Chs.

Survey commenced July 7, 1914, and executed with Young & Son's Light Mountain Transit, No.8390 with Smith Solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was approved by Mr. G. D. D. Kirkpatrick, Asst. Supervisor of Surveys, at Salt Lake City, Utah, April 24, 1914.

Measurements were made with a steel tape 5 chs. in length, the first 100 lks. being graduated to links and the remainder to 10 lks. The vertical angles were read with a clinometer.

I examine the adjustments of my 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 my camp at Boulder Springs in T.40 N., R. 20 E., sec. 33, lat. 41°21'N., long. about 119°46'W., at 9 h 57.3 m P.M., l.m.t., I observe Polaris in accordance with the Manual and mark a point in the line thus determined on a stake firmly driven in the ground about 5 chs. N. of my station.

L.m.t. of obsn., July 7, P.M., ...		9 h 57.3 m
Equivalent to A.M. time July 7, ...		21h 57.3 m
U.C.Pol. July 7, Greenwich, A.M.,	6h 31.0m	
Red. to local longitude	1.3	
U.C.Pol. at obsn. station	6h 29.7m	6h 29.7 m
Hour angle of Polaris at obsn.		15h 27.6 m
Subtract from		23h 56.1 m
Time argument for table		8h 28.5 m

Azimuth of Polaris, 1°12.5'E.

July 7, 1914.

July 8; At 8 h 0 m A.M., l.m.t., I lay off the azimuth of Polaris 1°12.5' to the west, and mark a point in the true meridian thus determined on a stake firmly driven in the ground about 5 chs. N. of my station.

At 9 h 0 m A.M., l.m.t., I set off 41°21' on the lat. arc and 22°32.5'N. on the decl. arc, and determine with the solar at this station a meridian, which, I note, differs less than 30" from that established by the Polaris observation.

At this station I set off 22°31.5'N. on the decl. arc, and observe the sun on the meridian, the resulting latitude is 41°21'.

July 8, 1914.

July 9: At 3 h 0 m P.M., l.m.t., I set off 41°21' on the lat. arc, and 22°24'N. on the decl. arc, and determine with the solar at this station a meridian, which, I note, differs less than 30" from that established by the Polaris observation.

I conclude, therefore, that the adjustments of the instrument are satisfactory.

July 9, 1914.

July 10: At 2 h 0 m P.M., l.m.t., I set off 41°20.5' on the lat. arc and 22°17'N. on the decl. arc, and determine a meridian with the solar at the cor. of Ts. 40 N., Rs. 19 and 20 E., M.D.M., which is a trap stone 15x8x4 ins. standing in a mound of stone and marked with 6 notches on the north and west edges.

Thence I retrace on the south bdy. of T. 40 N., R. 20 E.

East on the South Bdy. of Sec. 31.

37.47 After diligent search I find no trace of the ¼ sec. cor. I mark a temporary point for ¼ sec. cor.