

2163

4-679.

Book I.

Accepted letter E. May 4 1909
J.M.S. 1

BOOK 2163

FIELD NOTES

OF THE SURVEY OF THE

North Boundary, and. Frac. West Boundary

2163

2163

of

Fort Huachuca Military Reservation.

2163

Of the _____ Meridian,

ARIZONA.

AS SURVEYED BY

Jesse B. Wright, United States Deputy Surveyor,

Under his Contract No. 154, dated February 9, 1909

Survey commenced May 12, 1909

Survey completed May 15, 1909

6-151

2163

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2163

561A

BOOK 2163

NAMES AND DUTIES OF ASSISTANTS.

Walter Percival, Chairman

Rollin Brown - "

Jas L. Finley, Treasurer

Aubrey W. Anderson, Foreman

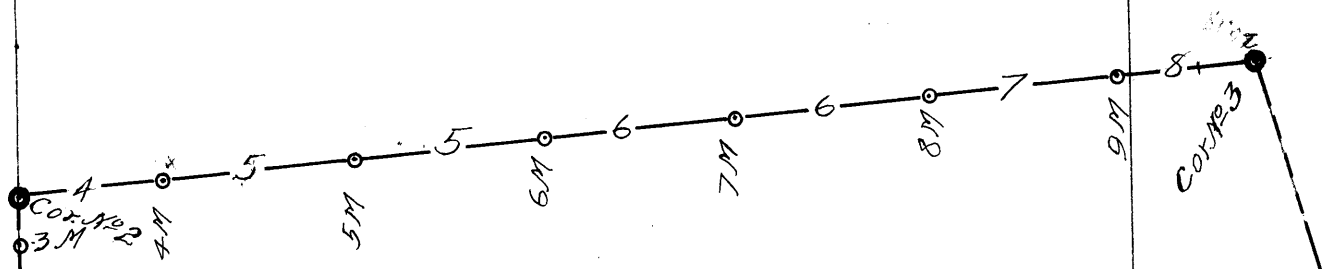
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BOOK 2163

INDEX DIAGRAM.

BOOK 2163

18



FORT HUACHUCA MILITARY RESERVATION.



Cor. No. 1.



58
10

PRELIMINARY OATHS OF ASSISTANTS.

WE, Walter Percival and Rollin Brown
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of North Bdy, 2nd Sec. W. Bdy, Fort Huachuca Mil. Reservation
Walter Percival, Chainman.
Rollin Brown, Chainman.

Subscribed and sworn to before me this 12th
day of May, 1909



Jesse B. Wright
U. S. Deputy Surveyor.

WE, Jos. L. Finley and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of N. Bdy & 2nd Sec. W. Bdy, Fort Huachuca Military Reservation
Jos. L. Finley, Moundman.
_____, Moundman.

Subscribed and sworn to before me this 12th
day of May, 1909



Jesse B. Wright
U. S. Deputy Surveyor.

WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____
_____, Axman.
_____, Axman.

Subscribed and sworn to before me this _____
day of _____, 190_____



I, Aubrey W. Anderson, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of N. Bdy and 2nd Sec. W. Bdy, Fort Huachuca Military Reservation
Aubrey W. Anderson, Flagman.

Subscribed and sworn to before me this 12th
day of May, 1909



Jesse B. Wright
U. S. Deputy Surveyor.

Frac. West Boundary Fort Huachuca Military Reservation.

CHAINS

Survey begun May 12, 1909, and executed with a Young & Son's light mountain transit No. 6492 with Smith's patent solar attachment on side.

The plates of the instrument are provided with two double verniers, each reading to 1' of arc, which is also the least reading of the latitude and declination arcs.

I examine, test, and adjust precisely the levels, the line of collimation and standards of the Instrument.

I also examine and test the solar lines and lenses, the latitude and declination arcs and hour circle of the solar apparatus and find same correct.

Then to test the solar apparatus by comparing the results of observations on the sun for meridian made during a.m. & p.m. hours with a true meridian determined by Polaris observations, I proceed as follows:

At 4h 30m p.m., l.m.t., at original Cor. No. 1 of the Fort Huachuca Military Reservation, which is an old post in a dilapidated mound of stone marked and witnessed as described by the Surveyor General, I set off 18° 11' N. on the decl. arc and 31° 33' N. on the lat. arc and determine a meridian with the solar, and mark a point in the meridian thus determined by a cross on a fixed stone 6 chs. N. of my station.

May 13, 1909 at 3h 52m 30s l.m.t., I observe Polaris at Eastern Elongation in accordance with instructions in the "Manual" and mark the line thus determined by a tack in a stake driven firmly in the ground 6 chs N. of my station.

At 7h a.m., l.m.t., I set off the azimuth of Polaris 1° 23' to the W. and mark the true meridian thus determined by a cross on the fixed stone 6 chs. N. of my station, which point falls $\frac{1}{4}$ in. E. of the line given by the solar on preceding evening.

Then I set off 18° 20' N. on the decl. arc and 31° 33' N. on the lat. arc and determine a meridian with the solar. which meridian gives a line $\frac{1}{4}$ in. E. of the meridian point determined by Polaris observation on the stone 6 chs. N. of my station.

The solar apparatus by a.m. & p.m. observations defines meridians about 13" E. & W. of the meridian determined by Polaris observation.

Hence I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7h a.m., l.m.t., is N. 13° 50' W., the angle thus determined gives the magnetic declination as 13° 50' E.

The original cor. No. 1, being in a very dilapidated condition and the markings almost obliterated, I destroy, and at the original Cor. point, I

Set a pine post 4 ft. long 4x6 ins. 10 ins. in ground to bedrock in mound of stone 5 ft. base 2 $\frac{1}{2}$ ft. high, marked I.M. Cor. No. 1, F.H.M.R. on E.,

T. 21 S. R. 19 E. S. 31 on W., and raise a mound of stone 5 ft. base 4 ft. high NE. of cor., from which,

An oak tree 6 ins. diam. brs. S. 64 $\frac{1}{2}$ ° W. 57 lks. dist.,

marked T. 20 S. R. 19 E. S. 31 I.M. Cor. No. 1 B.T.

A mesquite tree, 6 ins. diam. brs. S. 49° E. 53 lks. dist.,

marked T. 21 S. R. 19 E. S. 31, I.M. Cor. No. 1 B.T.

No other trees available.

Cor. of Tps. 21 & 22 S. Rs. 18 & 19 E.,

brs. S. 66° 45' W. 61.40 chs., measured twice.

A galvanized iron post 6 ins. sq. 4 ft. above ground,

on line bet. Cochise and Pima Counties, Arizona, marked,

Cochise on E. & Pima on W. brs. N. 72 $\frac{1}{4}$ ° W. 4.20 chs.

Centre smoke stack of Manilla Mining Co's engine house,

brs. S. 28° 48' E.

"Old Baldy", Santa Rita Mts. brs. N. 63° 23' W.

Sharp peak, centre of Whetstone Mts. brs. N. 4° 10' E.

R.R. water tank at Elgin Station, brs. N. 33° 03' W.

Frac. West Boundary of Fort Huachuca Military Reservation.

Chains

- Chimney of house of Henry Pyeatt, brs. S. $62\frac{1}{2}^{\circ}$ W. about $\frac{1}{2}$ mile.
From the above described Cor. I run,
as per instructions,
Following the sinuosities of the main spur from the
Huachuca divide.
S. 60° E.
Over broken Mts. land, grad. asc. with great difficulty.
- 6.00 Wash 10 lks. wide, course N.
10.00 Road, brs N. & S.
20.00 Road, brs. N. & S.
22.00 Wash 30 lks. wide, course NNW.
begin very steep asc.
- 30.00 To point No. 1,
Thence S. 75° E.
Up precipitous rocky point.
- 20.00 To point No. 2, Top high rocky spur, 800 ft. above Cor. No. 1.
Thence S. $52\frac{1}{2}^{\circ}$ E.
- 6.66 To point No. 3, where I leave a flag., Temp closing cor.
of Tps. 21 & 22 S. R. 19 E.
- I return to Cor. No. 1, F.H.M.R., just re-established by me.
I follow the line of the W. Bdy. of F.H.M.R. Northerly
and finding the Cor. No. 2. marked and witnessed as
described by the Surveyor General, I place a large flag
on same, and return to Cor. No. 1, from which the flag
on cor. No. 2 is plainly visible, and brs. N. $2^{\circ} 06'$ E.
Therefore from Cor. No. 1 F.H.M.R., I run,
as per instructions,
N. $2^{\circ} 6'$ E. on a true line on W. Bdy. of Reservation.
Over broken mts. land desc. through scattering oak.
- 1.05 Main road, Fort Huachuca to Canille. Ariz. brs E. & W.
13.00 Dry wash 30 lks. wide, course NW.
31.50 Dry wash 50 lks. wide, course NN.W.
38.75 same wash, course NNE.
40.00 Set a pine post 3 ft. long 4 ins. sq. 2 ft. in ground for
 $\frac{1}{2}$ mile cor. marked,
 $\frac{1}{2}$ M. on S.
F.H.M.R. on E. and
T. 21 S. R. 19 E. S. 31 on W. faces, and
raise a mound of stone 3 ft. base 2 ft. high S. of cor.
from which,
An oak tree 6 ins. diam. brs. S. $57\frac{3}{4}^{\circ}$ E. 45 lks. dist.,
marked F.H.M.R. $\frac{1}{2}$ M. B.T.
An oak tree 6 ins. diam. brs. S. $34\frac{1}{2}^{\circ}$ W. 157 lks. dist.,
marked T. 21 S. R. 19 E. S. 31 $\frac{1}{2}$ M. B.T.
No other bearings available. Pits impracticable.
- 46.00 Enter same wash as above, down same.
52.00 Leave wash, runs NNW. asc. SW. slope of ridge.
70.00 Top of ridge, brs. NW. & SE. desc. NE. slope.
80.00 Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for
1 mile cor., marked
1 M. on S.,
F.H.M.R., on E., and
T. 21 S. R. 19 E. S. 30 on W. faces, and
raise a mound of stone 3 ft. base 2 ft. high S. of cor.
No bearings available. Pits impracticable.
Land mts. broken.
Soil, 2nd & 3rd rate, sandy, gravelly, stony.
Timber, scattering oak, mesquite.
Undergrowth, scattering mesquite, oak, ocotillo.
Mountainous land, -----80.00 chs.
At this cor. at noon, I set off $18^{\circ} 22' 30''$ N. on the decl.
arc and observe the sun on the meridian.
The resulting lat. is $31^{\circ} 34'$ N.

Frac. West Boundary of Fort Huachuca Military Reservation.

Chains

N. 2° 6' E. from 1 mile cor.
 Over mts. land desc. along E. slope of ridge.
 29.20 Gulch 20 lks. wide, course NE.
 40.00 Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for
 1 1/2 mile cor. marked,
 1 1/2 M. on S.,
 F.H.M.R. on E. and
 T. 21 S. R. 19 E. S. 30 on W. faces, and
 raise a mound of stone 3 ft. base 2 ft. high S. of cor.
 No bearings available. Pits impracticable.
 50.00 Gulch 80 lks. wide, course NE.
 Asc. E. slope of ridge over stony ground with great
 difficulty.
 62.00 Gulch 30 lks. wide, course NE. near head.
 80.00 Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for
 2 mile cor. marked,
 2 M. on S.,
 F.H.M.R. on E., and
 T. 21 S. R. 19 E. S. 19 on W. face, and
 raise a mound of stone 3 ft. base 2 ft. high S. of cor.
 No bearings available. Pits impracticable.
 Land, mountainous.
 Soil, 2nd & 3rd rate, stony.
 Timber, few oak in canyons.
 Undergrowth, scattering mesquite, oak, good grazing.
 Mountainous land, -----50.00 chs.
 Mountainous land exceptionally difficult
 to survey, ---- 30.00 chs.

N. 2° 6' E. from 2 mile cor.
 Over mts. land, desc. with great difficulty, over broken
 E. slope of ridge.
 12.00 Gulch 20 lks. wide, course NE.
 21.40 Gulch 80 lks. wide, course NE.
 36.00 NE. point of ridge, desc. precipitous.
 40.00 Foot of slope, enter valley of main wash.
 Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for
 2 1/2 mile cor. marked,
 2 1/2 M. on S.,
 F.H.M.R. on E., and
 T. 21 S. R. 19 E. S. 19 on W. faces, and
 raise a mound of stone 3 ft. base 2 ft. high S. of cor.
 No bearings available. Pits impracticable.
 45.15 Main wash 2 chs. wide, course NW.
 57.20 Road, brs. E. & W.
 A wire fence runs parallel to line 250 lks. W.
 64.00 Leave valley of wash, asc.
 67.50 A stone firmly set in ground marked W.H. 6, brs. W. 40 lks.
 75.00 Top of flat ridge, brs. NNW. & ESE. desc. grad.
 80.00 Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for
 3 mile cor. marked,
 3 M. on S.,
 F.H.M.R. on E., and
 T. 21 S. R. 19 E. S. 18 on W. faces, and
 raise a mound of stone 3 ft. base 2 ft. high S. of cor.
 No bearings available. Pits impracticable.
 Land, mountainous, broken, level.
 Soil, 2nd & 3rd rate, sandy, gravelly, stony.
 Timber, few oak.
 Undergrowth, scattering oak, mesquite, cacti. good grazing.
 Mountainous land exc. difficult to survey, 40.00 chs.
 Mountainous land, ---, 16.00 chs.
 Level land, ----- 24.00 chs.

Frac. West Boundary of Fort Huachuca Military Reservation.

| | |
|--------|--|
| Chains | N. 2° 6' E. from 3 mile cor. Over mts. land desc. grad. |
| 2.75 | Wash 50 lks. wide, course NW. asc. grad. |
| 16.00 | Top flat ridge, brs. NW. desc. |
| 18.27 | To orig. cor. No. 2 of Fort Huachuca Military Reservation, which is a pine post 4 ins. sq. 4 ft. long firmly set in mound of stone marked and witnessed as described by the Surveyor General. This cor. being in a good state of preservation, I obliterate the old markings and re-mark, Cor. No. 2 F.H.M.R. on SE., T. 21 S. R. 19 E. S. 18 on NW. faces, and rebuild the mound of stone around post 5 ft. base 3 ft. high, and raise a mound of stone 5 ft. base, 4 ft. high SE. of cor. No bearings available. ground stony, pits impracticable. |
| | Here I examine carefully the line of the North Boundary of the Reservation, and find the remains of several small monuments on a straight line on the tops of the high ridges, N. 82° 34' E. from Cor. No. 2., which line prolonged, I find intersects Cor. No. 3 of the Reservation. Therefore the true bearing of the North Boundary of the Reservation is N. 82° 34' E., which agrees closely with the bearing as given by the Surveyor General. May 13, 1909. |
| | ----- May 14, 1909. At 7h a.m., 1.m.t., at Cor. No. 2 as above described, I set off 18° 35' N. on the decl. arc and 31° 36' N. on the lat. arc and determine a true meridian with the solar, Thence I run, continuing measurement, of 18.27 ^{ch.} at Cor. No. 2. N. 82° 34' E. On a true line on North Bdy. of Reservation. Over mts. land desc. |
| 25.00 | Gulch 30 lks. wide, course NW. asc. |
| 40.00 | Top of flat ridge, brs. N. & S. Set a pine post 3 ft. long 3x4 ins. 12 ins. in ground to bedrock in mound of stone for 3½ mile cor., marked, 3½ M. on W., F.H.M.R. on S., and T. 21 S. R. 19 E. S. 17 on N. faces, and raise a mound of stone 3 ft. base 2 ft. high W. of cor. No bearings available. |
| 46.80 | Desc. steep NE. slope with great difficulty. |
| 54.00 | Canyon 10 lks. wide, course NNW. asc. steep. |
| 60.10 | Ridge, brs. N. & S. desc. |
| 76.00 | Canyon 100 lks. wide, 50 ft. deep, course NNW. asc. steep |
| 80.00 | Top of ridge, brs. N. & S. desc. |
| | Set a pine post 3 ft. long 4x8 ins. 2 ft. in ground for 4 mile cor., marked, 4 M. on W., F.H.M.R. on S., and T. 21 S. R. 19 E. S. 17 on N. faces, and raise a mound of stone 3 ft. base 2 ft. high W. of cor. No bearings available. Pits impracticable. |
| | Land, mountainous, broken. Soil, 2nd & 3rd rate, stony, gravelly. Timber, few oaks in canyons. Undergrowth, scattering mesquite, oak, cacti. Mountainous land, -----40.00 chs. Mts. land exceptionally difficult to survey, -----40.00 chs. |

North Boundary of Fort Huachuca Military Reservation.

Chains

N. 82° 34' E.
 From 4 mile cor.
 Over mts. land desc. E. slope.
 2.75 Gulch 20 lks. wide, course N. asc. steep.
 23.00 Top of flat ridge, brs. N. & S.
 27.00 Desc.
 29.25 Draw 50 lks. wide, course N. asc.
 36.35 Road to Pyeatts ranch, brs. NNE. & SSW.
 Leave large mound of stone on line.
 40.00 Top of flat ridge, brs. N. & S.
 Set a pine post 3 ft. long 4x8 ins. 2 ft. in ground for
 4½ mile cor., marked,
 4½ M. on W.,
 F.H.M.R. on S., and
 T. 21 S. R. 19 E. S. 16 on N. faces, and
 raise a mound of stone 3 ft. base 2 ft. high W. of cor.
 No bearings available. Pits impracticable.
 Desc. from cor.
 56.25 Gulch 150 lks. wide, course NNE. asc.
 63.00 Ridge, brs. N. & S. desc.
 68.80 Gulch 50 lks. wide, course N. asc.
 75.10 Ridge, brs. N. & S. desc.
 80.00 Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for
 5 mile cor., marked,
 5 M. on W.,
 F.H.M.R. on S., and
 T. 21 S. R. 19 E. S. 16 on N. faces, and
 raise a mound of stone 3 ft. base 2 ft. high W. of cor.
 No bearings available. Pits impracticable.
 Land, mountainous. broken.
 Soil, 2nd & 3rd rate, sandy, stony, gravelly.
 No timber.
 Undergrowth, scattering mesquite, tesseta, cacti.
 Mountainous land, ----- 80.00 chs.

N. 82° 34' E.
 From 5 mile cor.
 Over mountainous land, desc.
 1.50 Gulch 30 lks. wide, course N. asc.
 14.00 Ridge, brs. N. & S. desc.
 28.90 Gulch 30 lks. wide, course NNE. asc.
 30.00 Ridge, brs. N. & S. desc. Thence with great difficulty over broken ld.
 37.00 Gulch 50 lks. wide, course NNE. asc. steep.
 40.00 Set a quartzite ston 24x12x8 ins. 18 ins. in the ground for
 5½ mile cor., marked,
 5½ M. on W.,
 F.H.M.R. on S., and
 T. 21 S. R. 19 E. S. 15 on N. faces, and
 raise a mound of stone 3 ft. base 2 ft. high W. of cor.
 No bearings available.
 52.00 Gulch, 50 lks. wide, course NNE. asc. steep.
 57.85 Top of spur, brs. N. & S. desc. steep over stony ground.
 65.00 Gulch 80 lks. wide, course N. asc. steep.
 72.00
 80.00 Set a pine post 3 ft. long, 3x4 ins. 2 ft. in ground for
 6 mile cor., marked,
 6 M. on W.,
 F.H.M.R. on S., and
 T. 21 S. R. 19 E. S. 15 on N. faces and
 raise a mound of stone 3 ft. base 2 ft. high W. of cor.
 No bearings available.
 Land, mountainous, broken.
 Soil, 2nd & 3rd rate, gravelly, stony.
 No timber.
 Undergrowth, scattering mesquite, cacti.
 Mountainous land, ----- 30.00 chs.
 Mountainous land, very, broken, and
 exceptionally difficult to survey, ----- 50.00 chs.
 At this cor. at noon, I set off 18 37' N. on the decl. arc
 and obs. sun on mer. The resulting lat. is 31° 36' N. ✓

North Boundary of Fort Huachuca Military Reservation.

| Chains | |
|--------|--|
| | N.82° 34' E. From 6 mile cor. Over mts. land asc. |
| 7.00 | Top of ridge, brs. N. & S. desc. Leave large flag in mound of stone on line. |
| 23.50 | Gulch 50 lks. wide, course NNE. asc. |
| 32.50 | Top of ridge, brs. N. & S. Leave flag in mound of stone. Desc. Thence with great difficulty over stony, broken land. |
| 40.00 | Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for 6½ mile cor., marked, 6½ M. on W., F.H.M.R. on S., and T. 21 S. R. 19 E. S. 14 on N. faces, and raise a mound of stone 3 ft. base 2 ft. high W. of cor. No bearings available. |
| 48.00 | Wash, 30 lks. wide, course N. asc. |
| 52.00 | Point of ridge, brs. N. & S. desc. |
| 55.45 | Old road, brs. N. & S. |
| 56.00 | Wash 30 lks. wide, course N. asc. |
| 63.00 | Top of ridge, brs. N. & S. Build mound of stone on line. Desc. |
| 78.00 | Main gulch 2 chs. wide, course NNE. |
| 80.00 | E. bank of gulch, Set a pine post 3 ft. long 3x4 ins. 2 ft. in ground for 7 mile cor., marked 7 M. on W., F.H.M.R. on S., and T. 21 S. R. 19 E. S. 11 on N. faces, and raise a mound of stone 3 ft. base 2 ft. high W. of cor. from which, A walnut tree, 12 ins. diam. brs. S. 68° W. 315 lks. dist., marked F.H.M.R. 7 M.B.T. A walnut tree 6 ins. diam. brs. N. 7½° W. 89 lks. dist., marked T. 21 S. R. 19 E. S. 11, 7 M.B.T. No other bearings available. Land mountainous, very broken. Soil, 3rd rate, stony. Timber, few walnut and mesquite in main washes. Undergrowth, mesquite, cacti. Mountainous land, ----- 32.50 chs. Mts. land, exceptionally difficult to survey, -47.50 chs. May 14, 1909. |
| | May 15, 1909. At 7h a.m. l.m.t., I set off 18° 50' N. on the decl. arc and 31° 36' 30" N. on the lat. arc and determine a true meridian with the solar, at the 7 mile cor., thence I run, N.82° 34' E. from 7. mile cor. Over mts. land asc. stony slope with great difficulty. |
| 2.00 | Top of small ridge, brs. N. & S. desc. |
| 3.50 | Wash 20 lks. wide, course NE. asc. |
| 8.50 | Wash 25 lks. wide, course NNE. |
| 12.50 | Top of ridge, brs. N. & S. Thence over smooth N. slope. |
| 40.00 | Set a pine post 3 ft. long 4 ins. sq. 2 ft. in ground for 7½ mile cor., marked, 7½ M. on W., F.H.M.R. on S., and T. 21 S. R. 19 E. S. 12 on N. faces, and raise a mound of stone 3 ft. base 2 ft. high W. of cor. No bearings available. desc. grad. Thence with great difficulty over very broken ground. |
| 42.00 | Gulch 20 lks. wide, course NE. near head. asc. steep. |
| 46.00 | Top of stony point desc. steep. |
| 57.00 | Enter valley of main wash, brs. NN.E. & SSW. |
| 60.25 | Dim road, brs. N. & S. |
| 62.50 | Main wash 2 chs. wide, course NNE. |
| 64.00 | Asc. abrupt 30 ft. leave valley. |
| 68.00 | Top of mesa, thence over broken mesa, general slope to N. many small washes and gulches. |

North Boundary of Fort Huachuca Military Reservation.

Chains.

80.00 Set a pine post 3 ft. long 4x6 ins. 2 ft. in ground for 8 mile cor., marked,
 8 M. on W.,
 F.H.M.R. on S., and
 T. 21 S. R. 19 E. S. 12 on N., and
 raise a mound of stone 3 ft. base 2 ft. high W. of cor.
 No bearings available.
 Land, mountainous, rolling., broken.
 Soil, 3rd rate, sandy, gravelly, stony.
 No timber.
 Undergrowth, scattering mesquite, ocotillo.
 Mountainous land,----- 40.00 chs.
 Mountainous land, very broken, and
 exceptionally difficult to survey,--40.00 chs

N. 82° 34' E.

from 8 mile cor.

Over very broken ground, many small washes and gulches with steep gravelly, stony slopes, over which I chain with great difficulty.

35.52 Closing cor. of Tps. 21 S. Rs. 19 & 20 E. on line, which is a granite stone 12x12x8 ins. above ground, marked and witnessed as described by the Surveyor General.

39.50 Wash 20 lks. wide, course NE.

40.00 Set a pine post 3 ft. long 4x4 ins. 2 ft. in ground for 8½ mile cor., marked,

8½ M. on W.,

F.H.M.R. on S., and

T. 21 S. R. 20 E. S. 7 on N. faces, from which,

A mesquite tree 6 ins. diam. brs. N. 15° E. 27 lks. dist., marked T. 21 S. R. 20 E. S. 7, 8½ M.B.T.

A mesquite tree 6 ins. diam. brs. S. 25° E. 19 lks. dist., marked F.H.M.R. 8½ M.B. T.

A mesquite tree 6 ins. diam. brs. S. 62° W. 23 lks. dist., marked F.H.M.R. 8½ M.B.T.

A mesquite tree 6 ins. diam. brs. N. 22° W. 51 lks. dist., marked T. 21 S. R. 20 E. S. 7. 8½ M.B.T.

41.10 Asc. stony slope.

49.50 Gulch 21 lks. wide, course NW.

62.00 Top of ridge, brs. N. & S. Desc. over smooth land.

67.94 Main road, brs. NW. & SE. enter dense mesquite brush.

80.00 Set a pine post 3 ft. long 3x8 ins. 2 ft. in ground for 9 mile cor., marked,

9 M. on W.,

F.H.M.R. on S., and

T. 21 S. R. 20 E. S. 7 on N. faces, and

dig pits 36x36x12 ins. N. & S. of cor. 4 ft. dist. and

raise a mound of earth 5 ft. base 3 ft. high W. of cor.

Trees in limits too small.

No other bearings available.

Land, mountainous, broken, rolling.

Soil, 2nd & 3rd rate, sandy, gravelly, stony.

No timber.

Undergrowth, mesquite, tesseta, ocotillo.

Mountainous land, very broken, and exceptionally difficult to survey,--- 62.00 chs.

Mountainous land or land covered with dense undergrowth,----- 18.00 chs.

At this cor. at noon, I set off 18° 51' 30" N. on the decl. arc and observe the sun on the meridian,
 The resulting lat. is 31° 37' N.

North Boundary of Fort Huachuca Military Reservation.

Chains

N. 82° 34' E. from 9 mile cor.

Over rolling land, through dense mesquite brush.

8.00 Enter valley of wash.

11.40 Wash 2 chs. wide, course NNE.

13.00 Leave valley and ascend.

16.00 Top, leave undergrowth, thence over very broken stony land with great difficulty.

34.10 Find closing cor. of secs. 7 & 8 of T.21S.R.20E. on line.

36.00 Gulch 30 lks. wide, course N. Over very stony ground.

40.00 Set a pine post 3 ft. long 4x4 ins. 2 ft. in ground for 9 1/2 mile cor., marked,

9 1/2 M. on W.,

F.H.M.R. on S., and

T. 21 S. R. 20 E. S. 8 on N. faces, and

raise a mound of stone 3 ft. base 2 ft. high W. of cor.

No bearings available.

53.30 Gulch 50 lks. wide, course NNE. asc. steep.

60.18 To Cor. No. 3, which is a pine post 4 ft. long 4 ins. sq. marked and witnessed as described by the Surveyor General.

This post being in a good state of preservation, I obliterate the old markings and re-mark,

Cor. No. 3 F.H.M.R. on SW., and

T. 21 S. R. 20 E. S. 8 on NE. faces and re-set same 6 ins. in ground to bedrock in mound of stone 4 ft. base 3 ft. high, and

raise a mound of stone 5 ft. base 4 ft. high SW. of cor. from which,

"Old Baldy", Santa Rita Mts., brs. N. 80° 03' W.

Hospital house, Fort Huachuca, brs. S. 19° 40' W.

N.W. Gable of house of Geo. H. Clark, brs. S. 29 3/4° E. about 10 chs.

Highest peak of Dragoon Mts. brs. N. 42° 55' E.

No trees available. Pits impracticable.

Land, mountainous, broken.

Soil, 2nd & 3rd rate, stony.

No timber.

Undergrowth, mesquite,

Land covered with dense undergrowth, ----- 16.00 chs.

Mountainous land very broken and stony,

and exceptionally difficult to survey, ----- 44.18 chs.

General Description.

This part of Bdy. of the Fort Huachuca Military Reservation is over a succession of rolling ridges, general trend northerly, the Easter part of the line being over a very stony, broken mesa.

The land to the South and East of the line lying in the Reservation is more gently rolling, and grassy.

There is no water of permanent character on or near the line and none can be developed except by deep boring.

The formation appears to be mostly a conglomerate, of lime and sandstone and quartz., being the accumulation of debris from the weathering of the Huachuca mountains.

There are no settlers near the line within the Reservation.

There is some oak timber in the NW. portion, and some mesquite in the larger washes in the Northern part of the Reservation.

The land to the South and East of the line is mostly covered with good native grass, with no undergrowth.

In my survey of this line, having employed my assistants in the immediate vicinity if the work and as great delay and expense would have been incurred to appear before a Notary Public or other officer duly qualified to administer oaths, I was compelled to administer the preliminary and final oaths to my assistants.

May 15, 1909.

Jesse B. Wright, U.S. Deputy Surveyor.

No authority for red ink correction see Deputy's letter of Sept. 7-09.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Jesse B. Wright

J, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of

North Bdy & Ene. W. Bdy of Huachuca Military Reservation

showing the respective capacities in which they acted:

- Walter Percival Chainman.
- Rollin Brown Chainman.
- Joe L. Finley Moundman.
- Moundman.
- Axman.
- Axman.
- Aubrey W. Anderson Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Jesse B. Wright

J, United States Deputy Surveyor, in surveying all those parts or portions of the

North Boundary and Ene. West Boundary of Fort Huachuca Military Reservation of the _____ meridian, _____ of Arizona, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Arizona

- Walter Percival Chainman.
- Rollin Brown Chainman.
- Joe L. Finley Moundman.
- Moundman.
- Axman.
- Axman.
- Aubrey W. Anderson Flagman.

Subscribed and sworn to before me this 15th day of May, 1909

Jesse B. Wright
U.S. Deputy Surveyor.



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BOOK 2163
FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Jesse B Wright, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls, United States Surveyor General for Arizona, bearing date of the 9th day of February, 1909, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

North Boundary and
Sec. West Boundary of
Fort Huachuca Military Reservation of the _____
meridian in the _____ of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States 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 survey.

Jesse B. Wright
United States Deputy Surveyor.

Subscribed by said Jesse B Wright, and sworn to before me
this 4th day of June, 1909

W. H. ...
U. S. ...



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. July 20 - 1910

The foregoing field notes of the survey of North and Section of West
Boundary of the Fort Huachuca Military Reservation
Arizona

executed by Jesse B Wright U. S. Dep. Sur.
under his contract No. 157, dated July 9, 1909, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

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.

United States Surveyor General.