satisfactory.