

Chains

Survey commenced June 29, 1938, and executed with Buff solar transits Nos. 17994 and 9210, property of the General Land Office, both instruments have a horizontal circle having a diameter of 5 ins., and two double opposite verniers reading to single minutes; the diameter of the vertical circles is 4 ins., with one double vernier reading to single minutes. The instruments are also equipped with the improved Smith solar attachments; radius of latitude arcs 3 ins., and of the declination arc $3\frac{1}{2}$ ins., each with verniers reading to single minutes. The instruments were in good condition, and having been placed in satisfactory adjustment prior to the beginning of the survey and tested and found free from appreciable error, were approved by the district cadastral engineer, conditionally upon a satisfactory field test.

June 29, 1938, in camp in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 11 N., R. 49 E., M.D.B. & M., Nevada, in latitude $38^{\circ} 49' N.$, and longitude $116^{\circ} 30' W.$, as computed from the U. S. Coast & Geodetic Survey station at the original cor. of secs. 16, 17, 20 and 21, T. 11 N., R. 49 E., hereinafter described. At 1h 17m 56s a.m., l.m.t., I observe Polaris at eastern elongation, making four observations, two each with the telescope in direct and reversed positions and mark the mean point in the line thus determined, on a peg driven firmly in the ground, 8.00 chs. N.

Azimuth of Polaris at elongation..... $1^{\circ} 19' 36''$.

I lay off the azimuth of Polaris $1^{\circ} 19.6'$ to the west, and mark the meridian thus determined by a nail in a peg driven firmly in the ground, 8.00 chs. N.

Every 30 minutes from 8 to 10.30 a.m. and from 1.30 to 4 p.m., proper settings were made on the arcs of the solar attachments of the transits, and it was ascertained that the resulting orientations of the instruments, when compared with the meridian established by observations of Polaris, had a maximum error of less than $1' 30''$.

The tests of the arcs were repeated by daily noon observations and the meridional indications of the instruments were verified frequently throughout the survey. The instruments were at all times kept in satisfactory adjustments.

The observed magnetic declination is..... $17^{\circ} 30' E.$

The direction of the random and true lines were determined by solar transit method. The measurements were made with Lufkin steel tapes 5.00 chs. in length, graduated every link for the first hundred links and thereafter at intervals of ten links. These tapes were tested by comparison with Lufkin standard tapes and found correct. The measurements were made on the slope and the vertical angle of each interval was ascertained by a clinometer in good adjustment, the horizontal equivalents only are entered in the field note record.

DEPENDENT RESURVEY OF A PORTION OF THE 2ND STAN. PAR. N., S. BDY. OF T. 11 N., R. 49 E.

Dependent resurvey of a portion of the 2nd Stan. Par. N., S. bdy. of T. 11 N., R. 49 E., as executed by D. H. Barker and W. W. Skinner, in 1875.

Beginning at the original standard cor. of secs. 33 and 34, T. 11 N., R. 49 E., which is a sandstone $4x5x9$ ins., firmly set, mkd. with 3 grooves on E. and W. 6 grooves on N. and S C on S. faces. All indications of the pits have disappeared.

At point for cor.,

Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, with the original stone deposited at the base, for standard cor. of secs. 33 and 34, with brass cap mkd.