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U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

REC'D JUN 13 1915
DEC 26 1916
APR 14 1917
DEC 5 1917

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 245

SITUATED IN THE

APACHE NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

in

Section 3, - surveyed, Township 4 N., Range 28 E.,

Section 4, - surveyed, Township 4 N., Range 28 E.

of the

Gila and Salt River Base and Meridian.

ARIZONA

Survey executed by C. A. Long, Surveyor - Forest Service
and by R. P. A. Johnson, Surveyor - Draftsman
Under special instructions dated August 6, 1914 and
Supplemental special instructions dated June 23, 1916
Survey commenced November 8, 1914

Survey completed September 3, 1916
Under Acts of June 11, 1906, June 30, 1914 and August 11, 1916

Applicant for listing Albert Thompson and Joseph Bigelow,

Residence Alpine, Arizona
Application No. 121 dated July 21, 1910 & November 2, 1911
Application No. 211, dated April 25, 1912
List No. 3-1970, dated June 8, 1912
List No. 3-2220, dated January 16, 1913

Applicant for survey Albert Thompson,

Residence Alpine, Arizona
H. E. No. 022515 dated May 26, 1913
H. E. No. 025258, dated June 18, 1914

Land district Phoenix, Arizona

OATH OF ASSISTANTS

We hereby certify that we assisted C. A. Long,
Surveyor - Forest Service in surveying all those
parts or portions of Homestead Entry Survey No. 245, in
surveyed Section 3, Township 4 N., Range 28 E.,
surveyed Section 4, Township 4 N., Range 28 E.

of the G. & S.R.B. & meridian, State of Arizona, which
are represented in the following field notes as having been
surveyed by him and under his direction; and that said sur-
vey has been in all respects, to the best of our knowledge
and belief, well and faithfully surveyed, and the corner
monuments established, according to the instructions fur-
nished by the United States Surveyor General for Arizona.

Note: It would have been
very expensive and incon-
venient to appear before
an officer to administer
oaths to Assistants; hence,
they were taken by the
Surveyor.

Wm. W. Adams Chainman,
Fred Fairley Chainman.

Subscribed and sworn to before me this 13th day of
November, 1914.

C. A. Long
Surveyor - Forest Service

OATH OF SURVEYOR

I, C. A. Long, Surveyor - Forest Service, do solemnly swear
that, in strict conformity with the special instructions of
the United States Surveyor General for Arizona, dated
August 6, 1914, and the laws of the United States, I have
well, faithfully, and truly, in my own proper person, sur-
veyed a tract of land ~~upon the application of~~ ~~embraced in~~
Lists, No. 3-1970 & 3-2220 dated June 8, 1912 & Jan. 16,
1913 for PATENT, under the Act of June 11, 1906,
the same to be known as Homestead Entry Survey No. 245,
situated within the APACHE National Forest, in
surveyed Section 3, Township 4 N., Range 28 E., and
surveyed Section 4, Township 4 N., Range 28 E.

of the G. & S.R.B. & meridian, Arizona, and the
related retracements and resurveys and section subdivisions,
which are represented in the following field notes as having
been surveyed by me; and I further solemnly swear that all
the corners of said survey have been established and perpe-
tuated in strict accordance with the stated special instruc-
tions, and in the specific manner described in the field
notes, and that the following are the original field notes
of such survey.

C. A. Long
Surveyor - Forest Service

Subscribed and sworn to before me this 23rd day of
April, 1915.

Elvie C. Myers
Notary Public



U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO.

SITUATED IN THE

NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO.

In Section , surveyed, Township , Range

of the

Meridian.

State of

Applicant for listing

Residence

Application No. , dated , 19

List No. , dated , 19

Applicant for survey

Residence

H. E. No. , dated , 19

Land District

Survey executed by

[Forest Service Title.]

Under special instructions dated , 19

Survey commenced , 19

Survey completed , 19

Under Acts of

OATH OF ASSISTANTS

We hereby certify that we assisted *R.P.A. Johnson*
Surveyor Draftsman [Forest Service Title.] in surveying all those
parts or portions of Homestead Entry Survey No. 245, in the State
of *Arizona* which are represented in the following field notes
as having been surveyed by him and under his direction; and that said
survey has been in all respects, to the best of our knowledge and
belief, well and faithfully surveyed, and the corner monuments estab-
lished, according to the instructions furnished by the United States
Surveyor General for *Arizona*

Note: It would have been
very expensive and incon-
venient to appear before an
officer to administer oaths
to Assistants; hence, they
were taken by the Surveyor.

Chas. A. Lee, Chairman
Howard L. Fickett,
Chairman

Subscribed and sworn to before me this twenty eighth day of
September, 1916.

R.P.A. Johnson
Surveyor Draftsman

OATH OF SURVEYOR

I, *R.P.A. Johnson*, Surveyor Draftsman
[Forest Service Title.]

do solemnly swear that, in strict conformity with the special instruc-
tions of the United States Surveyor General for *Arizona*, dated
June 23, 1916, and the laws of the United States, I have
well, faithfully, and truly, in my own proper person, surveyed a tract
of land embraced in

List , No. 3-1970 dated June 8, 1912 and
List , No. 3-2220, dated January 16, 1913, for
patent , under the Act of June 11, 1906,
the same to be known as Homestead Entry Survey No. 245,
situated within the *Apache* National Forest, in
- surveyed Section 3 , Township 4N , Range 28E , and
- surveyed Section 4 , Township 4N , Range 28E ,

of the *Gila and Salt River* meridian, *Arizona*, and the
related retracements and resurveys and section subdivisions, which are
represented in the following field notes as having been surveyed by me;
and I further solemnly swear that all the corners of said survey have
been established and perpetuated in strict accordance with the stated
special instructions, and in the specific manner described in the field
notes, and that the following are the original field notes of such
survey.

R.P.A. Johnson
Surveyor Draftsman
[Forest Service Title.]

Subscribed and sworn to before me this seventh day of

December 1916

Erie C. Myers

Notary Public



8-2349

My commission expires April 20, 1918.

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains Applicants for listing, Albert Thompson and Joseph Bigelow, Application No. 121, dated July 21, 1910 and November 2, 1911, Application No. 211, dated April 25, 1912; List No. 3-2220, dated January 16, 1913 and List No. 3-1970, dated June 8, 1912; H. E. No. 022515, dated May 26, 1913, and No. 025258, dated June 18, 1914, made at Phoenix, Arizona by Albert Thompson.

Surveyed under special instructions from the Surveyor General for Arizona, dated August 6, 1914, and designated as Homestead Entry Survey No. 245.

Situated in secs. 3 and 4, T. 4 N., R. 28 E., Gila and Salt River Base and Meridian, Apache National Forest, Arizona.

Surveyed under the Acts of June 11, 1906, June 30, 1914 and August 11, 1916.

Survey commenced November 8, 1914, and executed with a W. and L. E. Gurley light mountain transit No. 11920, provided with a full vertical circle and a horizontal limb having two double verniers placed opposite each other and reading to single minutes of arc, which is also the least reading of the verniers on the vertical circle.

I test the adjustments of the transit and make necessary corrections.

All measurements were made directly on the slopes with a 500 link steel tape, and the slope angles determined with a clinometer, the horizontal distances alone appearing in these notes.

November 8, 1914.

HOMESTEAD ENTRY SURVEY NO. 245

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STATE OF ARIZONA

Chains At the Std. cor. to secs. 32 and 33, T. 5 N., R. 28 E., G. and S. R. B. and M., which is a stone marked and witnessed as described by the Surveyor General. The sun is to the right of reference mark. My watch is set for local mean time. I observe the sun in the upper left, lower right, upper right and lower left quadrants of the field.

Latitude $33^{\circ} 46' 30''$ N., Longitude $109^{\circ} 24' 00''$ W., from Land Office map.

(1)

Telescope	l.m.t.	Vertical Angle	Horizontal Angle
Direct	8h. 46m. 33s.	$24^{\circ} 41' 00''$	$5^{\circ} 48' 00''$
Reversed	8h. 49m. 17s.	$24^{\circ} 33' 00''$	$5^{\circ} 45' 20''$
Mean	8h. 47m. 55s.	$24^{\circ} 37' 00''$	$5^{\circ} 46' 40''$

(2)

Direct	8h. 51m. 09s.	$25^{\circ} 23' 00''$	$6^{\circ} 08' 30''$
Reversed	8h. 52m. 52s.	$25^{\circ} 05' 00''$	$7^{\circ} 06' 00''$
Mean	8h. 52m. 00s.	$25^{\circ} 14' 00''$	$6^{\circ} 37' 15''$

Bearing of reference mark by (1), S. $52^{\circ} 51' 40''$ E.Bearing of reference mark by (2), S. $52^{\circ} 51' 56''$ E.Mean, S. $52^{\circ} 51' 48''$ E.,

and to the corresponding meridian all the courses of this survey are referred.

November 8, 1914.

At the cor. to secs. 32 and 33, previously described, I put the telescope of my transit in the meridian, and observe the watch time of the passage of the sun's west and east limbs over the vertical cross wire for time and Latitude.

APACHE NATIONAL FOREST

STATE OF ARIZONA STATE

Chains	Telescope	Barometer	Watch Time	Vertical Angle
West limb	Direct		11h. 42m. 40s.	40° 00' 00"
East limb	Reversed		11h. 45m. 00s.	39° 28' 30"
Mean			11h. 43m. 50s.	39° 44' 15"

Time Computation

Watch Time 11h. 43m. 50s.

Equation of Time, + 16m. 13s.

12h. 00m. 03s.

Apparent Noon 12h. 00m. 00s.
03s., Watch fast on l.m.t.Latitude Computation

Observed Altitude 39° 44' 15"

Refraction - 01' 10"

39° 43' 05"

Parallax + 07"

+ 16° 30' 07"

56° 13' 19" = Co. Lat.

90° 00' 00"

33° 46' 41" = Latitude.

November 8, 1914.

From the cor. to secs. 32 and 33, heretofore described,

I run East on a random line on the South boundary of
Sec. 33.25.60 Make careful search for the closing corner to Secs. 3
and 4.40.16 Fall 16 lks. N. of the point for the 1/4 cor. on S.
bdy. Sec. 33, which I determine by measurement, from
the old witness tree, which is blown down, but marks
plainly visible. I restore this cor. as follows:
Set a lava stone 20 x 12 x 10 ins. in a mound of stone

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TODAY APACHE NATIONAL FOREST

STATE OF ARIZONA STATE

Chains Std. 1/4 sec. cor., marked S. C. 1/4 S. on N. face;
 "00 whence: .20N .00E .00L .00F .00I .00J .00L .00S .00W
 "00 A yellow pine 19 ins. dia., bears .00I .00J .00L .00S .00W
 "00 S. 84° 52' W., 111 lks. dist. nsom
 "00 A yellow pine 20 ins. dia., bears .00I .00J .00L .00S .00W
 "00 N. 55° 55' W., 114 lks. dist. omiT .00I .00J .00L .00S .00W
 "00 A yellow pine 16 ins. dia., bears .00I .00J .00L .00S .00W
 "00 N. 29° 40' W., 141 lks. dist.
 Each blazed and scribed S C 1/4 S B T. 00A

Thence N. 89° 46' W.
 On a true line on S. bdy. of sec. 33, through heavy
 stand of yellow pine, old line blazes plainly visible.
 14.46 The proportionate point for closing cor. to secs. 3 and
 4 as determined by the following proportion: 40.00:
 $40.16 = 14.40 : X$. At this point I set a lava stone
 20 x 8 x 6 ins. in a mound of stone, for closing cor.
 to secs. 3 and 4, Marked CC on S. face, with 3 grooves
 on E. and W. faces, from which:

A yellow pine 30 ins. dia., bears

S. 43° 10' E., 25 lks. dist.,

marked T 4 N, R 28 E, S 3 B T.

A yellow pine 30 ins. dia., bears

S. 69° 22' W., 30 lks. dist.,

marked T 4 N, R 28 E, S 4 B T.

Thence N. 89° 46' W.
 On a true line on S. bdy. Sec. 33, through heavy
 stand of yellow pine.
 25.70 The Std. cor. to secs. 32 and 33, heretofore described,
 the place of beginning.

HOMESTEAD ENTRY SURVEY NO. 245

5.

APACHE NATIONAL FOREST

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- Chains November 9, 1914.
- From the closing cor. to secs. 3 and 4, heretofore described.
- Thence South.
- On a random line between secs. 3 and 4.
- 40.51 Make careful search for 1/4 cor.
- 81.83 Fall 3.26 chs. W. of the cor. to secs. 3, 4, 9 and 10, which is a lava stone 8 x 10 x 12 ins., in a mound of stone, marked and witnessed as described by the Surveyor General.
- Thence N. $2^{\circ} 17' W.$
- On a true line between secs. 3 and 4.
- 40.69 The point for 1/4 cor. as determined by the following proportion: $40.51 : 81.89 = 40.00 : x$. At this point I set a lava stone 28 x 20 x 5 ins. in a mound of stone for the 1/4 cor. to secs. 3 and 4, marked 1/4 on W. face, and raise a mound of stone W. of cor., whence:
- A yellow pine, 16 ins. dia., bears
- S. $17^{\circ} 41' E.$, 115 lks. dist.
- A yellow pine, 8 ins. dia., bears
- S. $25^{\circ} 50' W.$, 89 lks. dist.
- A yellow pine, 24 ins. dia., bears
- S. $89^{\circ} 30' W.$, 88 lks. dist.
- Each blazed and scribed 1/4 S B T.
- I continue on course, measuring from the sec. cor.
- 81.89 The closing cor. to secs. 3 and 4, the place of beginning.
-
- Rained all day, November 10 and 11, 1914.
- " " " " C. A. Long.
-
- September 2, 1916.
- Under supplemental instructions from the Surveyor General

HOMESTEAD ENTRY SURVEY NO. 245

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Chains for Arizona, dated June 23, 1916, R. P. A. Johnson, Surveyor - Draftsman, together with Chester A. Lee and Howard B. Ricketts, Chainmen, return to this claim for the purpose of re-surveying the South and West boundaries of sec. 4, T. 4 N., R. 28 E., and re-establishing the Std. 1/4 sec. cor. on S. boundary of sec. 32, T. 5 N., R. 28 E., G. and S. R. B. and M.

September 2, 1916.

At cor. to secs. 3, 4, 9 and 10, hereinafter described, I observe the altitude of the sun for azimuth. The reading on the reference object is set at zero and the sun was observed in the lower left and upper right quadrants of the field. My watch is set for local mean time.

Latitude $33^{\circ} 45' 37''$ N., Longitude $109^{\circ} 23' 45''$ W., from special instructions from the Surveyor General.

Telescopeed l.m.t. Horizontal Angle Vertical Angle

Direct 8h. 46m. 45s. $70^{\circ} 53' 00''$ $38^{\circ} 51' 30''$

Reversed 8h. 47m. 32s. $71^{\circ} 22' 00''$ $38^{\circ} 27' 30''$

Bearing of reference object, N. $0^{\circ} 01' 26''$ W.

At the Std. cor. for secs. 31 and 32, T. 5 N., R. 28 E., hereinafter described, I again observe the altitude of the sun for azimuth. The reading on the meridian brought by sustained angulation from the meridian established this morning, is set at zero and the sun was observed in the upper left and lower right quadrants of the field.

Latitude $33^{\circ} 46' 30''$ N., Longitude $109^{\circ} 25' 15''$ W., from special instructions from the Surveyor General.

Chains	Telescope	l.m.t.	Horizontal Angle	Vertical Angle
	Direct	4h. 09m. 01s.	$80^{\circ} 54' 30''$	$27^{\circ} 10' 30''$
	Reversed	4h. 09m. 48s.	$80^{\circ} 26' 00''$	$27^{\circ} 31' 00''$
			Bearing of reference object, N. $0^{\circ} 00' 41''$ W.	
			Difference from a.m. meridian, $0^{\circ} 00' 41''$	

From the cor. to secs. 3, 4, 9 and 10, which is a lava

stone $8 \times 10 \times 12$ ins., poorly marked, with two witness trees, I restore cor. as follows:

Deposit a lava stone $6 \times 3 \times 3$ ins., 18 ins. in the ground, over which I set a lava stone $28 \times 16 \times 5$ ins., marked with 5 notches on South edge and 3 notches on East edge; and raise a mound of stone, 3 ft. base, 2 ft. high, West of cor., whence:

A yellow pine, 24 ins. dia., bears $N. 17^{\circ} 54' E.$, 41 lks. dist., marked T 4 N R 28 E S 3 B T. (Old bearing tree).

A yellow pine, 24 ins. dia., bears S. $2^{\circ} 17' E.$, 28 lks. dist., marked T 4 N R 28 E S 10 B T. (Old bearing tree).

To A yellow pine, 12 ins. dia., bears N. $50^{\circ} W.$, 74 lks. dist., marked T 4 N R 28 E S 4 B T.

A yellow pine, 4 ins. dia., bears S. $35^{\circ} 15' W.$, 111 lks. dist., marked T 4 N R 28 E S 9 B T.

Thence West.

On a random line bet. secs. 4 and 9.

40.08 After careful search no signs of 1/4 cor. bet. secs. 4 and 9 are found.

81.19 Fall 142 lks. South of cor. to secs. 4, 5, 8 and 9, which is a yellow pine, 18 ins. in dia., marked as described by the Surveyor General. I raise a mound of stone 4 ft. base, 3 ft. high around tree, and witness as.

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- Chains** follows: Deposit a lava stone 8 x 3 x 1 ins., 10 ins. in the ground, over which set a lava stone 20 x 16 x 8 ins., marked 1/4 on N. face; and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor., from which:
- A yellow pine, 22 ins. dia., bears N. 1° W., 30 lks. dist., marked T 4 N R 28 E S 4 B T.
(Old bearing tree).
- A yellow pine, 22 ins. dia., bears S. 60° W., 20 lks. dist., marked T 4 N R 28 E S 8 B T.
(Old bearing tree).
- A yellow pine, 18 ins. dia., bears N. 53° 30' W., 70 lks. dist., marked T 4 N R 28 E S 5 B T.
- A yellow pine, 16 ins. dia., bears S. 63° 40' E., 55 lks. dist., marked T 4 N R 28 E S 8 B T.
- Thence S. 89° E.
- On true line bet. secs. 4 and 9.
- 40.60 At this point I again make careful search for 1/4 cor., which is described by the Surveyor General as a stone with mound of stone, but am unable to find any evidence of stone or mound. Re-establish cor. as follows:
- Deposit a lava stone 8 x 3 x 1 ins., 10 ins. in the ground, over which set a lava stone 20 x 16 x 8 ins., marked 1/4 on N. face; and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor., from which:
- A yellow pine, 18 ins. dia., bears N. 58° 30' E., 40 lks. dist., marked 1/4 S 4 B T.
- A yellow pine, 18 ins. dia., bears S. 23° 15' E., 13 lks. dist., marked 1/4 S 9 B T.
- 81.20 Cor. to secs. 3, 4, 9 and 10, heretofore described.
-
- Return to cor. secs. 4, 5, 8 and 9, heretofore described. Thence North.
- On a random line between secs. 4 and 5.
- 40.00 After careful search no signs of 1/4 cor. are found.

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Chains 80.29 Set temp. closing cor. for secs. 4 and 5, which is not found after a careful search.

September 2, 1916.

September 3, 1916.

I proceed to Std. cor. of secs. 31 and 32, T. 5 N., R. 28 E., which is a lava stone in mound of stone, marked and witnessed as described by the Surveyor General. Marks on stone are almost obliterated, I therefore restore cor. as follows:

Deposit a lava stone 4 x 3 x 2 ins. marked with a +, 14 ins. in the ground, over which set a lava stone 24 x 9 x 5 ins., marked S C on N. face, with 1 groove on W. face and 5 grooves on E. face; and raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.

Thence N. 88° 18' E.

On a random line along South boundary of sec. 32.

34.35 Fall 135 lks. S. of temp. closing cor. for secs. 4 and 5.

40.00 After careful search no signs of Std. 1/4 cor. on South line of sec. 32 are found.

69.63 Fall 4 lks. S. of cor. 19 H. E. S. 245, hereinafter described.

75.92 Fall 4-1/2 lks. S. of cor. 20, H. E. S. 245, hereinafter described.

86.72 Fall 5 lks. S. of Std. cor. to secs. 32 and 33, which is a lava stone marked and witnessed as described by the Surveyor General. Marks on stone are almost obliterated. I therefore restore cor. as follows:

Deposit a lava stone 8 x 4 x 4 ins. marked with a cross, 10 ins. in the ground, over which set a lava stone 20 x 14 x 8 ins., marked S C on North face, with two

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- 40
- Chains grooves on W. face and four grooves on E. face; and
 raise a mound of stone 3 ft. base, 2 ft. high, N. of
 cor. Thence S. $88^{\circ} 16'$ W.
- On a true line along S. bdy. of sec. 32.
- 10.80 Intersect cor. 20, H. E. S. 245, hereinafter described.
- 17.09 Intersect cor. 19, H. E. S. 245, hereinafter described.
- 43.36 Again make careful search for Std. 1/4 cor. on S. bdy.
 sec. 32, which is described by the Surveyor General
 as a post, with pits and one witness, but find no
 signs of post, pits, mound or witness. I re-establish
 cor. as follows:
 Deposit a lava stone 4 x 3 x 2 ins. marked with a +, 10
 ins. in the ground, over which set a lava stone 18 x
 10 x 5 ins., marked S C 1/4 on N. face; and raise a
 mound of stone 3 ft. base, 2 ft. high, N. of cor.,
 whence: prepared through profile until mounds are no
 longer visible. A yellow pine, 10 ins. dia., bears N. 23° W., 46 lks. dist., scribed S C 1/4 S 32 B. T.
- 58.53 Proportionate point for C. C. to secs. 4 and 5. At
 this point I again make careful search for cor. which
 is described by the Surveyor General as a stone, with
 mound of stone, but fail to find any evidence of stone
 or mound. I re-establish cor. as follows:
 Deposit a lava stone 6 x 3 x 2 ins. marked with a +, 10
 ins. in the ground, over which set a lava stone 20 x 8
 x 8 ins., marked C C on S. edge, with four notches on
 East edge and 2 on West edge. No rock available for
 mound, therefore dig pits 24 x 18 x 12 ins., crosswise
 on each line E. and W., 3 ft., and S. of stone 7 ft.
 dist.; and raise a mound of earth, 4 ft. base, 2 ft.

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- Chains high, S. of cor., whence: A yellow pine, 18 ins. dia., bears S. 34° E.,
 174 lks. dist., marked T 4 N R 28 E S 4 B T.
- A yellow pine, 18 ins. dia., bears S. 39°
 30' W., 103 lks. dist., marked T 4 N R 28 E
 S 5 B T.
- 86.72 Standard cor. for secs. 31 and 32, heretofore described.
-
- I return to cor. for secs. 4, 5, 8 and 9, heretofore
 described.
- Thence N. 4° 28' W.
- On true line bet. secs. 4 and 5.
- 39.36 Proportionate point for 1/4 cor. bet. secs. 4 and 5.
- At this point I again make careful search for cor.,
 which is described by the Surveyor General as a stone
 with mound of stone, but fail to find any evidence of
 stone or mound. I re-establish cor. as follows:
- Deposit a lava stone 6 x 3 x 3 ins: marked with a +, 14
 ins. in the ground, over which set a lava stone, 24 x
 12 x 12 ins. marked 1/4 on W. face; and raise a mound
 of stone, 3 ft. base, 2 ft. high, W. of cor., whence:
 A yellow pine, 16 ins. dia., bears S. 31° 30' W.,
 75 lks. dist., marked 1/4 S 5 B T.
- A yellow pine, 16 ins. dia., bears S. 39° E.,
 39 lks. dist., marked 1/4 S 4 B T.
- 79.00 The closing cor. to secs. 4 and 5, heretofore described.
- September 3, 1916.
- R. P. A. Johnson.
-
- C. A. Long.
- November 12, 1914.

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STATE OF ARIZONA

Chains	BOUNDARIES OF H. E. S. 245.
	TRACT A.
	I establish cor. No. 1 on line bet. secs. 3 and 4, as follows:
	Set a lava stone, 36 x 24 x 22 ins., 4 ins. in the ground to bed rock, for cor. No. 1 of this survey, marked l - H E S 245 on side facing claim and a cross on top. Pits impracticable. Raise a mound of stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:
	A nail in a yellow pine, 17 ins. dia., bears N. 21° 00' E., 89 lks. dist.
	A nail in a yellow pine, 30 ins. dia., bears S. 68° 11' E., 51 lks. dist.
	Each blazed and scribed l H E S 245 B T.
	The 1/4 cor. common to secs. 3 and 4, heretofore described, bears N. 2° 17' W., 6.25 chs. dist.
	The cor. to secs. 3, 4, 9 and 10, heretofore described, bears S. 2° 17' E., 34.44 chs. dist.
	Cor. No. 9, List No. 3-1970, which is a malpais stone 15 x 12 x 8 ins. above ground, marked and witnessed as described by the Forest Service, bears N. 41° 38' W., 2.66 chs., which I destroy and witnesses thereto.
	Latitude 33° 45' 58" N., Longitude 109° 23' 45" W., from special instructions from the Surveyor General.
	The magnetic bearing of the true meridian at cor. No. 1 H. E. S. No. 245 at 5 o'clock p.m., November 10, 1914, is N. 14° 30' W., which gives the mean magnetic declination of 14° 30' E.

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- Chains Thence S. $33^{\circ} 06'$ E. Through edge of scattering pine, along foot of hill, over rocky ground. Enter a line bet. cor. No. 0 & 1.
- 13.64 To cor. No. 2. Identical with list cor. No. 8, List 3-1970, which is a malpais stone 16 x 14 x 10 ins., above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto, and set a malpais stone 26 x 17 x 6 ins., 16 ins. in the ground, over a stone marked with a cross for cor. No. 2 of this survey, marked 2 - H E S 245 on side facing claim and a cross on top. Pits impracticable. Raise a mound of stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:
- A nail in a yellow pine, 30 ins. dia., bears N. $56^{\circ} 02'$ E., 34 lks. dist.
- A nail in a yellow pine, 30 ins. dia., bears N. $40^{\circ} 45'$ W., 55 lks. dist.
- Each blazed and scribed 2 H E S 245 B T.
-
- Thence N. $89^{\circ} 06'$ W. Through edge of scattering pine, over rocky land. Descend 10 ft. to creek.
- 0.40 Leave pine timber and rocky land.
- 0.50 Foot of slope. Enter willows and level bottom land.
- 1.50 Black River, 30 lks. wide, 2 ft. deep, course S. $33^{\circ} 00'$ E.
- 3.00 Leave willows. Continue over open level swamp land.
- 7.01 To cor. No. 3, and closing cor. on line bet. secs. 3 and 4. Set a lava stone 24 x 16 x 5 ins., 14 ins. in the

THE APACHE NATIONAL FOREST

STATE OF ARIZONA

- Chains ground, over a stone marked with a cross for cor. No. 3 of this survey, marked 3 - H E S 245 on N. face and C C on E. face and a cross on top. Pits and mounds impracticable, owing to marshy nature of ground. No bearings available.
- Bearings. The cor. to secs. 3, 4, 9 and 10, heretofore described, bears S. $2^{\circ} 17'$ E., 23.08 chs. dist. Cor. No. 1 of this survey bears N. $2^{\circ} 17'$ W., 11.36 chs. dist.
-
- Thence N. $89^{\circ} 06'$ W. 63 chs. - S. bearing, over open level marshy land.
- 2.50 Creek, 10 lks. wide, 2 ft. deep, course S. $40^{\circ} 00'$ E.
- 3.04 To cor. No. 4. Identical with cor. No. 7, List 3-1970, which is a malpais stone 12 x 9 x 3 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto, and set a shale stone 22 x 14 x 4 ins., 12 ins. in the ground, over a stone marked with a cross for cor. No. 4 of this survey, marked 4 - H E S 245 on side facing claim and a cross on top. Pits and mounds impracticable, whence: A nail in a yellow pine, 30 ins. dia., bears S. $13^{\circ} 43'$ E., 154 lks. dist., marked 4 H E S 245 B T.
- No other bearing trees within limits.
(No larger stone available for cor.)
-
- Thence S. $0^{\circ} 58'$ W. Over open level marshy land.
- 1.50 Fence cor. bears E. 50 lks., from which fences bear

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains	'N. 81° 30' E. and S. 2° 00' E.
2.50	Leave swamp land.
4.40	Creek, 10 lks. wide, 1 ft. deep, course N. 85° 00' E.
9.00	Enter scattering pine. Ascend 15 ft.
11.00	Road, bears S. 25° 00' E. and N. 50° 00' W. foot
12.46	To cor. No. 5. -
	Identical with list cor. No. 6, List 3-1970, which is a malpais stone 14 x 10 x 7 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto, and set a shale stone 28 x 15 x 4 ins., 18 ins. in the ground, over a stone marked with a cross for cor. No. 5 of this survey, marked 5 - H E S 245 on side facing claim and a cross on top. Dig pits 24 x 24 x 12 ins. crosswise on this and the succeeding course, 7 ft. dist.; and raise a mound of stone and earth 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:
	A nail in a yellow pine, 35 ins. dia., bears N. 4° 22' W., 75 lks. dist.
	A nail in a yellow pine, 28 ins. dia., bears S. 71° 02' E., 90 lks. dist.
	Each blazed and scribed 5 H E S 245 B T.
	Thence N. 57° 46' W. 1 x 81 x 1 ft. descent
	Descend 10 ft. through edge of scattering pine.
10.00	Leave timber.
10.50	Bottom of descent.
12.64	Creek, 10 lks. wide, 1 ft. deep, course N. 85° 00' E.
13.00	Ascend 15 ft. over rocky ground.
14.30	Wire fence bears S. 17° 30' E. and N. 10° 00' W.
14.44	To cor. No. 6.
	Identical with list cor. No. 5, List 3-1970, which is

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains a malpais stone 14 x 12 x 8 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto and set a malpais stone 35 x 24 x 12 ins., 6 ins. in the ground to bed rock; and raise a mound of stone around cor. for cor.

No. 6 of this survey, marked 6 - H E S 245 on side facing claim and a cross on top. Pits impracticable. Raise a mound of stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:

A nail in a yellow pine, 22 ins. dia., bears N. 25° 43' W., 125 lks. dist.

A nail in a yellow pine, 20 ins. dia., bears N. 34° 00' W., 124 lks. dist.

Each blazed and scribed 6 H E S 245 B T.

Thence N. 59° 22' E.

Over open land. Ascend 5 ft.

0.05 Wire fence, bears S. 17° 30' E. and N. 10° 00' W.

2.70 Top of slope.

3.00 Descend 20 ft.

6.10 To cor. No. 7.

Identical with list cor. No. 4, List 3-1970, which is a malpais stone 14 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto, and set a malpais stone 26 x 15 x 7 ins., 16 ins. in the ground, over a stone marked with a cross for cor. No. 7 of this survey marked 7 - H E S 245 on side facing claim and a cross on top. Dig pits 24 x 24 x 12 ins. crosswise on this and the succeeding course 7 ft. dist.; and raise a

APACHE NATIONAL FOREST

STATE OF ARIZONA

- Chains mound of stone and earth 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence: A nail in a yellow pine, 24 ins. dia., bears N. 74° 18' E., 84 lks. dist.
- A nail in a yellow pine, 24 ins. dia., bears N. 4° 47' W., 140 lks. dist.
- Each blazed and scribed 7 H E S 245 B T.
-
- Thence N. 20° 03' W. Over rolling open land covered with rock.
- 7.13 To cor. No. 8. Set a shale stone 23 x 17 x 8 ins., 13 ins. in the ground, over a stone marked with a cross for cor. No. 8 of this survey, marked 8 - H E S 245 on side facing claim and a cross on top. Pits impracticable. Raise a mound of stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:
- A nail in a yellow pine, 24 ins. dia., bears S. 18° 47' W., 162 lks. dist.
- A nail in a yellow pine, 10 ins. dia., bears N. 67° 12' W., 142 lks. dist.
- Each blazed and scribed 8 H E S 245 B T.
- List cor. No. 3, List 3-1970, bears N. 26° 10' E., 132 lks. dist., which I destroy and witnesses thereto.
- (No larger stone available for cor.)
-
- Thence N. 29° 56' W. Over open land, along hillside facing NE.
- 3.70 Wire fence, bears N. 17° 00' E.
- 4.20 Wire fence, bears N. 40° 00' W.
- 12.20 Cut-off fence, bears NE. and SW.
- 14.49 List cor. No. 2, List 3-1970, bears W., 10 lks. I de-

T2 APACHE JUNiper NATIONAL FOREST

STATE OF ARIZONA

- Chains stroy it and witnesses. X
 21.12 To cor. No. 9. X
 Point falls on a granite stone in place showing 50 x 36 x 36 ins. above ground. I cut a cross on the apex of the same stone, and 9 - H E S 245 on side facing claim for cor. No. 9 of this survey. Pits and mounds impracticable, whence: X
 A nail in a yellow pine, 36 ins. dia., bears N. 80° 10' W., 87 lks. dist., blazed and scribed 9 H E S 245 B T.
 A cross on a basalt ledge, 5 ft. above ground, bears S. 61° 40' W., 76 lks. dist., marked 9 H E S 245 B O.
 List cor. No. 1, List 3-1970, which is a malpais stone 10 x 12 x 8 ins. above ground, marked and witnessed as described by the Forest Service, bears N. 52° 00' W., 10 lks. dist. I destroy it and witnesses thereto.
-
- Thence N. 52° 04' W. X
 Along rocky hillside sloping East.
 11.43 To cor. No. 10. X
 Identical with list cor. No. 13, List No. 3-1970, and list cor. No. 6, List 3-2220, which is a malpais stone 18 x 14 x 10 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto. Point for cor. falls on a lava stone in place, showing 36 x 36 x 16 ins. above ground. I cut a cross at exact point for cor. and 10 - H E S 245 on side facing claim for cor. No. 10 of this survey. Pits impracticable. Raise a mound of stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence: X

STATE OF ARIZONA

Chains	A nail in a yellow pine, 10 ins. dia., bears S. $70^{\circ} 20'$ W., 34 lks. dist.
	A nail in a yellow pine, 14 ins. dia., bears S. $29^{\circ} 54'$ W., 74 lks. dist.
	Each blazed and scribed 10 H E S 245 B T.
	Thence N. $66^{\circ} 49'$ E.
2.88	Over open level bottom land, along South side of area excepted for roadway.
7.38	Wood road, bears S. $53^{\circ} 00'$ E. and N. $53^{\circ} 00'$ W.
9.88	Black River, 30 lks. wide, 2 ft. deep, course S. $10^{\circ} 00'$ E.
10.63	Creek, 10 lks. wide, 1 ft. deep, course S. $15^{\circ} 00'$ E.
10.88	Wire fence, bears S. $26^{\circ} 00'$ E. and N. $26^{\circ} 00'$ W.
	To cor. No. 11.
	Identical with list cor. No. 12, List No. 3-1970, and list cor. No. 7, List No. 3-2220, which is a malpais stone 24 x 12 x 6 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto and set a malpais stone 24 x 12 x 6 ins., 14 ins. in the ground, over a stone marked with a cross for cor. No. 11 of this survey, marked 11 - H E S 245 on side facing claim and a cross on top. Pits and mounds impracticable, whence:
	A nail in a yellow pine, 26 ins. dia., bears S. $88^{\circ} 05'$ E., 162 lks. dist.
	A nail in a yellow pine, 36 ins. dia., bears N. $30^{\circ} 28'$ E., 105 lks. dist.
	Each blazed and marked 11 H E S 245 B T.
	I set a temporary point N. $21^{\circ} 16'$ W., 50 lks. for cor. No. 14, H. E. S. No. 245, Tract B.
	Thence S. $25^{\circ} 30'$ E.
	Over open, level, grassy bottom land.

HOMESTEAD ENTRY SURVEY NO. 245

TARAPACHE NATIONAL FOREST

STATE OF ARIZONA

- Chains Baked earth soil of Genie Valley s mi. Llan A. anishD
 4.00 Wire fence bears S. $40^{\circ} 00'$ E. and N. $40^{\circ} 00'$ W.
 6.30 Creek, 10 lks. wide, 1 ft. deep, course S. $40^{\circ} 00'$ E.
 8.80 To cor. No. 12.
 Identical with list cor. No. 11, List 3-1970, which is
 a malpais stone 8 x 8 x 6 ins. above ground, marked and
 witnessed as described by the Forest Service. I de-
 stroy it and witnesses thereto, and set a malpais stone
 24 x 12 x 6 ins., 14 ins. in the ground, over a stone
 marked with a cross for cor. No. 12 of this survey,
 marked 12 - H E S 245 on side facing claim and a cross
 on top. Pits and mounds impracticable, whence:
 A nail in a yellow pine, 11 ins. dia.,
 bears S. $75^{\circ} 53'$ E., 209 lks. dist.
 A nail in a yellow pine, 26 ins. dia.,
 bears N. $25^{\circ} 50'$ E., 163 lks. dist.
 Each blazed and scribed 12 H E S 245 B T.
 Fence cor. bears S. $73^{\circ} 00'$ E., 226 lks. dist.
 Thence S. $89^{\circ} 54'$ E.
 Over open level grassy land.
 1.20 Creek, 10 lks. wide, 1 ft. deep, course S. $30^{\circ} 00'$ E.
 1.60 Wire fence bears S. $40^{\circ} 00'$ E. and N. $40^{\circ} 00'$ W.
 1.80 Ascend 15 ft. Enter scattering timber.
 4.30 To cor. No. 13.
 A lava stone in place, showing 24 x 10 x 8 ins. above
 ground. I cut a cross at exact point for cor. No. 13
 of this survey and marked 13 - H E S 245 on side fac-
 ing claim. Pits impracticable. Raise a mound of
 stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within
 claim, whence:
 A nail in a yellow pine, 18 ins. dia., bears
 N. $38^{\circ} 57'$ E., 53 lks. dist.
 A nail in a yellow pine, 24 ins. dia., bears

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains	S. $65^{\circ} 16'$ E., 27 lks. dist. Each blazed and scribed 13 H. E. S. 245 B. T. Cor. No. 10, List No. 3-1970, which is a malpais stone 14 x 10 x 9 ins. above ground, marked and witnessed as described by the Forest Service, bears S. $85^{\circ} 00'$ W., 10 lks. dist., which I destroy and witness thereto.
	Thence S. $41^{\circ} 38'$ E.
	Descend 25 ft. through edge of scattering pine, over rolling rocky land.
0.30	Wire fence bears N. $80^{\circ} 00'$ E.
20.66	To cor. No. 1, the place of beginning.
	November 13, 1914. At the temporary point previously set by me for cor. No. 14, Tract B, I set a basalt stone 34 x 12 x 5 ins., 24 ins. in the ground, over a stone marked with a cross for cor. No. 14 of this survey, marked 14 - H. E. S. 245 on side facing claim and a cross on top. Pits and mounds impracticable, whence: A nail in a yellow pine, 36 ins. dia., marked 11 H. E. S. 245 B. T., on NW. face, bears N. 58° $25'$ E., 82 lks. dist. A nail in a yellow pine, 30 ins. dia., bears N. $37^{\circ} 21'$ E., 83 lks. dist., marked 14 H. E. S. 245 B. T. Cor. No. 11, H. E. S. No. 245, bears S. 21° $16'$ E., 50 lks. dist. C. A. Long.

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains	R. P. A. Johnson.
	September 3, 1916.
	Thence S. $66^{\circ} 26' W.$
	Over open level land, along North side of area ex- cepted for roadway.
0.30	Wire fence bears N. $26^{\circ} 00' W.$
1.20	Creek, 10 lks. wide, 1 ft. deep, course S. $15^{\circ} 00' E.$
3.70	Black River, 30 lks. wide, 2 ft. deep, course S. 10° $00' E.$
8.80	Wood road, bears S. $53^{\circ} 00' E.$ and N. $53^{\circ} 00' W.$
11.36	To cor. No. 15. Set a lava stone $25 \times 22 \times 9$ ins., 15 ins. in the ground, over a stone marked with a cross for cor. No. 15 of this survey, marked 15 - H E S 245 on side facing claim and a cross on top. Dig pits 24×24 $\times 12$ ins. crosswise on this and the succeeding course 7 ft. dist.; and raise a mound of earth and stone, 3 ft. base, 2 ft. high, $3\frac{1}{2}$ ft. dist. within claim, whence: A nail in a yellow pine, 14 ins. dia., bears S. $75^{\circ} 44' W.$, 61 lks. dist. A nail in a yellow pine, 12 ins. dia., bears S. $31^{\circ} 30' E.$, 37 lks. dist. Each blazed and scribed 15 H E S 245 BT. Cor. No. 10, H. E. S. No. 245, Tract A., bears S. $69^{\circ} 23' E.$, 63 lks. dist. Thence N. $69^{\circ} 23' W.$ Over level land, along edge of scattering pine. 4.40 Wire fence bears N. $57^{\circ} 00' W.$ 4.70 Wood road bears East and West.

T2N APACHE MOUNT NATIONAL FOREST

STATE OF ARIZONA

- Chains 5.96 To cor. No. 16. (Established November 13, 1914 by C. A. Long.)
 Identical with list cor. No. 5, List 3-2220, which is a malpais stone 10 x 8 x 6 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witness thereto, and set a basalt stone 23 x 10 x 9 ins., 13 ins. in the ground, over a stone marked with a cross for cor. No. 16 of this survey, marked 16 - H E S 245 on side facing claim and a cross on top. Dig pits 24 x 24 x 12 ins. crosswise on this and the succeeding course 7 ft. dist.; and raise a mound of earth and stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence: A nail in a yellow pine, 16 ins. dia., bears S. 46° 19' E., 81 lks. dist.
 A nail in a yellow pine, 14 ins. dia., bears S. 28° 51' W., 82 lks. dist. Each blazed and scribed 16 H E S 245 B T. Fence bears East, 120 lks. (No larger stone available for cor.) R. P. A. Johnson.
 C. A. Long. November 13, 1914. Thence N. 37° 15' W. Over level land, through edge of scattering pine, along West side of fence which is 100 lks. dist.
 5.00 To cor. No. 17. Identical with list cor. No. 4, List 3-2220, which is a malpais stone 8 x 10 x 12 ins. above ground, marked

T8 APACHE N.M. NATIONAL FOREST

STATE OF ARIZONA

Chains and witnessed as described by the Forest Service. I
 destroy it and witnesses thereto, and set a lava stone
 24 x 14 x 7 ins., 14 ins. in the ground, over a stone
 marked with a cross for cor. No. 17 of this survey, and
 marked 17 - H E S 245 on side facing claim and a cross
 on top. Dig pits 24 x 24 x 12 ins. crosswise on this
 and the succeeding course, 7 ft. dist.; and raise a
 mound of stone and earth 3 ft. base, 2 ft. high, 3-1/2
 ft. dist. within claim, whence:

A nail in a yellow pine, 30 ins. dia., bears
 N. 24° 48' W., 38 lks. dist.

A nail in a yellow pine, 28 ins. dia., bears
 S. 76° 17' W., 42 lks. dist.

Each blazed and scribed 17 H E S 245 B T.

Fence cor. bears N. 58° 45' E., 22 lks. dist.

Thence N. 0° 23' W.

Over level land, through edge of scattering pine, along

West side of wire fence 30 lks. dist.

8.07 To cor. No. 18.

Identical with list cor. No. 3, List 3-2220, which is
 a malpais stone 8 x 10 x 10 ins. above ground, marked
 and witnessed as described by the Forest Service. I
 destroy it and witnesses thereto, and set a malpais
 stone 22 x 15 x 10 ins., 12 ins. in the ground, over a
 stone marked with a cross for cor. No. 18 of this sur-
 vey, marked 18 - H E S 245 on side facing claim and a
 cross on top. Dig pits 24 x 24 x 12 ins. crosswise
 on this and the succeeding course, 7 ft. dist.; and
 raise a mound of earth and stone 3 ft. base, 2 ft.
 high, 3-1/2 ft. dist. within claim, whence:

HOMESTEAD ENTRY SURVEY NO. MO 245

• 25.

TOMBACHE MOUNT NATIONAL FOREST

STATE OF ARIZONA

Chains A nail in a yellow pine, 16 ins. dia., bears
 S. $10^{\circ} 34'$ W., 28 lks. dist.

A nail in a yellow pine, 20 ins. dia., bears
 S. $82^{\circ} 52'$ W., 28 lks. dist.

Each blazed and scribed 18 H E S 245 B T.

Fence bears East, 50 lks.

(No larger stone available for cor.)

Thence N. $14^{\circ} 51'$ W.

Over rolling land, through edge of scattering pine,
 along west side of fence, 40 lks. dist.

14.11 To cor. No. 19, and Closing Cor. on line bet. secs. 4
 and 32.

Set a basalt stone 24 x 13 x 7 ins., 14 ins. in the
 ground, over a stone marked with a cross for cor. No.

19, and Closing Cor. of this survey, marked C C on
 South face and 19 - H E S 245 on side facing claim and
 a cross on top, whence:

A nail in a yellow pine, 12 ins. dia., bears

S. $38^{\circ} 09'$ W., 55 lks. dist.

A nail in a yellow pine, 13 ins. dia., bears
 S. $10^{\circ} 15'$ W., 60 lks. dist.

Each blazed and scribed C C 19 H E S 245 B T.

Cor. No. 2, List No. 3-2220, which is a sand-

stone 8 x 10 x 12 ins. above ground, marked

and witnessed as described by the Forest

Service, bears N. $14^{\circ} 51'$ W., 75 lks. dist.,

which I destroy and witnesses thereto.

The Std. cor. to secs. 32 and 33, heretofore

described, bears N. $88^{\circ} 16'$ E., 17.09 chs. dist.

The Std. 1/4 cor. on S. bdy. sec. 32, re-

HOMESTEAD ENTRY SURVEY NO. 245

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains

Established September 3, 1916, by R. P. A.

Johnson, heretofore described, bears

S. $88^{\circ} 16'$ W., 26.27 chs. dist. A

C. A. Long.

R. P. A. Johnson. At 03' from base of tree

September 3, 1916.

Thence N. $88^{\circ} 16'$ E.

On line bet. secs. 4 and 32, through scattering pine.

Descend 15 ft.

0.35 Wire fence, bears S. $14^{\circ} 50'$ E. and N. $14^{\circ} 50'$ W.

Leave timber. Enter open land. Continue along S. side of wire fence, 20 lks. dist.

1.80 Bottom of descent. Continue over level land.

2.00 Black River, 30 lks. wide, 2 ft. deep, course S. 70° 00' E.

2.50 Ascend 10 ft. to cor.

5.30 Wire fence, bears S. $32^{\circ} 50'$ E. and N. $65^{\circ} 00'$ W.

6.29 To cor. No. 20. (Established November 13, 1914 by C. A. Long.)

On line bet. secs. 4 and 32.

Set a basalt stone 34 x 16 x 7 ins., 24 ins. in the

ground, over a stone marked with a cross for cor. No.

20 of this survey, marked C C on SE. face, 20 - H E S

245 on side facing claim, and a cross on top. Pits

and mounds impracticable, whence:

A nail in a yellow pine, 34 ins. dia., bears

N. $76^{\circ} 14'$ W., 128 lks. dist.

A nail in a yellow pine, 40 ins. dia., bears

N. $8^{\circ} 45'$ W., 60 lks. dist.

Each blazed and scribed 20 H E S 245 B T.

T2 R16 S3 APACHE JCT NATIONAL FOREST

STATE OF ARIZONA AT

Chains

The Std. cor. to secs. 32 and 33, heretofore described, bears N. $88^{\circ} 16'$ E., 10.80 chs. dist. The Std. $\frac{1}{4}$ cor. on S. bdy. sec. 32, heretofore described, bears S. $88^{\circ} 16'$ W., 32.56 chs. dist. Cor. No. 1, List No. 3-2220, which is a malpais stone $12 \times 8 \times 6$ ins. above ground, marked and witnessed as described by the Forest Service, bears N. $32^{\circ} 55'$ W., 80 lks. dist. I destroy it and witnesses thereto.

September 3, 1916.

R. P. A. Johnson.

C. A. Long.

November 13, 1914.

- Thence S. $32^{\circ} 55'$ E. Over level land, through edge of scattering willows. Along E. side of wire fence, 5 lks. dist. 4.50 Wire fence is 10 lks. West. 8.00 Wire fence, 80 lks. west. 9.03 Cor. No. 10, List No. 3-2220, is West, 40 lks. I destroy it and witnesses thereto. 16.35 To cor. No. 21. Identical with cor. No. 9, List No. 3-2220, which is a malpais stone $28 \times 14 \times 4$ ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto, and set a shale stone $25 \times 12 \times 4$ ins., 15 ins. in the ground, over a stone marked with a cross for cor. No. 21 of this survey, marked 21 - H E S 245 on side facing claim and a cross on top. Dig pits $24 \times 24 \times 12$ ins. crosswise on this and the succeeding course 7 ft. dist.; and raise a mound

T₂APACHE NATION FOREST

STATE OF ARIZONA

Chains of earth and stone 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:
A nail in a yellow pine, 28 ins. dia., bears N. 01° 14' W., 127 lks. dist.
A nail in a yellow pine, 12 ins. dia., bears N. 71° 51' E., 90 lks. dist.
Each blazed and scribed 21 H E S 245 B T.
Fence is 3 lks. West of cor.
Black River is 110 lks. West of cor.

Thence S. 43° 42' E.
Over open level grass land, along East side of wire fence.

9.01 To cor. No. 22.

Identical with cor. No. 8, List 3-2220, which is a malpais stone 4 x 16 x 8 ins. above ground, marked and witnessed as described by the Forest Service. I destroy it and witnesses thereto and set a shale stone 25 x 14 x 4 ins., 15 ins. in the ground, over a stone marked with a cross for cor. No. 22 of this survey, marked 22 - H E S 245 on side facing claim and a cross on top. Dig pits 24 x 24 x 12 ins. crosswise on this and the succeeding course 7 ft. dist.; and raise a mound of stone and earth, 3 ft. base, 2 ft. high, 3-1/2 ft. dist. within claim, whence:

A nail in a yellow pine, 14 ins. dia., bears N. 76° 45' E., 97 lks. dist.

A nail in a yellow pine, 26 ins. dia., bears N. 31° 44' E., 137 lks. dist.

Each blazed and scribed 22 H E S 245 B T.

APACHE OPI NATIONAL FOREST

STATE OF ARIZONA AT 3

Chains -----

Wire fence is 60 lks. West of cor. slim & I enis

00.00 ----- ends

00.00 Thence S. $21^{\circ} 16'$ E. -- at meadow to effe

Over open level grass land, along East side of wire fence.

3.34 To cor. No. 14, the place of beginning.

----- signed by wife whose No November 13, 1914.

enred ascertained, also in auto that place seems believed to be

believe to be Tropicana A. Heldstegey has

ntiv of record, is in sec. 4 - - - - - 51.27 acres

ot Area Tract A in sec. 3 - - - - - 3.97 acres

Area Tract B in sec. 4 - - - - - 32.06 acres

erry Total Area - - - - - 87.30 acres

Total area to be taken up in claim 87.30 acres

CONFLICTS AND ADJOINING CLAIMS

There are no conflicts or adjoining claims.

IMPROVEMENTS

The improvements made upon this claim, the property of the claimant herein, consist of the following:

Log residence, (2 rooms), 15 x 37 ft., course of long sides East and West, the NW. cor. of which bears from cor. No. 13, S. $14^{\circ} 37'$ W., 1.68 chs. dist.

Value ----- \$300.00

Log barn, 16 x 20 ft., course of long sides North and South, the NW. cor. of which bears from cor. No. 13, S. $38^{\circ} 03'$ E., 3.75 chs. dist.

Value ----- \$100.00

Log chicken house, 7 x 13 ft., course of long sides North and South, the NW. cor. of which bears from cor. No. 13, S. $25^{\circ} 35'$ E., 5.05 chs. dist.

Value ----- \$ 10.00

Two miles of wire fencing.

Value ----- \$160.00

HOMESTEAD ENTRY SURVEY NO. 245

J. E. H. 1901

TO APACHE MOUNTAIN NATIONAL FOREST

STATE OF ARIZONA

Chains	1/2 mile irrigation ditch.	\$ 50.00
	Total value of improvements	\$620.00

DESCRIPTION

The claim lies along the valley of Black River. The soil is a black sandy silt, very fertile. It produces excellent crops of oats, barley, potatoes, beans and vegetables. A large part of Tract A is covered with willow and very marshy, having been infested with beavers in the past. This part will be difficult to reclaim and bring under cultivation.

Black River, a perennial stream of good clear water runs through the claim and supplies sufficient water for all purposes.

The entire claim is enclosed within a good wire fence, and about 30 acres have been under cultivation heretofore.

There is no evidence of minerals on the claim. A few scattering pine are within the boundaries of this claim.

Alpine, the nearest post office and trading center, lies 20 miles distant in a Northeasterly direction, and is reached by a rough wagon road.

TRAVERSE

TRACT A, Section 3.

Cor.	Course	Dist.	N	S	E	W
1-2	S. 33° 06' E.	13.64		11.43	7.45	
2-3	N. 89° 06' W.	7.01	0.11			7.01
3-1	N. 2° 17' W.	11.36	11.35			0.45
		32.01	11.46	11.43	7.45	7.46
			11.43			7.45
	Error in Lat. and Dep.		.03			.01
	Closing error, 1:1012.					

T2N APACHE MDT NATIONAL FOREST

STATE OF ARIZONA TAT2

Chains	TRACT A, Section 4.						
	Cor.	Course	Dist.	N	S	E	W
1-3	S.	2° 17' E.	11.36		11.35	0.45	
3-4	N.	89° 06' W.	3.04	0.05			3.04
4-5	S.	0° 58' W.	12.46		12.46		0.21
5-6	N.	57° 46' W.	14.44	7.70			12.22
6-7	N.	59° 22' E.	6.10	3.11		5.25	
7-8	N.	20° 03' W.	7.13	6.70			2.44
8-9	N.	29° 56' W.	21.12	18.30			10.54
9-10	N.	52° 04' W.	11.43	7.03			9.02
10-11	N.	66° 49' E.	10.88	4.28		10.00	
11-12	S.	25° 30' E.	8.80		7.94	3.79	
12-13	S.	89° 54' E.	4.30		0.01	4.30	
13-1	S.	41° 38' E.	20.66		15.44	13.73	
			131.72	47.17	47.20	37.52	37.47
					47.17	37.47	
Error in Lat. and Dep.					.03	.05	

Closing error, 1:2260.

TRACT B, Section 4.

Cor.	Course	Dist.	N	S	E	W
14-15	S.	66° 26' W.	11.36		4.54	10.41
15-16	N.	69° 23' W.	5.96	2.10		5.58
16-17	N.	37° 15' W.	5.00	3.98		3.03
17-18	N.	0° 23' W.	8.07	8.07		0.05
18-19	N.	14° 51' W.	14.11	13.64		3.62
19-20	N.	88° 16' E.	6.29	0.19		6.29
20-21	S.	32° 55' E.	16.35		13.73	8.88
21-22	S.	43° 42' E.	9.01		6.51	6.22
22-15	S.	21° 16' E.	3.34		3.11	1.21
		79.49	27.98	27.89	22.60	22.69
			27.89			22.60
Error in Lat. and Dep.				.09		.09

Closing error, 1:624.

Survey completed September 3, 1916.

C. A. Long
Surveyor - Forest ServiceR. L. Johnson
Surveyor - Draftsman

NATIONAL FOREST

STATE OF ILLINOIS TO STATE

Chains	SECTION A - BOARD						Gmt
	W	E	N	S	Date	Comments	
NO. 2	88.0	88.11	11.88	88.11	88.11	88.11	8-1
10.51		88.0	88.8	88.0	88.0	88.0	8-4
22.81		88.11	88.81	88.11	88.11	88.11	8-5
34.81		88.8	88.81	88.81	88.81	88.81	8-6
46.8		88.8	88.81	88.81	88.81	88.81	8-7
58.8		88.8	88.81	88.81	88.81	88.81	8-8
70.8		88.8	88.81	88.81	88.81	88.81	8-9
82.8		88.8	88.81	88.81	88.81	88.81	8-10
94.8		88.8	88.81	88.81	88.81	88.81	8-11
106.8		88.8	88.81	88.81	88.81	88.81	8-12
118.8		88.8	88.81	88.81	88.81	88.81	8-13
130.8		88.8	88.81	88.81	88.81	88.81	8-14
142.8		88.8	88.81	88.81	88.81	88.81	8-15
154.8		88.8	88.81	88.81	88.81	88.81	8-16
166.8		88.8	88.81	88.81	88.81	88.81	8-17
178.8		88.8	88.81	88.81	88.81	88.81	8-18
190.8		88.8	88.81	88.81	88.81	88.81	8-19
202.8		88.8	88.81	88.81	88.81	88.81	8-20
214.8		88.8	88.81	88.81	88.81	88.81	8-21
226.8		88.8	88.81	88.81	88.81	88.81	8-22
238.8		88.8	88.81	88.81	88.81	88.81	8-23
250.8		88.8	88.81	88.81	88.81	88.81	8-24
262.8		88.8	88.81	88.81	88.81	88.81	8-25
274.8		88.8	88.81	88.81	88.81	88.81	8-26
286.8		88.8	88.81	88.81	88.81	88.81	8-27
298.8		88.8	88.81	88.81	88.81	88.81	8-28
310.8		88.8	88.81	88.81	88.81	88.81	8-29
322.8		88.8	88.81	88.81	88.81	88.81	8-30
334.8		88.8	88.81	88.81	88.81	88.81	8-31
346.8		88.8	88.81	88.81	88.81	88.81	8-32
358.8		88.8	88.81	88.81	88.81	88.81	8-33
370.8		88.8	88.81	88.81	88.81	88.81	8-34
382.8		88.8	88.81	88.81	88.81	88.81	8-35
394.8		88.8	88.81	88.81	88.81	88.81	8-36
406.8		88.8	88.81	88.81	88.81	88.81	8-37
418.8		88.8	88.81	88.81	88.81	88.81	8-38
430.8		88.8	88.81	88.81	88.81	88.81	8-39
442.8		88.8	88.81	88.81	88.81	88.81	8-40
454.8		88.8	88.81	88.81	88.81	88.81	8-41
466.8		88.8	88.81	88.81	88.81	88.81	8-42
478.8		88.8	88.81	88.81	88.81	88.81	8-43
490.8		88.8	88.81	88.81	88.81	88.81	8-44
502.8		88.8	88.81	88.81	88.81	88.81	8-45
514.8		88.8	88.81	88.81	88.81	88.81	8-46
526.8		88.8	88.81	88.81	88.81	88.81	8-47
538.8		88.8	88.81	88.81	88.81	88.81	8-48
550.8		88.8	88.81	88.81	88.81	88.81	8-49
562.8		88.8	88.81	88.81	88.81	88.81	8-50
574.8		88.8	88.81	88.81	88.81	88.81	8-51
586.8		88.8	88.81	88.81	88.81	88.81	8-52
598.8		88.8	88.81	88.81	88.81	88.81	8-53
610.8		88.8	88.81	88.81	88.81	88.81	8-54
622.8		88.8	88.81	88.81	88.81	88.81	8-55
634.8		88.8	88.81	88.81	88.81	88.81	8-56
646.8		88.8	88.81	88.81	88.81	88.81	8-57
658.8		88.8	88.81	88.81	88.81	88.81	8-58
670.8		88.8	88.81	88.81	88.81	88.81	8-59
682.8		88.8	88.81	88.81	88.81	88.81	8-60
694.8		88.8	88.81	88.81	88.81	88.81	8-61
706.8		88.8	88.81	88.81	88.81	88.81	8-62
718.8		88.8	88.81	88.81	88.81	88.81	8-63
730.8		88.8	88.81	88.81	88.81	88.81	8-64
742.8		88.8	88.81	88.81	88.81	88.81	8-65
754.8		88.8	88.81	88.81	88.81	88.81	8-66
766.8		88.8	88.81	88.81	88.81	88.81	8-67
778.8		88.8	88.81	88.81	88.81	88.81	8-68
790.8		88.8	88.81	88.81	88.81	88.81	8-69
802.8		88.8	88.81	88.81	88.81	88.81	8-70
814.8		88.8	88.81	88.81	88.81	88.81	8-71
826.8		88.8	88.81	88.81	88.81	88.81	8-72
838.8		88.8	88.81	88.81	88.81	88.81	8-73
850.8		88.8	88.81	88.81	88.81	88.81	8-74
862.8		88.8	88.81	88.81	88.81	88.81	8-75
874.8		88.8	88.81	88.81	88.81	88.81	8-76
886.8		88.8	88.81	88.81	88.81	88.81	8-77
898.8		88.8	88.81	88.81	88.81	88.81	8-78
910.8		88.8	88.81	88.81	88.81	88.81	8-79
922.8		88.8	88.81	88.81	88.81	88.81	8-80
934.8		88.8	88.81	88.81	88.81	88.81	8-81
946.8		88.8	88.81	88.81	88.81	88.81	8-82
958.8		88.8	88.81	88.81	88.81	88.81	8-83
970.8		88.8	88.81	88.81	88.81	88.81	8-84
982.8		88.8	88.81	88.81	88.81	88.81	8-85
994.8		88.8	88.81	88.81	88.81	88.81	8-86
1006.8		88.8	88.81	88.81	88.81	88.81	8-87
1018.8		88.8	88.81	88.81	88.81	88.81	8-88
1030.8		88.8	88.81	88.81	88.81	88.81	8-89
1042.8		88.8	88.81	88.81	88.81	88.81	8-90
1054.8		88.8	88.81	88.81	88.81	88.81	8-91
1066.8		88.8	88.81	88.81	88.81	88.81	8-92
1078.8		88.8	88.81	88.81	88.81	88.81	8-93
1090.8		88.8	88.81	88.81	88.81	88.81	8-94
1102.8		88.8	88.81	88.81	88.81	88.81	8-95
1114.8		88.8	88.81	88.81	88.81	88.81	8-96
1126.8		88.8	88.81	88.81	88.81	88.81	8-97
1138.8		88.8	88.81	88.81	88.81	88.81	8-98
1150.8		88.8	88.81	88.81	88.81	88.81	8-99
1162.8		88.8	88.81	88.81	88.81	88.81	8-100
1174.8		88.8	88.81	88.81	88.81	88.81	8-101
1186.8		88.8	88.81	88.81	88.81	88.81	8-102
1198.8		88.8	88.81	88.81	88.81	88.81	8-103
1210.8		88.8	88.81	88.81	88.81	88.81	8-104
1222.8		88.8	88.81	88.81	88.81	88.81	8-105
1234.8		88.8	88.81	88.81	88.81	88.81	8-106
1246.8		88.8	88.81	88.81	88.81	88.81	8-107
1258.8		88.8	88.81	88.81	88.81	88.81	8-108
1270.8		88.8	88.81	88.81	88.81	88.81	8-109
1282.8		88.8	88.81	88.81	88.81	88.81	8-110
1294.8		88.8	88.81	88.81	88.81	88.81	8-111
1306.8		88.8	88.81	88.81	88.81	88.81	8-112
1318.8		88.8	88.81	88.81	88.81	88.81	8-113
1330.8		88.8	88.81	88.81	88.81	88.81	8-114
1342.8		88.8	88.81	88.81	88.81	88.81	8-115
1354.8		88.8	88.81	88.81	88.81	88.81	8-116
1366.8		88.8	88.81	88.81	88.81	88.81	8-117
1378.8		88.8	88.81	88.81	88.81	88.81	8-118
1390.8		88.8	88.81	88.81	88.81	88.81	8-119
1402.8		88.8	88.81	88.81	88.81	88.81	8-120
1414.8		88.8	88.81	88.81	88.81	88.81	8-121
1426.8		88.8	88.81	88.81	88.81	88.81	8-122
1438.8		88.8	88.81	88.81	88.81	88.81	8-123
1450.8		88.8	88.81	88.81	88.81	88.81	8-124
1462.8		88.8	88.81	88.81	88.81	88.81	8-125
1474.8		88.8	88.81	88.81	88.81	88.81	8-126
1486.8		88.8	88.81	88			

APACHE NATIONAL FOREST

ARIZONA

Chains

Azimuth Computation.

(1)

Date of obsn. November 8, 1914.

Latitude $33^{\circ} 46' 30''$ N. }
 Longitude $109^{\circ} 24' W.$ } From Land Office Map.

L. m. t. of obsn. 8h. 47m. 55s.

App. time of obsn. 9h. 04m. 08s.

Obs. altitude $24^{\circ} 37' 00''$ Red. " $24^{\circ} 34' 55''$ Declination S. $16^{\circ} 27' 58''$ Horizontal angle $5^{\circ} 46' 40''$

(Sun is to right of reference mark).

$$\text{Sin. } 16^{\circ} 27' 58'' - (\text{Tan.})$$

$$\text{Cos. A.} = \frac{\text{Cos. } 33^{\circ} 46' 30'' \times \text{Cos. } 24^{\circ} 34' 55''}{\text{Sin. } 16^{\circ} 27' 58''}$$

$$33^{\circ} 46' 30'' \times \text{Tan. } 24^{\circ} 34' 55'').$$

$$\begin{aligned} \text{Log. Sin. } 16^{\circ} 27' 58'' &= 9.4524737 \\ &\quad 9.8784590 \\ &\underline{9.5740147} = \text{Log. } -.37499 \end{aligned}$$

$$\begin{aligned} \text{Log. Cos. } 33^{\circ} 46' 30'' &= 9.9197197 \\ " " 24^{\circ} 34' 55'' &= 9.9587393 \\ &\underline{9.8784590} \end{aligned}$$

$$\begin{aligned} \text{Log. Tan. } 33^{\circ} 46' 30'' &= 9.8253027 \\ " " 24^{\circ} 34' 55'' &= 9.6603480 \\ &\underline{9.4856507} = \text{Log. } -.30595 \end{aligned}$$

$-.37499 -.30595 = -.68094$ = Nat. Cos. of S. $47^{\circ} 05' E.$,
 being the bearing of the sun. The bearing of the reference mark is S. $52^{\circ} 51' 40'' E.$

(2)

Date of obsn., November 8, 1914.

Latitude $33^{\circ} 46' 30''$ N. }
 Longitude $109^{\circ} 24' 00''$ W. } From Land Office Map.

L. m. t. of obsn. 8h. 52m. 00s.

App. time of obsn. 9h. 08m. 13s.

Obs. altitude $25^{\circ} 14' 00''$ Red. " $25^{\circ} 11' 58''$

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HOMESTEAD ENTRY SURVEY

NATIONAL FOREST

ARIZONA

Chains

Opposite

ANNUAL COMPARISON

(I)

Date of open. Movember 8, 1944.

Tsitituge 22. 46, 20, N.
From Land Office Map.
Longitude 103. 54, W.

L. m. f. of open. 8p. 45m. 55s.

Abb. time of open. 8h. 46m. 08s.

Opp. Sitituge 24. 24, 00.

Reg. " 24. 24, 22.

Declination 2. 16. 24.

Horizontal angle P. 46, 40.

(Sun is sighted to left of some mark)
Sun. 16. 24, 28.

Opp. A. = Opp. 22. 46, 20, X Opp. 24, 22.

22. 46, 20, X Sun. 24, 22.)

Log. Sun. 16. 24, 22. = 3. 8484530

3. 8484530 = Log. - . 34433

Log. Opp. 22. 46, 20. = 3. 8484530

" " 24. 24, 22. = 3. 8484530

Log. Sun. 22. 46, 20. = 3. 8484530

3. 8484530 = Log. - . 30232

-. 34433 - . 30232 = -. 68034 = Mst. Opp. of S. 44. 0P. H.

Refer ent to sunred ent. sun red to sunred ent passed by

some mark is S. 2. 25. 21, 40. H.

(S)

Date of open. Movember 8, 1944.

Tsitituge 22. 46, 20, N.
From Land Office Map.
Longitude 103. 54, 00, W.

L. m. f. of open. 8p. 45m. 00s.

Abb. time of open. 8h. 46m. 18s.

Opp. Sitituge 24. 14, 00.

Reg. " 24. 14, 22.

HOMESTEAD ENTRY SURVEY NO. 245

2.

APACHE NATIONAL FOREST

STATE OF ARIZONA

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Chains	Declination S. $16^{\circ} 28' 01''$
	Horizontal Angle $6^{\circ} 37' 15''$
	(Sun is to right of reference mark).
	$\text{Cos. A.} = \frac{\text{Sin. } 16^{\circ} 28' 01''}{\cos. 33^{\circ} 46' 30'' \times \cos. 25^{\circ} 11' 58''}$
	($\tan. 33^{\circ} 46' 30'' \times \tan. 25^{\circ} 11' 58''$).
	$\text{Log. Sin. } 16^{\circ} 28' 01'' = 9.4524950$ 9.8762823 $\underline{9.5762127} = \text{Log.} = .37689$
	$\text{Log. Cos. } 33^{\circ} 46' 30'' = 9.9197197$ $\text{Log. Cos. } 25^{\circ} 11' 58'' = \underline{9.9565626}$ 9.8762823
	$\text{Log. Tan. } 33^{\circ} 46' 30'' = 9.8253027$ $\text{Log. Tan. } 25^{\circ} 11' 58'' = \underline{9.6726081}$ $9.4979108 = \text{Log.} = .31471$
	$-.37689 -.31471 = -.69158 = \text{Nat. Cos. of S. } 46^{\circ} 14' 41'' \text{ E.}$
	which is the bearing of the sun. The bearing of reference mark is S. $52^{\circ} 51' 56''$ E. and the mean of these two observations is S. $52^{\circ} 51' 48''$ E.

HOMESTEAD ENTRY SURVEY NO. 1

16
MAY 1934
FEDERAL LAND OFFICE
NATIONAL FOREST

STATE OF

TO STATE

Chains

HOMESTEAD ENTRY SURVEY NO. 245

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APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains Direct solar at cor. for secs. 3, 4, 9 and 10 on
September 2, 1916.

Lat. $33^{\circ} 45' 37''$ N. Long. $109^{\circ} 23' 45''$ W. Elev. 8000 ft.

Telescope	Time	Horizontal Angle	Vertical Angle	Pos. Sun
Direct	8h. 46m. 43s.	$70^{\circ} 53' 00''$	$38^{\circ} 51' 30''$	+
Reversed	8h. 47m. 32s.	$71^{\circ} 22' 00''$	$38^{\circ} 27' 30''$	+
Mean	<u>8h. 47m. 07s.</u>	$71^{\circ} 07' 30''$	$38^{\circ} 39' 30''$	
	<u>4h. 42m. 25s.</u>		$0^{\circ} 00' 54''$	
	<u>4h. 04m. 42s.</u>		$38^{\circ} 38' 36''$	

Decl., $7^{\circ} 53' 18''$

$$\text{Cos. Q.} = \frac{\sin. 7^{\circ} 53' 18''}{\cos. 33^{\circ} 45' 37'' \times \cos. 38^{\circ} 38' 36''}$$

$$\tan. 33^{\circ} 45' 37'' \times \tan. 38^{\circ} 38' 36''$$

$$\begin{aligned} \log. \sin. 7^{\circ} 53' 18'' &= + 9.137489 \\ \log. \cos. 33^{\circ} 45' 37'' &= - 9.919780 \\ \log. \cos. 38^{\circ} 38' 36'' &= - 9.892679 \\ &\quad \underline{9.325030} = \log. .21136 \\ \log. \tan. 33^{\circ} 45' 37'' &= + 9.825062 \\ \log. \tan. 38^{\circ} 38' 36'' &= + 9.902834 \\ &\quad \underline{9.727896} = \log. .53444 \end{aligned}$$

$$\begin{aligned} \text{Cos. Q.} &= .32308 \\ \text{Q.} &= 71^{\circ} 09' 51'' \end{aligned}$$

Bearing of reference object is N. $0^{\circ} 01' 30''$ W.

Direct solar at Standard cor. for secs. 31 and 32 on

September 2, 1916.

Lat. $33^{\circ} 46' 30''$ N., Long. $109^{\circ} 25' 15''$ W., Elev. 7900 ft.

Telescope	Time	Horizontal Angle	Vertical Angle	Pos. Sun
Direct	4h. 09m. 01s.	$80^{\circ} 54' 30''$	$27^{\circ} 10' 30''$	+
Reversed	4h. 09m. 48s.	$80^{\circ} 26' 00''$	$27^{\circ} 31' 00''$	+
Mean	<u>4h. 09m. 24s.</u>	$80^{\circ} 40' 15''$	$27^{\circ} 20' 45''$	
	<u>7h. 17m. 41s.</u>		$0^{\circ} 01' 25''$	
	<u>11h. 27m. 05s.</u>		$27^{\circ} 19' 20''$	

Decl., $7^{\circ} 46' 36''$ N.

$$\text{Cos. Q.} = \frac{\sin. 7^{\circ} 46' 36''}{\cos. 33^{\circ} 46' 30'' \times \cos. 27^{\circ} 19' 20''}$$

$$\tan. 33^{\circ} 46' 30'' \times \tan. 27^{\circ} 19' 20''$$

$$\begin{aligned} \log. \sin. 7^{\circ} 46' 36'' &= 9.131336 \\ \log. \cos. 33^{\circ} 46' 30'' &= 9.919717 \\ \log. \cos. 27^{\circ} 19' 20'' &= 9.948628 \\ &\quad \underline{9.262991} = \log. .18323 \\ \log. \tan. 33^{\circ} 46' 30'' &= 9.825303 \\ \log. \tan. 27^{\circ} 19' 20'' &= 9.713179 \\ &\quad \underline{9.538482} = \log. .34553 \end{aligned}$$

$$\begin{aligned} \text{Cos. Q.} &= .16230 \\ \text{Q.} &= 80^{\circ} 39' 34'' \end{aligned}$$

Bearing of reference object, N. $0^{\circ} 00' 41''$ W.

HOMESTEAD ENTRY SURVEY NO.

NATIONAL FOREST

STATE OF

Chains

10

81
64
~~141~~

THEORY AND PRACTICE IN
EDUCATIONAL RESEARCH

DIRECTIONS.—1. Carry out calculations to two decimals only.
 2. In balancing Latitudes and Departures do not obliterate or change the original figures.

Put the corrected figure or figures above in red ink. Do not change the footing of the original figures, but put below them the corrected footing in red ink.

The corrections for balancing fallings should be proportional to the lengths of the lines.

3. In calculations of fallings take result to nearest link. In calculations of N. and S. areas drop all after second decimal. Surveyors are required to use the Standard Field Tables issued by the G. I. O.
 4. Only three copies of this tabulation are necessary, for the District Office, the Surveyor General, and the Commissioner.

TABLING AND CALCULATIONS OF HOMESTEAD ENTRY SURVEY NO. 245, STATE OF ARIZONA

Apache - Albert Thompson

CORNERS.	BEARING.	DISTANCE.	LATITUDES.		DEPARTURES.		DOUBLE M. D.	N. AREAS.	S. AREAS.
			NORTH.	SOUTH.	EAST.	WEST.			
1-3	S. 02° 17' E.	11.36			4	45			
3-4	N. 89° 06' W.	3.04	05	11 35			64 03	726	74
4-5	S. 0° 58' W.	12.46			3	04	61 44	3	07
5-6	N. 57° 46' W.	14.44	7 70		12 46		12 21 23	58 19	725 05
6-7	N. 59° 22' E.	6.10	3 11		5 25		12 22	45 75	352 73
7-8	N. 20° 03' W.	7.13	6 70		2	44	38 77	120	57
8-9	N. 29° 56' W.	21.12	18 30		10 10 55	41	58 278	278	59
9-10	N. 52° 04' W.	11.43	7 03		9	02	28 54	59 523	48
10-11	N. 66° 49' E.	10.88	4 28		10 10 00	9	02	63	41
11-12	S. 25° 30' E.	8.80	7 94		7 99		23 76	42	76
12-13	S. 89° 54' E.	4.30			01 4	30 32	31 84	188	65
13-1	S. 41° 38' E.	20.66			15 44	13 73	49 86	769 34	32
		131.72	47 17	47	20 37	52 37	1384 61	2410 10	
			47 19		37 47			1384 61	
					37 47			20 1025 49	
								51 274 A.	
								3. 972 A.	
								31. 992 A.	
								87. 228 A.	Total Area.

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DIRECTIONS.—1. Carry out calculations to two decimals only.
2. In balancing Latitudes and Longitudes, do not round off figures.

2. In balancing Latitudes and Departures do not obliterate or change the original figures.

2. In balancing Lanthides and Departures do not obliterate or change the original figures. Put the corrected figure or figures above in red ink.

The corrections for balancing fallings should be proportional to the lengths of the lines and are arranged in the same order as the original figures, but put below them the corrected footing in red ink.

3. In calculations of fallings take result to nearest link.
4. Only three copies of this tabulation are necessary, for the District Office that

Surveyors are required to use the Standard Field Tables issued by the G. I. O.

TABLEING AND CALCULATIONS OF HOMESTEAD ENTRY SURVEY NO. 245, STATE OF Arizona Apache

DIRECTIONS — I. Carry out calculations to two decimals only.

2. In balancing Latitudes and Departures do not obliterate or change the original figures. Carry out cancellations to two decimals only.

2 In calculations of fallings to be proportional to the lengths of the

3. In calculations of N. and S. areas drop all after second decimal. Surveyors are required to use the Standard Field Tables issued by the G. I. O.

TABLING AND CALCULATIONS OF HOMESTEAD ENTRY SURVEY NO. 245, STATE OF ARIZONA. APR. 9.

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Ergonomics in Design

APPROVAL

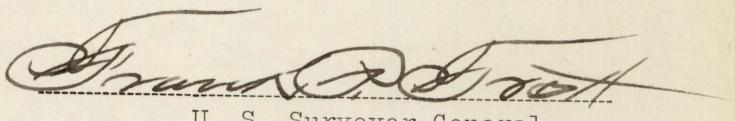
Office of the United States Surveyor General,

Phoenix, Arizona, April 16, 1917

The foregoing field notes of Homestead Entry Survey No.

245

executed by C. A. Long, Surveyor Forset Service and
R. P. A. Johnson, Surveyor Draftsman [Forest Service Title.]
under his special instructions, dated August 6, 1914, having
and supplemental instructions dated June 23, 1916,
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 survey in the State of Arizona, has been
correctly copied from the original notes on file in this office.

Frank P. Trott,

U. S. Surveyor General.