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Book "C"

BOOK 3519

FIELD NOTES

OF THE RETRACEMENT OF

part of the Arizona-Nevada State boundary (301M to Arizona-Utah corner)

AND OF THE SURVEY OF

the East boundary,

and the Subdivision lines of

Fractional Township 42 North, Range 16 West,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Joseph P. Davis, U. S. Cadastral Engineer,

In the capacity of U. S. Surveyor, under instructions dated September 29, 1920, issued by the United States Surveyor General to govern surveys included in Group No. 112, Arizona, which were approved by the Commissioner of the General Land Office, November 10, 1920, and Assignment Instructions dated December 15, 1920.

Retracement and Survey commenced January 14, 1921

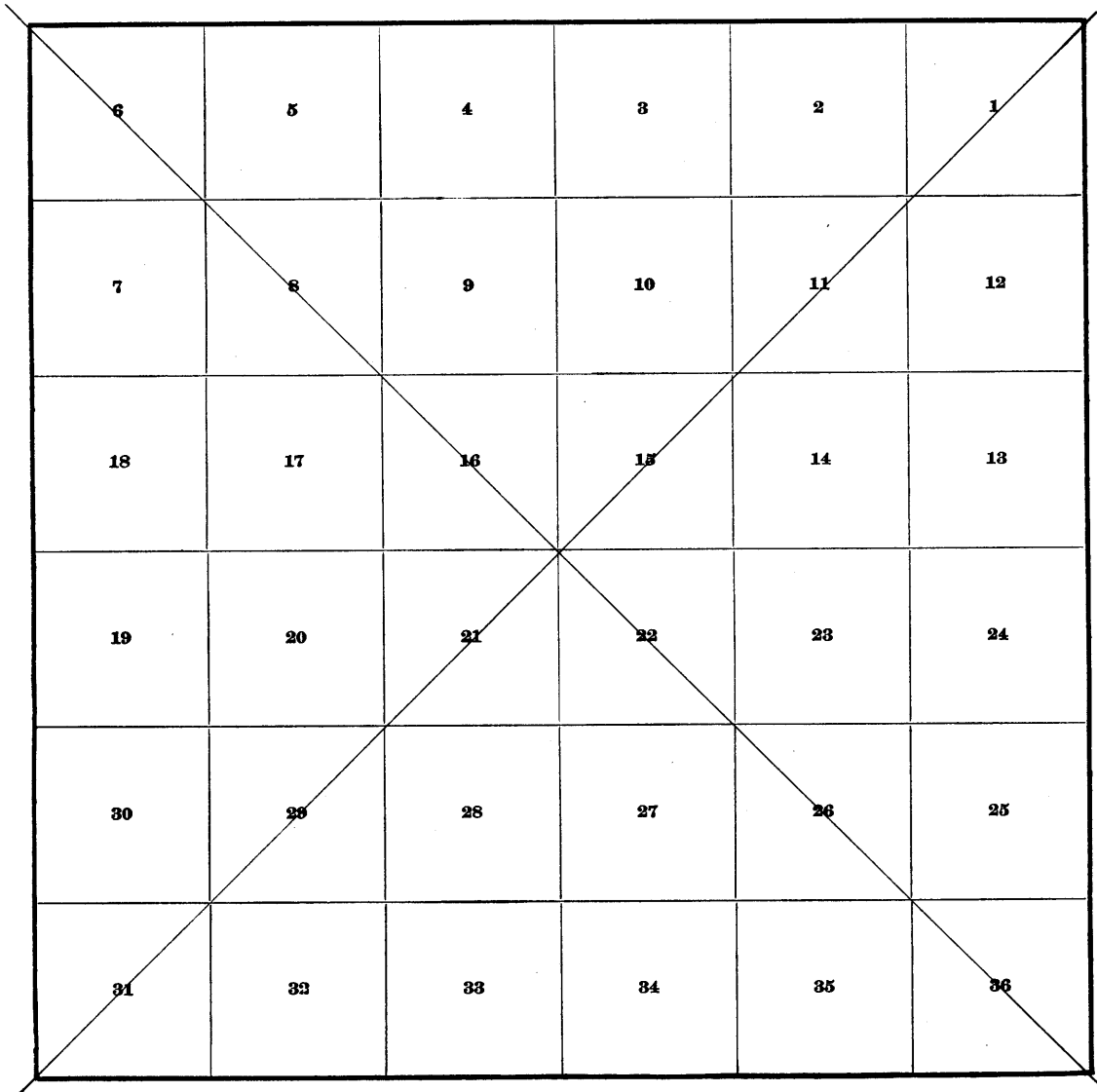
Retracement and Survey completed January 19, 1921

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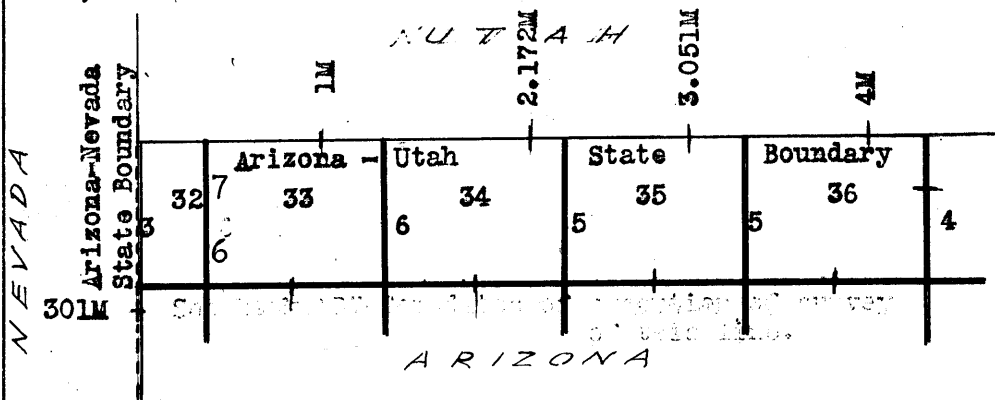
INDEX DIAGRAM:

Township , *Range*



Book "C"
Index Diagram

Fractional Township 42 North, Range 16 West,



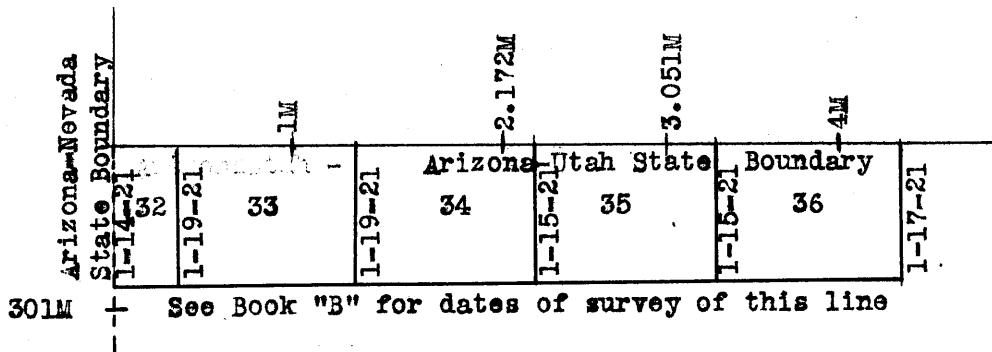
— Lines surveyed under this Group.

- - - Lines retraced under this Group.

— Accepted surveys.

Date Diagram

Fractional Township 42 North, Range 16 West,



On the above diagram:-

black lines indicate surveys and dotted black lines indicate resurveys, executed by Joseph P. Davis, U. S. Cadastral Engineer, on dates shown thereon.

Retracements and surveys hereinafter described executed by Joseph P. Davis, U. S. Cadastral Engineer and Clerk, B. Warner, W. C. Thompson, on dates shown on diagram on page 1 hereof, using respectively Buff light mountain transit No. 10125 and Woodward Sons light mountain transit No. 952. For description of instruments and certificate of approval, see Book "A".

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 and the slope measurements properly reduced to true horizontal distances.

We examine the adjustments of the transits and correct all errors; then, to test the solar apparatus, by comparing their indications, resulting from solar observations, made during a.m. and p.m. hours, with a meridian determined by observations on Polaris at elongation, we proceed as follows:

Jan. 11, 1921. At our camp, near the center of the SE. $\frac{1}{4}$ of sec. 2, T. 41 N., R. 16 W., G. and S. R. B. and M., lat. $36^{\circ}58\frac{1}{2}'$ N., long. $113^{\circ}59\frac{1}{2}'$ W., at 0 hrs. 8. 3 m. a.m., l.m.t., we observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined by a tack in a stake, firmly driven in the ground, 5 chs. N. of our station.

Jan. 12, 1921. At 8 hrs. 0 m., a.m., l.m.t., we lay off the azimuth of Polaris, $1^{\circ}23\frac{1}{2}'$ to the east, and mark the true meridian thus determined by a tack in a stake, firmly driven in the ground, 5 chs. N. of our station.

At 9 hrs. 0 m., a.m., l.m.t., we set off $36^{\circ}58\frac{1}{2}'$ N. on the lat. arcs; $21^{\circ}37'$ S. on the decl. arcs; and determine a meridian with the solars, which in each case agrees with the true meridian.

At apparent noon, with the lat. arcs unchanged, we observe the sun on the meridian with each solar; the resulting decl. with each instrument is $21^{\circ}36\frac{1}{2}'$ S., which is the computed decl. of the sun.

At 3 hrs. 0 m., p.m., l.m.t., with the lat. arcs unchanged, we set off $21^{\circ}34\frac{1}{2}'$ S. on the decl. arcs and determine a meridian with each solar, which in each case agrees with the true meridian.

As all of the solar observations during the usual hours of solar work come within $1'30''$ of the true meridian, we conclude that the adjustments of the solars are satisfactory!

Retracement of part of the
Arizona-Nevada State Bdy. (301st Mile Mon. to the Arizona-Utah cor. 3

Chains.

That part of the Arizona-Nevada State Line, forming the west boundaries of fracl. Ts. 39, 40, 41 and 42 N., R. 16 W., originally surveyed in 1870 by Isaac E. James, Astronomer and Surveyor, was resurveyed in January, 1913, by Thomas B. Matthews, U.S. Surveyor. No subsequent retracement or resurvey of this line is of record. The following notes describe a retracement of the line west of fractional T. 42 N., R. 16 W.

From the reestablished 301st mile Monument, described in Book "B,"

North on random line on 301st mile.

Over rolling land, thru. scattering undergrowth.

20.00

Old road, brs. E and W.

66.75

Fall 12 lks. E. of the NW. cor. of Arizona, and SW. cor. of Utah, on the 37th Parallel of latitude, which is a red sandstone shaft, 6 ft. long, 16 ins. broad, and 12 ins. thick, dressed 8 ins. down from the top, firmly set in a mound of stone, and marked "NEVADA" on the NW., "UTAH" on the NE., "ARIZONA" on the SE., and "INTL MONT 37 N.L.1901" on the SW. face.

No bearing trees.

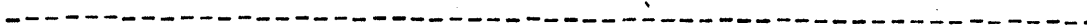
Land, rolling.

Soil, sand, 3rd rate.

No timber.

Undergrowth, yucca, sagebrush and greasewood.

The true course and distance of the line from 301st mile mon. to the Arizona-Utah cor. are therefore N. 0° 6' W., 66.75 chs.

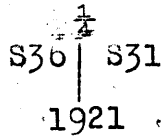


Survey of the East bdy. of fracl. Township 42 North, Range 16 West.

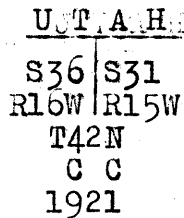
Chains.

From the cor. of T.41 N., R.15 W., fracl. T.41 N., R.16 W., and fracl. Ts. 42 N., Rs. 15 and 16 W., described in Book "B."

40.00 North, on true line, bet. fracl. secs. 31 and 36. Over rolling land, thru. scattering undergrowth. Ascend gradual SW. slope, 45 ft. Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



55.16 Intersect the Arizona-Utah State Boundary Line, 27.24 chs. east of the original 4 mile monument, which is an iron post, 2 ins. in diam., projecting 24 ins. above ground, firmly set in ground, and mound of earth, with brass cap, marked with raised letters "UTAH" on N. half, "ARIZONA" on S. half, and "4M" stamped in the center, and witnessed by pits N., S.E. and W. of post. No bearing trees. At the point of intersection, Set an iron post 3 ft. long, 3 ins. in diam., 26 ins. in the ground, for closing cor. of fracl. Ts. 42 N., Rs. 15 and 16 W., marked on brass cap,



and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land, rolling.
Soil, sand and gravel, 2nd rate.
No timber.
Undergrowth, chaparral.

That portion of the Arizona-Utah State Line, forming the North boundary of fracl. T. 42 N., R. 16 W. was surveyed in March, 1901, by Howard B. Carpenter, U.S. Surveyor and Astronomer, and no subsequent retracement or resurvey of this part of the line is of record.

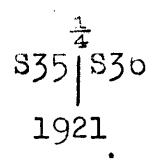
Boundaries of fracl. Township 42 North, Range 16 West.
Latitudes, departures and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	West,	347.02				347.02
West boundary, (Ariz.-Nev. Line)	N. 0° 6' W.	54.89	54.89			.12
North boundary, (Ariz.-Utah Line)	East,	347.24			347.24	
East boundary,	South,	55.16		55.16		
Convergency,					.05	
Totals,			54.89	55.16	347.29	347.14
				54.89	347.14	
			Error in latitude,		0.27	
			Error in departure,			0.15

Survey of the Subdivision of fracl. Township 42 North, Range 16 W. 5

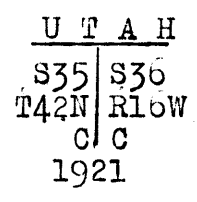
Chains.

From the cor. of secs. 1 and 2, and fracl. secs. 35 and 36, on the S. bdy. of the Tp., described in Book "B," North, on a true line, bet. fracl. secs. 35 and 36. Over rolling land, thru. scattering undergrowth. Descend 35 ft.
 2.50 Draw, course W. Ascend 115 ft., over S. slope.
 20.00 Thence along broken W. slope.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

55.05 Intersect the Arizona-Utah State Boundary Line, 22.93 chs. E. of the 3.051 mile mon., which is a lava stone, projecting 10x10x10 ins. above ground, firmly set, marked "3.051 M" on W. face, "UTAH" on N. face, "37 N L" on E. face, and "ARIZ." on S. face, and witnessed by pits, N., S., E. and W., and mound of earth E. of stone.
 No bearing trees.
 At the point of intersection,
 Set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in the ground, for closing cor. of fracl. secs. 35 and 36, marked on brass cap,

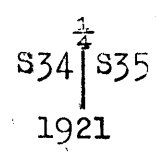


and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land, rolling and broken.
Soil, gravelly, 4th rate.
No timber.
Undergrowth, chaparral.

From the cor. of secs. 2 and 3, and fracl. secs. 34 and 35, on the S. bdy. of the Tp., described in Book "B," North, on a true line, bet. fracl. secs. 34 and 35. Over broken land, thru. scattering undergrowth. Ascend 30 ft.

3.80 Ridge, brs. N. 75° W. and S. 75° E. Descend 45 ft.
 14.35 Wash, course E. Road in wash, brs. E. and W. Ascend 150 ft.
 33.60 Descend 35 ft.
 40.00 Set an iron post; 3 ft. long, 1 in. in diam., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Ascend 75 ft.
 51.60 Ridge, brs. E. and W. Descend 85 ft.
 54.93 Intersect the Arizona-Nevada State Boundary Line, 13.03 chs. E. of the 2.172 mile mon., which is an iron post 2 ins. in diam., projecting 24 ins. above ground, firmly set in ground and mound of earth, with brass cap, marked with raised letters "UTAH" on N. half, "ARIZ." on S. half, and "2.172 M" stamped in the center, and

6 Subdivision lines of fracl. Township 42 North, Range 16 West.

Chains.

witnessed by pits, N., S.E. and W. of post. No bearing trees.

At the point of intersection,
Set an iron post; 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for closing cor. of fracl. secs. 34 and 35, marked on brass cap,

U T A H	
S34	S35
T42N	R16W
C	C
1921	

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land, broken, bad lands.

Soil, sandy, 4th rate.

No timber.

Undergrowth, chaparral.

From the cor. of secs. 3 and 4, and fracl. secs. 33 and 34, on the S. bdy. of the Tp., described in Book "B," North, on a true line, bet. fracl. secs. 33 and 34.

Over broken bad lands, thru. scattering undergrowth.

Descend 30 ft.

9.60 Ascend 55 ft.

18.20 Descend 55 ft.

22.10 Draw, course E. Road in draw, brs. E. and W. Ascend 75 ft.

32.00 Descend 54 ft.

35.10 Wash, course NE. Thence over rolling land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$	
S33	S34
1921	

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

54.83 Intersect the Arizona-Utah State Boundary Line, 26.83 chs. E. of the 1st mile mon., which is an iron post, 2 ins. in diam., projecting 24 ins. above ground, firmly set in ground and mound of earth, with brass cap, marked with raised letters "UTAH" in N. half, "ARIZ." in S. half, and stamped "1 M" in the center, and witnessed by pits N., S., E. and W. of post. No bearing trees.

At the point of intersection, set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for closing cor. of fracl. secs. 33 and 34, marked on brass cap,

U T A H	
S33	S34
T42N	R16W
C	C
1921	

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land, broken bad lands, and rolling.

Soil, sandy and gravelly, 3rd rate.

No timber.

Undergrowth, chaparral.

From the cor. of sec. 4, and fracl. sec. 5, 32 and 33, on the S. bdy. of the Tp., described in Book "B," North, on a true line, bet. fracl. secs. 32 and 33. Over broken bad land, thru. scattering undergrowth.

Chains.

2.90 Main wash, 10 lks. wide, course E.
 3.50 Old road, brs. E. and W.
 19.20 Draw, course E.
 30.00 Draw, course E.
 38.50 Draw, course E.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S32 | S33
 1921

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

54.87 Intersect the Arizona-Utah State Boundary line, 27.05 chs. East of the NW. cor. of Arizona, and SW. cor. of Utah, hereinbefore described.

At the point of intersection,
 Set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in the ground, for closing cor. of fracl. secs. 32 and 33, marked on brass cap,

U T A H
 S32 | S33
 T42N | R16W
 C | C
 1921

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land, broken bad land.

Soil, sandy and gravelly, 3rd rate.

No timber.

Undergrowth, chaparral.

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

GENERAL DESCRIPTION.

This fractional township consists of broken bad lands, sandy and gravelly, draining easterly and southerly, covered with chaparral undergrowth. There are no settlers, nor is any water developed in this township. The old Mormon emigration road from Salt Lake City to Los Angeles runs N. and S. thru. sec. 35. Another old road into Nevada runs westerly thru. the west three sections.

There is no indication of valuable mineral.

FIELD ASSISTANTS.

to Joseph P. Davis, U. S. Cadastral Engineer

NAMES.	CAPACITY.
, Irving Isom,	1st chairman,
Francis Hinton,	2nd chairman,
Asahel J. Barnum,	cornerman,
Stephen Jennings,	axman,
Chauncey Potter,	flagman.

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BOOK 3519

CERTIFICATE OF UNITED STATES CADASTRAL ENGINEER

I, Joseph P. Davis, U. S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 112, Arizona, bearing date of the 29th day of September, 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, ~~surveyed~~ ^{retraced} all those parts or portions of the Arizona-Nevada State boundary, and surveyed all those parts or portions of the East boundary and the Subdivision lines of

Fractional Township 42 North, Range 16 West,

of the Gila and Salt River

Base and 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 ~~retracement and~~ ^{retracement and} said 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 112, Arizona,

and in the specific manner described in the field notes, and that the foregoing are the original field notes of ~~such survey.~~ ^{retracement and} such survey.

Place Presid. Idaho

Date January 16, 1922

Joseph P. Davis
U. S. Cadastral Engineer

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, January 25, 1922

The foregoing field notes of the ~~survey of retracement of part of the Arizona-Nevada State boundary, (301M to Arizona-Utah corner), and of the survey of the East boundary, and the Subdivision lines of~~

Fractional Township 42 North, Range 16 West,

of the Gila and Salt River Base and Meridian,

in the State of Arizona,

executed by Joseph P. Davis, U. S. Cadastral Engineer,

under his special instructions dated September 29, 1920, for Grp. 112, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys ^{retracements and} they describe, are hereby approved.

Frank P. Frost

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.