Form 85 Sheet No. 1

3

0

S

## U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

UUR SU 1075 141.26.1976

# FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 226

SITUATED IN THE

APACHE NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. \_\_\_\_\_

t, in

\*

. . >

Section 4 , unsurveyed, Township 3.S., Range 29 E.

Gila and Salt River Base and Meridian.

ARIZONA

 Survey executed by C. A. Long, Surveyor-Forest Service

 Under special instructions dated
 August 6
 , 1914

 Survey commenced
 December 6
 , 1914

 Survey completed
 December 6
 , 1914

 Under Acts of
 June 11, 1906 and June 30, 1914.

Applicant for listing	J. W. Sutherlin,
Residence	Metcalf, Arizona.
Application No. 150, o	dated February 27 , 1911
List No. 3-1458 , dated	September 25 , 1911
Applicant for survey	J. W. Sutherlin,
Residence	Metcalf, Arizona.
H. E. No. 018464 , dated	July 12, 1912.
Land district	Phoenix, Arizona.

### OATH OF ASSISTANTS

We hereby certify that we assisted C. A. Long, We hereby certify that we assisted <u>Jong</u>, <u>Surveyor-Forest Service</u> in surveying all those parts or portions of Homestead Entry Survey No. <u>226</u>, in <u>un</u> surveyed Section <u>4</u>, Township <u>3</u> S., Range <u>29 E.</u>, <u>surveyed Section</u>, Township <u>7</u>, Range <u>29 E.</u>, <u>of the G. & S.R.B. & meridian</u>, State of <u>Arizona</u>, which are represented in the following field notes as having been 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 furnished by the United States Surveyor General for Arizona. Note: It would have been Unglermon, Chainman very expensive and inconvenient to appear before Furley, Chainman an officer to administer oaths to Assistants; hence, they were taken by the Surveyor. Subscribed and sworn to before me this \_\_\_\_\_ ..... day of Wteenby, 1914.

Surveyor-Forest Service.

#### OATH OF SURVEYOR

Subscribed and sworn to before me this // 1/2 day of

Surveyor-Forest Service.

APACHE NATIONAL FOREST

STATE OF ARIZONA

1	
	Telescope L.M.T. , Vertical Hor. Ang. (sun to Angle right of mark)
007	Direct 9h. Olm. 49s. 21° 43' 46° 39'
•	Reversed 9h. 03m. 31s. 21° 24' 47° 32' 30"
	Mean 9h. 02m. 40s. 21° 33' 30" 47° 05' 45"
-3(6)	Bearing of object is S. 88° 34' 39" E.
	December 6, 1914.
	At cor. No. 1 of this survey, I observe the meridian
	altitude of the sun's upper limb for Latitude.
.04	Telescope L.M.T. Vertical Angle
	Direct 12h. 09m. 08.5s. 34° 35' 30"
	From this observation, I compute the latitude to be
	33° 13' 36" N.
, 9890	
etain	December 6, 1914.
e Eda	At cor. No. 1 of this survey I again observe the alti-
to man	tude of the sun for azimuth. The reading on the
	reference mark is set at zero and the sun observed
-000	on the upper left and lower right quadrants of the
	field. My watch is set for local mean time. Lati-
This o	tude 33° 13' 36" N., (by observation). Longitude
-1-2-0	109° 21' W., (by account from Land Office map).
A. 42. 5	Telescope L.M.T. Vertical Hor. Ang. (sun to Angle, right of mark)
	Direct 1 h. 48m. 00s. 27° 51' 30" 119° 51'
	Reversed 1h. 50m. 30s. 27° 03' 30" 119° 46' 30"
	Mean lh. 49m. 15s. 27° 27' 30" 119° 48' 45"
AG OF	Bearing of object is S. 88° 34' 17" E.
eóli	The mean of these is S. 88° 34' 28" E., and to the
- an e	corresponding meridian all the courses of this survey
	are referred.
	Satur in the set I could vie in cine.

. Loitstando el ... 190 100 00

al ... is acoust from a land office man

138 Form 85. Sheet No. 2. . 2.

# HOMESTEAD ENTRY SURVEY NO. 226 .1.

APACHE NATIONAL FOREST

STATE OF ARIZONA

Form 85. Sheet No. 2.

Chains	Applicant for listing, J. W. Sutherlin; Application No.
	150, dated February 27, 1911; List No. 3-1458, dated
	September 25, 1911; H. E. No. 018464 made at Phoenix,
	Arizona, on July 12, 1912.
r da	Surveyed under special instructions from the Surveyor
	General for Arizona, dated August 6, 1914, and desig-
	nated as Homestead Entry Survey No. 226.
	Situated approximately in unsurveyed Sec. 4, T. 3 S.,
II."	R. 29 E., Gila and Salt River Base and Meridian,
	Arizona.
	Surveyed under the Acts of June 11, 1906 and June 30,
	1914
	Trom this obvervation, I det not the Letiens to
	Survey commenced December 6, 1914 and executed with a
	W. and L. E. Gurley light mountain transit No. 11920,
-	provided with a full vertical circle reading to single
Lt1-	minutes of arc, the horizontal limb having two double
1. m. n	verniers placed opposite each other and reading to
1	single minutes of arc.
9	I test the adjustments of the transit and make the nec-
i in	essary corrections.
oj	All measurements were made on the slopes with a 500 link
	steel tape and the slope angles determined with a cli-
(jan ed (inter	nometer, the horizontal distances alone appearing in
T _	these notes
100 13	POET TOO TOO TOO TOO TOO TOO TOO TOO TOO
nge ig	December 6, 1914.
	At cor. No. 1 of this survey, I observe the altitude of
G	the sun for azimuth. The reading on the reference
tove	
	per right and lower left quadrants of the field. My
	watch is set for local mean time.
	Latitude 33° 13' 36" N., by observation. Longitude 109
I	21' W., by account from a Land Office map.

.

~

5

HOMESTEAD ENTRY SURVEY NO. 226 - 3.

APACHE NATIONAL FOREST

STATE OF ARIZONA

1	ANIZONA
Chains	December 6, 1914.
	There being no public land corners, U. S. Mineral or
	U. S. Location Monument within the prescribed limits
98.	to tie this claim to, I establish U. S. L. M. No. 226,
	H. E. S. as follows: On a prominent peak covered
	with thick oak brush and about 23 chs. SE. of J. W.
	Sutherlin's house, I set a red granite stone 29 x 14 x
enote	7 ins., in a mound of stone, marked USLM226HES on N.
as bee	Side with a same
Sector Constant	ft. base, 4 ft. high, W. of monument, whence:
arote a	Walker's Butte bears S. 59º 541 B
TOTAC	Walker's Butte bears S. 59° 54' E., approximately 4 miles.
Post The	H. L. mountain bears N 512 001 m
20 ( z)	H. L. mountain bears N. 51° 00' W., approximately 2 miles.
9110.38	2 miles. No bearing trees within the
eut	No bearing trees within the prescribed limits.
	There being no soil on this peak, I was unable to
	set the monument the prescribed depth.
	(No larger stone available for monument).
-	Thence II. 00° 38' 1.
•184	Id 280 esnab diw berevee appin the transmission
	o pome, the magnetic bearing of the true meridian
	. Therefore the mag-
	Journal variation is
	14° 32' E. I destroy listing cor. H-1, which is a
	6.10 Ascend steep rocky sider
	and witnessed as described by the Forest Service and
v	7.10 Descend rocky slope.
E	stone 30 x 16 x 10 ins., 20 ins. in the ground, over
8	stone marked with a cross (+) for cor. No. 1 of
	his survey, marked 1-HES226 on NW. face and a cross
ota ata	+) on top. No bearings, therefore raise a mound of
Based	tone 4 ft. base. 2 ft. high. 3-1/2 ft digt. mithin
t.	tone 4 ft. base, 2 ft. high, 3-1/2 ft. dist. within he claim. Pits impracticable.
and ne	he claim. Pits impracticable.
	U. S. L. M. No. 226 H. E. S., heretofore de-

APACHE NATIONAL FOREST

.

8-2349

STATE OF ARIZONA

140

Form 85. Sheet No. 2.

<ul> <li>Thence I run N. 99° 08' W.</li> <li>Alchg focky hillside sloping to ME., through dense oak bruch. Ascend 45 ft.</li> <li>8.40 Trail'to Estealf, bears ME. and SW.</li> <li>10.61 To cor. No. 2.</li> <li>Identical with list cor. H-4 which is d'milpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable.</li> <li>I destroy list cor. and witnesses thereto.</li> <li>Thence M. 00° 38' E.</li> <li>Along creat of ridge covered with dense oak brush.</li> <li>Bescend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 25 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list oor. H-3, which is a malpais stom is x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		detente December 6. 1914.
<ul> <li>Thence I run N. 89° 08' W.</li> <li>Along fooky hillside sloping to HE., through dense oak brush. Ascend 45 ft.</li> <li>8.40 "Trail'to Estealf, bears NE. and SW.</li> <li>10.61 To cor. No. 2.</li> <li>Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Porest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked "2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 3-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E.</li> <li>Along crest of ridge covered with dense cak brush.</li> <li>1.00 Bescend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears H. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears S. 60° 00' E., 15 ft. below point of descent.</li> <li>6.20 Bottom of arroyo, 5 lks. wide, bears S. 60° 00' E., 15 ft. below point of descent.</li> <li>6.20 Bottom of arroyo, 5 lks. wide, bears S. 60° 00' E., 15 ft. below point of descent.</li> <li>6.20 Bottom of arroyo, 5 lks. wide, bears S. 60° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 5.</li> <li>Identical with list cor. H-5, which is a malpais ston 18 x 12 x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand-</li> </ul>	Chains	scribed, bears S. 88° 16' E., 18.77 chs. dist.
<ul> <li>Along rocky hillside sloping to HE., through dense oak brush. Ascend 45 ft.</li> <li>8.40 Trail'to Estealf, bears HE. and SW.</li> <li>10.61 To cor. No. 2.</li> <li>Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Porest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E.</li> <li>Along creat of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 25 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>8.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope.</li> <li>8.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope.</li> <li>8.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-5, which is a malpais ston lê x lê x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand-</li> </ul>	l or	U. S. Toestion Mere
<ul> <li>Along rooky hillside sloping to NE., through dense oak brush. Ascend 45 ft.</li> <li>8.40 Trail'to Estealf, bears NE. and SW.</li> <li>10.61 To cor. No. 2.</li> <li>Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESS26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E.</li> <li>Along creat of ridge covered with dense cak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope.</li> <li>6.30 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>6.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3'.</li> <li>12 Identical with list cor. H-5, which is a malpais stom ik x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	etiai f	hence I run N. 89° 08' W.
<ul> <li>oak brush. Ascend 45 ft.</li> <li>8.40 Trail to Metcalf, bears NE. and SW.</li> <li>10.61 To cor. No. 2.</li> <li>Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38° E.</li> <li>Along crest of ridge covered with dense cak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 1ks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 1ks. wide, bears S. 60° 00° E., 15 ft. below point of descent.</li> <li>8.00 Bottom of arroyo, 5 1ks. wide, bears S. 60° 00° E., 16 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.8 To cor. No. 3. Identical with list cor. H-5, which is a malpais stom 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand-</li> </ul>	888 .00	the tooky hillside sloping to NE., through dense
<ul> <li>8.40 Trail to Metcalf, bears NE. and SW.</li> <li>10.61 To cor. No. 2.</li> <li>Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Porest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with denke oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 1ks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Fop of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 1ks. wide, bears S. 60° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 5. Identical with list cor. H-5, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand-</li> </ul>	Berre	Agend 45 ft.
<ul> <li>10.61 To cor. No. 2. Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HES226 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 28' E. Along crest of ridge covered with dense oak brush.</li> <li>Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 25 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 50° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-5, which is a malpais ston ik x 12' x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand-</li> </ul>	TT T	The The bears NR. and SW.
<ul> <li>Identical with list cor. H-4 which is d'malpais stone 8 x 8 x 12 ins. above ground, marked and witnessed as described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with dense oak brush.</li> <li>Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., i5 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-5, which is a malpais stom i2 x 12 x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand- iz x 12 x 10 ins. above ground, marked and witnessed as described by the Porest Service. Set a red sand-</li> </ul>	10 67	ro cor. No. 2.
<ul> <li>8 x 8 x 12 ins. above ground, marked and witnessed as described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cord. No. 2 of this survey, marked 2-HESE26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 36' E. Along creat of ridge covered with dense cak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais stom if x 12' x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	on M.	Taontical with list cor. H-4 which is a malpais stone
<ul> <li>described by the Forest Service. Set a shale stone 24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HES226 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Fits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	a le	a s a le ins, above ground, marked and witnessed as
<ul> <li>24 x 14 x 11 ins., 14 ins. in the ground, over a stone marked with a cross (+) for cor. No. 2 of this survey, marked 2-HESS26 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the claim. Pits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 1ks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 1ks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.00 Bottom of arroyo, 5 1ks. wide, bears S. 80° 00' E., 16 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 Te cor. No. 3. Identical with list cor. H-3, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		8 x 8 x 12 ms. above ground Service. Set a shale stone
<ul> <li>marked with a cross (+) for cor. No. 2 of this survey, marked 2-HES226 on side facing claim and cross (+) on top. No bearings, therefore raise a mound of stone 4 ft. base, 2 ft. high, 5-1/2 ft. dist. within the olaim. Pits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope.</li> <li>8.20 Ascend steep rocky slope lb ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais stom i2 x 12 x 10 ins. above ground, marked and witnessea as described by the Forest Service. Set a red sand-</li> </ul>	- Fo the	described by the Forest Bervicet
<ul> <li>marked 2-HES226 on side facing claim and cross (+) on top. No bearings, therefore faise a mound of stone 4 ft. base, 2 ft. high, 3-1/2 ft. dist. within the claim. Pits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with dense cak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., i5 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope.</li> <li>8.20 Ascend steep rocky slope lb ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais ston l2 x l2' x l0 ins. above ground, marked and witnessea as described by the Forest Service. Set a red sand-</li> </ul>	Are non	24 x 14 x 11 ins., 14 ins. in the ground, this survey.
<ul> <li>top. No bearings, therefore raise a mound of stone</li> <li>4 ft. base, 2 ft. high, 3-1/2 ft. dist. within the claim. Pits' impracticable.</li> <li>I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E.</li> <li>Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais ston l2 x 12' x 10 ins. above ground, marked and witnessed as described by the Forest Service. 'Set a red sand-</li> </ul>		marked with a cross (+) for cor. No. 2 of ones (+) on
<ul> <li>4 ft. base, 2 ft. high, 3-1/2 ft. dist. within the claim. Pits' impracticable. I destroy list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E. Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais stom 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	upstely	marked 2-HES226 on side facing claim and cross (1) of
<ul> <li>elaim. Pits' impracticable.</li> <li>I destroỳ list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E.</li> <li>Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom l2 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		top. No bearings, therefore raise a mound of stone
<ul> <li>elaim. Pits' impracticable.</li> <li>I destroỳ list cor. and witnesses thereto.</li> <li>Thence N. 00° 38' E.</li> <li>Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope l5 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom l2 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. 'Set a red sand-</li> </ul>	.85	4 ft. base, 2 ft. high, 3-1/2 ft. dist. within the
I destroy list cor. and witnesses thereto. Thence N. 00° 38' E. Along crest of ridge covered with dense oak brush. 1.00 Descend steep rocky slope. 6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent. 6.10 Ascend steep rocky slope. 7.00 Top of rocky spur bears SE. 20 ft. above point of ascent 7.10 Descend rocky slope. 8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent. 8.20 Ascend steep rocky slope 15 ft. to cor. 9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais stom 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-	0	Dits' impracticable.
<ul> <li>Thence N. 00° 38' E.</li> <li>Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom l2 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		I destroy list cor. and witnesses thereto.
<ul> <li>Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom l2 x l2 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		(No larger stone available for monument).
<ul> <li>Along crest of ridge covered with dense oak brush.</li> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom l2 x l2 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		Thence N. 00° 38' E.
<ul> <li>1.00 Descend steep rocky slope.</li> <li>6.00 Bottom of arroyo, 5 lks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		is one of midge covered with dense oak brush.
<ul> <li>6.00 Bottom of arroyo, 5 1ks. wide, bears E. 35 ft. below point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 1ks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stom 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	E.	sibirem ourd end io garaged ordengem end
<ul> <li>point of descent.</li> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	3,	an end eroreten 5 1kg, wide, bears E. 35 ft. below
<ul> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo. 5 lks. wide, bears S. 80° 00' E.,</li> <li>15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais ston</li> <li>12 x 12 x 10 ins. above ground, marked and witnessed</li> <li>as described by the Forest Service. Set a red sand-</li> </ul>	6.00 ai	AVITALASA TENINIA MIT DECENTION WATER
<ul> <li>6.10 Ascend steep rocky slope.</li> <li>7.00 Top of rocky spur bears SE. 20 ft. above point of ascent</li> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E.,</li> <li>15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais ston</li> <li>12 x 12 x 10 ins. above ground, marked and witnessed</li> <li>as described by the Forest Service. Set a red sand-</li> </ul>	- 3	LE desdu [-H. Totiliting der. H.
<ul> <li>7.00 Top of Focky spur board and an an</li></ul>	6.10	Ascend steep rocky stope.
<ul> <li>7.10 Descend rocky slope.</li> <li>8.00 Bottom of arroyo, 5 lks. wide, bears S. 80° 00' E., 15 ft. below point of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3. Identical with list cor. H-3, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	7.00	Top of rocky spir board as described by the forest save
<ul> <li>8.00 Bottom of arroyo, 5 1ks. whee, and another is a matrix of descent.</li> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	7.10	Descend rocky slope.
<ul> <li>8.20 Ascend steep rocky slope 15 ft. to cor.</li> <li>9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stone 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>	8.00	Bottom of arroyo, 5 iks. wind, of x al x os enote
<ul> <li>8.20 Ascend steep rocky slope is it. to contain 9.08 To cor. No. 3.</li> <li>Identical with list cor. H-3, which is a malpais stone 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-</li> </ul>		15 ft. below point of account for any enote a
9.08 To cor. No. 5. Identical with list cor. H-3, which is a malpais ston 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-	8.20	
Identical with list cor. h c, where and witnessed 12 x 12 x 10 ins. above ground, marked and witnessed as described by the Forest Service. Set a red sand-		To cor. No. J.
as described by the Forest Service. Set a red sand-	ĨO .	Identical with list cor. H-3, which is a malpais ston
as described by the Forest Service. * Set a red sand-	ni	a share ground, marked and witnessed
He Se Tee Vi Ma 900 Ti and		as described by the Forest Service. Set a red sand-
-ob ercloferen . B . h obs . Va . H		U. S. L. M. Mo. 226 H. E. S., heretofore de-

# HOMESTEAD ENTRY SURVEY NO. 226

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chain	a stone marked with a cross (+) for cor. No. 3 of
	this survey, marked 3-HES226 on side facing claim and
	a cross (+) on top. No bearing objects, raise a mound
	of stone 4 ft. base, 2 ft. high, 3-1/2 ft. dist. with-
	in the claim. Pits impracticable.
•	I destroy list cor. H-3 and witnesses thereto.
	Thence S. 89° 22' E.
	Descend 25 ft. over broken rocky country covered with
	thick oak brush.
10.26	To cor. No. 4.
	Identical with list cor. H-2, which is a malpais stone
	8 x 10 x 12 ins. above ground, marked and witnessed as
a PAN	described by the Forest Service. Point falls on rock
	shelf 20 ft. NE. and SW. 4 ft. NW. and SE. Set a
	shale stone 29 x 12 x 9 ins. in a mound of stone for
	cor. No. 4 of this survey, marked 4-HES226 on side
	facing claim and cross (+) on top, whence:
	A juniper 16 ins. dia., blazed and marked 4 H E
	S 226 B T, bears S. 56° 05' E., 175 1ks. dist.
Dog .	No other trees within limits.
Pico .	Pits and mound impracticable.
	I destroy list cor. H-2, and witnesses thereto.
	• • • • • • • •
Ð	Thence S. Ol° 15' E.
•	Over broken rocky land, through scattering oak brush.
	Descend.
0.60	Trail to Metcalf, bears SW. and NE.
5.40	Arroyo, 10 lks. wide, course SE., 20 ft. below point
	of descent.
5.50	Ascend rocky slope 15 ft. to cor.

5. 141

8-2349

Form 85. sheet No. 2. 6. HOMESTEAD ENTRY SURVEY NO. 226

APACHE NATIONAL FOREST

STATE OF ARIZONA

Chains 8.15	Fence corner, from which fences run N. 42° 00' W. and N. 74° 30' W.
9.15	To cor. No. 1, the place of beginning.
-ddiw	AREA
	Area 9.52 acres.
	CONFLICTS OR ADJOINING CLAIMS
ait in	No conflicts or adjoining claims.
	IMPROVEMENTS
	The improvements upon this claim, the property of the
ero ie	claimant herein, consist of the following:
. ag 505	Board chicken house, 8 x 10 ft., course of sides N. and
Noor 4	S., the SE. cor. of which bears from cor. No. 1, N.
R	71° 51' W., 4.49 chs. dist.
fight	Value \$ 25.00
0	Board blacksmith shop 10 x 16 ft., course of long sides
	N. and S., the NE. cor. of which bears from cor. No.
E H	1 N. 67° 40' W., 5.03 chs. dist.
	Value \$ 25.00
	Board residence 18 x 45 ft., course of long sides N. and
	S., the SE. cor. of which bears from cor. No. 1 N. 65°
	36' W., 5.23 chs. dist'.
	Value \$150.00
	Board saddle house 10 x 12 ft., course of long sides
•	N. and S., the SE. cor. of which bears from cor. No.
	1 N. 52° 56' W., 6.09 chs. dist.
	Value \$ 15.00
3	About 1/8 mile of wire fencing.
	Value \$ 10.00
	. to at .12 dE again Ther Sheak 91.1
	154 -

Form 85. Sheet No. 2.

APACHE NATIONAL FOREST

7. 143

STATE OF ARIZONA

Chains	Total value of improvements \$225.00
	DESCRIPTION
	This claim lies in a series of arroyos tributary to
	Sardine Creek. The claim is rocky and rugged and
	mostly covered with thick underbrush of scrub oak.
	The soil is second rate and not well adapted to agri-
	culture. About one-half acre is fenced and used
	for growing garden truck. Sufficient water for do-
	mestic use is obtained from a perrenial spring near
	claimant's house.
	There is no timber or mineral on the claim, although
	considerable prospecting has been done in this vicinity
	and traces of gold and copper found on Sardine Creek,
	one mile to the South, but it was not in workable
	quantities.
	Metcalf, the nearest postoffice and trading center lies
	12 miles in a southerly direction by a good mountain
	trail. This is an excellent site for a stock ranch,
	the brush covered mountain side affording good brows-
	ing and the deep canyons shelter the stock from wind
	and snow.
+	
	TRAVERSE
	No. Bearing Dist. N S E W
	1-2 N. 89° 08' W. 10.61 0.16 10.61 2-3 N. 00° 38' E. 9.08 9.08 0.10
	3-4       S. 89° 22' E. 10.26       0.11       10.26         4-1       S. 01° 15' E.       9.15       9.15       0.20
-	39.10 9.24 9.26 10.56 10.61 9.24 10.56
	Error in Lat. and Dep02 .05
	Closing error 1:725.
	Survey completed December 6, 1914.

C.A. Long Surveyor-Forest Service.

8-2349

## HOMESTEAD ENTRY SURVEY NO.

NATIONAL FOREST

STATE OF



HOMESTEAD ENTRY SURVEY NO. 226

145

8-2349

APACHE NATIONAL FOREST

STATE OF ARIZONA

Latitude Computation Longitude by account from Land Office map. 169° 21' W. Observed altitude of sun's upper limb at apparent noon December 6, 1914 is 34° 35'. 30" Observed = 34° 35' 30" Refraction= 01' 23" Semi-diameter= 16' 16" 34° 17' 51" Parallax + 07'. Sun's declination + 22° 28' 26" <u>56° 46' 24"</u> = Co-Lat. <u>90° 00' 00"</u> <u>33° 13' 36"</u> = Latitude. Computation for azimuth from Solar observation, De- cember 6, 1914. Lat. and Long. previously stated. (1) Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lower left Reversed.9h.03m.31s. 21° 23' 30" 47° 05' 45"		STATE OF ARTZONA
Longitude by account from Land Office map.169° 21' 7. Observed altitude of sun's upper limb at apparent noon December 6, 1914 is 34° 35'.30" Observed = 34° 35' 30" Refraction= 01' 23" Semi-diameter= 16' 16" Save 17' 51" Parallax + 07. Sun's declination + 22° 28' 26" <u>56° 46' 28"</u> = 00-Lat. <u>90° 00' 00"</u> <u>33° 18' 36"</u> = Latitude. . Computation for azimuth from Bolar observation, De- cember 6, 1914. Lat. and Long. previously stated. Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lower left Reversed <u>9h.03m.31s. 21° 24' - 47° 52' 30"</u> Means 9h.02m.40s. 21° 33' 30" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed <u>1h.56m.30s. 27° 27' 30" 119° 48'45</u> " (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination <u>5. 22° 27' 33"</u> Cos. A. = <u>31n. 22° 27' 33"</u> = <u>0.5820017</u> <u>33° 15' 56" - Tan. 21° 21' 05"</u> Log. Sin. 22° 27' 33" = <u>0.5820017</u> <u>9.69010947</u> <u>9.6909970</u> = Log49090 Log. 0cs. <b>23°</b> 13' 35" = <u>9.9524708</u> " " 21° 31' 05" = <u>9.9624708</u>	Chains	Detailed Computation.
Observed altitude of sun's upper limb at hyperent noon December 6, 1914 is 34° 35'.30" Observed = 54° 35' 50" Refraction= 01' 23" Semi-diameter= 16' 16" 34° 17' 51" Parallax + 07. Sun's declination + 22° 28' 26" 56° 46' 24" = Co-Lat. 90° 00' 00" -33° 13' 55" = Latitude. . Computation for azimuth from Solar observation, De- cember 6, 1914. Lat. and Leng. previously stated. Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lower left Reversed 9h.03m.31s. 21° 24' 47° 52' 50" Means 9h.02m.40s. 21° 33' 50" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 50" 119° 51' Lower right Reversed <u>1h.50m.50s. 27° 51' 50" 119° 51'</u> Lower sight Reversed <u>1h.50m.50s. 27° 51' 50" 119° 51'</u> Lower sight Reversed <u>1h.50m.50s. 27° 51' 50" 119° 48'45"</u> (1) Apparent time of obsn. 9h. 11m. 409. Corrected vertical angle 21° 51' 05" Sun's declination S. 22° 27' 33" Os. A. = <u>31n. 22° 27' 35"</u> Cos. A. = <u>31n. 22° 27' 35"</u> Log. 51' 56" - Tan. 21° 51' 05") Log. 51' 25" 52" 15' 35" = 9.5820917 <u>9.6910947</u> <u>9.6909970</u> = Log49090 Log. 0cs. <b>35°</b> 15' 36" = 9.9224708 " " 21° 61' 05" = 9.9224708	20075	- Latitude Computation
December 6, 1914 is 34° 35'.30" Observed = 34° 35' 30" Refraction= 01' 23" Semi-diameter= 16' 16" $\frac{54^{2}}{24^{2}}$ 17' 51" Parallax + 07. Sun's declination + 22° 28' 26" $\frac{50^{\circ} 00' 00'}{-33^{\circ} 13' 56"}$ = Co-Lat. $\frac{90^{\circ} 00' 00'}{-33^{\circ} 13' 56"}$ = Latitude. . Computation for azimuth from Bolar observation, De- cember 6, 1914. Lat. and Leng. previously stated. Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lewer left Reversed 9h.02m.31s. 21° 24' 47° 52' 50" Means 9h.02m.40s. 21° 33' 50" 47° 05' 45" (2). Upper left Direct 1h.46m.00s. 27° 51' 30" 119° 51' Lower right Reversed <u>1h.50m.30s. 27° 03' 50" 119° 48'45"</u> (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = <u>Sin. 22° 27' 33"</u> Cos. A. = <u>Sin. 22° 27' 33"</u> Log. Sin. 22° 27' 33" = 9.5820917 <u>5.6910947</u> T.6909970 = Log49090 Log. Cos. <b>35°</b> 15' 36" = 9.9224708 " 21° 61' 05" = 9.9224708	a al	Longitude by account from Land Office map. 109° 21' W.
Observed = 54° 35' 30" Refraction= 01' 23" Semi-diameter= 16' 16" 54° 17' 51" Parallax + 07. Sun's declination + 22° 28' 26" $90^{\circ}$ 00' 00" $35^{\circ}$ 13' 36" = Co-Lat. $90^{\circ}$ 00' 00" $33^{\circ}$ 13' 36" = Latitude. . Computation for azimuth from Solar observation, De- cember 6, 1914. Lat. and Long. previously stated. (1) Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lewer left Reversed 9h.02m.31s. 21° 24' 47° 32' 50" Means 9h.02m.40s. 21° 33' 30" 119° 51' Lower right Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.50s. 27° 03' 30" 119° 46'50" Means 1h.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination 3. 22° 27' 35" Cos. A. = Sin. 22° 27' 35" Cos. A. = Sin. 22° 27' 35" Cos. A. = Sin. 22° 27' 35" Log. Sin. 22° 27' 35" = 9.5820917 $\frac{9.6910947}{9.6909970}$ = Log49090 Log. Cos. 35° 15' 36" = 9.0224708 " " 21° 51' 05" = 9.0224708	-seter	Observed altitude of sun's upper limb at apparent noon
Refraction= 01' 23" Somi-diameter= 16' 16" $54^{\circ}$ 17' 51" Parallax + 07. Sun's declination + 22° 28' 26" $-\frac{90^{\circ} 00' 00''}{33^{\circ} 13' 36"} = 0^{\circ}$ -Lat. $-\frac{90^{\circ} 00'}{33^{\circ} 13' 36"} = 1$ -atitude. . Computation for azimuth from Solar observation, De- cember 6, 1914. Lat. and Long. previously stated. (1) Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lewer left Reversed 9h.02m.31s. 21° 24' 47° 32' 30" Means 9h.02m.40s. 21° 53' 30" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.50s. 27° 03' 30" 119° 51' Lower right Reversed 1h.50m.50s. 27° 27' 30" 119° 46'50" Means 1h.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = <u>Sin. 22° 27' 33"</u> Cos. A. = <u>Sin. 22° 27' 33"</u> Cos. A. = <u>Sin. 22° 27' 33"</u> Log. Sin. 22° 27' 33" = 9.0820917 <u>9.0910947</u> Source 106" Log. Cos. <b>33°</b> 15' 36" = 9.024708 " " 21° 63' 36" = 9.024708		December 6, 1914 is' 34° 35'. 30"
Semi-diameter 16' 16" $34^{\circ} 17' 51"$ Parallax + 07. Sum's declination + 22° 28' 26" $55^{\circ} 46' 24"$ = Co-Lat. $90^{\circ} 00' 00"$ $33^{\circ} 13' 35"$ = Latitude. . Computation for azimuth from Solar observation, De- cember 6, 1914. Lat. and Long. previously stated. Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sum Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 59' Lower left Reversed 9h.02m.31s. 21° 24' 47° 52' 50" Means 9h.02m.40s. 21° 33' 50" 47° 05' 45" (2). Upper left Direct 1h.46m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.30s. 27° 03' 50" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Log. 51' 56" - Tan. 21° 51' 05" Log. Sin. 22° 27' 33" = 9.5820917 $\frac{9.6910947}{9.6909970} = Log49090$ Log. 0s. 55° 15' 36" = 9.9224708 " " 21° 31' 06" = 9.9224708		Observed = 34° 35' 30"
$\begin{array}{c} \overline{34^{\circ}\ 17^{\circ}\ 51^{\circ}} \\ \mbox{Parallax} & + 07 \\ \mbox{Sun's declination} + \underline{22^{\circ}\ 28^{\circ}\ 26^{\circ}} \\ \underline{56^{\circ}\ 46^{\circ}\ 24^{\circ}} & = 0^{\circ} - Lat. \\ \underline{90^{\circ}\ 00^{\circ}\ 00^{\circ}} \\ \underline{90^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}} \\ \underline{90^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}} \\ \underline{90^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}} \\ \underline{90^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}\ 00^{\circ}} \\ \underline{90^{\circ}\ 00^{\circ}\ 00^{$		Refraction= . 01' 23"
$\frac{56^{\circ} \ 46^{\circ} \ 24^{\circ}}{90^{\circ} \ 00^{\circ} \ 00^{\circ}} = \text{Latitude.}$ $\frac{90^{\circ} \ 00^{\circ} \ 00^{\circ}}{33^{\circ} \ 13^{\circ} \ 36^{\circ}} = \text{Latitude.}$ $\frac{13^{\circ}}{33^{\circ} \ 13^{\circ} \ 36^{\circ}} = \text{Latitude.}$ $\frac{11}{2}$ Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sum Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lower left Reversed 9h.02m.31s. 21° 24' 47° 52' 50" Means 9h.02m.40s. 21° 33' 30" 47° 05' 45" (2). Upper left Direct 1h.46m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.30s. 27° 51' 30" 119° 46'30" Means 1h.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination 5. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Log. Sin. 22° 27' 33" = 9.5820917 9.6900947 9.6900947 9.6900947 9.6900947 9.6900970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9224708		34° 17' 51"
. Computation for azimuth from Solar observation, De- cember 6, 1914. Lat. and Long. previously stated. Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lewer left Reversed.9h.02m.31s. 21° 24' 47° 32' 30" Means 9h.02m.40s. 21° 33' 30" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.30s. 27° 03' 30" 119° 46'30" Means 1h.49m.15s. 27° 27' 30" 119° 46'30" Means 1h.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" (os. 21° 05" 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " 21° 31' 05" = 9.9224708		$56^{\circ} 46' 24'' = Co-Lat.$ 90° 00' 00''
cember 6, 1914. Lat. and Long. previously stated. (1) Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.01m.49s. 21° 43' 46° 39' Lewer left Reversed 9h.03m.31s. 21° 24' 47° 32' 30" Means 9h.02m.40s. 21° 33' 30" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.30s. 27° 03' 30" 119° 46'30" Neans 1h.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Cos. A. = Sin. 22° 27' 35" Sin '36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 $\frac{9.3910947}{9.6909970}$ = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9224708		IVS POSTAL
<ul> <li>(1)</li> <li>Quadrant Telescope</li> <li>I.m.t. Vertical Hor. Ang. (sun Angle: to right)</li> <li>Upper right Direct 9h.01m.49s. 21° 43' 46° 59'</li> <li>Lower left Reversed_9h.03m.31s. 21° 24' 47° 52' 50"</li> <li>Means 9h.02m.40s. 21° 33' 30" 47° 05' 45"</li> <li>(2).</li> <li>Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51'</li> <li>Lower right Reversed 1h.50m.30s. 27° 03' 30" 119° 46'30"</li> <li>Means 1h.49m.15s. 27° 27' 30" 119° 48'45"</li> <li>(1) Apparent time of obsn. 9h. 11m. 40s.</li> <li>Corrected vertical angle 21° 31' 05"</li> <li>Sun's declination S. 22° 27' 33"</li> <li>Cos. A. = Sin. 22° 27' 33" (cos. 21° 51' 05"</li> <li>33° 13' 36" - Tan. 21° 31' 05")</li> <li>Log. Sin. 22° 27' 33" = 9.5820917</li> <li>9.6909970 = Log49090</li> <li>Log. 00s. 35° 13' 36" = 9.9224708</li> <li>" 21° 31' 05" = 9.9224708</li> </ul>	308.D	. Computation for azimuth from Solar observation, De-
Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun Angle. to right) Upper right Direct 9h.Olm.49s. 21° 43' 46° 39' Lower left Reversed.9h.OZm.31s. 21° 24' 47° 32' 30" Means 9h.OZm.40s., 21° 33' 30" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.30s. 27° 03' 30" 119° 46'30" Means 1h.49m.15s. 27° 27' 30" 119° 46'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Cos. A. = Sin. 22° 27' 35" - (Tan. Cos. 53° 13' 36" x Cos. 21° 31' 05" 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 <u>9.8910947</u> 9.6909970 = Log49090 Log. Cos. 35° 13' 36" = 9.9224708 " " 21° 31' 05" = <u>9.9284708</u>		STATES STAT
Lower left Reversed 9h.03m.51s. 21° 24' 47° 52' 30" Means 9h.02m.40s. 21° 33' 30" 47° 05' 45" (2). Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51' Lower right Reversed 1h.50m.30s. 27° 03' 30" 119° 46'30" Means 1h.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" - (Tan. Cos. A. = Sin. 22° 27' 33" - (Tan. 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9224708	-	Quadrant Telescope 1.m.t. Vertical Hor. Ang. (sun
Means $9h.02m.40s. 21^{\circ} 33' 30'' 47^{\circ} 05' 45''$ (2).Upper left Direct 1h.48m.00s. 27^{\circ} 51' 30'' 119^{\circ} 51'Lower right Reversed 1h.50m.30s. 27^{\circ} 03' 30'' 119^{\circ} 46'30''Means1h.49m.15s. 27^{\circ} 27' 30'' 119^{\circ} 48'45''(1) Apparent time of obsn. 9h. 11m. 40s.Corrected vertical angle 21^{\circ} 31' 05''Sun's declinationS. 22^{\circ} 27' 33''Cos. A. =Sin. 22^{\circ} 27' 33'' Cos. 33^{\circ} 13' 36'' x Cos. 21^{\circ} 51' 05''33^{\circ} 13' 36'' - Tan. 21^{\circ} 51' 05'')Log. Sin. 22^{\circ} 27' 33'' = 9.5820917 9.6909970 = Log49090Log. Cos. 33^{\circ} 13' 36'' = 9.9224708 " " 21^{\circ} 31' 05'' = 9.9686239	and a start	Upper right Direct 9h.Olm.49s. 21° 43' 46° 39'
(2). Upper left Direct lh.48m.00s. 27° 51' 30" ll9° 51' Lower right Reversed lh.50m.30s. 27° 03' 30" ll9° 46'30" Means lh.49m.15s. 27° 27' 30" ll9° 48'45" (1) Apparent time of obsn. 9h. llm. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" - (Tan. Cos. 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9686239		Lower left Reversed. 9h.03m.3ls. 21° 24' 47° 32' 30"
Upper left Direct lh.48m.008. 27° 51' 30" 119° 51' Lower right Reversed lh.50m.30s. 27° 03' 30" 119° 46'30" Means lh.49m.15s. 27° 27' 30" 119° 48'45" (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" - (Tan. Cos. 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9224708	719/102	Means 9h.02m.40s., 21° 33' 30" 47° 05' 45"
Lower right Reversed <u>lh.50m.30s. 27° 03' 30" l19° 46'30"</u> Means lh.49m.15s. 27° 27' 30" l19° 48'45" (1) Apparent time of obsn. 9h. llm. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 35" - (Tan. Cos. 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9686239	381.75 <sup>4</sup> .	(2).
Meanslh.49m.15s. $27^{\circ} 27' 30" 119^{\circ} 48'45"$ (1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle $21^{\circ} 31' 05"$ Sun's declination S. $22^{\circ} 27' 33"$ Cos. A. = $\frac{5in. 22^{\circ} 27' 33"}{\cos . 33^{\circ} 13' 36" \times \cos . 21^{\circ} 31' 05"} - (Tan.33^{\circ} 13' 36" - Tan. 21^{\circ} 31' 05")Log. Sin. 22^{\circ} 27' 33" = 9.5820917\frac{9.8910947}{9.6909970} = Log49090Log. Cos. 33^{\circ} 13' 36" = 9.9224708" " 21^{\circ} 31' 05" = 9.9686239$		Upper left Direct 1h.48m.00s. 27° 51' 30" 119° 51'
<pre>(1) Apparent time of obsn. 9h. 11m. 40s. Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = Sin. 22° 27' 33" - (Tan. Cos. 33° 13' 36" - Tan. 21° 31' 05") 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9686239</pre>		Lower right Reversed 1h.50m.30s. 27° 03' 30" 119° 46'30"
Corrected vertical angle 21° 31' 05" Sun's declination S. 22° 27' 33" Cos. A. = $\frac{\sin 22^{\circ} 27' 33"}{\cos 33^{\circ} 13' 36" \times \cos 21^{\circ} 31' 05"}$ - (Tan. 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9686239		Means lh.49m.15s. 27° 27' 30" 119° 48'45"
Sun's declination S. 22° 27' 33" Cos. A. = $\frac{\sin 22^{\circ} 27' 33"}{\cos 33^{\circ} 13' 36" \times \cos 21^{\circ} 31' 05"}$ (Tan. 33° 13' 36" - Tan. 21° 31' 05") Log. Sin. 22° 27' 33" = 9.5820917 $\frac{9.8910947}{9.6909970} = \text{Log49090}$ Log. Cos. <b>33°</b> 13' 36" = 9.9224708 " " 21° 31' 05" = 9.9686239		(1) Apparent time of obsn. 9h. 11m. 40s.
Cos. A. = $\frac{\sin \cdot 22^{\circ} 27' 33''}{\cos \cdot 33^{\circ} 13' 36'' \times \cos \cdot 21^{\circ} 31' 05''}$ - (Tan. 33° 13' 36'' - Tan. 21° 31' 05'') Log. Sin. 22° 27' 33'' = 9.5820917 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36'' = 9.9224708 " " 21° 31' 05'' = 9.9686239		Corrected vertical angle 21° 31' 05"
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Sun's declination S. 22° 27' 33"
Log. Sin. 22° 27' 33" = $9.5820917$ 9.8910947 9.6909970 = Log49090 Log. Cos. 33° 13' 36" = $9.9224708$ " " 21° 31' 05" = $9.9686239$		$Cos. A. = \frac{Sin. 22^{\circ} 27' 33''}{Cos. 33^{\circ} 13' 36'' \times Cos. 21^{\circ} 31' 05''}$ (Tan.
$\frac{9.8910947}{9.6909970} = \text{Log49090}$ $\text{Log. Cos. 33^{\circ} 13' 36'' = 9.9224708}$ $\text{" " 21^{\circ} 31' 05" = 9.9686239}$		33° 13' 36" - Tan. 21° 31' 05")
" " $21^{\circ} 31' 05" = 9.9686239$		9.8910947
		" " $21^{\circ} 31' 05" = 9.9686239$

NATIONAL FOREST

STATE OF

5.146

Form 85. Sheet No. 2.

Chains	Log. Tan. 33° 13' 36" = 9.8162721 " 21° 31' 05" = $9.5957987$ 9.4120708 = Log25827
	1849090 = .25287 =74917 = Natural Cos. S. 41°
	28" 54" E., the bearing of sun. Bearing of refer-
1.1.27%	ence mark is S.'88° 34' 39" E.
	10: 'as and = bovrondo
	(2) Apparent time of obsn. =' lh. 58m. 23s.
	Corrected vertical angle' = 27° 25' 39"
	Sun's Declination S. = 22° 29' 00"
	Cos. A. = Sin. 22° 29' 00" -(Tan. 33
	Cos. 33° 13' 56" x Cos. 27° 25' 39"
	13' 36" x Tan. 27°' 25' 39")
	Log. Sin. 22° 29' 00" = 9.5825345
-0°C	9.8706853 9.7118492 = Log51505
. 00	Log. Cos. $33^{\circ}$ 13' 36" = 9.9224708
	(I) 9.8706853
	Log. Tan. 33° 13' 36" = 9.8162721
1.03	" " $27^{\circ} 25' 39" = 9.7151337$ $9.5314958 = Log33994$
1100 124	5150533994 =85499 = Natural Cos. S. 31°
100 - 100	14''28" E., the bearing of sun. Bearing of refer-
	ence mark is S. 88° 34' 17" E. and the mean of these
1 1 2	12.1 is S. 88° 34' 28" E. Joch Statistic T.A.
	Wir to 'co to .aok. abl. there was the in read
	PRIL "00 '90 '78 .881. EB. AL
	(I) Logarant Line of obud. Sh. Line 400.
	diffedter vortrog angle 11 11' Co
	avaita devisination . 8. 225 ari cut
(gan.	
	130 1 15 °La . 60" ± 20" ± 20" ± 201 · 20"
	55° 15' 26" - 198. 21° 51' 05")
	Tog. 516. 28° 8'' 28" - 9.3829917.
0909	· • • • • • • • • • • • • • • • • • • •
	Loc. 000.550 13' 30" = 9. 266200 """" 21° 21' 00" = <u>9.2662200</u> 9.5910347

Form 85. Sheet No. 3.-Revised Feb., 1915.

Ł

DIRECTIONS.—1. Carry out calculations to two decimals only.
2. In balancing Latitudes and Departures do not obliterate or change the original figures.
2. In balancing Latitudes and Departures do not obliterate or change the footing of the original figures, but put below them the corrected from in red ink.
2. In 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.

	S. AKEAS.		1 18 1 92	9.52A. 9.52A.
	N. AKEAS.	14 161		193 41 20) <u>190 31</u> 9.515 -
WHOFTHE TO T	DOUBLE M. D.	10 60 21 09 21 09	13	
URES.	WEST.	10 61		
DEPARTURES.	EAST.	01 01 01		10 56 26
THAND THAT	South.		9 15	<b>3 3 3 4</b>
LATITUDES.	North.	9 08		
5		10.01 9.08	9.15	20*10
	DAAMING.	N. 89° 08' W N. 0° 38' E S. 89° 22' F	01° 15'	
	COLMERCO.	Sec. 3 -1-2 2-3 3-4	1 1	

		N VBBYE	DOLDEE A. D.	SERVERARIO .			DISLANCE	BEVERAG	
	-converses	Activities (%) - 12							
						0	10.01	11. 58° 031	1
				TO			30.0	.N. 0° 381	01 1 1 01
Te der los de lo	-				II		1 38.01	2. 80. 551	1-C
			19	20			31.0	"8" OTo JE1	トーシ
	3	Tab 41					83 -10		
		50)130 21							
	1	3.97P			•				
					•				
						•			
								-	

## APPROVAL

Office of the United States Surveyor General,

Phoenix, Arizona, May 29, 1916.

The foregoing field notes of Homestead Entry Survey No.

226

executed by <u>C. A. Long, SurVeyor-Forest Service</u> under his special instructions, dated <u>August 6</u>, 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Hank U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described survey in <u>Arizona</u>, has been correctly copied from the original notes on file in this office.

> Frank P. Trott U. S. Surveyor General.

8-2349