4-18-1910.
C. M. C.

platted

APR 2- 1910

2198

HOMESTEAD ENTRY SURVEY NO. 45

Arizona Land District.

2198 2198

FIELD NOTES

of

The Survey of the Homestead Entry Claim

of

Stephen B. Reed

Described as

H. E. No. 02008 List No. 1512

2198

Approx T18S, R31E. Unsur. Secs 6, 7 & 8.

Chiricahua National Forest,

Cochise County, Arizona.

Surveyed under instructions dated December 15, 1909.

by H. W. Jorgensen
U. S. Mineral Surveyor.

Survey commenced March 5, 1910.

Survey completed March 10, 1910.

Address: Portal, Arizona.

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Homestead Entry Survey No.45

Chains. Begin at Cor.No.1,a corner of preliminary survey, a stone 14 inches long,set in the ground,chiseled H 11. In place of stone I set a porphyry rock 15 X 8 inches,30 inches long,12 inches in the ground,chiseled an X on top and I HES 45 on its southeast face,and built a monument of stones 3 ft. in diameter at base and 3 ft. high,8 links to the south of stone. Whence,

~~1)~~ A white oak,7 inches in diameter,scribed WH 11,bears N.11°W.,4 links. I add to scribing,I-HES-45 BT.

~~2)~~ A white oak,8 inches in diameter,scribed WH 11,bears S.68°15'W.,28 links.I add to scribing,I-HES-45 BT.

~~3)~~ The corner to Secs.31 and 32 on the south boundary of T.17S.,R 31 E. bears N.14° 13'E.,64.17 chains.

Thence S.53° 51'W. Variation 13° E.

1.27 Center of road,course northwest and southeast.

2.00 North fork of Cave Creek,course southeast.

4.61 Cor.No.2,a corner of preliminary survey, a stone 8 inches long,set in the ground,chiseled WH 12. In place of the stone I put a porphyry rock 10 X 12 inches,29 inches long,set 12 inches in the ground,and marked it with an X chiseled on t top and 2-HES-45 on its east face. 8 links to the northeast,I built a monument of stones 3½ ft. in diameter at base and 2½ ft. high. Whence,

~~1)~~ A black oak,9 inches in diameter,scribed 2-HES-45 BT bears N.81°30'E.,66 links.

~~2)~~ A 9 inch juniper,scribed the same,bears N.1°E.,3 links.

~~3)~~ A 7 inch walnut on pasture fence,scribed WH 12,bears southwest,15 links.

Thence S.8° 43'E. Variation 13° E.

0.23 Intersect pasture fence,course northwest and southeast.

10.40 Cor.No.3,a corner of preliminary survey, a stone 10 inches long,set in the ground,chiseled H 13. In its place I put a porphyry stone,3 X 8 inches,24 inches long,set 12 inches in the ground and marked it by chiseling an X on top and 3-HES-45

Chains.

on its south face. 8 links to the southeast I built a monument of stones 3 ft. in diameter at base and 4 ft. high. whence,

1) A 10 inch black oak, scribed 3-HES-45 BT, bears S.58°45'E. 49 links.

2) A 12 inch white oak, scribed WH 13 bears N.66°42'W., 64 links. I add to scribing, 3-HES-45 BT.

3) A 6 inch black oak, scribed WH 13, bears N.59°41'E., 12 links. I add to scribing, 3-HES-45 BT.

Thence S.68° 39' W. Variation 12°50'E.

5.44 Cor. No.4, a corner of preliminary survey a stone 15 inches long, set in the ground and marked H 14. In its place I put a porphyry stone 3 X 6 inches, 25 inches long, set 12 inches in the ground and marked it with an X chiseled on top and 4-HES-45 on its south side. 6 links to southeast I built a monument of stones, 3 ft. in diameter at base and 3 ft. high. Whence,

1) A 10 inch black oak, scribed 4-HES-45 BT, bears N.8°W., 70 links.

2) A 5 inch black oak, scribed WH 14 bears S.73°20'E., 48 links. I add to scribing, 4-HES-45 BT.

3) A 12 inch black oak, scribed WH 14 bears S.40°52'E., 55 links. I add to scribing, 4-HES-45 BT.

Thence N.88° 25'W. Variation 13° E.

9.19 Intersect wire fence, course northwest and southeast.

14.36 To Cor. No.5, a porphyry rock 3 X 6 inches, 24 inches long set 12 inches in the ground, chiseled X on top and 5-HES-45 on the southeast face. 8 links to southeast I built a monument of stones 3 ft. in diameter at base and 3 ft. high. Whence,

1) A black oak 12 inches in diameter, scribed 5-HES-45 BT bears S.58°40'E., 19 links.

2) A black oak, 5 inches in diameter, scribed the same, bears S.37°08'W., 29 links.

3) Corner No.15 of preliminary survey bears N.88°25'W., 1.97 chains.

Homestead Entry Survey No.45.

Chains. Corner No.15 of preliminary survey is a stone 15 inches long, set in the ground and marked H 15, from which a stone chiseled WH 15 bears northeast, 25 links, and a second stone, bearing the same marking, bears southwest, 50 links.

Thence South. Variation 13° E.

3.26 Center of road, course east and west.

5.30 Main fork of Cave Creek, water 2 ft. wide, 2 inches deep, course east.

23.90 To Cor. No.6, a limestone 6 X 12 inches, 30 inches long, set 12 inches in the ground, chiseled X on top, 6-HES-45 on the northeast face, with a monument of stones 3 ft. in diameter at base and 4 ft. high, 10 links to northeast. Whence,

1) A black oak, 12 inches in diameter, scribed 6-HES-45 BT bears S.67°W., 13 links.

2) A black oak, 5 inches in diameter, scribed the same, bears S.53°15'E., 37 links.

3) Corner No.16 of preliminary survey bears S.89°32'W., 1.89 chains.

This location corner is a stone 12 inches long, set in the ground and chiseled H 16, from which a 10 inch black oak scribed WH 16 bears S 46°50'W., 29 links, and an 8 inch black oak, marked the same bears N.85°30'E., 20 links.

Thence N.89°32'E. Variation 12°50'E.

14.15 To Cor. No.7, a corner of preliminary survey a rock 12 inches long set in the ground and chiseled H 17. In place of the location stone I put a limestone, 6 X 8 inches, 26 inches long, set 12 inches in the ground, chiseled X on top and 7-HES-45 on the northwest face, and built a monument of stones 4 ft. in diameter at base and 4 ft. high 8 links to north of corner. Whence,

1) A 6 inch black oak scribed WH 17 bears S.15°20'E., 14 links. I add to scribing, 7-HES-45 BT.

2) A 5 inch black oak, scribed WH 17 bears S.55°30'W., 26 links. I add to scribing, 7-HES-45 BT.

3) A 14 inch black oak, scribed WH 17 bears N.60°22'W., 55 links. I add to scribing, 7-HES-45 BT.

Chains. Thence N.79°28'30"E. Variation 12°55'E.

9.00 Center of deep gulch, dry; waterway 30 links wide, course north.

28.15 To Cor. No. 8, a corner of preliminary survey a stone 10 inches long set in the ground, chiseled H 18. I replaced it with a porphyry rock 6 X 8 inches, 25 inches long set 12 inches in the ground, chiseled X on top and 8-HES-45 on its north face, and built a monument of stones 3 ft. in diameter at base and 4 ft. high, 9 links to north of corner. Whence,

~~1)~~ A pine tree 8 inches in diameter, scribed WH 18 bears S.50°W., 4 links. I add to scribing, 8-HES-45 BT.

~~2)~~ A 6 inch black oak scribed WH 18 bears N.5°50'W., 22 links. I add to scribing, 8-HES-45 BT.

~~3)~~ A white oak 6 inches in diameter scribed 8-HES-45 BT bears east, 59 links.

Thence N.85°26'30"E. Variation 13°E.

9.04 Cross dry gulch 10 links wide, course north.

10.10 To Cor. No. 9, a corner of preliminary survey a porphyry rock 8 X 12 inches, 29 inches long, chiseled H 19. I reset the same stone 12 inches in the ground, chiseled an X on top and 9-HES-45 on the north face, and built a monument of stones 3 ft. in diameter at base and 3 ft. high, 6 links to north. Whence,

~~1)~~ A 6 inch pine, scribed WH 19 bears S.22°12'W., 34 links.

~~2)~~ A 10 inch pine scribed the same, bears S.51°21'W. 13 links.

On each of above trees I added to scribing, 9-HES-45 BT.

~~3)~~ A 6 inch black oak, scribed 9-HES-45 BT bears S.40°W., 48 links.

Thence N.80°19'E. Variation 12°55'E.

17.24 To Cor. No. 10, a corner of preliminary survey a rock 15 inches long set in the ground and chiseled H 20. I replaced it with a porphyry rock 6 X 10 inches, 25 inches long, set 12 inches in the ground, chiseled X on top and 10-HES-45 on the north face, and built a monument of stones 3 ft. in diameter at base and 4 ft. high, 6 links to north of corner. Whence,

~~1)~~ A 5 inch black oak scribed WH 20 bears N.4°40'W., 19 links. I add to scribing, 10-HES-45 BT.

~~2)~~ A 24 inch pine scribed WH 20 bears S.87°20'W., 23 links. I add to scribing, 10-HES-45 BT.

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Chains.

Thence S.79°54'E. Variation 13° E.

4.07 To Cor.No.11,a corner of preliminary survey,a stone 14 inches long set in the ground and chiseled H 21. I replaced it with a porphyry rock 6 X 8 inches,27 inches long,set 12 inches in the ground,chiseled X on top and 11-HES-45 on the north face,and built a monument of stones 3 ft. in diameter at base and 3½ ft. high,6 links to north of corner. Whence,

1) A 10 inch black oak scribed 11-HES-45 BT bears S.9°56'E. 44 links.

2) A 4 inch walnut scribed WH 21 bears S.79°10'E.,23 links. I add to scribing,11-HES-45 BT.

Thence S.77°14'E. Variation 12°50'E.

2.18 To Cor.No.12,a corner of preliminary survey,a limestone rock,5 X 16 inches,29 inches long,set in the ground and chiseled H 22. I reset the same stone 14 inches in the ground,chiseled an X on top and 12-HES-45 on the north face,and built a monument of stones 3 ft. in diameter at base and 3½ ft. high,6 links to north of corner. Whence,

1) A 6 inch walnut scribed WH 22 bears S.40°53'E.,8 links.

2) A 6 inch walnut scribed WH 22 bears S.79°E.,15 links.

On each of above trees I added to scribing,12-HES-45 BT.

Thence S.88°39'E. Variation 12°50'E.

0.67 Center of road,course northwest and southeast.

1.45 to 1.95 Fence on line,enclosing alfalfa field.

3.21 Center of road,course northeast and southwest.

4.64 To Cor.No.13,a quartzite rock 6 X 10 inches,32 inches long,set 14 inches in the ground,chiseled X on top and 13-HES-45 on the north face. 7 links to north of corner I built a monument of stones 3 ft. in diameter at base and 3 ft. high. Whence,

1) A 5 inch walnut scribed 13-HES-45 BT bears S.22°32'W. 34 links.

2) A 5 inch walnut scribed MHW 1 bears S.80°12'E.,26 links. I add to scribing,13-HES-45 BT.

3) The southeast corner of fence enclosing alfalfa field

chains.

bears N.67°55'W.,.83 chains.

4) The northeast corner of same fence bears N.5°50'W. 2.77 chains.

5) Corner No.1 of preliminary survey bears S.88°39'E.,0.44 chains.

This location corner is a rock in place,18 X 24 inches 10 inches above the surface of the ground,chiseled FSMH W 1,from which a 5 inch walnut scribed MHW 1 bears S.79°30'W.18 links,and a 24 inch pine,scribed the same bears east,28 links.

Thence N.3°0'W. Variation 13°E.

0.40 Center of road,course northeast and southwest.

3.53 To Cor.No.14,a sandstone 6 X 10 inches,28 inches long, set 14 inches in the ground,chiseled X on top,14-HES-45 on the southwest face;built a monument of stones,3 ft. in diameter at base and 3 ft. high,8 links to southwest of Corner. Whence,

1) A sycamore 36 inches in diameter,scribed 14-HES-45 BT bears S.16°15'W.,35 links.

2) A 10 inch walnut scribed WH 2 bears S.80°45'E.,40 links. I add to scribing,14-HES-45 BT.

3) Corner No.2 of preliminary survey bears S.82°29'30"E.,0.34 chains.

This location corner is a sandstone set in the ground projecting 10 inches above the surface,chiseled X on top and H 2 on the north face,from which a 10 inch walnut, scribed WH 2 bears S.70°E.,7 links and a 10 inch sycamore scribed the same bears S.31°W.,40 links.

Thence N.82°29'30"W. Variation 13°E.

2.16 Cave Creek,water 3 ft. wide,3 inches deep,course east.

8.27 To Cor.No.15,a corner of preliminary survey,a granite rock in place 12 X 15 inches,8 inches above the surface of the ground chiseled H3. I add to chiseling an X and 15-HES-45,and built a monument of stones 3 ft. in diameter at base and 3 ft. high,8 links to north of corner. Whence,

1) A 5 inch black oak scribed WH 3 bears N.69°E.,13 links. I add to scribing,15-HES-45 BT.

2) A 4 inch walnut scribed WH 3 bears S.82°8'W.,56 links.

Homestead Entry Survey No.45.

Chains

I add to scribing,15-HES-45 BT.

3) A 4 inch black oak,scribed 15-HES-45 BT bears N,2°47'E, 23 links.

Thence N.65°03'W. Variation 13°E.

3.20 To Cor.No.16,a corner of preliminary survey a stone 12 inches long set in the ground and marked H 4. I replaced the stone with a quartzite rock 6 X 8 inches,27 inches long,set 12 inches in the ground,chiseled X on top and 16-HES-45 on the south face,and built a monument of stones 3 ft. in diameter at base and 3 ft. high,7 links to the southwest of the corner. Whence,

1) A 6 inch white oak scribed WH 4 bears N.89°20'E.,19 links. I add to scribing,16-HES-45 BT.

2) A 6 inch black oak scribed WH 4 bears S.47°30'W.,17 links. I add to scribing,16-HES-45 BT.

3) A 5 inch walnut scribed 16-HES-45 BT bears N.8°41'W., 28 links.

Thence N.59°18'W. Variation 13° E.

1.00 Dry gulch,10 links wide,course southwest.

5.54 To Cor.No.17,a corner of preliminary survey, a stone 18 inches long set in the ground,marked H 5. I replaced the stone with a porphyry rock 4 X 6 inches,24 inches long,set 12 inches in the ground,chiseled anX on its top and 17-HES-45 on its south side,and built a monument of stones 3 ft. in diameter at base and 3 ft. high,7 links to southwest of corner. Whence,

1) A 14 inch juniper scribed WH 5 bears N.20°E.,2 links. I add to scribing,17-HES-45 BT.

2) A 12 inch juniper scribed WH 5 bears S.89°30'W.,41 links. I add to scribing,17-HES-45 BT.

Thence N.73°03'W. Variation 13° E.

9.30 Dry gulch,10 links wide,course southwest.

14.21 To Cor.No.18,a corner of preliminary survey, a stone 12 inches long set in the ground and chiseled H 6. I replaeed the stone with a porphyry rock 4 X 8 inches,25 inches long,set 12

Chains.

inches in the ground, with an X chiseled on top and 18-HES-45 on the south face, and built a monument of stones 3 ft. in diameter at base and 3 ft. high 8 links to south of corner. Whence,

1) An 8 inch black oak scribed WH 6 bears N.19°30'E., 27 links. I add to scribing, 18-HES-45 BT.

2) A 10 inch black oak scribed 18-HES-45 BT bears N.89°48'W. 28 links.

Thence S.78°21'W. Variation 13° E.

1.80 Dry gulch 8 links wide, course south.

3.25 To Cor.No.19, a corner of ~~preliminary~~ survey, a stone 12 inches long set in the ground and marked H 7. I replaced the stone with a porphyry rock 5 X6 inches, 26 inches long, set 12 inches in the ground, chiseled X on top and 19-HES-45 on the south face, and built a monument of stones 3 ft. in diameter at base and 3 ft. high 7 links to south of corner. Whence,

1) A 6 inch juniper scribed WH 7 bears N.31°30'W., 26 links. I add to scribing, 19-HES-45 BT.

2) A 14 inch black oak scribed 19-HES-45 BT bears N.69°04'E 50 links.

Thence N.87°44'30"W. Variation 13° E.

8.57 Top of rock bluff, 20 feet high.

11.50 To Cor.No.20, a corner of ~~preliminary~~ survey, a stone 12 inches long marked H 8. I removed the stone and on limestone bedrock directly underneath it I chiseled X 20-HES-45, and built a monument of stones 3 ft. in diameter at base and 2½ ft. high, 7 links to south of corner. Whence,

1) A 10 inch black oak scribed WH 8 bears S.27°30'E., 11 links. I add to scribing, 20-HES-45 BT.

2) X-20-HES-45 BR chiseled on limestone bedrock bear S.81°47'E., 8 links, and N.11°43'E., 10 links.

3) X-20-HES-45 BR chiseled on a porphyry boulder, 12 ft. X 12 ft. X 5 ft., bears S.47°25'W., 6 links.

Thence N.48°04'W. Variation 13°E.

2.30 Dry gulch, 10 links wide, course southwest.

01

Homestead Entry Survey No.45.

Chains.

6.46 To Cor.No.21, a corner of preliminary survey, a stone 12 inches long set in the ground and chiseled H9. I replaced it with a porphyry rock 6 X 8 inches, 24 inches long, set 12 inches in the ground, chiseled X on top and 21-HES-45 on the southwest face, and built a monument of stones 3 ft. in diameter at base and 3 ft. high, 8 links to south of corner. Whence,

1) A 6 inch white oak scribed WH 9 bears N.32°17'E., 15 links. I add to scribing, 21-HES-45 BT.

2) A 6 inch black oak scribed WH 9 bears S.77°50'E., 24 links. I add to scribing, 21-HES-45 BT.

3) An 8 inch walnut scribed WH 9 bears S.16°., 87 links. I add to scribing, 21-HES-45 BT.

Thence N.40°53'W. Variation 13° E.

8.46 To Cor.No.22, a corner of preliminary survey, a stone 12 inches long set on the ground and chiseled H 10. In its place I put a porphyry rock 8 X 10 inches, 36 inches long, set 18 inches in the ground, chiseled X on top and 22-HES-45 on the south face and built a monument of stones 3 ft. in diameter at base and 3 ft. high 8 links to southwest of corner. Whence,

1) A 5 inch black oak scribed WH 10 bears S.64°07'E., 11 links. I add to scribing, 22-HES-45 BT.

2) A 5 inch black oak scribed WH 10 bears S.21°20'W., 37 links. I add to scribing, 22-HES-45 BT.

3) A 7 inch black oak scribed WH 10 bears N.6°43'W., 15 links. I add to scribing, 22-HES-45 BT.

Thence N.25°07'W. Variation 13° E.

8.16 To Cor.No.1, the place of beginning.

Containing 134.471 Acres.

Location.

This survey is located on Cave Creek in the Chiricahua National Forest, Cochise County, Arizona, approximately in T. 18 S., R. 31 E., unsurveyed, Gila and Salt River Base and Meridian.

Improvements.

From Cor.No.21 the improvements bear as follows:

No.1 S.83°35'W.,4.56 chains to southeast corner of corral, 55 X 65 ft.

No.2 S.32°15'W.,3.30 chains to northeast corner of log barn, 43 X 51 ft.

No.3 S.24°20'W.,4.50 chains to northeast corner of wire fence enclosing field and peach orchard.

No.4 S.22°W. 5.05 chains to northeast corner of frame tool house,8 X 10 ft.

No.5 S.19°10'W.,5.33 chains to northeast corner of frame blacksmith shop,12 X 12 ft.

No.6 S.8° 30'W.,4.45 chains to northeast corner of log chicken house,12 X 16 ft.

No.7 S.6° 30'W.,5.20 chains to northeast corner of frame house, 12 X 16 ft.

No.8 S.3° 30'E.,5.07 chains to northeast corner of log dwelling house,28 X 29 ft.

No.9 S.11°15'E.,5.12 chains to northwest corner of stone house, 12 X 16 ft.

No.10 S.21°50'E.,5.70 chains to spring from which domestic water supply is obtained.

No.11 S.11°02'W.,4.07 chains to southwest tree of apple orchard containing 24 trees.

Instrument.

This survey was made with a Buff & Buff transit No.3579. The courses were deflected from the meridian as determined by direct solar observations. The distances were measured with 100 ft. and 500 ft. steel tapes.

H.W. Jorgensen
U.S.Mineral Surveyor.

Bisbee,Arizona,April 1,1910.

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Homestead Entry Survey No.45.

Determination of meridian by direct solar observations.

Formula, $\cos Z = \frac{\sin D}{\cos L \cos A} - \tan L \tan A$

in which, Z is sun's azimuth from the north,
D is sun's declination
L is latitude,
A is altitude of sun's center.

Set up on point on line 2-3 of survey; mark is Cor.No.3; upper limb of sun sighted upon.
March 5,1910. 5:00 P.M.
Declination,-6° 05'
Latitude 31°53'

1 Observed altitude, 14° 34' Angle from sun to mark,82°04' L.
Refraction, 3'36"
Sun's semi-diameter, 16'09"
True altitude,A 14° 14' 15"
Log Sin D, 9.0252027
Log Cos L 9.9289718 Log Tan L,9.7938195
Log $\frac{\sin D}{\cos L}$, 9.0962309
Log Cos A, 9.9864513 Log Tan A,9.4043811
9.1097796 9.1982006
-.12876 -.15783
-.15783
-.28659, the Nat. Cos of 73° 21'
Bearing of sun,S.73° 21'W.
" " mark,S. 8° 43'E.

2 Observed altitude, 13° 50' Angle to mark,82° 35' to L.
Refraction, 3' 48"
Sun's semi-diameter 16° 09"
True altitude,A 13° 30' 03"
Log $\frac{\sin D}{\cos L}$, 9.0962309 Log Tan L, 9.7938195
Log Cos A 9.9878315 Log Tan A, 9.3803537
9.1083994 9.1741732
-.12835 -.14934
-.14934
-.27769, the Nat. Cos of 73° 53'
Bearing of sun,S.73° 53'W.
" " mark,S. 8° 42'E.

3 Observed altitude, 13° 07' Angle to mark, 83° 07' to L.
Refraction, 4'
Semi-diameter, 16'09"
True altitude,A 12° 46' 51"
Log $\frac{\sin D}{\cos L}$, 9.0962309 Log Tan L, 9.7938195
Log Cos A 9.9891046 Log Tan A, 9.3557150
9.1071263 9.1495345
-.12798 -.14110
-.14110
-.26908,the Nat.Cos of 74° 23' 30"
Bearing of sun,S.74° 23' 30"W.
" " mark,S. 8° 43' 30"E.

4 Observed altitude, 12° 33' Angle to mark, 83°30' to L.
refraction 4' 12"
semi-diameter, 16'09"
True altitude,A 12° 12' 39"
Log $\frac{\sin D}{\cos L}$, 9.0962309 Log Tan L, 9.7938195
Log Cos A, 9.9900612 Log Tan A, 9.3352786
9.1061697 9.1290981
-.12769 -.13462
-.26231 is the Nat. Cos of 74° 47' 30"
Bearing of sun, S.74° 47' 30" W.
" " mark,S. 8° 42' 30" E.
Average of 4 determinations,S.8°42'45"E. Used,S.8°43'E.

Meridian determination. Continued.

March 7,1910. 8:30 A.M.
Set up on Cor.No.8 of survey. Mark is point whose bearing from Cor.No.8 is S.80°24.W. by previous determination.
Lower limb of sun sighted upon.
Declination,- 5° 27'
Latitude, 31° 53'

1 Observed altitude, 23° 46' 30". Angle to mark 146°51' to R.
Refraction 2' 09"
Semi-diameter, 16' 09"
True altitude,A 24° 00' 30"

Log Sin D, 8.9776188
Log Cos L, 9.9289718 Log Tan L, 9.7938195
Log $\frac{\text{Sin D}}{\text{Cos L}}$, 9.0486470
Log Cos A, 9.9607020 Log Tan A, 9.6487531
9.0879450 9.4425726
-.12245 -.27706
-.27706
-.39951, the Nat.Cos of 66° 27'
Bearing of sun, S.66° 27'E.
" " mark, S.80°24'W.

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2 Observed altitude, 24° 26' Angle to mark, 146°15'30" to R.
Refraction, 2' 05"
Semi-diameter, 16' 09"
True altitude,A 24° 40' 04"

Log $\frac{\text{Sin D}}{\text{Cos L}}$, 9.0486470 Log Tan L, 9.7938195
Log Cos A, 9.9584450 Log Tan A, 9.6620434
9.0902020 9.4558629
-.12308 -.28567
-.28567
-.40875, the Nat.Cos of 65°52'
Bearing of sun, S.65° 52'E.
" " mark, S.80°23'30"W.

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3 Observed altitude, 25° 03' 30". Angle to mark, 145°42'30" to R
Refraction, 2' 02"
Semi-diameter, 16' 09"
True altitude,A 25° 17' 37"

Log $\frac{\text{Sin D}}{\text{Cos L}}$, 9.0486470 Log Tan L, 9.7938195
Log Cos A, 9.9562280 Log Tan A, 9.6744746
9.0924190 9.4682941
-.12371 -.29396
-.29396
-.41767, the Nat.Cos of 65° 19'
Bearing of sun, S.65° 19'E.
" " mark, S.80° 23' 30"W.

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4 Observed altitude, 25° 40'. Angle to mark, 145°09' to R.
Refraction, 1'58"
Semi-diameter 16' 09"
True altitude,A 25° 54' 11"

Log $\frac{\text{Sin D}}{\text{Cos L}}$, 9.0486470 Log Tan L, 9.7938195
Log Cos A, 9.9540188 Log Tan A, 9.6863089
9.0946282 9.4801284
-.12434 -.30208
-.30208
-.42642, the Nat.Cos of 64° 45' 30"
Bearing of sun, S.64° 45' 30" E.
" " mark, S.80° 23' 30"W.

Average of 4 observations, S.80°23'37"W.
Used S.80°24'W., as obtained by previous determination.

Observations I and 3 in both sets were with instrument direct; 2 and 4 with instrument reversed.

FINAL OATHS FOR SURVEYS.

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LIST OF NAMES.

A list of the names of the individuals employed by H.W.Jorgensen United States Mineral Surveyor, to assist in running, measuring, and marking the lines, corners, and boundaries described in the foregoing field notes of the survey of the Homestead Entry claim of Stephen B. Reed, described as H. E. No. 02008, List No. 1512 situate in the Chiricahua National Forest, Cochise County, Arizona, approximately in T. 18 S., R. 31 E., unsurveyed, G. & S. R. B. & M.

and showing the respective capacities in which they acted.

R.H.Justice Chainman

Marshall Estes Chainman

_____ Axman

_____ Flagman.

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FINAL OATHS OF ASSISTANTS.

We, Marshall Estes and R.H. Justice, do solemnly swear that we assisted H.W. Jorgensen, United States Mineral Surveyor, in marking the corners and surveying the boundaries of the Homestead Entry claim of Stephen B. Reed, described as H.E. No. 02008, List No. 1512, situate in the Chiricahua National Forest, Cochise County, Arizona, approximately in T. 18 S., R. 31 E., Gila and Salt River Base and Meridian, represented in the foregoing field notes as having been surveyed by said mineral surveyor and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, faithfully and correctly executed, and the corner and boundary monuments established according to law and the instructions furnished by the Surveyor-General for Arizona.

R. H. Justice, Chainman.

Marshall Estes, Chainman.

Subscribed and sworn to by the above-named persons before me this 21st day of March, 1910.

Geo. A. Walker
Notary Public

My commission expires Aug 19-1911-

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FINAL OATHS OF ASSISTANTS.

We, Marshall Bates and H.H. Morris, do solemnly swear that we assisted H.W. Jorgensen, United States Mineral Surveyor, in marking the corners and surveying the boundaries of the homestead Entry claim of Stephen H. Reed, described as H.E. No. 02008, list No. 1512, situate in the Coconino National Forest, Coconino County, Arizona, approximately in T. 18 S., R. 21 E., Gila and Salt River Base and Meridian, represented in the foregoing field notes as having been surveyed by said mineral surveyor and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, faithfully and correctly executed, and the corner and boundary monuments established according to law and the instructions furnished by the surveyor-general for Arizona.

_____, Chainman.

_____, Chainman.

Subscribed and sworn to by the above-named persons before me this 25th day of March, 1910.

_____
Notary Public.

My commission expires _____

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FINAL OATH OF U. S. MINERAL SURVEYOR.

I, H.W. Jorgensen, U. S. Mineral Surveyor, do solemnly swear that, in pursuance of instructions received from the United States Surveyor General for Arizona, dated December 15, 1909, I have, in strict conformity to the laws of the United States, the official regulations and instructions thereunder, and the instructions of said Surveyor-General, faithfully and correctly executed the survey of the Homestead Entry claim of Stephen B. Reed, described as H. E. No. 02008, List No. 1512

situate in Chiricahua National Forest, Cochise County, Arizona, and designated as Homestead Entry Survey No. 45, as represented in the foregoing field notes, which accurately show the boundaries of said Homestead Entry claim as distinctly marked by monuments on the ground, and described in List No. 1512, as incorporated in the instructions for the survey, received from the Surveyor General, and that all the corners of said survey have been established and perpetuated in strict accordance with the law, official regulations and instructions thereunder; and I do further solemnly swear that the foregoing are the true and original field notes of said survey and my report therein.

H.W. Jorgensen
U. S. Mineral Surveyor.

Subscribed and sworn to by the said H.W. Jorgensen U. S. Mineral Surveyor, before me John W. Hogan this 26th day of March, 1910

John W. Hogan
Notary Public in and for the County of Cochise
Territory of Arizona.
My commission expires November 17, 1910.

(Seal)

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CHIRICAHUA NATIONAL FOREST.

FIELD NOTES

Stephen B. Reed, Application No. 5.

Unsurveyed land in approximately Secs. 5, 6, 7 and 8,
Chains. T. 18 S., R. 31 E., G. & S. R. Mer.

Set initial corner 1.00 ch. S. of wagon road, 3.25 chs. South of Cave Creek, south east corner of alfalfa field bears N. 40° W., 1.00 ch, Ravens Peak bears S. 75° W., Set a stone 12 X 24 X 30 chiseled $\frac{FCWH}{1}$, a 24 inch Western Yellow Pine carved $\frac{WH}{1}$ bears S. 85° E., 28 links a 4 inch walnut carved $\frac{WH}{1}$ bears S. 84° W. 18 links.

Thence N. 5° 45' west.

3.50 To corner No. 2. Set a stone 4 X 9 X 24 chiseled $\frac{H}{2}$ a 10 inch Sycamore carved $\frac{WH}{2}$ bears S. 31° W., 40 links, a 10 inch ~~Walnut~~ Walnut carved $\frac{WH}{2}$ bears S. 70° W., 7 links.

Thence N. 81° 45' west.

2. to 7.00 Cave Creek east.

8.60 To corner No. 3. Set a stone 12 X 12 X 15 chiseled $\frac{H}{3}$, a 5 inch Black Jack carved $\frac{WH}{3}$ bears N. 70° E., 13 links, a 4 inch Walnut carved $\frac{WH}{3}$ bears S. 85° W., 40 links.

Thence N. 64° 40' west.

3.20 To corner No. 4. Set a stone 8 X 8 X 12 chiseled $\frac{H}{4}$, a 5 inch Black Jack Oak carved $\frac{WH}{4}$ bears N. 89° E., 20 links, a 5 inch Black Jack carved $\frac{WH}{4}$ bears S. 44° W., 18 links.

Thence N. 58° 42' west.

1.00 Gulch, south.
5.50 To corner No. 5. Set a stone 6 X 7 X 18 chiseled $\frac{H}{5}$, a 10 inch Juniper carved $\frac{WH}{5}$ bears S. 85° W., 42 links, a 12 inch Juniper carved $\frac{WH}{5}$ bears north, 3 links.

S. B. Reed, Sheet No. 2.

Chains.

Thence N. 72° 28' west.

14.25 To corner No. 6. Set a stone 4 X 9 X 12 chiseled $\frac{H}{6}$, an 8 inch dead Black Jack Oak carved $\frac{WH}{6}$ bears S. 85° W., 26 links, a 6 inch Black Jack Oak carved $\frac{WH}{6}$ bears N. 18° E., 29 links.

Thence S. 79° 30' west.

1.80 Gulch, south.
3.30 To corner No. 7. Set a stone 6 X 9 X 10 chiseled $\frac{H}{7}$, a 5 inch Juniper carved $\frac{WH}{7}$ bears N. 30° W., 26 links, a 13 inch White Oak carved $\frac{WH}{7}$ bears N. 18° E., 23 links.

Thence N. 86° 42' west.

11.50 To conner No. 8. Set a stone 6 X 10 X 16 chiseled $\frac{H}{8}$, a 11 inch Black Jack Oak carved $\frac{WH}{8}$ bears S. 28° E., 11 links, a 6 inch Black Jack Oak carved $\frac{WH}{8}$ bears N. 15° E., 42 links.

Thence N. 47° west.

2.00 Gulch, west.
6.50 To corner No. 9. Set a stone 5 X 10 X 10 chiseled $\frac{H}{9}$, a 6 inch Black Jack Oak carved $\frac{WH}{9}$ bears S. 80° E., 25 links, a 7 inch White Oak carved $\frac{WH}{9}$ bears N. 45° E., 16 links, an 8 inch Walnut carved $\frac{WH}{9}$ bears S. 15° W., 88 links.

Thence N. 40° west.

8.50 To corner No. 10 Set a stone 5 X 10 X 12 chiseled $\frac{H}{10}$ a 6 inch Black Jack Oak carved $\frac{WH}{10}$ bears S. 65° E., 12 links, a 6 inch Black Jack Oak carved $\frac{WH}{10}$ bears S. 20° W., 39 links.

Thence N. 24° west.

8.20 To corner No. 11. Set a stone 4 X 7 X 14 chiseled $\frac{H}{11}$ a 7 inch White Oak carved $\frac{WH}{11}$ bears N. 7° W., 7 links, a 6 inch White Oak carved $\frac{WH}{11}$ bears S. 65° W., 28 links.

S. 2. Sped, Sheet No. 8.

Chains.

Thence E. 72° 20' west.

14.25 To corner No. 6. Set a stone 4 X 6 X 12 chiseled
$\frac{X}{S}$, an 8 inch dead Black Jack Oak marked $\frac{BJ}{S}$ bears
S. 85° W., 25 links, a 5 inch Black $\frac{J}{S}$ Jack
Oak marked $\frac{BJ}{S}$ bears S. 18° E., 20 links.

Thence S. 72° 20' west.

1.50 Quite south.
3.00 To corner No. 7. Set a stone 6 X 8 X 10 chiseled
$\frac{X}{W}$, a 5 inch Pointer marked $\frac{PO}{W}$ bears N. 30° W.,
25 links, a 15 inch White Oak marked $\frac{WO}{W}$ bears
N. 72° E., 25 links.

Thence E. 85° 45' west.

11.50 To corner No. 8. Set a stone 8 X 10 X 14 chiseled
$\frac{X}{E}$, a 11 inch Black Jack Oak marked $\frac{BJ}{E}$ bears S. 20° E.,
$\frac{J}{E}$ 15 links, a 6 inch Black Jack $\frac{J}{E}$ Oak marked
$\frac{BJ}{E}$ bears N. 18° E., 40 links.

Thence N. 47° west.

2.00 Quite west.
6.50 To corner No. 9. Set a stone 8 X 10 X 10 chiseled
$\frac{X}{E}$, a 6 inch Black Jack Oak marked $\frac{BJ}{E}$ bears S. 80°
$\frac{J}{E}$ E., 25 links, a 7 inch White Oak $\frac{WO}{E}$ marked $\frac{WO}{E}$
bears N. 45° E., 15 links, an 8 inch Walnut
marked $\frac{WN}{E}$ bears S. 15° E., 25 links.

Thence N. 40° west.

8.50 To corner No. 10. Set a stone 8 X 10 X 12 chiseled
$\frac{X}{E}$
$\frac{J}{O}$ a 6 inch Black Jack Oak marked $\frac{BJ}{O}$ bears S. 40°
E., 12 links, a 6 inch Black Jack $\frac{J}{O}$ Oak marked
$\frac{BJ}{O}$ bears S. 20° W., 20 links.

Thence N. 24° west.

2.50 To corner No. 11. Set a stone 6 X 7 X 14 chiseled
$\frac{X}{E}$ a 7 inch White Oak marked $\frac{WO}{E}$ bears S. 70° W.,
$\frac{W}{E}$ 7 links, a 6 inch White $\frac{W}{E}$ Oak marked $\frac{WO}{E}$
bears S. 55° W., 25 links.

S. B. Reed, Sheet No. 3.

Chains.

Thence S. 55° west.

2.00 N. Fork Cave Creek, South.
4.05 To corner No. 12. Set a stone 8 X 8 X 8 chiseled H/12, a 6 inch Juniper carved WH/12 bears N. 15° W., 7 links, a 7 inch Walnut on Reed pasture fence carved WH/12 bears S. 52° W., 15 links.

Thence S. 8° east.

.25 Reed Pasture fence.
10.45 To corner No. 13. Set a stone 4 X 4 X 7 chiseled H/13 surrounded by a monument of stone, a 6 inch Black Jack Oak carved WH/13 bears N. 55° E., 14 links, a 6 inch Black Jack Oak carved WH/13 bears S. 60° E., 50 links, a 10 inch White Oak carved WH/13 bears N. 87° W., 65 links.

Thence S. 69° 30' west.

5.50 To corner No. 14. Set a stone 5 X 5 X 14 chiseled H/14 surrounded by a monument of stone a 7 inch Black Jack Oak carved WH/14 bears S. 35° W., 72 links, a 10 inch Black Jack Oak carved WH/14 bears S. 47° E., 54 links, a 4 inch Black Jack Oak carved WH/14 bears S. 75° E., 47 links.

Thence West.

14.00 To corner No. 15. Set a stone 4 X 8 X 10 chiseled H/15, a stone 4 X 6 X 8 chiseled WH/15 bears N. 40° E., 25 links, a stone 4 X 8 X 10 chiseled WH/15 bears S. 65° W., 50 links.

Thence S. 0° 25' west.

4.00 Cave Creek road, east.
6.00 Cave Creek, east.
23.50 To corner No. 16. Set a stone 4 X 6 X 8 chiseled H/16, a stone 6 X 8 X 10 chiseled WH/16 bears N. 40° E., 75 links, a stone 4 X 8 X 12 chiseled WH/16 S. 60° W., 1.00 chain.

Thence East.

14.00 to corner No. 17. Set a stone 5 X 5 X 10 chiseled H/17, a 5 inch Black Jack Oak carved WH/17 bears S. 18° E.,

S. B. Reed, Sheet No. 4.

Chains.

14 links, a 10 inch Black Jack Oak carved $\frac{WH}{17}$ bears N. 67° W., 54 links.

Thence N. 80° 15' E.

9.00 Deep Gulch, N. 20' E.

28.35 To corner No. 18. Set a stone 4 X 6 X 9 chiseled $\frac{H}{18}$, bears S. 45° W., 4 links, a 5 inch Black Jack Oak carved $\frac{WH}{18}$ bears N. 9° E., 13 links.

Thence N. 85° 30' east.

10.15 To corner No. 19. Set a stone 6 X 8 X 10 chiseled $\frac{H}{19}$ a 10 inch Chihuahua Pine carved $\frac{WH}{19}$ bears N. 52° W., 13 links, a 5 inch Chihuahua Pine carved $\frac{WH}{19}$ bears S. 32° W., 36 links.

Thence N. 83° E.

17.~~60~~ 35 To corner No. 20. Set a stone 8 X 15 X 20 chiseled $\frac{H}{20}$ a 24 inch Chihuahua Pine carved $\frac{WH}{20}$ bears S. 88° W., 24 links, a 5 inch Black Jack Oak carved $\frac{WH}{20}$ bears N. 2° W., 19 links.

Thence S. 78° east.

~~5.60~~ 4.10 To corner No. 21. Set a stone 6 X 7 X 12 chiseled $\frac{H}{21}$, a 4 inch walnut carved $\frac{WH}{21}$ bears N. 70° E., 23 links, a 4 inch Walnut carved $\frac{WH}{21}$ bears N. 75° E., 24 links.

Thence S. ~~70~~ 89°45' east.

2. ~~1~~.20 To corner No. 22. Set a stone 5 X 16 X 21 chiseled $\frac{H}{22}$, surrounded by a monument of stone, a 6 inch Walnut carved $\frac{WH}{22}$ bears S. 48° E., 8 links, a 6 inch Walnut carved $\frac{WH}{22}$ bears S. 89° E., 16 links.

Thence S. ~~85° 25'~~ 82° E.

5. ~~1~~.12 To corner No. 1 place of beginning.

Containing 133 acres of land, be the same more or less, Chiefly agricultural.

Surveyed January 21, 1908 by

Harrison D. Burrall

Forest Assistant.

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S. E. Road, Sheet No. 4.

Chains.

14 links, a 10 inch Black Jack Oak corner $\frac{WM}{17}$ bears N. 87° W., 24 links.

Thence N. 80° 15' E.

9.05 Deep gulch, N. 20° E.

28.30 To corner No. 18. Set a stone 4 X 6 X 9 chiseled $\frac{N}{}$, bears S. 45° W., 4 links, a 9 inch Black Jack $\frac{IN}{IS}$ OAK carved $\frac{WM}{IS}$ bears N. 75° E., 13 links.

~~Thence S. 65° 30' east.~~

10.15 To corner No. 19. Set a stone 8 X 8 X 10 chiseled $\frac{N}{IN}$ a 10 inch Chinquapin Pine carved $\frac{WM}{IN}$ bears N. 82° W., 13 links, a 5 inch $\frac{IN}{IN}$ Chinquapin Pine carved $\frac{WM}{IN}$ bears S. 32° W., 36 links.

Thence N. 85° E.

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17.~~35~~ To corner No. 20. Set a stone 8 X 15 X 20 chiseled $\frac{N}{20}$ a 24 inch Chinquapin Pine carved $\frac{WM}{20}$ bears S. 88° W., 24 links, a 8 inch Black $\frac{20}{}$ Jack Oak carved $\frac{WM}{20}$ bears N. 2° W., 19 links.

Thence S. 75° east.

~~7.10~~ 7.10 To corner No. 21. Set a stone 6 X 7 X 12 chiseled $\frac{N}{}$, a 4 inch walnut carved $\frac{WM}{}$ bears N. 70° E., 20 $\frac{21}{}$ links, a 4 inch $\frac{21}{}$ Walnut carved $\frac{WM}{21}$ bears N. 78° E., 24 links.

Thence S. ~~75°~~ 89°45' east.

4.50 To corner No. 22. Set a stone 8 X 10 X 21 chiseled $\frac{N}{}$, surrounded by a monument of stone, a 6 inch Walnut $\frac{22}{}$ carved $\frac{WM}{}$ bears S. 45° E., 8 links, a 8 inch Walnut $\frac{22}{}$ carved $\frac{WM}{22}$ bears S. 85° E., 16 links.

Thence N. ~~45° 30'~~ 82° E.

4.12 To corner No. 1 place of beginning.

Containing 153 acres of land, be the same more or less, chiefly agricultural.

Surveyed January 21, 1903 by

Thomas Blewett

Forest Assistant.

U. S. SURVEYOR-GENERAL'S FINAL CERTIFICATE ON FIELD NOTES.

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DEPARTMENT OF THE INTERIOR,

Office of U. S. Surveyor General,

Phoenix, Arizona, August 16, 1910.

I, U. S. Surveyor General for the District of Arizona, do hereby certify that the foregoing transcript of the field notes, return and approval of the Survey of the Homestead Entry claim of Stephen B. Reed, described as Homestead Entry No. 02008, List No. 1512, situated in the Chiricahua National Forest, Cochise County, Arizona, approximately in Township 18 south, range 31 east, unsurveyed, and designated as Homestead Entry Survey No. 45, has been correctly copied from the originals on file in this office; that said field notes furnish such an accurate description of said homestead entry claim, as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permenant monuments as will perpetuate and fix the locus thereof.

Frank S. Ingalls,
U. S. Surveyor General for
Arizona.

SURVEYOR-GENERAL'S CERTIFICATE OF APPROVAL OF FIELD NOTES AND SURVEY OF HOMESTEAD ENTRY CLAIM.

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DEPARTMENT OF THE INTERIOR,

Office of U. S. Surveyor General,

Phoenix, Arizona, August 16, 1910

I, U. S. Surveyor-General for the District of Arizona, do hereby certify that the foregoing and hereto attached Field Notes and Return of the Survey of the Homestead Entry Claim of Stephen B. Reed, described as Homestead Entry No. 02008, List No. 1512, situated in the Chiricahua National Forest, Cochise County, Arizona, approximately in Township 18 South, Range 31 East, unsurveyed, designated as Homestead Entry Survey No. 45, executed by H. W. Jorgensen, U. S. Mineral Surveyor, March 5-10, 1910, under my instructions dated December 15, 1909, have been critically examined and the necessary corrections and explanations made, and the said Field Notes and Return, and the Survey they describe, are hereby approved. A true copy of the copy of the Field Notes of the preliminary survey of said homestead entry claim by the Department of Agriculture, filed by the applicant for survey is included in the field notes.

Frank O. Ingalls
U. S. Surveyor General for
Arizona.

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