

2713

4-679

Book "A"

BOOK 2713

orig. 57  
①

SEP. 2-1914

Military Reserve Boundary

# FIELD NOTES

OF THE SURVEY OF THE

SOUTH, WEST and FRACTIONAL EAST Boundaries of the

FT. GRANT MILITARY RESERVATION (Abandoned)

South and East

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Thomas B. Matthews,

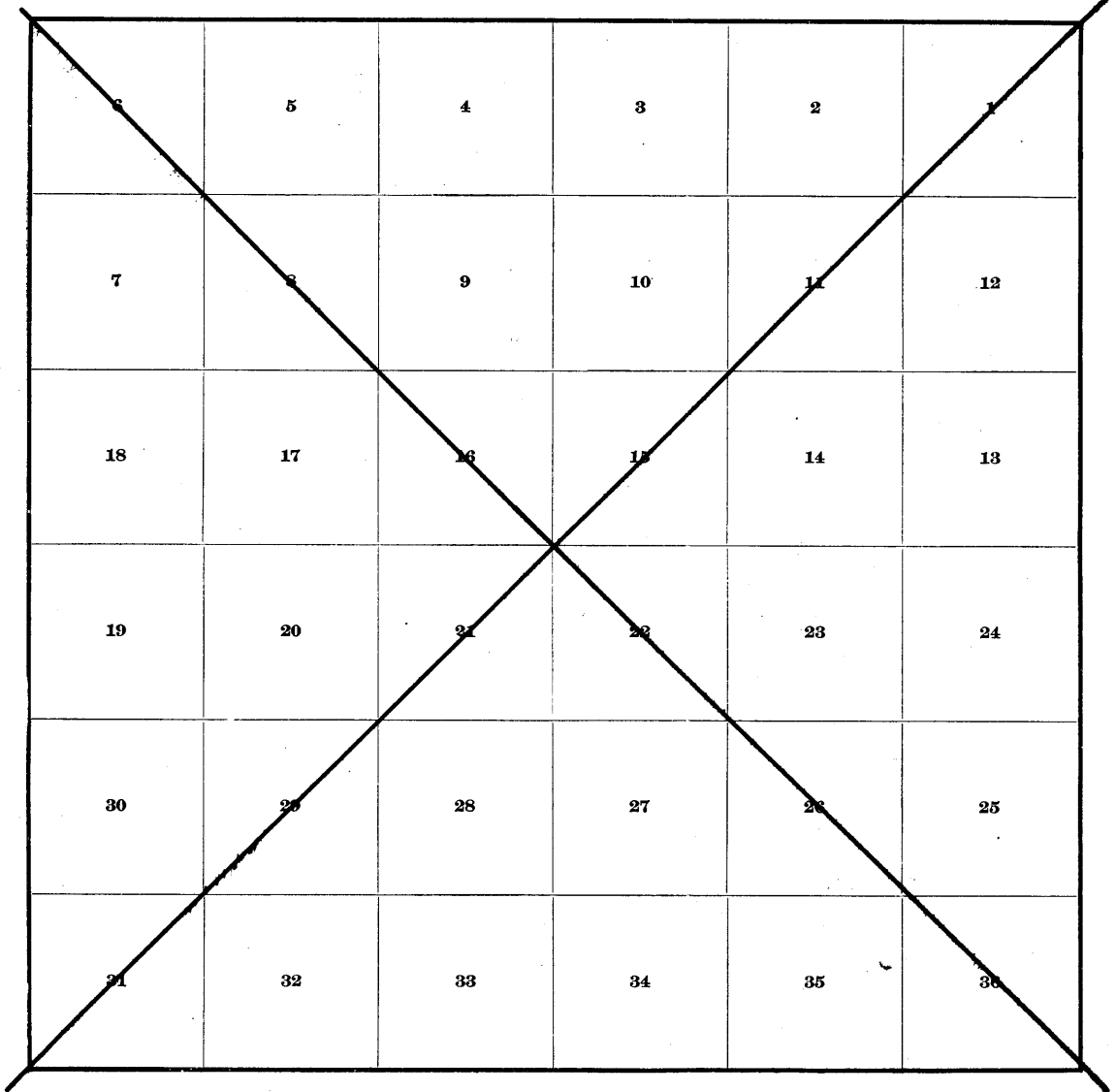
In the capacity of U. S. Surveyor, under instructions dated September 24, 1912, issued by the United States Surveyor General to govern surveys included in Group No. 22, which were approved by the Commissioner of the General Land Office, October 3, 1912, pursuant to authority contained in the Act of Congress dated June 23, 1913 and August 1, 1914

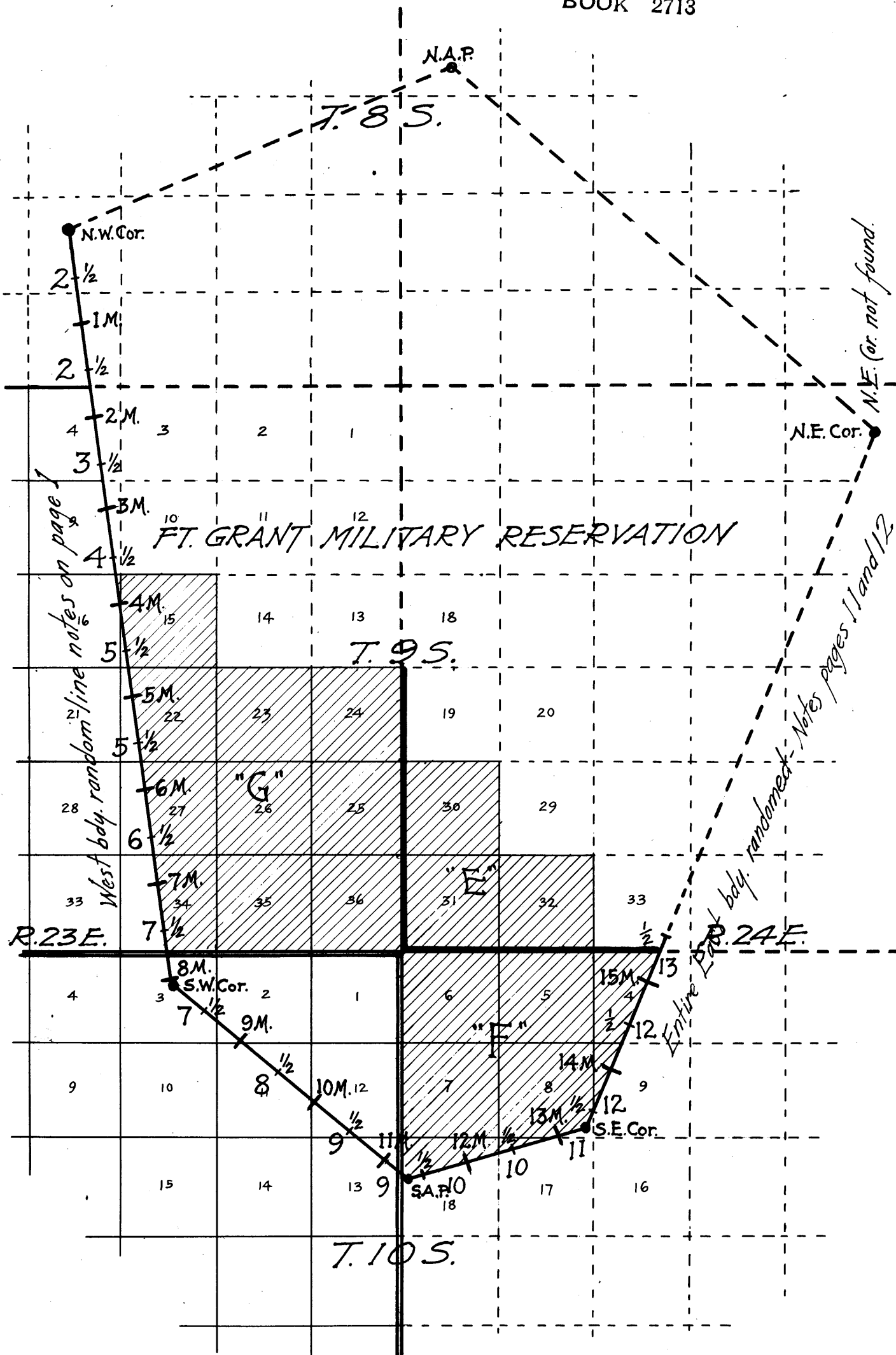
Survey commenced April 2, 1913

Survey completed July 14, 1914

# ~~INDEX DIAGRAM.~~

~~Township~~ \_\_\_\_\_, ~~Range~~ \_\_\_\_\_





INDEX-DIAGRAM Book "A" Group 22

- Notes in Book "C"
- Notes in Book "D"
- - - Unserved lines.
- 2 Pages of this book indexed in Red figures.

Hatched portion of diagram indicates Subdivisions surveyed under this group, with Book letters thereon thus: "E"

West bdy. of Fort Grant Military Reservation.

16

Chains.

Survey commenced April 2nd, 1913, and executed by Thomas B. Matthews, U.S. Surveyor, with Young and Sons' light mountain transit No. 8480, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of latitude and declination arcs. This instrument was approved by the Supervisor of Surveys January 30th, 1913.

I examine the adjustments of the transit, and find them to be correct; then, to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observation on Polaris, I proceed as follows:

At the SW. cor. of Ft. Grant Military Reservation, which is a granite stone 20x20x36 ins. set 12 ins. in the ground the top of which is dressed 12 ins. square, (the decayed remains of old wooden post described by Surveyor General were found underneath this stone), I set off 32° 35 1/2' on lat. arc; 5° 0' N. on decl. arc, and at 4h. 0m. p.m., l.m.t., determine a meridian with the solar and mark a point thereon by driving a stake firmly in the ground, 5 chs. north of the cor.

At 6h. 42m. p.m., l.m.t., I observe Polaris at western elongation, in accordance with instructions in the Manual, and mark a line thus determined by driving a stake in the ground 5 chs. north of my station.  
April 2nd, 1913.

April 3rd, 1913. At 8h. 0m. a.m., l.m.t., I lay off the azimuth of Polaris 1° 22' to the east; the meridian thus determined intersects the stake marking the meridian indicated by the solar apparatus April 2nd.

At 8h. 30m. a.m., l.m.t., I set off 32° 35 1/2' on the lat. arc; 5° 16' N. on decl. arc. The meridian thus determined with the solar intersects the stake which marks the meridian determined by solar observation April 2nd.

The solar apparatus by both p.m. and a.m. observations defines positions for meridians, which are identical with the meridian determined by observing Polaris at western elongation. Therefore, I conclude that the adjustments of the instrument are correct.

The magnetic bearing of the meridian at 8h. 45m. a.m., l.m.t., is N. 12° 55' W., the angle thus determined gives the mag. decl. 12° 55' E.

From the SW. cor. of Ft. Grant Military Reservation already described, I run, N. 7° 28' W. on random line, along W. bdy. of Ft. Grant Military Res. setting temporary 1/2 mile and mile monuments at intervals of 40 chs. & at 64, 60 chs. fall 68 lks. S. 82° 32' W. of the NW. cor. of Ft. Grant Military Reservation, which is a pine tree, 23 ins. diam., blazed as desc. by Sur. Gen. To perpetuate this cor., I mark this tree F G M R A NW. COR. on SE. face; from which,

- A white oak, 10 ins. in diam., bears N. 58 1/4° E., 94 lks. dist., marked F G M R A NW. COR. B T.
- A pine 20 ins. in diam., brs. S. 32° E., 47 lks. dist., marked F G M R A NW. COR. B T.
- A pine 20 ins. in diam., brs. S. 61 1/2° W., 148 lks. dist., marked F G M R A NW. COR. B T.
- A pine, 18 ins. in diam., brs. N. 57 1/2° W., 93 lks. dist., marked F G M R A NW. COR. B T.

The falling answers to a correction of 0° 04' or 8 1/2 lks. E. to the mile, counting from the SW. cor. of the reservation. Therefore, the true return bearing is S. 7° 24' E.  
April 4th, 1913.

## 2. West boundary of Fort Grant Military Reservation.

Chains.

Note: Running random of west bdy. of Ft. Grant Military Reservation required two days work, five miles having been accomplished April 3rd, and the remainder April 4th, 1913.

- April 5th, 1913: At 10h. 0m. a.m., l.m.t., I set off  $32^{\circ} 42\frac{1}{2}'$  N. on the lat. arc;  $6^{\circ} 03'$  N. on the decl. arc, and determine a meridian with the solar at the NW. cor. of Ft. Grant Military Reservation, hereinbefore described. Thence I run, S.  $7^{\circ} 24'$  E., on a true line, first mile of W. bdy. of Ft. Grant Military Reservation.
- Through scrubby oak and pine and juniper trees, marking and blazing line, descending steep rocky SW. slope of Graham Mountain, 300 ft.
- 7.60 Stream of cold clear water, 3 lks. wide, 6 ins. deep, course west; thence ascend 600 ft. along western slope of mountain.
- 9.60 Rocky gulch, 30 ft. deep, 1 ch. wide, course west.
- 18.60 Rocky gulch, 35 ft. deep, 1 ch. wide, course west.
- 30.60 Summit of narrow spur, bears E. and W.; thence descend S. slope 500 ft.
- 40.00 Set a granite stone  $12 \times 14 \times 20$  ins., 14 ins. in the ground, for  $\frac{1}{2}$  mile cor., marked  $\frac{1}{2}$  M in N., F G M R A in E., 1913 in S., and P L in W. face; from which,
- An oak, 8 ins. in diam., brs. N.  $83\frac{1}{2}^{\circ}$  E., 72 lks. dist., marked F G M R A  $\frac{1}{2}$  M B T.
- A juniper 10 ins. in diam., brs. S.  $58^{\circ}$  W., 5 lks. dist., marked P L  $\frac{1}{2}$  M B T.
- Thence continue descent from cor. 200 ft.
- 57.60 Rocky gulch, 30 ft. deep, 1 ch. wide, course E., thence descend gradually along east slope.
- 64.60 Rocky gulch, 50 ft. deep, 2 fhs. wide, course E.
- 70.10 Mound of stone brs. west 90 lks. dist.
- 80.00 Set a granite stone  $24 \times 12 \times 8$  ins., 16 ins. in the ground for first mile cor., marked F G M R A in E., 1913 in S., P L in W., and 1 M on N. face; from which,
- A black oak, 10 ins. in diam., brs. N.  $71\frac{1}{2}^{\circ}$  E., 49 lks. dist., marked F G M R A 1 M B T.
- A black oak, 10 ins. in diam., brs. S.  $76\frac{1}{2}^{\circ}$  E., 22 lks. dist., marked F G M R A 1 M B T.
- A post oak, 16 ins. in diam., brs. S.  $31\frac{1}{2}^{\circ}$  W., 49 lks. dist., marked P L 1 M B T.
- A black oak, 8 ins. in diam., brs. N.  $51\frac{3}{4}^{\circ}$  W., 83 lks. dist., marked P L 1 M B T.
- Rough mountainous land.  
Soil, thin and rocky.  
Dense underbrush.  
Oak, pine, cedar and juniper timber.
- Note: Stone cors. were set on this mile on account of bed-rock being too shallow to permit of properly setting iron posts.
- Note: At the above described cor., I set off  $6^{\circ} 04\frac{1}{2}'$  N. on decl. arc, and at 12h. 2m. 35s. p.m., l.m.t., observe the sun on the meridian, and obtain a reading of  $32^{\circ} 41\frac{1}{2}'$  on lat. arc.

Thence I run, S.  $7^{\circ} 24'$  E., on a true line, 2nd. mile W. bdy. of Ft. Grant Military Reservation.  
Continue descent along east slope of spur, through scrubby

Chains.

oak and juniper timber.

15.00 Begin descent of 700 ft. over rocky south slope.

36.10 Bottom of descent; clear stream of good water, 10 lks.wide, 6 ins. deep, course S.60°W.; thence ascend north slope 50 ft. to corner.

40.00 Set a granite stone 24x14x8 ins., 16 ins. in ground for 1½ mile cor., marked 1½ M. on N., F G M R A on E., 1913 on S., and P L on W.face; from which,  
 A post oak, 10 ins. in diam., brs.N.71½°E., 48 lks.dist., marked F G M R A 1½ M B T.  
 A post oak, 8 ins. in diam., brs.S.62½°W., 69 lks.dist., marked P L 1½ M B T.

45.50 Thence ascend steep rocky N. slope, 500 ft. Summit of ridge, brs.S.60°W.,and N.60°E.; descend very rocky south slope of ridge, 500 ft.

65.40 Creek, good clear water, 20 lks.wide, 1 ft. deep, course S.60°W., thence over rolling, rocky land.

70.40 Rocky wash, 1 ch. wide, 30 ft. deep, course W., thence ascend N.slope 700 ft. to cor.

80.00 Set a granite stone 20x8x8 ins., 14 ins. in the ground for 2nd. mile cor., marked 2 M in N., F G M R A on E., 1913 on S., and T 9 S R 23 E S 4 on W.face; from which,  
 A post oak, 12 ins. in diam., brs.N.61½°E., 31 lks.dist., marked F G M R A 2 M B T  
 A black-jack 10 ins. in diam., brs.S.76°E., 165 lks.dist., marked F G M R A 2 M B T.  
 A black oak, 14 ins. in diam., brs.S.20¾°W., 83 lks.dist., marked T 9 S R 23 E S 4 2 M B T.  
 A black oak, 10 ins. in diam., brs.N.84¾°W., 65 lks.dist., marked T 9 S R 23 E S 4 2 M B T.

Rough mountainous land.  
 Soil, thin, very rocky.  
 Underbrush 3 to 4 ft.high.  
 Scrubby oak and juniper timber.  
 Note: Stone corners were set on this line on account of bed-rock being too shallow to permit of properly setting iron posts.  
 No trace of old closing corner could be found on this mile.

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Thence I run, S.7°24'E., on true line, 3rd.mile of Ft. Grant Military Reservation bdy.

Over rough, mountainous land, through scattering oak and juniper timber and manzanita brush, 3 to 5 ft. high.

1.50 Summit of ridge; thence descend steep rocky south slope 800 ft., brs. E and W.

28.80 Foot of steep descent, rocky wash, 75 lks.wide, course S.70° W.; leave manzanita brush; thence through scattering oak timber, over SW. slope from foot of mountain.

40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for the 2½ mile cor., with a brass cap, marked  
 2½ M T 9 S R 23 E S 4 in W.,  
 F G M R A in E., and  
 1913 in S.half; from which,  
 A black oak, 6 ins. in diam., brs.N.42½°E., 6 lks.dist., marked F G M R A 2½ M B T.  
 A post oak, 10 ins. in diam., brs.S.20½°W., 117 lks.dist., marked T 9 S R 23 E S 4 2½ M B T.

Continued descent of gentle SW. slope from cor.

47.60 Dry wash, 30 lks. wide, course west.

59.60 Wire fence brs.E and W.

70.60 Dry wash, 50 lks.wide, course S.60°W.

## 4. West bdy. of Fort Grant Military Reservation.

## Chains.

80.00 Set a granite stone 22x14x5 ins., 16 ins. in the ground, for 3rd mile cor., marked 1913 in S.,  
 3 M on N.,  
 F G M R A on E., and  
 T 9 S R 23 E S 9 on W. face; from which,  
 A black oak, 10 ins. in diam., brs. N. 60 $\frac{1}{2}$ ° E.,  
 177 lks. dist., marked F G M R A 3 M B T.  
 A black oak, 8 ins. in diam., brs. S. 63° E., 75  
 lks. dist., marked F G M R A 3 M B T.  
 A post oak, 14 ins. in diam., brs. S. 65 $\frac{1}{2}$ ° W., 225  
 lks. dist., marked T 9 S R 23 E S 9 3 M B T.  
 A post oak, 6 ins. in diam., brs. N. 83° W., 170  
 lks. dist., marked T 9 S R 23 E S 9 3 M B T.

North 30 chs. rough, mountainous land; south 50 chs.  
 rolling, mountainous land.  
 Soil, thin and very rocky.  
 Scattering oak timber throughout mile.  
 Scattering manzanita brush, 3 to 5 ft. high on north end  
 of mile; good grass.  
 Note: Stone cor. was set at last above described cor. on  
 account of bed-rock being too shallow to permit of prop-  
 erly setting iron post.  
 Note: No trace of old closing cor. could be found on this  
 mile.

April 5, 1913.

April 7th, 1913: At 9h. 30m. a.m., l.m.t., I set off 6°  
 48' N. on the decl. arc; and 32° 40' on lat. arc; and  
 determine a meridian at 3rd. mile cor., hereinbefore  
 described.

Thence I run,  
 S. 7° 24' E., on 4th. mile of Ft. Grant Military Reserva-  
 tion bdy.

Over rolling west slope; through scattering scrub oak  
 timber.

11.60 Rocky wash, 75 lks. wide, course west.  
 16.00 Rocky wash, 30 lks. wide, course S. 30° W.  
 25.00 Ravine, 10 ft. deep, course S. 30° W.  
 33.00 Dry wash, 30 lks. wide, course S. 30° W.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for 3 $\frac{1}{2}$  mile cor., with a brass cap, marked  
 T 9 S R 23 E S 9 3 $\frac{1}{2}$  M in W.,  
 F G M R A in E., and  
 1913 in S. half; from which,  
 A black oak, 6 ins. in diam., brs. N. 35 $\frac{1}{2}$ ° E., 27  
 lks. dist., marked F G M R A 3 $\frac{1}{2}$  M B T.  
 A white oak, 16 ins. in diam., brs. N. 56 $\frac{1}{2}$ ° W., 247  
 lks. dist., marked T 9 S R 23 E S 9 3 $\frac{1}{2}$  M B T.

43.50 Dry wash, 100 lks. wide, course S. 45° W.  
 44.00 Leave scattering timber; enter prairie, brs. E and W.; asc.  
 gentle NW. slope.  
 51.50 Top of ascent; descend S. slope.  
 56.60 Ravine, 40 ft. deep, course S. 80° W., scattering trees  
 along wash.  
 61.63 Old closing cor. of secs. 9 and 16, which is a granite  
 stone 8x12x12 ins., above ground, firmly set, marked  
 and witnessed as described by the Surveyor General,  
 bears west 90 lks. dist. I destroy all trace of the  
 old cor., and reestablish it on the Reservation bdy.  
 at the above described point, as follows:  
 Set a granite stone, 24x12x12 ins., 16 ins. in ground for  
 C C of secs. 9 and 16, marked C C on W., with 2  
 grooves on N., and 4 grooves on S.; from which,  
 A black oak, 12 ins. in diam., brs. N. 33 $\frac{1}{2}$ ° W., 210  
 lks. dist., marked T 9 S R 23 E S 9 B T.

Pits impracticable. No more trees within dist.; raise  
 a mound of stone 3 ft. base, 3 ft. high, west of cor.

Chains

75.60 Ravine, 20 ft. deep, course S.60°W.  
 78.60 Rocky wash, 75 lks. wide, course SW.; scaling scrub oak along wash.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in ground for 4th. mile cor., marked on brass cap,  
     4 M T 9 S R 23 E S 15 in W., and  
     F G M R A in E., and  
     1913 in S. half; from which,  
     A black oak, 10 ins. in diam., brs. N.26½°E., 14 lks. dist., marked F G M R A 4 M B T.  
     A black oak, 8 ins. in diam., brs. N.18°W., 133 lks. dist., marked T 9 S R 23 E S 15 4 M B T

Land, rolling.  
 Soil, coarse texture, 6 to 8 ins. deep.  
 Thin growth of grass.  
 Scattering scrub oak timber on N., 40 chs.  
 Note: No trace of old closing cor. of secs. 15 and 16 could be found.

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Thence I run,  
 S.7°24'E., on 5th mile of Ft. Grant Military Reservation bdy.

16.60 Over rolling, rocky prairie land, along west slope.  
 Small stream of clear water, 5 lks. wide, 5 ins. deep, course S.60°W., scattering oak trees along stream.  
 30.60 Descend 50 ft. into rocky canyon.  
 33.00 Bottom of canon, dry wash, 30 lks. wide, course S.30°W.; thence ascend 50 ft. to  
 36.50 Leave canyon; thence over rolling rocky prairie land.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 4½ mile cor., with a brass cap, marked  
     4½ M T 9 S R 23 E S 15 in W., and  
     F G M R A in E., and  
     1913 in S. half;  
     and raise a mound of stone 3 ft. base, 3 ft. high on line north of cor. Pits impracticable.  
 42.60 Descend 75 ft. into rocky gulch.  
 46.60 Bottom of gulch, dry wash, 30 lks. wide, course S.30°W.; thence ascend 70 ft. to  
 51.60 Leave gulch, thence descend gentle SW. slope, over very rocky land.  
 65.60 Dry wash, 40 lks. wide, 3 ft. deep, course SW.  
 80.00 Point for 5th mile cor. falls in dry wash, impracticable to set cor.

Land, rolling and broken.  
 Soil, thin, and very rocky, coarse texture.  
 Good grass.  
 Scattering scrub oak timber along stream at 16.60 chs.

Note: At the above described cor., I set off 6°50'N. on the decl. arc, and at 12h. 2m. 18s., p.m., l.m.t., observe the sun on the meridian, and obtain a reading of 32° 38½' on the lat. arc.

Note: No trace of old closing cor. of secs. 15 and 22 could be found.

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Thence I run,  
 S.7°24'E., on a true line, 6th, mile Ft. Grant Military Reservation bdy.

.18 Descending gentle SW. slope, over very rocky land.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for witness cor. of 5th, mile cor., with a brass cap, marked  
     W C 5 M T 9 S R 23 E S 22, in W.,



## 6. West boundary of Fort Grant Military Reservation.

Chains.	
	<p>F G M R A in E., and  1913 in S.half; from which,  A mesquite, 8 ins. in diam., brs.N.38°E.,123  lks.dist., marked W C F G M R A 5 M B T.  A willow, 5 ins. in diam., brs.N.61½°W.,19 lks.  dist., marked W C T 9 S R 23 E S 22 5 M B T.  No more trees within dist. Raise a mound of stone 3 ft.  base, 3 ft. high, west of cor. Pits impracticable.</p>
2.20	Wire fence brs. E-and W., NE. of cor. of fence brs.E.20 lks., thence parallel to and 20 lks.west of wire fence; enter mesquite brush, 3 to 7 ft. high.
18.30	Dry wash, 10 lks.wide, 2 ft. deep, course S.30°W.,cor.of wire fence brs.E'20 lks.; fence turning E.
19.60	Windmill and well bear east 5 chs.dist.
26.60	Wire fence brs. E-and W., cor.of fence brs.west 15 lks. dist., thence parallel to and east of wire fence.
32.00	Wagon road, brs.E-and W.
33.00	Adobe house brs.W. 4 chs.dist.
40.00	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for 5½ mile cor., with a brass cap,marked T 9 S R 23 E S 22 5½ M in W., F G M R A on E., and 1913 in S.half; dig pits 36x36x12 ins., E'and W. of post 4 ft. dist., and raise a mound of earth 5 ft.base, 2½ ft. high on line, north of cor.
53.60	Dry wash, 15 lks.wide, 1 ft. deep, course S.45°W.
60.54	Granite stone 12x12x24 ins. above ground, firmly set,brs. west 95 lks.dist.
62.90	SE cor.of wire fence, brs.west 120 lks.; no trace of old closing cor.of secs.22 and 27 could be found.
80.00	Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for 6th, mile cor., with a brass cap, marked 6 M T 9 S R 23 E S 27 in W., F G M R A in E., and 1913 in S.half; dig pits 36x36x12 ins., E.and W. of post, 4 ft. dist., and raise a mound of earth 5 ft.base, 2½ ft. high on line, N.of cor.
	<p>Land, level and rolling.  North 20 chs.rocky; soil, coarse texture, 6 to 8 ins.deep  on clay subsoil.  South 60 chs.loose, sandy coarse texture, 12 to 24 ins.deep,  on clay subsoil.  Scattering grass, mesquite brush and scattering yuccas, 4  to 8 ft. high.  No timber, except at N.end of mile.</p>
	<p>Thence I run,  S.7°24'E.,on true line, 7th mile of Ft.Grant Military  Reservation bdy.  Descending very gentle S. slope, through mesquite brush  and yuccas, 4 to 10 ft. high.</p>
22.50	Wagon road, brs.S.15°W., and N.15° E.
23.00	Wagon road, brs.S.30° W., and N.30°E.
40.00	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for 6½ mile cor., with a brass cap, marked T 9 S R 23 E S 27 6½ M in W., F G M R A in E., and 1913 in S.half; dig pits 36x36x12 ins., E.and W. of post 4 ft. dist., and raise a mound of earth 5 ft.base, 2½ ft. high on line N.of cor.
52.04	Granite stone 14x16x24 ins. above ground, firmly set, brs.west 20 lks.dist.
76.90	Dry wash, 10 lks.wide, 2 ft. deep, course S.40° E.
79.30	Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for witness cor. to 7th. mile cor., with

West boundary of Fort Grant Military Reservation. 7.

Chains

a brass cap, marked,  
 W C 7 M T 9 S R 23 E S 34 in W.,  
 F G M R A in E., and  
 1913 in S. half;  
 dig pits 36x36x12 ins., E and W. of post 4 ft. dist.,  
 and raise a mound of earth 5 ft. base, 2 1/2 ft. high on  
 line north of cor.  
 80.00 Point for 7th, mile cor. falls in dry sandy wash, 20 lks.  
 wide, 2 ft. deep, course S. 12° E., impracticable to  
 set cor.  
 Land, level and rolling.  
 Loose sandy loam soil, coarse texture, 18 to 24 ins. deep.  
 Mesquite and yuccas 6 to 10 ft. high, scattering grass.  
 No timber.  
 Note: No closing cors. could be found on this mile.

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 Thence I run,  
 S. 7° 24' E., on true line 8th mile of Ft. Grant Military  
 Reservation bdy.  
 Over level, sandy land, through mesquite brush and yuccas,  
 6 to 10 ft. high, and scattering bunch grass.  
 30.60 Sandy wash, 50 lks. wide, course SE.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the  
 ground for 7 1/2 mile cor., with a brass cap,  
 marked

7 1/2 M T 9 S R 23 E S 34 in W.,  
 F G M R A in E., and  
 1913 in S. half; ~~of post~~  
 dig pits 36x36x12 ins. E and W. 4 ft. dist., and raise  
 a mound of earth 5 ft. base, 2 1/2 ft. high on line, N. of  
 cor.

46.97 Granite stone 12x12x14 ins. above ground, and firmly set  
 brs. E. 4 lks. dist.

70.00 Wire fence brs. E. and W.

73.10 Wire fence brs. E. and W., NE. cor. of fence brs. E. 5 lks.  
 dist.; thence along west of fence.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for 8th mile cor., with a brass cap, marked

8 M T 10 S R 23 E S 3 in W.,  
 F G M R A in E., and  
 1913 in S. half; ~~of post~~  
 dig pits 36x36x12 ins. E and W. 4 ft. dist., and raise  
 a mound of earth 5 ft. base, 2 1/2 ft. high on line, N. of  
 cor.

Land, level and rolling.  
 Soil, sandy loam, medium texture, 18 to 24 ins. deep on  
 clay subsoil.  
 Good bunch grass, mesquite brush and yuccas, 6 to 10  
 ft. high.  
 No timber.

April 7th, 1913.

Note: No trace of old closing corner could be found.

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 April 8th, 1913: At 8h. 30m. a.m., l.m.t., I set off 7°  
 09 1/2' N. on decl. arc; 32° 35 1/2' on lat. arc, and determine  
 a meridian with the solar at the 8th mile cor.

Thence I run,  
 S. 7° 24' E., on true line, 9th mile of Ft. Grant Military  
 Reservation bdy.  
 Over level land, along fence.

1.60 Intersect SW. cor. of Ft. Grant Military Reservation bdy.  
 previously described, to perpetuate which I remove  
 granite stone, and in the same place set an iron post  
 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for

## 8. South boundary of Fort Grant Military Reservation.

Chains.

- SW. cor. of Ft. Grant Military Reservation, with a brass cap, marked  
 S W C O R F G M R A, E. of center, and  
 T 10 S R 23 E S 3 in W., and  
 1913 in S. half; of post  
 dig pits 36x36x12 ins. on line NW. and SE. 8 ft. dist.,  
 and raise a mound of earth 5 ft. base, 2½ ft. high NE.  
 of cor.
- From the above described cor. the south angle point of  
 Fort Grant Military Reservation being plainly visible  
 I continue measurement of 9th mile.  
 S.50° 01'E., for said cor. on true line.
- 17.00 Wire fence brs. S.30°W., and N.30°E.; cor. of fence brs. NE.  
 4 lks. dist.; thence along fence, through edge of culti-  
 vated field.
- 33.20 Wash, 5 lks. wide, 1 ft. deep, course S.12°W.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for 8½ mile cor., with a brass cap, marked  
 8½ M T 10 S R 23 E S 3 in SW.,  
 F G M R A in NE., and  
 1913 in S. half;  
 dig pits 36x36x12 ins., NE. and SW. of post 4 ft. dist.,  
 and raise a mound of earth 5 ft. base, 2½ ft. high on  
 line NW. of cor.
- 74.00 Leave cultivated field, thence through edge of door-yard.
- 76.50 H. A. Morgan's adobe house, brs. SW. 100 lks.
- 77.50 Yard fence brs. NE. and SW., fence cors. 3 lks. NE. of line.
- 78.50 Wagon road to Fort Grant, brs. NE. and SW.
- 79.00 Bonita Postoffice, brs. SW., 1 ch. dist.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground for 9th mile cor., with a brass cap, marked  
 9 M T 10 S R 23 E S 2 in SW.,  
 F G M R A in NE., and  
 1913 in S. half;  
 dig pits 36x36x12 ins. NE. and SW. of post, 4 ft. dist.,  
 and raise a mound of earth 5 ft. base, 2½ ft. high on  
 line NW. of cor.
- Land, level and rolling.  
 Soil, loose, sandy loam, medium to fine texture, 2 to 3  
 ft. deep.  
 Good growth of bunch grass, mesquite brush and yuccas 6  
 to 10 ft. high.  
 No timber.
- Note: No trace of closing cor. could be found on this mile.
- 
- Thence I run,  
 S.50°01'E., on a true line, 10th mile of Ft. Grant Mili-  
 tary Reservation bdy.  
 Over level sandy land.
- 90 Cor. of wire fence; thence along said fence at edge of cul-  
 tivated field.
- 5.00 Cor. of fence on opposite side of lane, brs. NE. 100 lks.
- 10.00 Bonita Creek, 20 lks. wide, clear cold water, 18 ins. deep,  
 course S.45°W.
- 20.00 Large adobe house, brs. SW. 75 lks.
- 30.00 Leave wire fence, brs. S.50½°E., thence along edge of culti-  
 vated land.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for 9½ mile cor., with a brass cap, marked  
 9½ M T 10 S R 23 E S 11 in SW.,  
 F G M R A in NE., and  
 1913 in S. half;  
 dig pits 36x36x12 ins., NE. and SW. of post, 4 ft. dist.,  
 and raise a mound of earth 5 ft. base, 2½ ft. high, on  
 line, NW. of cor.
- 49.50 Wire fence brs. N. and S., fence cor. brs. N. 10 lks. dist.,  
 thence over open prairie land, through yuccas 6 to 10  
 ft. high.

South bdy. of Fort Grant Military Reservation. 9.

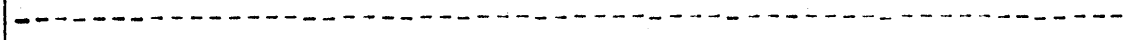
Chains.

50.00 Wagon road, brs. NE. and SW.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for 10th mile cor., with a brass cap, marked

10 M T 10 S R 23 E S 12 in SW.,  
 F G M R A in NE., and  
 1913 in S-half;

dig pits 36x36x12 ins., NE. and SW. of post, 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line NW. of cor.  
 Land, level and rolling.  
 Soil, loose, sandy loam, 2 to 3 ft. deep, medium to fine texture.  
 Good bunch grass from 0 to 50 chs., from 50 to 80 chs. good gramma grass and yuccas 6 to 10 ft. high.  
 No timber.

Note: Wagon road runs along NE. side of the line.  
 No trace of closing cors. could be found on this mile.



Thence I run,  
 S.50°01' E., on true line, 11th mile of Fort Grant Military Reservation. bdy.  
 Over rolling prairie land, through yuccas 4 to 8 ft. high.  
 5.50 Wagon road brs. N.60°W., and S.60°E.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 10½ mile cor., with a brass cap, marked

10½ M T 10 S R 23 E S 12 in SW.,  
 F G M R A in NE., and  
 1913 in S-half;

dig pits 36x36x12 ins., NE. and SW. of post 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line, NW. of cor.

40.50 Dry wash, 30 lks. wide, 3 ft. deep, course S.60°W.  
 50.70 Wagon road brs. NE. and SW.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for 11th mile cor., with brass cap, marked,

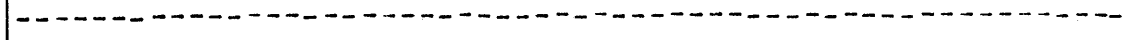
11 M T 10 S R 23 E S 13 in SW.,  
 F G M R A in NE., and  
 1913 in S-half;

dig pits 36x36x12 ins., NE. and SW. of post 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line NW. of cor.

Land, level and rolling.  
 Soil, loose, sandy loam, 12 to 18 ins. deep on clay sub-soil, medium texture.  
 Good growth of gramma grass, yuccas, 4 to 8 ft. high.  
 No timber.

Note: At the above described cor. I set off 7° 12½' N. on decl. arc, and at 12h. 2m. 1sec. p.m., 1.m.t., observe the sun on the meridian, and obtain a reading of 32° 34' on lat. arc.

Note: No trace of closing cor. could be found on 11th mile.



Thence I run,  
 S.50° 01' E., on true line. 12th mile of Ft Grant Military Reservation. bdy.  
 Over rolling prairie land, through scattering yuccas 4 to 8 ft. high.  
 13.00 Dry wash, 5 lks. wide, 2 ft. deep, course S.60°W.  
 22.20 Wagon road brs. N.30°W. and S.30°E.  
 22.49 Intersect south angle point of Ft. Grant Military Reservation, which is a granite stone, 12x12x24 ins. above ground, firmly set and dressed square on top, under

## 10. South Boundary of Fort Grant Military Reservation.

Chains

which I found decayed remains of old post described by the Surveyor General. To perpetuate this cor., I remove the granite stone, and set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for S A P of Fort Grant Military Res. bdy., with a brass cap, marked

S A P F G M R A in N.,

P L T 10 S R 24 E,

S 118 1913 in S. half, of post.

dig pits 36x36x12 ins. NW. and NE. on line, 8 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high, N. of cor.

No trace of closing cor. found on this line.

From the above described cor., the SE. cor. of Ft. Grant Military Reservation being plainly visible, I run, continuing measurement of 12th mile.

N. 78° 36' E., on true line, for said cor.

23.50 Wagon road brs. NW. and SE.

25.50 Wagon road to Ft. Grant brs. N. 15° E., and S. 15° W.

25.70 Intersect granite stone 24x12x12 ins. above ground firmly set.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 11½ mile cor., with a brass cap, marked

11½ M F G M R A in N., and

P L, 1913 in S. half;

dig pits 36x36x12 ins., N. and S. of post 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line, west of cor.

61.90 Dry wash, 5 lks. wide, course SW.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for 12th mile cor., with a brass cap, marked

12 M F G M R A in N., and

P L 1913 in S. half;

dig pits 36x36x12 ins. N. and S. of post, 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line west of cor.

Land, level and rolling.

Soil, loose, sandy loam, 12 to 18 ins. deep on clay subsoil.

Good gramma grass, scattering yuccas, 4 to 8 ft. high.

No timber.

-----

Thence I run,

N. 78° 36' E., on true line, 13th mile of Ft. Grant Military Reservation bdy.

Over level prairie land, through scattering yuccas, 4 to 8 ft. high.

27.68 Intersect granite stone 18x18x124 ins. above ground firmly set.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 12½ mile cor., with a brass cap, marked

12½ M F G M R A in N., and

P L 1913 in S. half;

dig pits 36x36x12 ins., N. and S. of post, 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line west of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for 13th mile cor., with a brass cap, marked,

13 M F G M R A in N., and

P L 1913 in S. half;

dig pits 36x36x12 ins., N. and S. of post 4 ft. dist., and raise a mound of earth 5 ft. base, 2½ ft. high on line, west of cor.

Land, level and rolling.

Soil, loose, red sandy loam, 12 to 18 ins. deep on clay subsoil.

Good gramma grass, scattering yuccas, 4 to 8 ft. high.

No timber.

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S. & frac S E. bdy. of Fort Grant Military Reservation. 11.

Chains

Thence I run,  
N.78°36'E., on true line, 14th mile of Ft. Grant Military  
Reservation bdy.

Over level prairie land, through scattering yuccas 4 to 8  
ft. high.

3.34 Fall 4 lks. south of granite stone 12x12x18 ins. above  
ground, firmly set.

3.40 Wagon road brs. NW. and SE.

12.50 Dry wash, 10 lks. wide, 2 ft. deep, course S.15°W.

14.60 Wagon road, brs. S.15° W., and N.15°E.

26.60 Intersect SE. cor. of Ft. Grant Military Reservation, which  
is a granite stone, 12x12x24 ins. above ground, firmly  
set, dressed on top; decayed remains of old wooden post  
described by Surveyor General were found under this  
stone. I remove the above described stone, and to per-  
petuate this cor., I set in the same place an iron  
post 3 ft. long, 3 ins. in diam., 24 ins. in the ground  
for SE. cor. of Ft. Grant Military Reservation bdy.,  
with a brass cap, marked

S E COR., E of center,  
F G M R A in NW. sector, and  
P L 1913 in S. half;

dig pits 36x36x12 ins. on line, NE. and SW. of post, 8  
ft. dist., and raise a mound of earth 5 ft. base, 2½ ft.  
high, NW. of cor.

Land, level and rolling.

Soil, loose, sandy loam, 12 to 18 ins. deep on clay subsoil.

Good gramma-grass, scattering yuccas 4 to 8 ft. high.

April 8th, 1913.

Dec. 2nd, 1913: At 8h. 30m. a.m., l.m.t., I set off 21°  
57'S. on decl. arc; 32°34' on lat. arc, and determine  
a meridian with the solar at the SE. cor. of Ft. Grant  
Military Reservation, above described.

Thence I run,  
N.22°30'E., on random line, along east bdy. of Ft. Grant  
Military Reservation bdy.

13.40 Set temp. 13½ mile cor.

53.40 Set temp. 14th mile cor.

Thence I continue,  
N.22°30'E., on random line along east bdy. of Ft. Grant  
Military Reservation, setting temp. ½ mile and mile cors.  
at intervals of 40 chs., until at the 17th mile cor.,  
when a snow storm on Dec. 3rd makes it impracticable to  
continue this work until warmer weather.

Note: The above described random line was run on Dec. 2nd  
and 3rd, 1913.

Dec. 3rd, 1913.

## 12. Portion of East bdy. of Fort Grant Military Reservation.

Chains

July 11th, 1914: At 2h. 0m., p.m., l.m.t., I set off  $22^{\circ} 09' N.$  on the decl. arc;  $32^{\circ} 37' E.$  on the lat. arc, and determine a meridian with the solar at the temp. 17th mile cor. Ft. Grant Military Reservation bdy., set by me Dec. 3, 1913.

Thence I run,

N.  $22^{\circ} 30' E.$ , on random line, along east bdy of Ft. Grant Military Reservation, setting temp.  $\frac{1}{2}$  mile and mile cors. at intervals of 40 chs., and at 26.60 chs. N.  $20^{\circ} 30' E.$  of temp. 21st mile cor., make diligent search for old NE. cor. of Military Reservation, which is described as being a pine tree, but as above described point falls in a dense pine forest, it is impossible to distinguish which tree is intended, as no markings are given, nor no marked tree could be found.

Therefore, I abandon my random line, and proceed to the SE. cor. of Ft. Grant Military Reservation, and project true line for east bdy. of Ft. Grant Military Reservation bdy., thro. 14th, 15th, and south half of 16th mile on reported bearing as follows:

July 14th, 1914: At 7h. 30m. a.m., l.m.t., I set off  $21^{\circ} 46\frac{1}{2}' N.$  on decl. arc;  $32^{\circ} 34'$  on lat. arc, and determine a meridian with the solar at the SE. cor. of Ft. Grant Military Reservation.

Thence I run,

N.  $22^{\circ} 30' E.$ , on 14th mile Ft. Grant Military Reservation bdy. Over rolling land, through scattering yuccas, 4 to 7 ft. high.

- .50 Dry wash, 10 lks. wide, 2 ft. deep, course west.  
 12.00 Dry rocky wash, 50 lks. wide, 3 ft. deep, course west.  
 13.40 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for  $13\frac{1}{2}$  mile cor., with a brass cap, marked  
     F G M R A in NW.,  
     P L  $13\frac{1}{2}$  M in SE., and  
     1913 in S. half;  
     pits impracticable. Raise a mound of stone 3 ft. base, 3 ft. high, SW. of cor.  
 53.40 Thence over rough, rocky land.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for 14th mile cor., with a brass cap, marked  
     F G M R A, 14 M in NW.,  
     P L in SE., and  
     1913 in S. half;  
     pits impracticable. Raise a mound of stone 3 ft. base, 3 ft. high on line SW. of cor.  
 Land, rolling and broken.  
 Soil, thin and rocky.  
 Good grass, scattering yuccas, 4 to 7 ft. high, on south end of line.  
 No timber.

-----  
 Thence I run,

N.  $22^{\circ} 30' E.$ , on 15th mile E. bdy. of Ft. Grant Military Reservation.

- 10.00 Ascend rocky south slope, 50 ft.  
 16.00 Summit of rocky ridge, brs. NW. and SE.; descend rocky N. slope.  
 26.00 Foot of descent; enter scattering mesquite brush, brs. E. and W.; thence over slightly rolling land.  
 28.00 Wagon road, brs. E. and W.  
 29.00 Dry wash, 10 lks. wide, 1 ft. deep, course west.  
 38.00 Dry rocky wash, 50 lks. wide, 6 ft. deep, course west.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for  $14\frac{1}{2}$  mile cor., with a brass cap, marked  
     F G M R A  $14\frac{1}{2}$  M in NW.,  
     P L in SE., and  
     1913 in S. half;  
     pits impracticable. Raise a mound of stone 3 ft.

Portion of East bdy. of Ft. Grant Military Reservation 13.

Chains.

80.00 base, 3 ft. high on line, SW. of cor.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for 15th mile cor., with a brass cap, marked  
 F G M R A 15 M in NW.,  
 P L in SE., and  
 1913 in S. half; and  
 raise a mound of stone 3 ft. base, 3 ft. high on line, SW. of cor.  
 Pits impracticable.  
 Land, rolling.  
 Soil, thin and rocky.  
 Good grass, scattering mesquite brush, 3 to 4 ft. high.  
 No timber.

Thence I run,  
 N. 22° 30' E., on 16th mile bdy. of Ft. Grant Military Reservation bdy.  
 Over rolling land, through scattering mesquite brush, 3 to 4 ft. high.  
 4.50 Wagon road brs. E. and W.  
 10.00 Dry rocky gulch, 1 ch. wide, 30 ft. deep, course west.  
 38.00 Dry rocky gulch, 1 ch. wide, 51 ft. deep, course west.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 15 1/2 mile cor., with a brass cap, marked  
 F G M R A 15 1/2 M in NW.,  
 P L in SE., and  
 1913 in S. half;  
 pits impracticable. Raise a mound of stone 3 ft. base, 3 ft. high on line SW. of cor.  
 Land, rolling.  
 Soil, thin and rocky.  
 Scattering mesquite brush, 3 to 4 ft. high.  
 Scattering scrub oak trees along gulches.

July 14 th, 1914.

*Thomas B. Matthews*  
 U. S. Surveyor.



**CERTIFICATE OF ASSISTANTS.**  
(same applies to Books "C" and "D")

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,  
*Thomas B. Matthews*, U. S. Surveyor, during the periods and in the capacities  
stated opposite our several signatures, in surveying all those parts or portions of *The C. & F.*  
*W. bds of Fort Grant Military Reservation,*  
*N. E. & W. bds of T10 & R23E, E bds of*  
*T9 & R23E & S. bds of T9 & R24E.*  
*N. bds of sec 1, 2, 3 & E. of 4 T10 & R22E & W. bds*  
*sec 30 & 31 T9 & R23E*

of the *Old Salt River* Meridian, in the State of *Arizona*  
*and those in Books "C" and "D"*  
which are represented in the foregoing field notes as having been executed by him, and under his direc-  
tion; and that said survey has been, in all respects, to the best of our knowledge and belief, well and  
faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<i>William Lester</i>	<i>April 2 1913</i>	<i>April 29 1913</i>	<i>Chairman</i>
<i>R. J. Ruffin</i>	<i>April 2 1913</i>	<i>April 29 1913</i>	<i>Chairman</i>
<i>W. J. McElhara</i>	<i>April 2 1913</i>	<i>April 24 1913</i>	<i>Mounds man</i>
<i>C. R. Fisher</i>	<i>April 2 1913</i>	<i>April 29 1913</i>	<i>Flagman</i>
<i>R. W. Sprinkle</i>	<i>April 27 1913</i>	<i>April 29 1913</i>	<i>Mounds Man</i>
<i>Edward Ditmore</i>	<i>Dec 2 1913</i>	<i>Dec 2 1913</i>	<i>Chairman</i>
<i>H. H. Palmer</i>	<i>Dec. 2 1913</i>	<i>Dec 20 1913</i>	<i>Chairman</i>
<i>E. H. Tenley</i>	<i>Dec 2 1913</i>	<i>Dec 20 1913</i>	<i>Flagman</i>
<i>R. B. Hart</i>	<i>Dec. 2 1913</i>	<i>Dec 20 1913</i>	<i>Clerk</i>
<i>E. W. Astcock</i>	<i>Dec 2 1913</i>	<i>Dec 20 1913</i>	<i>Mounds man</i>
<i>Edward Ditmore</i>	<i>July 11 1914</i>	<i>July 14 1914</i>	<i>Chairman</i>
<i>R. B. Hart</i>	<i>July 11 1914</i>	<i>July 14 1914</i>	<i>Chairman</i>
<i>Vinton Hays</i>	<i>July 11 1914</i>	<i>July 14 1914</i>	<i>Flagman</i>
<i>E. W. Astcock</i>	<i>July 11 1914</i>	<i>July 14 1914</i>	<i>Mounds man</i>

Subscribed and certified to before me on the dates of the final service as shown above.

*Thomas B. Matthews*  
U. S. Surveyor.

BOOK 2713

FINAL OATH OF UNITED STATES SURVEYOR.  
(same applies to Books "C" and "D")

I, Thomas B. Matthews, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona bearing date of the 24th day of September, 1912, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of E. & W. bds. of Fort Grant Military Reservation, the N. E & W. bds. of T10R23E, the N. bds. of nos. 1, 2, 3 & E. of T10R22E, the W. bds. of nos. 30 & 31 T9R23 & the W. & E. bds. of T9R24E of the Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes and those in Books "C" and "D" as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said surveys have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such surveys.

Thomas B. Matthews  
U. S. Surveyor.

Subscribed by said Thomas B. Matthews, and sworn to before me }  
this 29th day of August, 1914

L. J. McCourt  
United States Commissioner



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. March 20, 1915

The foregoing field notes of the survey of the West, South and fractional East boundaries of the Fort Grant Military Reservation (abandoned) in Tps. 8, 9 and 10 South, Ranges 23 and 24 East of the Gila and Salt River Base and Meridian (Arizona) executed by Thomas B. Matthews, U. S. Surveyor under his special instructions dated Sept. 24, 1912, for Group #22, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank A. Ingalls  
Surveyor General.  
of Arizona

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.