

Resurvey of a Portion of the Von Schmidt California-Nevada Boundary.

chains

The survey was executed with a light-mountain solar transit made by Buff and Buff Manufacturing Company, Serial No. 9797, constructed in accordance with the standard specifications of the General Land Office. The horizontal circle has a diameter of  $4\frac{1}{2}$  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; the telescope has fixed stadia wires, ratio 1:132, with focal constant of 1.2 lks. The instrument is equipped with the improved Smith solar attachment; radius of latitude arc  $2\frac{1}{2}$  ins., and of declination arc  $3\frac{1}{2}$  ins., each with verniers reading to single minutes. 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 on March 6, 1933. I examined all the instrumental adjustments before making the field tests hereinafter recorded.

The directions of the resurveyed lines were determined by solar transit method. At each point of intersection with the state boundary the direction of the closing line was verified by deflection from the line of the state boundary. The measurements were made with a Lallie steel tape 8 chs. in length; the tape is graduated every link for the first 100 lks. and thereafter at intervals of 10 lks. The tape was tested by comparison with a Lufkin standard and found correct. The measurements were made on the slope, the vertical angles were determined by a clinometer in good adjustment; the field notes show the horizontal equivalents.

March 12, 1933, at the station and on the meridian established by Andrew Nelson, described in the field notes of a Portion of the California-Nevada State Boundary, resurveyed under this group, every 30 minutes from 7 to 10:30 a.m. and from 1:30 to 5 p.m., I make proper settings on the arcs of the solar attachment and ascertain that the resulting orientation of the instrument, when compared with the meridian established by Polaris observation, has a maximum error of less than  $1'30''$ .

Beginning at the angle point (formerly 524 mile cor.) on the Von Schmidt California-Nevada State Boundary line. N.45°00'W., on a random line.

- 80.21 A point 12 lks. N.45°E. of the 523 mile cor.
- 160.42 A point 19 lks. N.45°E. of the 522 mile cor.
- 240.24 A point 17 lks. N.45°E. of the 521 mile cor.
- 320.17 A point 8 lks. N.45°E. of the 520 mile cor.
- 400.48 A point 8 lks. N.45°E. of the 519 mile cor.
- 481.19 A point 38 lks. N.45°E. of the 518 mile cor.
- 560.98 A point 146 lks. S.45°W. of the 517 mile cor.
- 640.00 Find no trace of 516 mile cor.
- 720.25 A point 410 lks. S.45°W. of the 515 mile cor.; a willow post 3 ins. diam., 3 ft. long, lying on an old mound of earth and bearing illegible scribe marks. At the point for cor. in the mound of earth is a charred block marked C on one side and N on the opposite side.