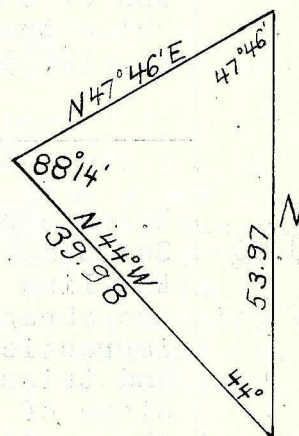


4. East Boundary of T. 32 N., R. 57 E.

Chs.

15.80 N. on a random line bet. secs. 13 and 18.
 Top of ridge on the S. side of a deep and heavily timbered canyon with high cliffs on N. side, making chaining impracticable. To determine the dist. across, I set a flag on line near top of ridge about 50.00 chs. dist.; then measure a base line N. 44° 00' W. 39.98 chs. to a point, from which the flag on the random line bears N. 47° 46' E. I continue chaining N. on random line from the 15.80 ch. point to the

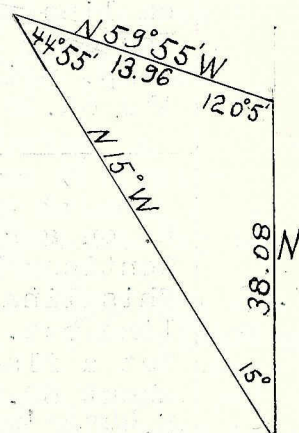
40.00 and set temp. $\frac{1}{4}$ sec. cor.
 From the flag on the N. side of canyon the W. end of the base bears S. 47° 46' W.; by separate measurement of each angle they are found respectively 44° 00', 88° 14', and 47° 46'; and their sum is 180° 00. Therefore I



compute the dist. as follows:
 $\frac{\sin 88^{\circ} 14' \times \text{base}}{\sin 47^{\circ} 46'}$

or
 $.99952 \times 39.98 = 53.97 \text{ chs.}$

69.77 53.97 chs. plus 15.80 chs. gives dist. from temp. cor. secs. 13, 18, 19, and 24 to triangulation point on the N. side of canyon, and also the top of a series of vertical cliffs, 50 ft. to 200 ft. high, bearing NW. and SE., on the S. side of a deep and rugged canyon. Being impracticable to chain I triangulate as follows: Measure S. 6.81 chs. to a prominent point on the top of the ridge and from this station set two flags in the bottom of the canyon, one on the random line about 40.00 chs. dist., and the other N. 15° W. From the flag set on the random line I measure a base line N. 59° 55' W. 13.96 chs. to a point, from which the flag on the random line at 62.96 chs. N. of the temp. cor. of secs. 13, 18, 19, and 24 bears S. 15° E.; by separate measurement of each angle they are found respectively 15° 00', 120° 5', and 44° 55'; and their sum is 180° 00.



Therefore I compute the dist. as follows:

$\frac{\sin 44^{\circ} 55' \times \text{base}}{\sin 15^{\circ}}$
 or
 $.70608 \times 13.96 \text{ chs.} = 38.08 \text{ chs.}$

80.00 38.08 chs. plus 62.96 chs. = 101.04 chs., dist. from the temp. cor. of secs. 13, 18, 19, and 24 to the base line. Thence S. 21.04 chs. and at set a temp. point for cor. of secs. 7, 12, 13 and 18.

40.00 N. on a random line bet. secs. 7 and 12.
 80.00 Set temp. $\frac{1}{4}$ sec. cor.
 Set temp. cor. for secs. 1, 6, 7 and 12.

40.00 N. on a random line bet. secs. 1 and 6.
 83.12 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect the N. bdy. of the Tp., 6.44 chs. N. 89° 58' W. of the cor. of Tps. 32 and 33 N., Rs. 57 and 58 E., which is a volcanic stone 30X12X5 ins., properly marked and lying on top of the ground at the cor. of a wire fence, bearing N. and SW. I set the cor. 22 ins. in the ground, destroy all marks pertaining to T. 32 N. and