Chs.

Survey commenced June 25, 1912, and executed with a Young & Sons light mountain transit No.8538, with 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 examined, tested on the true meridian at Reno, found correct and was approved by the Surveyor General for Nevada, June 10, 1912.

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 A.M. and P.M. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of Tps. 24 and 25 N., Rs. 18 and 19 E., latitude 39°58'N., longtitude 119°54'W., I set off 39°58'N. on the latitude arc, 23°24'N. on the decl. arc, and at 4h 0m P.M., l.m.t., determine with the solar a meridian and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the corner.

June 25, 1912.

June 26, 1912.

At 1 h 16 m A.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 corner.

At 8 h 0 m A.M., l.m.t., I lay off the azimuth of Polaris 1°31' to the west and mark the meridian thus determined by cutting a small groove in the stone, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 8 h 10 m A.M., l.m.t., I set off 39°58'N. on the lat. arc, 23°23'40"N. on the decl. arc, and mark a point in the true meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 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 0'21" west and 0'16" 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 8 h 30 m A.M., is 18°50'W., the angle thus determined gives the mag. decl. 18°50'E.

The cor. of Tps. 24 and 25 N., Rs. 18 and 19 E., is a basalt stone 16x9x7 ins. set in a mound of stone and marked with 6 notches on each of the N., S. E. and W. edges. I destroy all traces of this corner and its accessories and re-establish it at the same point as follows:

Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the corner of Tps. 24 and 25 N., Rs. 18 and 19 E., with brass cap mkd:

T25N

R18E	R19E
S36	S31
S1	S6
R18E	R19E

T24N

1912

and raise a mound of stone 2 ft. base, 1½ ft. high, S. of cor.