

Chs.

Survey commenced July 16, 1914, and executed with Young & Sons' 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, on April 24, 1914, and tested by me July 19, on a meridian determined by Polaris Observation and found correct as hereinafter recorded.

Measurements were made with a steel tape, 5.00 chs. long, the first 100 lks. being graduated to links and the remainder to 10 lks. The vertical angles were read with a clinometer.

At 2 h 0 m P.M., l.m.t., I set off $41^{\circ}12.5'$ on the lat. arc, $21^{\circ}25'$ N. on the decl. arc and determine with the solar a meridian at the cor. of Tps. 38 and 39 N., R. 19 E. which is a basalt stone $10 \times 10 \times 9$ ins., the top stone in a mound of stone 4 ft. base, $2\frac{1}{2}$ ft. high, and marked with 6 grooves on the N., S., E. and W. faces.

Thence I retrace $S.0^{\circ}15'E.$ on the E. Bdy. of sec. 1, the $\frac{1}{4}$ sec. cor. being in sight.

39.90 The $\frac{1}{4}$ sec. cor.; a basalt stone $25 \times 10 \times 3\frac{1}{2}$ ins., standing in a mound of stone 3 ft. base, 10 ins. high, and marked $\frac{1}{4}$ on W. face.

The line therefore is $N.0^{\circ}15'W.$, 39.90 chs.

RETRACEMENT AND RESURVEY E. BDY. T.39 N., R.19 E.

July 16: From the cor. of Tps. 38 and 39 N., R. 19 E., I retrace

39.65 North on the E. Bdy. of sec. 36.

Fall 78 lks. E. of the $\frac{1}{4}$ sec. cor., a basalt stone $9 \times 7 \times 2\frac{1}{2}$ ins., set in a mound of stone 25 ins. base, 10 ins. high, and marked $\frac{1}{4}$ on W. face.

The line therefore is $N.1^{\circ}8'W.$, 39.66 chs.

July 16, 1914.

July 17: At 8 h 45 m A.M., l.m.t., set off $41^{\circ}13'$ on the lat. arc, $21^{\circ}17'$ N. on the decl. arc, and determine with the solar a meridian at the $\frac{1}{4}$ sec. cor. on the E. Bdy. of sec. 36, above described.

Thence I retrace

North on the $N.\frac{1}{2}$ of the E. Bdy. of Sec. 36.

40.00 After diligent search I find no trace of cor. of secs. 25, 30, 31 and 36.

Continue North on E. Bdy. of sec. 25.

79.20 Fall 27 lks. E. of the $\frac{1}{4}$ sec. cor. on the E. Bdy. of sec. 25, which is a sandstone $15 \times 7 \times 4$ ins. standing in a mound of stone 40 ins. base, 10 ins. high and marked $\frac{1}{4}$ on W. face.

The line therefore is $N.0^{\circ}12'W.$, 79.20 chs.

July 17, 1914.

August 5:

From the $\frac{1}{4}$ sec. cor. on the E. Bdy. of sec. 36, I run $N.0^{\circ}12'W.$ on a true line on the North $\frac{1}{2}$ of E. Bdy. of sec. 36. Over mountainous land.

Descend 80 ft. on NE. slope to ravine.

4.60 Ravine, course E.; ascend 340 ft. on south slope to top of spur.
26.00 Spur, projects $S.70^{\circ}E.$; descend 35 ft. on NE. slope to head of draw.

31.00 Head of draw, course E.; ascend 55 ft. on SE. slope to cor.
39.60 Set a sandstone $25 \times 10 \times 7$ ins. ^{19 ins.} in the ground, for cor. of secs. 25 and 36, marked with 5 notches on the N. and 1 notch on the S. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.