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BOOK 2877

Book "B"

Resurvey Exteriors

FIELD NOTES

OF THE SURVEY

RESURVEY OF THE WEST BDY. OF T. 17 N. - R. 19 W.

RESURVEY OF THE WEST BDY. OF T. 18 N. - R. 19 W.

RETRACEMENT OF THE S 1/2 OF EAST BDY. AND }
RESURVEY OF ~~THE~~ NORTH BDY. AND ~~THE~~ EAST BDY. } OF T. 18 N. - R. 21 W

RETRACEMENT OF WEST BDY. OF T. 19 N. - R. 19 W.

RESURVEY OF EAST, WEST, and part of SOUTH BDY. } OF FRAC. T. 20 N., R. 22 W.
AND RETRACEMENT OF PART OF SOUTH BDY. }
AND

RESURVEY OF 5TH STANDARD PARALLEL N. THRU PART OF
RANGE 19 WEST, BET. T.S. 20 + 21 NORTH

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Guy H. Richardson and Otis Ross, U. S. Surveyors,

and

Hugo Price, U.S. Transitman,

In compliance with instructions, under instructions dated Jan. 4 and 28, 1915, issued by the United States Surveyor General to govern surveys included in Group No. 43, which were approved by the Commissioner of the General Land Office, January 22, 1915 and Feb. 15, 1915.

Retracements and Re-Survey commenced February 26, 1915.

Retracements and Re-Survey completed December 16, 1915.

Executed under assignment
Instructions dated Jan. 31-1915 and Nov. 29-1915.

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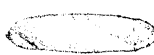

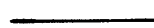


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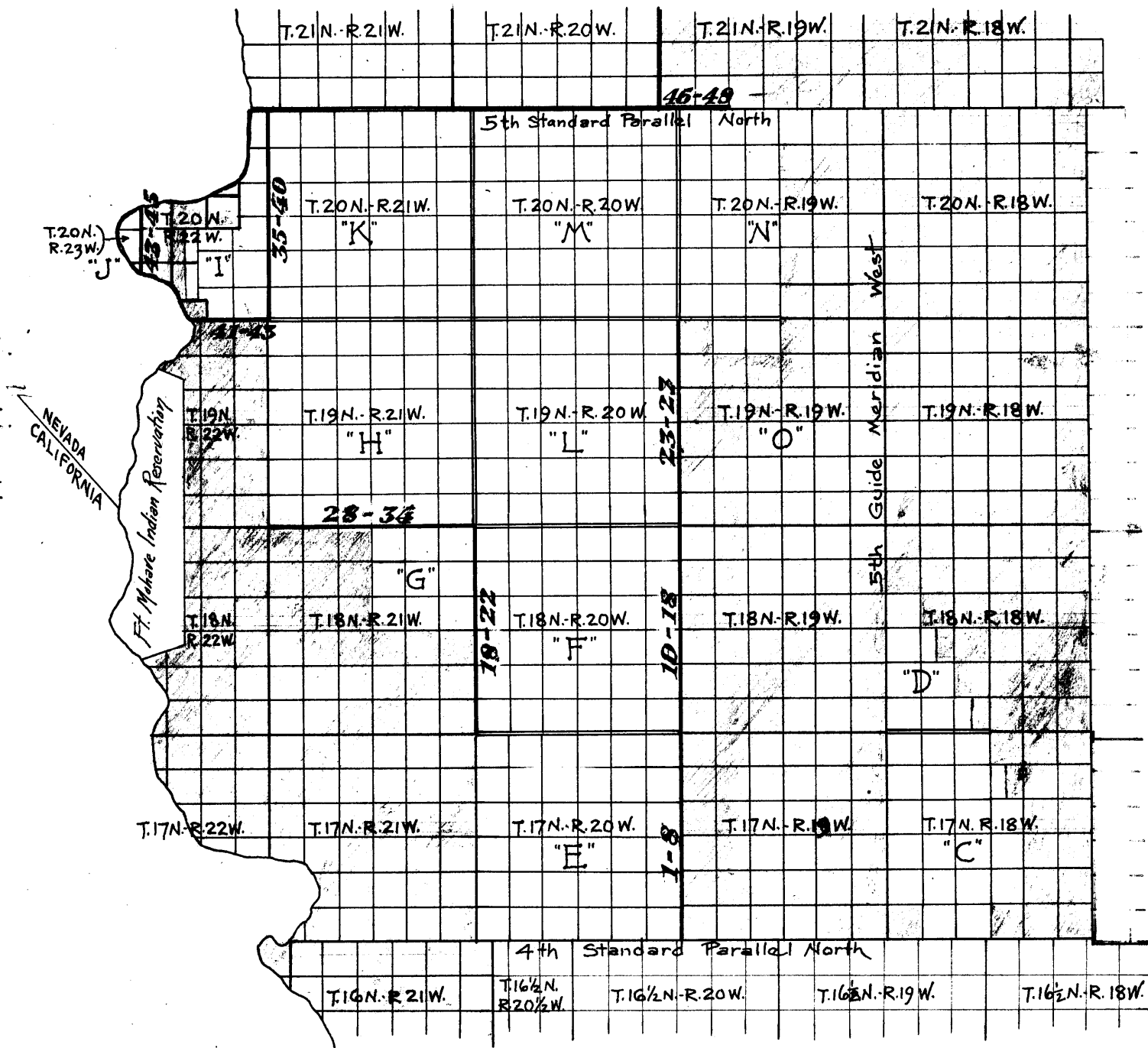
INDEX DIAGRAM.

Township , *Range*

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Book "B" Group 43

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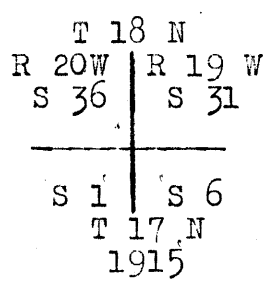
Retracement of the West bdy. of Township 17 North Range 19 W. 1 B

Chains.

Retracement and resurvey executed by Guy H. Richardson, U.S. Surveyor, with a Young and Sons' light mountain transit No. 8484, provided with a Smith Solar attachment. The instrument was approved by the Assistant Supervisor of Surveys for Arizona and California on Jan. 31, 1915.

For field test of instrument, on a meridian established by Polaris observation, see page 9 of this book. Feb. 26, 1915.

I commence at old cor. of Ts. 17 and 18 N., Rs. 19 and 20 W., which is a lava stone, 16x10x12 ins. above ground, marked and witnessed as described by the Surveyor General. Set an iron post, 3 ft. long, 3 ins. in diam., alongside of stone, 24 ins. in the ground for reestablished Tp. cor., with brass cap, marked



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

At this cor. at 10h. 0m., a.m., l.m.t., I set off 8° 54 1/2' S. on the decl. arc; 34° 54' N. on the lat. arc, and determine a meridian with the solar.

Thence I run, South, on a random line, bet. secs. 1 and 6.

40.08 Intersect old 1/4 sec. cor., bet. secs. 1 and 6, which is a lava stone, 6x10x8 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of N. 1/2 is therefore N. 40.08 chs. Continue random line and measurement,

80.01 Intersect a point 28 lks. E. of old cor. of secs. 1, 6, 7 and 12, which is a lava stone, 3x10x10 ins. above ground, marked and witnessed as described by the Surveyor General.

2. Retracement of the West bdy of Township 17 N, R. 19 W.

Chains.

True course and dist. of S. half is therefore $N.0^{\circ} 24'E.$,
39.93 chs.

- From old cor. of secs. 1, 6, 7 and 12, I run,
South, on a random line, bet. secs. 7 and 12.
- 39.92 Intersect a point 6 lks. W. of old $\frac{1}{4}$ sec. cor., which is a
lava stone, $8 \times 6 \times 5$ ins. above ground, marked and wit-
nessed as described by the Surveyor General.
- Course and dist. of $N.\frac{1}{2}$ bet. secs. 7 and 12 is $N.0^{\circ} 5'W.$,
39.92 chs.
- Continue random line and measurement.
- 80.04 Intersect a point 2 lks. W. of old cor. of secs. 7, 12, 13 and
18, which is a lava stone, $14 \times 12 \times 8$ ins., above ground,
marked and witnessed as described by the Surveyor Gen-
eral.
- Course and dist. of $S.\frac{1}{2}$ bet. secs. 7 and 12 is $N.0^{\circ} 3'E.$,
40.12 chs.

- From old cor. of secs. 7, 12, 13 and 18, I run,
South, on a random line, bet. secs. 13 and 18.
- 40.22 Intersect a point 17 lks. W. of old $\frac{1}{4}$ sec. cor., which is a
lava stone, $10 \times 8 \times 6$ ins., above ground, marked and wit-
nessed as described by the Surveyor General.
- Course and dist. of N. half bet. secs. 13 and 18 is $N.0^{\circ} 15'$
 $W.$, 40.22 chs.
- Continue line and measurement.
- 80.37 Intersect a point 32 lks. W. of old cor. of secs. 13, 18, 19
and 24, which is a lava stone, $14 \times 8 \times 6$ ins., above
ground, marked and witnessed as described by the Sur-
veyor General.
- Course and dist. of S. half bet. secs. 13 and 18 is $N.0^{\circ}$
 $13'W.$, 40.15 chs.

At old cor. of secs. 13, 18, 19 and 24, at apparent noon, I
set off $8^{\circ} 53'$ S. on the decl. arc, and observe the sun
on the meridian for lat. The resulting latitude is 34°
 $51'N.$

Feb. 26, 1915.

Retracement of the Wl bdy. of Township 17 North, Range 19 W. 3

Chains.

Thence I run,

South, on a random line, bet. secs. 19 and 24.

40.15 Intersect a point 15 lks.W.of old $\frac{1}{4}$ sec.cor., which is a lava stone, 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of N. $\frac{1}{2}$ bet. secs 19 and 24 is N.0°13' W., 40.15 chs.

Continue random line and measurement.

80.35 Intersect a point 31 lks.W.of old cor.of secs.19,24,25 and 30, which is a lava stone, 10x10x6 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of S. $\frac{1}{2}$ bet. secs. 19 and 24 is N.0°14'W. 40.20 chs.

From old cor.of secs. 19,24, 25 and 30, I run,

South, on a random line, bet. secs. 25 and 30.

40.18 Intersect a point 9 lks.W. of old $\frac{1}{4}$ sec.cor., which is a lava stone, 16x12x10 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist.of N.half bet. secs.25 and 30 is N.0° 8'W. 40.18 chs.

Continue random line and measurement.

80.47 Intersect a point 25 lks.W. of old cor.of secs.25,30,31 and 36, which is a lava stone 16x10xx8 ins. above ground, marked and witnessed as described by the Surveyor General

Course and dist. of S. $\frac{1}{2}$ bet. secs. 25 and 30 is N.0° 14'W. 40.29 chs. Feb. 26, 1915.

Feb. 27, 1915: At the old cor. of secs. 25, 30, 31 and 36, at 10h. om., a.m., l.m.t., set off 8° 32'S., on the decl.arc; 34° 49 $\frac{1}{2}$ 'N. on the lat.arc, and determine a meridian with the solar.

Thence I run,

South, on a random line, bet. secs.31 and 36.

4. Retracement of West bdy. of Township 17 North, Range 19 W.

Chains.	
40.64	Intersect a point 7 lks. W. of old $\frac{1}{4}$ sec. cor., which is a lava stone, 12x8x6 ins. above ground, marked and witnessed as described by the Surveyor General. Course and dist. of N. half bet. secs. 31 and 36 is N. 0° 6' W. 40.64 chs. Continue random line and measurement.
80.52	Intersect the 4th Standard Parallel N., 16 lks. W. of old Std. cor. of Ts. 17 N., Rs. 19 and 20 W., which is a lava stone, 10x10x8 ins., above ground, marked and witnessed as described by the Surveyor General. Course and dist. of S. $\frac{1}{2}$ bet. secs. 31 and 36 is N. 0° 8' W., 39.88 chs. Feb. 27, 1915.

Resurvey of West bdy. of Township 17 North, Range 19 West.	

	I commence at old standard cor. of Ts. 17 N., Rs. 19 and 20 W., on the 4th Standard Parallel North, hereinbefore described, and run as per results of my retracement hereinbefore described. Feb. 27, 1915: N. 0° 8' W., on a true line, on W. bdy. of sec. 31. Over level land.
15.80	Leave level land; ascend.
28.30	Top of 110 ft. ascent; descend.
39.88	Foot of 110 ft. descent, intersect old $\frac{1}{4}$ sec. cor., hereinbefore described. I change this cor. for $\frac{1}{4}$ sec. cor. of sec. 31, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, E. of cor. Thence I run, on N. $\frac{1}{2}$ of W. bdy. of sec. 31, N. 0° 6' W., continuing measurement.
40.00	Set a lava stone 16x10x6 ins., 11 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor. to sec. 36, T. 17 N., R. 20 W., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
65.85	Wash, course W.; ascend.
80.00	150 ft. above wash, set a lava stone, 18x14x8 ins., 12

Resurvey of West bdy. of Township 17 North, Range 19 West. 5

Chains.

- ins. in the ground for reestablished cor. of secs. 25 and 36, T.17 N., R. 20 W., marked with 1 notch on S. edge and 5 notches on N. edge, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 80.52 Old cor. of secs. 25, 30, 31 and 36, hereinbefore described. I change this cor. to refer to secs. 30 and 31 only, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
- Land, level and rolling.
Soil, stony, 4th rate.
Undergrowth, greasewood and cactus.
-
- N. $0^{\circ}14'$ W. on a true line, on W. bdy. of sec. 30.
Descend over rolling land.
- 25.70 Wash, course SW., 110 ft. below sec. cor.; ascend.
- 39.48 125 ft. above wash, set a lava stone, 14x10x8 ins., 10 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., to sec. 25, T.17 N., R. 20 W., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- Thence over level land.
- 40.29 Intersect old $\frac{1}{4}$ sec. cor. hereinbefore described. I change this cor. to refer to sec. 30 only, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
- Thence I run on N. $\frac{1}{2}$ of W. bdy. of sec. 30,
N. $0^{\circ}8'$ W., continuing measurement.
- 79.48 Set a lava stone, 14x12x6 ins., 10 ins. in the ground, for reestablished cor. of secs. 24 and 25, T.17 N., R. 20 W., marked with 2 notches on S. edge and 4 notches on N. edge, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 80.47 Intersect old cor. of secs. 19, 24, 25 and 30, hereinbefore described. I change this cor. to refer to secs. 29 and 30 only, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
- Land, rolling and level.
Soil, stony, 4th rate.
Undergrowth, cactus and greasewood.

6. Resurvey of the West bdy. of Township 17 North, Range 19 W.

Chains.

- N. $0^{\circ}14'$ W., on a true line, on west bdy. of sec. 19.
Over level land.
- 39.91 Set a lava stone, $15 \times 8 \times 6$ ins., 10 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., to sec. 24, T. 17 N., R. 20 W., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 40.20 Intersect old $\frac{1}{4}$ sec. cor. hereinbefore described. I change this cor. to refer to sec. 19 only, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
Thence I run on N. $\frac{1}{2}$ of W. bdy. of sec. 19,
N. $0^{\circ}13'$ W., continuing measurement.
- 79.91 Set a lava stone, $18 \times 9 \times 6$ ins., 12 ins. in the ground for reestablished cor. of secs. 13 and 24, T. 17 N., R. 20 W., marked with 3 notches on N. and S. edges, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 80.35 Intersect old cor. of secs. 13, 18, 19 and 24, hereinbefore described. I change this cor. to refer to secs. 18 and 19 only, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
Land, level.
Soil, stony, 4th rate.
Undergrowth, greasewood and cactus.
-
- N. $0^{\circ}13'$ W., on a true line, on W. bdy. of sec. 18 (S. $\frac{1}{2}$)
Descend over rolling land.
- 11.40 Wash, course S. 80° W., 90 ft. below sec. cor.
Thence over slightly rolling land.
- 38.66 Set a lava stone, $19 \times 6 \times 5$ ins., 15 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. to sec. 13, T. 17 N., R. 20 W., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 40.15 Intersect old $\frac{1}{4}$ sec. cor. hereinbefore described. I change this cor. to refer to sec 18 only, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
Thence I run on N. $\frac{1}{2}$ of W. bdy. of sec. 18.

Resurvey of the West bdy. of Township 17 North, Range 19 W. 7

- Chains.
- N.0°15'W., continuing measurement.
- 78.66 Set a lava stone, 20x10x6 ins., 15 ins. in the ground for reestablished cor. of secs. 12 and 13, T.17 N., R.20 W., marked with 4 notches on S. edge and 2 notches on N. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- 80.37 Intersect old cor. of secs. 7, 12, 13 and 18, hereinbefore described. I change this cor. to refer to secs. 7 and 18 only, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
- Land, rolling.
- Soil, stony, 4th rate.
- Undergrowth, greasewood and cactus.
-
- N.0°3' E., on a true line, on W. bdy. of sec. 7 (S.½)
- Descend over rolling land.
- 10.24 Wash, course SE., 100 ft. below sec. cor.; ascend.
- 38.29 90 ft. above wash, set a lava stone, 17x8x7 ins., 11 ins. in the ground for reestablished ¼ sec. cor. to sec. 12, T.17 N., R.20 W., marked ¼ on W. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- 40.12 Intersect old ¼ sec. cor. hereinbefore described. I change this cor. to refer to sec. 7 only, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
- Thence I run, on N.½ of W. bdy. of sec. 7.
- N.0° 5'W., continuing measurement; ascend.
- 49.85 Top of spur, 245 ft. above ¼ sec. cor.; descend.
- 65.10 Wash, course SE., 300 ft. below top of spur; ascend.
- 78.29 Set a lava stone 18x12x6 ins., 12 ins. in the ground for reestablished cor. of secs. 1 and 12, T.17 N., R.20 W., marked with 5 notches on S. edge and 1 notch on N. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- 80.04 200 ft. above wash, intersect old cor. of secs. 1, 6, 7 and 12, hereinbefore described. I change this cor. to

8. Resurvey of West bdy. of Township 17 North, Range 19 W.

Chains

refer to secs. 6 and 7 only, and raise a mound of stone
2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

Land, rolling.

Soil, stony; 4th rate.

Undergrowth, greasewood and cactus.

N. $0^{\circ} 24'$ E. on a true line, on W. bdy. of sec. 6.

Ascend over rolling land.

- 2.60 Top of spur, slopes W., 73 ft. above sec. cor.; descend.
- 5.65 Foot of 40 ft. descent; ascend.
- 9.10 Top of spur, slopes W., 68 ft. ascent; descend.
- 15.35 Foot of 95 ft. descent; ascend.
- 18.00 Top of 25 ft. ascent, spur, slopes W.; descend.
- 38.25 155 ft. below top of spur, set a lava stone, 15x9x5 ins.
10 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor. to
sec. 1, T. 17 N., R. 20 W., marked $\frac{1}{4}$ on W. face, and
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of,
cor.
- 39.93 Intersect old $\frac{1}{4}$ sec. cor. hereinbefore described. I change
this cor. to refer to sec. 6 only, and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
Thence I run on N. $\frac{1}{2}$ of W. bdy. of sec. 6.
North, continuing measurement; descend.
- 50.00 155 ft. below $\frac{1}{4}$ sec. cor., enter level land, bears E. and
W.
- 70.00 Leave level land; ascend.
- 80.01 Intersect cor. of Ts. 17 and 18 N., Rs. 19 and 20 W., rees-
tablished by me, as hereinbefore described.
Land, rolling.
Soil, stony, 4th rate.
Undergrowth, greasewood and cactus.

Feb. 27, 1915.

Guy H. Richardson, U.S.S.

Chains

Retracements and resurveys described in the field notes in this book, executed by Guy H. Richardson and Otis Ross, U.S. Surveyors, and Hugo Price, U.S. Transitman, with Young and Sons' light mountain transits Nos. 8484, 8477, and 8477 respectively. The instruments are provided with Smith Solar attachments, and were tested by Guy H. Richardson, U.S. Surveyor, as follows:

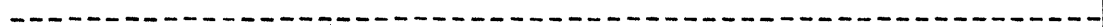
Feb. 23, 1915: At a point near my camp, which is located about 20 chs. east of the $\frac{1}{4}$ sec. cor. bet. secs. 7 and 8, T. 17 N., R. 20 W., of the Gila and Salt River Base and Meridian, at 3h. 0m. p.m., l.m.t., I set off $9^{\circ}56'$ S. on the decl. arc; and $34^{\circ}52\frac{1}{2}'$ on the lat. arc, and determine a meridian with the solar, and mark the meridian thus obtained with a tack point on a hub, about 5 chs. N. of my station. At 9h. 14m. p.m., l.m.t., I observe Polaris at western elongation, and mark the line obtained with a tack on a hub about 5 chs. northerly from my station.

Feb. 24, 1915: At 7h. 0m. a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}23\frac{1}{2}'$ to the east, and note that the Polaris meridian is identical with the solar meridian established yesterday afternoon. At 8h. 0m., a.m., l.m.t., I set off $9^{\circ}40'S.$ on the decl. arc, and observe the meridian with the solar, and note that it checks with the meridian determined by Polaris observation. Having tested both instruments for a.m. and p.m. solar observations, and found them to check with the meridian established by Polaris observation, I conclude that they are in good adjustment.

The instruments were approved by the Assistant Supervisor of Surveys for Arizona and California on Jan. 31, 1915.

Guy H. Richardson, U.S.S.

Feb. 24, 1915.



10. Retracement of West bdy. of Township 18 N. R. 19 West

Chains

- March 9, 1915: Retracement by Otis Ross, U.S. Surveyor, as follows: At the cor. of Ts. 17 and 18 N., Rs. 19 and 20 W. which is the original stone and a 3-inch iron post, hereinbefore described, at 9h.0m., a.m., l.p.t., I set off $4^{\circ} 43'$ S. on the decl. arc; $34^{\circ} 54'$ on the lat. arc, and determine a meridian with the solar. Thence I run, setting temp. cors. at intervals of 40.00 chs. to refer to secs. and $\frac{1}{4}$ secs. in T. 18 N., R. 20 W., preliminary to resurvey of this Tp. bdy.
- North, on random line on W. bdy. of sec. 31.
- 29.62 Fall 2 lks. E. of old witness cor. to $\frac{1}{4}$ sec. cor. described as being 10.50 chs. S. of true cor. point, which is a malpais stone, 18x15x6 ins. above ground, marked and witnessed as described by the Surveyor General.
- Continue random line and measurement.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor. to sec. 36, T. 18 N., R. 20 W.
- 79.38 Fall 11 lks. E. of old cor. of secs. 25, 30, 31 and 36, which is a malpais stone, 18x12x5 ins. above ground, marked and witnessed as described by the Surveyor General.
- True course and dist. of S. half of W. bdy. of sec. 31 resulting from above fallings is $N. 0^{\circ} 2' W.$, 39.69 chs. and of N. half is $N. 0^{\circ} 8' W.$, 39.69 chs.
-
- From old cor. of secs. 25, 30, 31 and 36, I run, North, on a random line on W. bdy. of sec. 30.
- 0.62 Set temp. cor. of secs. 25 and 36.
- 39.95 Fall 8 lks. W. of old $\frac{1}{4}$ sec. cor., which is a limestone, 12x8x8 ins. above ground, marked and witnessed as described by the Surveyor General.
- True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 30 is $N. 0^{\circ} 7' E.$, 39.95 chs.
- Continue random line and measurement.
- 40.62 Set temp. $\frac{1}{4}$ sec. cor. to sec. 25, T. 18 N., R. 20 W.
- 78.62 Fall 16 lks. W. of old witness cor. to cor. of secs. 19, 24,

Retracement of West bdy. of Township 18 North, Range 19 West. 11

Chains.

25 and 30, described by the Surveyor General as being 1.00 chain south of point for corner, a malpais stone, 12x8x5 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of N. half of W. bdy. of sec. 30 is N. $0^{\circ} 7' E.$, 39.67 chs.

From old witness cor. to cor. of secs. 19, 24, 25 and 30,
I run,

North, on a random line on west bdy. of sec. 19.

2.00 Set temp. cor. for secs. 24 and 25, T. 18 N., R. 20 W.

41.00 Fall 12 lks. W. of old $\frac{1}{4}$ sec. cor., which is a granite stone, 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of S. half of W. bdy. of sec. 19 is N. $0^{\circ} 10' E.$, 40.00 chs.

Continue random line and measurement.

42.00 Set temp. $\frac{1}{4}$ sec. cor. to sec. 24, T. 18 N., R. 20 W.

80.81 Fall 20 lks. W. of old cor. of secs. 13, 18, 19 and 24, which is a malpais stone, 18x12x6 ins., above ground, marked and witnessed as described by the Surveyor General

True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 19 is N. $0^{\circ} 7' E.$, 39.81 chs.

March 9, 1915.

March 11, 1915: At old cor. of secs. 13, 18, 19 and 24, at 9h.0m., a.m., l.m.t., I set off $3^{\circ} 56' S.$ on the decl. arc; $34^{\circ} 56\frac{1}{2}'$ on the lat. arc; and determine a meridian with the solar.

Thence I run,

North, on a random line on W. bdy. of sec. 18.

1.19 Set temp. cor. for secs. 13 and 24.

40.32 Fall 7 lks. W. of old $\frac{1}{4}$ sec. cor., which is a malpais stone 12x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 18 is N. 0°

12. Retracement of the West bdy. of Township 18 N. R. 19 W.

Chains.	
	6'E., 40.32 chs. Continue random line and measurement.
41.19	Set temp. $\frac{1}{4}$ sec. cor.
80.35	Fall 14 lks. W. of old cor. of secs. 7, 12, 13 and 18, which is a malpais stone, 10x8x8 ins., above ground, marked and witnessed as described by the Surveyor General. True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 18 is N. 0° 6'E., 40.03 chs.

	From old cor. of secs. 7, 12, 13 and 18, I run, North, on random line on W. bdy. of sec. 7.
0.84	Set temp. cor. for secs. 12 and 13, T. 18 N., R. 20 W.
40.22	Fall 7 lks. W. of old $\frac{1}{4}$ sec. cor., which is a malpais stone, 8x6x4 ins. above ground, marked and witnessed as described by the Surveyor General. True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 7 is N. 0° 6'E., 40.22 chs. Continue random line and measurement.
40.84	Set temp. $\frac{1}{4}$ sec. cor.
80.14	Fall 7 lks. W. of old cor. of secs. 1, 6, 7, and 12, which is a malpais stone, 8x8x4 ins. above ground, marked and witnessed as described by the Surveyor General. True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 7 is N. 39° 92' chs.

	From old cor. of secs. 1, 6, 7 and 12, I run, North, on random line on west bdy. of sec. 6.
0.70	Set temp. cor. for secs. 1 and 12.
40.18	Fall 14 lks. W. of old $\frac{1}{4}$ sec. cor., which is a malpais stone, 12x6x4 ins. above ground, marked and witnessed as described by the Surveyor General. True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 6 is N. 0° 12'E., 40.18 chs. Continue random line and measurement.
40.70	Set temp. $\frac{1}{4}$ sec. cor. to sec. 1, T. 18 N., R. 20 W.

Retracement of the West bdy. of Township 18 North Range 19 W. 13

Chains.

78.18 Fall 21 lks. W. of old cor. of Ts. 18 and 19 N., Rs. 19 and 20 W., which is a malpais stone, 18x10x8 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 6 is N. 0° 6' E., 38.00 chs.

March 11, 1915.

Otis Ross, U.S.S.

Resurvey of West bdy. of Township 18 North, Range 19 West.

Resurvey commenced March 11, 1915, and executed by Otis Ross, U.S. Surveyor, as follows: From the reestablished cor. of Ts. 17 and 18 N., Rs. 19 and 20 W., I run, N. 0° 2' W., on a true line on the W. bdy. of sec. 31.

Ascend over broken mountainous land.

- 4.90 Top of spur, slopes E., 60 ft. above Tp. cor.; descend.
 9.78 Gulch, course SE., 75 ft. below top of spur; ascend.
 14.82 Top of spur, slopes W., 120 ft. above gulch; descend.
 18.84 Enter Wash, course W., 140 ft. below top of spur.
 28.83 Leave wash; ascend.
 29.62 Intersect old witness cor. to $\frac{1}{4}$ sec. cor. hereinbefore described. Change this W.C. to refer to $\frac{1}{4}$ sec. cor. to sec. 31, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, E. of cor.

Continue measurement N. 0° 2' W.

- 34.50 Top of spur, slopes W., 280 ft. above wash; descend.
 37.65 Gulch, course W., 85 ft. below top of spur; ascend.
 39.69 True point for $\frac{1}{4}$ sec. cor. to sec. 31.
 Thence I run, continuing measurement.
 N. 0° 8' W., on N. half W. bdy. of sec. 31.
 40.00 Set a malpais stone, 16x8x6 ins., 12 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. to sec. 36, T. 18 N., R. 20 W., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

15. Resurvey of West bdy. of Township 18 North Range 19 West.

Chains.

- 57.98 Top of ridge, brs.E.and W., 540 ft. above gulch; descend.
- 73.30 Gulch, course SW., 560 ft. below top of ridge; ascend.
- 79.38 Intersect old cor. of secs.25,30,31 and 36, hereinbefore described, 20 ft. above gulch.
- Change cor.to refer to secs.30 and 31, and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high,E.of cor.
- Land, rough and mountainous.
- Soil, stony, 4th rate.
- Undergrowth, cactus and greasewood.
-
- N.0°7'E., on a true line on the W.bdy.of sec.30.
- Ascend over rough, mountainous land.
- 0.62 Set a granite stone, 24x12x10 ins., 18 ins. in the ground for reestablished cor. of secs.25 and 36, T.18 N.,R. 20 W., marked with 1 notch on S.edge and 5 notches on N.edge, and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high,W.of cor.
- 0.70 Top of spur, slopes E., 87 ft. above cor. of secs.30,and 31. Descend.
- 4.23 Gulch, course W., 167 ft. below top of spur; ascend.
- 6.90 Top of spur, slopes W., 78 ft. above gulch; descend.
- 9.00 Swale, brs.E.and W., 9 ft. below top of spur; ascend.
- 11.15 Top of spur slopes W., 26 ft. above swale; descend.
- 18.93 Wash, course W., 35 ft. below top of spur; ascend.
- 27.90 Top of spur, slopes E., 93 ft. above wash; descend.
- 30.20 Gulch, course NW., 90 ft. below top of spur; ascend.
- 39.95 Intersect old $\frac{1}{4}$ sec.cor. hereinbefore described.
- Change cor. to refer to sec.30, and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high,E.of cor.
- 40.62 Set a limestone 16x10x8 ins., 12 ins. in the ground,for reestablished $\frac{1}{4}$ sec.cor.,to sec.25,T.18 N.,R.20 W., marked $\frac{1}{4}$ on W.face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft.high,W.of cor.
- 45.00 Top of spur, slopes W., 100 ft. above gulch; descend.
- 54.17 Gulch, course NW., 160 ft. below top of spur; descend.

Resurvey of the West bdy. of Township 18 North Range 19 West 15

Chains,

- 71.40 Gulch, course W., 485 ft. below top of spur; ascend.
- 74.90 Top of spur, slopes W., 28 ft. above gulch,; descend.
- 78.62 Intersect old witness cor. to cor. of secs. 19, 24, 25 and 30, hereinbefore described.
Change W.C. to refer to cor. of secs. 19 and 30, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
- 79.62 True point for cor. of secs. 19 and 30, in gulch, course W.
Land, rough and mountainous.
Soil, stony, 4th rate.
Undergrowth, cactus and greasewood.

- From true point for cor. of secs. 19 and 30, I run, N.0°10' E., on a true line on the W. bdy. of sec. 19.
Over rough, mountainous land; descend.
- 0.37 Gulch, course W., 46 ft. below top of spur, ascend.
- 1.00 Set a malpais stone, 16x12x8 ins., 12 ins. in the ground, for reestablished cor. of secs. 24 and 25, T.18 N., R.20 W., marked with 2 notches on S. edge, and 4 notches on N. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- 21.97 Foot of cliff rock, bears NW. and SE.; ascend.
- 22.17 Top of cliff rock, 570 ft. above gulch; continue to ascend.
- 40.00 Intersect old ¼ sec. cor., hereinbefore described.
Change cor. to refer to sec. 19, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
Thence I run, continuing measurement, N.0°7'E., on N. ½ of W. bdy. of sec. 19.
- 41.00 Set a malpais stone, 16x12x4 ins., 12 ins. in the ground for reestablished ¼ sec. cor. to sec. 24, T.18 N., R.20 W., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
- 45.90 Top of bench, brs. E. and W., 285 ft. above cliff rocks/
- 50.90 Leave bench, continue to ascend.
- 77.60 Top of ridge, brs. E. and W., 465 ft. above bench; descend.

16. Resurvey of the West bdy of T. 18 North Range 19 West.

Chains.

79.81

Intersect old cor. of secs. 13, 18, 19 and 24, hereinbefore described. Change cor. to refer to secs. 18 and 19, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

Land, rough, mountainous.

Soil, stony, 4th rate.

Undergrowth, cactus and greasewood.

N. $0^{\circ}6'$ E., on a true line, on the W. bdy. of sec. 18.

Descend over rough, mountainous land.

1.19

Set a malpais stone, 16x12x4 ins., 12 ins. in the ground, for reestablished cor. of secs. 13 and 24, T. 18 N., R. 20 W., marked with 3 notches on N. and S. edges, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

12.82

Gulch course SE., 142 ft. below top of ridge; ascend.

15.96

Top of spur, slopes E., 11 ft. above gulch; descend.

29.85

Gulch, course SE., 184 ft. below gulch; ascend.

40.32

Intersect old $\frac{1}{4}$ sec. cor. hereinbefore described.

Change cor. to refer to sec. 18, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

41.19

Set a malpais stone, 16x10x6 ins., 12 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor., to sec. 13, T. 18 N., R. 20 W., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

42.25

Top of spur, slopes SE., 125 ft. above gulch; descend.

71.40

Gulch, course NE., 520 ft. below top of spur; ascend.

75.16

Top of spur, slopes E. 168 ft. above gulch; descend.

80.35

Intersect old cor. of secs. 7, 12, 13 and 18, hereinbefore described. Change cor. to refer to secs. 7 and 18, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

Land, rough, mountainous.

Soil, stony, 4th rate.

Undergrowth, cactus and greasewood.

Resurvey of the West bdy. of Township 18 North Range 19 West. 17

Chains.

N.0° 6' E., on a true line on the W. bdy. of sec. 7.
Descend over rough, mountainous land.

0.84 Reestablish cor. of secs. 12 and 13, T. 18 N., R. 20 W., as follows, on a malpais stone in place, 5x4x3 ft. above ground, mark a cross (x) at point for cor. of secs. 12 and 13, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

8.72 Gulch, course E., 225 ft. below top of spur; ascend.

13.56 Top of spur, slopes E., 82 ft. above gulch; descend.

28.28 Gulch, course SE., 140 ft. below top of spur; ascend.

40.22 Intersect old ¼ sec. cor., hereinbefore described.
Change cor. to refer to sec. 7, and raise a mound of stone 2 ft. base, 1½ ft. high, E. of cor.

Thence I run, North, continuing measurement on N. ½ of W. bdy. of sec. 7.

40.84 Set a malpais stone, 18x8x8 ins., 14 ins. in the ground, for reestablished ¼ sec. cor. to sec. 12, T. 18 N., R. 20 W. marked ¼ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

53.57 Enter mesa, brs. NW. and SE., 495 ft. above gulch.

80.14 Intersect old cor. of secs. 1, 6, 7 and 12, hereinbefore described. Change cor. to refer to secs. 6 and 7, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, rough, mountainous.

Soil, stony, 4th rate.

Undergrowth, cactus and greasewood.

N.0° 12' E., on a true line on the W. bdy. of sec. 6.
Over level land.

0.70 Set a malpais stone, 18x10x8 ins. 14 ins. in the ground, for reestablished cor. of secs. 1 and 12, T. 18 N., R. 20 W., marked with 1 notch on N. edge, and 5 notches on S. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.

7.00 Leave mesa, brs. E. and W.; descend.

18. Resurvey of the West bdy. of Township 18 N., R. 19 W.

Chains.

- 22.55 Gulch, course W., 295 ft. below mesa; ascend.
- 31.25 Enter mesa, bears NW. and SE., 130 ft. above gulch.
- 40.18 Intersect old $\frac{1}{4}$ sec.cor., hereinbefore described.
Change cor. to refer to sec.6, and raise a mound of stone,
2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
Thence I run, continuing measurement, N. $0^{\circ}6'$ E. on N. half
of W. bdy. of sec.6.
- 40.70 Set a malpais stone, 16x10x4 ins., 12 ins. in the ground,
for reestablished $\frac{1}{4}$ sec.cor., to sec.1, T.18 N., R.20 W.,
marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft.
base, $1\frac{1}{2}$ ft. high, W. of cor.
- 73.93 Gulch, course SW.; ascend.
- 78.18 Old cor. to Ts. 18 and 19 N., Rs. 19 and 20 W., hereinbefore
described, 56 ft. above gulch.
Land, rolling and level.
Soil, stony, 4th rate.
Undergrowth, cacti and greasewood.

March 11, 1915.

Otis Ross,
U.S. Surveyor.Retracement of South $\frac{1}{2}$ of East bdy. of Township 18 North,
Range 21 West.Retracement and resurvey by Guy H. Richardson, U.S. Surveyor,
as follows:

March 9, 1915: I commence at old cor. of Ts. 17 and 18 N.,
Rs. 20 and 21 W., described in Book "A," and at 9h. Om.,
a.m., l.m.t., set off $4^{\circ}43'S$. on the decl. arc; and 34°
 $54'$ on the lat. arc; and determine a meridian with the
solar.

Thence I run,

North, on random line, bet. secs. 31 and 36.

Over rolling, rocky land; ascend.

2.00 Descend.

30.00 Wash, course SW. Ascend.

40.08 Fall 1 lk. east of old $\frac{1}{4}$ sec.cor., which is a malpais
stone in place, marked and witnessed as described by

Retracement of South half of E. bdy. of Tp. 18 N., R. 21 W. 19.

Chains.

the Surveyor General.

True course and dist. of south half bet. secs. 31 and 36 is N. 0° 1' W., 40.08 chs.

Continue random line and measurement.

80.12 Fall 5 lks. E. of old cor. of secs. 25, 30, 31 and 36, which is a lava stone, 12x10x6 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of N. half, bet. secs. 31 and 36 is N. 0° 3' W., 40.04 chs.

From old cor. of secs. 25, 30, 31 and 36, I run, North, on random line, bet. secs. 25 and 30.

Over rolling land.

25.00 Wash, course SW.

40.12 Fall 2 lks. E. of old 1/4 sec. cor., which is a lava stone, 12x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of S. 1/2 bet. secs. 25 and 30 is N. 0° 2' W., 40.12 chs.

Continue random line and measurement.

78.00 Wash, course SW. Thence over level land.

80.45 Fall 2 lks. W. of old cor. of secs. 19, 24, 25 and 30, which is a lava stone, 10x8x6 ins., above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of N. 1/2, bet. secs. 25 and 30 is N. 0° 3' E., 40.33 chs.; therefore the 1/4 sec. cor. now refers to sec. 25 only.

From old cor. of secs. 19, 24, 25 and 30, I run, North, on random line, bet. secs. 19 and 24.

Over rolling land; ascend.

20.50 Top of spur, slopes SW. Descend.

24.50 Wash, 20 lks. wide, course SW. Ascend.

32.20 Top of spur, slopes SW. Descend.

39.58 Fall 1 link E. of old 1/4 sec. cor., which is a lava stone

20. Retracement and resurvey of East bdy. of T. 18 N. R. 21 W. Chains.

10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of S. 1/2, bet. secs. 19 and 24 is N. 0° 1' W., 39.58 chs. Therefore, the 1/4 sec. cor. now refers to sec. 24 only.

Continue random line and measurement.

50.00 Wash, course SW.; ascend.

79.75 Fall 5 lks. E. of old cor. of secs. 13, 18, 19 and 24, which is a lava stone, 8x6x6 ins. above ground, marked and witnessed as described by the Surveyor General.

True course and dist. of N. 1/2 bet. secs. 19 and 24 is N. 0° 3' W., 40.17 chs.

At old cor. of secs. 13, 18, 19 and 24, at apparent noon, I set off 4° 40' S. on the decl. arc, and observe the sun on the meridian for lat. The resulting lat. is 34° 56 1/2' N.

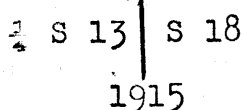
Resurvey of North 1/2 of East bdy. of Township 18 N., R. 21 W.

As there are no subdivisions depending upon the north three miles of the East bdy. of this Tp., I destroy all trace of the old cors. found in this portion of the Tp. bdy., and reestablish the cors. at intervals of 40 chs., as follows:

From old cor. of secs. 13, 18, 19 and 24, I run, North, on true line, bet. secs. 13 and 18. Over rolling land.

19.90 Wash, course SW.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 1/4 sec. cor., with a brass cap, marked



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

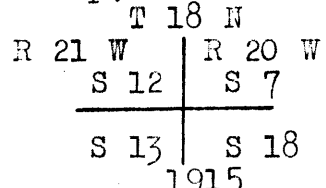
64.86 Wash, course SW.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in

Retracement and Resurvey of East bdy. of Township 18 N R 21 W 21

Chains.

the ground for reestablished cor. of secs. 7, 12, 13 and 18,
with a brass cap, marked



1915
and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of
cor.

Land, rolling. Soil, stony, 4th rate. No timber.

Undergrowth greasewood and sagebrush.

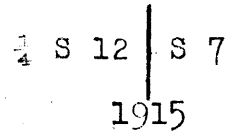
North, bet. secs. 7 and 12.

Over rolling land.

24.86 Wash, course SW.

36.56 Wagon road from Needles to Oatman, brs. NE. and SW.

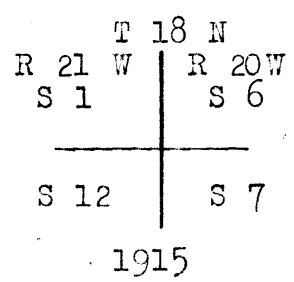
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
the ground for reestablished ¼ sec. cor., with a brass
cap, marked



and raise a mound of stone, 2 ft. base, 1½ ft. high, W.
of cor.

55.00 Wash, course SW.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for reestablished cor. of secs. 1, 6, 7 and
12, with a brass cap, marked



and raise a mound of stone, 2 ft. base, 1½ ft. high,
W. of cor.

Land, rolling.

Soil, stony, 3rd rate.

No timber.

Undergrowth, cactus, ocotillo and greasewood.

22. Resurvey of North half of East bdy. of T. 18 N., R. 21 W.

Chains.

North, bet. secs. 1 and 6.

Over rolling land.

- 9.85 Wash, course SW.
 24.83 Wash, course SW.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., with a brass cap, marked

$$\begin{array}{c} \frac{1}{4} \text{ S } 1 \quad | \quad \text{S } 6 \\ \hline 1915 \end{array}$$

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

- 69.87 Wash, course SW,

- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of Ts. 18 and 19 N., Rs. 20 and 21 W., with a brass cap, marked

$$\begin{array}{c} \text{T } 19 \text{ N} \\ \text{R } 21 \text{ W} \quad | \quad \text{R } 20 \text{ W} \\ \text{S } 36 \quad \quad | \quad \text{S } 31 \\ \hline \text{S } 1 \quad \quad | \quad \text{S } 6 \\ \text{T } 18 \text{ N} \\ 1915 \end{array}$$

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

Land, rolling..

Soil, stony, 4th rate.

No timber.

Undergrowth, cactus, greasewood and sagebrush.

March 9, 1915.

Guy H. Richardson,

U.S. Surveyor.

Chains.

Retracement commenced on April 26, 1915, and executed by Guy H. Richardson, U.S. Surveyor, with a Young and Sons' light mountain transit No. 8484. The instrument is provided with a Smith solar attachment, and was approved by the Assistant Supervisor of Surveys for Arizona and California on Jan. 31, 1915. For field test of instrument on a Polaris meridian, see page 9 of this book.

At old cor. of Ts. 18 and 19 N., Rs. 19 and 20 W., which is a malpais stone 18x10x8 ins., above ground, marked and witnessed as described by the Surveyor General, at 10h. Om., a.m., l.m.t., I set off 13°20' N. on the decl. arc; 34°59' on the lat. arc, and determine a meridian with the solar.

Thence I run,
North, on a random line, bet. secs. 31 and 36.
Over rough, mountainous land.

28.00 Draw, 5.00 chs. wide, course S.20°W. Ascend.

39.09 Fall 5 lks. W. of old 1/4 sec. cor., which is a stone, 8x10x10 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and distance of S. 1/2 bet. secs. 31 and 36 is N. 0°4'E., 39.09 chs.; therefore this 1/4 sec. cor. now refers to sec. 31 only.

Continue random line and measurement.

45.00 Top of ascent; descend.

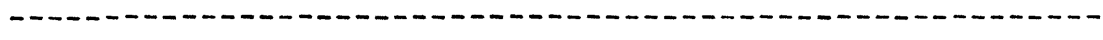
50.00 Draw, 2.00 chs. wide, course S.60°E. Ascend.

54.00 Top of ascent. Descend.

65.00 Ravine, course SE. Ascend.

79.88 Fall 25 lks. W. of old cor. of secs. 25, 30, 31 and 36, which is a stone 6x10x8 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of N. 1/2 bet. secs. 31 and 36 is N. 0°17'E., 40.79 chs.



Retracement of West bdy. of Township 19 North, Range 19 West. 25

Chains.	
	From old cor. of secs. 25, 30, 31 and 36, I run, North, on a random line, bet. secs. 25 and 30. Over rough, mountainous land.
2.00	Descend.
5.00	Draw, course S.80°W. Ascend.
39.54	Fall 19 lks.E. of old $\frac{1}{4}$ sec.cor., which is a stone 14x12 x 8 ins. above ground, marked and witnessed as described by the Surveyor General. Course and dist. of S. $\frac{1}{2}$ bet. secs. 25 and 30 is N.0°16'W., 39.54 chs. Therefore this $\frac{1}{4}$ sec.cor. now refers to sec.30 only. Continue random line and measurement.
46.20	Top of rocky ridge, brs.NW. and SE. Descend.
80.00	Fall 42 lks.E. of old cor. of secs. 19, 24, 25 and 30, which is a stone 10x8x7 ins. above ground, marked and witnessed as described by the Surveyor General. Course and dist. of N. $\frac{1}{2}$ bet. secs. 25 and 30 is N.0°20'W., 40.46 chs.

	From old cor. of secs. 19, 24, 25 and 30, I run, North, on a random line, bet. secs. 19 and 24. Over mountainous land. Descend.
15.00	Draw, course N.75° E. Ascend.
18.50	Top of spur, slopes E. Descend.
37.70	Draw, course N.75°E. Ascend.
40.37	Fall 25 lks.E. of old $\frac{1}{4}$ sec.cor., which is a stone, 10x12x12 ins. above ground, marked and witnessed as described by the Surveyor General. Course and dist. of S. $\frac{1}{2}$ bet. secs. 19 and 24 is N.0°21'W., 40.37 chs.; therefore, this $\frac{1}{4}$ sec.cor. now refers to sec.19 only. Continue random line and measurement.
45.50	Ascend over perpendicular cliff, 150 ft. high.
80.13	On top of high, rocky ridge, brs.E. and W. Fall 48 lks.E. of old cor. of secs. 13, 18, 19 and 24, which is a stone, 10x12x14 ins. above ground, marked and witnessed as

Chains.

described by the Surveyor General.

Course and dist. of N. $\frac{1}{2}$ bet. secs. 19 and 24 is N. $0^{\circ}20'$ W., 39.76 chs.

April 26, 1915.

April 27, 1915: At old cor. of secs. 13, 18, 19 and 24, at 9h. 0m. a.m. l.m.t., I set off $13^{\circ}39'$ N. on the decl. arc; $35^{\circ}2'$ on the lat. arc, and determine a meridian with the solar.

Thence I run,

North, on a random line, bet. secs. 13 and 18.

Over mountainous land. Descend rocky N. slope.

18.30 Draw, course N. $70^{\circ}E$ Ascend.

24.80 Top of spur, slopes E. Descend.

40.40 Fall 12 lks. W. of old $\frac{1}{4}$ sec. cor., which is a stone, 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of S. $\frac{1}{2}$ bet. secs. 13 and 18 is N. $0^{\circ}10'$ E., 40.40 chs.; therefore this $\frac{1}{4}$ sec. cor. now refers to sec. 18 only.

Continue random line and measurement. Descending.

51.00 Descend over perpendicular cliff 50 ft. high.

80.14 Fall 17 lks. W. of old cor. of secs. 7, 12, 13 and 18, which is a stone, 8x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of N. $\frac{1}{2}$ bet. secs. 13 and 18 is N. $0^{\circ}4'E$. 39.74 chs.

From old cor. of secs. 7, 12, 13 and 18, I run,

North, on a random line, bet. secs. 7 and 12.

Over mountainous land, draining E. Descend.

14.00 Power line brs. E. and W.

15.87 Wagon road brs. E. and W.

18.00 Draw, N. $78^{\circ}E$. Ascend.

40.04 Fall 4 lks. E. of old $\frac{1}{4}$ sec. cor., which is a stone, 7x5x9 ins. above ground, marked and witnessed as described

Retracement of the West bdy. of Township 19 North, Range 19 West 27

Chains.

by the Surveyor General.

Course and dist. of S. 1/2 bet. secs. 7 and 12 is N. 0° 3' W.,
40.04 chs.

Continue random line and measurement.

64.75 Top of spur, slopes E. Descend.

74.50 Draw, course S. 65° E. Ascend.

79.97 Fall 7 lks. W. of old cor. of secs. 1, 6, 7 and 12, which is
a stone, 12x4x6 ins. above ground, marked and witnessed
as described by the Surveyor General.

Course and dist. of N. 1/2 bet. secs. 7 and 12 is N. 0° 9' E.,
39.93 chs.

The length of both S. 1/2 and N. 1/2 bet. secs. 7 and 12 being
within prescribed limits the 1/4 sec. cor. remains com-
mon to both secs.

From old cor. of secs. 1, 6, 7 and 12, I run,
North, on a random line, bet. secs. 1 and 6.

Over broken, mountainous land, draining E. Ascend.

7.00 Top of spur, slopes E. Descend.

10.00 Ravine, course E. Ascend.

15.00 Descend.

20.00 Ravine, course E. Ascend.

39.96 Fall 5 lks. E. of old 1/4 sec. cor., which is a stone, 10x7x4
ins. above ground, marked and witnessed as described
by the Surveyor General.

Course and dist. of S. 1/2 bet. secs. 1 and 6 is N. 0° 4' W.,
39.96 chs.; therefore, the 1/4 sec. cor. remains common
to both secs.

Continue random line and measurement.

50.00 Ridge, brs. E and W. Descend.

60.00 Draw, course N. 75° W. Ascend.

70.50 Spur slopes W.; descend.

73.00 Ravine, course SW. Ascend.

80.00 Top of ridge, brs. E. and W.

81.00 Fall 12 lks. W. of old cor. of Ts. 19 and 20 N., Rs. 19 and 20
W., described in Book "A."

28 ~~25~~. Retracement of the W. bdy. of Township 19 North, Range 19 W.
Chains.

Course and dist. of N. $\frac{1}{2}$ bet. secs. 1 and 6 is N. $0^{\circ}14'E.$,
41.04 chs.

The mean bearing of the W. bdy. of T. 19 N., R. 19 W. is
N. $0^{\circ} 2' W.$

April 27, 1915.

Guy H. Richardson,

U.S. Surveyor.

Resurvey of East $\frac{1}{2}$ of North bdy. of Township 18 N., R. 21 W.

Resurvey commenced March 24, 1915, and executed by Guy H.
Richardson, U.S. Surveyor, with Young and Sons' light
mountain transit No. 8484, with Smith solar attachment.

The instrument was approved by the Assistant Supervisor
of Surveys for Arizona and California on Jan. 31, 1915.

For field test of instrument, see page 9 of this book.

As there are no subdivisions depending upon the original
line, I destroy all trace of the old cors., and re-
survey as follows:

At reestablished cor. of Ts. 18 and 19 N., Rs. 20 and 21 W.,
hereinbefore described, at 9h. 0m., a.m., l.m.t., I set
off $1^{\circ}12'N.$ on the decl. arc; $34^{\circ}59'$ on the lat. arc, and
determine a meridian with the solar.

Thence I run,

West on a random line on the N. bdy. of T. 18 N., R. 21 W.,
setting temp. cors. at intervals of 40.00 chs., and at

240.75 Intersect a point 35 lks. S. of old cor. of secs. 3, 4, 33 and
34, which is a lava stone, 8x6x4 ins., above ground,
marked and witnessed as described by the Surveyor Gen-
eral.

Change this cor. to refer to secs. 3 and 4 only by moving
stone mound south of cor.

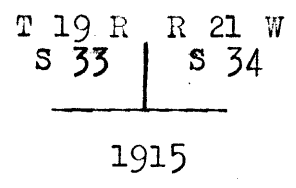
The falling of 35 lks. S. in the 3 miles of line gives a
return true course of S. $89^{\circ}55'E.$

Resurvey of East half of N. bdy. of Township 18 N., R. 21 West. 29

Chains.

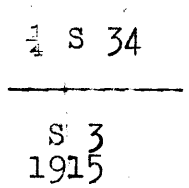
Thence I run,
S. 89° 55' E., on true line on N. bdy. of sec. 3.
Over level land.

0.75 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for reestablished cor. of secs. 33 and 34, T.
19 N., R. 21 W., with a brass cap, marked



and raise a mound of stone, 2 ft. base, 1½ ft. high,
N. of cor.

40.75 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for reestablished ¼ sec. cor., with a brass
cap, marked

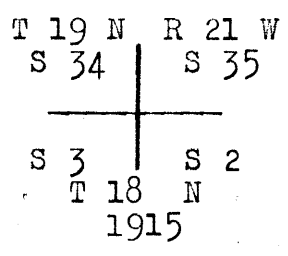


and raise a mound of stone, 2 ft. base, 1½ ft. high, N.
of cor.

60.75 Wash, course SW.

71.75 Wagon road brs. NE. and SW.

80.75 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for reestablished cor. of secs. 2, 3, 34 and
35, marked on brass cap,



and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of
cor.

Land, level.

Soil, stony, 4th rate.

Undergrowth, cactus and greasewood.

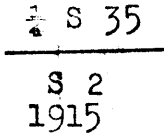
30. Resurvey of E. half of N. bdy. of Township 18 N., R. 21 W.

Chains.

S. 89° 55' E., on a true line, bet. secs. 2 and 35.

Over level land.

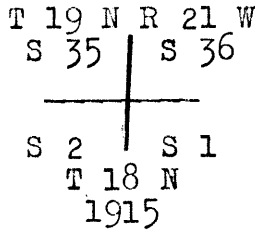
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., with a brass cap marked



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

58.00 Wash, course SW.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 1, 2, 35 and 36, with a brass cap, marked



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

Land, level.

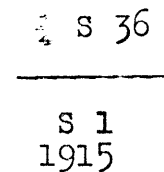
Soil, stony, 4th rate.

Undergrowth, cacti and greasewood.

S. 89° 55' E., on a true line, bet. secs. 1 and 36.

Over level land.

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



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

80.00 Reestablished cor. of Ts. 18 and 19 N., Rs. 20 and 21 W., hereinbefore described.

Resurvey of East 1/2 of North bdy. of Township 18 N., R. 21 W. 31

Chains.

Land, level.
Soil, stony, 4th rate.
Undergrowth, cacti and greasewood.

March 24, 1915.

Guy H. Richardson,

U.S. Surveyor.

Retracement of West half of N. bdy. of Township 18 N.R. 21 W.

Mar. 31, 1915: Retracement by Otis Ross, U.S. Surveyor, as follows: At cor. of secs. 3 and 4, T. 18 N., R. 21 W., which is a lava stone, 8x6x4 ins. above ground, formerly cor. of 4 secs. but changed to refer to secs. 3 and 4 only as hereinbefore described, at 9h. 0m. a.m., l.m.t., I set off 3° 56' N. on the decl. arc; 34° 59' on the lat. arc; and determine a meridian with the solar.

Thence I run,

West, on a random line on N. bdy. of sec. 4.

40.08 Fall 13 lks. S. of old 1/2 sec. cor., which is a granite stone, 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of E. half of N. bdy. of sec. 4 is N. 89° 49' W.

40.08 chs.

Continue random line and measurement.

80.21 Fall 9 lks. S. of old cor. of secs. 4, 5, 32 and 33, which is a granite stone, 10x10x8 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of W. half of N. bdy. of sec. 4 is S. 89° 57' W.

40.13 chs.

From old cor. of secs. 4, 5, 32 and 33, I run,

West, on random line on N. bdy. of sec. 5.

40.15 Fall 20 lks. S. of old 1/2 sec. cor., which is a granite stone 20x18x10 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of E. half of N. bdy. of sec. 5 is N. 89° 43' W.

40.15 chs. Continue random line and measurement.

32.1. Retracement of West half of N. bdy. of Township 18 N., R. 21 W.
Chains.

80.22 Fall 2 lks. S. of old cor. of secs. 5, 6, 31 and 32, which is a granite stone, 10x8x8 ins. above ground, marked and witnessed as described by the Surveyor General.
Course and dist. of W. half of N. bdy. of sec. 5 is S. 89° 45' W., 40.07 chs.

From old cor. of secs. 5, 6, 31 and 32, I run,
West, on random line on N. bdy. of sec. 6.

40.17 Fall 2 lks. S. of old $\frac{1}{4}$ sec. cor., which is a granite stone 10x8x5 ins. above ground, marked and witnessed as described by the Surveyor General.
Course and dist. of E. half of N. bdy. of sec. 6 is N. 89° 58' W., 40.17 chs. Thence continue random line and measurement.

78.86 Fall 5 lks. S. of old cor. of Ts. 18 and 19 N., Rs. 21 and 22 W., which is a granite stone, 10x8x12 ins. above ground, marked and witnessed as described by the Surveyor General.
Course and dist. of W. half of N. bdy. of sec. 6 is N. 89° 58' W., 38.69 chs.

Otis Ross,

U.S. Surveyor.

Resurvey of West half of N. bdy. of Township 18 N., R. 21 W.

Resurvey executed by Otis Ross, U.S. Surveyor, as follows:
I commence at reestablished cor. of secs. 3 and 4, T. 18 N., R. 21 W., hereinbefore described, and run, N. 89° 49' W., on a true line on the N. bdy. of sec. 4.
Over level land.

39.25 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. to sec. 33, T. 19 N., R. 21 W., with a brass cap, marked

$\frac{1}{4}$ S 33

1915

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

Retracement and Resurvey of West half of N. bdy. of T. 18 N. R. 21 W. 33.

Chains.

40.08 Old $\frac{1}{4}$ sec cor., hereinbefore described.
 Change this cor. to refer to sec. 4, by raising a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
 Thence I run,
 S. $89^{\circ}57'W.$, continuing measurement.

79.25 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished corner of secs. 32 and 33, T. 19 N., R. 21 W., with a brass cap, marked

T 19 N	R 21 W
S 32	S 33

1915	

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

80.21 Old cor. of secs. 4, 5, 32 and 33, hereinbefore described.
 Change this cor. to refer to secs. 4 and 5 by raising a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
 Land, level.
 Soil, stony, 4th rate.
 Undergrowth, cactus and greasewood.

 N. $89^{\circ}43'W.$, on a true line on N. bdy. of sec. 5.
 Over level land.

39.04 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., to sec. 32, T. 19 N., R. 21 W., with a brass cap, marked

$\frac{1}{4}$ S 32

1915

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

40.15 Old $\frac{1}{4}$ sec. cor. hereinbefore described.
 Change this cor. to refer to sec. 5 by raising a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
 Thence I run, continuing measurement, S. $89^{\circ}45'W.$

34 Resurvey of W. half of North bdy. of Township 18 N., R. 21 W.

Chains.

60.00 Wash, course SW.

79.04 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 31 and 32, T. 19 N., R. 21 W., with a brass cap, marked

T 19 N R 21 W

S 31 | S 32

1915

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

80.22 Old cor. of secs. 5, 6, 31 and 32, hereinbefore described. Change this cor. to refer to secs. 5 and 6 by raising a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land, level.

Soil, stony 4th rate.

Undergrowth, cactus and greasewood.

From reestablished cor. of secs. 5 and 6, T. 18 N., R. 21 W.,

I run,

N. $89^{\circ}58'$ W., on a true line, on the N. bdy. of sec. 6.

Over level land.

38.82 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., to sec. 31, T. 19 N., R. 21 W., with brass cap, marked

$\frac{1}{4}$ S 31

1915

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

40.17 Old $\frac{1}{4}$ sec. cor. hereinbefore described. Change to refer to sec. 6 only by raising a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high S. of cor. Continue line and measurement.

78.86 Old cor. of Ts. 18 and 19 N., Rs. 21 and 22 W. hereinbefore described.

Land, level.

Resurvey of West half of N.bdy.of Township 18 N.,R.21 W. 35

Chains

Soil, stony, 4th rate.

Undergrowth, cactus and greasewood.

March 31, 1915.

Otis Ross,

U.S.Surveyor.

Resurvey of East bdy. of frac. Township 20 N.,R.22 W.

Resurvey commenced April 6, 1915, and executed by Hugo Price, U.S. Transitman, with Young and Sons' light mountain transit No. 8477, provided with solar attachment, approved by the Assistant Supervisor of Surveys for Arizona, and California on January 31, 1915. For field test of instrument on a Polaris meridian, see page 9, this book.

Note: It is apparent from the position of sec. 17, frac. T. 20 N., R. 22 W., identified by the original cors. on the S. bdy. thereof, that the E. bdy. of the Tp. as originally surveyed in 1873, is out of position approximately 2 miles and 13.40 chs. to the east. I am unable to find any trace of the old survey, and as there are no subdivisions depending upon it, I resurvey a new line north, as follows:

I commence at old cor. of Ts. 19 and 20 N., Rs. 21 and 22 W., which is a lava stone, 18x12x12 ins., above ground, marked and witnessed as described by the Surveyor General, and at 9h. Om., a.m., l.m.t., set off 6°14' N. on the decl. arc; 35°4' N. on the lat. arc, and determine a meridian with the solar, and run

North, bet. secs. 31 and 36.

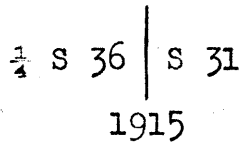
Descend over rolling land.

- 4.77 Wash, course SW., 77 ft. below tp. cor.; ascend.
- 12.90 Top of mesa, brs. E. and W., 60 ft. above wash; thence over level land.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished 1/4 sec. cor., with a brass

36 Resurvey of East bdy. of frac. Township 20 North, Range 22 W.

Chains.

cap, marked

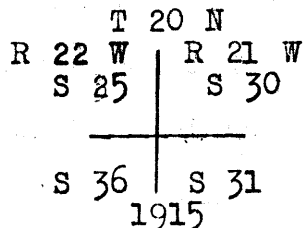


and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

42.00 Old road, brs. E. and W.

79.92 Gulch, course W.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 20 ins. in the ground to solid rock, in a mound of stone, for re-established cor. of secs. 25, 30, 31 and 36, with a brass cap, marked



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

Land, rolling and level.

Soil, stony, 4th rate.

Undergrowth, greasewood and sagebrush and rosin weed.

North bet. secs. 25, and 30. Ascend over rolling land.

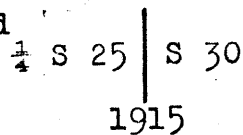
4.96 Top of 36 ft. ascent. Descend.

13.90 Foot of 68 ft. descent; gulch, course SW. Ascend.

19.84 Top of spur, slopes W., 57 ft. above gulch; descend.

34.70 Gulch, course W., 50 ft. below top of spur; ascend.

40.00 23 ft. above gulch, set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to solid rock, in a mound of stone for reestablished $\frac{1}{4}$ sec. cor., with a brass cap, marked



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

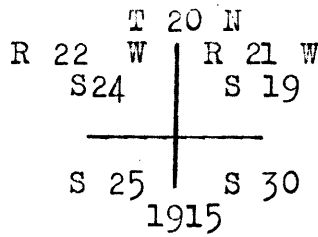
59.93 Gulch, course W., 68 ft. below $\frac{1}{4}$ sec. cor.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 20 ins. in the ground, to solid rock, in a mound of stone, for re-

Resurvey of East bdy. of frac. Township 20 North, Range 22 W. 35.37

Chains.

established cor. of secs. 19, 24, 25 and 30, with a brass cap marked



and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, rolling.

Soil, stony, 4th rate.

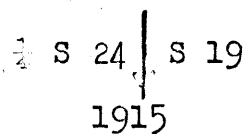
Undergrowth, greasewood and sagebrush; no grass.

April 6, 1915: At the cor. of secs. 19, 24, 25 and 30, at apparent noon, I set off 6° 16½' N. on the decl. arc; and observe the sun on the meridian for lat. The resulting latitude is 35° 6' N.

North, bet. secs. 19 and 24.

Over rolling land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished ¼ sec. cor., with a brass cap, marked



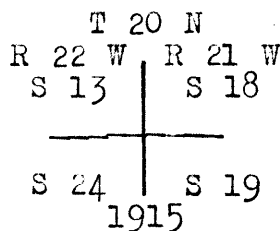
and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Ascend.

44.97 Top of spur, slopes W., 35 ft. above ¼ sec. cor.; descend.

49.88 Gulch, course W., 63 ft. below top of spur.

68.70 Old road, brs. E. and W.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 20 ins. in the ground to solid rock, in a mound of stone, for reestablished cor. of secs. 13, 18, 19 and 24, with a brass cap, marked,



38 36. Resurvey of East bdy. of frac. Township 20 North Range 22 W.

Chains.

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

Land, rolling.

Soil, stony, 4th rate.

Undergrowth, greasewood and sagebrush; no grass.

North, bet. secs. 13 and 18.

Descend over rolling land.

4.95 Montana Wash., course N. 5° W., 45 ft. below sec. cor.

9.95 Road, brs. NW. and SE.

19.95 Leave Montana Wash.; ascend.

22.70 Top of spur, slopes W., 87 ft. above gulch; descend.

24.60 Swale, course W., 40 ft. below top of spur; ascend.

37.59 Top of spur, slopes W., 40 ft. above swale; descend.

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

$$\begin{array}{c} \frac{1}{4} \text{ S } 13 \quad | \quad \text{S } 18 \\ \hline 1915 \end{array}$$

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

44.80 Gulch, course W., 115 ft. below top of spur; ascend.

49.68 Top of spur, slopes W., 74 ft. above gulch; descend.

54.38 Gulch, course W., 113 ft. below top of spur; ascend.

57.89 Top of spur, slopes W., 52 ft. above gulch; descend.

80.00 40 ft. below top of spur, set an iron post 3 ft. long, 3
ins. in diam., 24 ins. in the ground for reestablished
cor. of secs. 7, 12, 13 and 18, with a brass cap, marked

$$\begin{array}{c} \text{T } 20 \text{ N} \\ \text{R } 22 \text{ W} \quad | \quad \text{R } 21 \text{ W} \\ \text{S } 12 \quad | \quad \text{S } 7 \\ \hline \text{S } 13 \quad | \quad \text{S } 18 \\ 1915 \end{array}$$

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

Land, rolling.

Soil, stony, 4th rate.

Chains.

Undergrowth, greasewood and sagebrush; no grass.

April 6, 1915.

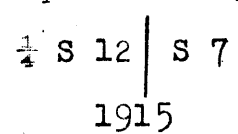
April 8, 1915: At reestablished cor. of secs. 7, 12, 13 and 18, at 9h.0m., a.m., l.m.t., I set off 6°59'N. on the decl. arc; 35°8'N. on the lat. arc; and determine a meridian with the solar.

Thence I run,

North, bet. secs. 7 and 12.

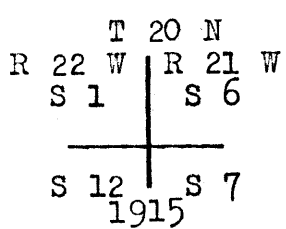
Ascend slightly over rolling land.

- 7.90 Spur slopes W., 25 ft. above sec. cor. Descend.
- 9.96 Wash, course W. 20 ft. below spur. Ascend.
- 12.40 Spur slopes W. 35 ft. above wash; descend.
- 14.85 Enter wash, course W. 40 ft. below spur.
- 32.35 Leave wash. Ascend.
- 40.00 Top of spur, slopes W., 150 ft. above wash, set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor., with a brass cap, marked



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

- 44.76 Gulch, course W., 100 ft. below $\frac{1}{4}$ sec. cor. Ascend.
- 46.03 Top of spur, slopes W., 18 ft. above gulch; descend.
- 49.66 Wash, course W., 50 ft. below top of spur. Ascend.
- 56.10 Top of spur, slopes W., 75 ft. above wash; descend.
- 61.72 Wash, course W., 84 ft. below top of spur.
- 64.42 Leave wash. Ascend.
- 69.29 Top of spur, slopes W., 74 ft. above wash; descend.
- 74.20 Gulch, course W., 60 ft. below top of spur. Ascend.
- 80.00 25 ft. above gulch, set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 1, 6, 7 and 12, with a brass cap, marked



40 Resurvey of East hdy. of Twp. 20 N., R. 22 W.

Chains.

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

Land, rolling.

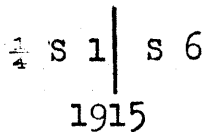
Soil, stony, 4th rate.

Undergrowth, greasewood, sagebrush; no grass.

North, bet. secs. 1 and 6.

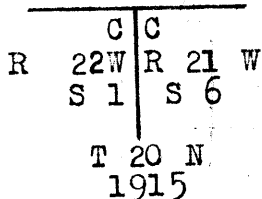
Ascend over rolling land.

- 9.95 Top of spur, slopes W., 60 ft. above sec. cor. Descend.
- 15.38 Gulch, course W., 50 ft. below top of spur; ascend.
- 19.85 Top of spur, slopes W., 40 ft. above gulch; descend.
- 24.80 Wash, course W., 45 ft. below top of spur; ascend.
- 36.67 Top of spur, slopes W., 47 ft. above wash; descend.
- 39.62 Gulch, course W., 34 ft. below top of spur; ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 1/4 sec. cor., with a brass cap, marked



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

- 41.36 Top of spur, slopes W., 20 ft. above gulch; descend.
- 44.77 Enter wash, course W., 70 ft. below top of spur; thence over sandy wash land, bears E. and W.
- 61.38 Intersect the 5th Standard Parallel N., 5.63 chs. W. of Std. 1/4 sec. cor. of sec. 31, T. 21 N., R. 21 W., which is an iron post, 3 ft. long, 1 in. in diam., 10 ins. above ground, with brass cap, properly marked and witnessed. (Reestablished under current group No. 44).
At point of intersection, set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor. of Ts. 20 N., Rs. 21 and 22 W., with a brass cap, marked



Chains.

and raise a mound of stone 2 ft. base, 1½ ft. high, S. of cor.

Land, rolling.

Soil, stony, 4th rate.

Undergrowth, greasewood and cactus.

At reestablished closing cor. of Ts. 20 N., Rs. 21 and 22 W. at apparent noon, I set off 7°2' N. on the decl. arc; and observe the sun on the meridian for lat. The resulting lat. is 35° 9' N.

April 8, 1915.

Hugo Price,

U.S. Transitman.

Retracement and resurvey of the South bdy. of frac. T. 20 N., R. 22 W.

April 6, 1915: Retracement and Resurvey executed by Guy H. Richardson, U. S. Surveyor as follows:

At old cor. of Ts. 19 and 20 N., Rs. 21 and 22 W. hereinbefore described, at 9h. 0m., a.m., l.m.t., set off 6°14' N. on the decl. arc; and 35°4' N. on the lat. arc, and determine a meridian with the solar.

Thence I run,

West, on a random line, bet. secs. 1 and 36.

Over rolling N. slope.

40.07 Fall 4 lks. S. of old ¼ sec. cor., which is a lava stone, 8x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.

Course and dist. of E. ½ bet. secs. 1 and 36 is N. 89°57' W., 40.07 chs.

Continue random line and measurement.

69.80 Wash, course S. 80° W.

80.27 Fall 2 lks. S. of old cor. of secs. 1, 2, 35 and 36, which is a lava stone 8x8x10 ins. above ground, marked and witnessed as described by the Surveyor General.

42 Retracement and Resurvey of the South bdy. of frac. T. 20 N. R. 22 W.

Chains

Course and dist. of W. $\frac{1}{2}$ bet. secs. 1 and 36 is S. $89^{\circ}58'W.$
40.20 chs.

West, on a random line, bet. secs. 2 and 35.

24.40 Edge of mesa; descend.

29.50 Foot of mesa. Thence over level land.

39.95 Fall 17 lks. S. of old $\frac{1}{4}$ sec. cor., which is a lava stone,
6x8x12 ins. above ground, marked and witnessed as de-
scribed by the Surveyor General.

Course and dist. of E. $\frac{1}{2}$ bet. secs. 2 and 35 is N. $89^{\circ}45'W.$,
39.95 chs.

Continue random line and measurement.

57.00 Enter river bottom. Dense undergrowth.

59.15 Wagon road brs. N. and S.

80.15 Fall 8 lks. S. of old cor. of secs. 2, 3, 34 and 35, which
is a lava stone, 20x10x6 ins., above ground, marked
and witnessed as described by the Surveyor General.

A mesquite, 3 ins. in diam., bears S. $37\frac{1}{4}^{\circ}W.$,
107 lks. dist.

A mesquite, 4 ins. in diam., brs. S. $31\frac{1}{2}^{\circ}E.$,
154 lks. dist.

These trees show evidence of blazes and scribe marks,
and are undoubtedly the old bearing trees.

Course and dist. of W. $\frac{1}{2}$ bet. secs. 2 and 35 is S. 89°
 $52'W.$, 40.20 chs.

April 6, 1915.

Resurvey of part of S. bdy. of frac. T. 20 N., R. 22 W.

Knowing that the Colorado River has obliterated all old
cors. to the west, from old cor. of secs. 2, 3, 34
and 35, I run,

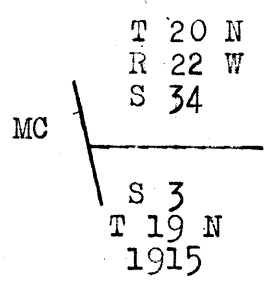
West, on a true line, bet. secs. 3 and 34.

1.50 Intersect left bank of Colorado River, brs. NW. and SE.

It is evident that the river is rapidly cutting toward
the east.

Resurvey of part of South bdy of frac Township 20 N, Range 22 W 43
Chains.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground at mean high water mark for meander cor. for frac. secs. 3 and 34, with a brass cap, marked



from which,

A mesquite, 4 ins. diam., brs. N. $59\frac{3}{4}^{\circ}$ W., 44 lks. dist., marked T 20 N R 22 W S 34 MC B T.

A mesquite, 4 ins. diam., brs. N. $21\frac{1}{4}^{\circ}$ E., 57 lks. dist., marked T 20 N R 22 W S 34 MC B T.

No trees available in frac. sec. 3 of fractional T. 19 N. R. 22 W.

(Note: This cor. is afterwards re-marked to refer to fractional secs. 3 and 32, as described in Book "I.")

April 6, 1915.

Guy H. Richardson,

U.S. Surveyor.

Resurvey of the West bdy. of frac. Township 20 N., R. 22 W.

Resurvey executed by Guy H. Richardson, U.S. Surveyor, as follows:

Apl. 9, 1915: At the cor. of secs. 13, 18, 19 and 24, reestablished at a point 80.00 chs. west of the original cor. of secs. 17, 18, 19 and 20, frac. T. 20 N., R. 22 W., both of which cors. are described in Book "I."

At 9h. Om. a.m., l.m.t., set off $7^{\circ}21\frac{1}{2}'$ N. on the decl. arc; $35^{\circ}7'$ N. on the lat. arc, and determine a meridian with the solar.

Thence I run,
North, bet. secs. 13 and 18.
Over level land.

44 Resurvey of West bdy of fractional Township 20 N., R. 22 W.

Chains.

40.00 After diligent search, I am unable to find any trace of the old 1/4 sec. cor.; therefore, reestablish as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with a brass cap, marked

1/4 S 13 | S 18
1915

and dig pits, 18x18x12 ins., N. and S. of post 3 ft. dist., and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

47.00 No trace of old meander cor. at this point.

47.90 Intersect left bank of Colorado River, course SW.

Set an iron post, 3 ft. long, 3/8 ins. in diam., 24 ins. in the ground for reestablished meander cor. of frac. secs. 13 and 18, with a brass cap, marked,

M C
S 13 | S 18
R 23 W | R 22 W
T 20 N
1915

from which

A willow, 7 ins. in diam., brs. N. 56 1/4° E., 13 lks. dist., marked T 20 N R 22 W S 18 M C B T.

A willow, 4 ins. in diam., brs. S. 39° W., 4 lks. dist., marked T 20 N R 23 W S 13 M C B T.

Land, level.

Soil, sandy loam, 1st rate.

Undergrowth, willow.

From reestablished cor. of secs. 13, 18, 19 and 24, described in Book "I," I run,

South, bet. secs. 19 and 24.

Over level land.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished 1/4 sec. cor., with a brass cap, marked

1/4 S 24 | S 19
1915

Chains

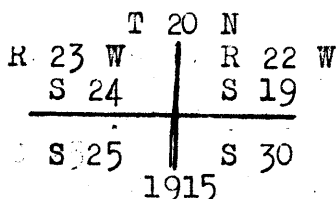
dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of cor. No trees available. No trace of old cor. found.

At this 1/4 sec. cor. at apparent noon, I set off 7°24' N. on the decl. arc, and observe the sun on the meridian for lat. The resulting latitude is 35° 6 1/2' N. April 9, 1915.

60.00 Wagon road, brs. NW. and SE.

75.00 Enter dense growth of arrowweed, brs. E and W.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 19, 24, 25 and 30, with a brass cap, marked



and dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor. No trees available. No trace of old cor. found.

Land, level.

Soil, sandy river bottom loam, 1st rate.

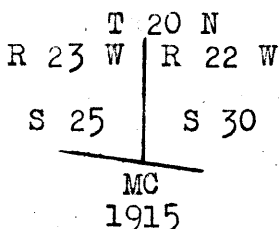
Undergrowth, arrowweed, and mesquite.

South, bet. frac. 1. secs. 25 and 30.

Over level land.

5.00 Intersect left bank of Colorado River, course SE.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for meander cor. of frac. 1. secs. 25 and 30, with a brass cap, marked



and dig a pit 36x36x12 ins., 8 ft. N. of post, and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor. No trees available.

Chains.

trees available.

Land, level.

Soil, sandy, 1st rate

Undergrowth, arrowweed.

April 9, 1915.

Guy H. Richardson,

U.S. Surveyor.

Retracement of 5th Standard Parallel N., thru. part of Range 19 West.

Retracement and resurvey commenced Dec, 16, 1915, and executed by Guy H. Richardson, U.S. Surveyor, with a Young and Sons' light mountain transit No. 8484, provided with a Smith solar attachment. The instrument was approved by the Assistant Supervisor of Surveys for Arizona and California on Jan. 31, 1915. For field test of instrument on a meridian established by Polaris observation; see notes of completion of Subdivision of T. 20 N., R. 19 W., in Book "N."

I commence at old Std. cor. of secs. 32 and 33, which is a stone, 12x10x10 ins., set in a mound of stone, and marked as described by the Surveyor General. At 9h. 0m. a.m., l.m.t., set off 23° 17 1/2' S. on the decl. arc, and 35° 9 1/2' N. on the lat. arc, and determine a meridian with the solar, and run,

West, on a random line on the S. bdy. of sec. 32.

40.00 After diligent search, I am unable to find any trace of old standard 1/4 sec. cor. It being impracticable to chain measurement on random line west from this point, I set temp. 1/4 sec. cor., and from a point on random line 0.41 chs. east of said temp. cor., I offset as follows:

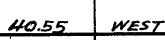
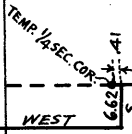
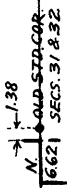
South, 6.62 chs. thence

West, 40.55 chs., thence

North, 6.62 chs. returning to my random line

at

80.14 A point 1.38 chs. S. of the old standard cor. of secs. 31 and 32, which is a stone, 16x12x10 ins. set in a mound of



Retracement of 5th Standard Parallel N., thru part of R.19 W. 47
Chains.

stone, and marked and witnessed as described by the Surveyor General.

True course and dist. of S.bdy.of sec.32 is therefore, S.89° 01'E., 80.15 chs.

Owing to exceptionally rough, mountainous land, it is impracticable to run a random line west from old standard cor.of secs. 31 and 32; therefore, I offset and triangulate as follows:

South, 8.00 chs. thence

East, 24.49 chs. to a point on top of ridge, where I set flag for triangulation.

Establish a triangulation point about 40 chs. west of flag.

From triangulation point, I lay off a base S.5° 30'W., 11.51 chs.

From SW end of base, flag brs.N.74° 30'E.

Included angles are 95°30', 15°30' and 69°00', the sum of which is 180°00'

Therefore dist.from the SW. end of base to flag is obtained by

$$\frac{\text{sine } 95^{\circ}30' \times \text{base}}{\text{sine } 15^{\circ}30'} \text{ of } \frac{.99540 \times 11.51}{.26724} = 42.87 \text{ chs.}$$

From SW. end of base, I continue offset line as follows:

West 8.20 chs. thence

N.81°00'W, 16.63 chs. where I intersect the temp.

closing cor.of Ts.20 N.,Rs. 19 & 20 W.,described in Book

"A." Thence

West, 34.34 chs. where I intersect the old Std. cor.of Ts.21 N.,Rs.19 and

20 W., which is a stone

24x16x12 ins., set in a mound of stone, marked and witnessed as described by the Surveyor General.

The random line as run bet. old Std. cor.of secs.31 and 32 and old Std.cor.of Ts.21 N.,Rs.19 and 20 W. is a

SEE DIAGRAM ON NEXT PAGE

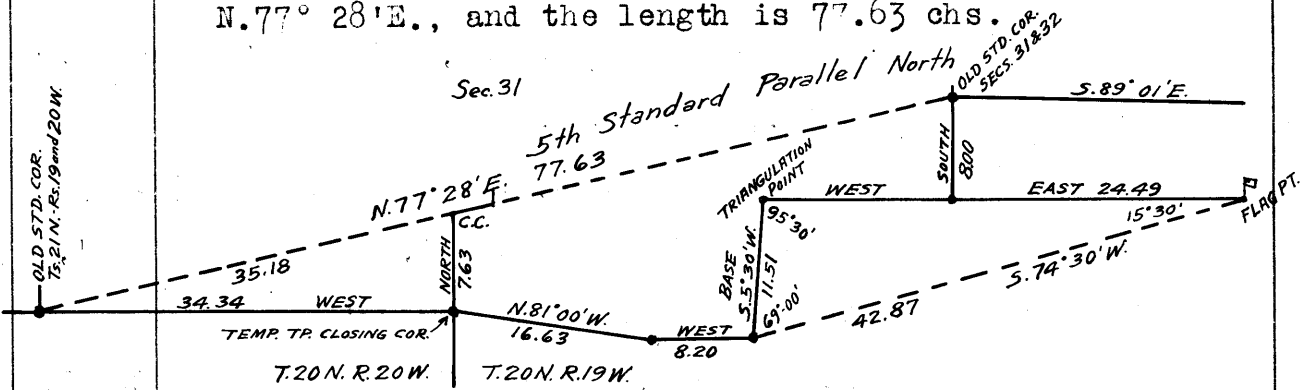
SEE DIAGRAM ON NEXT PAGE

48 Retracement of 5th Std. Parallel N. thru part of R. 19 W

traverse line, the solution of which is

Course	Bearing	Distance	N.	S.	E.	W.
1st	South	8.00		8.00		
2nd	East	24.49			24.49	
3rd	S.74°30'W.	42.87		11.45		41.31
4th	West	8.20				8.20
5th	N.81°0'W.	16.63	2.60			16.42
6th	West	34.34				34.34
Totals-----			2.60	19.45	24.49	100.27
Latitude-----				2.60		24.49
Departure-----				16.85		75.78

The true course bet. old Std.cor.of secs. 31 and 32, and old Std.cor.of Ts. 21 N., Rs.19 and 20 W. is therefore, N.77° 28'E., and the length is 77.63 chs.



Resurvey of 5th. Std. Parallel N., thru part of R. 19 West.

From old Std. cor. of Ts. 21 N., Rs. 19 and 20 W., I run, N.77°28'E., on a true line, on the S. bdy. of sec. 31.

Measurement by offset and triangulation hereinbefore described.

Over rough, mountainous land.

35.18 At a point on the true line 7.63 chs. N. of temp. closing cor. of Ts. 20 N., Rs. 19 and 20 W., described in Book "A." set an iron post, 3 ft. long, 3 ins. in diam., 12 ins. in the ground to solid rock, in a mound of stone, for closing cor., with a brass cap, marked

C	C
S 1	S 6
R 20 W	R 19 W
T 20 N	

1915

and raise a mound of stone, 2 ft. base, 1½ ft. high, S.

Chains.

of cor.

After diligent search, I am unable to find any trace of the old Std. $\frac{1}{4}$ sec. cor. Reestablish as follows:

38.82 (Proportional distance) set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, to solid rock, in a mound of stone, for Std. $\frac{1}{4}$ sec. cor., with a brass cap, marked

S C
 $\frac{1}{4}$ S 31

1915

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

61.60 (Approximate) Top of spur, slopes N.; descend.

77.63 Old Std. cor. of secs. 31 and 32, 640 ft. below top of spur.

Land, exceptionally rough and mountainous.

Soil, stony, 4th rate.

Undergrowth, greasewood and cacti.

No timber.

From old Std. cor. of secs. 31 and 32, I run, S. 89° 1' E., on a true line on the S. bdy. of sec. 32.

Ascend over rough, mountainous land.

23.90 Top of ridge, brs. NE. and SW., 290 ft. above Std. sec. cor.; descend.

40.07 True point for Std. $\frac{1}{4}$ sec. cor., falls on cliff rocks, impracticable to set iron post. Therefore at

40.14 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in the ground, to solid rock, in a mound of stone, for witness cor. to standard $\frac{1}{4}$ sec. cor., with a brass cap, marked

S C
 $\frac{1}{4}$ S 32
WC

1915

and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor., 775 ft. below top of ridge; continue to

148

50 1/2. Resurvey of 5th Standard Par. N. thru part of R. 19 W.

Chains.

descend.

80.14 Old standard cor. of secs. 32 and 33, 370 ft. below Std.

1/4 sec. cor.

Land, rough, mountainous.

Soil, stony, 4th. rate.

Undergrowth, greasewood and cacti.

No timber.

December 16, 1915.

Guy H. Richardson,

U.S. Surveyor.



150
BOOK 1077
51

FOR CERTIFICATES OF UNITED STATES SURVEYORS and
UNITED STATES TRANSITMAN

See Book "A" of this Group.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance
of special instructions received from the U. S. Surveyor General for _____
bearing date of the _____ day of _____, 191 _____, 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 _____
_____ of the _____
_____ Meridian, in the State of _____, which are represented in
the foregoing field notes as having been executed by me, and under my direction; and I do further
solemnly swear that all the corners of said survey have been established and perpetuated in strict accord-
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor
General for _____ and in the specific manner described in the field notes, and that
the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, *Feb. 26*, 1917

The foregoing field notes of the Resurvey of the West bdrs. of Ts. 17 and 18 N.,
R. 19 W., the North bdy. and N. half of East bdy. of T. 18 N., R. 21 W., the
East, West, and part of South bdy. of frac. T. 20 N., R. 22 W., and the
5th. Standard Parallel N., through part of Range 19 W.; and
Retracement of South half of East bdy. of T. 18 N., R. 21 W., the W. bdy.
of T. 19 N., R. 19 W., and part of the South bdy. of frac. T. 20 N., R.
22 W. of the Gila and Salt River Base and Meridian, Arizona,

executed by Guy H. Richardson & Otis Ross, U.S. Surveyors, & Hugo Price, U.S. Tran-
sitman, under special instructions dated January 4 and 28, 1915, for Group 43, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Frank A. Frost

U. S. Surveyor General.
for Arizona.

~~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.~~