

Book 16

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2047

BOOK 2047

SEP 26 1906

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

TOWNSHIP 23 SOUTH,

Range 20 EAST.

2047

2047

2047

Of the GILA & SALT RIVER BASE AND Meridian,

Territory of Arizona.

AS SURVEYED BY

Philip Contzen, United States Deputy Surveyor,

Under his Contract No. 138, dated April 12, 1906., 189

Survey commenced July 14, 1906., 189

Survey completed August 10, 1906., 189

6-151

2047

NAMES AND DUTIES OF ASSISTANTS.

Arthur Pogue, Chairman,

Harry Mallory, Chairman,

Louis Renaud, Moundman,

L. C. Miller, Arman,

Wiley Boy, Flagman

Book No. 2047

BOOK 2047
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POWER OF
NOTARY
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PIMA CO ARIZONA

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BOOK 2047

PRELIMINARY OATHS OF ASSISTANTS.

WE, Arthur Pogue and Harry Mallory
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over 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

the subdivisions of T. 23 S. R. 20 E

Arthur Pogue, Chainman.

Harry Mallory, Chainman.

Subscribed and sworn to before me this 6th
day of July, 1906

W. G. Power



WE, Louis Renaud and

do solemnly swear that we will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given ^{me} us, to the best of ^{my} our skill and ability, in the survey of

the subdivisions of T. 23 S. R. 20 E

Louis Renaud, Moundman.

, Moundman.

Subscribed and sworn to before me this 6th
day of July, 1906

W. G. Power



WE, L. C. Millar and

do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given ^{me} us, to the best of ^{my} our skill and ability, in the survey of

the subdivisions of T. 23 S. R. 20 E

L. C. Millar, Axman.

, Axman.

Subscribed and sworn to before me this 6th
day of July, 1906

W. G. Power



I, Wiley Box, 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

the subdivisions of T. 23 S. R. 20 E

Wiley Box, Flagman.

Subscribed and sworn to before me this 6th
day of July, 1906

W. G. Power



Survey commenced July 14, 1906, and executed with a Young & Sons light mountain transit, Smith's Solar Attachment No. 5609. 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 the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona, July 1, 1906.

I examine the adjustment of the transit, and correct the level and collimation errors; then, to test the solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., previously described; latitude $31^{\circ} 22' N.$, longitude approximately $110^{\circ} 16' W.$, I set off $31^{\circ} 22' N.$ on the lat. arc, and $21^{\circ} 44' N.$ on the decl. arc, and at 5h 5m., p.m., l.m.t., determine with the solar a meridian and mark the point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

July 14, 1906.

July 15: At 0 h 3 m., A.M. by my watch, which is 2 m fast of l.m.t., I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

At 6 h 55 m a.m., l.m.t., I lay off the Azimuth of Polaris $1^{\circ} 25'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set July 14, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 7 a.m., I set off $31^{\circ} 22' N.$ on the lat. arc and $21^{\circ} 36' N.$ on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.4 ins. east of the meridian established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations, defines positions for meridians, respectively about $0^{\circ} 16'$ East and $0^{\circ} 21'$ East of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7 a.m., is $N. 13^{\circ} 27' W.$; the angle thus determined gives the mag. decl. $13^{\circ} 27' E.$

Subdivision of T. 23 S., R. 20 E.

chains	From Cor. of secs. 1, 2, 35 and 36 on the S. bdy. of tp. 1 run
28.80	N. 0° 1' 30" Secs. 35 and 36. Over mountainous land, ascending through scattering oak and pinon timber and dense brush. Top of rocky spur, 1200 ft. above sec. cor., bears E. and W. brs. E. and W.,
40.00	Leave dense brush, descend. Set a porphyrite stone 18 X 6 X 6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pine tree, 9 ins. in diam., brs. N. 80° 30' E., 10 lks. dist., marked $\frac{1}{4}$ S 36 B T . A pine 12 ins. in diam. S. 20° W., 19 lks. dist., marked $\frac{1}{4}$ S 35 B T .
42.50	Cor. 400 ft. below spur. Gulch 60 lks. wide course E.; ascend through dense brush.
56.00	Spur extends east 500 ft. above gulch. Leave dense brush and descend steep slope, brs. E. and W.
72.20	S. fork of Hunter Canyon, 600 ft. below spur, 40 lks. wide course E.N.E.
80.00	Reenter dense brush, ascend. Set a granite stone 18 X 6 X 6 ins., 12 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked with 1 notch on the S. and E. edges, from which An oak, 8 ins. in diam., bears N. 18° 45' E. 97 lks. dist., marked T 23 S R. 20 E S 25 B T . An oak, 18 ins. diam., bears S. 47° E, 83 lks. dist., marked T 23 S R 20 E S 36 B T . A pine, 20 ins. diam., bears S. 64° 30' W., 87 lks. dist., marked T. 23 S R 20 E S 35 B T . A pine, 18 ins. diam, bears N. 50° W. 150 lks. dist., marked T. 23 S R 20 E S 26 B T . Land, mountainous. Soil, stony and rocky; 4th rate. Timber, scattering oak, pine, fir, pinon, ash and madrona; undergrowth, oak, locust, buck brush mezcal and cacti. Mountainous, and dense undergrowth, exceptionally difficult to survey, 80 chs. July 15 th, 1906 at this cor. I set off 21° 36' W. on the decl. arc; and at 12h 5m. 1.m.t., observe the sun on the meridian; the resulting lat. is 31° 23' N.
40.00	East on a random line bet. secs. 25 and 36. Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect E. bdy. of tp., 11 lks. S. of cor. of secs. 25, 30, 31 and 36, previously described. Thence I run S. 89° 55' W. on a true line bet. secs. 25 and 36. Over mountainous land, ascending through scattering timber and dense brush.
17.00	Spur extends N. E.; descend along N. slope of spur.
39.95	Set a limestone, 21 X 8 X 6 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which An oak, 6 ins. diam., bears S. 12° 30' W., 40 lks. dist., marked $\frac{1}{4}$ S 36 B T . A pinon, 7 ins. diam., bears N. 31° 45' W., 20 lks. dist., marked $\frac{1}{4}$ S 25 B T .
50.85	Gulch 20 lks. wide, course N.E.
66.90	Gulch 15 lks. wide course N.
69.30	S. fork of Hunter Canyon, 4 chs. wide course N.E.; ascend.
79.90	The cor. of secs. 25, 26, 35 and 36. Land, mountainous. Soil, stony and rocky; 4th rate. Timber, scattering oak, pine, pinon, ash, madrono, and maple; undergrowth, oak, manzanito, locust, mezcal, buck brush and cacti. Mountainous, and dense undergrowth, exceptionally difficult to survey, 79.90 chs.
	N. 0° 1' E. bet. secs. 25 and 26.

Subdivision of T. 23 S., R. 20 E.

chains *Over mountainous land, ascending through scattering*
 oak and pinon timber and dense brush.
 11.00 Spur extends E. N. E.; descend steep slope.
 28.60 Middle fork of Hunter canyon, 80 lks. wide course E.N.E.
 600 ft. below spur; ascend.
 40.00 Set a limestone 18 X 8 X 6 ins., 12 ins. in the ground,
 for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
 X An oak, 8 ins. diam., bears S. 36° E., 15 lks. dist.,
 marked $\frac{1}{4}$ S. 25 B T.
 An oak, 24 ins. diam., bears N. 6° W., 72 lks. dist.,
 marked $\frac{1}{4}$ S 26 B T.
 47.00 Spur extends east; descend steep slope.
 53.40 Gulch 30 lks. wide, course N.E.
 71.00 Gulch 20 lks. wide course E.; ascend, 800 ft. below spur.
 74.00 Spur. extends E.; descend.
 75.50 Shaft 4 chs. W.
 80.00 Set a granite stone 18 X 8 X 6 ins., 12 ins. in the ground,
 for cor. of secs. 23, 24, 25 and 26, marked with 1
 notch on the E. and 2 notches on the S edges, from which
 An oak, 6 ins. diam., bears N. 15° 45' E., 89 lks. dist.,
 marked T 23 S R 20 E S 24 B T.
 A pine, 28 ins. diam., bears S. 33° E., 150 lks., dist.,
 marked T 23 S R 20 E S 25 B T.
 An oak, 5 ins. diam., bears S. 67° 30' W., 14 lks. dist.,
 marked T 23 S R 20 E S 26 B T.
 An oak, 24 ins., diam, bears N. 58° W., 46 lks. dist.,
 marked T 23 S R 20 E S 23 B T.
 Land, mountainous.
 Soil, stony and rocky; 4th rate.
 Timber, scattering oak, pine, pinon, ash; undergrowth,
 oak, manzanita, buck brush, mesoal and cacti.
 Mountainous and dense undergrowth exceptionally difficult
 to survey, 80.00 chs.

July 15, 1906.

July 16: At 7 a.m., l.m.t., I set off 21° 29' N. on the
 decl. arc and 31° 24' N on the lat. arc; and determine
 a true meridian at the cor. of secs. 23, 24, 25 and 26.
 Thence I run

N. 89° 55' E. on a random line bet. secs. 24. and 25.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.20 Intersect East bdy of tp., previously described, 14 lks
 N. of cor.
 Thence I run
 N. 89° 59' W. on a true line bet. secs. 24 and 25.
 Over mountainous land, descending through scattering
 oak timber.
 36.00 Enter heavy oak timber, bears N.W. & S.E.
 39.30 Gulch 30 lks. wide course S. E. Ascend through dense oak
 brush.
 40.10 Set a granite stone 18 X 8 X 5 ins., 12 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N face; from which
 An oak, 6 ins. diam., bears S. 30° E., 19 lks. dist.,
 marked $\frac{1}{4}$ S. 25 B T.
 An oak, 24 ins. diam, bears N. 68° W., 46 lks. dist.,
 marked $\frac{1}{4}$ S 24 B T.
 51.50 Spur extends South, descend.
 65.50 Gulch 15 lks. wide course S.
 67.00 Leave heavy oak timber bears N.W. & S.E.
 70.50 N. fork of Hunter Canyon 30 lks. wide course S.E.
 77.70 Cut 4 X 40 ft 5 lks. S.
 80.20 The cor. 23, 24, 25 and 26.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, oak and scattering
 madrono and pine; undergrowth, oak, manzanite and cacti.
 Mountainous, heavily timbered and dense undergrowth
 exceptionally difficult to survey, 80.20 chs.
 July 16: At 12 h., 6 m., l.m.t. (p.m.) I set off 21° 26'
 N. on the decl. arc; and observe the sun on the meridian;
 the resulting lat. is 31° 24' N.

chains North 0° 1' W. bet. secs. 23 and 24.
 Over mountainous land, descending through oak timber and dense brush.

6.50 Gulch, 20 lks. wide, course E.
 7.90 Gulch, 20 lks. wide, course S.E., ascend.
 25.50 Top of N.W. slope of ridge, brs. N.W. and S.E.; descend.
 28.75 Gulch 15 lks. wide course N.W., enter heavy oak timber.
 33.44 Log fence brs. N.W. and S.E.
 34.20 Leave timber and brush; enter cultivated ground brs. N.W. & SE
 37.00 Leave patch, reenter timber and dense brush, brs. E.N.E. and W.S.W.
 37.20 Road brs. E.N.E. and W.S.W.
 38.00 Miller Creek 25 lks. wide, course N.E., 12 ins. deep. Enter Miller Canyon course N.E., 700 ft. below ridge.
 39.75 Road brs. N.E. and S.W.
 40.00 Set a granite stone, 18 X 14 X 7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
 An oak, 6 ins. diam., brs. N. 12° 30' E., 53 lks. dist., marked $\frac{1}{4}$ S 24 B T,
 An oak, 6 ins. diam., brs. S. 18° W., 35 lks. dist., marked $\frac{1}{4}$ S 23 B T.

41.10 Log fence brs. N.E. and S.W.
 42.40 Road brs. N.E. and S.W.
 42.53 Telephone line brs. N.E. and S.W.
 43.70 Old road brs. S.E. and N.W.; leave canyon, ascend gradually over stony ground sloping E.
 58.90 Gulch, 10 lks. wide, course S.E.; begin steep ascent.
 66.70 Spur extends East; descend.
 74.50 Gulch, 20 lks. wide, course E.S.E.; ascend.
 80.00 Set a granite stone, 21 X 10 X 8 ins., 15 ins. in the ground, for cor. of secs. 13, 14, 23 and 24, marked with 1 notch on E. and 3 notches on S. edges; from which
 An oak, 12 ins. diam., brs. N. 58° E., 27 lks. dist., marked T 23 S R 20 E S 13 B T,
 An oak, 16 ins. diam., brs. S. 70° 45' E., 28 lks. dist., marked T 23 S R 20 E S 24 B T.
 An oak, 9 ins. diam., brs. S. 7° W., 38 lks. dist., marked T 23 S R 20 E S 23 B T.
 An oak, 8 ins. diam., brs. N. 5° W., 25 lks. dist., marked T 23 S R 20 E S 14 B T.

Land, mountainous.
 Soil, gravelly loam, gravelly and stony and rocky; 2nd 3rd and 4th rate.
 Timber, oak, and scattering pine, madrono and juniper. Sycamore, walnut and ash along creek.
 Undergrowth, oak, manzanito and mezcal.
 Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs. July 16, 1906.

July 17: At 7 a.m., l.m.t., I set off 21° 19' N. on the decl. arc; and 31° 25' N on the lat. arc; and determine a true meridian at the cor. of secs. 13, 14, 23 and 24.
 Thence I run
 East on a random line bet. secs. 13 and 24.
 39.97 $\frac{1}{4}$ sec. cor., which I find as described by the surveyor general.
 Thence I run
 West on a true line bet. secs. 13 and 24.
 Over level land, through heavy oak timber.

.24 Road brs. E.N.E. and W.S.W.
 2.25 Same road brs. E.S.E. and W.S.W.
 3.64 Wire fence brs. E.S.E. and W.N.W.
 4.60 Leave Miller's Canyon, brs. E. and W., ascend over mountainous land.
 8.60 Top of spur extends N.; descend.
 12.17 Wire fence brs. N. 73° 30' E. & S. 73° 30' W. from land.
 14.60 Reenter canyon brs. E.N.E. and W.S.W.; leave mountainous land.
 18.55 Miller's Creek 12 ins. deep. stony bottom, rapid current, 20 lks. wide, course N.E.
 22.56 Wire fence brs. N.E. and S.W.
 23.65 Road brs. N.E. and S.W.
 25.25 Wire fence brs. N.E. and S.W.

Subdivision T 23 S., R 20 E.

chains

30.30
30.93
32.60
36.45
36.00
38.90
39.97

House brs. S. 3.00 chs. dist.
Telephone line brs. N.E. and S.W.
Stable brs. S. 3.40 chs. dist.
J. S. Palmee's house brs. S. 25 lks. dist.
Stable brs. S. 190 lks. dist.
Gulch, 20 lks. wide, course S.E.; leave canyon, ascend. through dense brush over mountainous land.
The cor. of secs. 13, 14, 23 and 24.
Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak and scattering pine, juniper and ash.
Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 39.97 chs.
July 17: At 12 h 6 m p.m., l.m.t., I set off 21° 17' N. on the decl. arc and observe the sun on the meridian; the resulting lat. is 31° 25' N.

11.80
12.65
16.85
21.55
22.00
24.50
27.00
29.60
30.00
33.00
40.00
45.30
51.60
68.20
72.00
76.30
78.62
80.00

N. 0° 1' W., bet. secs. 13 and 14.
Over mountainous land, along E. slope of mountain, through heavy timber and dense brush.
Gulch 20 lks. wide, course E.
Old road brs. E. and W.
Gulch, 15 lks. wide, course E.
Road brs. S.S.E and N.N.W.
Pipe line brs. S.S.E. and N.N.W.
Spring branch, 5 lks. wide, course S.E.; ascend.
Spring and head of pipe line, 160 lks. wide course W.
Log cabin, brs. W. 3.00 chs. dist.
Top of spur, extends E.
Descend.
Set a granite stone, 18 X 6 X 6 ins., 12 ins. dia. in ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
An oak, 8 ins. diam., brs. N. 38° 30' E., 53 lks. dist., marked $\frac{1}{4}$ S 13 B T.
An oak, 12 ins. diam., brs. N. 55° 30' W., 42 lks. dist., marked $\frac{1}{4}$ S 14 B T.
Head of gulch, course E.N.E.; ascend.
Gulch, 25 lks. wide, course E.
Spur, extends E.
Descend.
Gulch, 40 lks. wide, course N.E.; ascend.
Spur extends E., wire fence brs. E. and W.; descend.
Set a granite stone, 18 X 8 X 8 ins., 12 ins. in ground, for cor. of secs. 11, 12, 13 and 14, marked with 1 notch on E. and 4 notches on S. edge, from which
An oak, 5 ins. diam., brs. N. 34° E., 67 lks. dist., marked T 23 S R 20 E S 12 B T,
An oak, 6 ins. diam., brs. S. 75° 15' E., 29 lks. dist., marked T 23 S R 20 E S 13 B T,
An oak, 12 ins. diam., brs. S. 47° 30' W., 79 lks. dist., marked T 23 S R 20 E S 14 B T,
An oak, 6 ins. diam., brs. N. 68° W., 45 lks. dist., marked T 23 S R 20 E S 11 B T,
Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak and scattering madrono and pine.
Undergrowth, oak, laurel, manzanite.
Mountainous land, land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

July 17, 1906.

40.00
80.10

July 18: At 7 a.m., l.m.t., I set off 21° 9' N. on the decl. arc; and 31° 26' on the lat. arc, and determine a true meridian with the solar at the cor. of secs. 11, 12, 13, 14. Thence I run East on a random line bet. secs. 12 and 13.
Set temp. $\frac{1}{4}$ sec. cor.
Intersect E. bdy. of tp. 8 lks. N. of cor. of secs. 7, 12, 13 and 14, which is a granite stone, firmly set, marked and witnessed as described by the surveyor general.
Thence I run

Subdivision of T. 23 S., R. 20 E.

chains	N. 89° 57' W., bet. secs. 12 and 13. Overmountainous land, ascending through scattering oak timber.
1.30	Small gulch, extends E.E.; descend.
9.00	Gulch, 25 lks. wide, course N.E.; ascend over rocky ground.
24.60	Top of N. slope of spur; descend.
30.20	Gulch, 20 lks. wide, course N.E.; begin steep ascent.
40.05	Set a granite stone, 18 X 10 X 8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which An oak, 10 ins. diam., brs. N. 37° 45' E., 66 lks. dist., marked $\frac{1}{4}$ S 12 B T, An oak, 9 ins., diam., brs S. 28° 45' W., 53 lks. dist., marked $\frac{1}{4}$ S 13 B T. This cor. stands about 800 ft. above cor. of secs. 7, 12 13 and 18.
42.00	Spur extends N., descend.
45.60	Gulch, 20 lks. wide, course N., enter heavy oak timber.
63.20	Deep gulch, 60 lks. wide, course N., ascend steep slope, through dense oak brush.
68.00	Wire fence, brs. S.W. and N.E.
75.10	Gulch, 20 lks. wide, course N., ascend.
80.10	The cor. of secs. 11, 12, 13 and 14. Land, mountainous. Soil, gravelly, stony and rocky; 23rd and 4th rate. Timber, oak, sycamore, ash, in gulch, Undergrowth, oak and laurel. Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs. July 18: At 12 h. 6 m., p.m., l.m.t., I set off 21° 9' N on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 26' N.
40.00	N. 0° 1' W. on random line bet. secs. 11 and 12. Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect the E. and W. line, 7 lks. E. of cor. of secs. 1, 2, 11 and 12, which I find as described by the surveyor General. Thence I run S. 0° 4' E. on a true line bet. secs. 11 and 12. Over mountainous land, ascending.
3.25	Top of ridge brs. E. and W., descend.
11.25	Enter canyon, brs. E. and W.
19.35	Road brs. E. and W.
20.00	Wire fence brs. E. and W.
22.05	Carr's Creek, 6 ins. deep, stony bottom, rapid current, 20 lks. wide, course E. Enter heavy oak timber and dense undergrowth; ascend.
23.15	Leave canyon, brs. E. and W.
39.90	Set a granite stone, 18 X 10 X 5 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which An oak, 10 ins. diam., brs. N. 65° E., 55 lks. dist., marked $\frac{1}{4}$ S 12 B T., An oak, 6 ins. diam., brs. N. 52° 30' W., 22 lks. dist., marked $\frac{1}{4}$ S 11 B T.
41.90	Top of spur extends N.E., enter heavy oak timber and scattering brush.
45.65	Descend.
56.25	Gulch 30 lks. wide course N.E., 700 ft. below sec. cor. Enter dense brush, thence along N.E. slope of spur.
79.90	The cor. of secs. 11, 12, 13 and 14. Land, mountainous and level. Soil, gravelly and stony; 3rd and 4th rate. Timber oak, some sycamore and ash along creek. Undergrowth, oak. Mountainous land, heavily timbered or covered with dense underbrush, exceptionally difficult to survey 79.90 chs. July 18, 1906
	July 19: At 7 a.m., l.m.t., I set off 20° 59' N. on the decl. arc; and 31° 23' N. on the lat. arc, and determine a true meridian at the cor. of secs. 2, 3, 34 and 35. Thence I run North 0° 1' W., bet. secs. 34 and 35. Over mountainous land, descending along E. slope of

Subdivision of T. 23 S R. 20 E.,

chains mountain, through scattering pine timber and dense brush.
 4.00 Enter heavy timber, brs. E. and W.
 19.00 Black Bear Mining Camp is about 20 chs. E.
 24.00 North fork of Ash Canyon. 800 ft. below sec. cor., 60
 lks. wide, course S.E. Leave heavy timber, begin steep ascent.
 26.35 Cut, 4 X 20 ft., on line.
 34.00 Spur extends E.
 40.00 Set a limestone, 18 X 8 X 8 ins., 12 ins. in the ground,
 for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound
 of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits
 impracticable.
 47.00 Gulch, course S.E. Begin steep ascent.
 71.00 Top of slope of Miller Peak Descend steep grade.
 80.00 Set a limestone, 8 X 10 X 18 ins., in mound of stone,
 for the cor. of secs. 27, 28, 33 and 34, marked with 3
 notches on E., and 1 notch on S. edge, and raise a mound
 of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits
 impracticable.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber pine, and oak. Undergrowth, oak, mezoal.
 Mountainous land, heavily timbered or covered with dense
 undergrowth, exceptionally difficult to survey, 80.00 chs.
 July 19: At 12 h 6 m., p.m., l.m.t. I set off 20° 56' N.
 on the decl. arc; and observe the sun on the meridian,
 the resulting lat. is 31° 24' N'

40.00 East on a random line bet. secs. 26 and 35.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.90 Intersect the N. and S. line, 20 lks. N. of cor. of secs.
 25, 26, 35 and 36.
 Thence I run N. 89° 51' W. bet. secs. 26 & 35, on a true line.
 Over mountainous land, ascending through scattering tim
 ber and dense brush.
 29.00 Enter heavy timber, course N.E.
 39.95 Point for $\frac{1}{4}$ sec. cor. falls in gulch 15 lks. wide, course N.
 impracticable to establish cor. at this point.
 40.50 Set a limestone, 18 X 8 X 6 ins., 12 ins. in the ground,
 for witness cor. to $\frac{1}{4}$ sec. cor., marked W C $\frac{1}{4}$ S on N.,
 face from which
 An oak, 10 ins. diam., brs. S. 18 $\frac{1}{2}$ ° E., 39 lks. dist.,
 marked W C $\frac{1}{4}$ S 35 B T,
 An oak, 12 ins. diam., brs. N. 8° W., 27 lks. dist.,
 marked W C $\frac{1}{4}$ S 26 B T.
 This cor. stands 40 lks. E. of limestone boulder, 40 X
 40 X 30 ft. above ground.
 44.60 Gulch, 30 lks. wide, course N.E., ascend steeper grade
 over limestone boulders, and ledges.
 68.00 Gulch, 25 lks. wide course N.E., leave heavy timber.
 79.90 The cor. of secs. 26, 27, 34 and 35.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber pine, oak, pinon, madrono, balsam, spruce, aspen.
 Undergrowth, oak, buckbrush, aspen, mezoal.
 Mountainous land, heavily timbered or covered with dense
 undergrowth, exceptionally difficult to survey, 79.90 chs.
 July 19, 1906.

July 20: At 7 a.m., l.m.t., I set off 20° 48' N. on the
 decl. arc; and 31° 24' N. on the lat. arc, and determine
 a true meridian at the cor. of secs. 26, 27, 34, 35.
 Thence I run
 N. 0° 1' W., bet. secs. 26 and 27.
 Over mountainous land, descending steep slope from
 Miller's Peak, through pine timber and oak brush.
 10.00 Descend over high ledges.
 23.90 Gulch, 30 lks. wide, course N.E.; leave ledges.
 28.80 Cut, 6 X 6 X 20 ft., brs. W. 20 lks. dist.

*For bearing to A. L. M.
 see supplemental notes
 page 1. heret. attached.*

Subdivision of T. 23 S., R. 20 E.

chains
 40.00 Falls on blanket ledge of granite marked with cross (x) with $\frac{1}{4}$ on W. exact $\frac{1}{4}$ sec. cor. from which
 A pine, 24 ins. diam., bears N. 47° 30' E. 40 lks. dist. marked $\frac{1}{4}$ S 25 B T.
 An oak, 7 ins. diam., bears S. 59° 30' W., 26 lks. dist., marked $\frac{1}{4}$ S 27 B T.
 This cor. stands about 1600 ft. below sec. cor.
 57.30 Trail bears E. and W.; enter Miller's canyon, 800 ft. below $\frac{1}{4}$ sec. cor.
 59.30 Miller's Creek 20 lks. wide course E., begin steep, rocky ascent, through dense oak and buck brush; leave timber.
 80.00 Set a granite stone 18 X 6 X 5 ins., 12 ins. above ground, for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on the E. and S. edges, from which
 An oak, 10 ins. diam., bears N. 25° 30' E., 10 lks. dist., marked T 23 S R 20 E S 23 B T.
 A pine, 20 ins. diam., bears S. 28° 15' E., 35 lks. dist., marked T 23 S R 20 E S 26 B T.
 A pinon, 6 ins. diam., bears S. 66° W., 97 lks. dist., marked T 23 S R 20 E S 27 B T.
 An oak, 16 ins. diam., bears N. 80° 15' W., 131 lks. dist., marked T 23 S R 20 E S 22 B T.
 This cor. is about 900 ft. above canyon.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, pine, fir, oak, balsam and aspen, ash and spruce, Undergrowth, oak, buck brush, young pine and aspen, locust and mezcal.
 Mountainous land, and dense ~~undergrowth~~ exceptionally difficult to survey, 80.00 chs.
 July 20: at 12 h. 6m., l.m.t., (p.m.) I set off 20° 45' N. on the decl. arc and observe the sun on the meridian, the resulting lat. is 31° 24' N.

Thence I run
 40.00 S. 89° 51' E. on a random line bet. secs. 23 and 26. Set temp. $\frac{1}{4}$ sec. cor. line
 80.10 Intersect N. and S. line 13 lks., S. of cor. of secs. 23, 24, 25, and 26.
 Thence I run
 N. 89° 57' W. on a true line bet. secs. 23 and 26.
 Over mountainous land; ascending through oak timber and dense brush.
 17.00 Top of spur, 800 ft. above sec. cor.; extends N.E.
 36.00 Tent 9 chs. N., in canyon.
 36.70 House 9 chs. N.
 38.00 Dam, head pipe line to Tombstone, 9 chs. N.
 39.66 Wire fence bears N. E. and S.W.
 40.05 Set a granite stone, 18 X 14 X 6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N face, from which
 An oak, 14 ins. diam., bears N. 35° 15' E., 35 lks. dist., marked $\frac{1}{4}$ S 23 B T.
 An oak, 18 ins. diam., bears S. 6° W., 6 lks. dist., marked $\frac{1}{4}$ S 26 B T.
 44.70 Enter Miller's canyon, 700 ft. below spur, extends N.E.
 45.90 Trail bears N.E. and S.W.
 46.50 Miller's creek 30 lks. wide course N.E..
 47.20 Leave canyon, begin steep ascent.
 62.00 Gulch 20 lks. wide course S.E.
 74.00 Ascend over bluffs.
 75.00 Top of ascent, bears N. and S., 1800 ft. above canyon, descend.
 78.00 Gulch 15 lks. wide course S.
 80.10 The cor. of secs. 22, 23, 26 and 27, 12 ins. in ground.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, oak, scattering pine, pinon, juniper, madrone and maple; sycamore, ash and walnut in canyon; undergrowth, oak, manzanita, mescal and cacti.

Subdivision of T. 20 S., R. 20 E.

chains. mountainous ^{land} and dense undergrowth, and exceptionally difficult to survey, 80.10 chs. July 20, 1906.

July 21: At 7 a.m., l.m.t., I set off 20° 37' N. on the decl. arc; and 31° 24' N. on the lat. arc, and determine a true meridian at the cor. of secs. 22, 23, 26 and 27. Thence I run N. 0° 1' W. bet. secs. 22 and 23. Over mountainous land, ascending, through scattering timber and dense brush.

2.30 Top of ridge bears E and W.; thence along E. slope of ridge over rocky ground.

16.00 Sharp spur extends E.; begin steep descent.

38.00 Gulch 30 lks. wide course E.; 600 ft. below spur, Ascend.

40.00 Set a limestone 18 X 8 X 6 ins., 12 ins. in the ground, for 1/4 sec. cor., marked 1/4 on W. face, and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

55.00 Top of bluff extends E.N.E.; 400 ft. above 1/4 sec. cor. Ascend.

63.60 Spur extends N.E.; descend.

80.00 Set a quartzite 18 X 8 X 6 ins., in mound of stone for cor. of secs. 14, 15, 22 and 23, marked with 2 notches on the E. and 3 notches on the S. edge, from which

An oak, 18 ins. diam., bears N. 62° E., 27 lks. dist., marked T 25 S R 20 E S 14 B T.

An oak, 12 ins. diam., bears S. 60° 45' E., 122 lks. dist., marked T 25 S R 20 E S 23 B T.

An oak, 14 ins. diam., bears S. 51° W., 55 lks. dist., marked T 23 S R 20 E S 22 B T.

An oak, 8 ins. diam., bears N. 25° 30' W., 59 lks. dist., marked T 23 S R 20 E S 15 B T.

Land, mountainous.
Soil, stony and rocky; 4th rate.
Timber, scattering oak, pine, pinon, fir and madrono; undergrowth, oak, buck brush, manzanito, lecheguilla, and cacti.
Mountainous land, dense undergrowth and exceptionally difficult to survey, 80.00 chs.

July 21: At 12 h 6 m., p.m., l.m.t., I set off 20° 34' N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 31° 25' N.

Thence I run S. 89° 57' E. on a random line bet. secs. 14 and 23.

40.00 Set temp. 1/4 sec. cor.

80.08 Intersect N. and S. line 16 lks. S. of cor. of secs. 13, 14, 23 and 24, thence I run S. 89° 56' W. on a true line bet. secs. 14 and 23. Over mountainous land; ascending, through scattering timber and dense brush.

40.04 1/4 sec. cor. falls on face of bluff, impracticable to establish.

44.00 Set a porphyrite stone, 18 X 6 X 6 ins., in mound of stone for witness cor. to 1/4 sec. cor., marked W.C. 1/4 on N. face; from which

A pinon, 6 ins. diam., bears S. 57° E., 3 lks. dist., marked W.C. 1/4 S 23 B T.

A Pinon, 6 ins. diam., bears N. 41° 15' E., 42 lks. dist., marked W.C. 1/4 S 14 B T.

This cor. stands on edge of bluff 400 feet down from the true point.

40.70 Head of crevice 20 lks. wide, 400 ft. deep.

51.00 Begin descent along N. slope of spur.

62.00 Exposed reef of mineral quarries bears 5 chs. N.

72.00 Gulch 15 lks. wide course N.

74.53 A wire post, 4 X 4 ins., in mound of stone brs. 4 lks. S.

Subdivision of T. ²³ S., R. 20 E.

chains

78.60
80.08

Descend.
Cor. of secs. 14, 15, 22, 23.
Land, mountainous,
Soil, stony and rocky: 4th rate.
Timber, oak, pine, pinon and madrono.
Undergrowth, oak, manzanito, buck brush, mezcal and nopal cacti
Mountainous land, or land covered with dense undergrowth,
and exceptionally difficult to survey, 80.08 chs. July 21, 1906.

July 22: At 7 a.m., l.m.t., I set off 20° 25' N., on the decl. arc; and 31° 25' N. on the lat. arc; and determine a true meridian at the cor. of secs. 14, 15, 22 and 23.

Thence I run
N 0° 1' W bet. secs. 14 and 15
Over mountainous land; descending through oak and pine timber and dense oak brush.

16.85

Foot of steep descent, brs. E. and W., enter basin.

16.95

Frame shack E. 20 lks. dist.

17.40

Frame house E. 20 lks. dist.

17.75

Road brs. E. and W.

18.30

Gulch 10 lks. wide course N.E., frame shack E 90 lks. dist.

19.65

Frame house W. 2.00 chs. dist.

20.00

Road brs. E. and W.

21.25

Frame shack 60 lks. W.

22.15

Frame house 140 lks. W.

23.25

Frame house 20 lks. E.

25.65

Frame house 40 lks. W.

26.15

Frame shack 10 lks. W.

26.75

Frame house 30 lks. W.

26.85

Frame house 100 lks. E.

28.25

Frame house 320 lks. E.

28.40

Frame house 430 lks. E.

28.85

Stable 2.00 chs. E.

29.50

Frame shack 40 lks. W.

30.65

Frame house 1.00 ch. E.

30.85

Frame house 1.30 chs. E.

31.15

Frame house 25 lks. W.; site of old mill about 10 chs. E.

31.30

Iron water tank, 60 lks. E.

31.45

Iron water tank 60 lks. E.

32.85

Bunk house 240 lks. E.; book house 4.00 chs. E.

32.25

Railroad to mill brs. E. and W.

32.85

Iron water tank 120 lks. E.

33.35

Frame house 1.00 chs. E.; blacksmith shop 6.00 chs. E.

33.85

Powder cellar 3.40 chs. E.; leave basin, ascend.

34.85

Assay office about 8.00 chs. E.

36.85

Top of ascent brs. E and W.; thence descend along W. slope of ridge.

37.60

Cut 4 X 30 ft brs. E. and W. on line.

38.10

Shaft in gulch 4.00 chs. W.

39.45

Tunnel in gulch 4.40 chs. W.

39.88

Mill about 6.60 chs. W.

40.00

Set a quartzite stone, 18 X 6 X 7 ins., 12 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A pinon, 6 ins. diam., brs. N. 31° 25' E., 7 lks. dist., marked $\frac{1}{4}$ S 14 B T,

A pine, 5 ins. diam., brs. N. 51° W., 8 lks. dist., marked $\frac{1}{4}$ S 15 B T.

50.60

Begin steep descent over bluffs, br. E and W.

80.00

Set a granite stone, 18 X 10 X 5 ins., 12 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, marked with 2 notches on the E., and 4 notches on the S. edge, from which

An oak, 6 ins. diam., brs. N. 29° E., 62 lks. dist., marked T 23 S R 20 E S 11 B T,

An oak, 8 ins. diam., brs. S. 77° E., 42 lks. dist., marked T 23 S R 20 E S 14 B T.

An oak, 5 ins. diam., brs. S. 32° W., 47 lks. dist.

An oak, 7 ins. diam., brs. N. 51° W., 50 lks. dist.

Subdivision of T. 23 S., R 20 E.

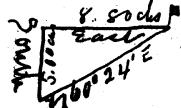
<p>chains</p> <p>✓</p> <p>40.00</p> <p>80.12</p> <p>6.94</p> <p>8.00</p> <p>11.70</p> <p>29.20</p> <p>34.00</p> <p>40.06</p> <p>✓</p> <p>44.60</p> <p>51.40</p> <p>58.30</p> <p>66.70</p> <p>80.12</p> <p>40.00</p> <p>79.94</p> <p>7.29</p> <p>9.68</p> <p>11.94</p> <p>21.94</p> <p>22.04</p>	<p>marked T 23 S R 20 E S 15 B T, An oak, 7 ins. diam., brs. N. 81° 45' W., 47 lks. dist., marked T 23 S R 20 E S 10 B T, and raise a mound of stone, 2 ft. base, 11 ft. high; W. of cor. Pits impracti- cable. Cor. is stone 1400 feet below bluff. Land; mountainous. Soil, gravelly, stony and rocky, 3rd and 4th rate. Timber, oak, pine, pinon, juniper, madrono, maple, Undergrowth, oak buch brush, manzanito, lecheguilla and cacti. Mountainous land or land covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs. July 22, 1906. Could not take lat. at noon on account of clouds.</p> <hr/> <p>July 23: At 7 a.m., l.m.t., I set off 20° 13' N. on the decl. arc; and 31° 26' N. on the lat. arc; and deter- mine a true meridian with the solar at the cor. of secs. 10, 11, 14 and 15. Thence I run N. 89° 56' E. on a random line bet. secs. 11 and 14. Set temp. 1/4 sec. cor. Intersect N. and S. line, 8.lks. S. of cor. of secs. 11, 12, 13 and 14. Thence I run S. 89° 53' W., on a true line bet. secs. 11 and 14. Over mountainous land, ascending through heavy oak timber and dense brush. Wire fence brs. NW and S.E. Spur extends N.N.E., thence along N. slope of mountain over spur descending N. Road brs. N.W. and S.E. Gulch, 20 lks. wide, course N. Gulch, 20 lks. wide, course N. Set a granite stone, 18 X 14 X 10 ins., 12 ins. in the ground for 1/4 sec. cor., marked 1/4 on N. face, from which A juniper, 6 ins. diam., brs. N. 21° 45' E., 52 lks. dist., marked 1/4 S 11 B T, An oak, 9 ins. diam., brs. S. 61° W., 73 lks. dist., marked 1/4 S 14 B T., and raise a mound of stone, 2 ft. base, 11 ft. high, N of cor. Pits impracticable. Gulch 20 lks. wide, course N. Rocky gulch 140 lks. wide, course N. Gulch, 25 lks. wide, course N. Gulch, 20 lks. wide, course N. The cor. of secs. 10, 11, 14 and 15. Land, mountainous. Soil, gravelly and stony and rocky; 3rd and 4th rate. Timber, oak and scattering pine, juniper, maple, madrono. Undergrowth, oak, laurel and manzanito. Mountainous land, heavily timbered, and dense undergrowth, exceptionally difficult to survey, 80.12 chs. July 23, 1906 At this cor. I set off 20° 10' N. on the decl. arc; and at 12h m. p.m.t., observe the sun on the meridian; the resulting lat is 31° 26' N.</p> <hr/> <p>N. 0° 1' W. on a random line bet. secs. 10 and 11. Set temp. 1/4 sec. cor. Intersect the E. and W. line 9 lks. W. of cor. of secs. 2, 3, 10, and 11, which I find as described by the Surveyor General. Thence I run S. 0° 5' W on a true line bet. secs. 10 and 11. Over mountainous land, descending through heavy timber and dense brush Gulch, 15 lks. wide, course N.W., ascend Wire fence brs. E. and W. Spur extends E., descend. Gulch, 20 lks. wide, course E. Wire fence brs. E. and W.</p>
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Subdivision of T. 23 S., R. 20 E.

chains	
30.44	Gulch, 20 lks. wide, course E., ascend along E. slope of mountain.
39.94	Set a granite stone, 18 X 8 X 8 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which An oak, 6 ins. diam., brs. N. $50\frac{1}{2}^\circ$ E., 80 lks. dist., marked $\frac{1}{4}$ S 11 B T. An oak, 9 ins. diam., brs. S. 36° W., 27 lks. dist., marked $\frac{1}{4}$ S 10 B.T., and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
49.94	Spur extends E.N.E., descend along E. slope of mountain.
58.94	Judds house brs. E. 25 chs. dist.
65.44	Gulch 20 lks. wide course E., bluffs about 20 chs. W.
72.13	Wire fence extends E.N.E. and W.S.W.
72.94	Enter canyon.
78.04	Wire fence brs. E. and W.
78.24	Carr's Creek, 12 ft. deep, stony bottom, rapid current, 20 lks. wide course E.
78.41	Wire fence brs. E. and W., leave Carr's Canyon, course N.
78.64	Granite pillar, 20 X 20 ft., 40 ft. high, 15 lks. W.
79.94	The cor. of secs. 10, 11, 14 and 15. Land, mountainous. Soil, gravelly, stony and rocky; 3rd & 4th rate. Timber, oak and scattering pine, juniper, madrono, and maple, some sycamore, ash and walnut in canyon. Undergrowth, oak, manzanito, mountain laurel, mezcal, lecheguilla and cacti. Mountainous land, heavily timbered and covered with dense undergrowth, exceptionally difficult to survey, 79.94 chs. July 23, 1906.

July 24: At 7 h., a.m., l.m.t., I set off $20^\circ 1' N.$, on the decl. arc; and $51^\circ 26' N.$ on the lat. arc; and determine a true meridian at the cor. of secs. 10, 11, 14 and 15.	
Thence I run	
to the cor. of secs. 33 and 34.	
Steep descent, through scattering pine timber and dense oak brush.	
25.00	Deep gulch, 700 ft. below sec. cor., 80 lks. wide, course W. Ascend.
27.60	Spur extends W., descend steep grade.
30.35	Rocky gulch, 80 lks. wide, course W., ascend through heavy timber.
32.60	Enter gulch course S.S.W.
36.00	Leave gulch, course S.
40.00	Set a granite stone, 18 X 10 X 8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which An oak, 7 ins. diam., brs. N. $67\frac{1}{2}^\circ$ E., 8 lks. dist., marked $\frac{1}{4}$ S 34 B T., An oak, 5 ins. diam., brs. S. 34° W., 11 lks. dist., marked $\frac{1}{4}$ S 33 B T, This cor. stands 200 ft. above gulch.
47.00	Leave heavy timber course N.E.
52.00	Top of W. slope of rocky spur, 400 ft. above $\frac{1}{4}$ sec. cor. Descend.
57.60	Gulch 40 lks. wide course W., ascend.
63.30	Gulch 20 lks. wide, course S.W., ascend steeper.
72.00	Leave scattering timber, course S.E.
80.00	Set a granite stone, 21 X 10 X 8 ins., in mound of stone, for cor. of secs. 27, 28, 33 and 34, marked with three notches on the E., and 1 notch on the S. edge, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, pine, oak, spruce, fir, madrono, juniper. Undergrowth, oak, buck brush, mezcal, lecheguilla and cacti. Mountainous land, dense undergrowth and exceptionally difficult to survey 80.00 chs. July 24: At 12 h. 5 m., p.m., l.m.t., I set off $19^\circ 58'$ N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is $33^\circ 24' N.$

Subdivision of T. 23 S., R. 20 E.

chains	East on a random line bet. secs. 27 and 34.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
56.17	Top of bluff, and as it is impossible to measure further on line, on account of deep gulch ahead, I determine the distance across as follows:- I set a flag ahead on line and measure a base south 5.00 chs., the longest obtainable. From South end of base line flag brs. N. 60° 24' E., and I have
	 $\begin{aligned} \text{Nat. tang. } 60^\circ 24' &= 1.76032 \\ 1.76032 \times 5.00 &= 8.8016 \\ 56.17 + 8.80 &= 64.97 \end{aligned}$
64.97	Flag on line.
79.80	Intersect the N. and S. line, 16 lks. N. of cor. of secs. 26, 27, 34 and 35: Thence I run N. 89° 53' W., on a true line bet. secs. 27 and 34. Over mountainous land, ascending along N. slope of Miller's Peak, through pine timber.
8.00	Gulch, 20 lks. wide, course N.
11.50	Spur extends East, thence along North base of peak, descending.
14.00	Top of Miller's Peak brs. 12.00 chs. S.
14.83	Flag to which I triangulated on random line.
23.63	Bluff brs. N. & S. to point of triangulation on random line.
32.60	Deep gulch, 30 lks. wide course N.
39.00	Leave heavy aspen timber and undergrowth; enter heavy pine timber, course N.W.
39.90	Set a porphyry stone, 18 X 8 X 6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A fir, 30 ins. diam., brs. N. 45° E., 84 lks. dist., marked $\frac{1}{4}$ S 27 B T, A fir, 28 ins. diam., brs. S. 45° W., 5 lks. dist., marked $\frac{1}{4}$ S 34 B T.
43.00	Gulch, 35 lks. wide, course N., begin steep ascent.
60.80	Trail brs. N.W. and S.E.
69.00	Ridge and top of high mountain, 700 ft. above gulch, brs. S.E. and N.W. leave timber and descend through dense brush.
79.80	The cor. of secs. 27, 28, 33 and 34. Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, pine, aspen, fir, oak, balsam, spruce, Undergrowth, oak, buck brush, aspen, locust and mexoal. Mountainous land, heavily timbered or covered with dense undergrowth and exceptionally difficult to survey 79.80 chs. July 25, 1906.
	July 25: At 7 a.m., l.m.t., I set off 19° 49' N. on the decl. arc; and 31° 24' N. on the lat. arc; and determine a true meridian at the cor. of secs. 27, 28, 33 and 34. Thence I run N. 9° 2' W., bet. secs. 27 and 28. Over mountainous land, ascending over granite rocks and ledges and dense oak and buck brush.
2.05	Trail brs. E. and W.
12.80	Ridge and top of Huachuca Mountain brs. E. and W., 500 feet above sec. cor., enter heavy timber and descend; leave dense brush.
13.80	Trail brs. E. and W.
29.85	Trail brs. E. and W.
30.10	Top of Miller's canyon, 30 lks. wide, course E., ascend.
30.80	Cabin East 5.00 chs. dist.
33.50	Trail brs. S.E. and N.W.
35.20	Spur extends E., descend steep grade.
40.00	Set a granite stone, 18 X 8 X 6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A pine, 12 ins. diam., brs. N. 45° 45' E., 4 lks. dist., marked $\frac{1}{4}$ S 27 B T, A pine, 12 ins. diam., brs. S. 201° W., 19 lks. dist.,

Subdivision of T. 23 S., R. 20 E.

chains

43.80 marked $\frac{1}{4}$ S 28 B T,
 47.60 Millers Canyon 40 lks. wide course E., ascend.
 49.80 Spur extends S.E., descend.
 54.80 Fork Miller's Canyon 30 lks. wide course E.S.E., ascend.
 56.55 Trail brs. E. and W.
 62.00 Trail brs. E. and W.
 71.75 Spur extends E., descend.
 80.00 Fork of Miller's Canyon 40 lks. wide course E., ascend,
 through dense oak brush.
 Set a granite stone, 20 X 8 X 6 ins., 15 ins. in the
 ground, for the cor. of secs. 21, 22, 27 and 28, marked with
 3 notches on the E. and 2 notches on the S. edge, from which
 A pine, 10 ins. diam., brs. N. 6° E., 47 lks. dist.
 marked T 23 S R 20 E S 22 B T,
 A pine, 18 ins. diam., brs. S. 25° E., 28 lks. dist.,
 marked T 23 S R 20, E S 27 B T,
 An oak, 6 ins. diam., brs. S. 23° W., 34 lks. dist.,
 marked T 23 S R 20 E S 28 B T,
 An oak, 6 ins. diam., brs. N. 56° W., 88 lks. dist.,
 marked T 23 S R 20 E S 21 B T.

Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, pine, fir, balsam, piñon, oak and spruce.
 Undergrowth, oak, buck brush, locust and mezcal.
 Mountainous land, heavily timbered or covered with
 dense undergrowth, exceptionally difficult to survey
 80.00 chs.

July 25: At 12 h. 6m., p.m., l.m.t., I set off 19° 46' N.
 on the decl. arc, and observe the sun on the meridian;
 the resulting lat. is 31° 24' N.

40.00 S. 89° 53' E. on a random line bet. secs. 22 and 27.
 80.10 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect the N. and S. line 21 lks. S. of cor. of secs.
 22, 23, 26 and 27. timber and dense brush.
 Thence I run over mountainous land ascending through scattering
 S. 89° 58' W., on a true line bet. secs. 22 and 27.
 7.00 Top of spur brs. N. and S., thence along S. slope of
 spur, extends East from Carr's Peak.
 30.00 Descend, N.W. slope; leave scattering timber.
 40.05 Point for $\frac{1}{4}$ sec. cor. falls in gulch 20 lks. wide, course
 S., ascend, impossible to establish; therefore at
 40.80 On a blanket porphyry ledge mark a cross (x) for $\frac{1}{4}$ sec.
 witness cor., marked $\frac{1}{4}$ W C on N., and raise a mound of
 stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits
 impracticable.
 Ascend.
 59.00 Descend; brs. N. and S., through scattering pine timber.
 72.00 Gulch 10 lks. wide course S.E., ascend.
 76.00 Spur extends S., descend through scattering pine timber.
 80.10 The cor. of secs. 21, 22, 27 and 28'

Land, mountainous.
 Soil, gravelly and stony and rocky; 3rd and 4th rate.
 Timber, scattering pine and oak.
 Undergrowth, oak, buck brush, mountain locust, manzanito
 mezcal, lechequilla and mopal cacti.
 Mountainous land, or land heavily timbered or covered
 with dense undergrowth, exceptionally difficult to
 survey 80.10 chs.

July 25, 1906.

July 26: At 7 a.m., l.m.t., I set off 19° 35' N. on the
 decl. arc and 31° 24' N. on the lat. arc; and determine
 a true meridian at the cor. of secs. 21, 22, 27 and 28.
 Thence I run S. 0° 21' W., bet. secs. 21 and 22.
 Over mountainous land, ascending through heavy timber and
 dense oak brush.
 12.00 Leave dense brush course N.W.
 30.40 Ridge 800 ft. above sec. cor. brs. E. and W., Carr's
 Peak east about 13.00 chs. dist.

chains
 22.40 Begin steep descent.
 26.00 Enter forest of dead trees and growth of young, quaking asp.
 40.00 Set a quartzite stone, 21 X 8 X 8 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
 An asp, 8 ins. diam. brs. S. 21° E., 8 lks. dist., marked $\frac{1}{4}$ S 22 B T,
 An asp, 6 ins. diam., brs. N. 10° W., 8 lks. dist., marked $\frac{1}{4}$ S 21 B T.
 53.40 Carr's canyon, 40 lks. wide, course N.E., head of Exposed Reef pipe line; leave dense brush.
 58.00 Leave dead timber, ~~brs.~~ N.E. and S.W.
 80.00 Point for sec. cor. falls in deep gulch, 20 lks. wide, course E., therefore from a point on line 1.20 chs. N. 0° 02' W. On a porphyry ledge, 16 ins. above ground, bearing E. and W., mark a cross for witness cor. of secs. 15, 16, 21 and 22 with 3 notches on the S. and E. edges, from which
 An oak, 7 ins. diam., brs. N. 74° E., 44 lks. dist., marked T 23 S R 20 E S 15 W C B T,
 An oak, 18 ins. diam., brs. S. 69° E., 19 lks. dist., marked T 23 S R 20 E S 22 W C B T,
 An oak, 18 ins. diam., brs. S 32° 45' W., 30 lks. dist., marked T 23 S R 20 E S 21 W C B T,
 An oak, 9 ins. diam., brs. N 22° W., 25 lks. dist., marked T 23 S R 20 E S 16 W C B T.
 This cor. stands about 2000 ft. below top of ridge. Land, mountainous. Soil, gravelly, stony and rocky; 2nd, 3rd and 4th rate. Timber, pine, oak, fir, quaking asp, madrono, balsam and spruce. Undergrowth, young asp and oak. The forest fire of 1902 killed nearly all the trees on the north slope of the Carr Peak ridge. Mountainous land, or heavily timbered or covered with dense undergrowth, exceptionally difficult to survey 20.00 chs.
 July 26: At 12 h., 6 m., p.m., l.m.t., I set off 19° 32' N on the decl. arc and observe the sun on the meridian; the resulting lat. is 31° 25' N.

40.00 N. 89° 58' E., on a random line bet. secs. 15 and 22. Set temp. $\frac{1}{4}$ sec. cor.
 80.18 Intersect N. and S. line, 10 lks. N. of cor. of secs. 14, 15, 22 and 23. Thence I run N. 89° 58' W. on a true line bet. secs. 15 and 22. Over mountainous land, ascending through heavy timber and dense brush.
 4.60 Gulch, 20 lks. wide, course N.N.W.
 14.20 Gulch, 30 lks. wide, course N., ascend.
 17.90 Road, brs. S.W. and N.E.
 26.00 Spur ext nds N., descend.
 38.00 Gulch 12 lks. wide, course N., ascend.
 40.09 Set a quartzite stone 18 X 8 X 5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
 A pine, 10 ins. diam., brs. S. 46½° E., 38 lks. dist. marked $\frac{1}{4}$ S 23 B T,
 A balsam, 9 ins. diam., brs. N. 13½° W., 47 lks. dist. marked $\frac{1}{4}$ S 15 B T.
 47.00 Spur extends N.
 50.10 Road brs. S.W. and N.E.
 55.00 Leave dense brush course N.W.
 57.00 Same road brs. N.W. and S.E.
 61.25 Gulch 30 lks. wide, course N., ascend.
 70.60 Spur extends N. from Carr's Peak; descend steep grade.
 77.20 Carr's canyon 40 lks. wide course N., ascend.

Subdivision of T. 23 S., R. 20 E.

chains
80.18

The cor. of secs. 15, 16, 21 and 22.
Land, mountainous.
Soil, stony and rocky; 4th rate.
Timber, pine, oak, fir, spruce, pinon, and madrono.
Undergrowth, oak and mountain locust.
Mountainous land, land heavily timbered and covered with
dense undergrowth, exceptionally difficult to survey,
80.18 chs.

July 26, 1906.

July 27: At 7 a.m., l.m.t., I set off 19° 22' N. on
the decl. arc, and 31° 25' N. on the lat. arc; and
determine a true meridian at cor. of secs. 15, 16, 21, 22.
Thence I run

N. 9° 22' W. bet secs. 15 and 16, from cor. point in gulch.
Over mountainous land, descending through pine timber,
scattering oak and dense oak brush.
1.20 W.C. to cor. of secs. 15, 16, 21 and 22.
24.00 Leave pine timber; enter heavy oak timber
28.00 S.W. fork of Carr's canyon, 180 lks. wide, course E.,
Ascend steep slope.
39.50 West end of gorge of Carr's Canyon, bluffs 300 ft. high
bear 5.00 chs. E.
40.00 Point for 1/4 sec. cor. falls on porphyry ledge, 3 ft. wide,
2 ft above ground. (cross & 1/4 on W. brs. NW & SE.
An oak, 6 ins. diam., brs. N. 67° E., 9 lks. dist.,
marked 1/4 S 15 B T,
A pinon, 8 ins. diam., brs. N. 70° W., 29 lks. dist.,
marked 1/4 S 16 B T, and raise a mound of stone, 2
ft. base, 11 ft. high, W. of cor. Pits impracticable.
42.00 Spur extends E., 400 feet above canyon; descend.
45.20 Gulch 35 lks. wide, course E., leave dense brush; ascend.
67.00 Ridge, 700 feet above gulch, begin steep descent on N.
slope.
80.00 Set a syenite stone, 18 X 8 X 7 ins., in mound of stone,
for cor. of secs. 9, 10, 15 and 16, marked with 3 notches
on the E., and 4 notches on S. edge, from which

A pine, 27 ins. diam., brs. N. 31° E., 76 lks. dist.,
marked T 23 S R 20 E S 10 B T,
An oak, 24 ins. diam., brs. S. 62° E., 36 lks. dist.,
marked T 23 S R 20 E S 15 B T,
A pine, 6 ins. diam., brs. S. 85° W., 11 lks. dist.,
marked T 23 S R 20 E S 16 B T,
An oak, 17 ins. diam., brs. N 5° W., 87 lks. dist.,
marked T 23 S R 20 E S 9 B T.

Land, mountainous.
Soil, gravelly, stony and rocky, 3rd & 4th rate.
Timber, oak, pine, pinon and madrona.
Undergrowth, oak and laurel.
Mountainous land, heavily timbered or covered with
dense undergrowth, exceptionally difficult to survey
80.00 chs.

July 27, 1906, At 12 h 6 m., p.m., l.m.t., I set off
19° 22' N. on the decl. arc; and observe the sun on the
meridian; the resulting lat. is 31° 26' N.

40.00
80.12

From the cor. of secs. 9, 10, 15 and 16, I run
S. 89° 58' E. on a random line bet. secs. 10 and 15.
Set temp. 1/4 sec. cor.
Intersect the N. and S. line, 18 lks. S. of cor. of secs.
10, 11, 14 and 15.

Thence I run
S. 89° 54' W., on a true line bet. secs. 10 and 15.
Along the south slope of ridge, descending through heavy
timber and dense brush.

3.70
4.80
9.40

Enter Carr's canyon, course E.N.E.
Carr's Creek, 20 lks. wide course E.
Leave canyon; begin steep ascent. brs. E. and W.

Subdivision of T. 23 S., R. 20 E.,

chains
18.00 Leave heavy timber; ascend over bluffs, bears E. and W.
22.00 Top of bluffs, brs. N.E. & S.W. 800 feet above canyon, thence ascending along south slope of ridge, through dense brush.
40.06. Set a lime-stone, 18 X 8 X 8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
47.00 Descend.
56.00 Gulch, 20 lks. wide, course N.W., ascend through scattering timber.
63.40 Spur extends N., descend.
74.00 Gulch 20 lks. wide course N., enter heavy oak timber and dense brush.
78.60 Top of ascent, brs. N. and S., thence along N. slope of ridge.
80.12 The corner of secs. 9, 10, 15 and 16.
Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, pine, oak, pinon, fir, maple, madrona, sycamore, ash and walnut in canyon.
Undergrowth, oak, buch brush, manzanito, mezcal.
Mountainous land, heavily timbered or covered with dense brush, exceptionally difficult to survey, 80.12 chs.
July 27, 1906.

July 26: At 7 h., am, l.m.t., I set off 19° 39' N. on the decl. arc; and 31° 26' N on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 9, 10, 15 and 16.

Thence I run
N. 0° 2' W., bet. secs. 9 and 10.
Over mountainous land, through pine timber.
28.00 Leave pine timber, enter oak timber and dense brush.
40.00 Set a granite stone, 24 X 10 X 8 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. from which
An oak, 7 ins. diam., brs. S. 31° 45' E., 92 lks. dist., marked $\frac{1}{4}$ S 10 B T.
An oak, 7 ins. diam., brs. S. 21° W., 81 lks. dist., marked $\frac{1}{4}$ S 9 B T.
This cor. stands 600 ft. below cor. of sec.
46.15 Road, brs. E. and W., 1000 ft. below $\frac{1}{4}$ sec. cor.
Enter Ramsey's Canyon, course E.
47.15 Wire fence brs. N.E. and S.W.
47.70 Ramsay's Creek 30 lks. wide, course E.
52.00 Leave canyon; ascend along E. slope of mountain, over spurs extending E.
54.02 Wire fence brs. S.W. and N.E.
63.20 Gulch, 20 lks. wide course E.
65.80 Gulch 20 lks. wide course E.
80.00 Set a quartzite stone, 21 X 9 X 7 ins., 15 ins. in the ground, for cor. of secs. 3, 4, 9 and 10, marked with 3 notches on the E. and 5 notches on the S. face, from which
An oak, 8 ins. diam., brs. N. 64° 45' E., 102 lks. dist., marked T 23 S R 20 E S 3 B T,
An oak, 7 ins. diam., brs. S. 23° 45' E., 67 lks. dist., marked T 23 S R 20 E S 10 B T,
An oak, 6 ins. diam., brs. S. 45 $\frac{1}{2}$ ° W., 48 lks. dist., marked T 23 S R 20 E S 9 B T,
An oak, 10 ins. diam., brs. N. 48° W., 26 lks. dist., marked T 23 S R 20 E S 4 B T.
Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high W of cor.
Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak, pine, sycamore and scattering madrona; walnut and ash in canyon.
Undergrowth, oak and laurel.

chains	Mountainous land, heavily timbered or covered with dense undergrowth; exceptionally difficult to survey, 80.00 chs. July 28; At 12. h. 6 m., p.m., l.m.t., I set off 19° 6' N on the decl. arc; and observe the sun on the meridian: the resulting latd is 31° 27' N.
40.00	N. 89° 54' E., on a random line bet. secs. 3 and 10. Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect the N. and S. line, 12 lks. N. of cor. of secs. 2, 3, 10 and 11. Thence I run S. 89° 59' W., on a true line bet. secs. 3 and 10. Over mountainous land; descending.
6.00	Enter heavy oak timber and dense brush, course S.E.
8.00	Draw, 20 lks. wide, course N., thence over gently rolling land.
10.65	Old road brs. N.E. and S.W.
15.55	Gulch, 30 lks. wide, course N.E.
17.16	Wire fence brs. N.E. and S.W.; enter dense manzanito underbrush.
17.40	Road, brs. N.E. and S.W.
18.65	Gulch, 25 lks. wide, course N.E.
36.00	Leave manzanito underbrush, brs. N. and S.
40.02	Set a granite stone, 18 X 12 X 8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 11 ft. high, N. of cor. from which An oak, 8 ins. diam., brs. S. 21° N., 19 lks. dist., marked $\frac{1}{4}$ S 10 B T, An oak, 5 ins. diam., brs. N. 20° W., 17 lks. dist., marked $\frac{1}{4}$ S 3 B T.
41.05	Old road brs. N.W. and S.E.
42.92	Wire fence brs. S.W. and N.E.
44.00	Enter Ramsay Canyon, brs. N.E. and S.W.
44.64	Wire fence brs. N.E. and S.W.
45.00	Old road brs. N.E. and S.W.
45.22	Wire fence brs. N.E. and S.W.
47.30	Ramsay Creek, 10 ins. deep, 20 lks. wide, course N.E.
49.00	J.H. Tibbett's house brs. N. 4.00 chs. dist.
50.15	Irrigation ditch, 5 lks. wide, course N.E.
52.45	Irrigation ditch, 8 lks. wide, course N.E.
53.25	Road brs. N.E. and S.W.
57.30	Wire fence brs. N.E. and S.W.
58.25	Road brs. N.E. and S.W.
58.42	Wire fence brs. N.E. and S.W.
61.44	Wire fence brs. N.W. and S.E., leave canyon and begin gradual ascent.
72.04	Wire fence brs. N.E. and S.W.; ascend steeper grade.
80.04	The cor. of secs. 3, 4, 9 and 10. Land, gently rolling, nearly level and mountainous. Soil, , sandy and gravelly loam and stony; 1st, 2nd, 3rd, 4th rate timber, some sycamore, walnut and ash along creek. Undergrowth, oak and manzanito. Mountainous land or land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey 80.04 chs. July 28, 1906.
	July 29: At 7 a.m., l.m.t., I set off 18° 55' N. on the decl. arc; and 31° 27' N. on the lat. arc; and determine a true meridian at the cor. of secs. 2, 3, 10 and 11. Thence I run
40.00	N. 0° 2' W., on a random line bet. secs. 3 and 4. Set temp. $\frac{1}{4}$ sec. cor.
80.06	Intersect the N. bdy. of Tp. 10 lks. E. of cor. of secs. 3, 4, 33 and 34. Thence I run S. 0° 6' E., on a true line bet. secs. 3 and 4. Over mountainous land, descending through scattering oak timber.
.80	Open cut, 5 X 20 ft., brs. E. 40 lks. dist.
1.20	Shaft, 6 X 6 X 20 ft., brs. W. 20 lks. dist.,
1.40	Tunnel, brs. E. 160 lks. dist.
1.80	Tunnel, brs. E. 130 lks. dist.

chains	
3.40	Pipe line brs. E. and W., enter Brown Canyon, course N.E.
3.50	Road brs. E. and W.
5.25	Road brs. N.E. and S.W. Leave canyon and begin gradual ascent through dense oak brush.
7.00	Gulch, 15 lks. wide, course N.E.; thence N.
12.30	Road brs. N.E. and S.W.
19.30	Draw 15 lks. wide, course N.W.
22.00	Ascend steeper grade.
38.00	Top of W. slope of ridge, 500 ft. above canyon, descend.
39.45	Wire fence brs. E. and W.
40.08	Set a quartzite stone, 18 X 9 X 5 ins., in a mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. An oak, 18 ins. diam., brs. N. 77° 45' E., 117 lks. dist., marked $\frac{1}{4}$ S 3 B T, An oak, 6 ins. diam., brs. S. 71 $\frac{1}{2}$ ° W., 64 lks. dist., marked $\frac{1}{4}$ S 4 B T.
44.00	Head of gulch, course E.
48.00	Top, brs. E. and W., descend along E. slope of spur.
56.80	Small gulch, course E.S.E.; ascend gradually.
62.00	Ascend steeper grade.
75.00	Spur extends E., descend along E. slope of mountain.
80.06	The cor. of secs. 3, 4, 9 and 10. Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, oak. Undergrowth; oak and laurel. Mountainous land, or land covered with heavy timber or dense undergrowth, exceptionally difficult to survey; 80.06 chs.. July 28: At 12 h. 6 m., p.m., l.m.t., I set off 18° 51' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 28' N. July 29, 1906. July 30: At 7 a.m., l.m.t., I set off 18° 41' N. on the decl. arc and 31° 28' N. on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 4, 5, 32 and 33 on the S. bdy. of tp. Thence I run N. 0° 2' W., bet. secs. 32 and 33. Over mountainous land, descending through scattering timber.
11.60	Shaft, 4 X 6 X 40 ft., brs. W. 20 lks. dist.
12.00	Enter canyon course west; ascend through dense brush.
24.50	Spur extends W.; descend along W. slope of ridge.
26.00	Gulch, 25 lks. wide, course W.; ascend.
34.40	Spur extends W.; descend.
38.40	Gulch, 20 lks. wide, course W. ascend.
40.00	Set a granite stone, 18 X 8 X 5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which An oak, 18 ins. diam., brs. N. 73° E., 56 lks. dist., marked $\frac{1}{4}$ S 33 B T, An oak, 24 ins. diam., brs. S. 66 $\frac{1}{2}$ ° W., 47 lks. dist., marked $\frac{1}{4}$ S 32 B T.
41.00	Spur, extends W., descend.
48.00	Gulch, 12 lks. wide, course W., 5 lks. dist.
48'20	Gulch, 20 lks. wide, course W., enter N. fork of Cave Canyon, course S.S.W.
53.60	Gulch, 20 lks. wide, course W.,
70.00	Gulch, 30 lks. wide, course S.W., leave canyon and dense brush; ascend steep grade.

Subdivision of T. 23 S., R. 20 E.

chains
80.00

Set a granite stone, 18 X 14 X 8 ins., 12 ins. in the ground, for the cor. of secs. 28, 29, 32 and 33, marked with 1 notch on the S., and 4 notches on the E., from which
An oak, 6 ins. diam., brs. N. 71° E., 59 lks. dist., marked T. 23 S R 20 E S 28 B T,
An oak, 7 ins. diam., brs. S. 25½° E., 62 lks. dist., marked T 23 S R 20 E S 33 B T,
An oak, 20 ins. diam., brs. S. 12° W., 28 lks. dist., marked T 23 S R 20 E S 32 B T,
An oak, 12 ins. diam., brs. N. 12° W., 28 lks. dist., marked T 23 S R 20 E S 29 B T,

Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak, pinon, pine, madrono, and scattering sycamore and ash in canyon.
Undergrowth, oak and buck brush.
Mountainous land, covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.
July 20: At 12 h. 6 m., l.m.t., I set off 18° 37' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 23' N.

40.00
80.12

East on a random bet. secs. 28 and 33.
Set temp. ¼ sec. cor.
Intersect the N. and S. line 18 lks. S. of cor. of secs. 27, 28, 33 and 34.

32.00

Thence I run
S. 89° 52' W. on a true line bet. secs. 28 and 33.
Over mountainous land, descending through dense oak brush.

36.50

Gulch 25 lks. wide course S.E., enter scattering timber, ascend. This point is 600 ft. below sec. cor.

40.06

Trail brs. S.E. and N.W.; from Bear Spring to Cave Canyon.
Set a granite stone, 21 X 8 X 8 ins., 16 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.

46.00
73.70

Ridge, 500 ft. above gulch, course N.N.W., descend.
North fork of Cave Canyon, 40 lks. wide, course S. Ascend.

80.12

The cor. of secs. 28, 29, 32 and 33.
Land, mountainous.
Soil, gravelly, stony and rocky, 3rd and 4th rate.
Timber, scattering oak, pine and pinon.
Undergrowth, oak, buck brush, locust and mesoal.
Mountainous land, and land covered with dense undergrowth, exceptionally difficult to survey, 80.12 chs.
July 20, 1906.

July 30: At 7. a.m., l.m.t., I set off 18° 26' N., on the decl. arc; and 31° 23' N on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 28, 29, 32 and 33.

40.00

Thence I run
North 1/2 sec. 28 and 29.
Over mountainous land, ascending through dense oak brush.
Point for ¼ sec. cor. falls on quartzite rock in place, 6 X 4 X 6 ins., above ground, which I mark with cross (and ¼ m w) for exact cor. point for ¼ sec. cor., from which
An oak, 9 ins. diam., brs. N. 25° W., 80 lks. dist., marked ¼ S 29 B T., No other trees within limits.
Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

Handwritten note:
Use for bearing to
page 1 m and
mental note
sheet attached

Subdivision of Tp. 23 S., R. 20 E.

chains	
41.40	Top of limestone spur, extends N.E., 700 ft. above cor. of secs. 28, 29, 32 and 33. Ascend.
48.60	Trail brs. S.E. and N.W.
49.80	Spur extends W., descend through heavy pine timber. Steep descent.
51.00	Same trail brs. S.W. and N.E.
61.10	Trail brs. N.E. and S.W. Enter Bear Canyon, course S.W., 600 ft. below spur.
62.20	Bear Creek, 20 lks. wide, course S.W.
63.00	Leave canyon; ascend.
64.00	Leave heavy pine timber, course N.E.
66.60	Bear Spring brs. 10 chs. E.
67.50	McKinney's Camp brs. 10 chs. E.
71.60	Large rock brs. W. 40 lks.
80.00	Set a granite stone, 20 X 8 X 6 ins., in mound of stone, for cor. of secs. 20, 21, 28 and 29, marked with 2 notches on the S., and 4 notches on the E. edges, from which A pine, 16 ins. diam., brs. N. 22° E., 50 lks. dist., marked T 23 S R 20 E S 21 B T, An oak, 5 ins. diam., brs. S. 25° E., 6 lks. dist., marked T 23 S R 20 E S 28 B T, An oak, 5 ins. diam., brs. N. 28° W., 5 lks. dist., marked T 23 S R 20 E S 29 B T, An oak, 5 ins. diam., brs. N. 51° W., 15 lks. dist., marked T 23 S R 20 E S 20 B T. Raise a mound of stone, 2 ft. base, 11 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, stony and rocky; 4th rate. Timber: pine, oak, pinon, balsam, spruce madrono and ash. Undergrowth; oak, buck brush, locust, mezcal. Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs. July 31, 1906. At 12 h. 6 m., p.m., l.m.t., I set off 18° 22' N., on the decl arc; and observe the sun on the meridian; the resulting lat. is 31° 24' N.
40.00	N. 89° 52' E. on a random line bet. secs. 21 and 28. Set temp. 1/4 sec. cor.
80.16	Intersect the N. and S. line 8 lks. N. of cor. of secs. 21, 22, 27 and 28. Thence I run S. 89° 55' W., on a true line bet. secs. 21 and 22. Over mountainous land, ascending through scattering timber and dense brush.
:60	Small gulch course W.
16.00	Leave dense brush, course N.W.
33.40	Out. 2 X 20 ft. brs. 3.00 chs. N.
33.69	Ridge and top of Huachuca Mountains, brs. N. and S., Top of bluff 200 feet down. In order to pass bluff I offset 220 lks. to the N., thence on the offset line 5.31 chs., thence offset S. 2.20 chs. back to true line.
39.25	Mark a point for witness cor. for 1/4 sec. cor. on small terrace on N. side of narrow chute, from which A pine, 12 ins. diam., brs. S. 58° W., 60 lks. dist., marked W C 1/4 S 28 B T, No other trees within limits. Raise a mound of stone, 2 ft. base, 11 ft. high, N. of cor. Pits impracticable.
40.08	The point for 1/4 sec. cor. falls on an inaccessible point.
45.00	Enter dense oak and buck brush; course N.W.
51.70	Tunnel and shaft br. about 11 chs. N.
67.00	Trail brs. N.W.
74.00	Gulch 15 lks. wide, course S
80.16	The cor. of secs. 20, 21, 28 and 29. ascend

Subdivision of T. 23 S., R. 20 E.

chains

Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber; pine, oak, pinon, balsam and fir. Undergrowth, oak, buck brush, mezcal and cacti. Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.16 chs.

July 23, 1906.

Aug. 11: 1906. At 7 a.m., l.m.t., I set off 18° 41' N. on the decl. arc; and 31° 44' North lat. arc; and determine a true meridian with the solar at the cor. of secs. 20, 21, 28 and 29.

Thence I run

N. 0° 2' W., bet. secs. 20 and 21.

Over mountainous land ascending through scattering timber and dense brush.

4.40 Tunnel brs. E. 4.40 chs. dist.

5.00 Tunnel brs. E. 3.60 chs. dist.

8.50 Divide ~~at~~ top of Huachuca Mountains, 600 ft. above Bear Canyon, brs. E. and W., leave dense brush and descend through heavy timber.

13.40 Gulch, 20 lks. wide, course N.N.E.

18.00 Ramsey's Canyon, 40 lks. wide, course N.N.W., enter dense oak brush; ascend along W. slope of spur.

22.00 Gulch, 15 lks. wide, course W.

25.70 Trail from Blue Jay to McKinney's camp in Bear Canyon, NW & SE.

40.00 Top of sharp spur, extends W.

Set a granite stone, 21 X 8 X 6 ins., in mound of stone for 1/4 sec. cor., marked 1/4 on W. face, from which

A pine, 18 ins. diam., brs. S. 64 1/2° E., 51 lks. dist., marked 1/4 S 21 B T.,

A pine, 20 ins. diam., brs. N. 53 1/2° W., 17 lks. dist., marked 1/4 S 20 B T.,

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable. Leave dense brush, begin descent.

44.60 Cut, 4 X 20 ft., brs. 20 lks. W.

56.80 Spring brs. 8 lks. E., trail brs. N.E. and S.W.

63.00 Shaft 6 X 4 X 20 ft., brs. 130 lks. E.

64.40 Descend steeper grade, over large rocks and ledges.

76.00 House brs. 250 lks. E.

80.00 Point for cor. of secs. 16, 17, 20 and 21 falls on blanket ledge of limestone marked with cross for exact cor. point, marked with 4 notches on E. and 3 on S. end, from which

An oak, 12 ins. diam., brs. N. 22 1/2° E., 64 lks. dist., marked T 23 S R 20 E., S 16 B T.,

An oak, 30 ins. diam., brs. S. 68 1/2° E., 131 lks. dist., marked T 23 S R 20 E S 21 B T.,

An oak, 12 ins. diam., brs. S. 44 1/2° W., 95 lks. dist., marked T 23 S R 20 E S 20 B T.,

A pine, 24 ins. diam., brs. N. 33 1/2° W., 156 lks. dist., marked T 23 S R 20 E S 17 B T.,

Land, mountainous.

Soil; gravelly, stony and rocky, 3rd and 4th rate. Timber, pine, oak, pinon, fir, spruce, mirone, balsam and maple.

Undergrowth, oak, buck brush, mezcal, lechequilla and nopal cacti.

Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

P.M.

Aug. 11: At 12 h. 6 m. (l.m.t.), I set off 18° 29' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 25' N.

N. 89° 55' E., on a random line bet. secs. 16 and 21

Set temp. 1/4 sec. cor.

Intersect the E. and S. line 16 lks. E. of cor. of secs.

16, 17, 21 and 22.

Thence I run

N. 89° 55' E. bet. secs. 16 and 21

for bearing to top of Mt. ... see page 1 of purple ...

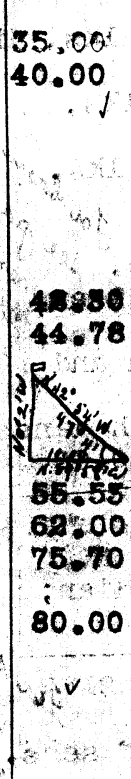
for ...

Subdivision of T. 23 S., R. 20 E.,

chains
 14.00 Over mountainous land, ascending through oak and pine timber.
 Gulch, 30 lks. wide, course N.E., ascend steeper through dense brush.
 39.00 Top of rocky ridge or spur, extends N.N.E.
 The point for witness cor. for $\frac{1}{4}$ sec. cor. falls on blanket ledge of limestone, marked with cross for $\frac{1}{4}$ sec. witness cor., from which
 A fir, 20 ins. diam., brs. N. 30° E., 57 lks. dist., marked W C $\frac{1}{4}$ S 16 B T,
 A balsam, 5 ins. diam., brs. S. 38° W., 8 lks. dist., marked W C $\frac{1}{4}$ S 21 B T. Thence descend to edge of bluffs.
 40.05 Point for $\frac{1}{4}$ sec. cor. falls in an inaccessible place on edge of bluff.
 47.00 Leave bluffs; descend to
 79.40 Gulch, 20 lks. wide, course N.N.E., 1600 ft. below witness cor.
 80.10 The cor. of secs. 16, 17, 20 and 21.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber; oak, pine, pinon, fir, balsam and madrono.
 Undergrowth; oak, locust, lechequilla.
 Land mountainous, heavily timbered and covered with dense undergrowth, exceptionally difficult to survey
 80.10 chs.
 Aug. 1, 1906.

August 2, 1906. At 7 a.m., l.m.t., I set off 17° 56' N. on the decl. arc and 31° 25' N. on the lat. arc, and determine a true meridian with the solar at the cor. of secs. 16, 17, 20 and 21.

Thence I run
 North, bet. secs. 16 and 17.
 Over mountainous land, descending through pine and oak timber and brush.
 1.10 Gulch, 25 lks. wide, course N.N.W.
 2.60 Tunnel brs. 340 lks. W.
 4.30 House brs. 3.40 chs. W.
 12.20 House brs. 3.50 chs. W.
 13.00 Enter Ramsay's canyon, course N.E.
 15.20 Ramsay Creek, 30 lks. wide, course E.
 16.00 House brs. 2.00 chs. W.
 16.50 Trail brs. N.E. and S.W.
 18.00 Leave canyon, begin steep ascent.
 29.00 Top, 600 ft. above canyon, brs. E. and W.; thence along E. slope of spur, through dense brush.
 35.00 Descend, brs. W. and W.
 40.00 Set a limestone, 18 X 10 X 8 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ ch W. face and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.
 An oak, 18 ins. diam., brs. N. 67° E., 18 lks. dist., marked $\frac{1}{4}$ S 16 B T,
 An oak, 12 ins. diam., brs. S. 22° W., 28 lks. dist., marked $\frac{1}{4}$ S 17 B T.
 43.50 Gulch, 25 lks. wide, course E.; ascend.
 44.78 Spur extends E. As the land ahead is so broken that it is impossible to chain farther, I triangulate as follows:
 Having set a flag ahead on line I measure a base N. 89° 58' E. 10.00 chs to a point from which flag brs. N. 42° 54' W.
 Included angle = 47° 4'. Net. tang 47° 4' = 1.07487, 10 chs. X 1.07487 = 10.7487 chs.
 55.55 Top of bluff, brs. E. and W., 300 ft. high; descend, flag on line.
 62.00 Head of gulch, course E., ascend.
 75.70 Spur, 400 ft. above gulch, extends E., leave dense brush; descend.
 80.00 The point for cor. of secs. 8, 9, 16 and 17 falls on blanket ledge of granite which I mark with cross for exact cor. point, and cut four grooves on the East and South, from which
 A balsam, 8 ins. diam., brs. N. 54° E., 71 lks. dist., marked T 23 S R 20 E. S 9 E T,
 A balsam, 9 ins. diam., brs. S. 82° 45' E.,



44.78 chs. 44.78 chs. 44.78 chs.

Subdivision of T. 23 S., R. 20 E.

chains

64 lks. dist., marked T 23 S R 20 E S 16 B T,

An oak, 9 ins. diam., brs. S. $34\frac{1}{2}^{\circ}$ W., 82 lks. dist.,
marked T 23 S R 20 E S 17 B T.
A fir, 18 ins. diam., brs. N. $6\frac{1}{2}^{\circ}$ W., 88 lks. dist.,
marked T 23 S R 20 E S 8 B T.

Land, mountainous.

Soil, stony and rocky; 4th rate.

Timber, pine, oak, fir, balsam, madrono, ash.

Undergrowth, oak, buck brush, locust, mezoal.

Mountainous land, heavily timbered or covered with dense
undergrowth, exceptionally difficult to survey, 80.00 chs.
August 2, 1906. At 12 h. (6 m.p.m.l.m.t.), I set off $17^{\circ}52' N.$
on the decl. arc; and observe the sun on the meridian;
the resulting lat. is $31^{\circ}26' N.$

S. $89^{\circ}58' N.$ on a random line bet. secs. 9 and 16.40.00 Set temp. $\frac{1}{4}$ sec. cor.80.06 Intersect the N. and S. line 10 lks. N. of cor. of secs.
9, 10, 15 and 16.

Thence I run

N. $89^{\circ}54' W.$ on a true line bet. secs. 9 and 16.Over mountainous land, along N. slope of ridge, through
heavy timber and dense brush.

3.40 Begin steep descent.

15.00 Along foot of bluff, extends 150 lks. S., 300 ft. high.

24.00 Leave bluff.

33.00 Enter stony chute, course N.W.

39.00 Leave chute.

40.03 Set a granite stone, 18 X 10 X 6 ins., in mound of
stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
An oak, 10 ins. diam., brs. S. 28° W., 9 lks. dist.,
marked $\frac{1}{4}$ S 16 B T,
An oak, 6 ins. diam., brs. N. $30\frac{1}{2}^{\circ}$ W., 17 lks. dist.,
marked $\frac{1}{4}$ S 9 B T.

Raise a mound of stone 2 ft. base, 11 ft. high, N. of cor.
This cor. stands about 1000 feet below the cor. of secs.
9, 10, 15 and 16.

40.50 Enter road.

41.50 Leave road, brs. N.W. and S.E.

45.20 Same road brs. S.W. and N.E.

47.50 Ramsay Canyon and creek, 40 lks. wide, course N.E.,
ascend.

50.00 Rocky spur extends S., ascend.

51.00 Bluffs, 600 ft. high, brs. 7.00 chs. S.

63.00 Top of S. slope of rocky spur; ascend.

76.00 Spur extends N.E., 1000 ft. above canyon; descend.

80.06 The cor. of secs. 8, 9, 16 and 17.

Land, mountainous.

Soil, gravelly and stony and rocky; 3rd and 4th rate.

Timber, pine, oak, fir, balsam, madrono, maple, ash,
sycamore and walnut.

Undergrowth; oak, buck brush, locust, mezoal.

Mountainous land, heavily timbered and covered with dense
undergrowth, exceptionally difficult to survey, 80.06 chs.
August 2, 1906.

August 3, 1906. At 7 a.m., l.m.t., I set off $17^{\circ}41' N.$
on the decl. arc; and $31^{\circ}26' N.$ on the lat. arc; and deter-
mine a true meridian with the solar at the cor. of secs.
8, 9, 16 and 17.

Thence I run.

N. $0^{\circ}2' W.$ bet. secs. 8 and 9.

Over mountainous land, descending through heavy timber.

12.00 Gulch, 30 lks. wide, course N.E., leave heavy timber and
ascend through dense brush.27.00 Spur extends N.E.; thence along E. slope of ridge; des-
cending.

32.50 Gulch, 20 lks. wide, course N.E.; ascend.

37.00 Spur extends E.; descend over bluffs.

38.00 Foot of steep descent.

40.00 The point for $\frac{1}{4}$ sec. cor. falls on blanket ledge of limestone

Subdivision of T. 23 S., R. 20 E.

chains marked with cross for exact $\frac{1}{4}$ sec. cor. point, from which
 An oak, 12 ins. diam., brs. N. 38° E., 48 lks. dist.,
 marked $\frac{1}{4}$ S 9 B T,
 An oak, 10 ins. diam., brs. S. 31° W., 97 lks. dist.,
 marked $\frac{1}{4}$ S 8 B T.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of
 cor. Pits impracticable.
 55.00 Begin descent from slope of ridge.
 65.00 Descend steeper.
 68.35 Gulch, 30 lks. wide, course N.W., ascend.
 72.00 Ridge brs. E. and W.; descend.
 80.00 Set a quartzite stone, 18 X 8 X 6 ins., 12 ins. in the
 ground, for the cor. of secs. 4, 5, 8 and 9, marked with
 4 notches on the E., and 5 notches on the S. face,
 from which
 An oak, 6 ins. diam., brs. N. 78 $\frac{1}{2}$ ° E., 97 lks. dist.,
 marked T 23 S R 20 E S 4 B T,
 A pine, 8 ins. diam., brs. S. 11° E., 123 lks. dist.,
 marked T 23 S R 20 E S 9 B T,
 An oak, 16 ins. diam., brs. S. 73° 45' W., 113 lks.
 dist., marked T 23 S R 20 E S 8 B T. No other
 tree available. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft.
 high, W. of Cor. Pits impracticable.
 Land, mountainous.
 Soil, gravelly, stony and rocky 3rd and 4th rate.
 Timber, pine, oak, pinon, fir, madrono and juniper.
 Undergrowth, oak, buck brush.
 Mountainous land, heavily timbered or covered with dense
 undergrowth, exceptionally difficult to survey, 80.00 chs.
 August 3: At 12 h. 6 m. 9. m. l. m. t., I set off 12° 27' N.,
 on the decl. arc; and observe the sun at the meridian;
 the resulting lat. is 31° 27' N.

40.00 S. 89° 54' E. on a random line bet. secs. 4 and 9.
 Set temp. $\frac{1}{4}$ sec. cor.
 80.10 Intersect the N. and S. line 9 lks. S. of cor. of secs.
 3, 4, 9 and 10.
 Thence I run
 N. 89° 58' W. on a true line bet. secs. 4 and 9.
 7.00 Over mountainous land, ascending through oak timber.
 Top of steep ascent, extends N.E., thence ascend gradually
 along S.E. slope of spur.
 10.00 Leave oak timber, course N.E., enter dense brush.
 19.04 Wire fence brs. N.E. and S.W.
 22.00 Top of spur of mountain extends N.E., begin steep ascent
 along N. slope of mountain.
 30.00 Top of mountain about 12.00 chs. S.
 33.00 Spur about 800 ft. above cor. of secs. 3, 4, 9 and 10.
 Descend.
 40.05 Set a granite stone, 18 X 6 X 5 in., 12 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face from which
 An oak, 8 ins. diam., brs. S. 42° W., 24 lks. dist.,
 marked $\frac{1}{4}$ S 9 B T,
 An oak, 7 ins. diam., brs. N. 21° W., 13 lks. dist.,
 marked $\frac{1}{4}$ S 4 B T.
 Top of mountain brs. 15 chs. S.
 40.76 Gulch, 20 lks. wide, course N.E.
 71.70 Gulch, 900 ft. below top of spur, 30 lks. wide, course N.
 Leave dense brush and ascend.
 78.00 Spur extends N.; descend.
 80.10 The cor. of secs. 4, 5, 8 and 9.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, oak, and scattering pine and madrono.
 Undergrowth, laurel, oak, manzanito and lecheguilla.
 Mountainous land, heavily timbered or covered with dense
 undergrowth, exceptionally difficult to survey, 80.10 chs.

August 3, 1906.

Subdivision of T. 23 S., R. 20 E.,

chains

August 4 At 7 a.m., l.m.t., I set off 31° 27' N. on the lat. arc and 17° 25' N. on the decl. arc., and determine a true meridian with the solar at the cor. of secs. 4, 5, 8 and 9. Thence I run

N. 0° 2' W. on a true line bet. secs. 4 and 5. Over mountainous land, descending through scattering oak timber. Brown's Canyon, 60 lks. wide course E., thence N.E.; ascend. Top of rocky point; descend through dense brush.

2.60 Gulch, 30 lks. wide, course E.; ascend.

5.50 Gulch, 20 lks. wide, course E.

15.00 East end of spur; descend.

20.40 Gulch, 20 lks. wide, course E.; leave dense brush, ascend.

26.50 Out 4 X 15 ft., 20 lks. wide, course W.

29.85 Top of spur, 500 feet above canyon extends E.

30.20 Descend through dense oak brush.

35.00 Set a quartzite stone, 18 X 12 X 5 ins., in mound of stone for 1/4 sec. cor., marked 1/4 on W. face, from which

38.00 An oak, 7 ins. diam., brs. N. 42 1/2° E., 154 lks. dist. marked 1/4 S 4 B T,

40.00 A juniper, 9 ins. diam., brs. S. 18 1/2° W., 42 lks. dist., marked 1/4 S 5 B T.

Raise a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor. Pits impracticable.

43.70 Cabin brs. N. 72 1/2° E., 30.00 chs. dist.

45.00 Gulch, 30 lks. wide, course E., ascend.

48.00 Shaft, 9.00 chs. W.

53.50 Spur extends E., descend.

58.10 Gulch, 20 lks. wide course E., leave dense brush and ascend. Intersect the S. bdy. line of the Huachuca Military Reservation at W point, from which Cor. 19 brs. N. 81° 05' W., 4.39 chs. dist.

A granite stone in place, 16 X 14 X 6 ins. above ground, marked with a cross for exact point for closing corner of fractional secs. 4 and 5 marked

H M R on N.,
C C on S.,
with 4 grooves on E. face,
from which

An oak, 16 ins. diam., brs. S. 44 1/2° E., 40 lks. dist., marked C C T 23 S R 20 E S 4 B T,
An oak, 5 ins. diam., brs. S. 64° W. 28 lks. dist., marked C C T 2 3 S R 20 E S 5 B T.

Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak,
Undergrowth, laurel and oak.
Mountainous land and land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80 58.10 chs.

August 5: At 12 h. 6 m., p.m., l.m.t., I set off 17° 21' N. on the decl. arc and observe the sun on the meridian; the resulting lat. is 31° 27' .30" N. August 4, 1906.

August 5: At 7 a.m., l.m.t., I set off 17° 9' N. on the decl. arc; and 31° 23' N. on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 5, 6, 31 and 32 on the S. bdy. of the Tp. Thence I run

N. 0° 3' W., bet. secs. 31 and 32. Over mountainous land, ascending through heavy oak timber.

29.00 Top of west slope of Sutherland Peak; descend, through dense oak brush.

38.80 Gulch, 20 lks. wide, course W., leave dense oak brush; ascend.

40.00 Set a quartzite stone, 18 X 8 X 6 ins., in mound of stone for 1/4 sec. cor., marked 1/4 on W. face, from which

An oak, 9 ins. diam., brs. S. 64 1/2° E., 35 lks. dist., marked 1/4 S 32 B T,
An oak, 17 ins. diam., brs. N. 38 1/2° W., 56 1/2 lks. dist., marked 1/4 S 31 B T.

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor.

Subdivision of T. 23 S. R. 20 E.

chains

43.00
50.00
62.00
64.70
66.80
72.20
80.00

Spur extends W., descend.
Enter dense oak brush, ~~brush~~ N.E. and S.W.
Enter Bear Canyon, ~~brush~~ S.W. and N.E.
Bear Creek, 25 lks. wide, course S.W.
Leave Canyon and dense brush; ascend.
Blazed trail brs. N.E. and S.W.
Set a porphyrite stone, 18 X 8 X 6 ins., ~~in mound of~~
~~stone~~ for cor. of secs. 29, 30, 31 and 32, marked with
3 notches on the E., and 1 notch on the S. face, from
which

- An oak, 7 ins. diam., brs. N. 38° 45' E., 82 lks. dist., marked T 23 S R 20 E S 29, B T,
- An oak, 10 ins. diam., brs. S. 1° E., 85 lks. dist., marked T 23 S R 20 E S 32 B T,
- An oak, 12 ins. diam., brs. S. 49½° W., 34 lks. dist., marked T 23 S R 20 E S 31 B T,
- An oak, 9 ins. diam., brs. N. 63½° W., 49 lks. dist., marked T 23 S R 20 E S 30 B T.

Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. pits impracticable.

Land, mountainous.

Soil, gravelly, stony and rocky; 3rd and 4th rate.

Timber, oak, and scattering madrone, some sycamore and ash in canyon.

Undergrowth, oak and buck brush.

Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

August 5; At 12 h. 8 m., l.m.t. (p.m.) I set off 17° 5' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 24' N.

East on a random line bet. secs. 29 and 32.

40.00
80.08

Set temp. ¼ sec. cor.
Intersect the N. and S. line 10 lks. N. of cor. of secs. 28, 29, 32 and 33.

Thence I run

N. 89° 56' W. on a true line bet. secs. 29 and 32.

Over mountainous land, descending through scattering oak timber and dense brush.

12.00
26.70

Enter heavy timber, ~~brush~~ N.E. and S.W.

Ridge, 700 feet above sec. cor., brs. N. and S., leave dense brush; begin steep rocky descent.

40.04

Set a granite stone, 18 X 14 X 5 ins., ~~in mound of~~
~~stone~~ for ¼ sec. cor., marked ¼ on N. face, from which

- An oak, 15 ins. diam., brs. N. 49° E., 24 lks. dist., marked ¼ S 29 B T,
- An oak, 9 ins. diam., brs. S. 2½° W., 22 lks. dist., marked ¼ S 32 B T,

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

47.70
61.00

Trail brs. N. and S., enter dense oak brush.

Enter Bear Canyon, 800 ft. below top of ridge.

67.10
69.50

Bear Creek, 20 lks. wide, course S.S.W.

Blazed trail brs. S.W. and N.E.; leave canyon and dense brush; ascend.

76.00
80.08

Spur extends S., descend.

The cor. of secs. 29, 30, 31 and 32.

Land, mountainous.

Soil, gravelly, stony and rocky; 3rd and 4th rate.

Timber, oak, pine, pison, madrone, and ash.

Undergrowth, oak, buck brush, locust and mescal.

Mountainous land, andland heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.08 chs.

August 5, 1906.

Subdivision of T. 23 S., R. 20 E.

chains

August 4; At 7 a.m., l.m.t., I set off $16^{\circ} 55' N$ on the decl. arc; and $31^{\circ} 24'$ on the lat. arc., and determine a true meridian with the solar at the cor. of secs. 29, 30, 31 and 32.
 Thence I run
 West on a random line bet. secs. 30 and 31.
 40.00
 79.49 Intersect the W. boundary of the township 61 lks. S. of cor. of secs. 25, 30, 31 and 36.
 Thence I run
 S. $89^{\circ} 57'$ on a true line bet. secs. 30 and 31.
 Over mountainous land, descending through heavy oak timber and oak brush.
 6.00 Gulch, 30 lks. wide, course S., thence over rolling land.
 16.80 Gulch, 35 lks. wide, course S.S.W.
 35.30 Gulch 30 lks. wide, course S.W.; enter dense brush.
 Ascend. Enter mountainous land.
 39.49 Set a granite stone, 18 X 10 X 8 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
 An oak, 10 ins. diam., brs. N. $21^{\circ} E$, 20 lks. dist., marked $\frac{1}{4}$ S 30 B T,
 An oak, 10 ins. diam., brs. S. $74\frac{1}{2}^{\circ} W$, 49 lks. dist., marked $\frac{1}{4}$ S 31 B T.
 Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 60.00 Spur extends N.E., leave dense brush; descend.
 74.00 Gulch 15 lks. wide, course E; ascend.
 79.49 The cor. of secs. 29, 30, 31 and 32.
 Land, mountainous, and rolling.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, oak, juniper and madrone.
 Undergrowth, oak, buck brush, locust and mezcal.
 Mountainous land and land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 79.49 chs.
 August 5; At 12 h 6 m., p.m., l.m.t., I set off $16^{\circ} 59' N$ on the decl. arc; and observe the sun on the meridian; the resulting lat. is $31^{\circ} 24' N$.

N. $0^{\circ} 3' W$, bet. secs. 29 and 30.
 Over mountainous land, ascending through oak timber.
 Top of west slope of round mountain; descend.
 13.00 Gulch, 30 lks. wide, course S.W.; ascend.
 19.00 Set a porphyrite stone, 18 X 10 X 8 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which.
 40.00 An oak, 12 ins. diam., brs. N. $50\frac{1}{2}^{\circ} E$, 13 lks. dist., marked $\frac{1}{4}$ S 29 B T,
 An oak, 18 ins. diam., brs. N. $28\frac{1}{2}^{\circ} W$, 28 lks. dist., marked $\frac{1}{4}$ S 30 B T,
 Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 43.30 Spur extends W.; descend.
 54.00 Deep gulch, 30 lks. wide, course S.W.; begin steep ascent.
 58.40 Large boulder, 40 ft. high, brs. 1.00 ch. W. descend.
 59.40 Gulch, 25 lks. wide, course S.W. ascend.
 66.00 Leave oak timber, bears N.E. and S.W.
 72.80 Spur extends S.W.; descend, 600 ft. above gulch.
 80.00 Set a porphyrite stone, 18 X 10 X 6 ins., 12 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, marked with 5 notches on the E. and 2 notches on the S. edge, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, stony, and rocky; 4th rate.
 Timber, oak and scattering pinon and juniper.
 Undergrowth, oak, buck brush and mezcal.
 Mountainous land, and land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

For bearing to U.S. L.M. see page 81 supplement hereto attached.

STUD

August 5, 1906.

chains	
	<p>August 7. At 7 a.m., l.m.t., I set off 16° 33' N. on the decl. arc; and 31° 24' N on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 19, 20, 29 and 30.</p> <p>Thence I run line</p> <p>S 89° 56' E. random bet. secs. 20 and 29.</p>
40.00	Set temp. 1/4 sec. cor.
79.89	Intersect the N. and S. lines 1 1/2 lks. S. of cor. of secs. 20, 21, 28 and 29.
	Thence I run
	S 2 89° 59' W., on a true line bet. secs. 20 and 29. Over mountainous land, ascending through scattering timber and dense oak brush.
13.00	Top of ridge brs. N. and S., thence along S. slope.
33.80	Gulch 25 lks. wide, course S.,
39.90	Set a granite stone, 18 X 8 X 8 ins., in mound of stone, for 1/4 sec. cor., marked 1/4 on N. face, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.
61.00	Gulch, 20 lks. wide, course S.S.W. Ascend.
68.00	Descend; course N.N.E. and S.S.W.
79.80	The cor. of secs. 19, 20, 29 and 30. Land, mountainous. Soil, stony and rocky; 4th rate. Timber, scattering oak and pine. Undergrowth, oak, buck brush and mezcal. Mountainous land and land heavily covered with dense undergrowth, exceptionally difficult to survey, 79.80 chs.
	<p>August 7, 1906. At 12 h., 6 m., p.m., l.m.t., I set off 16° 33' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 24' N.</p> <hr/> <p>N. 89° 57' W. on a random line bet. secs. 19 and 30.</p>
40.00	Set temp. 1/4 sec. cor.
79.48	Intersect the W. bdy. of the tp. 8 lks. S. of the cor. of secs. 19, 24, 25 and 30.
	Thence I run
	S. 89° 54' E., on a true line bet. secs. 19 and 30. Over mountainous land, descending through heavy oak timber.
5.20	Gulch, 30 lks. wide, course S., ascend.
14.90	Enter dense brush, course N.W. and S.E.
22.00	Leave dense brush, course N.W. and S.E.
30.60	Spur, 500 ft. above gulch, extends S., descend through dense oak brush.
38.60	Gulch, 20 lks. wide, course S., begin steep ascent.
39.48	Set a porphyry stone, 18 X 14 X 12 ins., in mound of stone, for 1/4 sec. cor., marked 1/4 on N. face, from which
	An oak, 12 ins. diam., brs. S. 43° E., 20 lks. dist., marked 1/4 S 30 B T,
	A madrono, 14 ins. diam., brs. N. 57° W., 38 lks. dist., marked 1/4 S 19 B T.
	Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.
47.00	Leave heavy timber, course N.E. and S.W.
60.60	Top of spur, 600 ft. above 1/4 sec. cor., thence along S. slope of spur.
67.00	Descend; leave scattering timber, course N.E. and S.W.
75.80	Deep rocky gulch, 30 lks. wide, course S.W.; ascend.
79.48	The cor. of secs. 19, 20, 29 and 30. Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, oak, juniper and madrono, Undergrowth, oak, buck brush, locust and mezcal. Mountainous land, land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 79.48 chs.
	August 7, 1906.

Subdivision of T. 23 S., R. 20 E.

chains

August 3, 1906. At 7 a.m., l.m.t., I set off 16° 20' N. on the decl. arc; and 31° 24' N on the Lat. arc; and determine a true meridian with the solar at the cor. of secs. 19, 20, 29 and 30.

Thence I run North 0° 3' W., bet. secs. 19 and 20.

Over mountainous land, descending through dense oak

9.80 gulch, 30 lks. wide, course S.W.; begin steep ascent.

31.80 Top, brs. E. and W., thence along W. slope of ridge.

40.00 Set a limestone, 21 X 8 X 5 ins., in mound of stone, for 1/4 sec. cor., marked 1/4 on W. face, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

55.00 Descend through heavy timber, leave dense brush - bears N.W. and S.E.

68'00 Trail brs. N.E. and S.W.

75.30 Gulch, 20 lks. wide, course N.E.; ascend.

80.00 Set a limestone, 18 X 12 X 5 ins., in mound of stone, for cor. of secs. 17, 18, 19 and 20, marked with 5 notches on the E., and 3 notches on the S. edge., from which

A juniper, 14 ins. diam., brs. N. 34° E., 31 lks. dist., marked T 23 S R 20 E S 17 B T,

An oak, 9 ins. diam., brs. S. 35° E., 43 lks.

dis dis., marked T 23 S R 20 E S 20 B T,

An oak, 6 ins. diam., brs. S. 18° W., 71 lks. dist., marked T 23 S R 20 E S 19 B T,

An oak, 10 ins. diam., brs. N. 18 1/2° W., 71 lks. dist., marked T 23 S R 20 E. S 18 B T.

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, stony and rocky; 4th rate.

Timber, pine, oak, fir, balsam.

Undergrowth, oak, buck brush, locust and mezcal.

Mountainous land, land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

August 8: At 12 h. 6 m., p.m., l.m.t., I set off 16° 20' N. on the dec. arc; and observe the sun on the meridian; the resulting lat. is 31° 25' N.

40.00 N. 89° 59' E. on a random line bet. secs. 17 and 20.

80.04 Set a temp. 1/4 sec. cor.

Intersect the N. and S. line 10 lks. N. of the cor. of secs. 16, 17, 20 and 21.

Thence I run

N. 89° 57' W., on a true line bet. secs. 17 and 20.

Over mountainous land, ascending through heavy timber.

Spur extends N.; descend.

Tent, brs. N. 4.00 chs. dist.

Tunnel brs. S. 1.00 ch. dist.; tent brs. N. 2.00 chs. dist.

Tent brs. N.E.

house brs. N. 1.00 ch. dist.

House, brs. N. 1.00 chs. dist.

Tent brs. N. 2.49 ch. dist.

Ramsay Creek 20 lks. wide, course N.E., in canyon; ascend.

House brs. N. 3.00 chs. dist.

Trail brs. N.E. and S.W.

Trail brs. N.E. and S.W.

Trail brs. N.E. and S.W. Ramsay Canyon, course N.E.

Trail brs. E.S.E. and W.N.W.

N. fork of Ramsay Canyon, 60 lks. wide, course E.

3.04
5.44
7.04
9.89
10.54
10.84
11.00
11.44
12.04
12.44
12.64
12.94
19.04
19.74

Subdivision of T. 23 S., R. 20 E.,

chains	
27.04	Spur extends S., ascend. steep through dense oak brush
30.34	Enter Canyon; descend.
33.95	Trail brs. S.E. and N.W.
34.44	Leave the N. fork of Ramsay Canyon, course S.E.
40.02	Set a quartzite stone, 21 X 8 X 8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face, from which An oak, 9 ins. diam., brs. S. 22 $^{\circ}$ E., 42 lks. dist., marked $\frac{1}{4}$ S 20 B T, An oak, 16 ins. diam., brs. N. 53 $^{\circ}$ W., 74 lks. dist., marked $\frac{1}{4}$ S 17 B T.
52.25	Spur extends N.E., descend.
62.94	Trail brs. N.E. and S.W.
63.34	Gulch, 30 lks. wide, course N.E., enter dense brush, ascend.
80.04	The cor. of secs. 17, 18, 19 and 20. Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, pine, oak, balsam, ash and madrono. Undergrowth, oak, buck brush, locust, mezcal. Mountainous land, or land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 80.04 chs. August 7, 1906.
	August 8, 1906.
	August 9: At 7 a.m.; l.m.t., I set off 16 $^{\circ}$ 03' N. on the decl. arc; and 31 $^{\circ}$ 25' on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 17, 18, 19 and 20. Thence I run N. 89 $^{\circ}$ 54' W. on a random line bet. secs. 18 and 19. 40.00 Set temp. $\frac{1}{4}$ sec. cor. 79.28 Intersect the W. br. 6 lks. N. of the cor. of secs. 18, 19 and 20. Thence I run S. 89 $^{\circ}$ 57' E., on a true line bet. secs. 18 and 19. Over mountainous land, ascending steep through dense brush. 3.80 Trail brs. N. and S. 23.00 Rocky spur, extends S.W.; thence ascending gradually along top of mountain. 25.00 Leave brush, brs. N. & S., enter heavy pine timber. 27.00 Gulch, 20 lks. wide, course S.W., along S. side of mountain. 28.90 Open out brs. 1.00 ch. N. 37.25 Trail brs. W.N.W. and E.S.E. 38.70 Same trail brs. W.S.W. and E.N.E. 39.28 Set a sandstone, 20 X 10 X 8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which An oak, 30 ins. diam., brs. S. 76 $^{\circ}$ W., 10 lks. dist., marked $\frac{1}{4}$ S 19 B T, An oak, 18 ins. diam., brs. N. 2 $^{\circ}$ W., 35 lks. dist., marked $\frac{1}{4}$ S 18 B T. 40.70 Trail brs. N.W. and S.E. 42.50 Same trail, brs. S.W. and N.E., leave side of gulch; ascend. S.E. 54.30 Trail brs. N.W. & ascend. 56.40 Corral brs. S. 30 lks. dist. 71.00 Sharp rocky spur, extend S.; leave heavy timber, descend through dense brush. 78.00 Enter heavy timber, brs. N.E. and S.W. 79.28 The cor. of secs. 17, 18, 19 and 20. Land, mountainous. Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, pine, fir, balsam, oak, madrono and juniper; Undergrowth, oak, buck brush and mezcal. Mountainous land, land heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 79.28 chs.

Subdivision of T. 25 S., R. 20 E.

chains	<p>August 9, 1906. At 12 h 5 m., l.m.t., I set off 15° 59' N., on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 25' N.</p>
7.00	<p>N. 0° 3' W. on a true line bet. secs. 17 and 18. Over mountainous land, ascending through oak timber and dense brush. Spur extends E., leave dense brush, begin steep descent through heavy pine timber.</p>
15.40	<p>Small gulch, course N.E., foot of steep descent.</p>
24.20	<p>Trail brs. E. and W.</p>
27.20	<p>Open out brs. E., 9 links dist.</p>
27.40	<p>Gulch 20 lks. wide, course E., reenter dense brush, ascend.</p>
28.00	<p>Tent brs. E. 9 chs. dist.</p>
32.00	<p>Spur extends E., leave heavy timber and descend.</p>
36.70	<p>North fork of Ramsay Canyon, 80 lks. wide, course S.E., Ascend.</p>
38.60	<p>Timber chute, course S.E.</p>
40.00	<p>Set a granite stone, 18 X 10 X 8 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which</p>
	<p>A pine, 30 ins. diam., brs. S. 45° E., 89 lks. dist., marked $\frac{1}{4}$ S 17 B T;</p>
	<p>A pine, 28 ins. diam., brs. S. 44$\frac{1}{2}$° W., 130 lks. dist., marked $\frac{1}{4}$ S 18 B T.</p>
	<p>Raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p>
59.55	<p>Ridge and top of watershed between Ramsay and Hays and Tanner's canyons, brs. E. and W.</p>
	<p>Intersect the S. bdy. of Ft. Huachuca Military Reservation at a point from which Cor. No. 32 brs. N. 77° 15' E., 5.40 chs. dist.</p>
	<p>Set a limestone, 18 X 14 X 12 ins., 12 ins. in the ground, for closing cor. of secs. 17 and 18, marked with C C on E., and with 5 grooves on E. face, and F H M R on N., from which</p>
	<p>An oak, 9 ins. in diam., brs. S. 26° E., 58 lks. dist., marked T 23 S R 20 E S 17 B T,</p>
	<p>A pine, 14 ins. diam. brs. S. 32$\frac{1}{2}$° W., 28 lks. dist., marked T 23 S R 20 E S 18 B T.</p>
	<p>Land, mountainous.</p>
	<p>Soil, stony and rocky, 4th rate.</p>
	<p>Timber, pine, oak, pinon and fir.</p>
	<p>Undergrowth, oak, buck brush, mezcal.</p>
	<p>Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 59.55 chs.</p>
	<p>August 9, 1906.</p>
	<p>August 10, 1906. At 7 a., l.m.t., I set off 15° 45' N. on the decl. arc; and 31° 26' N on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 8, 9, 16 and 17.</p>
	<p>Thence I run N. 89° 57' W., on true line bet. secs. 8 and 17. Over mountainous land, descending along N. slope of spur, through heavy timber, and scattering brush.</p>
6.00	<p>Gulch, 20 lks. wide, course N.E., begin steep ascent over limestone reefs.</p>
16.00	<p>Leave reefs; enter dense brush, brs. N.W. and S.E.</p>
23.80	<p>Reenter reefs, course N.E.</p>
30.30	<p>Sharp rocky spur, extends N., 800 ft. above Ramsay's Canyon; descend.</p>
35.60	<p>Gulch, 20 lks. wide, course N., leave reefs; ascend.</p>
40.00	<p>Point for $\frac{1}{4}$ sec. cor. falls on limestone rock in place, 5 X 2 ft., X 6 ins., above ground, marked with cross and $\frac{1}{4}$ for exact $\frac{1}{4}$ sec. cor. point, from which</p>

47.70
52.20
72.58

A pine, 7 ins. diam., brs. N. 52° E., 64 lks. dist., marked $\frac{1}{4}$ S 8 B T.
A juniper, 24 ins. diam., brs. S. 46° E., 30 lks. dist., marked $\frac{1}{4}$ S 17 B T.
Spur, extends N., descend; leave dense brush.
Gulch, 20 lks. wide, course N., ascend.
Intersect the Ft. Huachuca Military Reservation at a point from which cor. No. 30 brs. N. 8° 50' W., 11.00 chs. dist.
Set a limestone, 31 X 14 X 10 ins., 16 ins. in the ground, for the closing cor. of secs. 8 and 17, marked with C C and 4 grooves on E., and F H M R on W.

An oak, 9 ins. diam., brs. N. 87½° E., 79 lks. dist., marked T 23 S R 20 E S 8 B T.
A pine, 16 ins. diam., brs. S. 19½° E., 25 lks. dist., marked T 23 S R 20 E S 17 B T.

Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber; pine, oak, fir, pinon, balsam, juniper and maple.
Undergrowth, oak, locust, mezcal.
Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey, 72.58 chs.
August 10, At 12 h. 5 m., l.m.t., (p.m.) I set off 15° 41' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 31° 26' N.

2.80
7.00
18.80
40.00

N. 89° 57' W., on a true line bet. secs. 5 and 8. Over mountainous land, descending through scattering timber and dense brush.

Enter Brown's canyon, brs. N.E. and S.W.
Leave Brown's Canyon; ascend.
Begin steep ascent along N. slope of spur.
The point for $\frac{1}{4}$ sec. cor. falls on a porphyry rock in place, 4 X 2 X 1 ft. above ground, which I mark with cross $\frac{1}{4}$ for exact $\frac{1}{4}$ sec. cor. point, from which
An oak, 8 ins. diam., brs. N. 51° W., 33 lks. dist., marked $\frac{1}{4}$ S 8 B T.
A walnut, 6 ins. diam., brs. N. 51° W., 33 lks. dist., marked $\frac{1}{4}$ S 5 B T.

46.88
50.11
52.00
52.50

Trail brs. N. and S., enter heavy timber.
Same trail brs. S.E. and N.W.
Top of pass, 1400 ft. above Brown's Canyon.
Placer diggings on both side of the line.
Intersect the Ft. Huachuca Military Reservation at a point from which Cor. No. 26, brs. S. 4° 10' E., 11.80 chs. dist.
Set a limestone, 18 X 8 X 8 ins., 12 ins. in the ground, for the closing corner of secs. 5 and 8, marked with C C on E., with 5 grooves on N., and 5 grooves on S., and F H M R on W., from which
A pine, 20 ins. diam., brs. S. 6° E., 45 lks. dist., marked T 23 S R 20 E S 8 C C B T.
A pine, 20 ins. diam., brs. N. 75° E., 46 lks. dist., marked T 23 S R 20 E S 5 C C B T.
Land, mountainous.
Soil, gravelly, stony and rocky, 3rd and 4th rate.
Undergrowth, oak, buck brush, locust and mezcal.
Timber, oak, pine, pinon and walnut.
Mountainous land, heavily timbered or covered with dense undergrowth, exceptionally difficult to survey. 52.50 chs.

August 10, 1906.

General Description.

This township is bounded on the north by the Huachuca Military Reservation and embraces a portion of the Huachuca Mountain Range. There is an abundance of oak timber and some pine timber is found on top of the mountains.

The township is well watered by a number of springs and running streams. The soil is gravelly and rocky. There are some settlers within the township, whom have made some substantial improvements. The reservoir that supplies the water to Tombstone is situated in Section 23.

Note. After diligent search I have been unable to find any trace of any mining claims that have been surveyed for patent. In order to avoid unnecessary delay and expense, I therefore will endeavor will endeavor to make a special search after completion of all my surveys under contract No. 138.

Philip Couzger
U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Philip Coutzen

....., 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 the

Subdivisions of T. 23 S. R. 20 E.

showing the respective capacities in which they acted:

Arthur Pogue....., Chainman.

Harry Malloy....., Chainman.

....., Moundman.

Louis Renaud....., Moundman.

L.C. Millar....., Axman.

....., Axman.

Wiley Box....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Philip Coutzen

....., United States Deputy Surveyor, in surveying all

those parts or portions of the subdivisions of T. 23 S.

R. 20 E.

..... of the

..... meridian, of

....., 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

Arthur Pogue....., Chainman.

Harry Malloy....., Chainman.

Louis Renaud....., Moundman.

....., Moundman.

....., Axman.

L.C. Millar....., Axman.

Wiley Box....., Flagman.

Subscribed and sworn to before me this 11th

day of August, 1906

W. G. Power



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Philip Coutzen United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Lugalls United States Surveyor General for Arizona, bearing date of the 12th day of April, 1906 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 Ariz, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Subdivisions of T 23 S. R. 20 E

of the Gila and Salt River meridian, in the Territory 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; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Philip Coutzen
United States Deputy Surveyor.

Subscribed by said Philip Coutzen, and sworn to before me }
this 11th day of August, 1906



Allan B. Jaynes
CLERK U. S. DISTRICT COURT FOR FIRST JUDICIAL DISTRICT, ARIZONA.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ar June 29, 1907
The foregoing field notes of the survey of the subdivisional lines of T 23 S, R 20 E of the Gila and Salt River Base and Meridian, in the Territory of Arizona

executed by Philip Coutzen D.S.
under his contract No. 138, dated April 12th 1906, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

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.

APR 10 1908

BOOK 2047

FIELD NOTES

OF THE SURVEY OF THE

Connections to Mineral Monuments

Tp. 23 S., R. 20 E.

and

Retracement exterior lines of Uudine Mq. Clin.

in Tp 23 S., R. 20 E.

Of the *Gila & Salt River Base & Meridian,*

Territory of Arizona

AS SURVEYED BY

Philip Contzen

, United States Deputy Surveyor,

Under his Contract No. *138*, dated *April 12th*, 1906.

Survey commenced *March 1*, 1908

Survey completed *March 5th*, 1908

12

BOOK 2047

NAMES AND DUTIES OF ASSISTANTS.

A. A. Lyright. ~~~~~ Flagman
Clarence Young ~~~~~ Chairman.
Harry W. Mallory ~~~~~ Chairman

INDEX DIAGRAM.

Township _____, Range _____

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, Harry W. Mallory and Clarence Young
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 Connections to U. S. M. M.'s + Retracement of ext. line of Madine Mg. Cln. in Hartford. Mg. Dist., T. 23 S. R. 20 E. 1st.

Harry W. Mallory, Chainman.
Clarence Young, Chainman.

Subscribed and sworn to before me this 1st
day of March, 1908.



Philip Conzger
U. S. Deputy Surveyor
No Notary available.

WE, _____ 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 _____

_____, Moundman.
_____, Moundman.

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



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, A. A. Lysight, 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 Connections to U. S. M. M.'s + Retracement of Ext. of Madine Mg. Cln. Hartford Mg. Dist., T. 23 S. R. 20 E. 1st.

A. A. Lysight, Flagman.

Subscribed and sworn to before me this 1st
day of March, 1908.



Philip Conzger
U. S. Deputy Surveyor
No Notary available.

Chs.

Field notes of connections to certain Mineral Monuments in Tp. 23 S., R. 20 E.; Also, retracement of the Undine mining claim, Lot No. 38, Surveyed under Contract #138.

March 1, 1908.

Connections to U. S. Mineral Monuments:-

From a point N. 0° 1' W., ^{35.95 chs.} 2333.1 ft. from cor. of secs. 26, 27, 34 and 35, Tp. 23 S., R. 20 E., U. S. Mineral Monument No. 1579, Hartford Mining District, brs. N. 50° 15' W., ~~62.7~~ ft. ^{0.95 chs.}

From 1/4 sec. cor. bet. secs. 28 and 29, Tp. 23 S., R. 20 E., U. S. L. M. No. 1708, Hartford Mining District, bears N. 20° 50' E., ~~2092~~ ft. ^{3 1/2 chs.}

From 1/4 sec. cor. bet. secs. 20 and 21, tp. 23 S., R. 20 E., U. S. L. M. No. 1, Hartford Mining District, bears N. 81° 38' E., ~~702.9~~ ft. ^{10.65 chs.}

From 1/4 sec. cor. bet. secs. 30 and 31, Tp. 23 S., R. 20 E., U. S. L. M. No. 2171, Hartford Mining District, bears N. 19° 20' W., ~~2339.7~~ feet. ^{35.45 chs.}

Note: These are the only Mineral Monuments that were within this township.

Retracement of Exterior Lines of Undine Mining claim.

As the official field notes of survey of the Undine mining claim do not correspond with its connection given to the U.S. Mineral Monument, I proceed to retrace the same, to show the actual discrepancy:

I begin at cor. No. 3, which is identical with original cor., and at 9.30 A.M., l.m.t., on March 5, 1908, I set off 31° 26' N. on the lat. arc; 6° S. on the decl. arc, and determine a meridian with the solar.

Whence,

Cor. of secs. 16, 17, 20 and 21, Tp. 23 S., R. 20 E., bears N. 9° W., ~~235.5~~ feet. ^{3.57 chs.}

- Thence I run, S. 28° 57' E.
- To Cor. No. 4; identical with original cor. of survey. Thence S. 61° 10' E.
- To Cor. No. 5; identical with original cor. of survey. Thence S. 58° 45' E.
- To Cor. No. 6; identical with original cor. of survey. Thence N. 22° 21' W.
- To Cor. No. 7; identical with original cor. of survey. Thence N. 65° 25' W.
- To Cor. No. 2; identical with original cor. of survey. Thence N. 61° W.
- To Cor. No. 3, and place of beginning.

24.15
~~1594.~~
 2.06
~~136.~~
 2.93
~~193.3~~
 21.25
~~1402.8~~
 4.50
~~296.7~~
 4.47
 295.

Note: All cors. and bearing trees practically correspond with the description given in the official field notes.

Philip Conzen
U.S. Deputy Surveyor

see original notes page 7
 see original notes page 20.
 see original notes page 22
 see original notes page 28
 see original notes page 27

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Philip Contzen

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 Connections to U. S. M. Monis by Retracement of Est. lines of Undine Mg. Clin. Hartford Mg. Dist. T. 23 S. R. 20 E. showing the respective capacities in which they acted:

Harry W. Mallory Chainman.

Clarence Young Chainman.

Moundman.

Moundman.

Axman.

Axman.

A. A. Lysight Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Philip Contzen

United States Deputy Surveyor, in surveying all those parts or portions of the Connections to U. S. M. Monis & Retracement of Est. lines of Undine Mg. Clin. Hartford Mg. Dist. in T. 23 S. R. 20 E.

of the Salt River meridian, Tery 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

Harry W. Mallory Chainman.

Clarence Young Chainman.

Moundman.

Moundman.

Axman.

Axman.

A. A. Lysight Flagman.

Subscribed and sworn to before me this 6th day of March, 1908



Philip Contzen U. S. Deputy Surveyor No Notary available

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Philip Contzen 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 12 day of April, 1906, 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 connections to U. S. M. Mon. & retracement of Exterior Bds. of Undine Mng. Clm. in Hartford Mng. Dist. T. 23 S., R. 20 E.

of the Gila & Salt River Base & meridian, in the Territory 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.

Philip Contzen
United States Deputy Surveyor.

Subscribed by said Philip Contzen, and sworn to before me }
this 9th day of April, 1908

James R. Dunscomb
U. S. Commissioner 1st Jud. Dist.
Territo of Arizona.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, June 16th, 1908

The foregoing field notes of the survey of connections to U. S. M. Mineral Monuments and the retracements of the exterior boundaries of the Undine Mineral Claim, situate in Hartford Mining Dist T 23 S R 20 E. of the Gila and Salt River Base and Meridian, in the territory of Arizona.

executed by Philip Contzen, U. S. deputy surveyor under his contract No. 138, dated April 12th 1906, ~~190~~, 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.