Chains

Feet

No. 761, dated June 16, 1905.

Survey commenced May 4, 1907, and excuted with a W. & L.E. Gurley Solar Compass N. 210. The horizontal limbers 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 lat. and decl. arcs. The instrument was examined and tested on the true mer. at Portland, Oregon, July 14, 1905, found correct, and approved by the Survey or General for Oregon.

Preliminary to this survey, I examine the adjustments of the compass and correct the level errors. Then, in order to test the solar apparatus by comparing its indications resulting from solar obsns. made during a.m. and p.m. hours with a mer. determined by obsn. on Polaris, I proceed as follows:

Near the Cor. of Secs. 17, 18, & 20, Tp. 4 N., R. 38 E., lat. 45° 49' N., long. 118° 7' W., I set off 45° 49' N. on the lat. arc, 15° 52' N. on the decl. arc, and at 3 h. 47 m., 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 my station.

May 4, 1906.

May 5, At 4 h. 41.5 m., a.m., l.m.t., by my watch, which is set for mean solar time, I observe pol. at Eastern elong., in accordance with Manual instructions, and mark a point thereof in the line thus determined on a peg driven in the ground 5 Chs. N. of my station.

At 7 h. 30 m., A.M., 1 m.t., I lay off the azimuth of Pol. 1° 42.4' to the W. and mark the mer. thus determined by a small groove on the stone set May 4, on which the mer. falls on the mark determined by the solar.

At 7 h. 57 m., a.m., l.m.t., I set off 45° 49' on the lat. arc; 16°3' N. on decl. arc, and mark a point in the mer. determined by the solar by a cross(X) on the stone already set 5 Chs. N. of my station. This mark falls in the