

2328 FIELD NOTES

2328

Accepted G.L.O. letter "E" dated Dec. 17, 1912.
OF THE SURVEY OF THE

Subdivisions of T 18 P R 26 E

and
Retracement of South, East and West Bds.

Of the Gila Salt River Meridian,

In the State of Arizona

EXECUTED BY

John F. Hesse and
Alfred N. Oliver

In the capacity of U. S. ^{Insitment} Surveyor, under instructions dated Aug 25, 1912,
issued by the United States Surveyor General to govern surveys included in
Group No. 5, which were approved by the Commissioner of the General Land
Office, (September 9, 1910), pursuant to authority contained in the Act of
Congress dated March 4, 1911.

Survey commenced August 3, 1911.

Survey completed August 14, 1911.

INDEX DIAGRAM.

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INDEX DIAGRAM.

Township 18D, Range 26E

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PRELIMINARY OATHS OF ASSISTANTS.

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BOOK 2328

WE, J. H. Bates, R. A. Coombs and A. E. Lyon R. L. Bates.

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

the subdivision lines of Tp. 18 S. Rg. 26 E. and resurvey of the south, east and west boundaries of Tp. 18 S. Rg. 26 E.

A. E. Lyon Chainman.
R. L. Bates Chainman.

Subscribed and sworn to before me this 4th day of August, 19 11



John P. Hesse
U. S. Transitman.

WE, H. R. Harvey and E. E. Mills

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

the subdivision lines of Tp. 18 S. Rg. 26 E. and resurvey of the south, east and west boundaries of Tp. 18 S. Rg. 26 E.

H. R. Harvey Moundman.
E. E. Mills Moundman.

Subscribed and sworn to before me this 4th day of August, 19 11



John P. Hesse
U. S. Transitman.

WE, E. Barnes and H. F. Dillman

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

the subdivision lines of Tp. 18 S. Rg. 26 E. and resurvey of the south, east and west boundaries of Tp. 18 S. Rg. 26 E.

E. Barnes Axman.
H. F. Dillman Axman.

Subscribed and sworn to before me this 4th day of August, 19 11



John P. Hesse
U. S. Transitman.

Ralph Brown

~~We~~ ^{we} ~~do~~ ^{we} ~~solemnly~~ ^{do} ~~swear~~ ^{swear} that ~~I~~ ^{we} will well and truly perform the duties of flagman according to instructions given ~~me~~ ^{us} to the best of ~~my~~ ^{our} skill and ability, in the survey of the subdivision lines of Tp. 18 S. Rg. 26 E. and resurvey of the south east and west boundaries of Tp. 18 S. Rg. 26 E.

Ralph Brown
P. B. Hilderbran Flagman.

Subscribed and sworn to before me this 4th day of August, 19 11



John P. Hesse
U. S. Transitman.

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Survey commenced August 3, 1911, and executed with an A. Lietz light mountain transit, No. 7532, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined and approved by the Supervising Surveyor.

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

At my camp, which is near the cor. of secs. 21, 22, 27 and 28, Tp. 19 S., Rg. 25 E.; latitude, $31^{\circ}45\frac{1}{2}'N.$; longitude $109^{\circ}48'33''W.$; I set off $31^{\circ}45\frac{1}{2}'N.$ on the lat. arc; $17^{\circ}38'N.$ on the decl. arc; and, at 5h.00m.p.m., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

At 10h.45m.p.m., by my watch, which has correct l.m.t., I observe Polaris at eastern elongation, in accordance with 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.

August 3, 1911.

August 4: At 6 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}23'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set August 3, on which the meridian coincides with the mark determined by the Solar.

At 7h.00m.a.m., l.m.t., I set off $31^{\circ}45\frac{1}{2}'N.$ on the lat. arc; $17^{\circ}28\frac{1}{2}'N.$ 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 coincides with the meridian determined by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively, which coincide with 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 7h.15m.a.m., is $N.13^{\circ}15'W.$; the angle thus determined gives the magnetic decl. $13^{\circ}15' E.$

At 9h.00m.a.m., l.m.t., I set off $31^{\circ}49'N.$ on the lat. arc; $17^{\circ}26\frac{1}{2}'N.$ on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 18 and 19 S., Rs. 26 and 27 E., and as the post is badly rotted and the mound of stone in poor condition, I reestablish the cor. in the same place as follows:

Set a quartzite stone 20x10x6 ins., 15 ins. in the ground for cor. of Tps. 18 and 19 S., Rs. 26 and 27 E., marked

18 S on NE.,

27 E on SE.,

19 S on SW., and

26 E on NW. face; with 6 notches on each edge; dig

pits 24x24x12 ins. on each line, N., E. and W., 4 ft.

and S. of stone 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.

Thence I retrace north on the E. bdy. of the Tp., bet. secs. 31 and 36.

39.60 Fall 87 lks. E. of $\frac{1}{4}$ sec. cor.

Thence north from $\frac{1}{4}$ sec. cor.

39.85 Fall 60 lks. E. of cor. of secs. 25, 30, 31 and 36.

2. Retracement of the East bdy. of Township 18 South, Range 26 E.

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Chains.

- North, bet. secs. 25 and 30.
39.91 Fall 7 lks. W. of $\frac{1}{4}$ sec. cor.
Thence north from $\frac{1}{4}$ sec. cor.
- 40.03 Fall 2 lks. E. of cor. of secs. 19, 24, 25 and 30.
August 4: At this cor, I set off $17^{\circ} 24\frac{1}{2}' N.$ on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ} 50\frac{1}{2}' N.$
-
- North, bet. secs. 19 and 24.
39.97 Fall 36 lks. W. of the $\frac{1}{4}$ sec. cor.
Thence north from $\frac{1}{4}$ sec. cor.
- 40.00 Fall 18 lks. E. of cor. of secs. 13, 18, 19 and 24.
-
- North, bet. secs. 13 and 18.
40.00 Fall 59 lks. W. of $\frac{1}{4}$ sec. cor.
Thence from $\frac{1}{4}$ sec. cor. north.
- 40.12 Fall 5 lks. W. of cor. of secs. 7, 12, 13 and 18.
-
- North, bet. secs. 7 and 12.
40.29 Fall 5 lks. E. of $\frac{1}{4}$ sec. cor.
Thence north from $\frac{1}{4}$ sec. cor.
- 39.57 Fall 19 lks. W. of cor. of secs. 1, 6, 7 and 12.
-
- North, bet. secs. 1 and 6.
40.02 Fall on $\frac{1}{4}$ sec. cor.
Thence north from $\frac{1}{4}$ sec. cor.
- 40.49 Fall 1 link W. of cor. of Ts. 17 and 18 S., Rs. 26 and 27 E.
August 4, 1911.
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- August 7: At 7h.00m. a.m., l.m.t., I set off $31^{\circ} 49' N.$ on the lat. arc; $16^{\circ} 40' N.$ on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 18 and 19 S., Rs. 26 and 27 E.
Thence I run,
 $N. 1^{\circ} 15' W.$ on E. bdy. of sec. 36.
Over nearly level land.
- 39.60 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:
Set a quartzite stone $18 \times 10 \times 5$ ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor. on W. bdy. of sec. 31, marked $\frac{1}{4}$ on W. face; dig pits $18 \times 18 \times 12$ ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 40.64 Thence $N. 0^{\circ} 51' W.$
Set a malpais stone $24 \times 8 \times 5$ ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor., on E. bdy. of sec. 36, marked $\frac{1}{4}$ on W. face; dig pits $18 \times 18 \times 12$ ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 79.45 I destroy all traces of the old sec. cor., and reestablish it in the same place as follows:
Set a quartzite stone $18 \times 12 \times 10$ ins., 12 ins. in the ground for cor. of secs. 30 and 31, marked with 1 notch on S. and 5 notches on N. edges; dig pits $24 \times 24 \times 12$ ins. in each sec. 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.
Thence I run,
 $N. 0^{\circ} 6' E.$, continuing measurement.
- 80.64 Set a malpais stone $24 \times 10 \times 5$ ins., 18 ins. in the ground for cor. of secs. 25, and 36, marked with 1 notch on S. and 5 notches on N. edges; and raise a mound of earth

Chains.

4 ft. base, 2 ft. high, W. of cor.
Land, level.
Soil, sandy loam, medium texture, dry, 1st rate.
No timber.
Some grass.

-
- N.0°06'E. on E. bdy. of sec. 25.
Over slightly rolling land.
- 24.48 Cross road, brs. NE. and SW.
- 33.81 Cross wash, 6 lks. wide, course SE.
- 38.72 I raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of old $\frac{1}{4}$ sec. cor., which is a rock marked as described by the Surveyor General. Pits impracticable.
Thence N.0°2'W.
- 40.00 Set a malpais stone 20x8x5 ins., 14 ins. in the ground for $\frac{1}{4}$ sec. cor. on E. bdy. of sec. 25, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 41.72 Ascend steep rocky hill.
- 64.72 Top of hill, bears NW. and SE.; descend.
- 78.75 I destroy all traces of old sec. cor., and reestablish it in the same place as follows:
Set a malpais stone 24x8x8 ins., 18 ins. in the ground for cor. of secs. 19 and 30, marked with 4 notches on N. and 2 notches on S. faces; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor. Pits impracticable.
Thence N.0°31'E., continuing measurement.
- 80.00 Set a malpais stone 20x10x8 ins., 16 ins. in the ground for cor. of secs. 24 and 25, marked with 4 notches on N. and 2 notches on S. faces; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, rolling and hilly.
Soil, very sandy loam over 2 ft. deep; dry, medium texture, 2nd rate, except 38.29 chs., which is rocky and worthless, 4th rate.
No timber. No undergrowth.

-
- N.0°31'E. on E. bdy. of sec. 24.
- 21.75 Descending steep rocky hill,
Over rolling land.
- 38.72 I destroy all traces of old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:
Set a malpais stone 22x8x6 ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor., on W. bdy. of sec. 19, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Thence N.0°15'W.
- 40.00 Set a phonolite stone 18x6x5 ins., 16 ins. in the ground for $\frac{1}{4}$ sec. cor. on E. bdy. of sec. 24, marked $\frac{1}{4}$ x on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 78.72 I destroy all traces of the old sec. cor., and reestablish it in the same place as follows:
Set a phonolite stone 18x7x4 ins., 14 ins. in the ground, for cor. of secs. 18 and 19, marked with 3 notches on N. and 3 notches on S. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.
Thence N.0°51'E., continuing measurement.
- 80.00 Set a phonolite stone 18x6x4 ins., 14 ins. in the ground for cor. of secs. 13 and 24, marked with 3 notches on N. and 3 notches on S. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

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Land, rolly and hilly.
Soil, sandy loam over 2 ft. deep, dry, medium texture, 1st rate, except 21.75 chs., which is rocky and worthless, 4th rate.
No timber.
No undergrowth.

N.0° 51' E. on E.bdy. of sec. 13.
Over slightly rolling land.

38.72 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:
Set a phonolite stone 18x6x5 ins., 14 ins. in the ground for $\frac{1}{4}$ sec. cor. on W.bdy. of sec. 18, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

Thence N, 0° 4' E.

40.00 Set a phonolite stone 18x6x5 ins., 14 ins. in the ground for the $\frac{1}{4}$ sec. cor. on E.bdy. of sec. 13, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

75.94 Cross road, bears NW. and SE.

78.38 Cross road, bears NW. and SE.

78.84 I destroy all traces of the old cor. of secs. 7 and 18, and reestablish it in the same place as follows:

Set a phonolite stone 14x8x6 ins., 10 ins. in the ground for cor. of secs. 7 and 18, marked with 2 notches on N. and 4 notches on S. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.

Thence N. 0° 4' W., continuing measurement.

80.00 Set a phonolite stone 18x6x6 ins., 14 ins. in the ground for cor. of secs. 12 and 13, marked with 2 notches on N. and 4 notches on S. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, slightly rolling.

Soil, sandy loam, over 2 ft. deep; dry, medium texture, 1st rate.

No timber. No undergrowth.

N. 0° 04' W. on E. bdy. of sec. 12.

Over slightly rolling land.

39.13 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:

Set a phonolite stone 20x10x4 ins., 16 ins. in the ground for $\frac{1}{4}$ sec. cor. on W. bdy. of sec. 7, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Thence N. 0° 16' E.

40.00 Set a phonolite stone 18x6x5 ins., 14 ins. in the ground for the $\frac{1}{4}$ sec. cor. on E. bdy. of sec. 12, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

57.79 Cross wash, 25 lks. wide, course NE.

78.70 I destroy all traces of the old sec. cor. of secs. 6 and 7, and reestablish it in the same place as follows:

Set a phonolite stone 18x8x6 ins., 14 ins. in the ground for cor. of secs. 6 and 7, marked with 1 groove on N. and 5 grooves on S. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.

Thence I run, north, continuing measurement.

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Chains.
80.00

Set a quartzite stone 20x8x8 ins., 16 ins. in the ground for cor. of secs. 1 and 12, marked with 1 groove on N. and 5 grooves on S. faces; dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, slightly rolling.
Soil, sandy loam, over 2 ft. deep, dry, medium texture, 1st rate.
No timber.
No undergrowth.

North on E. bdy. of sec. 1.
Over slightly rolling land.

4.78
38.72

Cross road, bears E. and W.
I destroy all traces of the old 1/4 sec. cor., and reestablish it in the same place as follows:

Set a malpais stone 18x16x4 ins., 14 ins. in the ground for 1/4 sec. cor. on W. bdy. of sec. 6, marked 1/4 on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
Thence N. 0° 01' E.

39.82

Fence bears E. and W.

40.00

Set a phonolite stone 18x6x6 ins., 14 ins. in the ground for 1/4 sec. cor. on E. bdy. of sec. 1, marked 1/4 on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

44.32

Cross wash 60 lks. wide, course NW.

78.05

Fence bears E. and W.

79.21

I destroy old cor. of Tps. 17 and 18 S., Rs. 26 and 27 E., and reestablish it in the same place as follows:

Set a phonolite stone 24x8x8 ins., 18 ins. in the ground for cor. of Ts. 17 and 18 S., Rs. 26 and 27 E., marked with 6 notches on each edge; dig pits 24x24x12 ins. in each line, N., E. and W., 4 ft. and S. of stone 8 ft. dist., and raise a mound of earth 5 ft. base, 2 1/2 ft. high, S. of cor.

Land, slightly rolling.
No timber. No undergrowth.

August 7, 1911.

John P. Hesse
U. S. Transitman.

August 5: I begin at the cor. of Ts. 18 and 19 S., Rs. 26 and 27 E., previously described.

Thence I retrace west on S. bdy. of Tp., bet. secs. 1 and 36.

40.00

Fall 5 lks. south of 1/4 sec. cor.

Thence west from 1/4 sec. cor.

40.00

Fall 5 lks. S. of cor. of secs. 1, 2, 35 and 36.

West, bet. secs. 2 and 35.

40.00

Fall 21 lks. S. of 1/4 sec. cor.

Thence west from 1/4 sec. cor.

40.00

Fall 1 lk. N. of cor. of secs. 2, 3, 34 and 35.

West, bet. secs. 3 and 34.

40.06

Fall 1 lk. N. of 1/4 sec. cor.

Thence west from 1/4 sec. cor.

40.02

Fall 9 lks. S. of cor. of secs. 3, 4, 33 and 34.

August 5: At this cor. I set off on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is 31° 49' N.

West, bet. secs. 4 and 33.

6. Retracement of the South bdy. of Township 18 South, Range 26 E.

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Chains.

39.96 Fall 9 lks. S. of the $\frac{1}{4}$ sec. cor.
Thence west from $\frac{1}{4}$ sec. cor.
40.08 Fall 7 lks. S. of cor. of secs. 4, 5, 32 and 33.

West, bet. secs. 5 and 32.

40.08 Fall 5 lks. N. of the $\frac{1}{4}$ sec. cor.
Thence west from $\frac{1}{4}$ sec. cor.
39.16 Fall 4 lks. N. of cor. of secs. 5, 6, 31 and 32.

West, bet. secs. 6 and 31.

39.95 Fall 30 lks. S. of $\frac{1}{4}$ sec. cor.
Thence west from $\frac{1}{4}$ sec. cor.
39.96 Fall 12 lks. N. of cor. of Tps. 18 and 19 S., Rs. 25 and 26 E.
August 5, 1911.

August 7: At the cor. of Tps. 18 and 19 S., Rs. 26 and 27 E.,
hereinbefore described, I set off $16^{\circ}36'N.$ on the decl.
arc, and observe the sun on the meridian at noon; the
resulting lat. is $31^{\circ}49'N.$

Thence I run,
N. $89^{\circ}56'W.$ on S. bdy. of sec. 36.

Over slightly rolling land.

1.80 Cross road, bears N. and S.

11.62 Fence brs. N. and S.

40.00 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestab-
lish it in the same place as follows:

Set a quartzite stone $20 \times 8 \times 6$ ins., 16 ins. in the ground,
for $\frac{1}{4}$ sec. cor. on N. bdy. of sec. 1, marked $\frac{1}{4}$ on N.; dig
pits $18 \times 18 \times 12$ ins., E. and W. of cor. 3 ft. dist., and
raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of
cor.

Thence N. $89^{\circ}56'W.$, from $\frac{1}{4}$ sec. cor.

40.45 Set a quartzite stone, $18 \times 8 \times 6$ ins., 14 ins. in the ground
for $\frac{1}{4}$ sec. cor. on S. bdy. of sec. 36, marked $\frac{1}{4}$ on N.
face; dig pits $18 \times 18 \times 12$ ins. E. and W. of cor. 3 ft.
dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
high, N. of cor.

79.28 Fence brs. NW. and SE.

80.00 I destroy all traces of the old sec. cor., and reestablish
it in the same place as follows:

Set a quartzite stone $18 \times 10 \times 8$ ins., 14 ins. in the ground
for the cor. of secs. 1 and 2, marked with 1 notch on
E. and 5 notches on W. faces; dig pits, $18 \times 18 \times 12$ ins.,
in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth
4 ft. base, 2 ft. high, S. of cor.

Thence N. $89^{\circ}42'W.$, continuing measurement.

80.45 Set a quartzite stone $18 \times 8 \times 8$ ins., 14 ins. in the ground
for the cor. of secs. 35 and 36, marked with 1 notch
on E. and 5 notches on W. faces; dig pits $18 \times 18 \times 12$ ins.
in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth
4 ft. base, 2 ft. high, N. of cor.

Land, slightly rolling.

Soil, sandy loam over 2 ft. deep; dry, medium texture, 1st
rate.

No timber.

No undergrowth.

N. $89^{\circ}42'W.$ on S. bdy. of sec. 35.

Over slightly rolling land.

39.55 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestab-
lish it in the same place as follows:

Set a porphyry stone $18 \times 6 \times 5$ ins., 14 ins. in the ground
for $\frac{1}{4}$ sec. cor. on N. bdy. of sec. 2, marked with $\frac{1}{4}$ on N.
face; dig pits $18 \times 18 \times 12$ ins. E. and W. of cor. 3 ft.
dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.

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- high, N. of cor.
Thence S.89°59'W., from $\frac{1}{4}$ sec. cor.
- 40.00 Set a porphyry stone 18x6x5 ins., 14 ins. in the ground for $\frac{1}{4}$ sec. cor. on S. bdy. of sec. 35, marked $\frac{1}{4}$ on N. face; dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 79.55 I destroy all traces of the old sec. cor., and reestablish it in the same place as follows:
Set a porphyry stone 20x6x5 ins., 16 ins. in the ground for the cor. of secs. 2 and 3, marked with 2 notches on the E. and 4 notches on W. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
Thence S.89°59'W., continuing measurement.
- 80.00 Set a porphyry stone 20x8x6 ins., 16 ins. in the ground, for the cor. of secs. 34 and 35, marked with 2 notches on E. and 4 notches on W. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, slightly rolling.
Soil, sandy loam over 2 ft. deep; dry, medium texture; 1st rate.
No timber.
No undergrowth.

- S.89°59'W. on S. bdy. of sec. 34.
Over slightly rolling land.
- 39.61 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:
Set a porphyry stone 18x6x5 ins., 14 ins. in the ground for $\frac{1}{4}$ sec. cor. on N. bdy. of sec. 3, marked $\frac{1}{4}$ on N. face; dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- Thence N.89°52'W., from $\frac{1}{4}$ sec. cor. in lane.
- 40.00 Set a porphyry stone 18x6x5 ins., 14 ins. in the ground, for $\frac{1}{4}$ sec. cor. on S. bdy. of sec. 34, marked $\frac{1}{4}$ on N. face; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 60.83 SE. cor. of frame house, bears N.6°50'W.
- 79.33 Cross road, bears N. and S.
- 79.63 I destroy all traces of the old sec. cor., and reestablish it in the same place as follows:
Set a porphyry stone 18x6x5 ins., 14 ins. in the ground for cor. of secs. 3 and 4, marked with 3 notches on E. and 3 notches on W. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, S. of cor.
Thence N.89°52'W., continuing measurement.
- 80.00 Set a porphyry stone 18x6x5 ins., 14 ins. in the ground, for cor. of secs. 33 and 34, marked with 3 notches on E. and 3 notches on W. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, slightly rolling.
Soil, sandy loam, over 2 ft. deep; dry, medium texture, 1st rate.
No timber.

- N.89°52'W. on S. bdy. of sec. 33.
Over slightly rolling land.
From this SE. cor. of frame house, bears N.59°55'E.
- 27.44 NE. cor. of frame house bears S.69°03'E.
SE. cor. of frame house bears N.83°15'W.
- 39.59 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:

8. Retracement of the S.bdy. of Township 18 S., Range 26 East.

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	Set a porphyry stone 18x6x6 ins., 14 ins. in the ground, for $\frac{1}{4}$ sec.cor. on N.bdy.of sec.4, marked $\frac{1}{4}$ on N.face; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Thence N.89°54' W. from $\frac{1}{4}$ sec.cor.
40.00	Set a porphyry stone 18x8x6 ins., 13 ins. in the ground, for $\frac{1}{4}$ sec.cor. on S.bdy.sec.33, marked $\frac{1}{4}$ on N.face; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth 3 ft.base, $1\frac{1}{2}$ ft. high, N. of cor.
52.00	NE.cor.of frame house, bears S.79°09'E. SE. cor.of frame house bears N. 84° 15'E.
79.67	I destroy all traces of the old sec.cor., and reestablish it in the same place as follows. Set a porphyry stone 18x8x6 ins., 14 ins. in the ground for cor.of secs.4 and 5, marked with 4 notches on E. and 2 notches on W.faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high S.of cor.Thence I run, S.89°56'W.
80.00	CONTINUING MEASUREMENT Set a porphyry stone 18x8x8 ins., 14 ins. in the ground for cor.of secs.32 and 33, marked with 4 notches on E. and 2 notches on W.faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high, N.of cor. Land, slightly rolling. Soil, sandy loam over 2 ft. deep; dry, medium texture, 1st rate. No timber.

	S.89°56'W. on S.bdy.of sec.32. Over level land.
39.75	I destroy all traces of the old $\frac{1}{4}$ sec.cor., and reestablish it in the same place as follows: Set a porphyry stone 20x8x5 ins., 16 ins. in the ground for the $\frac{1}{4}$ sec.cor. on the N.bdy.of sec.5, marked $\frac{1}{4}$ on N.face; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Leave lane which bears off NW. Thence S.89°57'W. from $\frac{1}{4}$ sec.cor.
40.00	Set a porphyry stone 18x6x5 in., 14 ins. in the ground for $\frac{1}{4}$ sec.cor., on S.bdy.of sec.32, marked $\frac{1}{4}$ on N. face; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.of cor.
78.91	I destroy all traces of the old cor. of secs., and reestablish it in the same place as follows: Set a porphyry stone 20x8x6 ins., 16 ins. in the ground for the cor.of secs. 5 and 6, marked with 5 notches on E. and 1 notch on W.faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high, S.of cor. Thence N. 89°34'W., continuing measurement.
80.00	Set a porphyry stone, 18x6x5 ins., 14 ins., in the ground for the cor.of secs.31 and 32, marked with 5 notches on E. and 1 notch on W.faces; dig pits 18x18x12 ins. in each sec. $3\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high, N.of cor. Land, level. Soil, sandy loam, over 2 ft. deep; dry, medium texture, 1st rate. No timber.

	N.89°34'W. on S.bdy.of sec. 31. Over level land.
1.20	Cross road, bears NE.and SW.
11.05	Cross road, brs. NW.and SE.

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- 38.86 I destroy all traces of the old $\frac{1}{4}$ sec. cor., and reestablish it in the same place as follows:
Set a porphyry stone 18x6x6 ins., 14 ins. in the ground, for the $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 6, marked $\frac{1}{4}$ on N. face; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Thence S. $89^{\circ}50'W.$, from $\frac{1}{4}$ sec. cor.
- 40.00 Set a porphyry stone 18x8x6 ins., 14 ins. in the ground for $\frac{1}{4}$ sec. cor., on the S. bdy. of sec. 31, marked $\frac{1}{4}$ on N. face; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 78.82 The cor. of Tps. 18 and 19 S., Rs. 25 and 26 E., a stake in a mound of earth, witnessed as described by the Surveyor General.
Land, level.
Soil, sandy loam over 2 ft. deep; dry, medium texture; 1st rate.
No timber.

August 7, 1911.

John P. Hease
U. S. Transitman.

Retracement of the West bdy. of Township 18 S., R. 26 E.

- August 8: I begin at the cor. of Ts. 17 and 18 S., Rs. 25 and 26 E., a granite rock marked and witnessed as described by the Surveyor General.
Thence I run,
South, bet. secs. 1 and 6.
Over rolling land, through dense brush.
- 39.96 Fall 3 lks. E. of old $\frac{1}{4}$ sec. cor. which is nearly destroyed. I destroy old cor., and reestablish it in the same place as follows:
Set a granite rock 18x6x5 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
The course of this $\frac{1}{2}$ mile is $S.0^{\circ}03'W.$, 39.96 chs.
Thence I run,
South from $\frac{1}{4}$ sec. cor.
- 34.85 Top of ridge, brs. NW. and SE.
- 40.16 Fall 3 lks. E. of old cor. of secs. 1, 6, 7 and 12, which is nearly destroyed. I destroy old cor., and reestablish it in the same place as follows:
Set a limestone 18x6x6 ins., 12 ins. in the ground, marked with 1 notch on N. and 5 notches on S. faces; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
The course of this half mile is $S.0^{\circ}03'W.$, 40.16 chs.
Land, rolling and hilly.
Soil, coarse gravel and rocks; dry, 3rd rate.
No timber.
Undergrowth, greasewood, mesquite and oak brush.

- South, bet. secs. 7 and 12.
Over level land.
- 40.00 Fall 12 lks. E. of the old $\frac{1}{4}$ sec. cor., bet. secs. 7 and 12, which is nearly destroyed. I destroy old cor., and reestablish it in the same place as follows:
Set a granite stone 18x8x6 ins., 12 ins. in the ground, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins. N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.

10. Retracement of West bdy. of Township 18 South, Range 26 E.

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base, $1\frac{1}{2}$ ft. high, W. of cor.
The course of this half mile is $S.0^{\circ}10'W.$, 40.00 chs.

Thence I run,
South, from $\frac{1}{4}$ sec. cor.

39.95 Fall 13 lks. E. of the old cor. of secs. 7, 12, 13 and 18,
which is nearly destroyed. I destroy old cor., and
reestablish it in the same place as follows:

Set a granite stone $18 \times 8 \times 8$ ins., 12 ins. in the ground,
marked with 2 notches on N. and 4 notches on S. faces;
dig pits $18 \times 18 \times 12$ ins. in each sec. $5\frac{1}{2}$ ft. dist., and
raise a mound of earth 4 ft. base, 2 ft. high, W. of
cor.

The course of this half mile is $S.0^{\circ}11'W.$, 39.95 chs.
Land, level.

Soil, sandy loam over 2 ft. deep; dry, medium texture;
1st rate.

No undergrowth. No timber.

South, bet. secs. 13 and 18.

Ascending gentle slope.

16.67 Top of low ridge, brs. E. and W. Descend.

21.60 Over level land.

40.12 Fall 30 lks. E. of old $\frac{1}{4}$ sec. cor. bet. secs. 13 and 18, which
is nearly destroyed. I destroy old cor., and reestab-
lish it in the same place as follows:

Set a granite stone $20 \times 6 \times 4$ ins., 16 ins. in the ground,
marked $\frac{1}{4}$ on W. face; dig pits $18 \times 18 \times 12$ ins. N. and S. of
cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high, W. of cor.

The course of this half mile is $S.0^{\circ}26'W.$, 40.12 chs.

Thence I run,
South, from $\frac{1}{4}$ sec. cor.

4.66 Cross road, brs. NW. and SE.

40.10 Fall 7 lks. E. of old cor. of secs. 13, 18, 19 and 24, which
is nearly destroyed. I destroy old cor., and reestab-
lish it in the same place as follows:

Set a granite stone $18 \times 8 \times 8$ ins., 14 ins. in the ground,
marked with 3 notches on N. and 3 notches on S. faces;
dig pits $18 \times 18 \times 12$ ins. in each sec. $5\frac{1}{2}$ ft. dist., and
raise a mound of earth 4 ft. base, 2 ft. high, W. of
cor.

The course of this half mile is $S.0^{\circ}06'W.$, 40.10 chs.

Land, level and hilly.

Soil, sandy loam over 2 ft. deep, dry, medium texture;
1st rate.

No timber.

No undergrowth.

Oct. 8: At this cor. I set off $16^{\circ}19'$ N. on the decl. arc,
and observe the sun on the meridian at noon; the re-
sulting lat. is $31^{\circ}51\frac{1}{2}'N.$

South, bet. secs. 19 and 24.

Over level land.

39.94 Fall 12 lks. E. of old $\frac{1}{4}$ sec. cor., bet. secs. 19 and 24,
which is nearly destroyed. I destroy old cor., and
reestablish it in the same place as follows:

Set a granite stone $18 \times 6 \times 5$ ins., 12 ins. in the ground,
marked $\frac{1}{4}$ on W. face; dig pits $18 \times 18 \times 12$ ins., N. and S.
of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high, W. of cor.

The course of this half mile is $S.0^{\circ}10'W.$, 39.94 chs.

Thence I run,
South, from $\frac{1}{4}$ sec. cor.

40.12 Fall 13 lks. E. of old cor. of secs. 19, 24, 25 and 30, which
is nearly destroyed. I destroy old cor., and reestab-
lish it in the same place as follows:

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Set a granite stone 20x8x6 ins., 16 ins. in the ground, marked with 4 notches on N. and 2 notches on S. faces; dig pits, 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. The course of this half mile is S.0°11'W., 40.12 chs. Land, level. Soil, sandy loam over 2 ft. deep; dry, medium texture, 1st rate. No timber. No undergrowth.

South, bet. secs. 25 and 30.
Over level land.

39.94 Fall 18 lks. E. of old $\frac{1}{4}$ sec. cor., bet. secs. 25 and 30, which is nearly destroyed. I destroy old cor., and re-establish it in the same place as follows:

Set a granite stone, 18x8x6 ins., 14 ins. in the ground, marked $\frac{1}{4}$ on W. face; dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

The course of this half mile is S.0°15'W., 39.94 chs.

Thence I run,
South from $\frac{1}{4}$ sec. cor.

24.73 Cross road, brs. NW. and SE.

38.11 Cross road, brs. NW. and SE.

40.03 Fall 13 lks. E. of cor. of secs. 25, 30, 31 and 36, as described by the Surveyor General.

The course of this $\frac{1}{2}$ mile is S.0° 11'W., 40.03 chs.

Land, level.

Soil, sandy loam over 2 ft. deep; dry, medium texture; 1st rate.

No timber.

No undergrowth.

South, bet. secs. 31 and 36.
Over level land.

40.02 Fall 10 lks. E. of $\frac{1}{4}$ sec. cor., bet. secs. 31 and 36, as described by the Surveyor General.

The course of this half mile is S.0°09'W., 40.02 chs.

Thence I run,

South, from $\frac{1}{4}$ sec. cor.

40.09 Fall 2 lks. E. of the cor. of Ts. 18 and 19 S., Rs. 25 and 26 E., as described by the Surveyor General.

The course of this half mile is S.0°02' W., 40.09 chs.

Land, level.

Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate.

No timber. No undergrowth.

August 8, 1911.

Alfred N. Oliver
U. S. Transitman.

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Survey commenced August 7, 1911, and executed with an A.Lietz Co. light mountain transit, No. 5631, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined and approved by the Supervising Surveyor.

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

At the cor. of Tps. 19 and 20 S., Rs. 25 and 26 E., latitude, $31^{\circ}43'47''$ N.; longitude, $109^{\circ}45'29''$ W., I set off $31^{\circ}44'$ N. on the lat. arc; $16^{\circ}33\frac{1}{2}'$ N. on the decl. arc, and at 5h.00m. p.m., l.m.t., determine with the solar a meridian, and mark a point thereof, on a stone firmly set in the ground 5 chs. N. of the corner.

At 10h.29m., p.m., by my watch, which has correct l.m.t., I observe Polaris at eastern elongation, in accordance with 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.

August 7, 1911.

August 8: At 6h.30m., a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}23'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set August 7, on which the meridian coincides with the mark determined by the solar,

At 7h.00m., a.m., l.m.t., I set off $31^{\circ}44'$ N. on the lat. arc; $16^{\circ}23\frac{1}{2}'$ 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 coincides with the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations defines positions for meridians which coincide with the meridian determined by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7h.15m. a.m., is $N.13^{\circ}15'W.$; the angle thus determined, gives the mag. decl. $13^{\circ}15'E.$

I commence at the cor. of secs. 35 and 36 on the S. bdy. of Tp. 18 S. R. 26 E. heretofore described.

Thence I run,

North, bet. secs. 35 and 36, on sectional Guide Meridian, and at 80.46 chs. intersect line bet. secs. 25 and 36, I return to the cor. of secs. 35 and 36.

Thence I run,

North, bet. secs. 35 and 36, on sectional guide meridian. Over level land.

1.25 Cross road, bears NW. and SE.

40.46 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 35 on W. and S 36 on E. half; dig pits $18 \times 18 \times 12$ ins., N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

45.00 Cross fence, bears NNW. and SSE.

57.10 Cross road, bears NE. and SW.

79.08 Cross fence, bears E. and W.

80.46 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked on brass cap,

T 18 S R 26 E in N. half;

S 26 in NW.,

S 25 in NE.,

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S 36 in SE., and
 S 35 in SW. quadrant; dig pits 18x18x12 ins. in
 each sec. 5½ ft. dist., and raise a mound of earth 4
 ft. base, 2 ft. high, W. of cor.
 Land, level.
 Soil, sandy loam over 2 ft. deep; dry, medium texture.
 No timber.

78.96 From the cor. of secs. 25 and 36 on the E. bdy., I run,
 West, bet. secs. 25 and 36.
 Intersect cor. of secs. 25, 26, 35 and 36. I return to the
 cor. of secs. 25 and 36 on the East bdy. of the Tp.
 Thence I run,
 West, bet. secs. 25 and 36, on sectional correction line.
 Over level land.
 1.55 Cross road, bears NW. and SE.
 38.96 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec. cor., marked on brass cap, ¼ S 25
 in N. and S 36 in S. half; dig pits 18x18x12 ins. E.
 and W. of cor., 3 ft. dist., and raise a mound of earth
 3½ ft. base, 1½ ft. high, N. of cor.
 49.20 Cross road, brs. NE. and SW.
 53.00 Cross road, brs. NE. and SW.
 55.60 Cross road, bears NE. and SW.
 78.96 The cor. of secs. 25, 26, 35 and 36.
 Land, level.
 Soil, sandy loam over 2 ft. deep, 1st rate; dry, medium
 texture.
 No timber.

North, bet. secs. 25 and 26, on sectional guide meridian.
 Over rolling land.
 15.22 Cross fence, bears E. and W.
 26.00 Ascend steep rocky hill.
 30.00 Top of hill; descend.
 35.00 Over level land.
 37.40 Fence brs. E. and W.
 38.05 Cross road, bears NW. and SE.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec. cor., marked on brass cap, ¼ S
 26 in W., and S 25 in E. half; dig pits 18x18x12 ins.
 N. and S. of post 3 ft. dist., and raise a mound of
 earth 3½ ft. base, 1½ ft. high, W. of cor.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in
 the ground for cor. of secs. 23, 24, 25 and 26, marked on
 brass cap,
 T 18 S R 26 E in N. half,
 S 23 in NW.,
 S 24 in NE.,
 S 25 in SE., and
 S 26 in SW. quadrant; dig pits 18x18x12 ins. in
 each sec. 5½ ft. dist., and raise a mound of earth 4
 ft. base, 1½ ft. high, W. of cor.
 Land, level and hilly.
 Soil, sandy loam over 2 ft. deep; dry, medium texture,
 1st rate, except 9.10 chs., over hill, which is covered
 with loose volcanic rock and worthless.

North, bet. secs. 23 and 24, on sectional guide meridian.
 Over rolling land.
 10.36 Cross road, bears NW. and SE.
 17.45 Cross road, bears NE. and SW.

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19.88 Cross road, bears NW. and SE.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 23 in W. and S 24 on E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 54.25 Ascend steep rocky S. slope.
 59.60 Ridge, bears NW. and SE.; descend.
 64.75 Over level land.
 70.64 Cross road, bears NE. and SW.
 72.85 Cross road, bears NW. and SE.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 13, 14, 23 and 24, marked on brass cap,
 T 18 S R 26 E in N. half;
 S 14 in NW.,
 S 13 in NE.,
 S 24 in SE., and
 S 23 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, level and mountainous.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate, except 10.50 chs. over mountain, which is rocky and worthless.
 No timber.
 August 8: At this cor. I set off $16^{\circ}19'N.$ on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ}51\frac{1}{2}'N.$

North, bet. secs. 13 and 14 on sectional guide meridian.
 Over rolling land, ascending.
 6.00 Ascend steep rocky SW. slope of hill.
 28.35 Top of ridge, bears NW. and SE., descend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 on W. and S 13 on E. half; erect mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 44.00 Over level land.
 71.62 Cross road, bears NW. and SE.
 72.45 Fence bears NW. and SE.
 78.80 Fence bears E. and W.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 11, 12, 13 and 14, marked on brass cap,
 T 18 S R 26 E in N. half;
 S 11 in NW.,
 S 12 in NE.,
 S 13 in SE., and
 S 14 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, level and hilly.
 Soil, sandy loam over 2 ft. deep; dry, medium texture, 1st rate, except 38.60 chs. over hill, which is covered with loose rock, and is worthless.
 No timber.

North bet. secs. 11 and 12, on sectional guide meridian.
 Over slightly rolling land.
 20.00 Cross road, bears NE. and SW.
 34.22 C.M. Watkin's house, adobe, NE. cor. bears $S.50^{\circ}45'W.$
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in

Chains.

- the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 11 in W. and S 12 in E.half; dig pits 18x18x12 ins.N.and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
C. M. Watkins' adobe house;NE.cor. bears S.11°21'W.
Thence over level land.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs. 1,2,11 and 12, marked on brass cap,
T 18 S R 26 E in N.half;
S 2 in NW.,
S 1 in NE.,
S 12 in SE., and
S 11 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
P. Carmines' adobe house, SW. cor. bears N.06° 34'E.
Land, slightly rolling and level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate. No timber.
-
- North, bet. secs.1 and 2, on a random line.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 79.43 Intersect N.bdy.of Tp., 7 lks.E.of cor. of secs. 1,2,35 and 36.
Thence I run,
S.0°03'E., bet. secs.1 and2.
Over slightly rolling land.
- 9.23 Turkey Creek wash, 30 lks.wide, course W.
- 39.43 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec.cor., marked on brass cap, S 1 in E., and $\frac{1}{4}$ S 2 in W,half; dig pits,18x18x12 ins. N.and S.of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
The SW. cor. of P. Carmine's house bears S 3°58'E.
- 79.43 The cor.of secs.1,2,11 and 12.
Land, slightly rolling.
Soil, sandy loam, over 2 ft. deep; dry,medium texture; 1st rate. No timber.

August 8, 1911.

- August 9: At 7h.00m.,1.m.t., I set off 31°50'N.on the lat.arc; 16°06½'N. on the decl.arc; and determine a meridian with the solar at the cor.of secs. 25,26,35 and 36.
West, bet. secs. 26 and 35, on sectional correction line.
Over slightly rolling land.
- 22.90 Cross road, bears NW.and SE.
- 31.40 Cross road, bears NE.and SW.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 26 in N., and S 35 in S.half; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.
- 80.00 Set an iron post 3 ft.long, 2 ins. diam., 24 ins. in the ground for cor of secs. 26,27,34 and 35, marked on brass cap,
T 18 S R 26 E,
S 27 in NW.,
S 26 in NE.,
S 35 in SE., and
S 34 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
Land, slightly rolling.
Soil, sandy loam,over 2 ft.deep; dry,medium texture,1st rate. No timber.
-

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Chains.

West, bet, secs, 27 and 34, on sectional correction line.
Over slightly rolling land.

25.79 Lateral 4 lks.wide, bears NE.and SW.

40.00 Set an iron post 3 ft, long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 27 in N. and S 34 in S.half; dig pits 18x18x12 ins. E.and W.of post 3 ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,N.of cor.

56.40 Cross road, bears NE.and SW.

79.25 Cross road, bears N.and S.

80.00 Set an iron post, 3 ft. long, 2 ins.diam., 24 ins. in the ground for the cor.of secs. 27,28,33 and 34, marked on brass cap,
T 18 S R 26 E,
S 28 in NW.,
S 27 in NE.,
S 34 in SE., and
S 33 in SW. quadrant; dig pits 18x18x12 ins.in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.

Land, slightly rolling.
Soil, sandy loam over 2 ft. deep; dry, medium texture;1st rate.
No timber.

West, bet. secs.28 and 33, on sectional correction line.
Over slightly rolling land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 28 in N. and S 33 in S.half; dig pits 18x18x12 ins. E.and W.of post 3 ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.

80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs.28,29,32 and 33, marked on brass cap,
T 18 S R 26 E,
S 29 in NW.,
S 28 in NE.,
S 33 in SE., and
S 32 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.

Land, slightly rolling.
Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st class.
No timber.

August 9: At this cor. I set off $16^{\circ}02'N$. on the decl. arc; and observe the sun on the meridian at noon; the resulting latitude is $31^{\circ}50'N$.

West, bet. secs.29 and 32.

12.20 Cross road, brs. NE.and SW.

40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 29 in N. and S 32 in S.half; dig pits 18x18x12 ins.E.and W.of post 4 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,N.of cor.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor.of secs. 29,30,31 and 32, marked on brass cap,
T 18 S R 26 E in N.half,
S 30 in NW.,
S 29 in NE.,
S 32 in SE., and
S 31 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high,W.of cor.

Land, slightly rolling.

Chains.

Soil, sandy loam, over 2 ft. deep; dry, medium texture;
1st rate.
No timber.

West, bet. secs. 30 and 31, on a random line.

40.00

Set temp. $\frac{1}{4}$ sec.cor.

78.84

Intersect W.bdy.of Tp., 9 lks.S.of cor. of secs. 25,30,31 and 36.

Thence I run,

S.89°56'E., bet. secs.30 and 31, on a true line.

Land, slightly rolling.

.94

Cross road, brs. NW.and SE.

6.04

Cross road, brs. NW.and SE.

9.44

Cross road, brs. NE.and SW.

38.84

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 30 in N. and S 31 in S.half; dig pits 18x18x12 ins.E.and W.of post, 4 ft. dist., and raise a mound of earth $3\frac{1}{2}$ base, $1\frac{1}{2}$ ft. high, N.of cor. Soil sandy loam over

78.84

The cor.of secs.29,30,31 and 32. 2 ft. deep, dry, medium texture, 1st rate. No timber. August 9, 1911.

John P. Hesse
U.S.Transitman.

August 9:

East, on a random line, bet. secs.24 and 25.

40.00

Set temp. $\frac{1}{4}$ sec.cor.

79.35

Intersect E.bdy.of township 5 lks.N.of cor.of secs.19,24, 25 and 30.

Thence I run,

N.89°58'W., on a true line, bet. secs.24 and 25.

Over rolling land, ascending.

25.71

Rocky ridge, brs. NW. and SE.; descend.

39.35

Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 24 in N. and S 25 in S.half; dig pits 18x18x12 ins.E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ base, $1\frac{1}{2}$ ft. high,N.of cor.

62.68

Over level land.

77.63

Cross road, bears NE.and SW.

79.35

The cor.of secs.23,24,25 and 26.

Land, level and hilly.

Soil, rocky and worthless, 4th rate, except 16.67 chs., which is sandy loam, over 2 ft. deep; dry, medium texture, 1st rate.

No timber.

August 9, 1911.

August 10.

East, on a random line, bet. secs.13 and 24.

40.00

Set temp. $\frac{1}{4}$ sec,cor.

79.36

Intersect E.bdy.of Tp.11 lks.S.of cor.of secs.13,18,19 and 24.

Thence I run,

S.89°55'W., on a true line, bet. secs.13 and 24.

Over level land.

39.36

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 13 in N. and S 24 in S.half; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.

40.59

Fence, brs N.and S.

79.36

The corof secs.13,14,23 and 24.

Land,level.

Soil, sandy loam,over 2 ft.deep;dry,medium texture,1st

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Chains.

rate.
No timber.

East, on a random line, bet. secs. 12 and 13.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.77 Intersect E. bdy. of Tp., 20 lks. S. of cor. of secs. 7, 12, 13
and 18.
Thence I run,
S. 89° 51' W. on a true line.
Over level land.
7.77 Cross road, bears NW. and SE.
12.10 Cross road, brs. NW. and SE.
39.77 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 12
in N. and S 13 in S. half; dig pits 18x18x12 ins. E. and
W. of cor. 3 ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high, N. of cor.
79.77 The cor. of secs. 11, 12, 13 and 14.
Land, level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture;
1st rate.
No timber.

August 10, 1911.

August 11.
East, on a random line, bet. secs. 1 and 12.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.85 Intersect E. bdy. of Tp., 40 lks. S. of cor. of secs. 1, 6, 7
and 12.
Thence I run,
S. 89° 43' W., on a true line, bet. secs. 1 and 12.
Over level land.
39.33 Fence brs. N. and S.
39.85 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 1
in N. and S 12 in S. half; dig pits, 18x18x12 ins. E.
and W. of cor. 3 ft. dist., and raise a mound of earth
 $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
79.15 Fence bears N. and S.
79.62 Road, brs. N. and S.
79.85 The cor. of secs. 1, 2, 11 and 12.
Land, level.
Soil, sandy loam; over 2 ft. deep, dry, medium texture;
1st rate.
No timber.

August 11, 1911.

August 9: At 7h. 00m., l.m.t., I set off 31° 50' N. on the
lat. arc; 16° 06 $\frac{1}{2}$ ' N. on the decl. arc, and determine a
meridian with the solar at the cor. of secs. 26, 27, 34
and 35.
South, on a random line, bet. secs. 34 and 35.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.09 Intersect S. bdy. of Tp., 7 lks. E. of cor. of secs. 34 and
35.
Thence I run,
N. 0° 03' E. on a true line, bet. secs. 34 and 35.
Over level land.
31.61 Cross road, brs. NE. and SW.
40.09 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor., marked on brass cap S 35 in
E. and $\frac{1}{4}$ S 34 in W. half; dig pits 18x18x12 ins. N. and
S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$
ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
80.09 The cor. of secs. 26, 27, 34 and 35.
Land, level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture;
1st rate.

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Chains.

N.0°01'W., bet. secs. 26 and 27.
 Over level land.
 37.72 Cross road, bears NE. and SW.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S 26 in E. and $\frac{1}{4}$ S 27 in W. half; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, marked on brass cap,
 T 18 S R 26 E in N. half;
 S 22 in NW.,
 S 23 in NE.,
 S 26 in SE., and
 S 27 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, level.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate.
 No timber.

 East, on a random line, bet. secs. 23 and 26.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.09 Intersect N. and S. line 7 lks. S. of cor. of secs. 23, 24, 25 and 26.
 Thence I run,
 S. 89°57'W. on a true line, bet. secs. 23 and 26.
 Over rolling land, ascending.
 9.68 Foot of ridge.
 28.44 Drain, 8 lks. wide, course SE.
 36.29 Top of ridge, bears N. and S.; descend.
 40.04 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 23 in N. and S 26 in S. half; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 43.73 Over level land.
 80.09 The cor. of secs. 22, 23, 26 and 27.
 Land, level and hilly.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate, except 33.95 chs., which is rocky and worthless, 4th rate.
 No timber.
 August 9: At this cor. I set off 16°02' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31° 50 $\frac{1}{2}$ ' N.

 N.0°01' W., bet. secs. 22 and 23.
 Over level land.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in W. and S 23 in E. half; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 41.00 Foot of rocky ridge.
 56.67 Top of ridge, brs. NW. and SE.
 74.70 Foot of ridge, cross road, bears NW. and SE.
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked on brass cap,
 T 18 S R 26 E in N. half;
 S 15 in NW.,
 S 14 in NE.,
 S 23 in SE., and
 S 22 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth

Chains.

4½ ft. base, 1½ ft. high, W. of cor.
 Land, level and hilly.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture,
 1st rate, except 33.70 chs., which are rocky and
 worthless, 4th rate.
 No timber.

August 9, 1911.

August 10: At 7h.00m. l.m.t., I set off 31° 51½' N. on
 the lat. arc; 15° 49½' N. on the decl. arc, and determine a
 meridian with the solar at the cor. of secs. 14, 15, 22 and
 23.

East, on a random line, bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.
 80.04 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 13,
 14, 23 and 24.

Thence I run,
 S. 89° 59' W. on a true line, bet. secs. 14 and 23.
 Over level land.

40.02 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec. cor., marked on brass cap, ¼ S 14
 in N. and S 23 in S. half; dig pits 18x18x12 ins. E.
 and W. of cor. 3 ft. dist., and raise a mound of earth
 3½ ft. base, 1½ ft. high, N. of cor.

47.46 Foot of ridge, ascend.
 51.71 Top of ridge, descend.
 57.31 Over level land.
 80.04 The cor. of secs. 14, 15, 22 and 23.

Land, level and hilly.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture,
 1st rate, except 9.85 chs., which is rocky and worth-
 less, 4th rate.
 No timber.

N. 0° 01' W., bet. secs. 14 and 15.
 Over level land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec. cor., marked on brass cap S 14 in
 E. and ¼ S 15 in W. half; dig pits 18x18x12 ins. N. and
 S. of cor. 3 ft. dist., and raise a mound of earth 3½ ft.
 base, 1½ ft. high, W. of cor.

65.76 Foot of ridge, ascend.
 72.58 Top of ridge, descend.

80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the
 ground for cor. of secs. 10, 11, 14 and 15, marked on brass
 cap,

T 18 S R 26 E in N. half,
 S 10 in NW.,
 S 11 in NE.,
 S 14 in SE., and
 S 15 in SW. quadrant; dig pits 18x18x12 ins. in
 each sec. 5½ ft. dist., and raise a mound of earth 4½
 ft. base, 1½ ft. high, W. of cor.

Land, level and hilly.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture,
 1st rate, except 14.24 chs., which is rocky, 4th rate.
 August 10: At this cor. I set off 15° 45' N. on the
 decl. arc, and observe the sun on the meridian at noon;
 the resulting lat. is 31° 52½' N.

East, on a random line, bet. secs. 11 and 14.

40.00 Set temp. ¼ sec. cor.
 79.90 Intersect N. and S. line 3 lks. S. of cor. of secs. 11, 12, 13
 and 14.

Thence I run,
 S. 89° 59' W., on a true line, bet. secs. 11 and 14.
 Over level land.

1.98 Fence, bears N. and S.

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Chains.

- 14.45 Fence, bears N. and S.
 39.84 Fence bears N. and S.
 39.95 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S $\frac{1}{4}$ S 11 in N., and S 14 in S. half; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 58.44 Cross road, bears NW. and SE.
 79.00 The cor. of secs. 10, 11, 14 and 15.
 Land, level.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture, 1st rate.
 No timber.

August 10, 1911.

August 11: At 7h.00m., l.m.t., I set off $31^{\circ}52\frac{1}{2}'$ N. on the lat. arc; $15^{\circ}32'$ N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

N. $0^{\circ}01'$ W., bet. secs. 10 and 11.

Descending.

- 1.52 Foot of N. slope of hill.
 23.20 Cross road, brs. NW. and SE.
 25.62 Cross road, brs. NE. and SW.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S 11 in E. and $\frac{1}{4}$ S 10 in W. half; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for the cor. of secs. 2, 3, 10 and 11, marked on brass cap,
 T 18 S R 26 E in N. half,
 S 3 in NW.,
 S 2 in NE.,
 S 11 in SE., and
 S 10 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, level.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture, 1st rate, except 1.52 chs., which is rocky, 4th rate.

East, on a random line, bet. secs. 2 and 11.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 1, 2, 11 and 12.
 Thence I run,
 S. $89^{\circ}58'$ W., on a true line, bet. secs. 2 and 11.
 Over level land.
 0.31 Fence bears N. and S.
 39.99 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 2 in N. and S 11 in S. half; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 78.21 Fence brs. N. and S.
 79.98 The cor. of secs. 2, 3, 10 and 11.
 Land, level.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture; 1st rate. No timber.
 August 11: At this cor. I set off $15^{\circ}27'$ N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ}53\frac{1}{2}'$ N.

Chains.

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BOOK 2328
- North, on a random line, bet. secs. 2 and 3.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.73 Intersect N. bdy. of Tp., 14 lks. E. of cor. of secs. 2, 3, 34 and 35.
Thence I run,
S. $0^{\circ}06'$ E. on a true line, bet. secs. 2 and 3.
Over level land.
39.73 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap S 2 on E. and $\frac{1}{4}$ S 3 in W. half; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
79.73 The cor. of secs. 2, 3, 10 and 11.
Land, level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate.
No timber.

April 11, 1911.

August 10: At 7h.00m. a.m., 1.m.t., I set off $31^{\circ}50'$ N. on the lat. arc; $15^{\circ}49\frac{1}{2}'$ N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

- Thence I run,
South, on a random line, bet. secs. 33 and 34.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.14 Intersect S. bdy. of Tp., 7 lks. E. of cor. of secs. 3, 4, 33 and 34.
Thence I run,
N. $0^{\circ}03'$ E., bet. secs. 33 and 34, on a true line.
Over level land.
39.77 Lateral bears NE. and SW.
40.14 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33 on W. and S 34 on E. half; dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
70.14 Cross fence brs. NE. and SW.
79.54 Cross fence brs. E. and W.
80.14 The cor. of secs. 27, 28, 33 and 34.
Land, level.
Soil, sandy loam over 2, ft. deep; dry, 1st rate, medium texture.
No timber.

N. $0^{\circ}01'$ W., bet. secs. 27 and 28.
Over level land.

- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28 on W. and S 27 on E. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
78.00 Cross road, brs. NW. and SE.
80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 21, 22, 27 and 28, marked on brass cap,
T 18 S R 26 in N. half;
S 21 in NW.,
S 22 in NE.,
S 27 in SE., and
S 28 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Land, level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate. No timber.

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- East, on a random line, bet. secs. 22 and 27.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line 5 lks. S. of cor. of secs. 22, 23, 26 and 27.
 Thence I run,
 S. $89^{\circ}58'$ W., bet. secs. 22 and 27, on a true line .
 Over slightly rolling land.
 39.99 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in N., and S 27 in S, half; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 59.98 Enter road, which approaches from the SE.
 78.98 Leave road.
 79.98 The cor. of secs. 21, 22, 27 and 28.
 Land, level.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture; 1st rate.
 No timber.

Alfred N. Olcott
 U. S. Transitman.

August 10: At this cor. I set off $15^{\circ}45'$ N. on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ}50\frac{1}{2}'$ N.

- N. $0^{\circ}01'$ W., bet. secs. 21 and 22.
 Over slightly rolling land.
 2.81 Frame house bears S. $78^{\circ}32'$ W., 249 lks. dist.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 in W. and S 22 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 49.77 Fence brs. E. and W.
 60.90 Cross road, bears E.
 70.50 Fence brs. E. and W.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 15, 16, 21 and 22, marked on brass cap,
 T 18 S R 26 E in N. half,
 S 16 in NW.,
 S 15 in NE.,
 S 22 in SE., and
 S 21 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, slightly rolling.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st and 2nd rate.
 No timber.

- East, on a random line, bet. secs. 15 and 22.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.96 Intersect N. and S. line 3 lks. S. of cor. of secs. 14, 15, 22 and 23.
 Thence I run,
 S. $89^{\circ}59'$ W., bet. secs. 15 and 22, on a true line.
 Over rolling land.
 13.26 Cross road, bears NW. and SE.
 33.86 Foot of small rocky hill.
 36.86 Top of ridge.
 39.36 Over level ground.
 39.98 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap,

Chains,

$\frac{1}{4}$ S 15 in N. and S 22 in S. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

65.98 Cross road, bears N. and S.
72.03 Cross road, brs. NE. and SW.
79.96 The cor. of secs. 15, 16, 21 and 22.
NE. cor. Stevens' house (frame) bears S. $15^{\circ} 03' E$.
Land, level and hilly.
Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate, except 5.50 chs., which is covered with loose rock, and worthless.
No timber.

August 10, 1911.

August 11: At 7h. 00m., a.m., l.m.t., I set off $31^{\circ} 51\frac{1}{2}' N$. on the lat. arc; $15^{\circ} 32' N$. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.

N. $0^{\circ} 01' W$., bet. secs. 15 and 16.

Over level land.

9.85 Cross road, bears E. and W.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap S 15 in E. and $\frac{1}{4}$ S 16 in W. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
65.55 Cross road, bears NE. and SW.
80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 9, 10, 15 and 16, marked on brass cap,
T 18 S R 26 E in N. half;
S 9 in NW.,
S 10 in NE.,
S 15 in SE., and
S 16 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Land, level.
Soil, sandy loam over 2 ft. deep; dry, medium texture, 1st rate.
No timber.

East, on a random line, bet. secs. 10 and 15.

40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.90 Intersect N. and S. line at cor. of secs. 10, 11, 14 and 15.
Thence I run,
West, on a true line, bet. secs. 10 and 15.
Over slightly rolling land.
1.00 Skirt along edge of small sandy ridge.
22.00 Over level ground.
39.95 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 in N. and S 15 in S. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
48.70 Cross road, bears NE. and SW.
54.95 Cross road, bears NW. and SE.
79.90 The cor. of secs. 9, 10, 15 and 16.
Land, slightly rolling.
Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate.
No timber.

N. $0^{\circ} 01' W$., bet. secs. 9 and 10.

Over slightly rolling land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in

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the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 10 in E. and $\frac{1}{4}$ S 9 in W.half; dig pits 18x18x12 ins., N.and S.of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,W.of cor.
 62.85 Cross road, bears NE.and SW.
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor.of secs.3,4,9 and 10, marked on brass cap,
 T 18 S R 26 E in N.half;
 S 4 in NW.,
 S 3 in NE.
 S 10 in SE., and
 S 9 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
 Land, slightly rolling.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture; 1st rate.
 No timber.
 August 11: At this cor.I set off $15^{\circ}27'$ N. on the decl. arc; and observe the sun on the meridian at noon;the resulting lat.is $31^{\circ}53\frac{1}{2}'$ N.

East, on a random line, bet. secs.3 and 10.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.88 Intersect N.and S. line 3 lks.N.of cor.of secs.2,3,10 and 11.
 Thence I run,
 N. $89^{\circ}59'$ W., on a true line, bet. secs.3 and 10.
 Over rolling land.
 26.28 Foot of rocky ridge, ascend.
 36.88 Top of ridge, descend.
 39.94 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 3 in N. and S 10 in S.half; dig pits 18x18x12 ins.E. and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.of cor.
 43.88 Over level land.
 79.88 The cor.of secs;3,4,9 and 10
 Land,level and hilly.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture, 1st rate, except 16.65 chs., which is rocky and worthless.
 No timber.

North, bet. secs.3 and 4, on a random line.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.82 Intersect N.bdy. of Tp., 37 lks.E.of cor.of secs.3,4,33 and 34.
 Thence I run,
 S. $0^{\circ}16'$ E., bet. secs.3 and 4, on a true line.
 Ascend N.slope of hill.
 2.50 Enter scattering brush.
 16.82 Top of hill, descend.
 39.82 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 3 in E. and $\frac{1}{4}$ S 4 in W.half; dig pits 18x18x12 ins. N.and S.of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,W.of cor.
 54.52 Cross road, bears NE.and SW.
 79.82 The corof secs.3,4,9 and 10.
 Land, hilly.
 Soil, rocky and worthless, 4th rate, except 26.00 chs., which is sandy loam; dry, 2nd rate.
 No timber
 August 11, 1911.

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Chains.

- August 12: At 7h.00m., a.m., l.m.t., I set off $31^{\circ}50'N.$ on the lat.arc; $15^{\circ}14'N.$ on the decl.arc, and determine a meridian with the solar at the cor.of secs.28,29,32 and 33.
- South on a random line, bet. secs.32 and 33.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.01 Intersect S.bdy.of Tp., 5alks.E.of cor.of secs.4,5,32 and 33.
- Thence I run,
 $N.0^{\circ}02'E.$, on a true line, bet. secs.32 and 33.
 Over level land.
- 39.86 Cross road, brs.E.and W.
- 40.01 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 32 in W., and S 33 in E. half; dig pits 18x18x12 ins. N.and S.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
- 80.01 The cor.of secs.28,29,32 and 33.
 Land,level.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture;
 1st rate.
 No timber.
-
- $N.0^{\circ}02'W.$, bet. secs. 28 and 29.
 Over level land.
- 18.80 Cross road, brs. NE.and SW.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 28 in E. and $\frac{1}{4}$ S 29 in W.half; dig pits 18x18x12 ins.N.and S.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs. 20,21,28 and 29, marked on brass cap,
 T 18 S R 26 E in N.half;
 S 20 in NW.,
 S 21 in NE.,
 S 28 in SE., and
 S 29 in SW. quadrant; dig pits 18x18x12 ins.in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
 Land,level.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture;
 1st rate.
 No timber.
-
- East, on a random line, bet. secs.21 and 28.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.02 Intersect N.and S. line, 3 lks.N.of cor. of secs.21,22, 27 and 28.
- Thence I run,
 $N.89^{\circ}59'W.$, on a true line, bet. secs.21 and 28.
 Over level land.
- 40.01 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 21 in N. and S 28 in S.half; dig pits 18x18x12 ins.E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.
- 40.87 Cross road, brs. NE.and SW.
- 80.02 The cor.of secs.20,21,28 and 29.
 Land,level.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture;
 1st rate.
 No timber.
- August 12: At this cor. I set off $15^{\circ}09\frac{1}{2}'N.$ on the decl. arc, and observe the sun on the meridian at noon;the resulting lat.is $31^{\circ}50\frac{1}{2}'N.$

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Chains.	N.0°02'W., bet. secs. 20 and 21. Over level land.
39.90	Fence, bears E.and W.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap S 21 in E. and $\frac{1}{4}$ S 20 in W.half; dig pits 18x18x12 ins.N. and S.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor. NW.cor. Cox's house, bears N.03° 00'E. NE.cor. Joe Lambkins' house bears N.20° 18' W.
60.15	Fence bears E.and W.
79.73	Fence bears E.and W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the the ground for cor.of secs. 16,17,20 and 21, marked on brass cap, T 18 S R 26 E in N.half; S 17 in NW., S 16 in NE., S 21 in SE., and S 20 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor. NW.cor.of Cox's house bears S.71° 22'E. NE. cor.of Joe Lambkins' house bears S.80°50' W. Land,level. Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate. No timber.

	East on a random line, bet. secs.16 and 21.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.98	Intersect N.and S. line, 3 lks.S.of cor. of secs. 15,16, 21 and 22. Thence I run, S.89°59'W. on a true line, bet. secs.16 and 21. Over level land.
39.99	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 16 in N.and S 21 in S.half; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,N.of cor.
57.78	Cross road, bears NW.and SE.
78.73	Cross roads, bear N.and S., E.and W.
79.98	The cor.of secs.16,17,20 and 21. Land,level. Soil, sandy loam,over 2 ft. deep; dry, medium texture; 1st rate. No timber.

	N.0°02'W., bet. secs.16 and 17. Over level land.
7.00	Cross road, brs. NW.and SE.
22.65	Cross road, brs. NE.and SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins.in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,S 16 in E. and $\frac{1}{4}$ S 17 in W.half; dig pits 18x18x12 ins.N. and S.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
52.40	Chiricahua Cattle Co's. windmill, bears N.23°20'W.
75.40	Cross road, bears NE.and SW.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs.8,9,16 and 17, marked on brass cap T 18 S R 26 E in N.half; S 8 in NW., S 9 in NE., S 16 in SE., and S 17 in SW. quadrant; dig pits 18x18x12 ins.in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor. Chiricahua Cattle Co's windmill, bears S.35°30'W.

Chains.

Land, level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture;
1st rate.
No timber.

August 12, 1911.

August 14: At 7h.00m.a.m., l.m.t., I set off $31^{\circ}52\frac{1}{2}'N.$ on the lat.arc; $14^{\circ}38'N.$ on the decl.arc, and determine a meridian with the solar at the cor.of secs. 8,9,16 and 17.

East, on a random line, bet. secs.9 and 16.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.92 Intersect N.and S. line 4 lks.S.of cor.of secs.9,10,15 and 16.

Thence I run,

S. $89^{\circ}58'W.$ on a true line, bet. secs.9 and 16.

Over level land.

39.96 Set an iron post 3 ft. long 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 9 in N. and S 16 in S.half; dig pits 18x18x12 ins. E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.of cor.

52.02 Cross road, bears NE.and SW.

62.42 Cross road, bears NE.and SW.

75.47 Cross road, bears NE.and SW.

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

Land, level.

Soil, sandy loam, over 2 ft .deep; dry, medium texture;
1st rate.
No timber.

N. $0^{\circ}02'W.$, bet. secs.8 and 9.

Over level land.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 9 in E. and $\frac{1}{4}$ S 8 in W.half; dig pits 18x18x12 ins.N.and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.

48.00 Soil changes from sandy loam to decomposed limestone; top soil 1 ft .deep, 2nd rate.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor.of secs.4,5,8 and 9, marked on brass cap,

T 18 S R 26 E in N.half;

S 5 in NW.,

S 4 in NE.,

S 9 in SE., and

S 8 in SW. quadrant; dig pits 18x18x12 ins.in each

sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft.

base, $1\frac{1}{2}$ ft. high,W.of cor.

Land, level.

Soil, sandy loam, over 2 ft. deep; dry, medium texture, 1st rate, except 32 chs., which is decomposed limestone, 1 ft. deep, 2nd rate.

No timber.

August 14: At this cor. I set off $14^{\circ}33'N.$ on the decl. arc; and observe the sun on the meridian at noon; the resulting lat.is $31^{\circ}53\frac{1}{2}'N.$

East, on a random line, bet. secs.4 and 9.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.86 Intersect N.and S. line, 11 lks.S.of cor.of secs.3,4,9 and 10.

Thence I run,

S. $89^{\circ}55'W.$ on a true line, bet. secs.4 and 9.

Over level land.

16.21 Cross road, bears NE.and SW.

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Chains.

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- 39.93 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 4 in N. and S 9 in S.half; dig pits 18x18x12 ins. E.and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.
- 69.86 Soil changes to decomposed limestone not over 1 ft. deep, 2nd rate.
- 79.86 The cor.of secs.4, 5, 8 and 9.
Land, level.
Soil, sandy loam over 2 ft. deep; dry, medium texture; 1st rate, except 10 chs., which is decomposed limestone, not over 1 ft. deep, 2nd rate.
No timber.

- North on a random line, bet. secs.4 and 5.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.03 Intersect N.bdy.of Tp.5 lks.E.of cor. of secs. 4, 5, 32 and 33.
Thence I run,
S.0°02'E. on a true line, bet. secs.4 and 5.
Ascending.
- 1.03 Top of rocky ridge, bears E.and W.; descend.
- 18.03 Over level land.
- 40.03 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap S 4 in E. and $\frac{1}{4}$ S 5 in W.half; dig pits 18x18x12 ins N.and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
- 78.03 Soil, changes to limestone.
- 80.03 The cor.of secs.4, 5, 8 and 9.
Land, level and hilly.
Soil, 18.03 chs., rocky, 4th rate; 50.00 chs., adobe, 3rd rate; 12.00 chs. decomposed limestone, 2nd rate.
Scattering catclaw and mesquite brush.
No timber.

August 14, 1911.

John P. Hesse
U. S. Transitman.

- August 12: At 7h.00m.a.m., 1.m.t., I set off 31°50'N. on the lat.arc; 15°14'N. on the decl.arc, and determine a meridian with the solar at the cor.of secs.29, 30, 31 and 32.
- South on a random line, bet. secs.31 and 32.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.09 Intersect S.bdy.of Tp.7 lks.E.of cor.of secs.5, 6, 31 and 32.
Thence I run,
N.0°03' E., on a true line, bet. secs.31 and 32.
Over level land.
- 1.78 Cross road, bears NE.and SW.
- 40.09 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 32 in E. and $\frac{1}{4}$ S 31 in W. half; dig pits 18x18x12 ins.N.and S.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
- 53.05 Cross road, brs. NW.and SE.
- 80.09 The cor.of secs.29, 30, 31 and 32.
Land, level.
Soil, sandy loam, over 2 ft. deep; ^{dry,} medium texture, 1st rate.
No timber.

- N.0°02' W., bet. secs.29 and 30.
Over level land.
- 25.76 Wash, 15 lks.wide, course SW.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 29

Chains

in E. and $\frac{1}{4}$ S 30 in W. half; dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 64.69 Cross road, bears NE. and SW.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked on brass cap,
 T 18 S R 26 E in N. half;
 S 19 in NW.,
 S 20 in NE.,
 S 29 in SE., and
 S 30 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, level.
 Soil, sandy loam, over 2 ft. deep; dry, medium texture; 1st rate. No timber.

Alfred N. Oliver
 U. S. Transitman.

East, on a random line, bet. secs. 20 and 29.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line 3 lks. S. of cor. of secs. 20, 21, 28 and 29.
 Thence I run,
 S. $89^{\circ}59'$ W. on a true line, bet. secs. 20 and 29.
 Over level land.
 13.00 Soil changes to adobe.
 39.99 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 in N. and S 29 in S. half; dig pits 18x18x12 ins. E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 50.00 Soil, changes to sandy.
 59.30 Cross road, brs. NE. and SW.
 79.98 The cor. of secs. 19, 20, 29 and 30.
 Land, level.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture, 1st rate, except 37.00 chs., which is adobe, 2nd rate.
 No timber.
 August 12: At this cor. I set off $15^{\circ}09\frac{1}{2}'$ N. on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ}50\frac{1}{2}'$ N.

John P. Heese
 U. S. Transitman.

West, on a random line, bet. secs. 19 and 30.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 78.43 Intersect W. bdy. of Tp. 4 lks. S. of the cor. of secs. 19, 24, 25 and 30.
 Thence I run,
 S. $89^{\circ}58'$ E. on a true line, bet. secs. 19 and 30.
 Over level land.
 38.43 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 19 in N. and S 30 in S. half; dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 78.43 The cor. of secs. 19, 20, 29 and 30.
 Land, level.
 Soil, sandy loam over 2 ft. deep, dry, medium texture, 1st rate. No timber.

N. $0^{\circ}02'$ W., bet. secs. 19 and 20.
 Over level land.
 7.73 Ascend rocky ridge.

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Chains

28.79 Top of ridge, brs. E. and W.; descend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam.; 26 ins. in the ground for $\frac{1}{4}$ sec. cor.; marked on brass cap S 20 in E., and $\frac{1}{4}$ S 19 in W. half; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 62.73 Over adobe flat.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked on brass cap,
 T 18 S R 26 E in N. half;
 S 18 in NW.,
 S 17 in NE.,
 S 20 in SE., and
 S 19 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, level and hilly.
 Soil, 7.73 chs. sandy loam, over 2 ft. deep; dry, medium texture; 1st rate; 55.00 chs. rocky and worthless, 4th rate; 17.27 chs. adobe, 2nd rate.
 No timber.

Alfred N. Oliver
U. S. Transitman

40.00 East, on a random line, bet. secs. 17 and 20.
 Set temp. $\frac{1}{4}$ sec. cor.
 80.00 Intersect N. and S. line 13 lks. S. of cor. of secs. 16, 17, 20 and 21.
 Thence I run,
 S. $89^{\circ}54'$ W., on a true line, bet. secs. 17 and 20.
 Over level land.
 15.35 J. B. Lambkin's house lies 1.85 chs. S.
 15.98 Mrs. J. B. Lambkin's house lies 2.15 chs. N.
 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 17 in N. and S 20 in S. half; dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 80.00 The cor. of secs. 17, 18, 19 and 20.
 Land, level.
 Soil, adobe, over 2 ft. deep; dry, 1st rate.
 No timber.

August 12, 1911.
John F. Hesse
U. S. Transitman.

August 14: At 7h.00m., a.m., 1.m.t., I set off $31^{\circ}51\frac{1}{2}'$ N. on the lat. arc; $14^{\circ}38'$ N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
 West, on a random line, bet. secs. 18 and 19.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 78.11 Intersect W. bdy. of Tp., 27 lks. S. of cor. of secs. 13, 18, 19 and 24.
 Thence I run,
 S. $69^{\circ}48'$ E., on a true line, bet. secs. 18 and 19.
 Over level land.
 38.11 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 18 in N. and S 19 in S. half; dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 78.11 The cor. of secs. 17, 18, 19 and 20.
 Land, level.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture, 1st rate.
 No timber.

Chains.

N.0°02'W., bet. secs.17 and 18.
 Over level land.
 5.13 Cross road, brs. NW.and SE.
 33.33 Foot of ridge, ascend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, S 17 in E. and $\frac{1}{4}$ S 18 in W.half; dig pits 18x18x12 ins. N.and S.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,W.of cor.
 63.49 Top of ridge, bears E.and W.; descend.
 79.55 Over level land.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs.7,8,17 and 18, marked on brass cap,
 T 18 S R.26 E in N.half,
 S 7 in NW.,
 S 8 in NE.,
 S 17 in SE., and
 S 18 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,W.of cor.
 Land, level and hilly.
 Soil, sandy loam, over 2 ft. deep, dry, medium texture, 1st rate. No timber.

Alfred N. Oliver
 U. S. Transitman.

East, on a random line, bet. secs.8 and 17.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.99 Intersect N.and S. line, 7 lks.S.of cor.of secs.8,9,16 and 17.
 Thence I run,
 S.89°57'W., on a true line, bet. secs.8 and 17.
 Over level land.
 5.00 Over adobe soil.
 35.40 Cross road, brs. NW.and SE.
 39.99 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 8 in N. and S 17 in S.half; dig pits 18x18x12 ins.E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft. high,N.of cor.
 52.00 Over sandy soil.
 79.99 The cor.of secs.7,8,17 and 18.
 Land,level.
 Soil, sandy loam, over 2 ft. deep, dry,medium texture; 1st rate, except 47.00 chs., which is adobe and 2nd rate.
 No timber.

John P. Heese
 U. S. Transitman.

West, on a random line, bet. secs.7 and 18.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 77.73 Intersect W.bdy.of Tp,33 lks.S.of cor,of secs. 7,12,13 and 18.
 Thence I run,
 S.89°46'E., on a true line, bet. secs. 7 and 18.
 Over level land.
 37.73 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 7 in N. and S 18 in S.half; dig pits 18x18x12 ins.E.and W.of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.
 77.73 The cor.of secs. 7,8,17 and 18.
 Land,level.
 Soil, sandy loam,over 2 ft. deep, dry,medium texture;1st rate. No timber.

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Chains.

August 14: At this cor. I set off $14^{\circ}33'$ N. on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ}52\frac{1}{2}'$ N..

N. $0^{\circ}02'$ W., bet. secs. 7 and 8.
Over level land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S 8 in E. and $\frac{1}{4}$ S 7 in W. half; dig pits $18 \times 18 \times 12$ ins. N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked on brass cap,
T 18 S R 26 E in N. half;
S 6 in NW.,
S 5 in NE.,
S 8 in SE., and
S 7 in SW. quadrant; dig pits $18 \times 18 \times 12$ ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Land, level.

Soil, sandy loam, over 2 ft. deep, dry, medium texture, 1st rate.

No timber.

Alfred N. Bliss
U. S. Transitman.

East, on a random line, bet. secs. 5 and 8.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect N. and S. line 3 lks. S. of cor. of secs. 4, 5, 8 and 9.

Thence I run,

S. $89^{\circ}59'$ W. on a true line, bet. secs. 5 and 8.

Over level land, through scattering brush.

39.98 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 in N. and S 8 in S. half; dig pits $18 \times 18 \times 12$ ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

79.96 The cor. of secs. 5, 6, 7 and 8.

Land, level.

Soil, calcareous, not over 1 ft. deep; dry, 2nd rate.

No timber.

Undergrowth, scrub oak and sage brush.

John P. Hesse
U. S. Transitman.

West, on a random line, bet. secs. 6 and 7.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

77.53 Intersect W. bdy. of Tp. 18 lks. S. of cor. of secs. 1, 6, 7 and 12.

Thence I run,

S. $89^{\circ}52'$ E. on a true line, bet. secs. 6 and 7.

Ascending through dense brush.

15.55 Top of ridge, brs. N. and S.; descend.

28.44 Over level land, through dense brush.

37.53 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 6 in N. and S 7 in S. half; dig pits $18 \times 18 \times 12$ ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

77.53 The cor. of secs. 5, 6, 7 and 8.

Land, level and hilly.

Soil, calcareous, not over 1 ft. deep; dry, 2nd rate,

except 28.44 chs., which is rocky and worthless, 4th

Chains.

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rate.
No timber.
Undergrowth, greasewood and chico.

- 40.00 North, on a random line, bet. secs. 5 and 6.
Set temp. $\frac{1}{4}$ sec. cor.
- 80.12 Intersect N. bdy. of Tp. 11 lks. W. of cor. of secs. 5, 6, 31
and 32.
Thence I run,
S. 0° 05' W., on a true line, bet. secs. 5 and 6.
Over level land, through dense brush.
- 40.12 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S 5 in
E. and $\frac{1}{4}$ S 6 in W. half; dig pits 18x18x12 ins. N. and S.
of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high, W. of cor.
- 80.12 The cor. of secs. 5, 6, 7 and 8.
Land, level.
Soil, sandy loam, over 2 ft. deep; dry, medium texture;
1st rate.
No timber.
Undergrowth, greasewood and chico.

August 14, 1911.

GENERAL DESCRIPTION.

This township is nearly level land, from which rises
rough granite hills. The soil on the level land is a
rich sandy loam, capable of producing abundant crops
with irrigation. There is no timber or water in this
township.

Alfred N. Oliver
U. S. Transitman.

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Latitudes, departures and closing errors.

Line designated.	Course.	Distance.	Latitudes.		Departures.	
			N.	S.	E.	W.
East Bdy.	N. 1°15'W.	39.60	39.59			.87
East Bdy.	N. 0°51'W.	39.85	39.85			.59
"	N. 0° 6'E.	39.91	39.91		.07	.02
"	N. 0° 2'W.	40.03	40.03			.18
"	N. 0°31'E.	39.97	39.97		.36	.05
"	N. 0°15'W.	40.00	40.00			.19
"	N. 0°51'E.	40.00	40.00		.59	.01
"	N. 0° 4'E.	40.12	40.12		.05	
"	N. 0° 4'W.	40.29	40.29			
"	N. 0°16'E.	39.57	39.57		.19	
"	North,	40.02	40.02			
"	N. 0° 1'E.	40.49	40.49		.01	
North Bdy.	N.89°51'W.	477.43	1.26			477.43
West Bdy.	S.0° 3' W.	80.12		80.12		.06
"	S. 0°10'W.	40.00		40.00		.12
"	S. 0°11'W.	39.95		39.95		.13
"	S. 0° 26'W.	40.12		40.12		.30
"	S. 0° 6'W.	40.10		40.10		.07
"	S. 0° 10'W.	39.94		39.94		.12
"	S. 0° 11'W.	40.12		40.12		.13
"	S. 0°15'W.	39.94		39.94		.17
"	S. 0°11'W.	40.03		40.03		.13
"	S.0° 9'W.	40.02		40.02		.10
"	S.0° 2'W.	40.09		40.09		.02
South Bdy.	N.89°50'E.	39.96	.12		39.96	
"	S.89°34'E.	39.95		.30	39.95	
"	N.89°57'E.	39.16	.03		39.16	
"	N.89°56'E.	40.08	.05		40.08	
"	S.89°54'E.	40.08		.07	40.08	
"	S.89°52'E.	79.98		.18	79.98	
"	N.89°59'E.	80.06	.02		80.06	
"	S.89°42'E.	40.00		.21	40.00	
"	S.89°56'E.	80.00		.10	80.00	
Convergency,						.45
			481.32	481.29	480.54	480.994
			481.29			480.54
	Error in lat.,		.03	Error in dep.,		.40

LIST OF NAMES.

A list of the names of the individuals employed by John F. Hesse
 _____, United States ~~Deputy Surveyor~~ ^{Transitman}, to assist in running, measuring, and
 marking the lines and corners described in the foregoing field notes of the survey of the
subdivision lines of Tp. 18 S. Rg. 26 E. and resurvey of the south,
east and west boundaries of Tp. 18 S. Rg. 26 E.
 showing the respective capacities in which they acted:

- | | | |
|-------------|------------------|-----------|
| J. H. Bates | R. A. Coombs | Chainman. |
| A. F. Lyon | R. L. Bates | Chainman. |
| | H. R. Harvey | Moundman. |
| | E. E. Mills | Moundman. |
| | H. F. Dillman | Axman. |
| | E. Barnes | Axman. |
| Ralph Brown | P. B. Hilderbran | Flagman. |

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John F. Hesse
 _____, United States ~~Deputy Surveyor~~ ^{Transitman}, in surveying all
 those parts or portions of the subdivision lines of Tp. 18 S. Rg. 26 E. and
resurvey of the south, east and west boundaries of Tp. 18 S. Rg. 26
E.

_____ of the Gila and
Salt River _____ meridian, Territory _____ 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

- | | | |
|---------------------|-------------------------|-----------|
| <i>J. H. Bates</i> | <i>A. F. Lyon</i> | Chainman. |
| <i>R. A. Coombs</i> | <i>R. L. Bates</i> | Chainman. |
| | <i>H. R. Harvey</i> | Moundman. |
| | <i>E. E. Mills</i> | Moundman. |
| | <i>E. Barnes</i> | Axman. |
| | <i>H. F. Dillman</i> | Axman. |
| <i>Ralph Brown</i> | <i>P. B. Hilderbran</i> | Flagman. |

Subscribed and sworn to before me this 14th. } By P. E. Hilderbran August 12th.
 day of August, 1911 } 1911

 U. S. Transitman



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I, We, John P. Hesse & Alfred N. Oliver, United States Deputy Surveyor, do solemnly swear that, in pursuance of ^{instructions} ~~a contract~~ received from Frank S. Sengall United States Surveyor General for Arizona, bearing date of the 25th day of August, 1910, I have well, faithfully, and truly, in ~~my~~ ^{our} own proper person~~s~~ 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 the subdivision lines of Tp. 18 S. Rg. 26 E. and resurvey of the S. E. and W. boundaries of Tp. 18 S. Rg. 26 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.

John P. Hesse
Alfred N. Oliver
United States Deputy Surveyor.
Transcriptman

Subscribed by said John P. Hesse, and sworn to before me }
this 18 day of July, 1912 }
by said Alfred N. Oliver, Aug 2, 1912 }
Frank S. Sengall
SURVEYOR-GENERAL OF ARIZONA



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Frank Sengall Aug. 3, 1912

The foregoing field notes of the survey of the subdivision lines and retracement of the South East and West Boundaries of T18 S R26 E.

executed by Group under his ~~order~~ No. 5, dated Aug. 25, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank Sengall
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.