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Book "D"

4-679

BOOK 3584

FIELD NOTES

OF THE RETRACEMENT OF

part of the

South Boundary of the White Mountain Indian Reservation, and

the SURVEY of

part of the Subdivision lines of

TOWNSHIP 4 SOUTH, RANGE 26 EAST,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Benjamin J. Kinsey, U.S. Transitman.

In the capacity of U. S. Surveyor, under Special Instructions dated August 24, 1920, issued by the United States Surveyor General to govern surveys included in Group No. 111, Arizona, which were approved by the Commissioner of the General Land Office, December 18, 1920, and Assignment Instructions dated Nov. 17, 1920.

Retracement & Survey commenced January 8, 1921

Retracement & Survey completed January 10, 1921

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1A

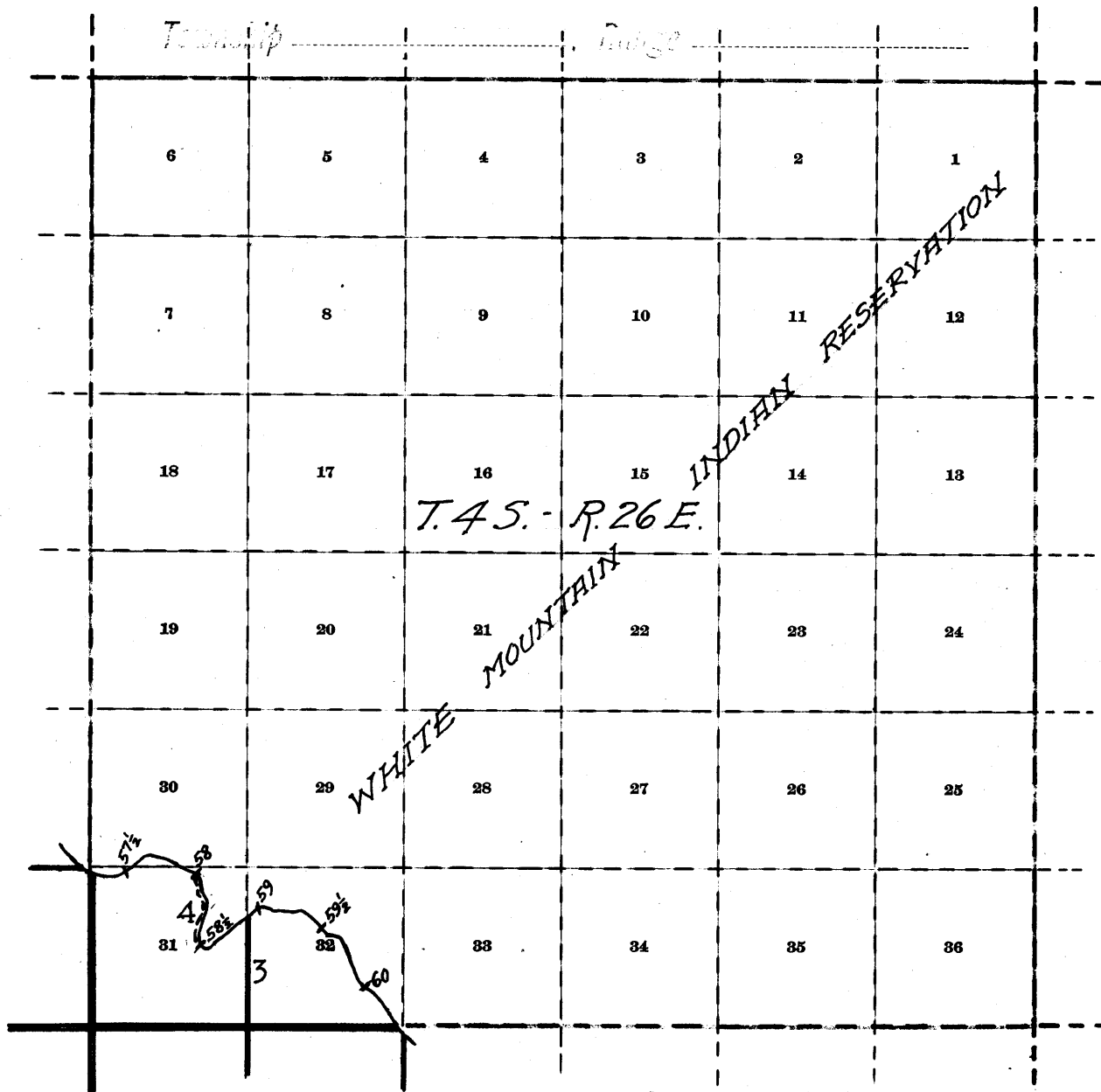
BOOK 3584

3584

Book "D"

Group III - Arizona.

INDEX DIAGRAM.



————— Lines surveyed under this group.

----- Lines retraced under this group.

————— Accepted surveys.

----- Unsurveyed.

16

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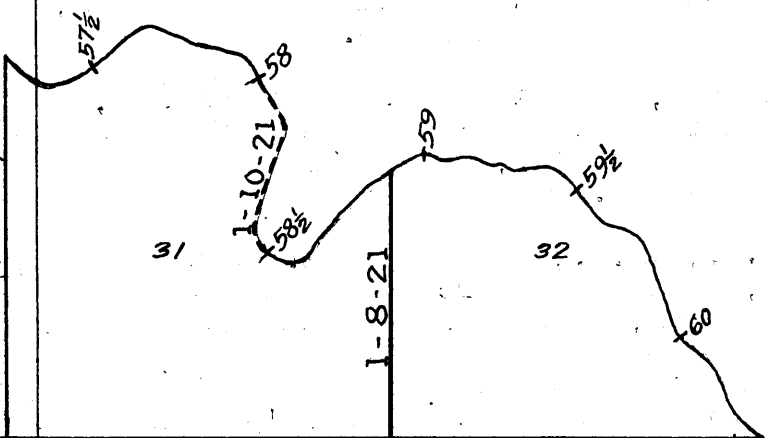
Book "D"

Group 111, Arizona.

DATE DIAGRAM.

Township 4 South, Range 26 East
(that portion outside the White Mt. Ind. Res.)

For dates of survey of this line see book "C"



Solid black lines on above diagram indicate surveys executed by Benjamin J. Kinsey, U.S. Transitman, as shown on dates thereon.

Dotted black lines on above diagram indicate retrace-ments executed by Benjamin J. Kinsey, U.S. Transitman, on dates shown thereon.

Retracement and survey, hereinafter described, executed by Benjamin J. Kinsey, U.S. Transitman, on dates shown on diagram on page 1 hereof, using Young and Sons light mountain transit No. 8477. The instrument is equipped with full vertical circle, and the Smith solar attachment. Unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

I examine the adjustment of the transit and correct all errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

January 1, 1921: At camp, near the cor. of secs. 10, 11, 14 and 15, T. 5 S., R. 25 E., Gila and Salt River Base and Meridian, Arizona, in latitude $33^{\circ}00'N.$; long, $109^{\circ}45'W.$, using the meridian established December 23, 1920, as described in Book "B," at 9h. 0m., a.m., l.m.t., I set off $33^{\circ}00'N.$ on the lat. arc; $22^{\circ}58\frac{1}{2}'S.$ on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, I observe the sun on the meridian; the resulting reading of the decl. arc is $22^{\circ}58\frac{1}{2}'S.$, which agrees with the computed decl. of the sun.

At 3h. 00m. p.m., l.m.t., with the lat. arc unchanged, I set off $22^{\circ}57'S.$, on the decl. arc; and determine a meridian with the solar, which agrees with the true meridian.

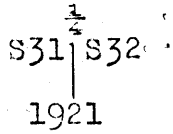
As all of the solar observations made during the usual hours of solar work come within $1'30''$ of the true meridian, I conclude that the adjustment of the instrument is satisfactory.

Unless otherwise specified, all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Chesterman standard steel tape, and found correct. The measurements are made on the slope, the vertical angles determined with clinometer, and the slope measurements properly reduced to true horizontal distances.

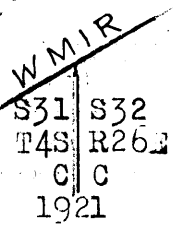
Survey of part of Subdivision lines of T.4 S., R. 26 E. 3

Chains.

From the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp., described, in Book "A,"
 N. 9° 3' W., bet. secs. 31 and 32.
 Over mountainous land, thru. dense undergrowth.
 Ascend 185 ft., over SE. slope.
 9.00 Ridge, brs. NE. and SW. Thence along W. slope, descending 30 ft. to
 14.55 Ascend 50 ft., over SW. slope.
 26.00 Same ridge, brs. NW. and SE.
 Descend 80 ft., over NE. slope.
 31.85 Ascend 35 ft., over E. slope, to
 36.85 Descend 55 ft., over NE. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in the ground to bed rock, supported by a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap,



and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
 Descend 20 ft., over NE. slope.
 40.75 Head of gulch, course E.
 Ascend 169 ft., over SE. slope, to
 52.00 Old road, brs. N. 40° E. and S. 40° W., Pima to Bonita Creek.
 55.23 Main ridge of the Gila Mountains, brs. NE and SW. Intersect the South bdy. of the White Mountain Indian Reservation, 4.31 chs. S. 45° W., from the 59 mile mon. thereon, which is an iron post, 3 ins. in diam., projecting 20 ins. above ground, firmly set in ground, and mound of stone, properly marked on brass cap, and witnessed by a mound of stone, NW. of post.
 No bearing trees.
 At the point of intersection,
 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to bed rock, supported by a mound of stone, for closing cor. of secs. 31 and 32, marked on brass cap,



and raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor.
 Land, mountainous and rocky, 3 ft. base, 2 ft. high;
 Soil, rocky; 4th rate.
 Timber, none.
 Undergrowth, dense greasewood, scrub oak, ocotillo and other cacti.

BOOK 3584

Retracement of part of South boundary of the
4 White Mountain Indian Reservation (58 mile mon. to 58½ mile mon.)

Chains.

The South bdy. of the White Mountain Indian Reservation, thru T.4 S., R.26 E. was surveyed in July, 1883, by Paul Riecker, U.S. Deputy Surveyor, and was resurveyed in October, 1915, by H. L. Baldwin, U.S. Topographer.

The 58 mile mon. on the South bdy. of the White Mountain Indian Reservation is an iron post, 3 ins. in diam., projecting 20 ins. above ground, firmly set in ground and mound of stone, properly marked on brass cap, and witnessed by a mound of stone, N.E. of post. No bearing trees.

Thence

S. $38\frac{1}{2}^{\circ}$ E., 5.00 chs.S. $21\frac{1}{2}^{\circ}$ E., 10.00 chs.S. $0\frac{1}{2}^{\circ}$ W., 5.00 chs.S. $18\frac{1}{2}^{\circ}$ W., 9.00 chs.S. $1\frac{1}{2}^{\circ}$ W., 9.40 chs.S. $56\frac{1}{2}^{\circ}$ E., 0.70 chs.

To the 58½ mile mon., which is an iron post, 1 in. in diam., projecting 20 ins. above ground, firmly set in ground and mound of stone, properly marked on brass cap, and witnessed by two properly marked bearing trees as follows:

A cedar, N. $65\frac{1}{2}^{\circ}$ W., 174 lks. dist.A juniper limb, S. $80\frac{1}{2}^{\circ}$ E., 146 lks. dist.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, scattering cedar and juniper.

Undergrowth, dense scrub oak, catclaw and cacti.

Boundaries of that part of T.4 S., R. 26 E., surveyed under Group No. 111 (outside the W.M.I.R.)

Latitudes, departures, and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	West,	157.73				157.73
West boundary,	North,	77.65	77.65			
South bdy. of W.M.I.R.	Various,	Various	37.61	115.76	162.09	4.15
Convergency,					.02	
Totals.			115.26	115.76	162.11	161.88
				115.26	161.88	

ERROR IN LATITUDE. 0.50

ERROR IN DEPARTURE. 0.23

The continued satisfactory adjustment of the solar apparatus during the survey of this township is indicated from field tests, as described in Book "E."

GENERAL DESCRIPTION.

The portion of Township 4 South, Range 26 East, surveyed under the instructions for Group 111, Arizona, includes all of the land in said township lying outside the White Mountain Indian Reservation. The surface is mountainous, sloping S. and SW. from the Reservation bdy., which follows the main ridge of the Gila Mountains, thru. secs. 30, 31 and 32.

The soil is rocky, 4th rate.

There is a scattering growth of cedar and juniper timber, and a dense undergrowth of scrub oak, greasewood, catclaw, ocotillo and other cacti.

There is no permanent running water, and no evidence of valuable mineral deposits.

There are no settlers or improvements.

BOOK 3584
8

CERTIFICATE OF UNITED STATES TRANSITMAN.

I, Benjamin J. Kinsey, U. S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 111, Arizona, bearing date of the 24th day of August, 1920, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, retraced all those parts or portions of the South boundary of the White Mountain Indian Reservation, and surveyed all those parts or portions of the subdivision lines of

TOWNSHIP 4 SOUTH, RANGE 26 EAST,

of the Gila and Salt River Base & Meridian, in the State of Arizona, which are represented in the foregoing field notes ^{and by diagram on page 1 hereof} as having been executed by me, and under my direction; and that all the corners of said retracement and survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General, for Group 111, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such retracement and survey.

Place: Phoenix, Arizona.

Benjamin J. Kinsey
U. S. Transitman, Surveyor.

Date: May 17th 1923.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, JUN 7, 1923.

The foregoing field notes of the retracement of part of the South boundary of the White Mountain Indian Reservation, and the survey of part of the subdivision lines of

TOWNSHIP 4 SOUTH, RANGE 26 EAST,

of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by Benjamin J. Kinsey, U. S. Transitman, under his special instructions dated August 24, 1920, for Group 111, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracement and survey they describe, are hereby approved.

James D. Smith
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above described surveys in _____ has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.