

3257

(1)

Book "P"

4-619

(Subdivisions)

BOOK 3257

FIELD NOTES

OF THE RETRACEMENT OF

part of the BOUNDARY of the HUALPAI INDIAN RESERVATION within, and
Part of the Subdivision Lines of
TOWNSHIP 27 NORTH, RANGE 15 WEST.

OF THE SURVEY OF THE

SUBDIVISION LINES of those parts of

TOWNSHIP 27 NORTH, RANGE 14 WEST,

and

TOWNSHIP 27 NORTH, RANGE 15 WEST

situated outside the boundary of the

HUALPAI INDIAN RESERVATION.

and of the Survey of the completion of the SUBDIVISION LINES of

TOWNSHIP 27 NORTH, RANGE 16 WEST

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

S. Frank Walters and James, C. Hooper.

U. S. Transitmen,

~~In the capacity of U. S. Surveyor~~, under instructions dated January 7, 1915,
issued by the United States Surveyor General to govern surveys included in
Group No. 45, which were approved by the Commissioner of the General Land
Office, January 26, 1915.

Retracement & Survey commenced January 4, 1917.

Retracement & Survey completed July 9, 1917.

Executed under Assignment
Instructions dated Dec. 7, 1916.

3257

3257

Book "P"

Group 45 - - - - Arizona.

SEE SPECIAL INDEX DIAGRAM.

INDEX DIAGRAM.

Township 25 North, Range 20 West,

6	26	5	19	4	14	3	10	2	5	1
26		25		19		14		9		5
7	25	8	18	9	13	10	9	11	4	12
24		24		18		13		8		4
18	23	17	17	16	13	15	8	14	3	13
23		23		17		12		7		3
19	22	20	17	21	12	22	7	23	2	24
22		21		16		11		7		2
30	21	29	16	28	11	27	6	26	2	25
21		20		15		10		6		1
31	20	32	15	33	10	34	5	35	1	36

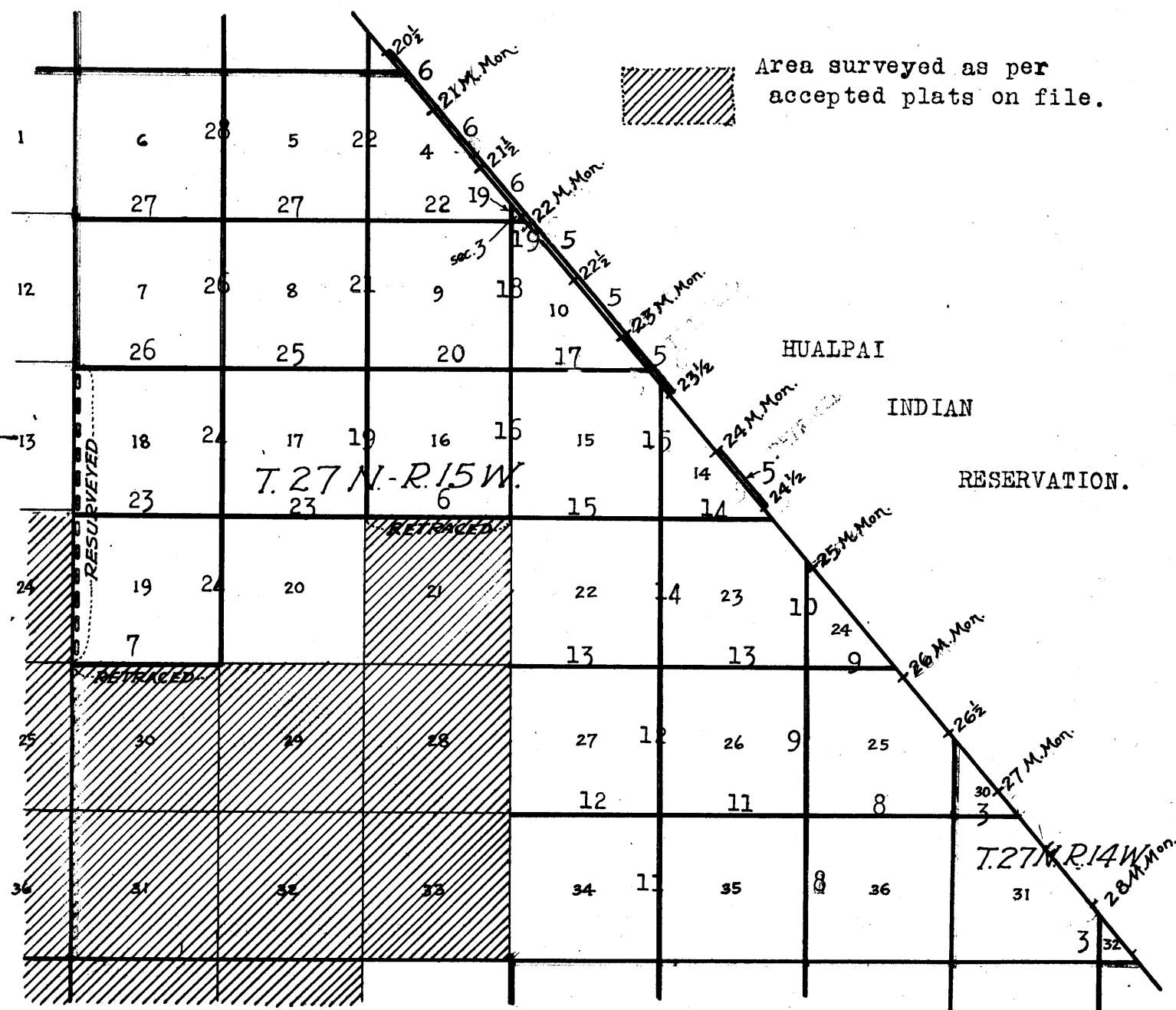
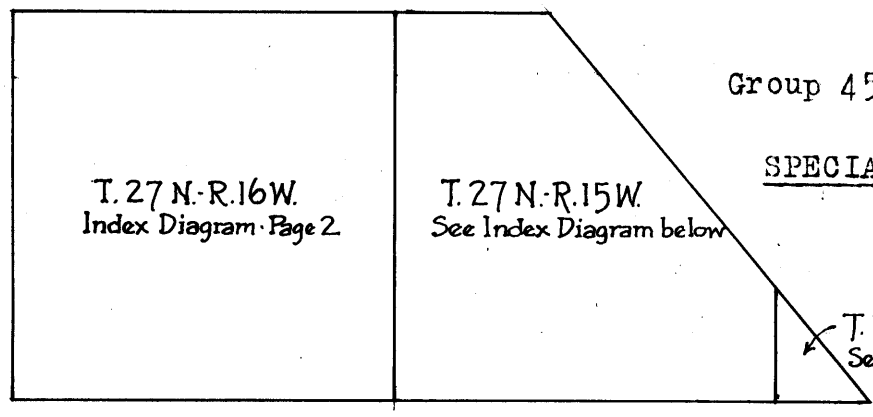
BOOK 3257

Book "P"

Group 45 - - - - Arizona.

SPECIAL INDEX DIAGRAM.

PART I.



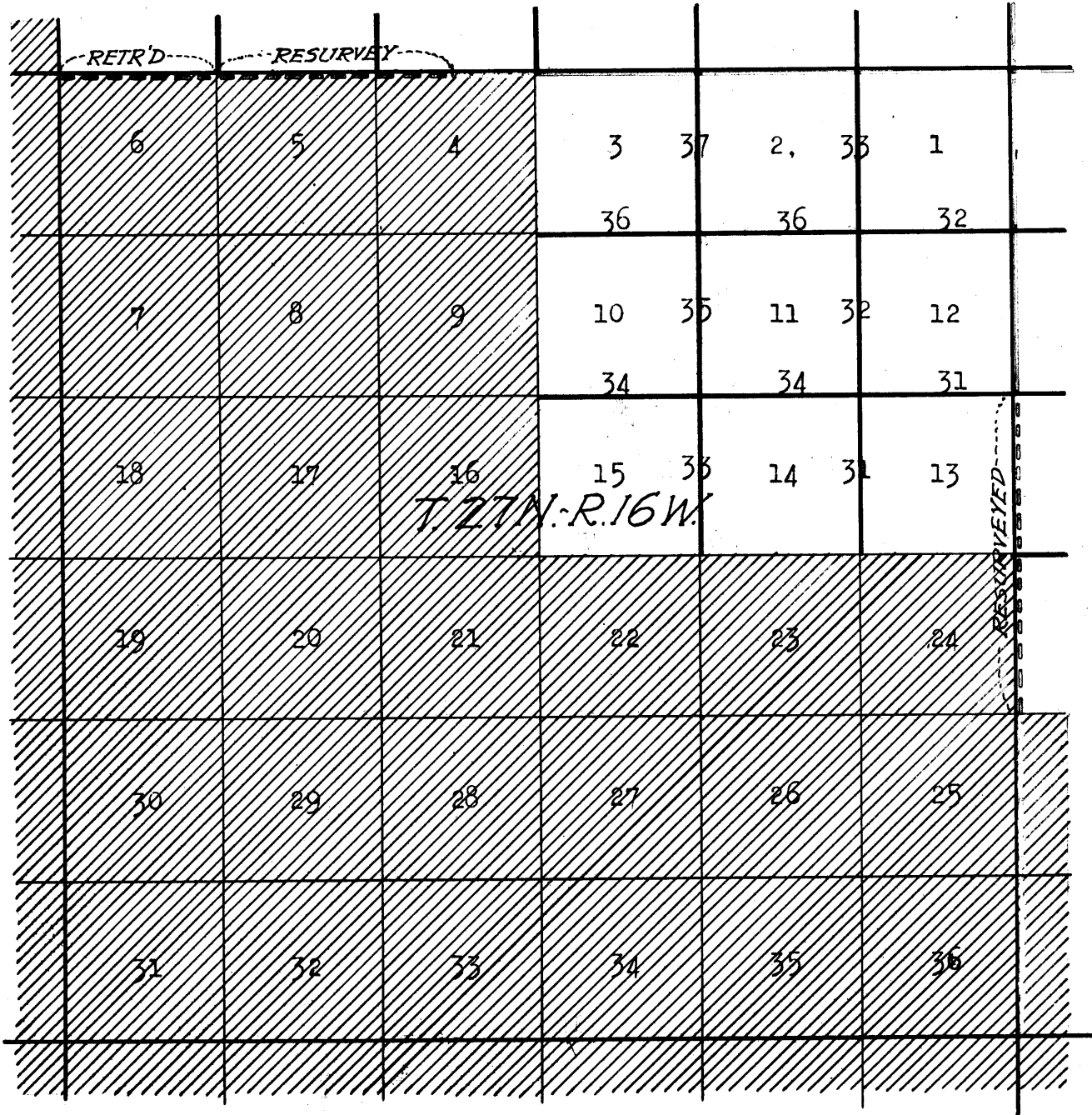
or retraced




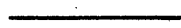
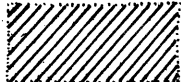
- Subdivision lines surveyed under this group.
- Township bdrs. surveyed under this group. Notes in Book "A."
- Hualpai Indian Reservation bdy. retraced. Notes in this book.
- Accepted surveys.
- Township bdrs. retraced or resurv. under this group. Notes in book "A".

SPECIAL INDEX DIAGRAM.

PART II.

BOOK 3257



-  Subdivision lines surveyed or resurveyed under this group.
-  Township bdys. surveyed under this group.
Notes in Book "A."
-  Township boundaries retraced or resurveyed under this group.
Notes in book "A."
-  Accepted surveys per accepted
plats on file.
-  Area surveyed, as per accepted plats on file.

Subdivision of Part of T. 27 N. R. 14 W.

3

Chains.

Survey executed by S. Frank Walters, U. S. Transitman, on dates shown on diagram on page 41 hereof, using Buff. solar transit No. 9985, described in Book "A."
 Recent and repeated tests of this instrument on a meridian established by observations on Polaris at elongation, demonstrate that it is in good adjustment.

From the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp., which is an iron post, described in Book "A," N.0° 1' E., bet. secs. 31 and 32.

Over rolling mountainous land, through scattering timber and dense undergrowth.
 Desc. 90 ft.

8.90 Draw, course N.60° E. Asc. 25 ft.

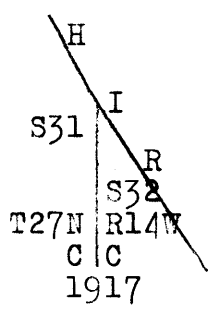
14.40- Spur, slopes E. Desc. 100 ft.

22.70 Draw, course N.70° E. Asc. 25 ft.

23.60 Wire fence, brs. W. and E. 50 lks. to fence cor., thence SE.

27.20 Intersect Hualpai Indian Reservation Boundary, 7.76 chs. S.40° E. of the 28 mile cor., which is a limestone, 6 X 8 X 12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor-General.

At the point of intersection, set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for closing cor. of secs. 31 and 32, marked on brass cap



And raise a mound of stone, 2 ft. base, 1 1/2 ft. high, S. of cor.

Land, rolling mountainous.
 Soil, rocky, 2nd and 4th rates.
 Timber, cedar and pinion.
 Undergrowth, scrub oak and cat claw.

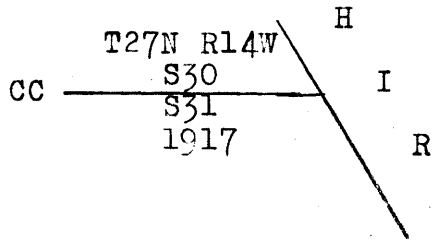
From the cor. of secs. 25, 30, 31 and 36, on the W. bdy. of the Tp., which is an iron post, described in Book "A,"

East on a true line, bet. secs. 30 and 31.
 Over rolling and mountainous land, through scattering undergrowth.

6.80 Desc. 70 ft.
 Draw, course N. Asc. 230 ft.

36.05 Intersect Hualpai Indian Reservation Boundary, 18.86 chs. S.40° E. of the 27 mile cor., which is a lava stone, 10 X 10 X 12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor-General.

At the point of intersection, set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for closing cor. of secs. 30 and 31, marked on brass cap



34

Subdivision of Part of T. 27 N., R. 14 W.

Chains.

And raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.
of cor.
Land, rolling and mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, scrub oak and manzanita.

General Description.

This township consists of portions of two sections only, and is rolling mountainous land, timbered with scattering scrub juniper and pinion pine, and covered with scrub oak and cactus undergrowth. There is a very sparse growth of native grass. There is no water. There are no settlers.

Retracement of part of Hualpai Indian Reservation Boundary,
Retracement of part of the Subdivision lines of T.27 N., R.15 W., and 5
Survey of part of the Subdivision lines of T.27 N., R. 15 W.

Chains.

Retracements and surveys hereinafter described, executed by S. Frank Walters and James C. Hooper, U.S. Transitmen, using Buff solar transit No. 9985, and Young and Sons' light mountain transit No. 8489, respectively, on dates shown on diagrams on pages 39 and 41, hereof.
The initials "S.F.W." and "J.C.H." are inserted at the beginning and ending of those portions of the notes describing the respective surveys by S. Frank Walters and James C. Hooper, U.S. Transitmen.
Recent and repeated tests of the instruments on a meridian established by observations on Polaris at elongation, demonstrate that they are in satisfactory adjustment.

RETRACEMENT: PART OF HUALPAI INDIAN RESERVATION BOUNDARY.

S.F.W.
From the 24½ mile cor., which is a limestone, 12x3x6 ins. above ground, firmly set, marked and witnessed as described by the surveyor-general, N.40°W., on a random line.
Over mountainous land, thru scattering timber and undergrowth.
Descend 105 ft.
9.63 Gulch, course NE. Ascend 220 ft.
21.43 Ridge, brs. N. and S. Descend 595 ft. over cliffs.
35.20 Intersect the witness cor. to the 24 mile cor., which is a limestone, 20x6x6 ins., above ground, firmly set, marked and witnessed as described by the surveyor general. The true course and dist. of line between the 24 mile witness cor. and the 24½ mile cor. is therefore S.40° E., 35.20 chs.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, cedar and pinon.
Undergrowth, scrub oak and manzanita.

From the 23½ mile cor., which is a limestone 6x10x6 ins., above ground, firmly set, marked and witnessed as described by the surveyor-general, N.40°W., on a random line.
Over mountainous land, thru dense timber and undergrowth.
Ascend 790 ft.
23.60 Spur, slopes N. Descend 130 ft.
27.50 Ravine, course NE. Ascend 275 ft.
38.00 Ridge, brs. NE and SW. Descend.
39.79 Fall 7 lks. S. 50°W., of the 23 mile cor., which is a stone 8x6x10 ins. above ground, firmly set, marked and witnessed as described by the surveyor general. The true course and distance of this half mile is therefore N.39° 54' W., 39.79 chs.

From the 23 mile cor., N.40°W. on a random line.
Descend 225 ft.
15.10 Ascend 45 ft.
20.05 Descend 105 ft.
24.50 Ravine, course NE. Ascend 215 ft.
39.79 Fall 19 lks. N. 50° E. of the 22½ mile cor., which is a limestone, 9x5x12 ins. above ground, firmly set, marked and witnessed as described by the surveyor general. The true course and distance of this half of mile is therefore N.40° 16' W., 39.79 chs.

From the 22½ mile cor., N.40°W., on a random line.
Over mountainous land, thru dense timber and undergrowth.
Ascend 85 ft.
11.40 Ridge, brs. NE. and SW. Descend 100 ft.

6. Retracement: Part of Hualpai Indian Reservation Boundary.

Chains	
22.30	Draw, course NE. Ascend 30 ft.
31.10	Descend 80 ft.
35.95	Ascend 70 ft.
39.73	Fall 2 lks. N. 50° E. of the 22 mile cor., which is a limestone, 10x6x8 ins., above ground, firmly set, marked and witnessed as described by the surveyor-general. The true course and distance of this half mile is therefore N. 40° 2' W., 39.73 chs.
	From the 22 mile cor., N. 40° W., on a random line. Ascend 150 ft. Over mountainous land, thru. dense timber and undergrowth.
4.80	Spur, slopes NE. Ascend 150 ft.
12.70	Spur, slopes NE. Descend 335 ft.
39.30	Fall 13 lks. S 50° W. of the 21½ mile cor., which is a limestone, 14x5x12 ins., above ground, firmly set, marked and witnessed as described by the surveyor general. The true course and distance of this half mile is therefore N. 39° 49' W., 39.30 chs.
	From the 21½ mile cor., N. 40° W., on a random line. Over rolling land, thru. dense timber and undergrowth. Descend.
14.50	Draw, course NE.
39.91	Fall 9 lks. N. 50° W. of the 21 mile cor., which is a limestone, 10x4x16 ins. above ground, firmly set, marked and witness as described by the surveyor general.
	The true course and distance of this half mile is therefore N. 40° 8' W., 39.91 chs.
	From the 21 mile cor., N. 40° W., on a random line. Over rolling land, thru. dense timber and undergrowth. Ascend 75 ft.
29.95	Descend.
37.70	Draw, course NE. Ascend 25 ft.
40.33	Fall 2 lks. N. 50° W. of the 20½ mile cor., which is a limestone, 14x10x4 ins., above ground, firmly set, marked and witnessed as described by the surveyor-general. The true course and distance of this half mile is therefore N. 39° 58' W., 40.33 chs.
	Land, rolling and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinon. Undergrowth, scrub oak, and manzanita.
	S.F.W.

RETRACEMENT: SUBDIVISION LINES OF T. 27 NORTH, RANGE 15 WEST.

	J.C.H.
	From the cor. of secs. 15, 16, 21 and 22, which is an iron post, properly set, marked and witnessed as described by the surveyor general, N. 89° 58' W., on a random line, bet. secs. 16 and 21. Over rolling land, thru. scattering undergrowth.
22.49	Wash, 15 lks. wide, 4 ins. deep, course S. 20° W. (N. 20° W. & S. 20° E.)
37.07	Wash, 20 lks. wide, 4 ins. deep, course S. 40° W. Wire fence, brass
39.96	Fall 10 lks. S. of point for ¼ sec. cor. of sec. 16.
40.23	Fall 10 lks. S. of the original ¼ sec. cor., which is an iron post, properly set, marked and witnessed as described by the surveyor-general.

Retracement: Part of Subdivision Lines of T. 27 N. R. 15 W.

Chains.

The true course and distance of this half mile is therefore N.89° 50' W., 40.23 chs.

From the 1/4 sec. cor., N.89° 58' W. on random line, bet. secs. 16 and 21. (W. half). Over mountainous land, through scattering undergrowth. Asc. 120 ft.

13.45 Spur, slopes S.10° W. Desc. 130 ft.

20.55 Ravine, course S.20° W. Asc. 55 ft.

27.25 Spur, slopes S.20° W. Desc. 125 ft.

37.15 Ravine, course S.10° E. Asc.

39.69 Fall 7 lks. S. of the original cor. of secs. 16, 17, 20 and 21, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.

The true course and distance of this half mile is therefore N.89° 52' W., 39.69 chs.

The 1/4 sec. cor. on this line therefore refers to sec. 21 only. Land, rolling and mountainous.

Soil, rocky and gravelly, 4th rate.

No timber.

Undergrowth, sagebrush, cactus and greasewood.

From the cor. of secs. 19, 20, 29 and 30, N.89° 57' W., on a random line, bet. secs. 19 and 30. Over level land, through scattering undergrowth.

10.00 Wash, 20 lks. wide, 2 ft. deep, course S.60° W.

31.60 Asc. 260 ft.

39.36 Spur, slopes S. Desc. 30 ft.

40.11 Fall 2 lks. S. of the original 1/4 sec. cor., which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.

The true course and distance of this half mile are therefore N.89° 56' W., 40.11 chs.

From the 1/4 sec. cor., N.89° 57' W., on a random line, bet. secs. 19 and 30. Over mountainous land, through scattering undergrowth. Desc. 15 ft.

1.60 Asc. 240 ft.

14.00 Spur, slopes S.20° W. Desc. 525 ft.

30.40 Foot of descent, brs. N.40° E. and S.30° W. Thence over level land.

39.25 Fall 29 lks. S. of the original cor. of secs. 19, 24, 25 and 30, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.

The true course and distance of this half mile is therefore N.89° 32' W., 39.25 chs.

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, greasewood.

J.C.H.

Chains. S.F.W.
 Impracticable to chain measurement on true line, bet. secs. 35 and 36; therefore, from a point 13.57 chs. E. of cor. of secs. 1, 2, 35 and 36 on S. bdy. of Tp., described in Book "A,"
 N.0° 1' W., on offset line, through sec. 36.
 Over rolling land, through dense timber and undergrowth.
 Asc. 50 ft.
 14.80 Desc. 250 ft.
 40.00 West 13.57 chs. The true point for $\frac{1}{4}$ sec. cor. falls on a rock in place, 12 X 8 X 6 ins. above ground. I mark a cross at the exact cor. point, with $\frac{1}{4}$ on top of rock, for $\frac{1}{4}$ sec. cor., and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Continue N.0° 1' W., on offset line, 13.57 chs. E. of sec. line, along broken cliffs.
 48.30 Gulch, course NW. Asc. 50 ft.
 51.40 Desc. 50 ft.
 52.50 Asc. 150 ft.
 76.70 Desc. 15 ft.
 80.00 West 13.57 chs.,
 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, in a mound of stone, for cor. of secs. 25, 26, 35 and 36, marked on brass cap.

T27N R15W
 S26 S25
 S35 S36
 1917

From which
 A Pinion, 10 ins. diam., brs. N.70 $\frac{1}{2}$ ° E., 31 lks. dist., marked T27N R15W S25 BT.
 A cedar, 8 ins. diam., brs. S.12° E., 63 lks. dist., marked T27N R15W S36 BT.
 A pinion, 10 ins. diam., brs. S.66 $\frac{1}{2}$ ° W., 81 lks. dist., marked T27N R15W S35 BT.
 A pinion 10 ins. diam., brs. N.12 $\frac{3}{4}$ ° W., 45 lks. dist., marked T27N R15W S26 BT.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, cedar and pinion.
 Undergrowth, scrub oak.

40.00 S.89° 58' E., on a random line, bet. secs. 25 and 36.
 Set temp. $\frac{1}{4}$ sec. cor.
 -79.85 Intersect E. bdy. of Tp., 7 lks. N. of the cor. of secs. 25, 30, 31 and 36, which is an iron post, described in Book "A."
 Thence
 N.89° 55' W., on a true line, bet. secs. 25 and 36.
 Over rolling and mountainous land, through dense timber and undergrowth.
 Asc. 25 ft.
 1.35 Ridge, brs. N.30° E. and S.30° W. Desc. 105 ft.
 9.55 Draw, course N. Asc. 300 ft.
 39.92 $\frac{1}{2}$ Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S25
 S36
 1917

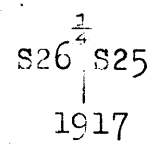
And raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 44.25 Ridge, brs. N. and S.30° E. Desc. 170 ft.
 55.55 Draw, course N.40° W. Asc. 95 ft.
 65.85 Spur, slopes N. Desc. 60 ft.

Subdivision of Part of T. 27 N. R. 15 W.

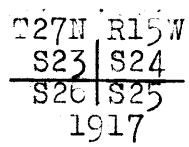
Chains.

72.45 Head of gulch, course N.30° E Asc. 30 ft.
 74.85 Spur, slopes N. Desc. 35 ft.
 79.85 The cor. of secs. 25, 26, 35 and 36.
 Land, rolling and mountainous.
 Soil, rocky, 4th rate.
 Timber, dense cedar and pinion.
 Undergrowth, scruo oak and cat claw.

8.95 N.0° 1' W., bet. secs. 25 and 26.
 16.95 Over rolling land, through dense timber and undergrowth.
 25.00 Asc. 35 ft.
 40.00 Spur, slopes N.70° W. Desc. 65 ft.
 Draw, course N.60° W. Asc.
 Desc. 100 ft.
 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., marked on brass cap



From which
 A cedar, 8 ins. diam., brs. S.71° E., 31 lks. dist.,
 marked $\frac{1}{4}$ S25 BT.
 A cedar, 10 ins. diam., brs. N.14° W., 39 lks. dist.,
 marked $\frac{1}{4}$ S26 BT.
 55.95 Draw, course W. Asc.
 60.00 Desc. 30 ft.
 71.15 Draw, course N.30° E. Asc.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., in a mound of
 stone, for cor. of secs. 23, 24, 25 and 26, marked on
 brass cap.



From which
 A cedar, 8 ins. diam., brs. N.45° E., 120 lks. dist.,
 marked T27N R15W S24 BT.
 A cedar, 6 ins. diam., brs. S.43 $\frac{1}{2}$ ° E., 160 lks. dist.,
 marked T27N R15W S25 BT.
 A cedar, 7 ins. diam., brs. S.48° W., 91 lks. dist.,
 marked T27N R15W S26 BT.
 A cedar, 8 ins. diam., brs. N.8° W., 227 lks. dist.,
 marked T27N R15W S23 BT.
 Land, rolling.
 Soil, rocky, 3rd and 4th rates.
 Timber, dense cedar and pinion.
 Undergrowth, scrub oak and cat claw.

4.00 East on a true line, bet. secs. 24 and 25.
 12.00 Over rolling land, through dense timber and undergrowth.
 29.00 Desc. 30 ft.
 35.90 Draw, course N.30° E. Asc. 50 ft.
 40.00 Thence along N. slope.
 Desc. 65 ft.
 Draw, course N. Asc. 55 ft.
 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the
 ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on
 brass cap

Chains.

1/4 S24
1/4 S25
1917

From which

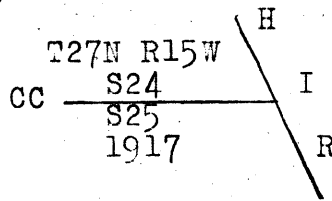
A cedar, 16 ins. diam., brs. N.45 1/2° E., 31 lks. dist., marked 1/4 S24 BT.

A cedar, 8 ins. diam., brs. S.12 1/2° E., 66 lks. dist., marked 1/4 S25 BT.

41.00 Spur, slopes N. Desc. 35 ft.

48.78 Intersect Hualpai Indian Reservation Boundary, 6.29 chs. N.40° W. of the 26 mile cor., which is a stone, 10 X 8 X 10 ins. above ground, firmly set, marked and witnessed as described by the Surveyor-General.

At the point of intersection, set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for closing cor. of secs. 24 and 25, marked on brass cap



From which

A cedar, 10 ins. diam., brs. N.56 1/2° W., 36 lks. dist., marked CC T27N R15W S24 BT.

A cedar, 6 ins. diam., brs. S.77° W., 86 lks. dist., marked CC T27N R15W S25 BT.

Land, rolling.

Soil, rocky, 4th rate.

Timber, dense cedar and pinion.

Undergrowth, scrub oak and manzanita.

From the cor. of secs. 23, 24, 25 and 26, N.0° 1' W., on a true line, bet. secs. 23 and 24. Over rolling land, through dense timber and undergrowth. Asc. 25 ft.

9.00 Desc. 80 ft.

34.60 Draw, course N.40° E. Asc. 15 ft.

38.00 Spur, slopes N.50° E. Desc.

40.00 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for 1/4 sec. cor., marked on brass cap

1/4 S23 S24
1917

From which

A cedar, 10 ins. diam., brs. N.48 3/4° W., 94 lks. dist., marked 1/4 S24 BT.

A cedar, 8 ins. diam., brs. S.10 1/2° W., 55 lks. dist., marked 1/4 S23 BT.

41.90 Wash, course E. Asc. 35 ft.

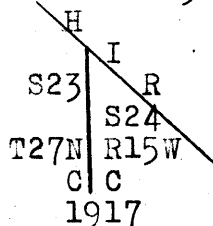
42.50 Trail, brs. E. and W.

51.50 Point of spur, slopes E. Desc. 15 ft.

55.60 Wash, course S.80° E. Asc. 30 ft.

58.40 Intersect Hualpai Indian Reservation Boundary, 2.45 chs. N.40° W. of the 25 mile cor., which is a stone, 16 X 6 X 12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor-General.

At the point of intersection, set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, in a mound of stone, for closing cor. of secs. 23 and 24, marked on brass cap



Subdivision of Part of T. 27 N. R. 15 W.

Chains.

From which
 A cedar, 8 ins. diam., brs. S.26³° E., 41 lks. dist.,
 marked CC T27N R15W S24 BT.
 A pinion, 8 ins. diam., brs. S.48¹° W., 150 lks. dist.,
 marked CC T27N R15W S23 BT.
 Land, rolling.
 Soil, rocky, 4th rate.
 Timber, cedar and pinion.
 Undergrowth, cat claw and scrub oak.

From the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of
 the Tp., which is an iron post, described in Book "A,"
 N.0° 1' W., bet. secs. 34 and 35.

Over mountainous land, through scattering undergrowth.
 Asc. 30 ft.
 3.00 Spur, slopes S.70° W. Desc. 245 ft.
 29.60 Wash, 60 lks. wide, 4 ft. deep, course S.80° W. Asc. 160
 ft.
 32.10 Road, brs. E. and W.
 40.00 Set an iron post, 3 ft. long, 1 in. diam., in a mound of
 stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

S34 | S35
 1917

And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.
 of cor.
 45.20 Spur, slopes W. Desc. 130 ft.
 52:30 Gulch, course S.80° W. Asc. 565 ft.
 69.50 Spur, slopes S.80° W. Desc. 110 ft.
 75.10 Gulch, course S.70° W. Asc. 150 ft.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the
 ground, in a mound of stone, for cor. of secs. 26, 27,
 34 and 35, marked on brass cap

T27N R15W
 S27 | S26
 S34 | S35
 1917

And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.
 of cor.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, none.
 Undergrowth, scrub oak and cactus.

40.00 S.89° 58' E., on a random line, bet. secs. 26 and 35.
 80.08 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line, 35 lks. S. of the cor. of secs.
 25, 26, 35 and 36.

Thence
 S.89° 47' W., on a true line, bet. secs. 26 and 35.
 Over mountainous land, through scattering timber and under-
 growth.
 Desc. 740 ft.
 40.04 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

S26
 $\frac{1}{4}$ S35
 1917

From which

12

Subdivision of Part of T. 27 N. R. 15 W.

Chains.	
	<p>A pinion, 8 ins. diam., brs. N.47$\frac{1}{2}$° E., 84 lks. dist., marked $\frac{1}{4}$S26 BT.</p> <p>A cedar, 10 ins. diam., brs. S.68$\frac{1}{2}$° W., 69 lks. dist., marked $\frac{1}{4}$S35 BT.</p>
43.70	Gulch, course SW. Asc. 65 ft.
49.30	Spur, slopes SW. Desc. 255 ft.
62.70	Gulch, course S.30° W. Asc. 200 ft.
71.80	Spur, slopes SW. Desc. 60 ft.
75.10	Gulch, course SW. Asc. 65 ft.
80.08	The cor. of secs. 26, 27, 34 and 35. Land, mountainous. Soil, rocky, 4th rate. Timber, scattering cedar and pinion. Undergrowth, scrub oak and cat claw.
40.00	N.89° 58' W., on a random line, bet. secs. 27 and 34. Set temp. $\frac{1}{4}$ sec. cor.
80.36	Intersect N. and S. line, 9 lks. N. of the cor. of secs. 27, 28, 33 and 34, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.
	Thence
	N.89° 58' E., on a true line, bet. secs. 27 and 34.
15.95	Over gently rolling land, through scattering undergrowth. Leave gently rolling land, brs. N.40° W. and S.50° E. Asc. 970 ft.
40.18	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked on brass cap
	$\frac{1}{4}$ S27 $\frac{1}{4}$ S34 1917
	And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
71.85	Continue ascent.
80.36	Desc. 30 ft. The cor. of secs. 26, 27, 34 and 35. Land, mountainous and gently rolling. Soil, rocky, 4th rate. No timber. Undergrowth, cactus and cat claw.
13.25	N.0° 1' W., bet. secs. 26 and 27. Over mountainous land, through scattering undergrowth. Asc. 105 ft. Desc. 15 ft.
17.25	Head of gulch, course S.45° E. Asc. 80 ft.
22.15	Spur, slopes W. Desc. 30 ft.
24.95	Gulch, course S.70° W. Asc. 110 ft.
32.95	Spur, slopes W. Desc. 45 ft.
35.25	Gulch, course N.60° W. Asc. 95 ft.
38.35	Spur, slopes W. Desc. 205 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{2}$ sec. cor., marked on brass cap
	$\frac{1}{4}$ S27 S26 1917
	And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
44.00	Gulch, course N.60° W. Asc. 25 ft.
45.15	Spur, slopes N.60° W. Desc. 190 ft.

Subdivision of Part of T. 27 N. R. 15 W.

13

Chains.

52.15 Gulch, course W. Asc. 130 ft.
 56.05 Spur, slopes W. Desc. 65 ft.
 59.65 Gulch, course W. Asc. 85 ft.
 64.25 Spur, slopes W. Desc. 310 ft.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, in a mound of stone, for cor. of secs. 22, 23, 26 and 27, marked on brass cap

T27N	R15W
S22	S23
S27	S26
1917	

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

Land, mountainous.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, scrub oak and cat claw.

40.00 N. $89^{\circ} 47'$ E., on a random line, bet. secs. 23 and 26.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.92 Intersect N. and S. line, 26 lks. N. of the cor. of secs. 23, 24, 25 and 26.

Thence

39.96 S. $89^{\circ} 58'$ W., on a true line, bet. secs. 23 and 26.
 Over rolling land, through dense timber and undergrowth.
 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S23	
$\frac{1}{4}$ S26	
1917	

From which

A cedar, 8 ins. diam., brs. N. $38\frac{1}{4}^{\circ}$ E., 52 lks. dist., marked $\frac{1}{4}$ S23 BT.

A cedar, 10 ins. diam., brs. S. $26\frac{1}{4}^{\circ}$ W., 7 lks. dist., marked $\frac{1}{4}$ S26 BT.

45.90 Asc. 30 ft.
 51.90 Desc. 815 ft.
 53.70 Top of cliff, 150 ft. high, brs. N. and S.
 74.90 Gulch, course N. 50° W. Thence along N. slope.
 79.92 The cor. of secs. 22, 23, 26 and 27.
 Land, mountainous and rolling.
 Soil, rocky, 4th rate.
 Timber, cedar and pinion.
 Undergrowth, scrub oak.

40.00 S. $89^{\circ} 58'$ W., on a random line, bet. secs. 22 and 27.
 Set temp. $\frac{1}{4}$ sec. cor.
 80.41 Intersect N. and S. line, 28 lks. S. of the cor. of secs. 21, 22, 27 and 28, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.

Thence

4.40 S. $89^{\circ} 50'$ E., on a true line, bet. secs. 22 and 27.
 Over mountainous land, through scattering undergrowth.
 Asc. 190 ft.
 14.00 Spur, slopes SW. Desc. 100 ft.
 30.40 Gulch, course S. Asc. 475 ft.
 40.20 $\frac{1}{2}$ Spur, slopes S. 50° W. Desc. 145 ft.
 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

chains.

$\frac{1}{4}$ S22
 $\frac{1}{4}$ S27
 1917

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

- 56.05 Asc. 185 ft.
- 63.40 Head of gulch, course S.50° W. Continue ascent.
- 71.90 Ridge, brs. N.70° W. and S.70° E. Desc. 105 ft.
- 77.10 Wire fence, brs. N.45° E. and S.45° W.
- 78.00 Gulch, course N.30° E. Asc.
- 80.41 The cor. of secs. 22, 23, 26 and 27.

Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, none.
 Undergrowth, cat claw.

N.0° 1' W., bet. secs. 22 and 23.
 Over mountainous land, through scattering timber and undergrowth.

- 4.70 Desc. 130 ft.
- 6.40 Wire fence, brs. N.45° E. and S.45° W.
- 14.70 Gulch, course N.40° W. Asc. 60 ft.
- 19.70 Point of spur, slopes W. Desc. 90 ft.
- 24.40 Gulch, course W. Asc. 35 ft.
- 29.70 Spur, slopes W. Desc. 145 ft.
- 40.00 Gulch, course S.80° W. Asc. 450 ft.

Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S22 | S23
 1917

And raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Impracticable to continue on sec. line; therefore, Offset West 6.76 chs.; thence continue N.0° 1' W.

- 68.00 Desc. 50 ft.
- 80.00 Offset East 6.76 chs.

Set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for cor. of secs. 14, 15, 22 and 23, marked on brass cap

T27N R15W
 S15 | S14
 S22 | S23
 1917

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

Cor. stands in cave, at foot of cliff, brs. N.30° W. and S.30° W.

Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, scattering cedar and pinion.
 Undergrowth, scrub oak and cat claw.

East on a true line, bet. secs. 14 and 23.
 Over mountainous land, through scattering timber and undergrowth.

- 22.50 Asc. 915 ft., over cliffs.
- 36.80 Ridge, brs. N. and S. Desc. 170 ft.
- 40.00 Gulch, course N. Asc. 170 ft.

Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

Subdivision of Part of T. 27 N., R. 15 W.

Chains.

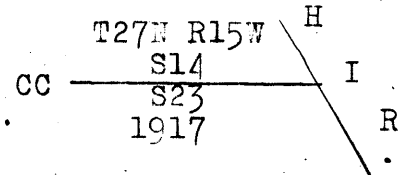
1/4 S14
1/4 S23
1917

And raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

52.40 Ridge, brs. N.40° E. and S.40° W. Desc. gradually.

61.30 Intersect Hualpai Indian Reservation Boundary, 9.07 chs. S.40° E of the 24 1/2 mile cor., which is a stone, 12 X 3 X 6 ins. above ground, firmly set, marked and witnessed as described by the Surveyor-General.

At the point of intersection, set an iron post, 3 ft. long, 2 ins diam., 8 ins. in the ground, in a mound of stone, for closing cor. of secs. 14, and 23, marked on brass cap



From which

* pinion, 8 ins. diam., brs. N.66 1/2° W., 263 lks. dist., marked CC T27N R15W S14 BT.

A pinion, 10 ins. diam., brs. S.40 1/2° E., 217 lks. dist., marked CC T27N R15W S23 BT.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinion.

Undergrowth, scrub oak and cat claw.

From the cor. of secs. 14, 15, 22 and 23,

N.89° 50' W., on a random line, bet. secs. 15 and 22.

40.00 Set temp. 1/4 sec. cor.

80.20 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 15, 16, 21 and 22, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.

Thence

S.89° 51' E., on a true line, bet. secs. 15 and 22.

Over rolling land, through scattering undergrowth.

Desc. 25 ft.

1.90 Four wire fence, brs. NE. and SW.

15.00 Wash, 50 lks. wide, 4 ft. deep, course S.50° W. Asc. 25 ft.

25.00 Road, brs. NE. and SW. to Hackberry. Thence over gently rolling land.

27.70 Pipe line, brs. NE. and SW.

39.00 Leave gently rolling land, brs. NE. and S.80° E. Asc. 450 ft.

40.10 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for 1/4 sec. cor., marked on brass cap

1/4 S15
1/4 S22
1917

And raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

69.30 Spur, slopes W. Desc.

75.00 Head of gulch, course N.70° W. Asc. 180 ft.

80.20 The cor. of secs. 14, 15, 22 and 23.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, cat claw and scrub oak.

16

Subdivision of Part of T. 27 N., R. 15 W.

Chains. It being impracticable to chain measurement on sec. line, bet. secs. 14 and 15. From a point 6.88 chs. W. of cor. of secs. 14, 15, 22 and 23, N.0° 1' W., on offset line, through sec. 15. Over rolling land, through scattering undergrowth.

Desc.

1.00 Gulch, course W. Asc.

2.00 Desc. 135 ft.

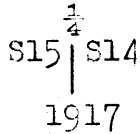
19.50 Gulch, course W. Asc.

20.00 Desc. 230 ft.

36.40 Fence, brs. E. and W.

40.00 East 6.88 chs.

Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, 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.

Thence N.0° 1' W., on true line, bet. secs. 14 and 15.

47.50 Ranch house, brs. W. 1.50 chs. dist.

48.80 Fence, brs. N.70° E. and S.70° W.

49.70 Fence, brs. N.40° E., 50 lks.; thence NW.

50.00 Hen house, brs. W. 20 lks. dist.

51.00 Fence, brs. NW. and SE.

51.40 Road, brs. SW. to Hackberry.

52.60 Wash, 40 lks. wide, 2 ft. deep, course S.70° W. Asc. 335 ft.

73.57 Intersect Hualpai Indian Reservation Boundary, 4.98 chs. N.39° 54' W. of the 23 $\frac{1}{2}$ mile cor., which is a limestone, 6 X 10 X 6 ins. above ground, firmly set, marked and witnessed as described by the Surveyor-General.

At the point of intersection, set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for closing cor. of secs. 14 and 15, marked on brass cap



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

Land, mountainous and rolling.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, scrub oak and cat claw.

S.F.W.

J.C.H.

From the cor. of secs. 15, 16, 21 and 22, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General,

N.0° 2' W., bet. secs. 15 and 16.

Over mountainous land, through scattering timber and undergrowth.

Asc. 385 ft.

29.72 Wash, 50 lks. wide, 3 ft. deep, course S.40° E. Continue ascent.

40.00 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

Subdivision of Part of T. 27 N., R. 15 W.

Chains

1
S16 | S15
1917

And raise a mound of stone, 3 1/2 ft. base, 3 ft. high, W. of cor.

I triangulate to a point on cliffs as follows:

Set a flag ahead on line, from which a flag set 40.48 chs. W. of the cor. of secs. 15, 16, 21 and 22, brs. S.27° 58 1/2' W., The distance triangulated is given as follows:

40.48 / sin. 28° 1/2' = X / sin. 62° 1/2', or, by logarithms,

log. 40.48 = 1.607241
log. sin. 62° 1/2' = 9.946036
colog. sin. 28° 1/2' = 0.328272

1.881549 = 76.13 chs.

- 76.13 Top of cliff, 100 ft. high, brs. E. and W., 1700 ft. above the cor. of secs. 15, 16, 21 and 22. Asc.
- 77.31 Divide, brs. N.70° W. and S.70° E. Desc. 40 ft.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, in a mound of stone, for cor. of secs. 9, 10, 15 and 16, marked on brass cap

T27N | R15W
S 9 | S10
S16 | S15
1917

From which

A pinion pine, 7 ins. diam., brs. N.47 3/4° E., 44 lks. dist., marked T27N R15W S10 BT.

A pinion pine, 8 ins. diam., brs. S.11 1/2° E., 29 lks. dist., marked T27N R15W S15 BT.

A juniper, 11 ins. diam., brs. S.50° W., 64 lks. dist., marked T27N R15W S16 BT.

A pinion pine, 5 ins. diam., brs. N.67 1/2° W., 69 lks. dist., marked T27N R15W S9 BT.

Land, mountainous.

Soil, gravelly and rocky, 4th rate.

Timber, scattering pinion pine and juniper.

Undergrowth, cat claw, cactus and scrub oak.

East on a true line, bet. secs. 10 and 15. Over high, rolling land, through scattering timber and undergrowth.

Asc. 20 ft.

3.56 Desc. 50 ft.

12.75 Asc. 20 ft.

14.93 Ridge, brs. N.50° E. and S.50° W. Thence along S. slope.

19.93 Ridge, brs. N.50° W. and S.50° E. Thence along N. slope.

40.00 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for 1/4 sec. cor., marked on brass cap

1/4 S10
S15
1917

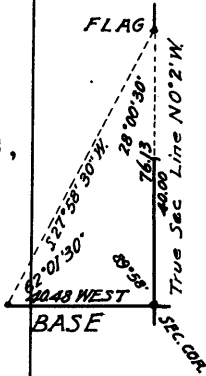
From which

A pinion pine, 9 ins. diam., brs. N.66 1/2° E., 72 lks. dist., marked 1/4 S10 BT.

A pinion pine, 8 ins. diam., brs. S.31° E., 98 lks. dist., marked 1/4 S15 BT.

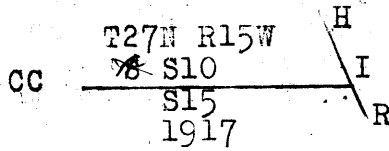
Desc. 165 ft.

52.10 Asc.



Chains.
56.71
74.94

Ridge, brs. N.60° E. and S.75° W. Asc. 430 ft.
Intersect Hualpai Indian Reservation Boundary, 13.48 chs.
N.39° 54' W. of the 23 1/2 mile cor., which is a stone,
hereinbefore described.
At the point of intersection, set an iron post, 3 ft. long,
2 ins. diam., 8 ins. in the ground, in a mound of stone,
for closing cor. of secs. 10 and 15, marked on brass cap



And raise a mound of stone, 3 ft. base, 2 ft. high, W.
of cor.
Land, mountainous and rolling.
Soil, rocky, 4th rate.
Timber, piñon pine and juniper.
Undergrowth, scrub oak and manzanita.

7.51
19.89
39.13
40.00

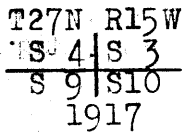
From the cor. of secs. 9, 10, 15 and 16,
N.0° 2' W., on a true line, bet. secs. 9 and 10.
Over mountainous land, through scattering timber and under-
growth.

Desc. 110 ft.
Ravine, course E. Asc. 200 ft.
Spur, slopes N.70° E. Desc. 225 ft.
Draw, course S.70° E. Asc. 55 ft.
Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the
ground, in a mound of stone, for 1/2 sec. cor., marked on
brass cap



43.83
48.42
58.57
80.00

From which
A piñon pine, 12 ins. diam., brs. S.63° E., 38 lks.
dist., marked 1/4 S10 BT.
A piñon pine, 10 ins. diam., brs. N.48° W., 55 lks.
dist., marked 1/4 S9 BT.
Spur, slopes S.70° E. Desc. 70 ft.
Ravine, course S.70° E. Asc. 105 ft.
Spur, slopes S.60° E. Desc. 195 ft.
Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the
ground, in a mound of stone, for cor. of secs. 3, 4, 9
and 10, marked on brass cap



From which
A piñon pine, 8 ins. diam., brs. N.46 1/2° E., 10 lks.
dist., marked T27N R15W S3 BT.
A piñon pine, 12 ins. diam., brs. S.41 1/4° E., 22 lks.
dist., marked T27N R15W S10 BT.
A piñon pine, 10 ins. diam., brs. S.46° 10' W., 56
lks. dist., marked T27N R15W S9 BT.
A piñon pine, 11 ins. diam., brs. N.48° 10' W., 28 lks.
dist., marked T27N R15W S4 BT.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, scattering piñon pine and juniper.
Undergrowth, scrub oak.

Subdivision of Part of T. 27 N., R. 15 W.

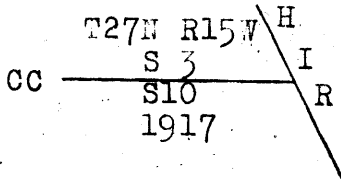
Chains.

7.55

East on a true line, bet. secs. 3 and 10.
Over rolling land, through dense timber and undergrowth.
Desc. 60 ft.

Intersect Hualpai Indian Reservation Boundary, 1.05 chs.
S.40° 2' E., of the 22 mile cor., which is a limestone,
hereinbefore described.

At the point of intersection, set an iron post, 3 ft. long,
2 ins. diam., in a mound of stone, for closing cor. of
secs. 3 and 10, marked on brass cap



From which

A pinion pine, 5 ins. diam., brs. S.84½° W., 40 lks.
dist., marked CC T27N R15W S10 BT.

A pinion pine, 8 ins. diam., brs. S.75½° W., 32 lks.
dist., marked CC T27N R15W S10 BT.

Land, rolling.

Soil, rocky, 4th rate.

Timber, dense pinion pine and juniper.

Undergrowth, scrub oak.

4.47
9.04

From the cor. of secs. 3, 4, 9 and 10,
N.0° 2' W., on a true line, bet. secs. 3 and 4.

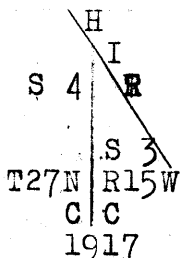
Over rolling land, through scattering undergrowth and
dense timber.

Asc. 90 ft.

Ridge, brs. NE. and SW. Desc. 40 ft.

Intersect Hualpai Indian Reservation Boundary, 10.78 chs.
N.40° 2' W. of the 22 mile cor., which is a limestone,
hereinbefore described.

At the point of intersection, set an iron post, 3 ft. long,
2 ins. diam., 10 ins. in the ground, in a mound of stone,
for closing cor. of secs. 3 and 4, marked on brass cap



From which

A pinion pine, 4 ins. diam., brs. S.9¼° E., 43 lks.
dist., marked CC T27N R15W S3 BT.

A pinion pine, 6 ins. diam., brs. S.29½° W., 147 lks.
dist., marked CC T27N R15W S4 BT.

Land, rolling.

Soil, rocky, 4th rate.

Timber, dense pinion pine and juniper.

Undergrowth, scrub oak.

From the cor. of secs. 16, 17, 20 and 21, which is an
iron post, properly set, marked and witnessed as de-
scribed by the Surveyor-General,

N.0° 3' W., bet. secs. 16 and 17.

Preparatory to triangulating a portion of this mile, I
set a flag ahead on the cliffs. Then I chain to the
position for the ¼ sec. cor., from the cor. of secs.
16, 17, 20 and 21, as follows:

Over mountainous land, through scattering timber and under-
growth.

Chains.

39.97
40.00

Asc. 695 ft.
Spur, slopes S.65° W. Desc.
Set an iron post, 3 ft. long, 1 in. diam., 8 ins. diam.,
in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass
cap

S17 | S16
1917

And raise a mound of stone, 3 ft. base, 2 ft. high, W.
of cor.

From the flag point on the cliffs, a flag set 80.34 chs.
N.89° 52' W. of the cor. of secs. 16, 17, 20 and 21,
brs. S.49° 39 $\frac{1}{2}$ ' W. The distance triangulated is given
by

SEC COR

FLAG

$$\frac{80.34}{\sin. 49^{\circ} 42\frac{1}{2}' } = \frac{X}{\sin. 40^{\circ} 28\frac{1}{2}' } \text{ or, by logarithms,}$$

$$\begin{aligned} \log. 80.34 &= 1.904932 \\ \log. \sin. 40^{\circ} 28\frac{1}{2}' &= 9.812322 \\ \text{colog. sin. } 49^{\circ} 42\frac{1}{2}' &= 0.117611 \\ \hline &= 1.834865 = \log. 68.37 \end{aligned}$$

chs,

The approximate topography from the $\frac{1}{4}$ sec. cor. follows:

- 47.00 Ravine, course S.60° W.
- 49.00 Foot of cliff, 100 ft. high, brs. N.60° W. and S.40° E.
Asc.
- 68.37 Triangulation point, 1430 ft. above $\frac{1}{4}$ sec. cor. Asc. 60
ft.
- 74.32 Ridge, brs. E. and W. Desc. 25 ft.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the
ground, in a mound of stone, for cor. of secs. 8, 9, 16
and 17, marked on brass cap

T27N R15W
S 8 | S 9
S17 | S16
1917

From which

- A pinion pine, 8 ins. diam., brs. N.42 $\frac{1}{2}$ ° E., 43 lks. dist.,
marked T27N R15W S9 BT.
- A pinion pine, 12 ins. diam., brs. S.74° E., 63 lks.
dist., marked T27N R15W S16 BT.
- A pinion pine, 6 ins. diam., brs. S.67° W., 50 lks.
dist., marked T27N R15W S17 BT.
- A pinion pine, 6 ins. diam., brs. N.15 $\frac{1}{2}$ ° W., 26 lks.
dist., marked T27N R15W S8 BT.

Land, mountainous.
Soil, rocky, 4th rate.
Timber, pinion pine and juniper.
Undergrowth, scrub oak.

22.10
22.28

S.89° 51' E., on a random line, bet. secs. 9 and 16.
Set temp. witness cor. to $\frac{1}{4}$ sec. cor.
From this point, a flag set at the cor. of secs. 9 and 16,
brs. S.89° 51' E. Also the cor. of
secs. 9, 10, 15 and 16, brs. S.89° 51' E. The distance
triangulated is given as follows:

Ran Sec Line S.89° 51' E
22.28 57.62

SEC COR

FLAG

$$\frac{80.00}{\sin. 54^{\circ} 7' } = \frac{X}{\sin. 35^{\circ} 42' } \text{ or, by logarithms,}$$

BASE

SEC COR

FLAG

Subdivision of Part of T. 27 N., R. 15 W.

chains.

log. 80.00 = 1.903090
log. sin. 35°42' = 9.766072
colog. sin. 54°7' = 0.091401

$\frac{1.760563}{1.760563}$ = log. 57.62, which

79.90 added to 22.28 chs., makes
Fall 10 lks. N. of the cor. of secs. 9, 10, 15 and 16,
Thence
N.89° 47' W., on a true line, bet. secs. 9 and 16.
Over mountainous land, through scattering timber & undergrowth
The approximate topography triangulated over is as follows:
Desc.
1.90 Canyon, course S.20° W. Asc.
29.90 Spur, slopes S.20° E. Desc.
39.95 The true point for $\frac{1}{4}$ sec. cor. falls on inaccessible cliffs,
where it is impossible to set cor.
49.90 Canyon, course S.20° E. Asc.
57.80 Set an iron post, 3 ft. long, 1 in. diam., in a mound of
stone, for witness cor. to $\frac{1}{4}$ sec. cor., marked on brass
cap

$\frac{1}{4}$ S 9 W C
S 16
1917

And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N.
of cor.
61.50 Cliffs, brs. NE. and SW. Continue ascent.
71.40 Ridge, brs. N. and S. Desc. 205 ft.
79.90 The cor. of secs. 8, 9, 16 and 17.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, pinion pine and juniper.
Undergrowth, scrub oak cactus.

N.0° 3' W., bet. secs. 8 and 9.
Over mountainous land, through dense timber and undergrowth.
Asc. 40 ft.
4.21 Spur, slopes W. Desc. 205 ft.
24.58 Wash, 20 lks. wide, course W. Asc. gradually.
34.00 Spur, slopes W. Desc.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the
ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on
brass cap

S 8 | S 9
1917

From which
A pinion pine, 4 ins. diam., brs. S.13 $\frac{1}{2}$ ° E., 156 lks:
dist., marked $\frac{1}{4}$ S9 BT.
A pinion pine, 8 ins. diam., brs. S.32° W., 110 lks.
dist., marked $\frac{1}{4}$ S8 BT.
Thence over gently rolling land.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the
ground, in a mound of stone, for cor. of secs. 4, 5,
8 and 9, marked on brass cap

T27N R15W
S 5 | S 4
S 8 | S 9
1917

From which
A pinion pine, 4 ins. diam., brs. N.69° E., 72 lks.
dist., marked T27N R15W S4 BT.
A pinion pine, 8 ins. diam., brs. S.7 $\frac{1}{2}$ ° E., 66 lks.
dist., marked T27N R15W S9 BT.
A pinion pine, 12 ins. diam., brs. S.61 $\frac{1}{2}$ ° W., 89 lks.

Chains.	<p>dist., marked T27N R15W S8 BT. A juniper, 24 ins. diam., brs. N.65$\frac{1}{4}$° W., 48 lks. dist., marked T27N R15W S5 BT. Land, mountainous and gently rolling. Soil, rocky, 4th rate. Timber, pinion pine and juniper. Undergrowth, scrub oak and sagebrush.</p>
40.00 79.71	<p>S.89° 47' E., on a random line, bet. secs. 4 and 9. Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line, 23 lks. S. of the cor. of secs. 3, 4, 9 and 10. Thence N.89° 57' W., on a true line, bet. secs. 4 and 9. Over mountainous land, through dense timber and undergrowth. Asc. 75 ft. Spur, slopes SW. Desc. 210 ft. Draw, course NW. Thence over gently rolling land. Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap</p> $\begin{array}{r} \frac{1}{4} S 4 \\ \frac{1}{4} S 9 \\ \hline 1917 \end{array}$
6.73 20.77 39.85 $\frac{1}{2}$	<p>From which A pinion pine, 5 ins. diam., brs. N.43$\frac{3}{4}$° W., 46 lks. dist., marked $\frac{1}{4}$S4 BT. A pinion pine, 4 ins. diam., brs. S.17$\frac{1}{2}$° E., 32 lks. dist., marked $\frac{1}{4}$S9 BT.</p>
42.90 61.80 79.71	<p>Wash, 50 lks. wide, course N. Wash, 20 lks. wide, course N. The cor. of secs. 4, 5, 8 and 9. Land, mountainous and rolling. Soil, rocky, 4th rate. Timber, dense pinion pine and juniper. Undergrowth, scrub oak and sagebrush.</p>
40.00 80.82	<p>N.0° 3' W., on a random line, bet. secs. 4 and 5. Set temp. $\frac{1}{4}$ sec. cor. Intersect N. bdy. of Tp., 39 lks. E. of the cor. of secs. 4, 5, 8 and 9, which is an iron post, described in Book "A." Thence S.0° 20' E., on a true line, bet. secs. 4 and 5. Over rolling land, through dense timber and undergrowth. Asc. 45 ft.</p>
10.50 25.85 31.75 40.82	<p>Desc. gradually. Wash, 30 lks. wide, course E. Asc. 20 ft. Spur, slopes NE. Desc. 40 ft. Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap</p> $\begin{array}{r} \frac{1}{4} \\ S 5 S 4 \\ \hline 1917 \end{array}$
48.30	<p>From which A juniper, 8 ins. diam., brs. N.66$\frac{1}{2}$° E., 134 lks. dist., marked $\frac{1}{4}$S4 BT. A pinion pine, 5 ins. diam., brs. N.33° W., 47 lks. dist., marked $\frac{1}{4}$S5 BT. Cor falls in draw, course NE. Asc. 50 ft. Thence over gently rolling land.</p>

Chains

Subdivision of Part of T. 27 N., R. 15 W.

23

70.55 Spur, slopes NE. Desc. 25 ft.
 77.00 Wash, 20 lks. wide, course NE. ft.
 80.82 The cor. of secs. 4, 5, 8 and 9.
 Land, rolling.
 Soil, rocky, 4th rate.
 Timber, dense pinion pine and juniper.
 Undergrowth, scrub oak and sagebrush.

From the cor. of secs. 16, 17, 20 and 21, hereinbefore described,
 West on sectional correction line, bet. secs. 17 and 20.
 Over level land, through scattering undergrowth.
 15.59 Wash, 25 lks. wide, course S.20° W.
 24.80 Wash, 20 lks. wide, course S.30° W.
 40.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, in a mound of stone, for 1/4 sec. cor., marked on brass cap

$$\begin{array}{r} \frac{1}{4} S17 \\ \hline S20 \\ 1917 \end{array}$$

And raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
 41.50 Wash, 40 lks. wide, 6 ins. deep, course S.20° E.
 49.09 Leave level land, brs. N.20° E. and S.30° E. Asc. 240 ft.
 61.16 Spur, slopes S.20° W. Desc. 105 ft.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, in a mound of stone, for cor. of secs. 17, 18, 19 and 20, marked on brass cap

$$\begin{array}{r} T27N R15W \\ S18 | S17 \\ \hline S19 | S20 \\ 1917 \end{array}$$

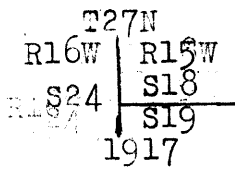
And raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
 Land, level and rolling.
 Soil, rocky, 4th rate.
 Timber, none.
 Undergrowth, cat claw.

West on sectional correction line, bet. secs. 18 and 19.
 Over rolling land, through scattering undergrowth.
 Desc. 30 ft.
 4.98 Wash, 1 ch. wide, course S.50° W. Asc. 10 ft.
 11.10 Desc. 40 ft.
 21.34 Wash, 15 lks. wide, course S.40° W. Asc. 160 ft.
 32.74 Spur, slopes S.35° W. Desc. 395 ft.
 40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, in a mound of stone, for 1/4 sec. cor., marked on brass cap

$$\begin{array}{r} \frac{1}{4} S18 \\ \hline S19 \\ 1917 \end{array}$$

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
 49.27 Foot of descent, brs. N.30° E. and S.30° W. Thence over level land.
 79.20 Intersect W. bdy. of Tp., 1.08 chs. S.0° 9' W. of the orig. cor. of secs. 13, 18, 19 and 24, described in Book "A". At the point of intersection, set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of secs. 18 and 19, marked on brass cap

Chains.



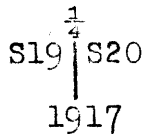
And raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.
 Land, rolling.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, cat claw.

40.00
 79.55

From the cor. of secs. 17, 18, 19 and 20,
 S.0° 3' E., on a random line, bet. secs. 19 and 20.
 Set temp. $\frac{1}{4}$ sec. cor.
 Fall 16 lks. E. of the cor. of secs. 19, 20, 29 and 30,
 which is an iron post, properly set, marked and witnessed
 as described by the Surveyor-General.

3.20
 39.55

Thence
 N.0° 4' E., on a true line, bet. secs. 19 and 20.
 Over slightly rolling land, through scattering undergrowth.
 Wash, 30 lks. wide, 2 ft. deep, course S.60° W.
 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the
 ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on
 brass cap

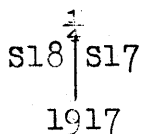


43.00
 58.83
 73.78
 79.55

And raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
 Leave slightly rolling land, brs. N.60° W. and S.60° E.
 Asc. 190 ft.
 Spur, slopes N.30° W. Desc. 140 ft.
 Wash, 40 lks. wide, 6 ft. deep, course S.30° W. Asc. 30 ft.
 The cor. of secs. 17, 18, 19 and 20.
 Land, slightly rolling and mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, Spanish dagger and cat claw.

5.00
 9.28
 18.84
 23.85
 28.33
 40.00

N.0° 3' W., bet. secs. 17 and 18.
 Over level land, through scattering undergrowth.
 Wash, 100 lks. wide, 5 ft. deep, course S.60° W.
 Leave level land, brs. N.60° E. and S.60° W. Asc. 450 ft.
 Spur, slopes S.40° W. Desc.
 Asc. 125 ft.
 Spur, slopes S.70° W. Desc. 140 ft.
 Set an iron post, 3 ft. long, 2 in. diam., on bed rock, in
 a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap



42.99
 57.86
 62.84
 80.00

And raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.
 Ravine, course S.40° W. Asc. 700 ft.
 Spur, slopes S.60° W. Desc. 35 ft.
 Ravine, course S.50° W. Asc. 565 ft.
 Set an iron post, 3 ft. long, 2 ins. diam., on bed rock, in
 a mound of stone, for cor. of secs. 7, 8, 17 and 18.

Chains.

marked on brass cap

T27N R15W
 S 7 | S 8

 S18 | S17
 1917

From which
 * pinion pine, 8 ins. diam., brs. N.43 $\frac{1}{4}$ ° E., 248 lks. dist., marked T27N R15W S8 BT.
 No other trees within limits. Raise a mound of stone, 3 ft. base, 3 $\frac{1}{2}$ ft. high, W. of cor.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, cat claw.

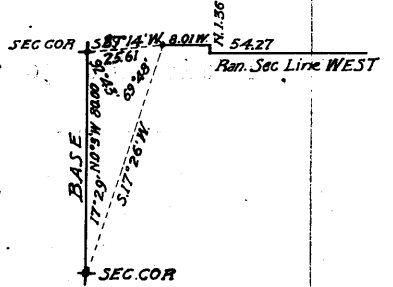
40.00
46.26
54.27

From the cor. of secs. 8, 9, 16 and 17,
 West on a random line, bet. secs. 8 and 17.
 Set temp. $\frac{1}{4}$ sec. cor.
 Offset N. 1.36 chs., and continue West.
 From this point on offset line, I triangulate as follows:-

The cor. of secs. 7, 8, 17 and 18 brs. S.87° 14' W.
 The cor. of secs. 17, 18, 19 and 20 brs. S.17° 26' W.
 The distance triangulated is given as follows:

$$\frac{80.00}{\sin. 69^\circ 48'} = \frac{X}{\sin. 17^\circ 29'}$$

log. 80.00 = 1.903990
 log. sin. 17° 29' = 9.477741
 colog. sin. 69° 48' = 0.027569



$$\frac{1.408400}{1.408400} = \log. 25.61 \text{ chs.}$$

which added to 54.27 chs., makes the total distance for the mile

79.88

The falling is found from the bearing of S.87° 14' W.; for 25.61 chs. to be .124 = 1.36, or 12 lks. S.
 I return to the cor. of secs. 8, 9, 16 and 17
 Thence

22.51
36.50
39.94

N.89° 55' W., on a true line, bet. secs. 8 and 17.
 Over rolling land, through dense timber and undergrowth.
 Desc. gradually, 65 ft.
 Wash, 50 lks. wide, course S. Asc. 50 ft.
 Desc.
 Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S 8

 S17
 1917

46.26
79.88

From which
 A pinion pine, 6 ins. diam., brs. N.66 $\frac{1}{2}$ ° E., 98 lks. dist., marked $\frac{1}{4}$ S8 BT.
 A pinion pine, 6 ins. diam., brs. S.67° E., 131 lks. dist., marked $\frac{1}{4}$ S17 BT.
 Edge of cliffs, br. N.80° W. and S.80° E. Desc. 135 ft.
 The cor. of secs. 7, 8, 17 and 18.
 Land, rolling and mountainous.
 Soil, rocky, 4th rate.
 Timber, dense pinion pine and juniper.
 Undergrowth, scrub oak and chemise.

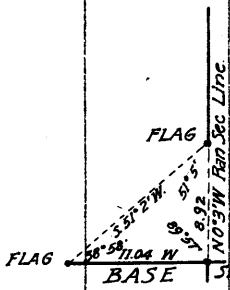
Chains.

40.00 West on a random line, bet. secs. 7 and 18.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.07 Intersect W. bdy. of Tp. 5 lks. S. of the reestablished
 cor. of secs. 7 and 18, which is an iron post, de-
 scribed in Book "A."
 Thence
 S. $89^{\circ} 58'$ E., on a true line, bet. secs. 7 and 18.
 Over rolling land, through scattering undergrowth.
 Asc. 55 ft.
 12.15 Desc. 215 ft.
 26.50 Ravine, course S. 60° W. Enter timber, brs. N. 60° E. and
 S. 60° W. Asc. 440 ft.
 37.00 Spur, slopes N. 20° W. Desc. 35 ft.
 39.07 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the
 ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on
 brass cap

$\frac{1}{4}$ S 7
 S 18
 1917

And raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.
 of cor.
 40.50 Draw, course N. 10° W. Asc. 680 ft.
 62.50 Cliff, 40 ft. high, brs. N. 20° E. and S. 30° W. Continue
 ascent.
 76.05 Spur, slopes S. 20° W. Desc. 30 ft.
 79.07 The cor. of secs. 7, 8, 17 and 18.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, scattering pinion pine and juniper.
 Undergrowth, scrub oak and cat claw.

N. $0^{\circ} 3'$ W., bet. secs. 7 and 8.
 Over rolling land, through dense timber and undergrowth.
 I triangulate as follows:
 Set a flag ahead on line, on edge of cliffs, br. SE. and
 NW., from which a flag set 11.04 chs. W. of the cor. of
 secs. 7, 8, 17 and 18 brs. S. $51^{\circ} 2'$ W. The distance
 triangulated is given by



$$\frac{11.04}{\sin. 51^{\circ} 5'} = \frac{X}{\sin. 38^{\circ} 58'}$$

or, by logarithms,
 $\log. 11.04 = 1.042969$
 $\log. \sin. 38^{\circ} 58' = 9.798560$
 $\text{colog. } \sin. 51^{\circ} 5' = 0.108987$

$0.950516 = \log. 8.92$

8.92 Thence over rolling land.
 33.25 Desc. 280 ft.
 40.00 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the
 ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on
 brass cap

S 7 $\frac{1}{4}$ S 8
 1917

From which
 A pinion pine, 9 ins. diam., brs. N. $57\frac{1}{2}^{\circ}$ E., 21 lks.
 dist., marked $\frac{1}{4}$ S 8 BT.
 A pinion pine, 8 ins. diam., brs. N. 43° W., 35 lks.
 dist., marked $\frac{1}{4}$ S 7 BT.
 47.34 Wash, 80 lks. wide, course E. Asc. 155 ft.
 62.17 Spur, slopes E. Desc. 20 ft.
 67.22 Wash, 40 lks. wide, course E. Asc. 50 ft.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the
 ground, in a mound of stone, for cor. of secs. 5, 6, 7

Subdivision of Part of T. 27 N., R. 15 W.

Chains.

and 8, marked on brass cap

T27N	R15W
S 6	S 5
S 7	S 8
1917	

From which

A juniper, 8 ins. diam., brs. N.66½° E., 40 lks. dist., marked T27N R15W S5 BT.

A juniper, 6 ins. diam., brs. S.56° E., 9 lks. dist., marked T27N R15W S8 BT.

A juniper, 10 ins. diam., brs. S.65½° W., 100 lks. dist., marked T27N R15W S7 BT.

A juniper, 4 ins. diam., brs. N.55½° W., 25 lks. dist., marked T27N R15W S6 BT.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

Undergrowth, cat claw and scrub oak.

Timber, dense juniper and pinion pine.

40.00

S.89° 55' E., on a random line, bet. secs. 5 and 8.

Set temp. ¼ sec. cor.

80.07

Intersect N. and S. line, 35 lks. S. of the cor. of secs. 4, 5, 8 and 9.

Thence

S.89° 50' W., on a true line, bet. secs. 5 and 8.

Over rolling and mountainous land, through dense timber and undergrowth.

Desc.

4.00

Wash, 20 lks. wide, course NE. Asc. 175 ft.

16.49

Spar, slopes NE. Desc. gradually.

40.03½

Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, in a mound of stone, for ¼ sec. cor., marked on brass cap

1	S 5
4	S 8
1917	

From which

A pinion pine, 5 ins. diam., brs. N.25¼° E., 8 lks. dist., marked ¼S5 BT.

A pinion pine, 6 ins. diam., brs. S.48¼° W., 80 lks. dist., marked ¼S8 BT.

49.38

Wash, 30 lks. wide, course S. Asc. 90 ft.

52.40

Desc.

61.00

Wash, course SE.

67.00

Wash, course SE. Asc. 135 ft.

80.07

The cor. of secs. 5, 6, 7 and 8.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

Timber, dense pinion pine and juniper.

Undergrowth, scrub oak and sagebrush.

40.00

N.89° 58' W., on a random line, bet. secs. 6 and 7.

Set temp. ¼ sec. cor.

79.22

Intersect W. bdy. of Tp., 9 lks. N. of the cor. of secs. 6 and 7, which is an iron post, described in Book "A."

Thence

N.89° 58' E., on a true line, bet. secs. 6 and 7.

Over mountainous land, through dense timber and undergrowth.

Desc. 185 ft.

9.50

Wash, 20 lks. wide, course NE. Asc.

10.20

Desc. 65 ft.

13.80

Wash, 30 lks. wide, course N. Asc. 75 ft.

28.

Subdivision of Part of T. 27 N., R. 15 W.

Chains.
 16.65 Spur, slopes N. Desc. 50 ft.
 20.70 Wash, 20 lks. wide, course N. Asc.
 31.70 Desc. 145 ft.
 32.20 Wash, 20 lks. wide, course N. Asc. 230 ft.
 39.22 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S 6
 $\frac{1}{4}$ S 7
 1917

From which

A pinion pine, 4 ins. diam., brs. N. $10\frac{1}{2}^{\circ}$ W., 92 lks. dist., marked $\frac{1}{4}$ S6 BT.A pinion pine, 4 ins. diam., brs. S. 30° E., 54 lks. dist., marked $\frac{1}{4}$ S7 BT.

45.00 Ridge, brs. N. and S. Desc. gradually.

79.22 The cor. of secs. 5, 6, 7 and 8.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

Timber, dense pinion pine and juniper.

Undergrowth, scrub oak and manzanita.

40.00 N. 0° $3'$ W, on a random line, bet. secs. 5 and 6.
Set temp. $\frac{1}{4}$ sec. cor.

80.81 Intersect N. bdy. of Tp., 39 lks. E. of the cor. of secs. 5, 6, 7 and 8, which is an iron post, described in Book "A."

S. 0° $20'$ E., on a true line, bet. secs. 5 and 6.

Over mountainous land, through scattering undergrowth and dense timber.

Asc. 150 ft.

11.40 Spur, slopes NE. Desc. 65 ft.

28.85 Wash, 30 lks. wide, course E. Asc. 40 ft.

36.10 Spur, slopes E. Desc. 60 ft.

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

S 6 $\frac{1}{4}$ S 5
 1917

From which

A pinion pine, 4 ins. diam., brs. N. $84\frac{3}{4}^{\circ}$ E., 67 lks. dist., marked $\frac{1}{4}$ S5 BT.A pinion pine, 5 ins. diam., brs. S. 32° W., 46 lks. dist., marked $\frac{1}{4}$ S6 BT.

52.10 Wash, 50 lks. wide, course NE. Asc. 195 ft.

53.60 Fence, brs. NE. and SW.

80.81 The cor. of secs. 5, 6, 7 and 8.

Land, rolling.

Soil, rocky, 4th rate.

Timber, dense pinion pine and juniper.

Undergrowth, scrub oak and manzanita.

J.C.H.

Subdivision of Part of T. 27 N., R. 15 W.

Chains.

General Description.

This township is rough mountainous land and cliffs. The high parts are timbered with scrub juniper and pinion pine, and the lower parts are barren except for a dense growth of cactus and a sparse growth of grass. The Grand Wash Cliffs enter sec. 7 and bear south east, leaving in sec. 35. The line of cliffs is broken in secs. 14 and 15, by Clay Springs Canyon, which drains to the south west. In the NW. $\frac{1}{4}$ of sec. 15 is W. F. Ground's dwelling house and corrals. Clay Springs is developed water and furnishes water by pipe line to Music Mountain Mine, in sec. 17, T. 26 N., R. 15 W. A road from Clay Springs ranch house runs north east into Hualpai Indian Reservation and south west to Hackberry. W. F. Grounds is the only settler in the township.

Completion of Subdivision of T. 27 N., R. 16 W. 31

Chains.

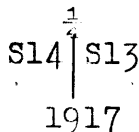
Survey executed by Jas. C. Hooper, US. Transitman on dates shown on page 29 hereof using Young & sons' light mountain transit No. 8489 described in Book "A." Recent and repeated tests of my instrument on a meridian established by observations on Polaris at elongation demonstrate that the solar apparatus is in good adjustment. I proceed to the completion of the subdivision of T. 27 N., R. 16 W.

From the cor. of secs. 13, 14, 23 and 24, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General.

N.0° 1' W., bet. secs. 13 and 14.

40.00

Over gently rolling land, through scattering undergrowth. Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap



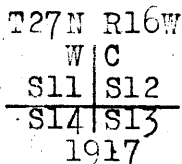
And raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

60.00

Wash, 1 ch. wide, 1 ft. deep, course S.10° E. Comes from N.30° E. Asc. 330 ft.

79.87

Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, in a mound of stone, for witness cor. to cor. of secs. 11, 12, 13 and 14, marked on brass cap



And raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

80.00

This witness cor. is set at the foot of a rock, 30 ft. high, 100 ft. long, E. and W.

The true point for cor. of secs. 11, 12, 13 and 14 falls where it cannot be established.

Land, gently rolling and mountainous.

Soil, sandy and rocky, 4th rate.

No timber.

Undergrowth, cat claw and greasewood.

40.00

From the true point for cor. of secs. 11, 12, 13 and 14, S.89° 54' E., on a random line, bet. secs. 12 and 13.

80.35

Set temp. 1/4 sec. cor.

Intersect E. bdy. of Tp., 11 lks. S. of the cor. of secs. 12, 13 and 14, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General. Changed from a cor. of 4 secs. to cor. of 2 secs. as described in Book "A." Thence,

N.89° 59' W., on a true line, bet. secs. 12 and 13.

Over mountainous land, through scattering undergrowth. Desc. 110 ft.

5.55

Ravine, course S. Asc. 160 ft.

12.25

Spur, slopes S.20° E. Desc. 110 ft.

21.90

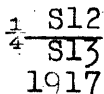
Ravine, course S.20° E. Asc. 265 ft.

35.00

Spur, slopes S.10° W. Desc. 340 ft.

40.17 1/2

Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, in a mound of stone, for 1/4 sec. cor., marked on brass cap



Completion of Subdivision of T. 27 N., R. 16 W.

Chains.

And raise a mound of stone, 3 1/2 ft. base, 2 ft. high, N. of cor.

46.70 Draw, course S.20° W. Asc. 150 ft.

54.00 Spur, slopes S.60° W. Desc. 600 ft.

66.15 Ravine, course S.50° W. Asc. 135 ft.

80.35 The true point for cor. of secs. 11, 12, 13 and 14.

Land, mountainous.

Soil, very rocky, huge boulders, 4th rate.

No timber.

Undergrowth, cat claw.

From the true point for cor. of secs. 11, 12, 13 and 14, N.0° 1' W., bet. secs. 11 and 12.

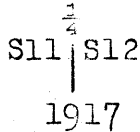
Over mountainous land, through scattering undergrowth. Asc. 270 ft.

8.45 Spur, slopes S.70° W. Desc. 55 ft.

14.28 Gulch, course N.70° W. Asc. 865 ft.

32.15 Ravine, course S.40° W. Continue ascent.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, in a mound of stone, for 1/2 sec. cor., marked on brass cap



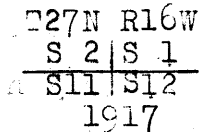
And raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

49.56 Ridge, brs. N.65° E. and S.60° W. Desc. 170 ft.

53.65 Ravine, course N.60° W. Asc. 190 ft.

72.13 Spur, slopes N.70° W. Desc. 160 ft.

80.00 Set an iron post, 3 ft. long 2 ins. diam., 12 ins. in the ground, in a mound of stone, for cor. of secs. 1, 2, 11 and 12, marked on brass cap



And raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, scrub oak and cat claw.

40.00 S.89° 59' E., on a random line, bet. secs. 1 and 12.

Set temp. & sec. cor.

47.95 Set a flag ahead on line, and measure a base, S.0° 1' W.,

7.13 chs., from the S. end of which, the flag brs.

N.71° 25' E. The distance is given by tan. 71° 24'

X 7.13 = 2.97144 X 7.13 = 21.19 chs., which added to

47.95 chs., gives

69.14 Continue S.89° 59' E. on random line,

79.92 Intersect E. bdy. of Tp., 19 lks. N. of the cor. of secs. 1 and 12, which is an iron post, described in Book "A."

Thence

N.89° 51' W., on a true line, bet. secs. 1 and 12.

Over mountainous land, through scattering timber and undergrowth.

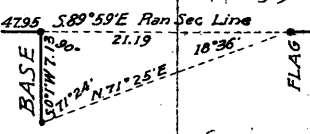
Asc. 50 ft.

5.65 Ridge, brs. N.20° E. and S.20° W. Desc. 780 ft.

10.80 Top of cliff, 125 ft. high, brs. N.20° E. and S.20° W.

12.00 Foot of cliff, brs. N.20° E. and S.20° W.

36.55 Ravine, course S.30° W. Asc. 165 ft.



Completion of Subdivision of T. 27 N., R. 16 W. 33

Chains.	
39.96	Set a red sandstone, 30 X 14 X 6 ins., 12 ins. in the ground, on bed rock, in a mound of stone, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A pinion, 9 ins. diam., brs. N.45° E., 47 lks. dist., marked $\frac{1}{4}$ S1 BT. A pinion, 12 ins. diam., brs. S.82° E., 114 lks. dist., marked $\frac{1}{4}$ S12 BT.
59.20	Spur, slopes S.30° W. Desc. 500 ft.
71.00	Cliff, 25 ft. high, brs. N. and S. Continue descent.
79.92	The cor. of secs. 1, 2, 11 and 12. Land, mountainous. Soil, rocky, 4th rate. Timber, scattering juniper and pinion. Undergrowth, oak and manzanita.
40.00	N.0° 1' W., on a random line, bet. secs. 1 and 2. Set temp. $\frac{1}{4}$ sec. cor.
79.53	Intersect N. abdy. of Tp., 35 lks. E. of the cor. of secs. 1, 2, 35 and 36, which is an iron post, described in Book "A." Thence S.0° 16' E., on a true line, bet. secs. 1 and 2. Over mountainous land, through scattering timber and undergrowth. Desc. 165 ft.
12.35	Ravine, course S.60° W. Asc. 205 ft.
28.90	Spur, slopes N.70° W. Desc. 240 ft.
39.53	Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap S $\frac{1}{4}$ S 1 1917
	From which A pinion pine, 8 ins. diam., brs. N.69° E., 25 lks. dist., marked $\frac{1}{4}$ S1 BT. A pinion pine, 6 ins. diam., brs. S.25° W., 102 lks. dist., marked $\frac{1}{4}$ S2 BT.
48.25	Ravine, course S.70° W. Asc. 125 ft.
51.25	Spur, slopes S.60° E. Desc. 365 ft.
53.70	Leave scattering timber, brs. E. and W.
61.40	Ravine, course S.40° W. Asc. 25 ft.
63.90	Desc. 175 ft.
76.80	Ravine, course S.50° W. Asc. 45 ft.
79.53	The cor. of secs. 1, 2, 11 and 12. Land, mountainous. Soil, rocky, 4th rate. Timber, pinion and juniper. Undergrowth, scrub oak.
	From the cor. of secs. 14, 15, 22 and 23, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General, N.0° 1' W., bet. secs. 14 and 15. Over level land, through scattering undergrowth.
25.00	Asc. 70 ft.
33.05	Desc.
34.53	Ravine, course S.10° W. Asc. 1260 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

34

Completion of Subdivision of T. 27 N., R. 16 W.

Chains.

$$\begin{array}{c} \frac{1}{4} \\ \hline S15 | S14 \\ \hline 1917 \end{array}$$

And raise a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, W. of cor.

61.16 Spur, slopes S.20° W. Continue ascent.

76.39 Spur, slopes N.70° W. Desc. 150 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, in a mound of stone, for cor. of secs. 10, 11, 14 and 15, marked on brass cap.

$$\begin{array}{c} T27N | R16W \\ \hline S10 | S11 \\ \hline S15 | S14 \\ \hline 1917 \end{array}$$

And raise a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, W. of cor.

Land, level and mountainous.

Soil, sandy and rocky, 4th rate.

No timber.

Undergrowth, greasewood and cat claw.

40.00 S.89° 54' E., on a random line, bet. secs. 11 and 14.
Set temp. $\frac{1}{4}$ sec. cor.

80.13 Intersect N. and S. line, 28 lks. S. of the true point for cor. of secs. 11, 12, 13 and 14.

Thence

S.89° 54' W., on a true line, bet. secs. 11 and 14.

Over mountainous land, through scattering undergrowth.

Asc. 100 ft.

7.55 Spur, slopes S.20° W. Desc. 540 ft.

21.10 Ravine, course S.40° W. Asc.

21.30 Desc. 25 ft.

25.20 Draw, course S.20° W. Thence over rolling land.

35.20 Wash, 1 ch. wide, course S.50° E.

39.15 Wash, 30 lks. wide, course S.60° E. Asc. 905 ft.

40.06 $\frac{1}{2}$ Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

$$\begin{array}{c} \frac{1}{4} S11 \\ \hline S14 \\ \hline 1917 \end{array}$$

And raise a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, N. of cor.

75.55 Spur, slopes N.10° W. Desc. 135 ft.

80.13 The cor. of secs. 10, 11, 14 and 15.

Land, mountainous and rolling.

Soil, rocky, 4th rate.

No timber.

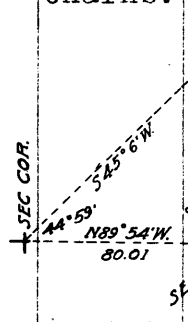
Undergrowth, scrub oak and cat claw.

From the cor. of secs. 10, 11, 14 and 15, the cor. of secs. 9, 10, 15 and 16, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General brs. N.89° 55' W. Also from a point 79.82 chs. N.0° 1' W. of the cor. of secs. 10, 11, 14 and 15, the cor. of secs. 9, 10, 15 and 16 brs. S.45° 6' W. The distance between cors. is given by:

$$\frac{79.82}{\sin 44^{\circ} 59'} = \frac{x}{\sin 45^{\circ} 7'} \text{ or, by logarithms,}$$

Completion of Subdivision of T. 27 N., R. 16 W.

Chains.



$\log. 79.82 = 1.902112$
 $\log. \sin. 45^\circ 7' = 9.859368$
 $\text{colog. sin. } 44^\circ 59' = 0.150641$

$1.903121 = \log. 80.01 \text{ chs.}$

1.00
 3.20
 40.00 $\frac{1}{2}$

The vertical angle from the cor. of secs. 10, 11, 14 and 15 to the cor. of secs. 9, 10, 15 and 16 is $-10^\circ 25'$, which gives a difference in elevation of 970 ft.
 From the cor. of secs. 9, 10, 15 and 16, $S.89^\circ 55' E.$, on a true line, bet. secs. 10 and 15. Over level land, through scattering undergrowth.
 Wash, 50 lks. wide, 2 ft. deep, course $S.20^\circ W.$
 Wash, 100 lks. wide, course $S.20^\circ W.$
 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S10
 $\frac{1}{4}$ S15
 1917

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

42.00
 47.00
 52.00
 80.01

The approximate topography for the remainder of the mile is as follows:
 Wash, 70 lks. wide, 3 ft. deep, course $S.40^\circ W.$
 Leave level land, brs. $N.30^\circ E.$ and $S.30^\circ W.$
 Spur, slopes $N.50^\circ W.$ Continue ascent.
 The cor. of secs. 10, 11, 14 and 15.
 Land, nearly level and mountainous.
 Soil, rocky, 4th rate, and sandy.
 No timber.
 Undergrowth, greasewood and cat claw.

24.68
 40.00

$N.0^\circ 1' W.$, bet. secs. 10 and 11.
 Over mountainous land, through scattering undergrowth.
 Desc. 500 ft.
 Foot of descent, brs. NE. and SW. Asc. 160 ft.
 Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$ S10 | S11
 1917

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

49.70
 51.54
 57.62
 59.93
 66.10
 71.11
 80.00

Spur, slopes $S.60^\circ W.$ Desc. 15 ft.
 Ravine, course $S.50^\circ W.$ Asc. 60 ft.
 Spur, slopes $S.60^\circ W.$ Desc. 60 ft.
 Ravine, course $S.70^\circ W.$ Asc. 20 ft.
 Desc.
 Ravine, course $S.70^\circ W.$ Asc. 205 ft.
 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, in a mound of stone, for cor. of secs. 2, 3, 10 and 11, marked on brass cap

T27N R16W
 S 3 | S 2
 $\frac{1}{4}$ S10 | S11
 1917

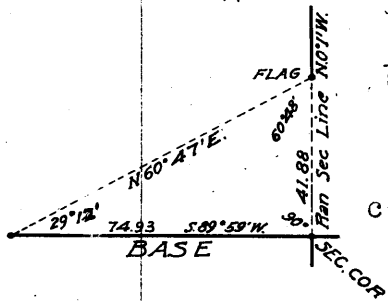
And raise a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, W. of cor.
 Land, mountainous.

Completion of Subdivision of T. 27 N., R. 16 W.

Chains.	
	Soil, rocky, 4th rate. No timber. Undergrowth, scrub oak and cat claw.
40.00	N.89° 54' E., on a random line, bet. secs. 2 and 11. Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line, 11 lks. S. of the cor. of secs. 1, 2, 11 and 12. Thence S.89° 49' W., on a true line, bet. secs. 2 and 11. Over mountainous land, through scattering undergrowth. Desc. 325 ft.
17.60	Ravine, course S.40° W. Asc.
18.30	Spur, slopes S.20° W. Desc. 20 ft.
19.05	Ravine, course S.10° W. Asc. 630 ft.
36.85	Ridge, brs. N.20° W. and S.40° W. Desc. 740 ft.
40.01	Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap <div style="text-align: center;"> $\frac{1}{4}$ S 2 $\frac{1}{4}$ S 11 1917 </div>
	And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
58.75	Ravine, course S.40° W. Asc.
64.30	Spur, slopes S. Desc. 210 ft.
76.40	Small ravine, course S. Asc. 20 ft.
77.75	Spur, slopes S.10° E. Desc. 50 ft.
80.02	The cor. of secs. 2, 3, 10 and 11. Land, mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, cat claw and scrub oak.
40.00	N.89° 55' W., on a random line, bet. secs. 3 and 10. Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line, 14 lks. N. of the cor. of secs. 3, 4, 9 and 10, which is an iron post, properly set, marked and witnessed as described by the Surveyor-General. Thence S.89° 59' E., on a true line, bet. secs. 3 and 10. Over rolling land, through scattering undergrowth.
6.55	Wash, 1 ch. wide, 2 ft. deep, course SW.
10.05	Wash, 20 lks. wide, 1 ft. deep, course SW.
26.15	Wash, 15 lks. wide, 1 ft. deep, course SW. Asc. 405 ft.
33.00	Wash, 10 lks. wide, 4 ft. deep, course SW. Continue ascent.
39.97	Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap <div style="text-align: center;"> $\frac{1}{4}$ S 3 $\frac{1}{4}$ S 10 1917 </div>
	And raise a mound of stone, 3 ft. base, 2 $\frac{1}{2}$ ft. high, N. of cor.
71.25	Desc. 15 ft.
72.55	Ravine, course S.50° W. Asc. 160 ft.
79.94	The cor. of secs. 2, 3, 10 and 11. Land, level. Soil, rocky, 4th rate. No timber. Undergrowth, cat claw and greasewood.

Chains.

N.0° 1' W., on a random line, bet. secs. 2 and 3.
Set a flag ahead on line, and measure a base S.89° 59' W.,
74.93 chs., from the W. end of which the flag brs. N.60°
47' E. The distance is given by



$$\frac{74.93}{\sin.60^\circ 48'} = \frac{X}{\sin.29^\circ 12'}$$

or by logarithms,

log. 74.93 = 1.874656
log. sin. 29° 12' = 9.688295
colog. sin. 60° 48' = 0.059025

1.621976 = log. 41.88 chs.

41.88

Set temp. witness cor. to 1/4 sec. cor.

79.77

Intersect E. bdy. of Tp., 4 lks. W. of the cor. of secs.
2, 3, 34 and 35, which is an iron post, described in
Book "A."

Thence

S.0° 1' W., on a true line, bet. secs. 2 and 3.
Over mountainous land, through scattering undergrowth, and
timber. Asc. 135 ft.

4.65

Spur, slopes N.70° W. Desc. 30 ft.

8.00

Ravine, course N.60° W. Asc. 195 ft.

14.75

Spur, slopes W. Desc. 160 ft.

32.95

Ravine, course N.60° W. Asc. 255 ft.

37.87

Set an iron post, 3 ft. long, 1 in. diam., on bed rock, in
a mound of stone, for witness cor. to 1/4 sec. cor., marked
on brass cap

$\frac{1}{2}$
 W | C
 S 3 | S 2
 1917

From which

A pinion, 9 ins. diam., brs. N.84 1/2° E., 70 lks. dist.,
marked WC 1/4 S 2 BT.

No other trees within limits. Raise a mound of stone, 2 1/2
ft. base, 2 ft. high, W. of cor.

Cor. stands at top of cliff, 500 ft. high, brs. E. and W. Desc.

39.77

True point for 1/4 sec. cor. is inaccessible.

44.75

Foot of cliff, brs. E. and W.

72.75

Ravine, course S.50° W. Asc.

79.77

The cor. of secs. 2, 3, 10 and 11.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, scattering pinion and juniper.

Undergrowth, scrub oak.

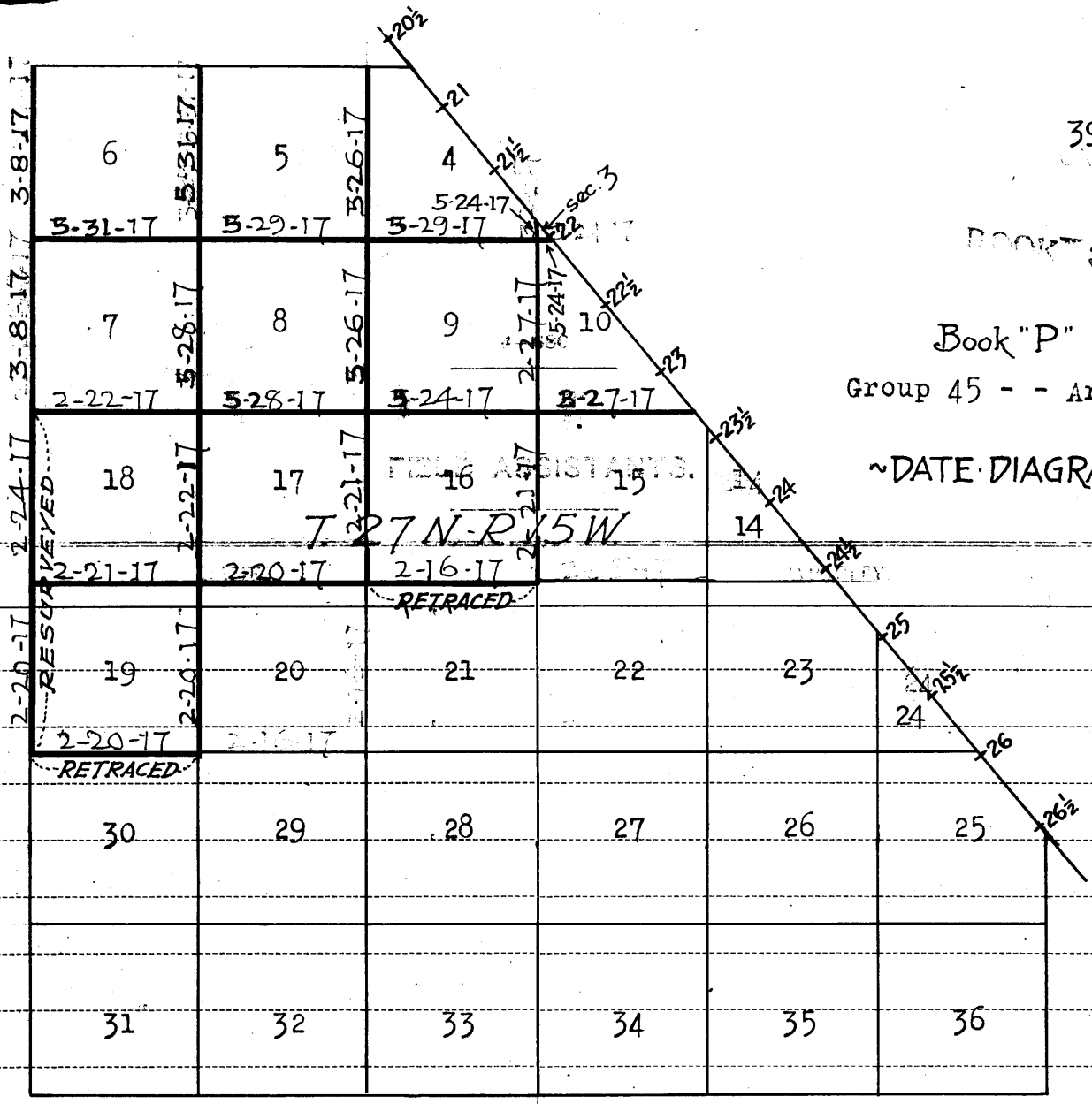
General Description.

Practically all of this part of the township lies in the
broken foothills and on the west slope of the Grand Wash,
Cliffs. The high parts are timbered with scrub juniper
and pinion, and covered with scrub oak and manzanita
undergrowth. The lower parts support a heavy growth of
various kinds of cacti. The soil and land are practically
worthless. There are no settlers.

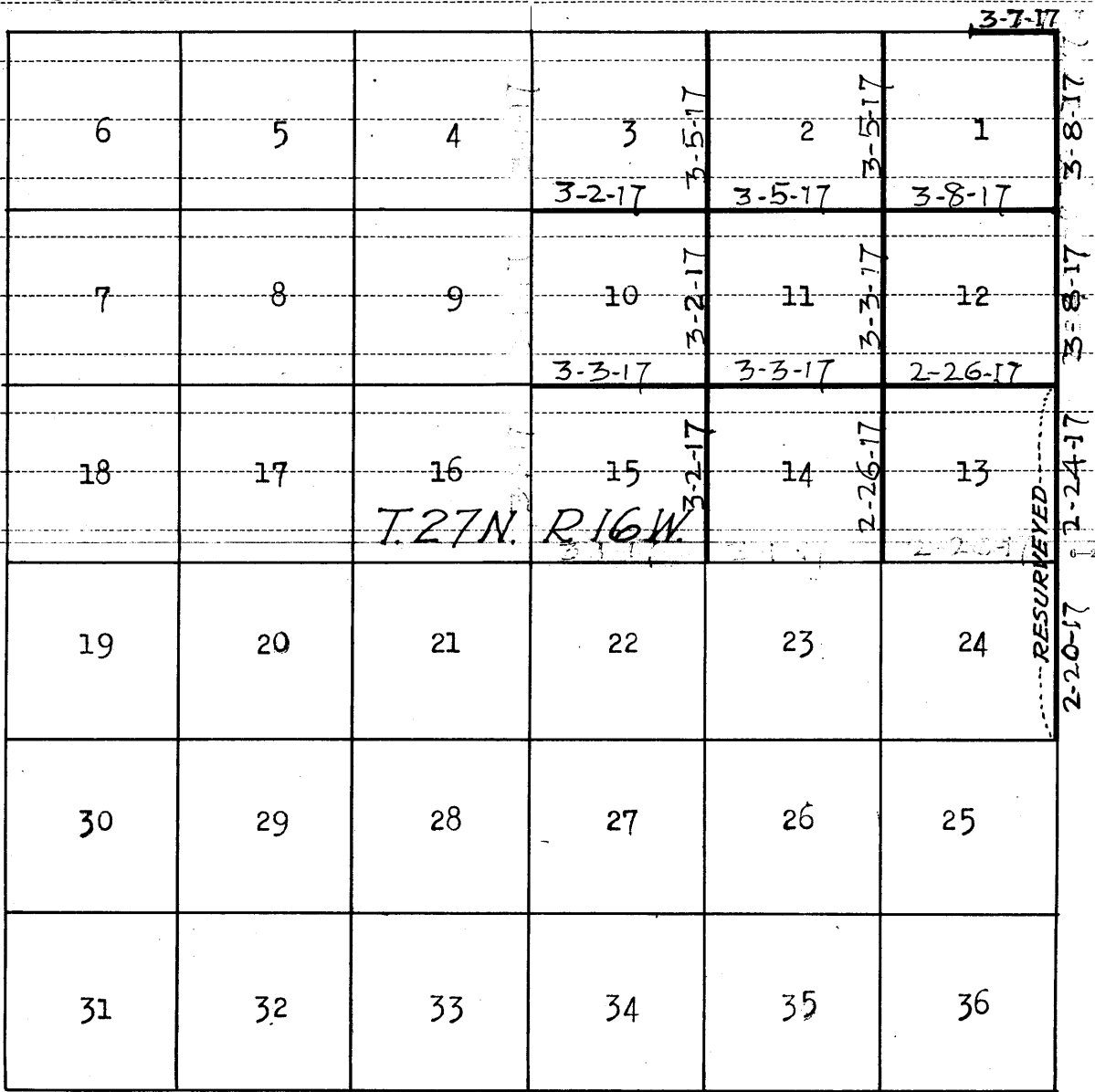
BOOK 3257

Book "P"
Group 45 - - Arizona

~DATE DIAGRAM~



Surveys executed on dates shown on these diagrams by James C. Hooper,
U. S. Transitman.



CERTIFICATE OF UNITED STATES SURVEYOR

TRANSITMAN

I, James C. Hooper, U.S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 45, Arizona, bearing date of the 7th day of January, 1915, 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 all those parts or portions of the subdivision lines of

TOWNSHIP 27 NORTH, RANGE 15 WEST,

and

TOWNSHIP 27 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 on the diagrams on the reverse hereof as having been executed by me, and under my direction; and that all the corners of 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 45, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

James C. Hooper, U.S. Surveyor, Transitman.

APPROVAL

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

, 191

The foregoing field notes of the survey of

executed by

under his special instructions dated, 191, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

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.

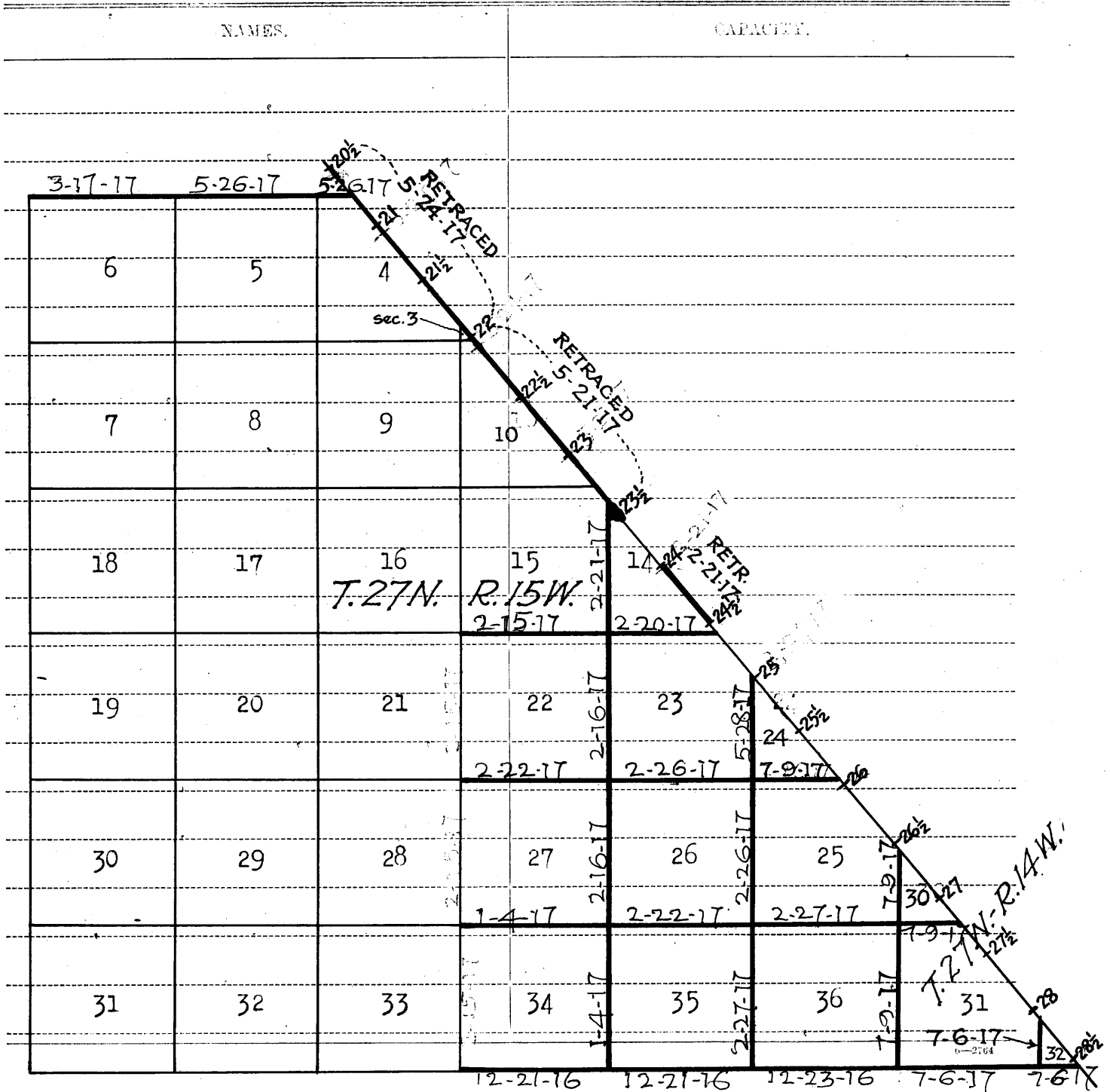
U. S. Surveyor General.

BOOK 3257

Book "P"

Group 45 - - - Arizona.

~ DATE DIAGRAM ~



Surveys executed on dates shown on this diagram by S. Frank Walters,
U. S. Transitman.

222

42

BOOK 3257

CERTIFICATE OF UNITED STATES ~~SURVEYOR~~ ^{TRANSITMAN}

I, S. Frank Walters, U. S. ~~Surveyor~~ ^{Transitman}, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 45, Arizona, bearing date of the 7th day of January, 1915, 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 of the HUALPAI INDIAN RESERVATION BOUNDARY, within Township 27 North, Range 15 West, and SURVEYED all those parts or portions of the Subdivision lines of TOWNSHIP 27 NORTH, RANGE 14 WEST, and TOWNSHIP 27 NORTH, RANGE 15 WEST, of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in and on the diagram on the reverse hereof the foregoing field notes as having been executed by me, and under my direction; and that all the corners of 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 45, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

S. Frank Walters
 U. S. Surveyor
 Transitman

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, March 17, 1915

The foregoing field notes of the ~~survey of~~ Retracement of part of the Boundary of the Hualpai Indian Reservation within TOWNSHIP 27 NORTH, RANGE 15 WEST, and of the Survey of the Subdivision lines of parts of Townships 27 North, Ranges 14, 15 and 16 West, of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by S. Frank Walters and James C. Hooper, U.S. Transitmen, under ~~his~~ special instructions dated January 7, 1915, for Group 45, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

James C. Hooper
 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.