Chains

Survey commenced July 16, 1938, and executed with W. & L. E. Gurley solar transit No. 38123 and Buff & Buff solar transit No. 9222, property of the General Land Office. The Gurley instrument is equipped with 5 3/4 in. horizontal circles and 5 in. full vertical circle and with the improved type Smith solar attachment. The Buff & Buff instrument is equipped with 42 in. horizontal circles and 4 inch full vertical circle and with the Smith solar attachment. The instruments were in good condition and were approved for use on these surveys by the District Cadastral Engineer on July 12, 1938.

The directions of all lines were determined by transit angle, multiple angle repetition, from meridians established by observation upon Polaris or by altitude observations upon the sun. These meridians were established at points on line, or at strategic points from which an azimuth could be readily carried forward, and at frequent intervals. The detailed record of one such meridian determination follows:

July 19, 1938, at a station on the S. bdy. of T. 26 N., R. 25 E., M.D.M., Nevada, 15 chs. W. of the standard \$\frac{1}{4}\$ sec. cor. of sec. 32, in latitude \$40\cdot 04\cdot N., and longitude \$119\cdot 12\cdot W., as given in the data with the special instructions, at 7h 27.2m p.m., 1.m.t., I make an hour angle observation on Polaris, east of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the deflection angle from a signal about two miles east, in the direction E-N to Polaris.

All measurements were made with Lallie steel ribbon tapes, 5 chs. in length, graduated every link for the first 100 lks. and thereafter at intervals of 10 lks. The tapes were tested by comparison with a Lufkin standard steel tape and found correct. The measurements are made on the slope, and the mean vertical angle of each interval ascertained by two clinometers, of the large improved type, in good adjustment. The horizontal equivalents are entered in the field note record.

DEPENDENT RESURVEY OF A PORTION OF THE WEST BDY. OF T. 26 N., R. 25 E. ESTABLISHMENT OF CORNERS

Note: Retracement of the E. bdy. of Sec. 25, T. 26 N., R. 24 E., surveyed in 1924 under Group No. 84, Nevada, shows that the S. half mile is 39.20 chs. against a record distance of 40.00 chs. The resurvey is for the purpose of establishing corners for R. 25 E., and to remark the former corners of maximum control to refer only to R. 24 E. The record bearing of the entire line is retained; no additional topographic entries are made.

Commencing at the cor. of secs. 25, 30, 31 and 36, which is an iron post, 2 ins. diam., firmly set, mkd. and witnessed as described in the official record.

North, on blank line along the E. bdy. of Sec. 25.

39.20

The  $\frac{1}{4}$  sec. cor. of secs. 25 and 30, which is an iron post, 1 indiam., firmly set, mkd. and witnessed as described in the official record. As this corner now refers only to Sec. 25, I obliterate the markings on the E. half of the brass cap and remark same as follows:

½ S 25 1938