## Chains

Survey commenced May 10, 1915, and executed with a Young and Sons light mountain transit No.8572, with solar attachment. For description and test of instrument see notes of T. 22 N., R. 24 E.

May 10: At 8 h 56 m a.m., l.m.t., I set off 39°42'N. on the lat. arc; 17°28'N. on the decl. arc; and determine a meridian with the solar at the closing corner of Tps. 21 and 22 N., R. 25 E., which is a lava stone lox 12x15 ins., above ground, firmly set, marked and witnessed as described by the Surveyor General. From this corner the cor. of Tps. 21 and 22 N., R. 24 E., bears N.0° 6'W., 7.64 chs. distant.

Thence I run

East, retracing along the S. bdy. of sec. 31, T. 22 N., R. 25 E.

Fall 1 lk. N. of the  $\frac{1}{4}$  sec. cor., which is a lava stone 12x8x10 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. There-37.59 fore the true course of this half mile is S.89°59'E., and the length 37.59 chs.

From the transit station 1 lk. N. of the 4 sec. cor.,

I continue East.

Fall 1 lk. N. of the cor. of secs. 5, 6, 31 and 32, which 77.54 is a lava stone 6x14x16 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General Therefore the course and distance of the East ½ mile is East, 39.95 chs.

East on a retracement between secs. 5 and 32. Fall 1 lk. S. of the  $\frac{1}{4}$  sec. cor., which is a volcanic rock in place,  $2\frac{1}{2}x3x4$  ft. marked and witnessed as 39.84 described by the Surveyor General. Therefore the true course and distance of this \frac{1}{2} mile

is N.89°59'E., 39.84 chs.

I continue East, from a point 1 lk. S. of the  $\frac{1}{4}$  sec. cor. 79.76 Fall 13 lks. N. of the cor. of secs. 4, 5, 32 and 33, which is a volcanic stone 8x12x14 ins. above ground, which is a volcanic stone SXIZXI4 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. Therefore the true course and distance of this half mile is S.89°48'E., 39.92 chs.

May 10: At this section corner I set off 17°30'N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting latitude is 39°42'N.

East retracing between secs. 4 and 33. Fall 8 lks. N. of the  $\frac{1}{4}$  sec. cor., which is a volcanic 39.91 stone 8x10x12 ins., above ground, firmly set, marked and witnessed as described by the Surveyor General. Therefore the true course and distance of this half mile is S.89°53'E., 39.91 chs. From the transit station 8 lks. N. of the  $\frac{1}{4}$  sec. cor.,

I continue East.

Fall 12 1ks. N. of the cor. of secs. 3, 4, 33 and 34, 80.07 which is a volcanic stone 8x4x12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. Therefore the true course and distance of the east half mile is S.89°57'E., 40.16 chs.

May 10, 1915.

May 14; For solar observation see line between secs. 7 and 12 on the E. bdy. From the cor. of secs. 3, 4, 33 and 34, I run East, retracing between secs. 3 and 34. Fall 16 lks. N. of the  $\frac{1}{4}$  sec. cor., which is a volcanic stone 6x8x12 ins., above ground, firmly set, marked and