This survey was commenced May 15, 1943 and executed with Buff and Buff solar transit No. 9222, property of the General Land Office. The horizontal circle has a diameter of 4½ ins., with two double opposite verniers reading to single minutes; the vertical circle has a diameter of 4 ins., with one double vernier reading to single minutes, and the improved Smith solar attachment; all azimuth determinations are accomplished with the solar attachment except the special observations upon Polaris and the sun for boundary line control and for meridian upon which to test the solar apparatus. The instrument was in good condition, and having been placed in satisfactory adjustment prior to beginning the survey, and tested and found free from appreciable error, was approved by the district cadastral engineer for Nevada on May 12, 1943.

The direction of boundary lines, except in heavily timbered areas, was determined and carried forward by transit angle deflections, checked by multiple angle, from meridians obtained by Polaris observations on line; the direction of the subdivisional lines in open terrain was derived by the same method. In the timbered districts, the direction of the lines was obtained by use of the solar apparatus which was frequently checked against a meridian and maintained in proper adjustment. The detailed record follows of two special observations made upon Polaris for meridian:

May 18, 1943, at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of T. 18 N., R. 19 E., M. D. Mer., Nevada, in latitude 39°22.5' N., and longitude 119°49.5' W., at 7hr 20m a.m., l.m.t., I make an hour angle observation on Polaris, east of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal angle from a flag on my random line about 25 chs. north in the direction N-E to Polaris;

Watch time of obsvn (correct 120th meridian std. time as verified from radio signal)	7hr 20.7m a.m.
Mean horizontal angle, Polaris to flag	0° 51.0'
Azimuth of Polaris	0° 50.6' E.
True bearing of flag	N. 0° 00.4' W.

As the above random line was obtained by solar attachment, comparison with the meridian indicates its proper adjustment.

July 30, 1943, at the cor. of secs. 1, 6, 7 and 12, on the W. bdy. of the tp., in latitude 39°26 3/4' N. and longitude 119° 54 1/4' W., at 7hr 48m a.m., l.m.t., I make an hour angle observation on Polaris, west of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal deflections from U.S.C. & G. station Peavine about 11 miles distant, in the direction W-N to Polaris:

Watch time of obsvn (correct 120th mer. std. time)	7hr 48.4m a.m.
Mean horizontal angle, Polaris to station	9°08.2'
Azimuth of Polaris	0°49.3' W.
True bearing to station	N. 9°57.5' W.

All measurements are made with a Lallie steel ribbon tape, 5 chains in length, graduated every link for the first 100 links, and the balance at intervals of 10 links. The tape was tested by comparison with a Lufkin standard steel tape 1 ch. in length and found correct. Measurements were made on the slope, and the vertical angle of each interval was ascertained by the mean of two clinometer readings; the horizontal equivalents are entered in the field note record.

DEPENDENT RESURVEY OF THE SOUTH BOUNDARY OF T. 18 N., R. 19 E.

Reestablishment of survey executed by E. H. Dyer, Deputy Surveyor under Contract No. "D" in 1863.
and
by Deputy Surveyors P. C. Rector and R. A. Chase in 1865 and 1866.

The original cor. of Tps. 17 and 18 N., Rs. 19 and 20 E. is a basalt rock, 22x14x12 ins., mkd. with 6 notches on each edge, firmly set in an old embedded mound of stone.

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