

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

135
JUN 2 1915
MAY 26 1916

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 169

SITUATED IN THE

CROOK NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

in

Section 17, unsurveyed, Township 4 N., Range 17 E.

of the
Gila and Salt River Base and Meridian.

ARIZONA

Survey executed by Walter G. Turley, Surveyor-Forest Service

Under special instructions dated February 12, 1914

Survey commenced February 28, 1914

Survey completed October 14, 1914

Under Acts of June 11, 1906, March 4, 1913 and June 30, 1914.

Applicant for listing George Shanley

Residence Globe, Arizona

Application No. 77, dated January 23, 1909

List No. 3-662, dated September 6, 1910

Applicant for survey Franklin J. Howe

Residence Globe, Arizona

H. E. No. 021546, dated March 25, 1913

Land district Phoenix, Arizona

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OATH OF ASSISTANTS

We hereby certify that we assisted Walter G. Turley,
Surveyor-Forest Service in surveying all those
parts or portions of Homestead Entry Survey No. 169, in
unsurveyed Section 17, Township 4 N., Range 17 E.,
---surveyed Section ---, Township ---, Range ---,

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.

Guy Turley, Chainman.
P. P. Johnson, Chainman.
Robert E. Lee Jr., Flagman.

Subscribed and sworn to before me this 10th day of
March, 1914.

Walter G. Scott
Notary Public
My commission expires July 1, 1917

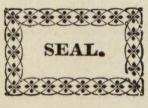
I, Walter G. Turley, Surveyor-Forest, do solemnly swear
that, in strict conformity with the special instructions of
the United States Surveyor General for Arizona, dated
February 12, 1914, and the laws of the United States, I have
well, faithfully, and truly, in my own proper person, sur-
veyed a tract of land ~~upon the application of~~ embraced in
List, No. 3-662 dated Sept. 6, 1910, for
Patent, under the Act of June 11, 1906,
the same to be known as Homestead Entry Survey No. 169,
situated within the CROOK National Forest, in
unsurveyed Section 17, Township 4 N., Range 17 E., and
---surveyed Section ---, Township ---, Range ---,

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 perpet-
uated 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.

Walter G. Turley
Surveyor-Forest Service.

Subscribed and sworn to before me this 10th day of
March, 1914.

Walter G. Scott
Notary Public
My commission expires July 1, 1917



CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains

Applicant for listing, George Shanley; Application No. 77, dated January 23, 1909; List No. 3-662, dated September 6, 1910; H. E. No., 021546, made by Franklin J. Howe at Phoenix, Arizona, dated March 25, 1913.

Surveyed under special instructions from the Surveyor General for Arizona, dated February 12, 1914, and designated as Homestead Entry Survey No. 169.

Situated in unsurveyed T. 4 N., R. 17 E., in what will probably be, when surveyed, sec. 17, Gila and Salt River Base and Meridian, within the Crook National Forest, Arizona.

Surveyed under the Acts of June 11, 1906, March 4, 1913 and June 30, 1914.

Survey commenced February 28, 1914 and executed with a W. and L. E. Gurley light mountain transit with vertical circle and Burt solar attachment. I test the adjustments of the transit and make necessary corrections.

The stadia is adjusted to read 1:132.

All distances are horizontal and were reduced from measurements made on the slope with a 400 link steel tape and a Philadelphia stadia rod, and the slope angles measured with a clinometer.

February 28, 1914.

At 9h. 31m. a.m., l.m.t., I observe the altitude of the sun for azimuth at cor. H-4 of the list survey, which is a cross (+) on a sandstone ledge 20 ft. high, marked and witnessed as described by the Forest Service.

The reading on the reference object was 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.

Chains

Latitude of station $33^{\circ} 42' N.$, and Longitude $110^{\circ} 33' 30'' W.$, by account from special instructions of the Surveyor General.

Horizontal Angle	Vertical Angle	Telescope
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$49^{\circ} 46' 30''$	$33^{\circ} 42' 00''$	Direct
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$30^{\circ} 10' 30''$	$33^{\circ} 13' 00''$	Reversed
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Bearing of object S. $0^{\circ} 00' 27'' W.$

From the corresponding meridian all the courses of this survey were deflected.

I test the meridian by a subsequent observation as follows:

On the same date at 8h. 52.2m. p.m., l.m.t., I observe Polaris at Western elongation at cor. No. 2, identical

with cor. H-4 of the list survey heretofore described, and turn off the azimuth $1^{\circ} 23'$ to the East, and my line of sight coincides with the meridian established by observing the sun in altitude for azimuth. Azimuth of Polaris at W. elong. $1^{\circ} 22' 46''$. Therefore,

I conclude that my transit is in satisfactory adjustment.

Since there is no corner of the public land survey within two miles of this claim, I return at a later date and establish a locating monument as follows:

October 14, 1914.

I test the adjustments of my transit and find them correct. On a prominent point approximately 6.00 chs.

E. of Ash Creek and 12.00 chs. N. of the junction of

Timber Camp Creek with Ash Creek, I mark a cross (+)

at the point and U S L M No 169 H E S upon an embedded quartzite boulder 42 x 16 x 10 ins. above ground for

U.S. L. M. No. 169 H. E. S.; and raise a mound of

CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains

stone 7 ft. base, 4-1/2 ft. high S. of cor., whence:

An alligator juniper 8 ins. dia., marked

U S L M No. 169 H E S + B T, bears

N. 29° 45' W., 40 lks. dist.

An alligator juniper, 6 ins. dia., marked

U S L M No. 169 H E S + B T, bears

S. 60° 40' W., 33 lks. dist.

Cor. No. 1 H. E. S. 169, bears N. 80° 30' W.,

82 lks. dist.

Timber Camp Butte bears S. 45° W.

Box Canyon on Ash Creek bears North.

The 15-1/2 mile cor. on the W. bdy. White

Mountain Indian Reservation, a sandstone

20 x 4 x 6 ins. above ground, marked and

witnessed as described by the Surveyor Gen-

eral, bears N. 84° 41' 28" E., 171.74 chs.

dist., by traverse, details of which are

hereto attached.

October 14, 1914.

February 28, 1914.

Cor. No. 1.

Identical with cor. H-1 of the list survey, which is

an embedded quartzite stone 20 x 18 x 6 ins. above

ground, marked and witnessed as described by the For-

est Service. I destroy all trace of the list cor.

and mark a cross (+) at the apex of the same stone and

1-HES169 on the SW. face; and raise a mound of stone

2 ft. base, 1-1/2 ft. high, SW. of cor., from which:

An oak, 4 ins. dia., scribed 1 H E S 169 + B T,

bears S. 42° 10' E., 47 lks. dist.

A juniper, 4 ins. dia., scribed 1 H E S 169 + B T,

CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains ... bears S. 52° 50' W., 69 lks. dist.
 U. S. L. M. No. 169 H. E. S. bears S. 80°
 30' E., 82 lks. dist.
 15-1/2 mile cor. on W. bdy. White Mountain
 Indian Reservation, heretofore described,
 bears N. 84° 45' 44" E., 172.53 chs., by
 traverse, details of which are hereto
 attached.
 Lat. 33° 42' 13" N., Long. 110° 33' 30" W., from
 special instructions from the Surveyor General.
 Observed magnetic declination at cor. No. 1 at 9h. 45m.
 a.m., 14° 40' E. Resultant mean magnetic declination
 14° 38' E.

-
- Thence S. 3° 02' E.
 - Descend SW. slope 50 ft.
 - 5.00 Foot of descent. Continue along W. slope.
 - 18.10 Leave W. slope and ascend steep NW. slope 55 ft.
 - 21.45 To cor. No. 2.

Identical with cor. H-4 of the list survey, hereto-
 fore described. I destroy all trace of the list
 cor. and mark 2-HES169 on the NW. of the same cross
 for cor. No. 2; and raise a mound of stone 2 ft. base,
 1-1/2 ft. high, SE. of cor., from which:
 A pinon, 9 ins. dia., bears S. 82° 30' E.,
 29 lks. dist., marked 2 H E S 169 B T.
 No other bearings available. Pits imprac-
 ticable.
 Impracticable to place the mound in any other
 position.

Thence S. 79° 40' W.

CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains	Descend precipitous W. slope 75 ft. to creek.
2.20	Left bank Ash Creek, 20 lks. wide, banks 4 ft. high, course N. Ascend precipitous E. slope 60 ft.
5.04	To cor. No. 3. Identical with cor. H-3 of the list survey, which is a point on a sandstone ledge 20 ft. high, at the end of the box canyon on Ash Creek, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and mark a cross at the same point on the ledge for cor. No. 3, and 3-HES169 to the NE. of the cross; and raise a mound of stone 2 ft. base, 1-1/2 ft. high, SW. of cor., from which: A pinon 4 ins. dia., bears S. 06° W., 60 lks. dist., marked 3 H E S 169 B T. An oak 7 ins. dia., bears North 45 lks. dist., marked 3 H E S 169 B T. It was impracticable to place the mound in any other position.
	Thence N. 26° 15' W. Descend N. slope 60 ft. to ravine in undergrowth.
7.90	Dry bed Timber Camp Creek, 20 lks. wide, banks 2 ft. high, course NE. Ascend E. slope 30 ft.
17.97	To cor. No. 4. Identical with cor. H-2 of the list survey, which is a trachite stone 14 x 12 x 8 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of the list cor. and at this point I set a granite stone 24 x 15 x 6 ins., 14 ins. in the ground, over a small stone marked with a cross, for cor. No. 4, marked 4-HES169 on the SE. face; and raise a mound of stone 2 ft. base, 1-1/2 ft. high, SE. of cor., from which:

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HOMESTEAD ENTRY SURVEY NO. 169

TRINIDAD CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains An oak 7 ins. dia., bears N. 77° E., 150 lks.
 dist., marked 4 H E S 169 B T.
 An oak 6 ins. dia., bears S. 70° 50' E., 170
 lks. dist., marked 4 H E S 169 B T.

Thence N. 62° 15' E.
 Descend E. slope in undergrowth 30 ft. to creek.
 7.00 Left bank Ash creek, 20 lks. wide, banks 4 ft. high,
 course N. Ascend W. slope 70 ft.
 13.29 To cor. No. 1, the place of beginning.

February 28, 1914.

At 12h. 13m., p.m., l.m.t., I observe the sun on the
 meridian for latitude at cor. No. 2. Observed alt.
 of sun's center 48° 15'. Resultant lat. 33° 42' N.
 February 28, 1914.

AREA

Area ----- 17.30 acres.

IMPROVEMENTS.

The improvements made upon and for the benefit of this
 claim, and belonging to the claimant, consist of the
 following:

A log dwelling house 15 x 20 ft., the long side of which
 bears N. and S. and the NW. cor. bears S. 48° 30' E.,
 4.68 chs. dist. from cor. No. 4.

Value ----- \$100.00

Approximately 3/4 mile of fence.

Value ----- \$100.00

Approximately 5 acres of alfalfa.

CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains

DESCRIPTION.

This claim is situated on Ash Creek, a tributary to Salt River.

There is some juniper and oak on the W. side, and walnut along Ash Creek.

There is plenty of water in Ash Creek for irrigation, but during the summer only a sufficient supply for domestic use.

The soil in the bottom is a rich sandy loam, but the slopes are hardpan.

I saw no indication of mineral on this claim.

CONFLICTS AND ADJOINING CLAIMS

There are no conflicts or adjoining claims.

Globe postoffice and railway station is 40 miles in a southerly direction, and is reached by 8 miles of trail and 32 miles of wagon road.

TRAVERSE

Sta.	Bearing	Dist.	N	S	E	W
2-3	S. 79° 40' W.	5.04		0.90		4.96
3-4	N. 26° 15' W.	17.97	16.12			7.95
4-1	N. 62° 15' E.	13.29	6.19		11.76	
1-2	S. 03° 02' E.	21.45		21.42	1.14	
			57.75	22.31	22.32	12.90
					22.31	12.90
Error in Lat. and Dep.					.01	.01

Closing error 1:4084.

Survey completed October 14, 1914.

Walter J. Purdy
Surveyor - Forest Service.

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HOMESTEAD ENTRY SURVEY NO. 104

NATIONAL FOREST

STATE OF

Chains

Chains

This claim is situated on the west side of the
 2nd River.
 There is a small gulch on the east side, and
 along the creek.
 There is a plenty of water in the creek for
 but during the summer only a small amount
 domestic use.
 The soil in the bottom is a rich sandy loam, but
 along the stream.
 I saw no indication of mineral on this claim.

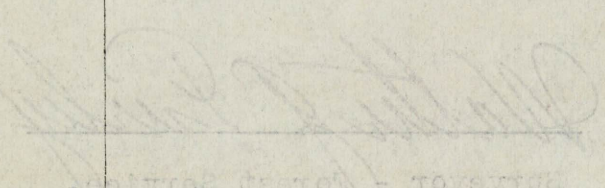
CONFLICTS AND ADJOINING CLAIMS
 There are no conflicts or adjoining claims.
 The road to the east and railway station is 40 miles
 easterly direction, and is reached by 8 miles of
 trail and 32 miles of wagon road.

TRAVELERS

Sta.	Bearing	Dist.	W	S	E	N
3-3	S. 79° 40' W.	2.04		0.90		1.93
3-4	N. 28° 13' W.	17.97	13.13			7.03
4-1	S. 82° 18' E.	12.29		6.19	11.75	
7-2	S. 87° 32' E.	21.42		17.41	11.75	
<hr/>						
		87.75	22.31	22.32	42.90	12.91
			22.31		11.90	
					10.01	

error in Dist. and Bpp.
 Missing error 1:4084.

Survey completed October 14, 1914.



Surveyor - Forest Service

Chains

DETAILED COMPUTATIONS.

Lat. $33^{\circ} 42' 00''$ N., and Long. $110^{\circ} 33' 30''$ W., deduced from values given in the special instructions of the Surveyor General.

Altitude observation of sun for Azimuth February 28, 1914.

Horizontal Angle	Vertical Angle	l.m.t.	Sun
$49^{\circ} 46' 30''$	$33^{\circ} 42' 00''$	9h. 30m. 45 s.	‡
$50^{\circ} 10' 30''$	$33^{\circ} 13' 00''$	9h. 32m. 00s.	+°
$49^{\circ} 58' 30''$	$33^{\circ} 27' 30''$	9h. 31m. 23s. l.m.t.	
	$1' 17''$	12m. 50s.	
	$33^{\circ} 26' 13''$	9h. 18m. 33s. app. t.	

$$87'' \times .87 \times 1.02 = 1' 17''$$

$$110^{\circ} 33' 30'' \text{ long.} = 7\text{h. } 22\text{m. } 14\text{s.}$$

$$12\text{h.} - 7\text{h. } 22\text{m. } 14\text{s.} = 4\text{h. } 37\text{m. } 46\text{s.}$$

$$9\text{h.} - 18\text{m. } 33\text{s.} - 4\text{h. } 37\text{m. } 46\text{s.} = 4\text{h. } 40\text{m. } 47\text{s.} = 4.68\text{h.}$$

$$56'' .56 \times 4.68 = 04' 24''.7 \quad 08^{\circ} 10' 10''.5 - 04' 24''.7 = 08^{\circ} 05' 45''.8 = \text{decl.}$$

log. sin. decl.	9.148705	log. tan. lat.	9.824072
colog. cos. lat.	0.079901	log. tan. alt.	9.819744
colog. cos. alt.	0.078577		9.643816
	<u>9.307183</u>		0.440368
	0.202854		
	<u>0.440368</u>		
Cos. Azimuth =	<u>0.643222</u>		

$$\text{Azimuth} = 49^{\circ} 58' 03''.$$

$$\text{Bearing of object S. } 00^{\circ} 00' 27'' \text{ W.}$$

Polaris at W. elong., February 28, 1914.

$$8\text{h. } 52.6\text{m.} \text{ W. elong, Greenwich lat. } 40$$

1.2m. sidereal correction

$$8\text{h. } 51.4\text{m.}$$

0.8m. correction to lat. $33^{\circ} 42'$

$$8\text{h. } 52.2\text{m.} \text{ W. elong. at place of obsn.}$$

$$08^{\circ} 51' 09''.4, \text{ decl. Pol., February 28, 1914.}$$

$$01^{\circ} 22' 46'', \text{ Azimuth of Pol. at W. elong.}$$

T.F.

Chains	DETAILED COMPUTATIONS.	Chains
	<p>Surveyor General.</p> <p>from values given in the special instructions of the</p> <p>Lat. 33° 42' 00" N., and Long. 110° 33' 30" W., deduced</p>	
38	<p>Altitude observation of sun for Azimuth February 28,</p> <p>1914.</p>	
Sun	<p>Horizontal Angle Vertical Angle</p>	
4	<p>9h. 30m. 45 s. 33° 42' 00"</p>	
4	<p>9h. 32m. 00 s. 33° 18' 00"</p>	
1. m. f.	<p>9h. 31m. 33 s. 33° 27' 30"</p>	
1. m. f.	<p>9h. 32m. 50 s. 33° 1' 17"</p>	
1. m. f.	<p>9h. 18m. 33 s. 33° 28' 13"</p>	
1. m. f.	<p>87" x 1.02 = 1' 17"</p>	
	<p>110° 33' 30" Long. = 7h. 32m. 14 s.</p>	
	<p>12h. - 7h. 32m. 14 s. = 4h. 37m. 46 s.</p>	
	<p>9h. - 18m. 33 s. - 4h. 37m. 46 s. = 4h. 40m. 47 s. = 4.68h.</p>	
	<p>56" 56 x 4.68 = 04' 24" 7 08° 10' 10" 5 - 04' 24" 7 =</p>	
	<p>08° 02' 45" 8 = 491.</p>	
	<p>Log. sin. 491. 2.148705</p>	
	<p>Log. cos. lat. 0.072901</p>	
	<p>Log. tan. alt. 2.819744</p>	
	<p>Log. cos. alt. 0.072977</p>	
	<p>2.307183</p>	
	<p>0.202854</p>	
	<p>0.440368</p>	
	<p>0.643222 = Cos. Azimuth</p>	
	<p>Azimuth = 49° 58' 03".</p>	
	<p>Bearing of object 2. 00° 00' 27" W.</p>	
	<p>Polaris at W. elong., February 28, 1914.</p>	
	<p>8h. 52.6m. W. elong. Greenwich Lat. 40</p>	
	<p>1.2m. siderial correction</p>	
	<p>8h. 51.4m. correction to lat. 33° 42'</p>	
	<p>8h. 52.8m. W. elong. at place of obs.</p>	
	<p>08° 51' 09" 4, decl. Pol., February 28, 1914.</p>	
	<p>01° 32' 46", Azimuth of Pol. at W. elong.</p>	

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. L. 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. 169, STATE OF ARIZONA

CORNERS.	BEARING.	DISTANCE.	LATITUDES.		DEPARTURES.		DOUBLE M. D.	N. AREAS.	S. AREAS.
			NORTH.	SOUTH.	EAST.	WEST.			
	Tie U. S. L. M. 169 H.		E. S. 15-1/2 mile cor. on W. bdy.	White Mountain Indian Reservation.					
	S. 44° 30' E.	28.76	20 51 ✓	20 16 ✓					
	N. 68° 13' E.	138.59	51 43 ✓	128 69 ✓					
	S. 37° 19' W.	15.94	12 68 ✓	9 66 ✓					
	S. 89° 30' E.	32.62	0 28 ✓	32 62 ✓					
	South	2.21	2 21 ✓						
	N. 80° 30' W.	0.82	0 14 ✓	0 81 ✓					
			51 57	181 47	10 47				
			35 68	10 47					
	N. 84° 41' 28" E.	171.74	15 89 ✓	171 00 ✓	T.H.				
	Tie Cor. No. 1 to 15-1/2 mile cor. on W. bdy.		White Mountain Indian Reservation						
	S. 44° 30' E.	28.76	20 51 ✓	20 16 ✓					
	N. 68° 13' E.	138.59	51 43 ✓	128 69 ✓					
	S. 37° 19' W.	15.94	12 68 ✓	9 66 ✓					
	S. 89° 30' E.	32.62	0 28 ✓	32 62 ✓					
	South	2.21	2 21 ✓						
			51 43	181 47	9 66				
			35 68	9 66					
	N. 84° 45' 44" E.	172.53	15 75 ✓	171 81 ✓	T.H.				

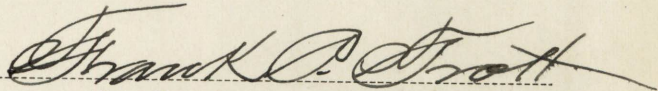
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APPROVAL

Office of the United States Surveyor General,
Phoenix, Arizona, May 29, 1916.

The foregoing field notes of Homestead Entry Survey No.
169

executed by Walter G. Turley, Surveyor-Forest Service
under his special instructions, dated February 12, 1914,
having been critically examined, and the necessary correc-
tions 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 Arizona,
has been correctly copied from the original notes on file in
this office.

Frank P. Trott

U. S. Surveyor General.