

County Surveyor's Record, Douglas County, Oregon

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HOMESTEAD ENTRY SURVEY NO. 130
SIUSLAW NATIONAL FOREST
OREGON

CHAINS

Survey commenced July 19, 1914, and executed with a W. and L. E. Gurley light mountain transit No. 12985 with 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, May 25, 1914.

All measurements, unless otherwise specified, are made with a $\frac{1}{4}$ inch steel tape, 2 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 adjust the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At Cor. No. 1 of this survey, identical with the $\frac{1}{4}$ sec. cor. on N. bdy. of sec. 6, T. 22 S., R. 10 W., hereinafter described, in lat. $43^{\circ}41'$ N., long. $123^{\circ}56'$ W., I observe Polaris at eastern elongation at $11^{\text{h}} 44^{\text{m}}$ p.m., l.m.t., and mark a point in the line thus determined by a tack driven in a wooden peg set in the ground, 7 chs. N. of my station.

July 19, 1914.

July 20, 1914: At this cor., at $6^{\text{h}} 45^{\text{m}}$ a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}36'$ to the west, and mark the meridian thus determined by a tack in a wooden stake driven in the ground, 7 chs. N. of the cor.

At 7 a.m., l. m. t., I set off $43^{\circ}41'$ N. on the lat arc, $20^{\circ}47'$ N. on the decl. arc, and determine a meridian with the solar, marking a point in the line thereof with a tack in the wooden peg already set in the ground, 5 chs. N. of my station; which mark coincides with that determined by the Polaris observation.

At this same cor. I set off $20^{\circ}44'$ N. on the decl. arc, and at $12^{\text{h}} 06^{\text{m}}$, l.m.t., observe the sun on the meridian; the resulting lat. is $43^{\circ}41'$ N., long. $123^{\circ}56'$ W.

At this cor., at 5 p.m., l.m.t., I set off $43^{\circ}41'$ N. on the lat. arc; $20^{\circ}43'$ N. on the decl. arc, and mark a point in the meridian determined with the solar, by a tack in the peg already set in the ground, 7 chs. N. of my station; this mark coincides with the meridian established by Polaris observation.

The solar apparatus by a.m. and p.m. observations defines positions for the meridian which coincide with the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at this cor. at 10 a.m. is $21^{\circ}20'$ W.; the angle thus determined gives the mag. decl. $21^{\circ}20'$ E. The mean mag. decl. is $21^{\circ}18'$ E.

July 20, 1914.

RETRACEMENTS AND RESURVEYS

July 20, 1914: Preliminary to the survey of this Homestead Entry, I make the following retracements:

Commencing at the $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 6, T. 22 S., R. 10 W., which is a fir tree, 26 ins. diam., marked and witnessed as described by the Surveyor General.