

FIELD NOTES

of the

BOOK 2475

Resurveys and Retracements under Group No. 17, Arizona.

- South Boundary Township 22 South, Range 29 East,
- East Boundary Township 22 South, Range 29 East,
- South Boundary Township 21 South, Range 30 East,
- South Boundary Township 21 South, Range 31 East,
- East Boundary Township 21 South, Range 31 East,
- West Boundary fracl. Township 24 South, Range 29 East,
- Arizona-New Mexico Boundary Line, 371 M.-378 M-Mon. 71,
- West Boundary Township 19 South, Range 18 East,
- South Boundary Township 18 South, Range 18 East,
- Portion of West Boundary Township 23 South, Range 15 East,
- Portion of South Boundary Township 22 South, Range 15 East,

Of the Gila and Salt River Base and Meridian,
In the State of Arizona.

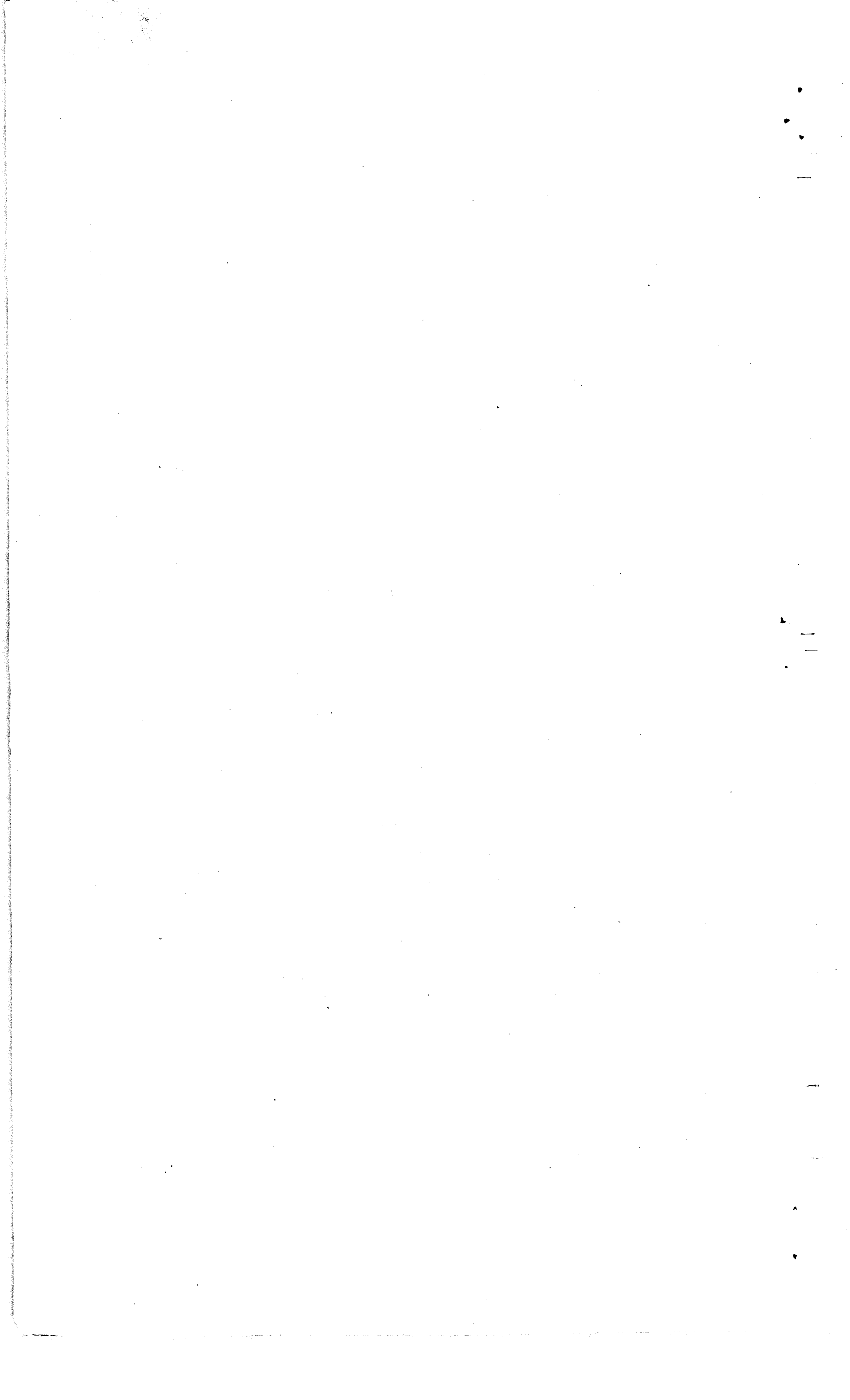
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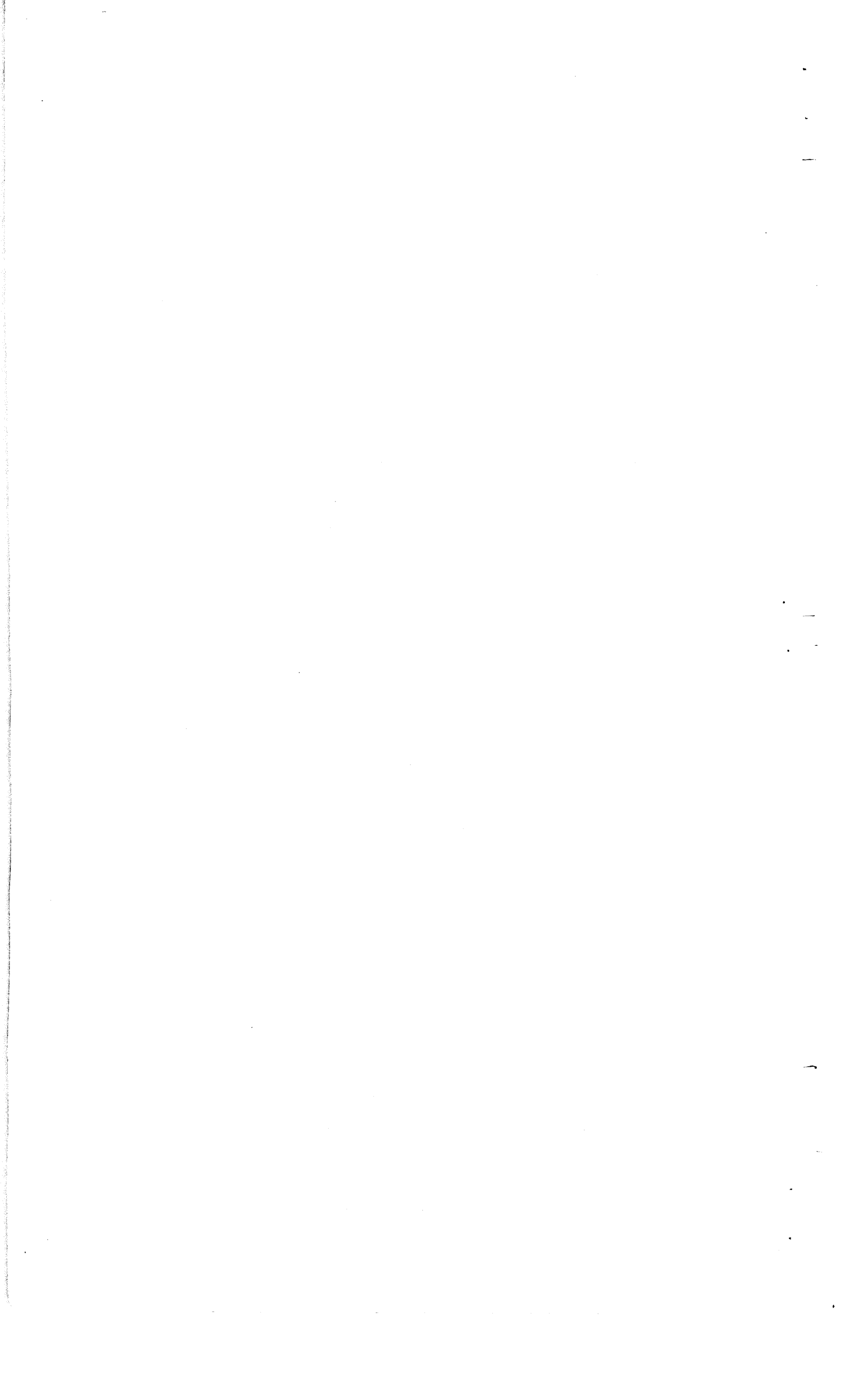
Jesse B. Wright,
and
William H. Elliott,

In the capacity of U. S. Surveyors, under special and supplemental instructions dated October 6, 1911, November 27, 1912, Jan. 13, 1913 and March 10, 1913, issued by the United States Surveyor General to govern surveys included in Group No. 17, which were approved by the Commissioner of the General Land Office, Oct. 14, 1911, Dec. 5, 1912, Feb. 4, 1913 and March 10, 1913, pursuant to authority contained in the Act of Congress dated August 24, 1912.

Resurvey and Retracement commenced Oct. 21, 1912.

Resurvey and Retracement completed March 27, 1913.





Chains. Resurveys and Retracements

Work begun under Group No. 17 begun Oct. 21, 1912, and executed jointly by Jesse B. Wright and William H. Elliott, U. S. Surveyors, Wright using transit No. 8145, and Elliott using transit No. 8492, both made by Young & Sons, with Smith patent solar attachments. The plates of the instruments reading by two double verniers placed opposite to each other to 1' of arc, which is also the least reading of the verniers of the lat. and declination arcs.

We establish temporary camp near the cor. of secs. 34, 33 & 34 on S. bdy. of T. 22S. R. 29E., ^{Lat. 31° 27' 50" N., Long. 109° 23' W.} which is a granite stone 12x10x6 ins. above ground, marked and witnessed as described by the

Surveyor General, and at this cor., we test and adjust the levels, the standards, the lines of collimation and the lat. arcs of the instruments. Then, in order to test the solars by comparison of meridians determined thereby, with a true meridian as established by observation of Polaris, we proceed as follows: -

At the above described cor., at 5h p.m., l.m.t., we set off $31^{\circ}28'$ N. on the lat. arcs, and $10^{\circ}47'S.$ on the decl. arcs, and determine meridians with the solars, and mark the meridians thus determined by tacks in a stake driven firmly in the ground 5 chs. N. of our station, points marked W-1, and E-1, for transits Nos. 8145, and 8492 respectively. Oct. 21, 1912.

Oct. 22, 1912.

At 5h 24m a.m., l.m.t., we observe Polaris at W. elong. in accordance with instructions in the "Manual", and mark the line thus determined by a tack in a stake driven firmly in the ground 6 chs. N. of our station.

At 7h 50m a.m., l.m.t., we set off the azimuth of Polaris $1^{\circ}21\frac{1}{2}'$ to the East, and mark the true meridian thus determined by a tack in the Stake 5 chs. N. of our station, point marked P, which point falls about .40 ins. and .35 ins. E. of the points in the meridian as determined by the solars of instruments Nos. 8145, and 8492 respectively.

At 8h a.m., l.m.t., we set off $31^{\circ}28'$ N. on the lat. arcs, and $11^{\circ}02\frac{1}{2}'S.$ on the decl. arc, and determine meridians with the solars, and mark the points in the meridians thus determined by tacks driven in the stake 5 chs. N. of our station, points marked W-2, and E-2, respectively, which points as determined by transits Nos. 8145 and 8492 fall about .55 ins., and .50 ins. E. of the point in the meridian as determined by observation of Polaris. By p.m. & a. m. observations,

Transit No. 8145 defines positions for meridians about 20" W., and 30" E., respectively of the meridian as determined by Polaris observation.

Transit No. 8492 defines positions for meridians about 18" W., and 26" E., respectively of the meridian as determined by Polaris observation.

These errors being no greater than the usual errors of observation, we conclude that the instruments are in satisfactory adjustment.

The magnetic bearing of the true meridian at 8h a.m. is N. 13° W. : the angle thus determined gives the magnetic declination as 13° E.

In order to test the measurement and alinement of the old exterior boundaries of surveys contemplated under Group No. 17, and properly re-establish the lost and obliterated corners thereon, before initiating any surveys therefrom, we proceed as follows,

From the above described cor., we re-trace, as per field notes furnished by the Surveyor General,

(In the following notes the initials J. B. W. & W. H. E. indicate the lines run by Jesse B. Wright and William H. Elliott, U. S. Surveyors, respectively)

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Chains.

- .39.84 East, bet. secs. 3 & 34, on random line,
Find the $\frac{1}{4}$ sec. cor. 10 lks. N. of line, which is a lava stone 14x10x6 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this $\frac{1}{4}$ sec. cor. we run,
East, on random line
- .40.39 Find the cor. of secs. 2, 3, 34 & 35 on line, which is a lava stone 18x6x6 ins. above ground, marked and witnessed as described by the Surveyor-General.

-
- .40.00 From the above described cor., we run,
East, bet. secs. 2 & 35, on random line
No trace of old $\frac{1}{4}$ sec. cor. found after diligent search. Set temp. $\frac{1}{4}$ sec. cor. on line.
 - .80.00 No trace of orig. cor. ^{of secs. 1, 2, 35 & 36} found after diligent search.
Set temp. cor., mound of stone on line.
-

- .40.00 Thence we run,
East, bet. secs. 1 & 36, on random line
No trace of orig. $\frac{1}{4}$ sec. cor. found after diligent search.
Leave mound of stone on line, and continue East, on random
- .80.08 Find evident traces of orig. Tp. cor. 210 lks. N. of line, which is an old stake with traces of markings, as described by the Surveyor-General, ~~destroy old cor. & at same point~~
Set a syenite stone 24x15x10 ins. 18 ins. in the ground at the orig. cor. point for re-established cor. of Tps. 22 & 23 S., Rs. 29 & 30 E., marked with 6 notches on N., S., E. & W. edges, and raise a mound of stone 3 ft. base, 2 ft. high S. of cor., from which,
A prominent peak in Mexico brs. S. 21°53' E.
Bunk Robinson Peak brs. S. 81°58' E.
College peak brs. S. 89°23' W., N. edge.
Niggerhead Peak brs. S. 27°05' W.

Oct. 22, 1912.
J.B.W. & W.H.E.

J. B. W.

- Jan. 4, 1913.
At 8h a.m., l.m.t., at the cor. of Tps. 22 & 23 S., Rs. 29 & 30 E., as above re-established and described, I set off 22°41 $\frac{1}{2}$ ' S. on the decl. arc, and 31°28' N. on the lat. arc, and determine a meridian with the solar.
Thence I run,
S. 89°15' W., on a true line, bet. secs. 1 & 36.
Over rolling land, through scrub mesquite.
 - 40.02 ^{Re-establish $\frac{1}{4}$ sec. cor.} Set a syenite stone 20x18x16 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
 - 80.04 ^{Re-establish corner.} Set a syenite stone 16x6x4 ins. 11 ins. in the ground for cor. of secs. 1, 2, 35 & 36, marked with 1 notch on E. & 5 notches on W. edges, dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
Land, rolling.
Soil, 3rd rate, gravelly, dry, loose.
Dense greasewood, mesquite brush, sparse grass.
-

Chains.	on true line
	S. 89°15' W. bet. secs. 2 & 35.
8.00	Over rolling land, through mesquite brush and greasewood.
37.34	Road, brs. NNE. & SSW.
38.10	Wire fence, brs. NNE. & SSW., right of way fence of R.R.
	Telegraph line, brs. NNE. & SSW.
	Mile post No. 198 brs. NNE. 135 lks. dist., on telegraph pole parallel to R.R.
38.84	Centre of single track of El Paso & Southwestern Railroad, on gentle curve, brs. NNE. & SSW.
39.75	Right of way wife fence, brs. NNE. & SSW.
40.02	Re-establish $\frac{1}{4}$ sec. cor. as follows: Set a syenite stone 14x8x5 ins. 9 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. No bearings available, pits impracticable.
80.04	To orig. cor. of secs. 2, 3, 34 & 35, a lava stone 18x6x6 ins. above ground, marked & witnessed as described by the Surveyor General. Land, rolling. Soil, 3rd rate, gravelly, loose, dry. Mesquite brush, greasewood, cacti, fair grass.
	on true line
	West, bet. secs. 3 & 34.
	Over rolling land, asc. grad.
38.00	Wash, 10 lks. wide, course S.
40.39	to orig. $\frac{1}{4}$ sec. cor., on line, a lava stone 14x10x6 ins. above ground, This cor. being in a dilapidated condition, I destroy, and at the orig. $\frac{1}{4}$ sec. cor. point, I
	Set a volcanic stone 22x12x9 ins. 16 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
	From this $\frac{1}{4}$ sec. cor., I run,
	S. 89°51' W., on true line
	measuring from $\frac{1}{4}$ sec. cor.
2.60	Wire fence, brs. NW. & SE.
5.41	El Paso & Southwestern Railroad, brs. NW. & SE., on curve.
6.43	Telegraph line, brs. NW. & SE.
7.50	Wire fence, brs. NW. & SE., desc.
12.00	Wire fence, brs. NE. & SW.
18.00	Wash, 20 lks. wide, course S., asc.
21.00	Low ridge, brs. SE. & NW., desc.
26.00	Wire fence, brs. NW. & SE.
26.30	Enter Silver Creek bottom, brs. NW. & SE.
35.00	Silver Creek wash, 110 lks. wide, course ESE.
36.00	Leave bottom, asc.
39.84	To ^{orig.} cor. of secs. 3, 4, 33 & 34, a granite stone 12x10x6 ins. above ground, marked & witnessed as described by the Surv. Gen. Land, rolling, mts. Soil, 3rd rate, gravelly, loose, stony. Mesquite, catclaw, greasewood, fair grass.
	West, bet. secs. 4 & 33, on random line
	Over mts. land, asc.
.65	Wire fence, brs. WNW. & ESE., on spur, SE. & NW., desc.
8.50	Wash, 20 lks. wide, course NE., asc.
25.00	Along N. slope., asc. grad.
40.00	Find orig. $\frac{1}{4}$ sec. cor. 18 lks. N. of line, which is a granite stone 13x9x6 ins. above ground, marked and witnessed as described by the Surveyor-General. True course and distance of this $\frac{1}{2}$ mile is N. 89°45' W., 40.00 chs. I rebuild the mound of stone N. of cor., and
	From this $\frac{1}{4}$ sec. cor., I run,
	West, continuing measurement, on random line
	Over rolling, broken land, asc. grad.
80.00	Find the orig. cor. of secs. 4, 5, 32 & 33, 3 lks. N. of line, which is a granite stone 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor-General. I rebuild the mound of stone W. of cor. The true course and distance of this $\frac{1}{2}$ mile is N. 89°57' W., 40.00 chs. At this cor., at noon, I set off 22°42 $\frac{1}{2}$ ' S. on the decl. arc, and observe the sun on the meridian. The resulting lat. is <u>31°28' N.</u>

Chains.

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- 25.00 Near the orig. cor. of secs. 5, 6, 31 & 32, I run,
West, bet. secs. 5 & 32, on random line,
Over mts. land, asc. NE. slope.
- 32.50 Ridge, brs. NNE. & SSW., desc. steep.
- 40.08 Wash, 30 lks. wide, course N., asc. steep.
Find traces of orig. $\frac{1}{4}$ sec. cor. 3 lks. N. of line,
This cor. being very dilapidated, I destroy,
and at the orig. cor. point I
Set a syenite stone 16x12x8 ins. 11 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face,
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
The true course and distance of this $\frac{1}{2}$ mile is
N. $89^{\circ}57'$ W. 40.08 chs.
From this $\frac{1}{4}$ sec. cor. I run,
West, measuring from said $\frac{1}{4}$ sec. cor. on random line
- 40.12 Over rough mts. land, asc. steep, stony NE. slope.
Find traces of the orig. cor. of secs. 5, 6, 31 & 32, 4
lks. N. of line, which is a granite stone 14x6x6 ins.
above ground, marked as described by the Surveyor-
General. This cor. I re-mark and re-set in orig.
position with 5 notches on E. & 1 notch on W. edges,
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
The true course and distance of this last $\frac{1}{2}$ mile is
N. $89^{\circ}57'$ W., 40.12 chs.
-
- 12.00 From the cor. above described, I run,
West, bet. secs. 6 & 31, on random line
Over mts. land, asc. prec. stony NW. slope.
College peak brs. S. 3 chs. to foot of apex, top of
apex is about 7 chs. to S., an inaccessible jutting
granite crag.
- 14.00 Desc. prec. NW. slope.
- 40.10 Find traces of orig. $\frac{1}{4}$ sec. cor. 90 lks. to N. of line,
which is a granite stone 14x6x6 ins. above ground,
with faint markings.
This cor. being small and badly weathered, I destroy,
and at the orig. cor. point I
Set a granite stone 24x14x10 ins. 18 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
The true course and distance of this $\frac{1}{2}$ mile is
N. $88^{\circ}42'$ W., 40.11 chs.
From this $\frac{1}{4}$ sec. cor. I run, measuring from same,
West, on random line
desc. NW. slope.
- 14.00 Head of gulch, course SW., asc.
- 28.00 Spur, brs. SW. & NNE., desc. along S. side of spur.
- 32.00 Asc. SE. slope of hill.
- 40.12 Find the orig. cor. of Tps. 22 S., Rs. 28 & 29 E., which
is a granite stone 10x6x6 ins. above ground, marked
and witnessed as described by the Surveyor-General,
said cor. being 90 lks. N. of my line; and situated
on top of a rocky knoll on spur, W. & E.
True course and distance of this last $\frac{1}{2}$ mile is
N. $88^{\circ}42'$ W., 40.13 chs.
Land, mts., very rough.
Soil, 3rd rate, stony.
Scrub oak, cedar, greasewood, cacti.

Jan. 4, 1913.

J. B. W.

J.B.W. & W.H.E.

BOOK 2475

Oct. 23, 1912.

At 8h a.m., l.m.t., at the ^{re-established} cor. of Tps. 22 & 23 S.,
Rs. 29 & 30 E., as hereinbefore described,We set off $11^{\circ}23\frac{1}{2}'$ S. on the decl. arc, and $31^{\circ}28'$ N. on
the lat. arc, and determine a meridian with the solar
of transit No. 8145.

Thence we run,

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Chains.

- North, on a random line, on range line, ^{bet. ranges 29 & 30 E.,} as per field notes furnished us by the Surveyor-General of Arizona. We set flags at intervals of 40 and 80 chs., and at these points make diligent search for the original corners. We find no trace of any corners on this line till at
- .199.42 The original $\frac{1}{4}$ sec. cor. bet. secs. 19 & 24 brs. East, 2.91 chs. dist., which is a granite stone 12x10x4 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this $\frac{1}{4}$ cor. we run
North, on a random line.
- .40.07 The original cor. of secs. 13, 18, 19 & 24 brs. East, 24 lks. dist., which is a lava stone 10x5x7 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this cor. we run
North, on a random line, bet. secs. 13 & 18.
- .40.00 No trace of original $\frac{1}{4}$ sec. cor. found after diligent search.
- .80.05 The original cor. of secs. 7, 12, 13 & 18 brs. East, 300 lks. dist., which is a lava stone 10x10x5 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this cor. we run,
North, on a random line, bet. secs. 7 & 12.
- .40.24 The original $\frac{1}{4}$ sec. cor. brs. West, .52 lks. dist., which is a lava stone 8x8x5 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this $\frac{1}{4}$ cor. we run
North, on a random line.
- .40.04 The original cor. of secs. 1, 6, 7 & 12 brs. West, 29 lks. dist., which is a granite stone 10x10x5 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this cor., we run
North, on a random line, bet. secs. 1 & 6.
- .40.20 The original $\frac{1}{4}$ sec. cor. bet. secs. 1 & 6, brs. East, .37 lks. dist., which is a granite stone 10x6x3 ins. above ground, marked and witnessed as described by the Surveyor-General.
From this $\frac{1}{4}$ cor. we run,
North, on a random line.
- .40.35 The original cor. of Tps. 21 & 22 S., Rs. 29 & 30 E. brs. West, 29 lks. dist., which is a granite stone 12x6x6 ins. above ground, marked and witnessed as described by the Surveyor-General.
This cor. I re-mark with 6 notches on N., S., E. & W. edges, and build a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high S. of cor.
At this cor., at noon, we set off 11°28' S. on the decl. arc, and observe the sun on the meridian.
The resulting lat. is 31°33' N.
Having found many of the corners on this line missing, and all those found being in a dilapidated condition, from the cor. of Tps. 21 & 22 S., Rs. 29 & 30 E. we run,

Chains,
 S. 0° 25' E., on a true line, bet. secs. 1 & 6.
 Over mts. land, desc.
 1.50 Gulch, 20 lks. wide, course E.
 35.40 Gulch, 20 lks. wide, course E.
 40.35 To orig. $\frac{1}{4}$ sec. cor. on line, a granite stone 10x6x3 ins. above ground, heretofore described.
 This cor. we re-mark $\frac{1}{4}$ on W. face, in original position, & raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Thence
 40.20 S. 0° 32' W., on a true line, measuring from $\frac{1}{4}$ sec. cor. To orig. cor. of secs. 1, 6, 7 & 12, a granite stone 10x10x5 ins. above ground, heretofore described.
 This cor. we re-set, and re-mark in original position with 1 notch on N., and 5 notches on S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Land, mts.,
 Soil, 3rd rate, stony, gravelly.
 Mesquite, cacti, fair grass.

S. 0° 25' E., on a true line, bet. secs. 7 & 12.
 Over rolling land.
 12.00 Wash, 20 lks. wide, course SE.
 38.50 Old road, brs. ESE. & WNW.
 40.04 To orig. $\frac{1}{4}$ sec. cor. a lava stone 8x8x5 ins. above ground, heretofore described.
 This cor. we re-mark $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Thence, S. 0° 45' E., on true line, measuring from $\frac{1}{4}$ sec. cor.
 17.00 Gulch, 100 lks. wide, course E.
 40.24 To orig. cor. of secs. 7, 12, 13 & 18, a lava stone 10x10x5 ins. above ground, heretofore described.
 This cor. we re-mark with 2 notches on N., and 4 notches on S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Land, rolling.
 Soil, 3rd rate, gravelly, dry.
 Scattering mesquite, tesseta, cacti, fair grass.

S. 2° 09' W., on a true line, bet. secs. 13 & 18.
 Over rolling land, desc. grad.
 10.50 Road, brs. NW. & SE.
 40.05 $\frac{1}{2}$ Re-establish $\frac{1}{4}$ sec. cor., as follows:
 Set a lava stone 24x10x7 ins. 18 ins. in the ground for $\frac{1}{4}$ sec. cor., 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.
 56.70 Gulch, 30 lks. wide, course SE., asc. NE. slope.
 65.00 Volcanic ridge, brs. E. & W., desc.
 80.11 To orig. cor. of secs. 13, 18, 19 & 24, a lava stone 10x5x7 ins. above ground, heretofore described.
 This cor. we re-mark with 3 notches on N. & S. edges, in original position, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Land, rolling, mts.
 Soil, 3rd rate, gravelly, stony, dry.
 Scattering mesquite, tesseta, cacti, good grass.

S. 0° 21' W., on a true line, bet. secs. 19 & 24.
 Over rolling land, desc. grad.
 1.50 Wash, 15 lks. wide, course SE.
 39.40 Wash, 20 lks. wide, course SW.
 40.07 To orig. $\frac{1}{4}$ sec. cor., a granite stone 12x10x4 ins. above ground, heretofore described.
 This cor. we re-mark in orig. position, $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Thence, S. 0° 50' W. on a true line through dense mesquite brush.
 Re-establishing the lost corners on line at proportional distances.
 15.00 Wash, 25 lks. wide, course SE.
 30.00 Old road, brs. E. & W.
 39.89 Re-establish cor. of secs. 19, 24, 25 & 30, as follows:
 Set a granite stone 20x12x10 ins. 15 ins. in the ground for cor. of secs. 19, 24, 25 & 30, marked with 4 notches on N., and 2 notches on S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Land, rolling. Soil, 3rd rate, gravelly, sandy, loam, dry.
 Mesquite, tesseta, cacti, good grass.

Chains:

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- S. 0° 50' W., on a true line, bet. secs. 25 & 30.
Over gently rolling land, through dense mesquite brush.
- 2.40 Wire fence, brs. N.38°08' E. & S.38°08' W.
- 6.37 Centre of single track of El Paso & Southwestern Railroad,
brs. N.38°08' E. & S.38°08' W.
- 9.10 Telegraph line, parallel to R.R.
- 10.35 Wire fence, parallel to R.R.
- 14.00 Road, Douglas to Bernardino and NE. points, brs. NE. & SW.
- 39.89 RE-establish $\frac{1}{4}$ sec. cor.
Set a granite stone 20x10x8 ins. 15 ins. in the ground for
 $\frac{1}{4}$ sec. cor., 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.
- 79.78 Re-establish cor. of secs. 25, 30, 31 & 36, as follows:
Set a granite stone 24x8x8 ins. 18 ins. in the ground
for cor. of secs. 25, 30, 31 & 36, marked with 5 notches
on N., and 1 notch on S. edges, and
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- Land, rolling.
Soil, 3rd rate, sandy, gravelly, dry, loose.
Mesquite, cacti, fine grass.
-
- S. 0° 50' W., on a true line, bet. secs. 31 & 36.
Over gently rolling land, through dense mesquite brush.
- 39.89 Re-establish $\frac{1}{4}$ sec. cor.
Set a granite stone 18x10x6 ins. 12 ins. in the ground
for $\frac{1}{4}$ sec. cor., 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.
- 54.00 Wash, 80 lks. wide, course SE.
- 56.00 Small dry reservoir 4 chs. to E.
- 79.78 To cor. of Tps. 22 & 23 S., Rs. 29 & 30 E.,
as recently re-established by us and ~~herebefore~~ described.
- Land, rolling.
Soil, 3rd rate, gravelly, dry.
Mesquite, tesseta, cacti, fair grass.

General Description.

The East Boundary of T. 22 S., R. 32 E. as re-surveyed by us runs over gently rolling grassy land in the south four miles, and then over broken or mountainous land in the northern 2 miles, ascending gradually to the foothills of the Chiricahua mountains. The soil is in general gravelly and dry,

There is no water or timber on or near the line, nor any trace of settlers.

Oct. 23, 1912.

Jesse B. Wright

William H. Elliott

U. S. Surveyors.

W.H.E.

BOOK 2475

Oct. 24, 1912.

At 8h a.m., l.m.t., at the cor. of Tps. 21 & 22 S.,

Rs. 29 & 30 E., a granite stone 12x6x6 ins. above ground, heretofore described.

I set off 11°44½' S. on the decl. arc, and 31°33' N. on the lat. arc, and determine a meridian with the solar.

Thence I run, bet. secs. 6 & 31

East, on a random line, on S. bdy. of T. 21 S., R. 30 E. as per field notes furnished by the Surveyor-General.

40.28 Find orig. ¼ sec. cor. 47 lks. N. of line, which is a lava stone 13x11x6 ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence East, on a random line, bet. secs. 6 & 31.

40.00 No trace of orig. cor. of secs. 5, 6, 31 & 32 found after diligent search. Leave a flag at this point and run thence

East, on a random line bet. secs. 5 & 32.

40.60 The orig. ¼ sec. cor. bet. secs. 5 & 32 brs. North, 28 lks. dist., which is a malapais stone 10x10x5 ins. above ground, marked and witnessed as described by the Surveyor-General. From this cor. I run,

East, on a random line, bet. secs. 5 & 32

40.00 No trace of orig. cor. of secs. 4, 5, 32 & 33 found after diligent search. leave a flag at this point and run thence,

East, on a random line bet. secs. 4 & 33.

41.10 The orig. ¼ sec. cor. bet. secs. 4 & 33 brs. South, 40 lks. dist., which is a lava stone 10x10x4 ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

East, on a random line, bet. secs. 4 & 33.

40.45 The orig. cor. of secs. 3, 4, 33 & 34 brs. North, 7 lks. dist., which is a lava stone 12x8x5 ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

East, on a random line, bet. secs. 3 & 34.

41.41 The orig. ¼ sec. cor. brs. N. 7 lks. dist., which is a lava stone 10x10x5 ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

East, on random line, bet. secs. 3 & 34.

39.36 The orig. cor. of secs. 2, 3, 34 & 35 brs. South, 38 lks. dist., which is a lava stone 12x8x5 ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

East, on random line, bet. secs. 2 & 35.

40.46 The orig. ¼ sec. cor. bet. secs. 2 & 35 brs. South, 14 lks. dist., which is a lava stone 13x8x6 ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

East, on random line, bet. secs. 2 & 35.

40.39 The orig. cor. of secs. 1, 2, 35 & 36 brs. South, 18 lks. dist., which is an old stake, with faint markings, as described by the Surveyor-General.

Thence I run,

East, on random line, bet. secs. 1 & 36.

40.00 No trace of orig. ¼ sec. cor. found after diligent search. Set a flag at this point, and continue a random line East, bet. secs. 1 & 36.

81.68 Find evident remains of cor. of Tps. 21 & 22 S., Rs. 30 & 31 E., an old decayed stake, with faint markings as described by the Surveyor-General, 32 lks. to N. of line.

This cor. I ^{destroy &} re-establish in original position as follows:
 Set a volcanic stone 30x18x15 ins., 24 ins. in the ground for cor. of Tps. 21 & 22 S., Rs. 30 & 31 E., marked with 6 notches on N., S., E. & W. edges, and raise a mound of stone 4 ft. base, 3 ft. high S. of cor.
 No bearings available.

At this cor., at noon, I set off 11°49' S. on the decl. arc, and observe the sun on the meridian.
 The resulting lat. is 31°33' N.

Chains

From the cor. of Eps. 21 & 22 S., Rs. 30 & 31 E., just re-established by me, I run,
on a true line, on S. bdy. of T. 21 S., R. 30 E.
S. 89°46' W., bet. secs. 1 & 36.
Over gently undulating plain, covered with loose lava stones.

23.80

Draw, 1 ch. wide, course SE.

40.84

Re-establish $\frac{1}{4}$ sec. ^{cor.} on line as follows :Set a lava stone 20x12x10 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, andraise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.

81.68

To orig. cor. of secs. 1, 2, 35 & 36, an old stake with faint markings, which I destroy & at same point estab. cor. of secs. 35 & 36, T. 21 S. R. 30 E. as follows.

Set a lava stone 24x15x10 ins. 18 ins. in the ground for cor. of secs. 35 & 36, marked with 1 notch on E., and 5 notches on W. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.

Knowing now from my retracements and the excess measurements as discovered thereby that it will be necessary to set closing corners on this line when subdividing the Tp. to the S., I establish the corners on this line to refer to sections of T. 21 S. R. 30 E., only, in orig. position of old cors.

Land, rolling.

Soil, 3rd rate, stony, heavy, clayey.

Sage brush few cacti, good grass.

on true line

N. 89°45' W., bet. secs. 2 & 35.

Over gently rolling land.

10.00

Enter draw, course SSE.

15.00

Wash, 15 lks. wide, course SSE.

16.40

Leave draw, asc. grad.

21.40

Top of rise, brs. NNW. & SSE. thence over grassy plain.

40.39

To orig. $\frac{1}{4}$ sec. ^{a lava stone 13x8x6 ins. above ground} cor. ^{which I re-mark $\frac{1}{4}$ on N. face} in orig. position, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.

Thence I run,

N. 89°48' W., on true line

40.46

To orig. cor. of secs. 2, 3, 34 & 35, a lava stone 12x8x5 ins. above ground, heretofore described, at this point I estab. cor. of secs. 34 & 35, T. 21 S. R. 30 E.

by remarking orig. stone with 2 notches on E. & 4 notches on W. edges, re-set same in orig. position, & raising a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.

Land, rolling.

Soil, 3rd rate, stony, dry.

Sage brush, few cacti, mesquite, good grass.

on true line

N. 89°27' W., bet. secs. 3 & 34

Over gently rolling plain.

2.85

Road, brs. NE. & SW.

3.33

Wire fence, brs. NE. & SW.

4.42

Telegraph line. brs. NE. & SW.

5.50

El Paso & Southwestern Railroad, on curve, brs. NE. & SW.

7.80

Wire fence, brs. NE. & SW., parallel to R.R.

25.45

Drain, 10 lks. wide, course S.

29.45

Drain 10 lks. wide, course S. asc. grad.

36.00

S. end of volcanic butte, near foot, brs. N. & S. desc. grad.

39.36

To orig. $\frac{1}{4}$ sec. cor., a lava stone 10x10x5 ins. above ground, heretofore described, I re-set this cor. in orig. position,re-marked $\frac{1}{4}$ on N. face, andraise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.

Thence I run,

S. 89°54' W., on true line

41.41

To orig. cor. of secs. 3, 4, 33 & 34, a lava stone 12x8x5 ins. above ground, at which point I estab. cor. of secs. 33 & 34, T. 21 S. R. 30 E. by remarking original stone with 3 notches on E. & W. edges, and

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

Land, rolling.

Soil, 3rd rate, gravelly, stony, dry.

Sparse sage brush, cacti, good grass.

Chains. S. 89°54' ^{on true line} W. bet. secs. 4 & 33. BOOK 2475
 Over heavily rolling land, drains to S.
 23.00 Asc. SE. slope.
 32.00 Top of S. end of volcanic butte, brs. N. & S., desc. grad.
 40.45 To orig. $\frac{1}{4}$ sec. cor., a lava stone 10x10x4 ins. above ground, which I re-mark $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Thence I run,
 6.00 N. 89°43' W. ^{on true line}
 Draw, 140 lks. wide, course ESE.
 40.55 ^{as follows:} Orig. position of cor. of secs. 4, 5, 32 & 33, at which point I estab. cor. of secs. 32 & 33, T. 21 S., R. 30 E.
 Set a volcanic stone 24x12x10 ins. 18 ins. in the ground, for cor. of secs. 32 & 33, marked with 4 notches on E., and 2 notches on W. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. No bearings available, pits impracticable.
 Land, rolling.
 Soil, 3rd rate, gravelly, dry, stony, loose.
 Sage brush, few cacti, good grass.

^{on true line}
 N. 89°43' W. bet. secs. 5 & 32.
 Over mts. land, drainage to SE.
 11.00 Road, brs. N. & S.
 20.00 Wash, 20 lks. wide, course SE.
 40.55 To orig. $\frac{1}{4}$ sec. cor., a malpais stone 10x10x5 ins. above ground, re-mark same $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Thence I run,
 S. 89°48' W. ^{on true line}
 Asc. grad.
 36.80 Ridge, brs. S. & N., desc. grad.
 40.30 Original position of cor. of secs. 5, 6, 31 & 32, at which point I estab. cor. of secs. 31 & 32, T. 21 S., R. 30 E.
 Set a granite stone 20x10x8 ins. 15 ins. in the ground for cor. of secs. 31 & 32, marked with 5 notches on E. and 1 notch on W. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
 Land, mts., rolling.
 Soil, 3rd rate, gravelly, stony.
 Sage brush, few cacti, good native grass.

Thence, ^{on true line}
 S. 89°48' W. bet. secs. 6 & 31.
 Over mts. land, desc. grad.
 9.00 Wash, 30 lks. wide, course S.
 13.00 Wash, 30 lks. wide, course SE., asc.
 26.00 Ridge, brs. S. & N., desc.
 33.00 Wash, 15 lks. wide, course S., asc.
 36.00 Ridge, brs. S. & N., desc.
 40.30 To orig. $\frac{1}{4}$ sec. cor., on line, a lava stone 13x11x6 ins. above ground, re-mark same $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Thence I run,
 S. 89°20' W. ^{on true line}
 3.00 Wash, 15 lks. wide, course S., asc.
 13.30 Ridge, brs. N. & S., desc. grad. along, broken S. slope.
 40.28 To cor. of Tps. 21 & 22 S., Rs. 29 & 30 E., on line, a granite stone 12x6x6 ins. above ground, heretofore described.
 Land, mts., broken.
 Soil, 3rd rate, stony, gravelly, dry.
 No timber, good grass.

General Description.

The South Boundary of T. 21 S., R. 30 E., as re-surveyed by me runs over a smooth, open valley for four miles from the East, covered in places with loose volcanic stones, or tufa, light and porous.

The line throughout is well covered with a good growth of native grass.

Oct. 24, 1912.

William H. Allen

U.S. Surveyor.

Chains.

J.B.W. &
W.H.E.

Oct. 25, 1912.

At 8h a.m., l.m.t., at the cor. of Tps. 21 & 22 S., Rs. 30 & 31 E., recently reestablished by W.H.E. and hereinbefore described, we set off $12^{\circ}05\frac{1}{2}'$ S. on the decl. arc, and $31^{\circ}33'$ N. on the lat. arc, and determine a meridian with the solar. Thence we run, on a random line, on S. bdy. of T. 21 S., R. 31 E. East, bet. secs. 6 & 31.

39.46 The orig. $\frac{1}{4}$ sec. cor. brs. South, 73 lks. dist., which is a lava stone $10 \times 6 \times 4$ ins. above ground, marked & witnessed as described by the Surveyor-General.

40.47 Thence we run, East, on random line bet. secs. 6 & 31. The orig. cor. of secs. 5, 6, 31 & 32, brs. South, 31 lks. dist., which is a lava stone $10 \times 6 \times 5$ ins. above ground marked and witnessed as described by the Surveyor-General.

400.40 Thence we run, East, on random line setting flags at intervals of 40 and 80 chs., and at these points make diligent search for the corners as described in the field notes furnished by the Surveyor-General, finding no trace of any corners till at The orig. cor. of Tps. 21 & 22 S., Rs. 31 & 32 E., brs. South, 9.20 chs. dist., which is a lava stone $20 \times 10 \times 7$ ins. above ground, marked and witnessed as described by the Surveyor-General.

This corner being in a very dilapidated condition, and the markings thereon being very indistinct, we re-establish same in original position and re-mark same with 6 notches on N., S., E. & W. edges, and raise a mound of stone 4 ft. base, 2 ft. high S. of cor. From which,

A lava hill brs. S. 62° W.

A wooded peak brs. S. $39^{\circ}31'$ E.

Without the bearings as given to these objects in the original notes we would have been unable to find this corner.

At this cor., at noon, we set off $12^{\circ}09\frac{1}{2}'$ S. on the decl. arc, and observe the sun on the meridian.

The resulting lat. is $31^{\circ}33'$ N.

From the courses and distances as found from above retracements, we calculate the true courses and distances between corners on the S. bdy. of the Tp. and from the above described cor. of Tps. 21 & 22 S., Rs. 31 & 32 E., we run,

Chains.		BOOK 2475
	N. 88°41' W. on a true line, bet. secs. 1 & 36. Over rolling land.	
6.00	Wash, 60 lks. wide, course WSW., asc. grad. SE. slope.	
22.00	Ridge, brs. S. & N.	
39.10	Road, NNE.&SSW., in turn of same.	
40.05	Re-establish $\frac{1}{4}$ sec. cor. on line, Set a lava stone 20x10x10 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.	
41.70	Gulch, 50 lks. wide, course S., asc. grad.	
49.25	Old road, brs. NW. & SE.	
53.25	Low ridge, brs. S. & N., desc.	
59.25	Gulch, 50 lks. wide, course S., asc. grad., over stony SE. slope.	
80.10	Re-establish cor. of secs. 1, 2, 35 & 36. Set a lava stone 24x12x8 ins. 18 ins. in the ground for cor. of secs. 1, 2, 35 & 36, marked with 1 notch on E. & 2 notches on W. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Land, rolling, mts. Soil, 3rd rate, gravelly, dry, stony. No timber. sage brush, cacti, fair grass.	
	N. 88°41' W. ^{on true line} bet. secs. 2 & 35. Over mts. stony land, asc. SE. slope.	
18.00	Top of ridge, upper E. rim of old crater, brs. NNE. & SSW., desc. prec.	
32.00	Desc. abruptly over volcanic ledges.	
36.00	Bottom of old crater, brs. N. & S.	
40.05	Re-establish original $\frac{1}{4}$ sec. cor. on line. Set a lava stone 20x12x8 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Thence over bottom of old crater.	
80.10	Re-establish orig. cor. of secs. 2, 3, 34 & 35. Set a lava stone 18x10x6 ins. 12 ins. in the ground for cor. of secs. 2, 3, 34 & 35, marked with 2 notches on E., and 4 notches on W. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. No bearings available, pits impracticable. Land, mts., rolling. Soil, 3rd rate, stony. No timber, sparse cacti, sage brush, fair grass.	
	N. 88°41' W. ^{on true line} bet. secs. 3 & 34. Over rolling land, in bottom of crater.	
4.00	Leave bottom of crater, brs. NW. & SE., asc. precipitous.	
19.00	Top of bluff, W. rim of crater, brs. NW. & SE., asc. grad.	
21.00	Ridge, brs. NNW. & SSE., desc. through mesquite brush and dense cacti.	
40.05	Re-establish $\frac{1}{4}$ sec. cor. on line. Set a lava stone 24x10x8 ins. 18 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.	
68.00	Leave mesquite, brs. N. & S., desc. grad.	
80.10	Re-establish cor. of secs. 3, 4, 33 & 34, on line. Set a lava stone 20x10x10 ins. 15 ins. in the ground for cor. of secs. 3, 4, 33 & 34, marked with 3 notches on E. & W. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. No bearings available. Land, mts., rolling. Soil, 3rd rate, stony, gravelly, dry. Mesquite, cacti, greasewood, fair grass.	
	N. 88°41' W. bet. secs. 4 & 33. Over rolling land, desc. grad.	
40.05	Re-establish $\frac{1}{4}$ sec. cor. on line. Set a lava stone 18x10x6 ins. 12 ins. in the ground for	

BOOK 2470

Chains.

on true line
 N. 88°41' W. bet. secs. 4 & 33.
 Over rolling land, desc. grad.
 40.05 Re-establish orig. $\frac{1}{4}$ sec. cor. on line.
 Set a lava stone 18x10x6 ins. 12 ins. in the ground for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
 56.00 Asc. grad.
 68.00 Top of S. end of volcanic ridge, brs. N. & S., desc. grad.
 80.10 Re-establish orig. cor. of secs. 4, 5, 32 & 33 on line.
 Set a lava stone 24x12x8 ins. 18 ins. in the ground for
 cor. of secs. 4, 5, 32 & 33, marked with 4 notches on E.
 and 2 notches on W. edges, and
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
 No bearings available, pits, impracticable.
 Land, rolling.
 Soil, 3rd rate, gravelly, dry, covered in places with
 loose volcanic stones or tufa.
 Sage brush, few cacti, good grass.

on true line
 N. 88°41' W. bet. secs. 5 & 32.
 Over rolling land, desc. gently.
 18.00 Wash, 30 lks. wide, course S., also S. end of water
 tank or small reservoir, now dry, extends about
 5 chs. to N., being 4 chs. wide at centre 2 chs. to N.
 40.05 Re-establish orig. $\frac{1}{4}$ sec. cor. on line.
 Set a volcanic stone 30x18x12 ins. 24 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
 46.00 Asc.
 62.90 E. rim of small crater, brs. N. & S., desc.
 64.00 Bottom of crater, S. side of same.
 74.20 Draw, 50 lks. wide, course NNW., breaks through rim to
 NW. asc. from crater.
 80.10 To ^{orig.} cor. of secs. 5, 6, 31 & 32, a lava stone 10x6x5 ins. above ground,
 This cor. we re-mark with 5 notches on E., and 1
 notch on W. edges, and
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
 Land, rolling, mts.
 Soil, 3rd rate, stony, gravelly, dry, loose.
 Few cacti, good grass.

on true line
 N. 89°33' W. bet. secs. 6 & 31.
 Over rolling land, asc.
 2.50 Top of W. rim of old crater, brs. NNW. & SE., desc.
 17.00 Foot of main slope, Wash, 30 lks. wide, course S.
 Asc. gently.
 40.47 To orig. $\frac{1}{4}$ sec. cor., on line. This cor. being small and
 the markings on same nearly obliterated, we destroy,
 and in original position of cor.
 Set a volcanic stone 24x18x18 ins. 18 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
 Thence we run, measuring from same
 N. 88°56' W., on true line.
 39.47 To orig. cor. of Tps. 21 & 22 S., Rs. 30 & 31 E.,
 recently re-established by W.H.E. & ~~later before~~ described.
 Land, rolling. Soil, 3rd rate, stony, dry.
 Few cacti, fine native grass.

General Description.

The south boundary of T. 21 S., R. 31 E. as re-surveyed
 by us runs over broken land in the East, and heavily
 rolling or level land in the western portion.
 The soil is in general a loose dark loam, covered mostly
 with loose, light volcanic stones or tufa.
 There is no water or timber on or near the line.

Oct. 25, 1912.

Jose B. Wright
William B. Elliott
 U. S. Surveyors.

Chains.

W.H.E.
BOOK 2475

Oct. 26, 1912.

At 8h a.m., l.m.t., at the cor. of Tps. 21 & 22 S., Rs. 31 & 32 E., recently re-established by J.B.W. and myself, and ~~hereinafter~~ described

I set off $12^{\circ}26'S.$ on the decl. arc, and $31^{\circ}33' N.$ on the lat. arc, and determine a meridian with the solar.

Thence I run, Var. $12^{\circ}45' E.$

North, on a random line, ^{on E. bdy of T. 21 S., R. 31 E.} as per the field notes furnished by the Surveyor-General. bet. secs. 31 & 36.

40.22 The orig. $\frac{1}{4}$ sec. cor. brs. East, 18 lks. dist., which is a lava stone $10 \times 10 \times 9$ ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run, measuring from same North, on random line bet. secs. 31 & 36.

40.27 The orig. cor. of secs. 25, 30, 31 & 36 brs. East, 4 lks. dist., which is a lava stone $20 \times 12 \times 7$ ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

North, bet. secs. 25 & 30, on random line

40.00 Find no trace of orig. $\frac{1}{4}$ sec. cor. after diligent search.

80.51 The orig. cor. of secs. 19, 24, 25 & 30 brs. East, 21 lks. dist., which is a lava stone $10 \times 8 \times 4$ ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

North, bet. secs. 19 & 24, on random line.

40.21 The orig. $\frac{1}{4}$ sec. cor. brs. East, 11 lks. dist., which is a lava stone $8 \times 8 \times 4$ ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run, measuring from same

North, on random line bet. secs. 19 & 24

40.59 The orig. cor. of secs. 13, 18, 19 & 24 brs. East, 11 lks. dist., which is a lava stone $12 \times 12 \times 5$ ins. above ground, marked and witnessed as described by the Surveyor-General.

Thence I run,

North, bet. secs. 13 & 18, on random line

40.00 Find no trace of the orig. $\frac{1}{4}$ sec. cor. after diligent search; set a flag at this point and continue random to

80.60 Find evident traces of orig. cor. of secs. 7, 12, 13 & 18 20 lks. to E. of line, small mound of stones.

Thence I run,

North, bet. secs. 7 & 12, on random line

40.00 Find no trace of orig. $\frac{1}{4}$ sec. cor., after diligent search. Set a flag at this point and continue North, on random line to

80.00 No trace of orig. cor. of secs. 1, 6, 7 & 12, after diligent search; set a flag at this point, and run thence

North, bet. secs. 1 & 6, on random line

40.00 Find no trace of orig. $\frac{1}{4}$ sec. cor. after diligent search.

Set a flag at this point, and continue North, on random line to

81.61 Intersect 4th Standard Parallel South at a point whence the orig. closing cor. of Tps. 21 S., Rs. 31 & 32 E., brs. East, 43 lks. dist., which is an old stake, with faint markings and mound of stone as described by the Surveyor-General; from which, The Std. $\frac{1}{4}$ sec. cor. on S. bdy. sec. 36, T. 20 S., R. 31 E., brs. East, 4.10 chs. dist., which is a lava stone $12 \times 10 \times 4$ ins. above ground, with mound of stone marked as described by the Surveyor-General.

At this cor., at noon, I set off $12^{\circ}30\frac{1}{2}' S.$ on the decl. arc, and observe the sun on the meridian. The resulting lat. is $31^{\circ}38' N.$

I set off $12^{\circ}30\frac{1}{2}' S.$ on the decl. arc, and observe the sun on the meridian. The resulting lat. is $31^{\circ}38' N.$

Chains.

BOOK 2475

- The original closing cor. of Tps. 21 S., Rs. 31 & 32 E. being in a very dilapidated condition, and the markings nearly obliterated, I destroy same, and in the original position of said corner, I re-establish same as follows: Set a lava stone 16x8x6 ins. 11 ins. in the ground for closing cor. of Tps. 21 S., Rs. 31 & 32 E., marked with 6 grooves on E. W., and S. faces, and raise a mound of stone 3 ft. base, 2 ft. high S. of cor. No bearings available.
- At this cor. I calculate the true bearings & prop. dist. of the East Boundary of T. 21 S., R. 31 E., and run thence, on a true line, on East Bdy of said Tp., S. 0° 9' W., bet. secs. 1 & 6
Over rolling land, asc. slightly.
- 40.86 By proportional distance relative to original distance as recorded in field notes as furnished me by the Surveyor-General, re-establish $\frac{1}{4}$ sec. cor. as follows: Set a malapais stone 16x12x8 ins. 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., 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.
- Since it is evident from the excess distances along this line that closing section corners will necessarily be established thereon when subdividing T. 21 S., R. 32 E., I change markings on old corners, and set new corners where required, each to refer to sections in T. 21 S., R. 31 E. only; therefore at
- 81.11 Theoretical position of original cor. of secs. 1, 6, 7 & 12, at which point I Set a lava stone 24x16x12 ins. 18 ins. in the ground for cor. of secs. 1 & 12, marked with 1 notch on N., and 5 notches on S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Land, rolling gently.
Soil, 3rd rate, stony, covered with loose lava stone. No timber, few cacti, good grass.
-
- S. 0° 9' W., bet. secs. 7 & 12.
Over rolling land, asc. gently.
- 1.20 Wire fence, brs. N. 7 $\frac{1}{2}$ ° W. & S. 7 $\frac{1}{2}$ ° E.
- 36.50 Wire fence, brs. ENE. & WSW.
- 40.25 Re-establish orig. $\frac{1}{4}$ sec. cor. as follows: Set a lava stone 16x8x8 ins. 11 ins. in the ground for $\frac{1}{4}$ sec. cor., 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.
- 71.45 Wire fence, brs. ENE. & WSW.
- 75.00 Wash, 30 lks. wide, course NNE. Road, brs. NNE. & SSW.
- 76.00 Dam for small reservoir brs. West 50 lks. dist.
- 80.00 Same wash as above, course NNW.
- 80.50 Destroy existing traces of original cor. of secs. 7, 12, 13 & 18 at this point, and Set a granite stone 16x10x6 ins. 11 ins. in the ground for cor. of secs. 12 & 13, marked with 2 notches on N., and 4 notches on S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Land, rolling.
Soil, 3rd rate, covered with loose, light lava stones. Sage brush, few cacti, mesquites, good grass.
-

Chains.		
	S. 0° 9' W., bet. secs. 13 & 18. Over rolling land.	BOOK 2475
1.10	Wash, 15 lks. wide, course NW., asc. grad.	
8.00	Wire fence, brs. NW. & SE.	
20.60	Top of E. side of volcanic hill, brs. E. & W., desc. grad.	
40.30	Re-establish $\frac{1}{4}$ sec. cor. as follows: Set a lava stone 16x10x8 ins. 11 ins. in the ground for $\frac{1}{4}$ sec. cor., 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.	
60.00	Enter nearly level, grassy flat, brs. E. & W.	
80.60	At the original position of the old cor. of secs. 13, 18, 19 & 24, ^{a lava stone 12x12x5 ins. above ground} at which point I establish the cor. of secs. 13 & 24, T. 21 S. R. 31 E. The original stone I re-mark with 3 notches on N. & S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Land, rolling, level. Soil, 2nd & 3rd rate, gravelly, loamy, stony. No timber, few cacti, fine grass.	
<hr/>		
	S. 0° 9' W., bet. secs. 19 & 24. Over rolling land.	
40.59	To orig. $\frac{1}{4}$ sec. ^{a lava stone 8x8x4 ins. above ground} cor. which I re-mark $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.	
52.00	Asc.	
76.40	Top of hill, brs. NW. & SSE., desc.	
80.80	Orig. position of cor. of secs. 19, 24, 25 & 30, ^{a lava stone 10x8x4 ins. above ground} at which point I establish cor. of secs. 24 & 25, T. 21 S. R. 31 E. by remarking original stone with 4 notches on N., and 2 notches on S. edges, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Land, rolling, hilly. Soil, 3rd rate, gravelly, dry, stony. Few mesquites, cacti, fine native grass.	
<hr/>		
	S. 0° 9' W., bet. secs. 25 & 30. Over mts. land, desc. SW. slope.	
12.50	Foot of slope, wash, 50 lks. wide, course NW., asc.	
27.50	Top of volcanic hill, NW. & SE., desc.	
40.25 $\frac{1}{2}$	Re-establish orig. $\frac{1}{4}$ sec. cor. on line. Set a volcanic stone 18x10x6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., 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.	
72.00	Road, brs. NE. & SW.	
80.51	Original position of cor. of secs. 25, 30, 31 & 36, ^{a lava stone 20x12x7 ins. above ground} at which point I establish corner of secs. 25 & 36, T. 21 S. R. 31 E. by remarking original stone with 5 notches on N., and 1 notch on S. edges, and raising a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Land, mts., hilly. Soil, 3rd rate, covered with loose lava stones. Sparse undergrowth, good grass.	

BOOK 2475

Chains.

S. 0° 3' W., bet. secs. 31 & 36.
 Over rolling land, desc.
 26.00 Wash, 50 lks. wide, course NW., asc. grad.
 40.27 To orig. ¹/₄ sec. cor. ^{lava stone 10x10x9 ins. above ground} \wedge , which I re-mark ¹/₄ on W. face, and
 raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
 Thence S. 0° 15' W., measure from ¹/₄ sec. cor.
 8.25 Asc.
 15.50 Ridge, brs. ENE. & WSW., desc.
 24.20 Drain, 10 lks. wide, course SSW.
 36.20 Wash, 80 lks. wide, course WSW.
 40.22 To cor. of Tps. 21 & 22 S., Rs. 31 & 32 E., recently re-estab. by J.B.W.
 and myself and ~~hereinbefore~~ described
 Land, hilly.
 Soil, 3rd rate, stony.
 Few mesquites, cacti, good native grass.

General Description.

The East Boundary of T. 21 S., R. 31 E., as re-surveyed by me runs over rolling or hilly land, covered mostly throughout the line with loose showered tufa or light porous volcanic stone.

The soil is a loose loam dark and moist in places, covered mostly with a fine growth of native grass, with but little undergrowth. No water or timber along or near the line.

Oct. 26, 1912.

William H. Elliott

U. S. Surveyor.

Chains.

J.B.W.
BOOK

2475

Jan. 3, 1913.

At 8h a.m., l.m.t., at the closing cor. ^{on International Boundary Line} of Tps. 24 S.,
Rs. 28 & 29 E., which is a limestone 8x6x6 ins. above
ground, marked and witnessed as described by the Surveyor-
General,

I set off $22^{\circ}47\frac{1}{2}'$ S. on the decl. arc, and $31^{\circ}20'$ N. on
the lat. arc, and determine a meridian with the solar.
Thence I retrace,

North, bet. secs. 19 & 24, on random line
Over mts. land, asc.

6.35 Find original cor. of secs. 13, 18, 19 & 24 on line, which is
a granite stone 8x6x6 ins. above ground, marked and
witnessed as described by the Surveyor-General.

From the above described cor., I run,
North, bet. secs. 13 & 18, on random line,
Over rolling land, asc.

2.00 Low ridge, brs. E. & W., desc.
2.50 Wire fence, brs. ENE. & WSW.
6.00 Enter dense greasewood, brs. NW. & SE.
10.00 Foot of slope, brs. E. & W., over rolling land.
12.50 Asc.
22.20 Telephone line, brs. NE. & SW.
24.00 Ridge, brs. SW. & NE., leave undergrowth, desc.
30.55 Road, Douglas to San Bernardino ranch, brs. NE. & SW.
37.00 Enter dense greasewood, and scrub mesquite, brs. NW. & SE.
39.91 To $\frac{1}{4}$ sec. cor., on line, which is a calcareous stone,
10x6x4 ins. above ground, marked and witnessed as
described by the Surveyor-General.
45.00 Enter draw, course W. True course and distance of this $\frac{1}{2}$ mile is North, 39.91 chs. From this $\frac{1}{4}$ sec. cor. I run
on Random line, North,
49.92 Road, brs. E. & W.
50.24 Wash, 30 lks. wide, in rocky gulch, 80 lks. wide, course
W., asc. grad.
62.10 Leave draw, asc. steep.
69.00 Spur, brs. W. & E., near W. point, desc.
80.01 Find cor. of secs. 7, 12, 13 & 18, 2 lks. W. of line, which
is a sandstone 10x8x6 ins. above ground, marked and
witnessed as described by the Surveyor-General.
True course & distance of this $\frac{1}{2}$ mile, N.0° 2' W., 40.10 chs.

North, bet. secs. 7 & 12, on random line
Over rolling, broken land.

5.50 Enter draw, course SW.
2.00 dry wash, 20 lks. wide, course SW.
3.00 Leave draw, asc. grad.
19.20 Top of rise, flat ridge, brs. W. & E., desc. grad.
27.00 Foot, enter draw, course W.
29.00 Leave draw, asc.
34.50 Top of rise, brs. W. & E., desc. grad.
38.00 Foot, brs. E. & W., asc. grad.
40.04 Find orig. $\frac{1}{4}$ sec. cor. 2 lks. W. of line, which is a
granite stone 8x6x6 ins. above ground, marked and
witnessed as described by the Surveyor-General.
Continue my line and measurement.
43.00 Ridge, brs. E. & W.,
48.90 Desc. grad.
51.75 Wash, 20 lks. wide, course W.
53.60 Draw, 3 chs. wide, course W.
65.20 Wash, 30 lks. wide, course W.
71.25 Gulch, 15 lks. wide, course W., asc. grad.
80.04 Find orig. cor. of secs. 1, 6, 7 & 12, 2 lks. W. of my
line, which is a granite stone 10x8x6 ins.
above ground, marked and witnessed as described by
the Surveyor-General.
True course and distance of 1st $\frac{1}{2}$ mile is N.0° 2' W.,
40.04 Chs. Last $\frac{1}{2}$ mile, this line is North, 40.00 chs.
Land, rolling, broken. Soil, 3rd rate, gravelly.
Sage brush, greasewood, fair grass.

Chains.

North, bet. secs. 1 & 6, on random line
 Over mts. land, asc.
 20.00 Ridge, brs. E. & W.
 22.00 Foot, brs. E. & W.
 33.00 Asc. grad.
 39.00 Ridge, brs. NW. & SE., thence along W. slope, near foot
 of main slope of mountains to E.
 40.02 Find orig. $\frac{1}{4}$ sec. cor. on line, which is a sandstone
 10x6x6 ins. above ground, marked and witnessed as described
 described by the Surveyor-General.
 47.00 Desc.
 50.65 Gulch, 40 lks. wide, course SW.
 60.10 Stony gulch, 35 lks. wide, course SW.
 71.80 Road, brs. E. & W., wood road.
 80.02 To cor. of Tps. 23 & 24 S., Rs. 28 & 29 E., on line,
 which is a granite stone 16x10x6 ins. above ground,
 marked and witnessed as described by the Surveyor-
 General. I re-build the mound of stone 3 ft. base,
 2 ft. high S. of cor.
 True course and distance of this mile is North, 80.02 chs.

I find that my random line on the North Boundary of
 T. 24 S., R. 29 E. projected, falls 236 lks. S. of
 the true cor. of Tps. 23 & 24 S., Rs. 28 & 29 E., at
 a distance of 6 miles, 17.54 chs.

The true course and distance of the North Boundary of
 T. 24 S., R. 29 E., is therefore
 S. 89°44' E., 497.54 chs.

Jan. 3-1913.
 Jesse B. Wright,
 U.S. Surveyor.

Chains.

Being unable to find several of the corners along the line ^{between} Arizona and New Mexico, and it being evident that some of the corners thereon have been obliterated in the course of time, in order to make proper connection thereon, it becomes necessary to retrace or re-survey certain portions of said line

Nov. 14, 1912.

Having previously tested and adjusted my instrument by observations made on a true meridian as determined by Polaris, and heretofore described, and knowing from recent and repeated tests that same is in correct adjustment, I proceed as follows: -

At 8h a.m., l.m.t., at the 378 mile cor. on the Line ^{between} Arizona and New Mexico, which is a granite stone 16x16x10 ins. ^{above ground} marked and witnessed as described by the Surveyor-General,

I set off $18^{\circ}12' S.$ on the decl. arc, and $31^{\circ}31' N.$ on the lat. arc, and determine a meridian with the solar. Thence I run,

North, on random line

making diligent search for the corners on this line, being guided thereby from the topography as given in the field notes as furnished by the Surveyor-General of Arizona.

60.50 Find evident traces of the 377 mile cor., which is a granite stone 18x12x4 ins. ^{above ground} with faint markings.

From this cor., I run,

North, on random line

80.00 No trace of old 376 mile cor. found, after diligent search, I set temp. corner at this point and run thence,

North, on random line

80.00 No trace of 375 mile cor. found, after diligent search.

Set temp. cor. at this point, and continue random line

North,

79.76 Find evident traces of orig. 374 mile cor., which is a granite stone 14x10x6 ins. ^{above ground} with faint markings, as described by the Surveyor-General.

Nov. 14, 1912.

Nov. 15, 1912.

At 8h a.m., l.m.t., at the 374 mile cor. ^{above described}

I set off $18^{\circ}28' S.$ on the decl. arc, and $31^{\circ}34' N.$ on the lat. arc, and determine a meridian with the solar. Thence I run,

North, on random line.

I set temp. cors. at intervals of 80 chs., and make diligent search for the old corners as described by the Surveyor-General of Arizona.

239.94 Find the 371 mile cor., on line, which is a granite stone, 18x10x4 ins. ^{above ground} properly marked and witnessed as described by the Surveyor-General.

Nov. 15, 1912.

Nov. 16, 1912.

At 8h a.m., l.m.t., at the 371 mile cor., as above described,

I set off $18^{\circ}43' S.$ on the decl. arc, and $31^{\circ}36' N.$ on the lat. arc, and determine a meridian with the solar. Thence I run,

South, on Line ^{between} Ariz. and New Mexico, re-establishing the lost corners thereon.

Over mts. land, along near W. foot of slope.

8.00 Gulch, 112 lks. wide, course W.

18.00 Gulch, 50 lks. wide, course NW., asc. grad.

25.00 Foot of N. slope of Peloncillo mts., brs. E. & W., asc.

40.00 Asc. prec. N. slope.

53.92 Top of high granite ridge, brs. E. & W.

Set a granite stone 18x14x12 ins. on line, in mound of stone, marked ARIZ on W., and N M on E. faces., for line point.

Desc. steep.

71.70 Gulch, 50 lks. wide, course SW., asc. NW. slope.

BOOK 2475

Chains.

79.98 Re-establish 372 mile cor. as follows:
 Set a granite stone 25x15x10 ins. 15 ins. in the ground,
 in mound of stone for 372 mile cor., marked
 372 on N.,
 ARIZ on W.,
 N M on E., and
 32 W L on S. faces,
 raise a mound of stone 3 ft. base, 2 ft. high N. of cor.
Land rough, mts. Soil, 4th rate, stony. Scattering oak, pinon, cedar.

South, from 372 mile cor.

Over mts. land, asc. prec. NW. slope.

20.00 Top of rise on steep W. slope, desc. SW. slope.

46.50 Skeleton Canyon, 150 lks. wide, course W., road in
 same, brs. E. & W.

48.00 Asc. prec.

71.50 Top of granite ridge, brs. E. & W., desc. prec.

79.98 Set a granite stone 24x12x10 ins. 10 ins. in the ground,
 on bed-rock, in mound of stone for re-established
 373 mile cor., marked

ARIZ on W.,

N M on E.,

373 on N., and

32 W L on S. faces;

raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
 Land, rough, mts., Soil, 4th rate, stony.

Scattering oak, pinon, cedar.

South, from 373 mile cor.

Over broken land, along rough west slope.

15.00 Gulch, 50 lks. wide, course W., asc.

41.25 Top of rough granite spur, brs. W. & E., desc. prec.

50.00 Along broken W. slope.

79.98 To orig. 374 mile cor., a granite stone 14x10x6 ins. above ground,

This cor. I re-mark, since the original markings are faint,

ARIZ on W.,

N M on E.,

374 on N., and

32 W L on S. faces.

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

A pinon tree 12 ins. diam. brs. S. 35° W. 51 lks. dist.,
 marked ARIZ 374 B T.

An oak tree 12 ins. diam. brs. S. 65° E. 37 lks. dist.,
 marked N M 374 B T.

No other trees available.

Land, rough, mts.

Soil, 3rd rate, stony.

Oak, pinon, scrub oak, cacti.

At this cor., at noon, I set off '18°47' S. on the decl.
 arc, and observe the sun on the meridian.

The resulting lat. is 31°34' N.

Chains.

South, from 374 mile cor.
 Over rough mts. land, asc. prec.
 9.00 Rocky ledge, on spur, brs. E. & W., desc.
 15.00 Along prec. W. slope.
 30.00 Asc. over broken NW. slope.
 60.00 Top of high mountain ridge, brs. NE. & SW., main ridge.
 desc. along E. slope.
 79.92 Re-establish 375 mile cor. as follows:
 Set a granite stone 30x18x12 ins., on bed-rock, in mound
 of stone for 375 mile cor., marked
 ARIZ on W.,
 N M on E.,
 375 on N., and
 32 W L on S. faces.
 raise a mound of stone 3 ft. base, 2 ft. high N. of cor.
 Land, mts., broken, very rough.
 Soil, 3rd & 4th rate, stony, dry.
 Pinon, cacti, oak, scattering.

South, from 375 mile cor.
 Over mts. land, asc.
 20.90 Ridge, brs. E. & W., desc.
 40.00 Gulch, 20 lks. wide, course E., asc.
 49.10 Ridge, brs. E. & W., desc.
 56.20 Head of gulch to E., asc.
 64.90 Ridge, brs. E. & W., desc.
 75.50 Head of gulch, course E., asc.
 79.92 Re-establish 376 mile cor., on line, as follows:
 Set a granite stone 20x10x10 ins. 15 ins. in the ground
 for 376 mile cor., marked
 ARIZ on W.,
 N M on E.,
 376 on N., and
 32 W L on S. faces;
 raise a mound of stone 3 ft. base, 2 ft. high N. of cor.
 Land, mts., rough, broken.
 Soil, 3rd rate, stony.
 Pinon, scrub oak, and other brush.

South, from 376 mile cor.
 Over mts. land, asc.
 10.50 Ridge, brs. E. & W., desc.
 21.00 Gulch, 20 lks. wide, course E., asc.
 46.40 Gulch, 50 lks. wide, course E., asc.
 79.92 To 377 mile cor., a granite stone 18x12x4 ins. above ground,
 The markings on this cor. being almost obliterated,
 I remark same
 ARIZ on W.,
 N M on E.,
 377 on N., and
 32 W L on S. faces, and
 raise a mound of stone 3 ft. base, 2 ft. high N. of cor.
 No bearings available.
 Land, mts., rough, broken.
 Soil, 3rd rate, stony, dry.
 Small scrub pinon and oak, few oak trees.

Nov. 16, 1912.

James Wright
 U. S. Surveyor.

Chsins.

J.B.W.

Dec. 18, 1912.

At 1h p.m., l.m.t., at the 388 mile cor., on Arizona-^{BOOK} 2475
New Mexico Boundary line, which is a granite stone
17x13x9 ins. ^{above ground} marked and witnessed as described by the
Surveyor-General,

I set off 23°23' S. on the decl. arc, and 31°22' N. on
the lat. arc, and determine a meridian with the solar.
Thence I run,

South, as per field notes furnished by the Surveyor-
General.

Over mts., broken land, desc.

7.50 Gulch, 40 lks. wide, course W., asc. steep.

30.00 Edge of mesa, brs. SW. & NE.,

33.00 Desc. grad.

41.00 Wash, 10 lks. wide, course W., asc.

44.00 Ridge, brs. E. & W., desc.

65.00 Gulch, 40 lks. wide, course SW., asc.

76.35 Find evident remains of old 389 mile cor., which is a
granite stone, badly decomposed, with faint markings as
described by the Surveyor-General.

This stone I remark

ARIZ on W.,

N M on E.,

389 on N., and

32 WL on S. faces, and

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

Land, broken, mts.

Soil, 3rd rate, stony, dry.

Sparse pinon, oak, scrub oak, cacti.

Dec. 18, 1912.

Dec. 19, 1912.

At 9h a.m., l.m.t., at the 389 mile cor., as above
described, I set off 23°24' S. on the decl. arc, and
31°22' N. on the lat. arc, and determine a meridian
with the solar.

Thence I run,

South,

Over mts. land, asc.

1.00 Ridge, brs. E. & W., desc.

26.00 Wash, 15 lks. wide, course SE., asc.

29.00 Ridge, brs. E. & W., desc.

38.00 Guadalupe Canyon, 345 lks. wide, course SW.

39.10 Road, brs. NE. & SW.

39.60 To the Monument as originally set at 389.52 chs., which
is a granite stone 36x20x15 ins. ^{above ground} marked and witnessed
as described by the Surveyor-General.

41.45 Wash, 70 lks. wide, course SW., asc. from canyon.

55.00 Ridge, brs. E. & W., desc. steep.

63.00 Wash, 15 lks. wide, course W., asc.

70.00 Ridge, brs. E. & W., desc. grad.

74.72 To 390 mile cor., on line, which is a sandstone 16x16x8
ins. above ground, marked and witnessed as described by
the Surveyor-General.

Land, mts., very rough and broken.

Soil, 3rd rate, stony, dry.

Sparse pinon, scrub oak, few oak trees.

South, from 390 mile cor.

Over mts. land, desc.

8.00 Wash, 20 lks. wide, course W., asc.

18.00 Top of point of ridge, brs. W. & E., desc.

21.00 Wash, 20 lks. wide, course NW., asc. steep.

27.00 Spur, brs. E. & W., desc. steep.

33.00 Same wash as above, course NE., asc. steep.

47.11 Find the monument as originally set for the intersection

of this line with International Boundary bet. the

United States, and Mexico, which is a granite stone

68x24x18 ins. ^{above ground} marked and witnessed as described by the
Surveyor-General.

Chains.

BOOK 2475

From the monument as above described, which I find is not located on the true line of The International Boundary as stated in the original notes of Ariz.-New Mexico Boundary, I run,

South,

Over mts. land, asc.

15.43

To Monument No. 71 on the International Boundary Line which is an iron monument as described by the Surveyor-General, properly marked.

from which Mon. No. 72 bears West 55.91 chs. dist. which is an iron monument, Dec. 19, 1912. marked & witnessed as described by the Surv. General.

Jesse B. Wright

U. S. Surveyor.

Chains.

J.B.W.

March 13, 1913.

Preliminary to beginning the subdivision of T. 19 S., R. 18 E., I test the measurement and alinement of portions of the South Boundary of the Tp., and find same agrees very closely with the field notes as furnished by the Surveyor-General.

BOOK 2475

In order to test the west Boundary of the Tp., I proceed as follows:

At 9h a.m., l.m.t., at the cor. of Tps. 19 & 20 S., Rs. 17 & 18 E., which is a sandstone 14x14x6 ins. above ground, marked and witnessed as described by the Surveyor-General, Lat. $31^{\circ}43'47''$ N., Long. $110^{\circ}33'26''$ W., I set off $2^{\circ}57\frac{1}{2}'$ S. on the decl. arc, and $31^{\circ}44'$ N. on the lat. arc, and determine a meridian with the solar. Thence I run, as per field notes, North, bet. secs. 31 & 36, on random line Over heavily rolling, broken land. asc.

- 8.00 Spur, brs. NW. & SE., desc.
- 10.75 Wash, 20 lks. wide, course NW.,
- 11.40 Road, Tucson to Naco and Douglas, brs. SE. & NW., asc.
- 18.00 Spur, brs. W. & E., desc.
- 22.00 Wash, 20 lks. wide, course W., asc.
- 28.00 Spur, brs. W. & E., desc.
- 37.00 Enter valley, brs. E. & W.
- 39.70 Find evident remains of orig. $\frac{1}{4}$ sec. cor. 8 lks. East, which is an old stake with faint markings, as described by the Surveyor General, which I destroy, and at the orig. cor. point,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 36 in W., and
S 31 in E. half; & raise mound of stone 2 ft. base, $\frac{1}{2}$ ft. high, W. of cor.
True bearing of this $\frac{1}{2}$ mile is $N. 0^{\circ}7' E.$, 39.70 chs. high $\frac{1}{2}$ sec. cor.
From this $\frac{1}{4}$ sec. cor. I run, continuing measurement, North, on random line
- 45.00 Wash, 50 lks. wide, course W., leave valley, asc. grad.
- 63.25 Wash, 10 lks. wide, course SW., asc.
- 79.62 The orig. cor. of secs. 25, 30, 31 & 36 brs. East, 47 lks. dist., which is an old post, marked and witnessed as described by the Surveyor General.

This old cor. being in a dilapidated condition, I destroy, and at the original cor. point,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30, 31 & 36, marked on brass cap, T 19 S. in N. half,
R 17 E S 25 in NW.,
R 18 E S 30 in NE.,
S 31 in SE., and
S 36 in SW. quad.;

raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. True course of this $\frac{1}{2}$ mile is $N. 0^{\circ}40' E.$, 39.92 chs. Land, broken, heavily rolling.

Soil, 2nd & 3rd rate, sandy, gravelly, dry, loose. Sparse sage brush, cacti, fair grass.

From this cor., I run, continuing measurement, North, on random line

From the above described cor., I run, North, bet. secs. 25 & 30, on random line Over hilly land, asc. grad.

- 5.00 Ridge, brs. W. & E., desc.
- 18.30 Gulch, 30 lks. wide, course W., asc.
- 25.00 Ridge, brs. WNW. & ESE., desc.
- 33.50 Wash, 40 lks. wide, course WNW., asc.
- 39.94 Evident remains of orig. $\frac{1}{4}$ sec. cor., brs. East, 70 lks. dist., at which point I
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 25 in W., and
S 30 in E. half;
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. True bearing of this $\frac{1}{2}$ mile is $N. 1^{\circ} E.$, 39.94 chs.

Chains.

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BOOK

58.00

64.00

79.94

From this $\frac{1}{4}$ sec. cor., I run, continuing measurement.
North, on random line

Ridge, brs. W. & E., desc.

Wash, 90 lks. wide, course W., asc. grad.

Find orig. cor. of secs. 19, 24, 25 & 30 on line, which is an old stake, marked and witnessed as described by the Surveyor General, which cor. I destroy & at same point Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 24, 25 & 30, marked on brass cap, T 19 S, in N. half,
R 17 E S 24 in NW.,
R 18 E S 19 in NE.,
S 30 in SE., and
S 25 in SW. quad.;

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

No bearings available, pits impracticable.

True bearing of this $\frac{1}{2}$ mile is North, 40.00 chs.

Land, heavily rolling, broken.

Soil, 3rd rate, stony, gravelly, dry.

Sparse greasewood, cacti, good grass.

At this cor., at noon, very windy, impracticable to observe the latitude accurately.

North, bet. secs. 19 & 24, on random line,

Over hilly land, asc. grad.

13.00

Ridge, brs. W. & E., desc.

21.00

Wash, 50 lks. wide, course W., asc.

29.00

Ridge, brs. W. & E., desc.

39.43

Orig. $\frac{1}{4}$ sec. cor., brs. East, 21 lks. dist., which is an old decayed stake, as described by the Surveyor General, which cor. I destroy & at same point

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 24 in W., and
S 19 in E. half;

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

True bearing of this $\frac{1}{2}$ mile is N. $0^{\circ}18'E.$, 39.43 chs.

From this $\frac{1}{4}$ sec. cor., I run, North, on random line, continuing

47.20

Wash, 90 lks. wide, course WSW., asc. grad.

70.00

Top of of SW. end of spur from NNE., thence along W. slope.

79.29

Orig. cor. of secs. 13, 18, 19 & 24 brs. East, .28 lks. dist., which is an old decayed stake with faint marking as described by the Surveyor General.

As it is now evident that closing sec. cor. will be necessary on the line bet. secs. 18 & 19, and probably bet. secs. 7 & 18, 6 & 7, from the errors of measurement as developed, at this orig. cor. point I

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 13 & 24, marked on brass cap, T 19 S, in N., and

S 13, S 24, R 17 E, in W. half,

S 18 in NE., and

S 19, R 18 E, in SE. quad.;

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

Land, heavily rolling, broken.

Soil, 3rd rate, gravelly, stony, dry.

Sparse sage brush, greasewood, cacti, good grass.

True bearing of this $\frac{1}{2}$ mile is N. $0^{\circ}24'E.$, 39.86 chs.

Chains.

BOOK 2475

North, bet. secs. 13 & 18, on random line
 Over heavily rolling land, asc. grad.
 15.00 Spur, brs. SW. & NE.
 23.00 Ridge, brs. E. & W., desc. steep.
 30.00 Gulch, 20 lks. wide, course SW., asc.
 39.00 Ridge, brs. E. & W., desc.
 39.48 Orig. $\frac{1}{4}$ sec. cor. brs. East, 5 lks. dist., which is an old decayed post, with faint markings as described by the Surveyor General, which cor. I destroy & at same point Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 13 in W., and
 S 18 in E. half;
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. True bearing of this $\frac{1}{2}$ mile is N. $0^{\circ} 4' E.$; 39.48 chs.
 From this $\frac{1}{4}$ sec. cor. I run, North, continuing meas't.
 50.00 Gulch, 40 lks. wide, course WNW., asc.
 59.00 Spur, brs. SW. & NE.
 70.00 Ridge, brs. W. & E., desc.
 76.46 Wash, 30 lks. wide, course W., asc. grad.
 78.72 Orig. cor. of secs. 7, 12, 13 & 18, on line, which is an old stake, with faint markings as described by the Surveyor General, which cor. I destroy & at same point Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 12 & 13, marked on brass cap, T 19 S, in N. half, and
 S 12, S 13, R 17 E, in W. half,
 S 7 in NE., and
 S 18, R 18 E, in SE. quad.;
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Land, hilly, heavily rolling.
 Soil, 3rd rate, stony, gravelly, dry.
 Sparse sage brush, greasewood, mesquite, cacti, good grass.
 True course of this $\frac{1}{2}$ mile is North, 39.24 chs.
 March 13, 1913.

March 14, 1913. T. 19 S. - R. 17 E.
 At 8h a.m., l.m.t., at the cor. of secs. 12 & 13, ^{above described} I set off, $2^{\circ} 34\frac{1}{2}' E.$ on the decl. arc, and $31^{\circ} 47' N.$ on the lat. arc, and determine a meridian with the solar.
 Thence I run,

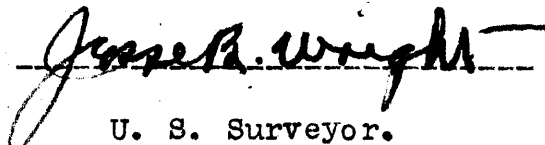
North, bet. secs. 7 & 12, on random line
 Over heavily rolling land, asc. rocky spur.
 5.00 Spur, brs. W. & E. NE., desc.
 10.00 Gulch, 40 lks. wide, course SW., asc. steep, stony ridge.
 16.50 Ridge, brs. WNW. & ESE., desc. steep.
 32.50 Wash, 120 lks. wide, course W.
 40.33 Orig. $\frac{1}{4}$ sec. cor. brs. west, 19 lks. dist., which is an old stake, with faint markings as described by the Surveyor General, which cor. I destroy & at same point Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 12 in W., and
 S 7 in E. half;
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. True bearing of this $\frac{1}{2}$ mile is N. $0^{\circ} 16' W.$; 40.33 chs.
 From this $\frac{1}{4}$ sec. cor., I run North, ^{on random line} continue measurement.
 46.80 Wash, 20 lks. wide, course WSW.,
 67.00 Gulch, 30 lks. wide, course SW., asc. steep.
 75.00 Ridge, brs. W. & E., desc.
 80.44 Find evident remains of orig. cor. of secs. 1, 6, 7 & 12, 4 lks. to E. of line, being mound of stone, as described by the Surveyor General. The post having decayed, I ^{destroy same} Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1 & 12, ^{T. 19 S. - R. 17 E.} marked on brass cap, T 19 S, in N., and
 S 1, S 12, R 17 E, in W. half,
 S 6 in NE., and
 S 7, R 18 E, in SE. quad.;
 raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. True bearing of this $\frac{1}{2}$ mile is N. $0^{\circ} 3' E.$ 40.11 chs.
 Land, broken. Soil, 3rd rate, stony. Fair grass.

Chains.

From the cor. of secs. 1 & 12, T. 19 S. - R. 17 E. just described, run,
North, bet. secs. 1 & 6, on random line
Over heavily rolling, broken land, desc.
4.20 Wash, 60 lks. wide, course W., asc. grad.
27.00 Ridge, brs. W. & E., desc. steep.
35.00 Wash, 40 lks. wide, course W., asc.
40.32 Orig. $\frac{1}{4}$ sec. cor. brs. East, 42 lks. dist., which is a
sandstone 6x6x6 ins. above ground, marked and witnessed
as described by the Surveyor General, which corner I destroy
and at same point
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in
the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 1 in W., and
S 6 in E. half;
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
True bearing of this $\frac{1}{4}$ mile is N. $0^{\circ}36'$ E., 40.32 chs.
From this $\frac{1}{4}$ Cor. I run, North, continuing measurement,
52.00 Ridge, brs. W. & E., desc.
56.80 Gulch, 20 lks. wide, course W., asc.
62.00 Ridge, brs. WNW. & ESE., desc.
70.00 Wash, 50 lks. wide, course WNW., asc. grad.
80.86 Orig. cor. of Tps. 18 & 19 S., Rs. 17 & 18 E. brs.
East, 38 lks. dist., which is an old post, marked and
witnessed as described by the Surveyor General, ^{which cor. I destroy}
^{at same point}
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in
the ground for re-established cor. of Tps. 18 & 19 S.,
Rs. 17 & 18 E., marked on brass cap,
T 18 S, in N.,
T 19 S, in S.,
R 18 E in E., and
R 17 E, in W. half,
S 36 in NW.,
S 31 in NE.,
S 6 in SE., and
S 1 in SW. quad.;
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high S. of cor.
True bearing of this last $\frac{1}{4}$ mile is N. $0^{\circ}33'$ E., 40.64 chs.
From this Cor.
"Old Baldy" Santa Rita Mts. brs. S. $64^{\circ}10'$ W.
Rincon Peak brs. N. $4^{\circ}50'$ E., barely visible over ridge
to N.
Land, broken, heavily rolling.
Soil, 3rd rate, stony, dry.
Scattering mesquite, cacti, good grass.
At this cor., at noon, I set off. $2^{\circ}31'$ S. on the decl. arc,
and observe the sun on the meridian.
The resulting lat. is $31^{\circ}48\frac{1}{2}'$ N.

GENERAL DESCRIPTION.

The West Boundary of T. 19 S., R. 18 E., as re-surveyed
by me runs over a succession of ridges and washes or
dry gulches trending to the West.
There is no water or timber on or near the line.
The land is well covered with a growth of
native grass, with some scattering mesquite in the
larger washes.


U. S. Surveyor.

Chains.

J.B. BOOK 2475

- In order to test the measurement and alinement of the South Bdy. of T. 18 S., R. 18 E., I proceed as follows: From the cor. of Tps. 18 & 19 S., Rs. 17 & 18 E., as re-established by me, ^{& hereinbefore described} I run, S. of sec. 31. East, on ^{a random line on S. Bdy. of T. 18 S., R. 18 E.} (disregarding the bearing of S. 89°37' E., as given in the original field notes of this old line.) Over mts. land, asc.
- 5.00 Spur, brs. ESE. & WNW., desc. along N. side of same.
- 20.00 Spur, brs. N. & S., desc. steep.
- 39.95 The orig. $\frac{1}{4}$ sec. cor. brs. S., 19 lks. dist., which is sandstone 9x5x5 ins. above ground, marked and witnessed as described by the Surveyor-General. Rebuild the mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. True bearing of this $\frac{1}{2}$ mile is S. 89°44' E., 39.95 chs. From this ^{sec.} cor., I run, measuring from same, East, on random line
- 11.00 Wash, 100 lks. wide, course WNW. asc. grad. along S. slope.
- 39.93 The orig. cor. of secs. 5, 6, 31 & 32, brs. S. 19 lks. dist., which is a limestone 16x9x6 ins. above ground, marked and witnessed as described by the Surveyor-General. (Since it is now evident that it will be necessary to set closing cors. on this line, from the South, I change the cors. on orig. line so as to refer to secs. in T. 18 S., R. 18 E. only;) rebuild the mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. True bearing of this $\frac{1}{2}$ mile is S. 89°44' E., 39.93 chs. Land, broken, mts. Soil, 3rd rate, stony, gravelly, dry. Scrub oak, mesquite, sage brush, cacti, good grass.
-
- From the above described cor., I run, S. of sec. 32. East, on random line Over mts. land, asc. steep, stony SW. slope.
- 7.00 Spur, brs. SW. & N., near S. point.
- 18.00 Ridge, brs. WNW. & ESE., desc. brushy slope.
- 28.00 Wash, 100 lks. wide, course WNW.
- 37.00 Wash, 15 lks. wide, course S.
- 40.05 Orig. $\frac{1}{4}$ sec. cor., brs. S. ⁴⁵ lks. dist., which is a sandstone ~~8x4x5~~ 6 ins. above ground, marked and witnessed as described by the Surveyor-General. True bearing of this $\frac{1}{2}$ mile is S. 89°56' E., 40.05 chs. From this ^{sec.} cor., I run, measuring from same East, on random line
- 3.30 Wash, 20 lks. wide, course S.
- 4.60 Wash, 20 lks. wide, course WNW.
- 5.30 Wash, 30 lks. wide, course SW.
- 41.38 Orig. cor. of secs. 4, 5, 32 & 33, brs. S. 2.92 chs. dist., which is a sandstone 8x6x4 ins. above ground, marked and witnessed as described by the Surveyor-General. Re-build the mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. True bearing of this last $\frac{1}{2}$ mile is S. 85°58' E. 41.48 chs. Land, broken, mts. Soil, 3rd rate, stony, gravelly, dry. Scrub oak, mesquite, cacti, good grass.
-
- From the above described cor., I run, S. of sec. 33, East, on random line
- 2.00 Wash, 100 lks. wide, course WSW.
- 3.50 Wash, 100 lks. wide, course WNW., asc. grad.
- 25.00 Top of sandstone ledge, brs. S. & N., desc. grad.
- 40.16 Orig. $\frac{1}{4}$ sec. cor., brs. S. 121. lks. dist., which is a limestone 16x12x6 ins. above ground, marked and witnessed as described by the Surveyor General. I rebuild mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. True bearing of this $\frac{1}{2}$ mile is S. 88°16' E. 40.17 chs. From this ^{sec.} cor., I run, measuring from same East, on random line
- 8.00 Wash, 30 lks. wide, course SW., asc.

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 11.00 Ridge, brs. WSW. & East, thence on same.
 34.00 Desc. steep
 40.57 Orig. cor. of secs. 3, 4, 33 & 34 brs. S. 33 lks. dist.,
 which is a granite stone 8x5x5 ins. above ground,
 marked and witnessed as described by the Surveyor-General.
 Rebuild the mound of stone 2 ft. base, 1½ ft. high N. of
 cor.
 True bearing of this ½ mile is S. 89°32' E., 40.57 chs.
 Land, rough, mts., broken.
 Soil, 3rd rate, stony, dry.
 Scrub oak, mesquite, cacti, good grass.
 March 14, 1913.

March 15, 1913.
 At 8h a.m., l.m.t., at the cor. of secs. 33 & 34, as
 above described,
 I set off 2°11'S. on the decl. arc, and 31°48½'N. on
 the lat. arc, and determine a meridian with the solar.
 Thence I run, S. of sec. 34,
 East, on random line
 Over mts. land, desc. steep.
 11.00 Gulch, 50 lks. wide, course WNW., asc.
 34.00 Ridge, brs. NW. & SE., desc. grad.
 40.29 Orig. ¼ sec. cor. brs. S. 93 lks. dist., which is a
 granite stone 10x6x6 ins. above ground, marked and
 witnessed as described by the Surveyor-General.
 I rebuild the mound of stone 2 ft. base, 1½ ft. high,
 N. of cor.
 True bearing of this ½ mile is S. 88°41'E., 40.30 chs.
 From this cor., I run, measuring from same
 East, on random line
 1.00 Gulch, 50 lks. wide, course NW., ,
 21.60 Gulch, 30 lks. wide, course SW., near head, asc. along
 N. side of ridge.
 40.40 Orig. cor. of secs. 2, 3, 34 & 35 brs. N. 136 lks. dist.,
 which a granite stone 12x7x6 ins. above ground, marked
 and witnessed as described by the Surveyor-General.
 Rebuild mound of stone 2 ft. base, 1½ ft. high N. of cor.
 True bearing of this ½ mile is N. 88°04'E., 40.42 chs.
 Land, broken, mts., rough.
 Soil, 3rd rate, stony, dry, loose.
 Scrub oak, mesquite, good grass.

From the cor. of secs. 34 & 35, I run, S. of sec. 35,
 East, on random line
 Over mts. land, asc. grad.
 18.00 Ridge, brs. NW. & ESE., desc. steep.
 24.00 Head of gulch, course N., asc. grad.
 40.17 Orig. ¼ sec. cor. brs. S. 61 lks. dist., which is a
 granite stone 10x5x6 ins. above ground, marked and
 witnessed as described by the Surveyor General.
 Rebuild the mound of stone 2 ft. base, 1½ ft. high N.
 of cor.
 True bearing of this ½ mile is S. 89°08'E., 40.17 chs.
 From this cor., I run, measuring from same,
 East, on random line,
 1.00 Highest point of ridge, on N. side of crest, desc.
 along N. side of same.
 35.00 Gulch, 60 lks. wide, course WNW.
 39.20 Same gulch, course WSW.
 39.52 Orig. cor. of secs. 1, 2, 35 & 36 brs. N. 5.47 chs. dist.,
 which is a limestone 16x4x7 ins. above ground, marked
 and witnessed as described by the Surveyor-General.
 Rebuild the mound of stone 2 ft. base, 1½ ft. high N. of
 cor.
 True bearing of this ½ mile is N. 82°07'E., 39.90 chs.
 Land, mts., broken, rough.
 Soil, 3rd rate, stony, dry.
 Scrub oak, few pinons and oaks, fair grass.
 At this cor., at noon, very windy, impracticable to
 observe the lat. accurately.

BOOK 2475

Chains. From the cor. of secs. 35 & 36, I run, S. of sec. 36, East, on random line,
 Over rough, mts. land, desc.
 5.10 Gulch, 30 lks. wide, course NW., asc.
 12.00 Same gulch, course WSW., asc. steep WNW. slope.
 39.90 Orig. $\frac{1}{4}$ sec. cor. brs. S. 12 lks. dist., which is a granite stone 10x4x6 ins. above ground, marked and witnessed as described by the Surveyor-General.
 Rebuild mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
 True bearing of this $\frac{1}{2}$ mile is S. 89°50'E., 39.90 chs.
 From this cor., I run, measuring from same, East, on random line,
 2.50 Ridge, brs. NW. & SE., spur from high ridge to S., desc. along very brushy, broken N. side of main ridge.
 40.05 Cor. of Tps. 18 & 19 S., Rs. 18 & 19 E. brs. N. 6 lks. dist., which is a limestone 8x6x7 ins. above ground, marked and witnessed as described by the Surveyor-General, changed by W. H. Elliott to refer to Tps. 18 S., Rs. 18 & 19 E., only, as described in Book
 True bearing of this last $\frac{1}{2}$ mile is N. 89°55'E., 40.05 chs.
 Land, broken, mts.
 Soil, 3rd rate, gravelly, stony, dry.
 Scrub oak, pinon, fair grass. March 15, 1913.

-General Description.-

The South Boundary of T. 18 S., R. 18 E. as retraced by me runs over a rough broken country, sloping and draining in general to the West.
 There is no timber or living water on the line.
 Along the larger washes are found a few oak and cedar trees, with some mesquite wood in the lower washes.

BOUNDARIES.

T. 19 S., R. 18 E. ✓
 Latitudes, departures, and closing errors.

Line designated.	True bear'g.	Dist.	Latitudes.		Departures.		
			N.	S.	E.	W.	
		Chs.	Chs.	Chs.	Chs.	Chs.	
South Boundary, West		479.55				479.55	
West	N. 0°07'E.	39.70	39.70		-0.08		
	N. 0°40'E.	39.82	39.82		-0.47		
	N. 1°00'E.	39.94	39.94		-0.70		
	North	40.00	40.00				
	N. 0°18'E.	39.43	39.43		-0.21		
	N. 0°24'E.	39.86	39.86		-0.28		
	N. 0°04'E.	39.48	39.48		-0.05		
	North	39.24	39.24				
	N. 0°16'W.	40.33	40.33			-0.19	
	N. 0°03'E.	40.11	40.11		-0.04		
	N. 0°36'E.	40.32	40.32		-0.42		
	N. 0°33'E.	40.64	40.64		-0.38		
	North Boundary	S. 89°44'E.	79.88		-0.38	79.88	
		S. 89°56'E.	40.05		-0.05	40.05	
S. 85°58'E.		41.48		-2.92	41.38		
S. 88°16'E.		40.17		-1.21	40.16		
S. 89°32'E.		40.57		-0.33	40.57		
S. 88°41'E.		40.30		-0.93	40.29		
N. 88°04'E.		40.42	1.36		40.40		
S. 89°08'E.		40.17		-0.61	40.17		
N. 82°07'E.		39.90	5.47		39.52		
S. 89°50'E.		39.90		-0.12	39.90		
East Boundary, Convergency	N. 89°55'E.	34.49		-0.05	34.49		
	South	478.40		478.40			
					-0.43		
Totals			485.85	484.95	479.87	479.74	
			484.95		479.74		
			Error in Lat. .90		Error in Dep. .13		

J.B.W.

J. B. W.
BOOK 2475

Chains.

March 25, 1913.

Preliminary to beginning the subdivision of T. 23 S., R. 15 E., I deem it advisable to retrace or re-survey the West and North boundaries of the Tp., in order to determine the true bearing and measurements of these old lines, and re-establish any lost and obliterated corners thereon. Therefore,

At 9h a.m., l.m.t., at the cor. of secs. 19, 24, 25 & 30, on the West Bdy. of the Tp., which is a granite stone 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General,

I set off $1^{\circ}46\frac{1}{2}'N.$ on the decl. arc, and $31^{\circ}24'N.$ on the lat. arc, and determine a meridian with the solar. Thence I run,

North, bet. secs. 19 & 24, on random line

Over heavily rolling land, desc. steep.

3.00 Wash, 30 lks. wide, course SW., asc. grad. through mesquite brush.

40.35 Orig. $\frac{1}{4}$ sec. cor. brs. West, 35 lks. dist., which is an old post badly decayed, witnessed as described by the Surveyor General, which cor. I destroy & at same point, I

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 24 in W., and S 19 in E. half;

The old bearing trees being badly decayed, I mark

An oak tree 14 ins. diam. brs. S. $50^{\circ}W.$ 19 lks. dist., marked $\frac{1}{4}$ S 24 B T.

An oak tree 12 ins. diam. brs. N. $75^{\circ}E.$ 44 lks. dist., marked $\frac{1}{4}$ S 19 B T.

The true bearing of this $\frac{1}{4}$ mile is $N. 0^{\circ}30'W.$, 40.35 chs.

From this $\frac{1}{4}$ sec. cor., I run, ^{measuring from same} North, on random line.

1.00 Wash, 50 lks. wide, course SW., thence over rolling land, through scattering mesquite.

37.00 Enter draw, course SW.

39.48 Remains of orig. cor. of secs. 13, 18, 19 & 24 brs.

West, 11 lks. dist., located by orig. bearing trees, stump of one located, other tree dead, destroy traces of old cor. &

At the orig. cor. point, I

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 13, 18, 19 & 24, marked on brass cap, T 23 S, in N. half,

R 14 E S 13 in NW.,

R 15 E S 18 in NE.,

S 19 in SE. and

S 24 in SW. quad.;

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

No bearings available, pits impracticable.

Land, broken, rolling.

Soil, 3rd rate, gravelly, dry, sandy, loose.

Mesquite, cacti, few oak trees.

True bearing of this $\frac{1}{2}$ mile is $N. 0^{\circ}9'W.$, 39.48 chs.

From the cor. above described, I run,

North, bet. secs. 13 & 18, on random line,

In draw, through dense mesquite brush.

2.00 Wash, 1 ch. wide, course SW.

3.79 Road, Nogales to Patagonia, brs. NE. & SW.

11.00 Wash, 125 lks. wide, course SW.

20.00 Leave draw, asc. grad.

30.00 Ridge, brs. ~~SSW.~~ & ~~ENE.~~, desc.

40.18 Orig. $\frac{1}{4}$ sec. cor. brs. West, 33 lks. dist., an old post, marked and witnessed as described by the Surveyor-General. This cor. being badly decayed, I destroy same & at same point, I

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

$\frac{1}{4}$ S 13 in W., and

S 18 in E. half; from which, new bearings,

An oak tree 14 ins. diam. brs. N. $5^{\circ}W.$ 90 lks. dist., marked $\frac{1}{4}$ S 13 B T.

An oak tree 10 ins. diam. brs. N. $72^{\circ}E.$ 153 lks. dist., marked $\frac{1}{4}$ S 18 B T.

BOOK 2475

Chains.

3.00
16.00
29.00
39.90

True bearing of this $\frac{1}{2}$ mile is $N. 0^{\circ} 28' W.$, 40.18 chs.
From this $\frac{1}{4}$ sec. cor., I run, measuring from same,
North, on random line,
Enter draw, course SE.
Wash, 90 lks. wide, course SSE.
Leave draw, asc. grad.
Find evident remains of orig. cor. of secs. 7, 12, 13 & 18
42 lks. to west of line, located by old dead bearing
tree. Destroy all traces of old cor. & at same point
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in
the ground for cor. of secs. 7, 12, 13 & 18, marked on
brass cap, T 23 S, in N. half,
R 14 E S 12 in NW.,
R 15 E S 7 in NE.,
S 18 in SE., and
S 13 in SW. quad.;
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
No bearings available, pits impracticable.
True bearing of this $\frac{1}{2}$ mile is $N. 0^{\circ} 36' W.$, 39.90 chs.
Land, rolling. Soil, 3rd rate, stony, gravelly, loose.
Scrub oak, mesquite, few oak trees.
At this cor., at noon, I set off $1^{\circ} 49\frac{1}{2}' N.$ on the decl.
arc, and observe the sun on the meridian.
The resulting lat. is $31^{\circ} 26' N.$

18.00
28.50
40.00
42.00
52.00
80.20

From the cor. above described, I run,
North, bet. secs. 7 & 12, on random line,
Over heavily rolling land, asc. grad.
Ridge, brs. SW. & NE., desc.
Wash, 30 lks. wide, course SW., asc. grad.
No trace of orig. $\frac{1}{4}$ sec. cor. found after diligent
search, continue North, ^{on random line} after setting temp. $\frac{1}{4}$ cor.
Ridge, brs. WSW. & ENE., desc.
Wash, 60 lks. wide, course WSW., asc. SE. slope.
Find remains of old cor. of secs. 1, 6, 7 & 12, 18 lks.
to West of line, an old post, with faint markings,
as described by the Surveyor General, which cor. I destroy & at same point
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in
the ground for cor. of secs. 1, 6, 7 & 12, marked on
brass cap, T 23 S, in N. half,
R 14 E S 1 in NW.,
R 15 E S 6 in NE.,
S 7 in SE., and
S 12 in SW. quad.;
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
No bearings available, pits impracticable.
I return to my temp. $\frac{1}{4}$ cor. to the S., and at 40.10 chs.
on the true line of $N. 0^{\circ} 8' W.$ from cor. of secs. 7, 12, 13 & 18
I set an iron post 3 ft.
long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec.
cor., marked on brass cap, $\frac{1}{4}$ S 12 in W., and S 7 in E.
half; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W.
of cor. No bearings available.
True bearing of this mile is $N. 0^{\circ} 8' W.$, 80.20 chs.
Land, rolling, broken.
Soil, 3rd rate, gravelly, dry.
Mesquite, cacti, few oak trees in gulches.

Chains.

From the cor. of secs. 1, 6, 7 & 12, ^{just described} I run,
 North, bet. secs. 1 & 6, on random line
 Over heavily rolling land, asc. grad.
 9.00 Ridge, brs. WSW. & ENE. desc.
 31.00 Gulch, 80 lks. wide, course W.,
 40.60 Orig. $\frac{1}{4}$ sec. cor. brs. West, 43 lks. dist., an old post
 badly decayed, with faint markings as described by the
 Surveyor General, which cor. I destroy & at same point, I
 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 1 in W., and
 S 6 in E. half;
 raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 True bearing of this $\frac{1}{2}$ mile is N. 0° 37' W., 40.60 chs.
 From this $\frac{1}{4}$ sec. cor., I run,
 North, continuing measurement, on random line
 45.50 Enter draw, course SW.
 48.00 Wash, 40 lks. wide, course SW.
 50.00 Leave draw, course SW., asc. grad.
 77.00 Low ridge, brs. SW. & NE., desc. along W. side of same.
 80.00 No trace of cor. as described by the Surveyor General at this point.
 95.00 Enter draw, course SSW.
 110.00 Leave draw, asc. grad.
 117.60 Cor. of Tps. 22 & 23 S., Rs. 14 & 15 E brs. West, '97 lks.
 dist., which is a granite stone 14x10x6 ins. above
 ground, marked and witnessed as described by the
 Surveyor General.
 True bearing of this line is N. 0° 43' W., 77.60 chs.

Land, broken, rolling.
 Soil, 3rd rate, gravelly, dry, sandy, loose.
 Scrub oak, cacti, few oak trees, mesquite in washes,
 good grass.

March 25, 1913.

J.B.W.

BOOK

Chains.

2475

10.00

38.85

26.00

39.98

March 26, 1913.
 At 8h a.m., l.m.t., at the cor. of Tps. 22 & 23 S., Rs. 14 & 15 E., a granite stone 14x10x6 ins. above ground, heretofore described. I set off 2°9' N. on the decl. arc, and 31°28' N. on the lat. arc, and determine a meridian with the solar. Thence I run,
 East, on S. bdy. of sec. 31, on random line,
 Over heavily rolling land, desc.
 Wash, 1 ch. wide, course SSW., asc. along N. slope of ridge.
 Orig. 1/4 sec. cor. brs. North, 5 lks. dist., an old decayed post, which could destroy at same point, I set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor., marked on brass cap, 1/4 S 31 in N., and S 6 in S. half;
 raise a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. True bearing of this 1/2 mile, is N. 89°55' E., 38.85 chs.
 From this 1/4 sec. cor., I run, East, measuring from same, on random line, Ridge, brs. WSW. & NE., desc.
 Orig. cor. of secs. 31, 32, 5 & 6, brs. North, 16 lks. dist., An old decayed post, which I destroy at same point, I set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 31 & 32, marked on brass cap, T 22 S, in N., T 23 S, S 5, S 6, in S., and R 15 E, in W. half, S 31 in NW., and S 32 in NE. quad.;
 raise a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. True bearing of this 1/2 mile is N. 89°46' E., 39.98 chs.
 Land, heavily rolling, hilly.
 Soil, 3rd rate, gravelly, dry.
 Mesquite, scrub oak, cacti, good grass.

6.00

31.00

34.85

38.75

40.10

37.40

39.00

From the cor. above described, I run,
 East, on S. bdy. of Sec. 32, on random line,
 Over heavily rolling land, desc.
 Wash, 15 lks. wide, course S.
 Thence along broken S. slope.
 Wash, 30 lks. wide, course SW.
 Wash, 30 lks. wide, course NW.
 Wash, 30 lks. wide, course SW.,
 Find evident remains of orig. 1/4 sec. cor. 10 lks. to N. of line, old mound of stone, destroy traces of old cor. at same point
 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor., marked on brass cap, 1/4 S 32 in N., and S 5 in S. half;
 raise a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Asc. grad. along N. slope of hill.
 True bearing of this 1/2 mile is N. 89°51' E., 40.10 chs.
 From this cor. I run, measuring from same East, on random line,
 Ridge, brs. N. & S., desc.
 Orig. cor. of secs. 4, 5, 32 & 33 brs. North, 31 lks. dist. an old post, marked and witnessed as described by the Surveyor General, which could destroy at same point, I set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 32 & 33, marked on brass cap, T 22 S, in N., T 23 S, S 4, S 5, in S., and R 15 E, in W. half; S 32 in NW., and S 33 in NE. quad.;
 raise a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. True bearing of this 1/2 mile is N. 89°33' E., 39.00 chs.
 Land, broken, heavily rolling.
 Soil, 3rd rate, stony, gravelly, dry.
 Scattering mesquite. scrub oak, good grass.
 At this cor., at noon, I set off 2°13' N. on the decl. arc, and observe the sun on the meridian.
 The resulting lat. is 31°28' N.

Chains.

From the cor. of secs. 32 & 33, ^{above described,} I run,
 East, on S. bdy. of Sec. 33, on random line,
 Over mts., broken land, desc.

6.00 Wash, 18 lks. wide, course NE., thence along broken N.
 slope, through scattering oak.

23.90 Main road, Nogales to Patagonia, brs. NNE. & SSW.

26.00 Wash, 30 lks. wide, course NNE.

39.57 Orig. $\frac{1}{4}$ sec. cor. brs. North, .2 lks. dist., an old
 post, badly decayed, marked and witnessed as described
 by the Surveyor General, which I destroy & at same point,
 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 33 in N., and
 S 4 in S. half; from which, new bearings,
 An oak tree 12 ins. diam. brs. N. 70° W. 76 lks. dist.,
 marked $\frac{1}{4}$ S 33 B T.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
 True bearing of this $\frac{1}{2}$ mile is N. 89° 58' E., 39.57 chs.
 From the above described ^{cor.}, I run, measuring from same,
 East, on random line,

21.00 Wash, 30 lks. wide, course N., thence along wooded N.
 slope.

39.44 Orig. cor. of secs. 3, 4, 33 & 34 brs. S. 2 lks. dist.,
 an old decayed post, marked and witnessed as
 described by the Surveyor-General, which
 I destroy & at same point,
 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in
 the ground for cor. of secs. 33 & 34, marked on
 brass cap, T 22 S, in N., ^{T. 22 S. R. 15 E.}
 T 23 S, S 3, S 4, in S., and
 R 15 E; in W. half;
 S 33 in NW., and
 S 34 in NE. quad.; from which, new bearings,
 An oak tree 14 ins. diam. brs. N. 14 $\frac{1}{2}$ ° W. 143 lks. dist.,
 marked T 22 S R 15 E S 33 B T.
 An oak tree 12 ins. diam. brs. N. 51° E. 90 lks. dist.,
 marked T 22 S R 15 E S 34 B T.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
 True bearing of this $\frac{1}{2}$ mile is S. 89° 58' E., 39.44 chs.
 Land, heavily rolling, broken.
 Soil, 3rd rate, gravelly, dry.
 Scrub oak, mesquite, cacti, scattering oak trees.
 March 26, 1913.

March 27, 1913.
 At 8h a.m., l.m.t., at the cor. of secs. 33 & 34, above described,
 I set off .2° 33' N. on the decl. arc, and 31° 28' N. on the
 lat. arc, and determine a meridian with the solar.

Thence I run,
 East, on S. bdy. of Sec. 34, on random line
 Over mts. land, asc. grad. along NW. slope.

8.00 Ridge, brs. WSW. & ENE.

33.00 Desc. steep NE. slope of same ridge as above.

39.83 Find evident remains of orig. $\frac{1}{4}$ sec. cor., an old
 decayed stake 19 lks. to S. of line, destroy & at same point,
 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 34 in N., and
 S 3 in S. half; from which,
 An oak tree 16 ins. diam. brs. N. 8 $\frac{1}{4}$ ° W. 28 lks. dist.,
 marked $\frac{1}{4}$ S 34 B T.
 An oak tree 10 ins. diam. brs. N. 70° E. 60 lks. dist.,
 marked $\frac{1}{4}$ S 34 B T.
 True bearing of this $\frac{1}{2}$ mile is S. 89° 52' E. 39.83 chs.
 From this $\frac{1}{4}$ sec. cor., I run, measuring from same,
 East, on random line

25.00 Gulch, 40 lks. wide, course NNW., asc.

33.70 Spur, brs. NW. & SE., desc. steep.

39.11 Find evident remains of orig. cor. ^{secs. 2, 3, 34 & 35} 19 lks. to N. of
 line, an old decayed post, which I destroy & at same point,

Chains.

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 34 & 35, marked on brass cap, T 22 S, in N., ^{T. 22 S. - R. 15 E.}
 T 23 S, S 2, S 3, in S., and
 R 15 E, in W. half;
 S 34 in NW., and
 S 35 in NE. quad.; from which, new bearings,
 An oak tree 8 ins. diam. brs. N. 41° E. 38 lks. dist.,
 marked T 22 S R 15 E S 35 B T.
 An oak tree 10 ins. diam. brs. N. 44° W. 110 lks. dist.,
 marked T 22 S R 15 E S 34 B T.
 raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
 True bearing of this ¼ mile is N. 89° 44' E., 39.11 chs.
 Land, broken, heavily rolling, mts.
 Soil, 3rd rate, gravelly, dry.
 Scrub oak, scattering oak trees, good grass.

From the cor. of secs. 34 & 35, ^{above described,} I run,
 East, on S. bdy. of Sec. 35, on random line,
 Over mts. land, desc. steep.
 12.00 Head of gulch, course NW., asc. steep.
 18.00 Spur, brs. NW. & SE., desc.
 28.50 Gulch, 20 lks. wide, course NW., asc.
 33.00 Spur, brs. NNW. & SSE., desc.
 40.00 No trace of orig. ¼ sec. cor. found after diligent search.
 Therefore, at this point, I
 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ¼ sec. cor., marked on brass cap,
 ¼ S 35 in N., and
 S 2 in S. half;
 raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
 No bearings available.
 63.00 Spur, brs. WNW. & ESE., desc.
 66.00 Head of gulch, course NW., asc. steep.
 80.00 No trace of orig. cor. ^{of secs. 35 & 36} found after diligent search.
 Therefore, at this point,
 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 35, & 36, marked on brass cap, T 22 S, in N., ^{T. 22 S. - R. 15 E.}
 T 23 S, S 1, S 2, in S., and
 R 15 E, in W. half;
 S 35 in NW., and
 S 36 in NE. quad.;
 raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
 Land, broken, mts.
 Soil, 3rd rate, stony, gravelly, dry.
 Few oak trees, scrub oak, cacti, fair grass.
 At this cor., at noon, I set off 2° 36' N. on the decl. arc, and observe the sun on the meridian.
 The resulting lat. is 31° 28' N.

Note. -

On the afternoon of this date, I examine secs. 25 & 36 of T. 22 S., R. 15 E., and the East two tiers of secs. of T. 23 S., R. 15 E., and find that the lands therein are very rough and mountainous and contain no land of any value for agricultural purposes. Most of this land is mineralized, and the greater portion being so rough as to be impracticable to survey, I eliminate these lands from my survey.

General Description.

The west bdy. of T. 23 S., R. 15 E., and South bdy. of T. 22 S., R. 15 E. runs over heavily rolling broken land, draining in general to the west, and southwest. There is no timber or water along the line. Some mesquite and oak wood is found in the broader draws and along the north slopes.

March 27, 1913.

Latitudes, departures, and closing errors.

BOOK 2475

Line designated.	True bear'g.	Dist..	Latitudes.		Departures.	
			N.	S.	E.	W.
		Chs.	Chs.	Chs.	Chs.	Chs.
S. bdy. secs. 33 & 34.	West, -----	160.00				160.00
W. bdy. sec. 33,	N. 0°02' W.	80.00	80.00			-0.05
S. bdy. sec. 29,	West, -----	79.90				79.90
W. bdy. sec. 29,	N. 0°03' W.	80.00	80.00			-0.07
S. bdy. sec. 19,	N. 89°45' W.	79.40	0.34			79.40
West Boundary,	N. 0°30' W.	40.35	40.35			-0.35
	N. 0°09' W.	39.48	39.48			-0.10
	N. 0°28' W.	40.18	40.18			-0.33
	N. 0°36' W.	39.90	39.90			-0.42
	N. 0°08' W.	80.20	80.20			-0.18
	N. 0°37' W.	40.00	40.00			.47
	N. 0°43' W.	77.60	77.60			.97
North Boundary,	N. 89°55' E.	38.85	-0.05		38.85	
	N. 89°46' E.	39.98	-0.16		39.98	
	N. 89°51' E.	40.10	-0.10		40.10	
	N. 89°33' E.	39.00	-0.31		39.00	
	N. 89°58' E.	39.57	-0.02		39.57	
	S. 89°58' E.	39.44		-0.02	39.44	
	S. 89°52' E.	39.83		-0.09	39.83	
	N. 89°44' E.	39.11	-0.19		39.11	
	East, -----	5.34			5.34	
East Bdy. secs. 3, 10, 15, 22, 27, & 34, Convergency, -----	S. 0°01' E.	518.10		518.10	-0.15	
					-0.30	
	Totals, -----		518.88	518.21	321.67	322.20
			518.21			321.67
	Error in lat., -----		-0.67			
	Error in dep., -----					0.53

Jesse B. Wright
U. S. Surveyor.

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,

Jesse B. Wright

, U. S. Surveyor, during the periods and in the capacities

stated opposite our several signatures, ^{or retracing} ~~in resurveying~~ all those parts or portions of Township Bdrs.

under Group No 17, as follows: RESURVEY OF S. bdy. T. 22S-R. 29E., E. bdy. T. 22S-R. 29E., S. bdy. T. 21S-R. 31E., W. bdy. T. 19S-R. 18E., portion of W. bdy, T. 23S-R. 15E., and portion of N. bdy. T. 23S-R. 15E., RETRACEMENT OF W. bdy. frac. T. 24S-R. 29E., S. bdy. T. 18S-R. 18E., and Ariz.-New Mexico Bdy. Line from 371 M.-378 M. and 388 M. - Mon. 71 on International Bdy.

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

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said ^{re} ~~surveys~~ ^{& retracements} ~~have~~ been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<u>Frank J. McSherry</u>	<u>Oct. 10, 1912.</u>	<u>April 11, 1913.</u>	<u>Chainman.</u>
<u>Samuel Kennedy</u>	<u>Oct. 13, 1912.</u>	<u>Jan. 27, 1913.</u>	<u>Chainman.</u>
<u>Edward Simpson</u>	<u>Oct. 15, 1912.</u>	<u>Jan. 25, 1913.</u>	<u>Moundman.</u>
<u>William Bird</u>	<u>Oct. 16, 1912.</u>	<u>Jan. 4, 1913.</u>	<u>Axeman.</u>
<u>Charles Fast</u>	<u>Oct. 24, 1912.</u>	<u>Nov. 30, 1912.</u>	<u>Flagman.</u>
<u>Jesse W. Richardson</u>	<u>Nov. 8, 1912.</u>	<u>Jan. 27, 1913,</u> <u>Mch. 22, 1913.</u>	<u>Axeman.</u> <u>Chainman.</u>
<u>John F. Turner</u>	<u>Jan. 5, 1913.</u>	<u>Jan. 24, 1913.</u>	<u>Axeman.</u>
<u>Allen Thompson</u>	<u>Feb. 1, 1913.</u>	<u>Mch. 22, 1913.</u>	<u>Moundman.</u>
<u>Jesse Brunke</u>	<u>Feb. 1, 1913.</u>	<u>Mch. 22, 1913.</u> <u>Apr. 10, 1913.</u>	<u>Axeman.</u> <u>Chainman.</u>
<u>John Lyons</u>	<u>Mch. 12, 1913.</u>	<u>Apr. 10, 1913.</u>	<u>Flagman.</u>
<u>William Leek</u>	<u>Mch. 23, 1913.</u>	<u>Mch. 27, 1913.</u>	<u>Moundman.</u>
<u>Sydney Morales</u>	<u>Apr. 4, 1913.</u>	<u>Apr. 10, 1913.</u>	<u>Axeman.</u>
<u>James H. Waller</u>	<u>Apr. 4, 1913.</u>	<u>Apr. 10, 1913.</u>	<u>Moundman.</u>

Subscribed and certified to before me on the dates of the final service as shown above.

Jesse B. Wright
U. S. Surveyor.

10043

FINAL OATH OF UNITED STATES SURVEYOR.

BOOK 2475

I, Jesse B. Wright, U. S. Surveyor, do solemnly swear that, in pursuance of special ^{and Supplemental} instructions received from the U. S. Surveyor General for Group 17, Arizona bearing dates of the ^{6th day of Oct. 1911, the 27th day of Nov. 1912,} ~~the 13th day of Jan. 1913, and the 10th day of March 1913~~, 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 ^{or retraced} surveyed all those parts or portions of Township Bdrs. as follows: RESURVEY OF S. bdy. T. 22 S.-R. 29 E., E. bdy. T. 22 S.-R. 29 E., S. bdy. T. 21 S.-R. 31 E., W. bdy. T. 19 S.-R. 18 E., portion of W. bdy. T. 23 S.-R. 15 E., and portion of N. bdy. T. 23 S.-R. 15 E. RETRACEMENT OF W. bdy. frac. T. 24 S.-R. 29 E., S. bdy. T. 18 S.-R. 18 E. and Ariz.-New Mex. Bdy. Line from 371 M.-378 M. and 388 M. - Mon. 71 on International Bdy. of the Gila & Salt River Base & Meridian, in the State of Arizona, 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 ^{re} survey ^{or retracements} have been ^{re} 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 17, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ^{re} survey and ^{re} retracement.

Jesse B. Wright
U. S. Surveyor.

Subscribed by said Jesse B. Wright, and sworn to before me }
this 20th day of June, 1913

Frank H. Ingalls
SURVEYOR-GENERAL OF ARIZONA



APPROVAL.

(for this book follows Final Oath of W. H. Elliott, U. S. Surveyor)

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz., 1914

~~The foregoing field notes of the ^{re} survey and retracement of the following Township Bdrs: RESURVEY OF South & East bdrs. T. 22 S.-R. 29 E., South bdy. T. 21 S.-R. 30 E., South & East bdrs. T. 21 S.-R. 31 E., West bdy. T. 19 S.-R. 18 E., portion of W. bdy. T. 23 S.-R. 15 E., and portion of South bdy. T. 22 S.-R. 15 E. RETRACEMENT OF West bdy. frac. T. 24 S.-R. 29 E., South bdy. T. 18 S.-R. 18 E., and Ariz.-New Mex. Bdy. Line from 371-378 M. and 388 M. - Mon. 71 on International Bdy. Gila & Salt River Base & Meridian, Arizona.~~

executed by Jesse B. Wright & William H. Elliott, U. S. Surveyors under ^{their} ^{and supplemental} special instructions, dated for Group 17 Oct. 6, 1911, Nov. 27, 1912, Jan. 13, 1913 & March 10, 1913, 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 2475

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,
William H. Elliott, U. S. Surveyor, during the periods and in the capacities
 stated opposite our several signatures, in surveying all those parts or portions of Township Bdrs.
under Group 17 as follows: E. bdy. T. 22 S. R. 29 E., S. bdy. T. 21 S. R. 30 E., South
and East bdrs. T. 21 S. R. 31 E.

of the Gila & Salt River Base & Meridian, in the State of Arizona
 which are represented in the foregoing field notes as having been executed by him, and under his direc-
 tion; and that said surveys have been, in all respects, to the best of our knowledge and belief, well and
 faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<u>Eric Flanagan</u>	<u>Oct 10, 1912</u>	<u>Apr 11, 1913</u>	<u>Chamman</u>
<u>Robert M. Cornell</u>	<u>Oct 24, 1912</u>	<u>Dec 24, 1912</u>	<u>Chamman</u>
<u>Frank E. Shorttiff</u>	<u>Oct 16, 1912</u>	<u>Nov 8, 1912</u>	<u>Assman</u>
<u>Thomas T. Humphreys</u>	<u>Oct 16, 1912</u>	<u>Dec 25, 1912</u> <u>Feb 11, 1913</u>	<u>Flagman</u> <u>Chamman</u>
<u>Charles Crouch</u>	<u>Oct 16, 1912</u>	<u>Feb 10, 1913</u> <u>Apr 11, 1913</u>	<u>Marshallman</u> <u>Chamman</u>
<u>Rolla Richhart</u>	<u>Nov 8, 1912</u>	<u>Jan 31, 1913</u>	<u>Assman</u>
<u>Patrick Wells</u>	<u>Jan 1, 1913</u>	<u>Jan 23, 1913</u>	<u>Assman</u>
<u>Wm Mallock</u>	<u>Feb 1, 1913</u>	<u>Apr 11, 1913</u>	<u>Assman</u>
<u>Ward Young</u>	<u>Feb 1, 1913</u>	<u>Apr 11, 1913</u>	<u>Marshallman</u>

Subscribed and certified to before me on the dates of the final service as shown above.
William H. Elliott
 U. S. Surveyor.

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FINAL OATH OF UNITED STATES SURVEYOR.

I, William H. Elliott, U. S. Surveyor, do solemnly swear that, in pursuance of special ^{and supplemental} instructions received from the U. S. Surveyor General for Group 17, Arizona, bearing date of ~~the 13th day of January 1913~~ ^{the 5th day of October 1911 the 27th day of November 1912} ~~the 10th day of March 1913~~, 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, ^{re}surveyed all those parts or portions of

Township Bdrs. under Group 17, as follows: E. bdy. T. 22 S., R. 29 E., S. bdy. T. 21 S., R. 30 E., South and East bdrs. T. 21 S., R. 31 E.,

River Bend of the Gila & Salt Meridian, in the State of Arizona, 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 ^{re}survey have been ^{re}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 17, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ^{re}survey.

William H. Elliott
U. S. Surveyor.

Subscribed by said William H. Elliott, and sworn to before me }
this 70th day of June, 1913



Frank S. Ingalls
SURVEYOR-GENERAL OF ARIZONA

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. Jan. 26, 1914

The foregoing field notes of the ^{re}survey (and retracement of the following Township bdrs.: Resurvey of South and East bdrs, T. 22 S., R. 29 E., South bdy. T. 21 S., R. 30 E., South and East bdrs. T. 21 S., R. 31 E., West bdy. T. 19 S., R. 18 E., portion of west bdy. T. 23 S., R. 15 E., and portion of South bdy. T. 22 S., R. 15 E.; retracement of West bdy. frac. T. 24 S., R. 29 E. South bdy. T. 18 S., R. 18 E., and Ariz.-New Mex. Bdy. Line from 371-378 M., and 388 M. - Mon. 71 on International Bdy., Gila and Salt River Base and Meridian, Arizona,

executed by Jesse B. Wright and William H. Elliott, U. S. Surveyors, under ^{a supplemental} special instructions for Group 17 dated Oct. 6, 1911, Nov. 27, 1912, Jan. 13, 1913, & March 10, 1913, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the ^{re}surveys they describe, are hereby approved.

Frank S. Ingalls
U. S. Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above-described surveys in~~
~~Book "11",~~ has been correctly copied from the original notes on file in this office.