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U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

SEP-4-1917

FIELD NOTES

OF

MAY-2-1918

HOMESTEAD ENTRY SURVEY NO. 394

SITUATED IN THE COCONINO NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

In Section 3 , unsurveyed, Township 14 N., Range 9 E.

of the

Gila and Salt River Base and Meridian.

State of

ARIZONA

Applicant for listing Mrs. E. Hopper,

Residence Pine, Arizona

Application No. 211 , dated November 16 , 1910 ✓

List No. 3-1752 , dated February 26 , 1912 ✓

Applicant for survey Samuel Bristow,

Residence Pine, Arizona

H. E. No. 029111 , dated December 29 , 1915 ✓

Office
Land District Phoenix, Arizona

Survey executed by R. P. A. Johnson, Surveyor - Draftsman
(Forest Service Title.)

Under special instructions dated July 9 , 1915 ✓

Survey commenced June 1 , 1916

Survey completed June 2 , 1916

Under Acts of June 11, 1906 and March 4, 1915 ✓

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OATH OF ASSISTANTS

We hereby certify that we assisted R. P. Johnson in surveying all those parts or portions of Homestead Entry Survey No. 394, 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 established, according to the instructions furnished by the United States Surveyor General for Arizona.

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

Nelson Newman, Chairman

Orin Childers, Chairman

Subscribed and sworn to before me this sixth day of July, 1916.
R. P. Johnson
 Surveyor Craftsman

OATH OF SURVEYOR

I, R. P. Johnson Surveyor Craftsman [Forest Service Title.] do solemnly swear that, in strict conformity with the special instructions of the United States Surveyor General for Arizona, dated July 9, 1915, 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 Lust 3-1752 dated February 26, 1912 and tracts of land upon the application of M. E. Apple Application No. 211, dated November 1910, for patent, under the Act of June 11, 1906, the same to be known as Homestead Entry Survey No. 394, situated within the COCOONINO National Forest, in unsurveyed Section 3, Township 14N., Range 9E, and unsurveyed Section - - -, Township - - -, Range - - -,

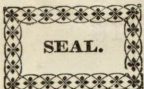
of the Gila and Salt River meridian, Arizona, and the related retracements and resurveys and section subdivisions, which are represented in the following field notes as having been surveyed by me; and I further solemnly swear that all the corners of said survey have been established and perpetuated in 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.

DISTRICT OF COLUMBIA
 CITY OF WASHINGTON

R. P. Johnson
 Surveyor Craftsman
 [Forest Service Title.]

Subscribed and sworn to before me this 1st day of February, 1917.

Sylvester L. McLawrin
 NOTARY PUBLIC, D. C.



COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains

Applicant for listing, Mrs. E. Hopper; Application No. 211, dated November 16, 1910; List No. 3-1752, dated February 26, 1912; H. E. 029111 made in the Phoenix Land Office on December 29, 1915 by Samuel Bristow.

Also a small area of unlisted land adjoining on the Northwest and Northeast was included in this survey in order to include improvements belonging to the claimant. The land is agricultural in character, was desired by the entryman and will be listed as a basis for amendment of his entry.

Surveyed under special instructions from the Surveyor General for Arizona, dated July 9, 1915 and designated as Homestead Entry Survey No. 394.

Situated in what will probably be when surveyed, Sec. 3, T. 14 N., R. 9 E., Gila and Salt River Base and Meridian, Coconino National Forest, Arizona.

Surveyed under the Acts of June 11, 1906 and March 4, 1915.

Survey commenced June 1, 1916, and executed with a Buff and Buff transit, equipped with Smith solar attachment.

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

All distances are horizontal, and were reduced from measurements made directly on the slope with a 500 link steel tape. The slope angles were determined with a clinometer.

June 1, 1916 a.m.

I observe the altitude of the sun for azimuth at Cor. No. 4 of the survey, hereinafter described. The reading on the reference object is set at zero and

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sun was observed in the lower left and upper right quadrants of the field. My watch is set for local mean time. Lat. 34° 38' N., Long. 111° 23' W. from special instructions from the Surveyor General and later verified.

Telescope	Time	Horizontal Angle	Vertical Angle
Direct	8h.22m.25s.	82° 34'	29° 35'
Reversed	8h.23m.10s.	82° 03' 30"	29° 11' 30"

Bearing of reference object N. 0° 05' 45" W.

June 2, 1916 a.m.

I again observe the altitude of the sun for azimuth at Cor. No. 4, hereinafter described. 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.

Telescope	Time	Horizontal Angle	Vertical Angle
Direct	9h.37m.14s.	76° 59'	57° 09' 30"
Reversed	9h.38m.13s.	77° 30'	56° 48' 30"

Bearing of reference object N. 0° 04' 30" W.

The mean of these is N. 0° 05' 07" W. and to the corresponding meridian all the courses of this survey are referred.

RETRACEMENTS

June 1, 1916.

From 1/4 sec. cor. bet. secs. 3 and 34, Ts. 14 and 15 N., R. 9 E., which is a post marked and witnessed as described by the Surveyor General. Post is partially decayed. I therefore restore cor. as follows:

Deposit a lava stone 4 x 2 x 2 ins. 10 ins. in the ground, over which set a lava stone 20 x 10 x 6 ins. chiseled 1/4 on N. face and raise a mound of stone 3 ft. base, 2 ft. high North of cor.

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 Thence East:
 On random line bet. sec. 3 and 34.
 45.52 Fall 3 lks. South of cor. for secs. 2, 3, 34 and 35
 which is a post in mound of stone marked and witnessed
 as described by the Surveyor General.
 Thence South 89° 58' W.
 On true line bet. secs. 3 and 34.
 45.52 1/4 Sec. cor. bet. secs. 3 and 34.

BOUNDARIES OF CLAIM

Beginning at cor. No. 1 and C. C. on line bet. secs.
 3 and 34.

Deposit a lava stone 3 x 2 x 2 ins. marked with a +
 14 ins. in the ground, over which set a lava stone
 24 x 10 x 6 ins., chiseled + for the point and 1 -
 H E S 394 on SE. face and C C. on SSW. face; and raise
 a mound of stone 2 ft. base, 1-1/2 ft. high SSW. of
 cor., whence:

A yellow pine, 16 ins. dia., bears S. 67° 42' W.
 54 lks. dist., scribed 1 H E S 394 + B T.

A yellow pine, 6 ins. dia., bears N. 34° 32' W.
 28 lks. dist., scribed 1 H E S 394 + B T.

Cor. for secs. 2, 3, 34 and 35, heretofore
 described, bears N. 89° 58' E. 35.99 chs. dist.
 1/4 Sec. cor. bet. secs. 3 and 34, heretofore
 described, bears S. 89° 58' W. 9.53 chs. dist.

Cor. H-6 of list survey, which is a sandstone
 8 x 4 x 6 ins. above ground, marked and wit-
 nessed as described by the Forest Service,
 bears N. 16° 44' E., 75 lks. dist. I destroy
 all trace of this list cor.

Lat. 34° 38' 13" N. Long 111° 22' 50" W. From special
 instructions from the Surveyor General and later veri-
 fied.

4.

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Mag. Var. at 4 p. m. $14^{\circ} 30'$ E. Mean mag. Var. $14^{\circ} 32'$ E.

Thence N. $89^{\circ} 58'$ E.

Over unlisted land. On line bet. secs. 3 and 34, across open draw.

2.15

Cor. No. 2 and C. C. on line bet. secs. 3 and 34.

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 14 x 6 ins. chiseled + for the point, 2 - H E S 394 on SW. and C C on SSE. face; and raise a mound of stone 2 ft. base, 1-1/2 ft. high SSE. of cor., whence:

A yellow pine, 36 ins. dia., bears S. $58^{\circ} 56'$ W. 33 lks. dist., scribed 2 H E S 394 + B T.

A yellow pine, 6 ins. dia., bears N. 17° E.

81 lks. dist., scribed 2 H E S 394 + B T.

Cor. for secs. 2, 3, 34 and 35, heretofore described, bears N. $89^{\circ} 58'$ E., 33.84 chs. dist.

1/4 Cor. bet. secs. 3 and 34, heretofore described bears S. $89^{\circ} 58'$ W., 11.68 chs. dist.

Thence S. $11^{\circ} 34'$ E.

In open, over level land along edge timber.

5.70

Enter arroyo, 30 lks. wide, 2 ft. deep, course S. $11^{\circ} 34'$ E.

8.00

Leave arroyo, 30 lks. wide, 2 ft. deep, course SE.

10.20

Road, bears N. 55° E and S. 55° W.

10.85

Cor. No. 3.

Identical with Cor. H-5 of the list survey, which is a lava stone 8 x 6 x 6 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. 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 16 x 5 ins. chiseled + for the point and 3 - H E S 394 on W. face; raise a mound of stone 3 ft. base, 2 ft. high W. of cor., whence:

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A yellow pine, 26 ins. dia., bears N. 31° 25' E.,
82 lks. dist., scribed 3 H E S 394 + B T.

A yellow pine, 22 ins. dia., bears S. 62° 44' E.
29 lks. dist., scribed 3 H E S 394 + B T.

Thence S. 40° 08' W.

Over listed land. In open, over level land.

26.05

Cor. No. 4.

Identical with Cor. H-4 of the list survey, which is a lava stone 10 x 5 x 10 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. Deposit a lava stone 2 x 2 x 2 ins. marked with a + 14 ins. in the ground, over which set a lava stone 20 x 14 x 5 ins., chiseled + for the point and 4 - H E S 394 on W. face; and raise a mound of stone 3 ft. base, 2 ft. high W. of cor., whence:

A yellow pine, 26 ins. dia., bears S. 49° 38' E., 111 lks. dist., scribed 4 H E S 394 + B T.

A yellow pine, 28 ins. dia., bears S. 87° 47' W., 102 lks. dist., scribed 4 H E S 394 + B T.

June 1, 1916.

Note: No longer stone available for cor.

June 2, 1916.

Thence S. 34° 06' E.

In open, over level land.

33.59

Cor. No. 5.

Identical with Cor. H-3 of the list survey, which is a lava stone 8 x 6 x 3 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. Deposit a lava stone 3 x 2 x 2 ins. marked with a + 16 ins. in the ground, over which set a lava stone 26 x 14 x 14

Chains

ins. chiseled + for the point and 5 - H E S 394 on W. face; raise a mound of stone 3 ft. base, 2 ft. high W. of cor., whence:

A yellow pine, 20 ins. dia., bears N. 6° 04' E.

245 lks. dist., scribed 5 H E S 394 + B T.

A yellow pine, 29 ins. dia., bears N. 29° 10' E.,

258 lks. dist., scribed 5 H E S 394 + B T.

Cor. No. 3 H. E. S. No. 175, which is a lava

stone 9 x 8 x 10 ins. above ground, marked

3 H E S 175 on NE. face, bears S. 23° 07' E.,

8.14 chs. dist. by direct measurement.

Thence S. 27° 00' W.

Across open level park.

3.00

Cor. No. 6.

Identical with Cor. H-2 of the list survey, which

is a sandstone 10 x 6 x 4 ins. above ground, marked

and witnessed as described by the Forest Service. I

destroy all trace of this list cor. Deposit a lava

stone 4 x 4 x 2 ins., marked with a + 14 ins. in the

ground, over which set a lava stone 24 x 16 x 6 ins.

chiseled + for the point and 6 - H E S 394 on N. face;

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

cor., whence;

A yellow pine, 20 ins. dia., bears S. 65° 39' E.

117 lks. dist., scribed 6 H E S 394 + B T.

A yellow pine, 29 ins. dia., bears S. 5° 23' E.,

164 lks. dist., scribed 6 H E S 394 + B T.

Thence N. 33° 28' W.

In open, over level land along edge of timber.

37.07

Cor. H-1 of the list survey, which is a lava stone

18 x 8 x 10 ins. above ground, marked and witnessed

75

COCONINO NATIONAL FOREST

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as described by the Forest Service. I destroy all
trace of this list cor.
Enter unlisted land.

39.79 Cor. No. 7.

Deposit a lava stone 3 x 3 x 1 ins. marked with a +
16 ins. in the ground, over which set a lava stone
26 x 14 x 14 ins. chiseled + for the point and
7 - H E S 394 on E. face; raise a mound of stone 3 ft.
base, 2 ft. high E. of cor., whence:

A yellow pine, 10 ins. dia., bears N. 14° 35' W.
87 lks. dist., scribed 7 H E S 394 + B T.

A yellow pine, 12 ins. dia., bears N. 22° 20' E.
144 lks. dist., scribed 7 H E S 394 + B T.

Thence N. 46° 42' E.

Over level land along edge of timber.

10.50 Road, bears S. 60° W. and N. 60° E.

16.39 Cor. No. 8.

Identical with Cor. H-7 of the list survey, which
is a lava stone 6 x 4 x 6 ins. above ground, marked
and witnessed as described by the Forest Service.
I destroy all trace of this list cor. Deposit a
lava stone 3 x 3 x 2 ins. marked with a + 14 ins.
in the ground, over which set a lava stone 24 x 12
x 5 ins. chiseled + for the point and 8 - H E S 394
on E. face; raise a mound of stone 3 ft. base, 2 ft.
high E. of cor., whence:

A yellow pine, 38 ins. dia., bears N. 81° W.
11 lks. dist., scribed 8 H E S 394 + B T.

A yellow pine 45 ins. dia., bears N. 15° 57' E.
102 lks. dist., scribed 8 H E S 394 + B T.

Thence N. 16° 44' E.

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Enter listed land. Over level land in open.

13.80

Arroyo, 30 lks. wide, 3 ft. deep, course ESE.

17.29

Cor. No. 1, the place of beginning.

AREA

Listed Area - - - - - 20.11 acres

Unlisted Area - - - - - 4.48 acres

Total Area - - - - - 24.59 acres.

IMPROVEMENTS

The improvements made upon this claim consist of the following:

A frame cabin 12 x 10 ft., the long side of which bears E. and W. and SE. cor. of which bears N. 48° 48' E., 5.09 chs. dist. from Cor. No. 7.

Value - - - - - \$150.00

A pole corral near center of claim on line bet. Cors. 4 and 7.

Value - - - - - \$ 25.00

An earth and rock tank, 1.50 chs. N. W. of Cor. No. 4.

Value - - - - - \$ 25.00

DESCRIPTION

This claim lies along narrow open draw, surrounded on all sides by very low heavily timbered mesa. The elevation is 6900 ft. The general slope is to SE.

There is no timber on the claim.

Soil consists of a clay loam of good depth and will produce good crops.

There is no water for irrigation. Water can be obtained for a small portion of the year from rock and earth tank on claim.

Approximately 1 acre has been cultivated.

This claim was unoccupied at time of survey.

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I saw no indication of mineral.

CONFLICTS AND ADJOINING CLAIMS

There are no conflicting or adjoining claims. H. E. S. 175 of C. C. Montgomery lies a short distance East. H. E. S. 387 of Uriah Reid lies about 3/4 mile Southwest. Pine, Arizona, the nearest post office, is 25 miles distant, and Flagstaff, Arizona, the nearest railroad point is 65 miles distant.

TRAVERSE

Cor.	Course	Distance	N	S	E	W	
1-2	N.89° 58' E.	2.15			2.15		
2-3	S.11° 34' E.	10.85		10.63	2.18		
3-4	S.40° 08' W.	26.05		19.92		16.79	
4-5	S.34° 06' E.	33.59		27.81	18.83		
5-6	S.27° 00' W.	3.00		2.67		1.36	
6-7	N.33° 28' W.	39.79	33.19			21.94	
7-8	N.46° 42' E.	16.39	11.24		11.93		
8-1	N.16° 44' E.	17.29	16.56		4.98		
			149.11	60.99	61.03	40.07	40.09
					60.99		40.07
Error in Lat. and Dep.					.04		.02

Closing error 1:3337

Survey completed June 2, 1916.

R. L. Johnson

Surveyor - Draftsman

HOMESTEAD ENTRY SURVEY NO.

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There are no conflicting or adjoining claims...
The survey was made by...
The bearings and distances...
The area of the land...
The survey was completed...

Course	Distance	Bearing	Distance	Bearing
1-2	21.15	N 89° 58' E	21.15	N 89° 58' E
2-3	10.33	N 11° 34' E	10.33	N 11° 34' E
3-4	36.08	N 45° 38' E	36.08	N 45° 38' E
4-5	33.33	S 60° 00' E	33.33	S 60° 00' E
5-6	27.00	S 87° 00' E	27.00	S 87° 00' E
6-7	39.73	N 33° 34' E	39.73	N 33° 34' E
7-8	16.83	N 48° 43' E	16.83	N 48° 43' E
8-1	17.33	N 18° 44' E	17.33	N 18° 44' E
Total			230.99	
Error			0.33	

Surveyor - [Signature]

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STATE OF ARIZONA.

Chains

Direct Solar, June 1, 1916, at cor. No. 4,

H. E. S. 394 of Thomas J. Willis.

Lat. 34° 38' N., Long. 111° 23' W. Elevation 6900 ft.

Telescope	Time	Horizontal Angle	Vertical Angle	Pos. Sun
Direct	8h. 22m. 25s.	82° 34'	29° 35' 00"	+°
Reversed	8h. 23m. 10s.	82° 03' 30"	29° 11' 30"	+°
	8h. 22m. 47s. ✓	82° 18' 45" ✓	29° 23' 15" ✓	
			1' 21" ✓	
			29° 21' 54" ✓	

Decl. 22° 04' 26" ✓

$$\text{Cos. } Q. = \frac{\sin. 22^\circ 04' 26''}{\cos. 34^\circ 38' \times \cos. 29^\circ 21' 54''} - \frac{\tan. 34^\circ 38' \times \tan. 29^\circ 21' 54''}{\tan. 34^\circ 38' \times \tan. 29^\circ 21' 54''}$$

log. sin. 22° 04' 26"	= +	9.574959 ✓	
log. cos. 34° 38'	= -	9.915297 ✓	
log. cos. 29° 21' 54"	= -	9.940274 ✓	
		9.719388 ✓	= log. .52407 ✓
log. tan. 34° 38'	=	9.839297 ✓	
log. tan. 29° 21' 54"	=	9.750251 ✓	
		9.589548 ✓	= log. .38864 ✓

$$\text{Cos. } Q. = .13543 \checkmark$$

$$Q. = 82^\circ 13' \checkmark$$

Bearing of reference object, N. 0° 5' 45" W.

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HOMESTEAD ENTRY SURVEY NO.

NATIONAL FOREST

STATE OF

Chains.

[Mirrored bleed-through text from reverse side of page, including names, dates, and survey details]

HOMESTEAD ENTRY SURVEY NO. 394

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains

Direct Solar, June 2, 1916, at cor. No. 4,

H. E. S. 394, of Thomas J. Willis.

Lat. 34° 38' N., Long 111° 23' W. Elevation 6900 ft.

Telescope	Time	Horizontal Angle	Vertical Angle	Pos. Sun
Direct	9h. 37m. 14s.	76° 59' 00"	57° 09' 30"	⊙+
Reversed	9h. 38m. 13s.	77° 30' 00"	56° 48' 30"	+°
	9h. 37m. 43s. ✓	77° 14' 30" ✓	56° 59' 00" ✓	
			30" ✓ ref.	
			56° 58' 30" ✓	

Decl. 22° 12' 45" N. ✓

$$\text{Cos. } Q. = \frac{\sin. 22^\circ 12' 45''}{\cos. 34^\circ 38' \times \tan. 56^\circ 58' 30''} = \frac{\sin. 22^\circ 12' 45''}{\tan. 34^\circ 38' \times \tan. 56^\circ 58' 30''}$$

log. sin. 22° 12' 45" = 9.577541 ✓
 log. cos. 34° 38' = 9.915297 ✓
 log. cos. 56° 58' 30" = 9.736401 ✓
 9.925843 ✓ = log. .84303 ✓

log. tan. 34° 38' = 9.839297 ✓
 log. tan. 56° 58' 30" = 10.187068 ✓
 10.026365 ✓ = log. 1.06259 ✓

Cos. Q. = .21956 ✓
 Q. = 77° 19' ✓

Bearing of reference object, N. 0° 4' 30" W. ✓

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DIRECTIONS.—1. Carry out calculations to two decimals only.
 2. In balancing Latitudes and Departures do not obliterate or change the original figures. 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. 394, STATE OF ARIZONA

CORNERS.	BEARING.	DISTANCE.	LATITUDES.		DEPARTURES.		DOUBLE M. D.	N. AREAS.	S. AREAS.
			NORTH.	SOUTH.	EAST.	WEST.			
1-2	N. 89° 58' E.	2.15			2	15	35	97	
2-3	S. 11° 34' E.	10.85		10 63	2	18	40	30	428
3-4	S. 40° 08' W.	26.05		19 91 19 92	18 54		25	69	511
4-5	S. 34° 06' E.	33.59		27 80 27 81	18 83		27	74	771
5-6	S. 27° 00' W.	3.00		2	67		45	22	120
6-7	N. 33° 28' W.	39.79	33 20 33 19				21	93	728
7-8	N. 46° 42' E.	16.39	11 24		11	93	11	93	134
8-1	N. 16° 44' E.	17.29	16 57 16 56		4	98	28	84	477
		149.11	60 99	61 03	40 07	40 09	1340	05	1831
			61 01	61 01	40 08	40 08			1340
							20)	491	74
									24
									59
									Acres

83

EMH

APPROVAL

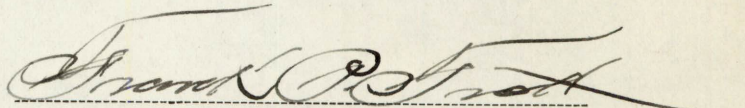
Office of the United States Surveyor General,

Phoenix, Arizona, June 14, 1918.

The foregoing field notes of Homestead Entry Survey No.

394

executed by R. P. A. Johnson, Surveyor-Draftsman
under his special instructions, dated July 9, 1915, 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 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.