Book G. 49

BOOK 2331

Book No. 233

FIELD NOTES

re- Accepted G.L.O. letter "E" dated Dec. 17, 1912

OF THE SURVEY OF THE

Fourth Standard Parallel South through

Ranges 25 and 26 East

Of the Gila & S. R. Meridian,

In the State of Arizona

EXECUTED BY

John D. Hesse

and

Alfred N. Oliver

In the capacity of U. S. ~~Surveyor~~ Transitman, under instructions dated August 2, 1911, issued by the United States Surveyor General to govern surveys included in Group No. 95, which were approved by the Commissioner of the General Land Office, August 18, 1911, pursuant to authority contained in the Act of Congress dated March 4, 1911

Survey commenced September 8, 1911

Survey completed " 16, 1911

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BOOK 2331

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Book No. 2331

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BOOK 2331

PRELIMINARY OATHS OF ASSISTANTS.

WE, A. E. Lyon, R. L. Bates, J. H. Bates and H. R. Harvey 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 4th Standard Parallel South through Rgs. 25 and 26 E.

A. E. Lyon J H Bates, Chainman.
R. L. Bates H R Harvey, Chainman.

Subscribed and sworn to before me this 8th day of September, 1911

John P. Hesse
U. S. Transitman

SEAL

WE, E. E. Mills and J. L. Gardner 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 4th Standard Parallel South through Rgs. 25 and 26 E.

E E Mills, Moundman.
J L Gardner, Moundman.

Subscribed and sworn to before me this 8th day of September, 1911

John P. Hesse
U. S. Transitman

SEAL

~~WE~~, J. E. Barnes and _____ do solemnly swear that ~~we~~ will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ~~us~~ to the best of ~~our~~ skill and ability, in the survey of the 4th Standard Parallel South through Rgs. 25 and 26 E.

E. Barnes, Axman.
_____, Axman.

Subscribed and sworn to before me this 8th day of September, 1911

John P. Hesse
U. S. Transitman

SEAL

I, We, W. L. Ray and A. W. Hendrix, do solemnly 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 4th Standard Parallel South through Rgs. 25 and 26 E.

W. L. Ray A W Hendrix, Flagmen.

Subscribed and sworn to before me this 8th day of September, 1911

John P. Hesse
U. S. Transitman

SEAL

6—151

Chains.

Survey commenced September 8, 1911, and executed with a W.and L.E.Gurley solar compass, not numbered. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of the 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 compass, 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 the meridian determined by observations on Polaris, I proceed as follows:

At camp near the standard cor.of Tp.20 S., Rs.25 and 26 E., latitude, 31°38'34" N.; longitude,109°45'29"W., I set off 31°38½'N. on the lat.arc; 5°52½'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 my station.

September 8: At 8h.24m.p.m., by my watch, which has correct l.m.t., I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N.of my station.

September 8, 1911.

September 9: At 6h.30m.a.m., l.m.t., I lay off the azimuth of Polaris 1°22' to the west, and mark the meridian thus determined, by cutting a small groove in the stone set October 8, on which the meridian coincides with the mark determined with the solar.

At 7h.00m.a.m.,l.m.t., I set off 31°38½'N.on the lat.arc; 5°38½'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 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., l.m.t., is N.13° 15'W.; the angle thus determined gives the mag. decl. 13°15'E.

I commence at the standard cor.of Tps.20 S.,Rs.25 and 26 E.,and as the old post is rotted badly, and the pits nearly obliterated, I reestablish this cor.in its original position as follows:

Set an iron post 3 ft.long,3 ins.diam.,24 ins.in the ground for standard cor.of Ts.20 S.,Rs.25 and 26 E., marked on brass cap,

T 20 S R 25 E in N.half;
S 36 in NW., and
S 31 in NE.quadrant; dig pits 30x24x12 ins.crosswise on each line,E.and W.4 ft.and N.of post 8 ft.dist.,and raise a mound of earth 5 ft.base, 2½ ft. high,N.of cor.

Thence I run,west finding no cors. until at

320.56 Fall 140 lks.S.of old stand.cor.of secs.32 and 33.

I return to the stand.cor.of Ts.20 S.,Rs.25 and 26 E.

Thence I run,marking and blazing true line, N.89°45'W.on S.bdy.of sec.36,over level land,through dense brush.

36.45 Cross road, brs.NW. and SE.

Difference between measurements of 40.07 chs.by two sets of chainmen is 6 lks.;position of middle point,

By 1st set,40.10 chs.,
By 2nd set, 40.04 chs., the mean of which is

Chains.	
40.07	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for Standard ¼ sec. cor. on S. bdy. of sec. 36, marked on brass cap ¼S36 in N. half; dig pits 18x 18 x 12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, N. of cor.
52.60	Old C.C. of Ts.21 S., Rs.25 & 26 E.; post badly rotted.
	Difference bet. measurements of 80.14 chs by two sets of chainmen is 8 lks.; position of middle point; By 1st set, 80.18 chs. By 2nd set, 80.10 chs., the mean of which is
80.14	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in t the ground for standard cor. of secs. 35 and 36, marked on brass cap T20SR25E in N. half; S35 in N.W. and S36 in N.E. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line, E. and W. 3 ft. and N. of cor. 7 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. Undergrowth, mesquite.

	N.89 45'W. on S. bdy. of sec. 35. Over level land, through dense brush. Difference between measurements of 40.07 chs., by two sets, of chainmen is 10 lks.; position of middle point By 1st set, 40.12 chs. By 2nd set, 40.02 chs., the mean of which is
40.07	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for standard ¼ sec. cor., marked on brass cap ¼S 35 in N. half; dig pits 18 x 18 x 12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, N. of cor.
52.00	Arizona and Eastern R.R., bears N.9 E., and S.9 W.
68.45	Cross wash 8 lks. wide, course S.E.
	Difference between measurements of 80.14 chs., by two sets of chainmen is 8 lks.; position of middle point By 1st set, 80.18 chs. By 2nd set, 80.10 chs., the mean of which is
80.14	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of secs. 34 and 35, marked on brass cap T20SR25E in N. half; S34 in N.W. and S35 in N.E. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line, E. and W. 3 ft. and N. of cor. 7 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 Undergrowth, mesquite.

	N.89 45'W. on S. bdy. of sec. 34. Over level land.
25.25	Cross wash 12 lks. wide, course S.E.
	Difference between measurements of 40.07 chs. by two sets of chainmen is 12 lks.; position of middle point By 1st set, 40.13 chs. By 2nd set, 40.01 chs., the mean of which is
40.07	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for standard ¼ sec. cor., marked on brass cap ¼S 34 in N. half; dig pits 18 x 18 x 12 ins. E. and W. of c cor. 3 ft. dist., and raise a mound of earth 3½ ft. base 1½ ft. high, N. of cor.
60.45	Cross wash 25 lks. wide, course S.E.
	Difference between measurements of 80.14 chs., by two sets of chainmen is 6 lks.; position of middle point By 1st set, 80.17 chs. By 2nd set, 80.11 chs., the mean of which is

Chains.

80.14 Set an iron post 3 ft. long, 3 ins. in diam.,24 ins. in the ground for standard cor.of secs. 33 and 34,marked on brass cap,
T 20 S RZ5 E in N.half;
S 33 in NW., and
S 34 in NE.quadrant; dig pits 24x18x12 ins.crosswise on each line, E.and W.3 ft.and N.of cor.7 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.
No undergrowth.

N.89°45'W.on S.bdy.of sec.33.
Over level land.
Difference between measurements of 40.07 chs. by two sets of chainmen is 10 lks.; position of middle point,
By 1st set, 40.12 chs.,
By 2nd set, 40.02 chs., the mean of which is

40.07 Set an iron post 3 ft. long, 1 in.in diam., 26 ins. in the ground for standard ¼ sec.cor., marked on brass cap ¼ S 33 in N.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.

Difference between measurements of 80.14 chs. by two sets of chainmen is 12 lks.; position of middle point,
By 1st set, 80.20 chs.,
By 2nd set, 80.08 chs., the mean of which is

Destroy old cor and in place thereof

80.14 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor.of secs. 32 and 33, marked on brass cap,
T 20 S R 25 E in N.half;
S 32 in NW., and
S 33 in NE. quadrant; dig pits 24x18x12 ins.crosswise on each line,E.and W.3 ft., and N.of cor.7 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. No undergrowth.

September 9,1911.

September 11: At 7h.00m.a.m.,l.m.t., I set off 31°38½'N. on the lat.arc; 4°53'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.32 and 33.
Thence I run,
West, on a random line on S.bdy.sec.32.

40.00 Find no trace of ¼ sec.cor.

80.14 Fall 35 lks.S.of old standard cor.of secs.31 and 32.
I return to the standard cor.of secs. 32 and 33.
Thence I run,
N.89°45'W. on S.bdy.of sec.32. x N.
Over level land.

19.45 Cross wash,10 lks.wide, course SE.

Difference between measurements of 40.07 chs. by two sets of chainmen is 4 lks.; position of middle point,
By 1st set, 40.09 chs.
By 2nd set, 40.05 chs., the mean of which is

40.07 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard ¼ sec.cor.,marked on brass cap ¼ S 32 in N.half; dig pits 18x18x12 ins.E.and W.of post 3 ft.dist., and raise a mound of earth 3½ ft. base, 1½ ft. high,N.of cor.

Difference between measurements of 80.14 chs. by two sets of chainmen is 6 lks.; position of middle point,

Chains.

By 1st. set 80.17 chs.
By 2nd. set 80.11 chs.; the mean of which is

80.14 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of secs. 31 and 32, marked on brass cap
T20SR35E in N. half;
S31 in N. W. and
S32 in N. E. quadrant; dig pits 24 x 18 x 12 ins. cross wise on each line E. and W. 3 ft. and N. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, N. of cor.
Land, level.
Soil, sandy loam, over 3 ft. deep; dry; medium texture; 1st. rate.
No timber.

West on S. bdy. of sec. 31
Over level land.

18.45 Cross road bears N. and S.

Difference between measurements of 40.00 chs. by two sets of chainmen is 3 lks. position of middle point
By 1st. set 40.01 chs.
By 2nd. set 39.99 chs; the mean of which is

40.00 Fall 33 lks. S. of standard ¼ sec. cor. on S. bdy. of sec. 31 a stone marked and witnessed as described by surveyor general as this stone is in perfect condition and well set I leave this original cor. and redig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. high N. of cor.
The course of this half mile is N. 89° 40' W. 40.00 chs.
Thence from Standard ¼ sec. cor.
West
Difference between measurements of 40.05 chs. by two sets of chainmen is 6 lks. position of middle point
By 1st. set 40.08 chs.
By 2nd. set 40.02 chs.; the mean of which is

40.05 Fall 6 lks. S. of the standard cor. of Tps. 20 S. Rgs. 34 and 35 E. I destroy this old cor. and re-establish it in the same place as follows:
Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of Tps. 20 S. Rgs. 34 and 35 E. marked on brass cap
T20 S. in N. half;
R34ES36 in N. W. and
R35 ES31 in N. E. quadrant; dig pits 30 x 24 x 12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist., and raise a mound of earth 5 ft. base 2½ ft. high, N. of cor.
The course of this half mile is N. 89° 55' W. 40.05 chs.
Land, level.
Soil, sandy loam, over two ft. deep; medium texture; dry; 1st. rate.
No timber.

Sept. 11, 1911.

Alfred N. Olsen

U.S. Transitman.

Resurvey of the Fourth Standard Parallel South, through R 26 E. (5)

Chains.

Survey commenced September 8, 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 the meridian determined by observations on Polaris, I proceed as follows:

At camp near the standard cor.of Tp.20 S.,Rs.25 and 26 E., latitude,31°38'34"N.; longitude,109°45'29" W., I set off31°38½'N. on the lat.arc; 5°52½'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 my station.

September 8: At 8h.24m.p.m. by my watch, which has correct l.m.t., I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N.of my station.

September 8,1911.

September 9: At 6h.30m.a.m.,l.m.t.,I lay off the azimuth of Polaris 1°22' to the west, and mark the meridian thus determined, by cutting a [illegible] groove in the stone set October 8,on which the meridian coincides with the mark determined with the solar.

At 7h.00m.a.m., l.m.t., I set off 31°38½'N.on the lat.arc; 5°38½'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 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., l.m.t., is N.13° 15'W.; the angle thus determined gives the mag. decl. 13° 15'E.

I commence at the standard cor.of Tps.20 S.,Rs.25 and 26 E. previously described. Thence I run,

East, on S. bdy. of sec. 31, finding no cors.or closing cors.until at

160.24 Fall 66 lks.N.of standard cor.of secs.32 and 33.

This falling answers to a correction of 33 lks. or 14' per mile S. counting from the standard Tp. cor.,and by proportion the length of each half mile will be 40.06 chs.

I return to the standard township cor.of Ts.20 S.,Rs.25 and 26 E.

Thence I run,

S.89°46'E.on a true line on S.bdy.of sec.31.

Over level land.

14.00 Cross road, brs.NW.and SE.

27.29 At this point I reestablish the closing cor.of secs.5 and 6, by proportional measurement,as the old cor.is lost. This closing cor. was set 12.75 chs.west of the ¼ sec. cor.on the S.bdy.of sec.31; then by proportion

80.00 : 80.12 : : 12.75 : X 12.77 chs.

Set an iron post 3 ft. long, 2 in. in diam, 24 ins. in the ground for closing cor. of secs. 5 and 6, marked on brass cap,

Chains.

CC S. of center
T20SR25ER26ES36 S31 in N. half;
S5 in S. E. and S6 in S. W. quadrant; dig pits cross wise on each line 24 x 18 x 12 ins. E. and W. 3 ft. and S. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, S. of cor.
Difference between measurements of 40.06 chs. by two sets of chainmen is 3 lks. position of middle point
By 1st. set 40.07 chs.
By 2nd. set 40.05 chs.; the mean of which is

40.06 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for Stand. ¼ sec. cor., marked on brass cap ¼S31 in N. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base 1½ ft. high, N. of cor.
Difference between measurements of 80.13 chs. by two sets of chainmen is 6 lks. position of middle point
By 1st. set 80.15 chs.
By 2nd. set 80.09 chs.; the mean of which is

80.13 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of secs. 31 and 32, marked on brass cap
T20SR26E in N. half;
S32 in N. E. and
S31 in N. W. quadrant; dig pits 24 x 18 x 12 ins. cross wise on each line E. and W. 3 ft. and N. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, level.
Soil, adobe mixed with alkali; 4th. rate.
No timber.

S. 89° 46' E. on S. bdy. of sec. 32
Over level land.

11.50 Cross White River, [illegible] 30 lks. wide course S.

37.54 At this point I re-establish the closing cor. of secs. 4 and 5 by proportional measurement as the old cor. is lost. This closing cor. was set 13.50 chs. west of the ¼ sec. cor. on the S. bdy. of sec. 32, then by proportion

80.00 : 80.13 :: 13.50 : x 13.52 chs.

Set an iron post 3 ft. long, 2 in. diam., 24 ins. in the ground for closing cor. of secs 4 and 5 marked on brass cap
CC S. of center.
T20SR26ES31S32 in N. half;
S4 in S. E. and S5 in S. W. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line E. and W. 3 ft. and S. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, S. of cor.

40.06 Difference between measurements of 40.06 chs. by two sets of chainmen is 4 lks. position of middle point
By 1st. set 40.08 chs.
By 2nd. set 40.04 chs.; the mean of which is

40.06 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for standard ¼ sec. cor., marked on brass cap ¼S32 in N. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base 1½ ft. high, N. of cor.
Difference between measurements of 80.13 chs. by two sets of chainmen is 6 lks. position of middle point
By 1st. set 80.15 chs.
By 2nd. set 80.09 chs.; the mean of which is

80.13 Destroy the old cor. and in the same place set and iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of secs. 32 and 33, marked on brass cap
T20SR26E in N. half;
S32 in N. W. and

Chains

S33 in N. E. quadrants; dig pits 24 x 18 x 12 ins. crosswise on each line, E. and W. 3 ft. and N. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, N. of cor.
Land, level.
Soil, adobe mixed with alkali 4th. rate.
No timber.

September 9, 1911.

September 16; At 7h. 00m. a.m., l.m.t., I set off 31° 38½' N. on the lat. arc; 3° 58½' N. on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 32 and 33

Thence I run

East on S. bdy. of secs. 33 and 34 finding no trace of cors. until at

160.16 Fall 32 lks. S. of standard cor. of secs. 34 and 35
I return to the standard cor. of secs. 32 and 33

Thence I run

N. 89° 53' E. on S. bdy. of sec. 33
Over level land.

27.93 At this point I re-establish the closing cor. of secs. 3 and 4 by proportional measurement, as the old cor. is lost. This closing cor. was set 13.10 chs. west of the ¼ sec. cor. on the S. bdy. of sec. 33, then by proportion

80.00 ; 80.08 :: 13.10 : x 13.11

Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 3 and 4, marked on brass cap
CC S. of center
T30SR26ES32S33 in N. half;
S3 in S. E. and S4 in S. W. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line, E. and W. 3 ft. and S. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, S. of cor.
This cor. sits under corral fence bears N. W. and S. E.

39.00 E. side of corral bears N. and S. and through dense brush.
Difference between measurements of 40.04 chs. by two sets of chainmen is 6 lks. position of middle point

By 1st. set 40.07 chs.
By 2nd. set 40.01 chs.; the mean of which is

40.04 Set an iron post 3 ft. long, 1 in. diam., 36 ins. in the ground for standard ¼ sec. cor., marked on brass cap ¼S33 in N. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Difference between measurement of 80.08 chs. by two sets of chainmen is 10 lks., position of middle point

By 1st. set 80.13 chs.
By 2nd. set 80.03 chs.; the mean of which is

80.08 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of secs. 33 and 34, marked on brass cap
T30SR26E in N. half;
S33 in N. W. and
S34 in N. E. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line, E. and W. 3 ft. and N. of post 8 ft dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, level.
Soil, rich sandy loam, over 3 ft. deep; dry; medium texture; 1st. rate.
No timber.
Undergrowth, greasewood and mesquite.

Chains.

N.89°53'E.on S.bdy.of sec.34.
Over level land, through dense brush.
0.30 Cross road bears N.and S.
1.12 Cross board fence W.side of corral, bears N.and S.
2.47 Board fence bears N.and S.
3.84 Board fence E.side of corral, bears N and S.
27.93 At this point I reestablish the closing cor.of secs.2 and 3, by proportional measurement, as the old cor.is lost. This closing cor. was set 12.10 chs.west of the ¼ sec.cor. on the S.bdy.of sec.34; then by proportion,
80.00 : 80.08 : : 12.10 : X 12.11
Set an iron post 3 ft.lomg, 2 ins.diam., 24 ins. in the ground for closing cor.of secs.2 and 3, marked on brass cap,
C C, S of center,
T 20 S R 26 E S 33 S 34 in N.half;
S 2 in SE., and
S 3 in SW. quadrant; dig pits 24x18x12 ins.crosswise on each line E.and W. 3 ft.,and S.of post 7 ft.dist., and raise a mound of earth 4 ft.base, 2 ft. high,S.of cor.
Difference bet.measurements of 40.04 chs. by two sets of chainmen is 2 lks.; position of middle point,
By 1st set, 40.05 chs.,
By 2nd set, 40.03 chs., the mean of which is
40.04 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard ¼ sec.cor.,marked on brass cap, ¼ S 34 in N.half; dig pits 18x18x12 ins.E.and W.of post 3 ft.dist., and raise a mound of earth 3½ ft. base, 1½ ft. high,N.of cor.
69.44 Cross telegraph line, bears NNW.
70.11 Cross El Paso and Southwestern Ry.bears SSE.
Difference between measurements of 80.08 chs. by two sets of chainmen is 4 lks.; position of middle point,
By 1st set, 80.10 chs.,
By 2nd set,80.06 chs., the mean of which is
80.08 Set an iron post 3 ft.long, 3 ins.diam., 24 ins. in the ground for standard cor.of secs.34 and 35, marked on brass cap,
T 20 S R 26 E in N.half;
S 34 in NW., and
S 35 in NE. quadrant;, dig pits 24x18x12 ins.crosswise on each line E.and W. 3 ft. and N.of post 7 ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high,N.of cor.
Land,level.
Soil, rich sandy loam, over 2 ft. deep; dry, medium texture; 1st rate.
No timber.
Undergrowth, greasewood and mesquite.
This cor. is set in the same place that the old cor.stood. I destroy the old cor.
September 16: At this cor. I set off 2°52' N.on the decl.arc; and observe the sun on the meridian at noon; the resulting lat. is 31° 38½'N.

I now run East on a random line,on S.bdy.of secs.35 and 36, finding no trace of cors. until at
120.39 Fall 35 lks.S.of the standard ¼ sec.cor.on the S.bdy.of sec.36.
I return to the standard cor.of secs. 33 and 34.
Thence I run,
N.89°50'E. on S.bdy.of sec.35.
Over level land.
28.29 At this point I reestablish the closing cor.of secs.1 and 2 by proportional measurement, as the olf cor. is lost. This closing cor.was set 11.80 chs. west of the ¼ sec.cor. on the S.bdy,of secs.35,then by proportion,

Chains.

80.00 : 80.26 : : 11.80 x 11.84

Set an iron post 3 ft.long, 2 ins. diam., 24 ins. in the ground for closing cor.of secs.1 and 2, marked on brass cap,
C C,S of center,
T 20 S R 26 E S 34 S 35 in N.half;
S 1 in SE., and
S 2 in SW. quadrant; dig pits 24x18x12 ins.crosswise on each line E.and W.3 ft . and S.of post 7 ft.dist., and raise a mound of earth 4 ft base, 2 ft . high,S.of cor.

Difference bet. measurements of 40.13 chs. by two sets of chainmen is 4 lks.; position of middle point,
By 1st set, 40.15 chs.
By 2nd set, 40.11 chs., the mean of which is

40.13 Set an iron post 3 ft . long, 1 in. in diam., 26 ins. in the ground for standard ¼ sec.cor., marked on brass cap, ¼ S 35 in N.half; dig pits 18x18x12 ins.E.and W. of post 3 ft dist., and raise a mound of earth 3½ ft. base, 1½ ft. high,N.of cor.

Difference bet. measurements of 80.26 chs. by two sets of chainmen is 6 lks., position of middle point
By 1st set, 80.29 chs.
By 2nd set, 80.23 chs., the mean of which is

80.26 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of secs.35 and 36, marked on brass cap,
T 20 S R 26 E in N.half;
S 35 in NW., and
S 36 in NE. quadrant; dig pits 24x18x12 ins.crosswise on each line,E.and W. 3 ft., and N.of post 7 ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high,N.of cor.

Land,level.

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

No timber.

Undergrowth, greasewood and mesquite,

N.89° 50'E.on S.bdy.of sec.36.

Over level land,through dense brush.

28.74 The closing cor.of Ts.21 S.,Rs.26 and 27 E.,as the post is nearly rotted away,and the pits nearly obliterated I destroy this old cor., and reestablish it in the same place as follows: Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for closing cor. of Ts.21 S.,Rs.26 and 27 E., marked on brass cap,
C C, S of center,
T 20 S R 26 E S 35 S 36 in N., and
T 21 S in S half;
S 6, R 27 E in SE., and
S 1 R 26 E in SW. quadrant; dig pits 30x24x12 ins. crosswise on each line,E.and W.4 ft. and S.of post 8 ft.dist., and raise a mound of earth 4½ ft. base,2½ ft. high,S.of cor.

Difference between measurements of 40.13 chs. by two sets of chainmen is 6 lks.; position of middle point,
By 1st set. 40.16 chs.,
By 2nd set, 40.10 chs., the mean of which is

40.13 The old ¼ sec.cor., which I destroy and reestablish in the same place as follows; set an iron post 3 ft.long, 1 in.,in diam.,26 ins.in the ground for stand.¼ sec. cor.,marked on brass cap, ¼ S 36 in N.half;dig pits 18x18x12 ins.E and W.of post 3 ft.dist., and raise a mound of earth 3½ ft.base, 1½ ft . high,N.of cor.

Difference bet.measurements of 39.74 chs. by two sets of chainmen is 10 lks.position of middle point
By 1st set,79.79 chs.,
By 2nd set, 79.69 chs., the mean of which is

79.87 The stand.cor.of Ts.20 S.,Rs.26 and 27 E.,and as the post is badly rotten and pits obliterated, I

Chains

destroy the old cor. and re-establish it in the same place as follows;
Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for standard cor. of Tps. 30 S. Rgs. 36 and 37 E. marked on brass cap
T30S in N. half;
R36ES36 in N. W. and
R37ES31 in N. E. quadrant; dig pits 30 x 24 x 18 ins. crosswise on each line, E. and W. 4 ft. and N. of post 8 ft. dist., and raise a mound of earth 5 ft. base 2½ ft. high, N. of cor.
Land, level.
Soil, rich sandy loam, over 3 ft. deep; medium texture; dry; 1st. rate.
No timber.
Undergrowth, greasewood and mesquite.

September 16, 1911.

General Description.

This line runs over level land and the soil, excepting that bordering along White River, which is adobe impregnated with alkali, is a rich sandy loam and very fertile. There is no timber along the line. White River goes dry at certain seasons.

John P. Hesse
U.S. Transitman.

U. S. Transitman

FINAL OATHS OF ~~DEPUTY SURVEYOR~~ AND HIS ASSISTANTS.

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BOOK 2331

LIST OF NAMES.

A list of the names of the individuals employed by John P. 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 4th Standard Parallel South through Rgs. 25 and 26 E.

showing the respective capacities in which they acted:

A. E. Lyon J. H. Bates, Chainman.
R. L. Bates H. R. Harvey, Chainman.
E. E. Mills J. L. Gardner, Moundman.
, Moundman.
E. Barnes, Axman.
, Axman.
W. L. Ray A. W. Hendrix, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John P. Hesse, United States ~~Deputy Surveyor~~ Transitman, in surveying all those parts or portions of the 4th Standard Parallel South through Rgs. 25 and 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

A. E. Lyon J. H. Bates, Chainman.
R. L. Bates H. R. Harvey, Chainman.
E. E. Mills, Moundman.
J. L. Gardner, Moundman.
E. Barnes, Axman.
, Axman.
W. L. Ray A. W. Hendrix, Flagman.

Subscribed and sworn to before me this 16th day of September, 1911

SEAL

John P. Hesse
U. S. Transitman

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FINAL OATH OF UNITED STATES ~~DEPUTY SURVEYOR.~~ Transitmen

BOOK 2331

I, We John P. Hesse and Alfred N. Oliver, United States ~~Deputy Surveyor~~ Transitmen, do solemnly swear that, in pursuance of ~~a contract~~ instructions received from Frank D. Ingalls United States Surveyor General for Arizona, bearing date of the 18 th day of July, 19 11, 12, I have well, faithfully, and truly, in ~~my~~ our proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the 4th Standard Parallel South through Ranges 25 and 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~~, us and under ~~my~~ our direction; and ~~I~~ we 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~~ Transitmen.

Subscribed by said John P. Hesse, and sworn to before me this 18 day of July, 19 12 ~~and~~ by said Alfred N. Oliver, Aug 2, 1912

SEAL

Frank D. Ingalls
SURVEYOR-GENERAL OF ARIZONA

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. Aug. 3, 1912

The foregoing field notes of the survey of the 4th S.L. Standard Parallel South through Ranges 25 and 26 E

executed by

under ~~his contract~~ Transitmen No. 5, dated Aug. 21, 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 D. Ingalls
United States Surveyor General.

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

United States Surveyor General.

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