

Book G

2280

2280

BOOK 2280

2280

FIELD NOTES

OF THE SURVEY OF THE

Inquisitory Subdivision of T 18 R 23 E
and

Retracement of Eastern of the West City T 18 R 23 E

2280

2280

Of the *G. & S. R. B.* Meridian,
Ariz.

AS SURVEYED BY

Hugh J. DuVal, United States Deputy Surveyor,

Under his Contract No. *163*, dated *May 16*, 19*10*

Survey commenced *December 19*, 19*10*

Survey completed *December 27*, 19*10*

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2280

BOOK 2280

INDEX DIAGRAM.

Township 18 D, Range 23 E

6	5	4	3	2	1					
7	8	9	10	11	12					
18	17	16	15	14	13					
	8	6	5							
19	8	20	6	21	4	22	3	23	24	
		8	6	4	2					
30	8	29	5	28	3	27	2	26	1	25
7	7		5	3	2					
31	7	32	5	33	3	34	1	35	1	36

Meanders Page

Jr

PRELIMINARY OATHS OF ASSISTANTS.

See Book B.

WE, _____ and _____
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 _____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ }
day of _____, 19 _____ }



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

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ }
day of _____, 19 _____ }



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

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ }
day of _____, 19 _____ }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ }
day of _____, 19 _____ }



Subdivisional Lines of T. 18 S. R. 23 E.

Chains

Survey commenced Dec. 19th, 1910 and executed with Blount & Co. transit, previously described in book of Exterior Lines of T. 9 S. R. 31 E.

I examine the adjustments of the transit and find them to be perfect, then to test the solar apparatus, by comparing its indications, resulting from solar obs. made during a. m. and p. m. hours, with a meridian determined by Polaris obs.

I proceed as follows:-

At my camp located just south of the $\frac{1}{4}$ sec. cor. in secs. 5 & 6, T. 19 S. R. 23 E., long. $110^{\circ}02'W$ lat. $31^{\circ}48'15''N$ I drive a pine stake, 2 ins. sq., 12 ins. in and flush with the ground, over which I set instrument, and at 4h. p. m., l. m. t., set off $23^{\circ}22'S$ on the decl. arc, $58^{\circ}12'$ on the co-lat. arc, and determine a mer, with the solar at this point and drive a pine stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, at a point 5 chs. N. of my station, and mark the mer. thus determined by a pencil mark on the top of same.

At 7h37.5m, p. m., l. m. t., by my watch, obs. Polaris at upper culmination, in accordance with the Manual of Instructions, and mark a point in the line thus determined on the peg previously set, 5 chs. N. of my station, by a pencil dot. This point falls 0.2 ins. E. of the point determined by the solar obs.

Dec. 19th, 1910.

Dec. 20th:-

At 8h, a. m., l. m. t., set off $23^{\circ}23'S$ on the decl. arc, $58^{\circ}12'$ on the co-lat. arc, and determine a mer with the solar, and mark a point in the line thus determined on the peg set 5 chs. N. of my station. This point falls 0.2 ins. W. of the point as determined by the Polaris obs.

The solar apparatus by p. m. and a. m. observations defines the position for the mer. $11'' E.$ and $11'' W.$ of the meridian as determined by Polaris obs.; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h30m a. m. is $N. 13^{\circ}10'W.$; the angle thus determined gives the mag. decl. $13^{\circ}10'E.$

Subdivisional Lines of T. 18 S. R. 23 E.

Chains.

From the cor. of secs. 1, 2, 35 and 36, which cor. is a sandstone, 6x6x4 ins. above ground, properly marked and witnessed as described by the Surveyor General, I run N.0°01'W. bet. secs. 35 and 36 over rolling ground.

- 30.00 Arroyo 10 lks. wide, course SW.
 40.00 Set a sandstone, 15x7x5 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
- 49.00 Arroyo 50 lks. wide, course SW.
- 80.00 Set a porphyry stone, 12x8x8 ins., 8 ins. in the ground for the cor. of secs. 25, 26, 35 and 36, mkd. with 1 notch on the S. and E. edges, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
 Land rolling. Soil 2nd rate. No timber.

 N.0°01'W. bet. secs. 25 and 26 over rolling ground.

- 40.00 Set a limestone, 12x12x12 ins., 8 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
 Ascend along W. slope of mountain over rough and rocky ground.
- 80.00 Set a limestone, 14x12x5 ins., 8 ins. in the ground for the cor. of secs. 23, 24, 25 and 26, mkd. with 1 notch on the E. and 2 notches on the S. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
 This corner is set on top of little ridge running W. from top of mountain.
 Land rough and rocky. Soil 3rd rate. Scattering brush.

 Dec. 20th:- At 4h. p. m., 1. m. t., set off 23°23' S. on the decl. arc, 58°10' on the co-lat. arc and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26 above described.

Note:- The sky was over-cast at noon and solar obs. at that time impossible.

Dec. 20th, 1910.

 Dec. 21st:- At 8 h. a. m., 1. m. t. set off 23°23' S. on the decl. arc, 58°11 $\frac{1}{2}$ ' on the co-lat. arc and determine a mer. with the solar at the cor. of secs. 2, 3, 34 and 35, a quartz stone, 6x6x6 ins. above ground, properly marked and witnessed as described by the Surveyor General.

Thence I run, N.0°1'W. bet. secs. 34 and 35 over rolling ground.

- 34.50 Arroyo, 10 lks. wide, course SW.
- 40.00 Set a limestone, 15x10x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
- 66.00 Road bears NE. and SW.
 73.00 Arroyo, 10 lks. wide, course SW
 80.00 Set a quartzite stone, 20x7x6 ins., 15 ins. in the ground for the cor. of secs. 26, 27, 34 and 35, mkd. with 1 notch on the S. and 2 notches on the E. edge, and raise a mound

Subdivisional Lines of T. 18 S., R. 23 E.

Chains.

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

Land rolling. Soil 3rd rate. No timber.

S.89°54'E. on a random line bet. secs. 26 and 35.

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

80.02 Intersect the N. and S. line at a point 10 lks. N. of the cor. of secs. 25, 26, 35 and 36.

Thence I run N.89°50'W. on a true line bet. secs. 26 and 35 over rolling ground.

40.01 Set a quartzite stone, 14x12x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

42.10 Road bears N.80°E. and S.45°W.

48.00 Arroyo, 20 lks. wide, course SW.

80.02 The cor. of secs. 26, 27, 34 and 35.

Land rolling and rough. Soil 2nd rate. No timber.

Dec. 21st:- At this cor. I set off 22°25' $\frac{1}{2}$ 'S. on the decl. arc, and at 3h. 58m. a. m. 1. m. t., observe the sun on the mer., the resulting lat is 31°49'N.

N.0°01'W. bet. secs. 26 and 27 over rolling ground.

40.00 Set a limestone, 15x8x5 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.

54.00 Arroyo 50 lks. wide, course W.

79.75 Arroyo 20 lks. wide, course W.

80.00 Set a limestone, 18x7x6 ins., 12 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, mkd. with 2 notches on the S. and E. edges, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Land rolling. Soil 3rd rate. No timber.

S.89°50'E. on a random line bet. secs. 23 and 26,

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

80.04 Intersect the N. and S. line at a point 3 lks. N. of the cor. of secs. 23, 24, 25 and 26.

Thence I run N.89°49'W. on a true line bet. secs. 23 and 26 descending over rough and rocky ground down N. W. slope of mountain range.

40.02 Set a limestone, 18x12x6 ins., 12 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

78.00 Descend 25 feet vertical off of bluff which runs along SE. side of arroyo, back towards the NE.

78.20 Arroyo 20 lks. wide, course SW.

80.04 The cor. of secs. 22, 23, 26 and 27.

Land rough and rocky and mountainous, 80.04 chs. Soil 3rd and 4th rate. No timber.

Dec. 21st:- At 3h. p. m., 1. m. t., I set off 22°24' $\frac{1}{2}$ 'S. on the decl. arc, 58°10' on the co-lat. arc and determine a mer. with the solar at this cor.

Subdivisional Lines of T. 18 S., R. 26 E.

Chains.	
	N.0°01'W. bet. secs. 22 and 23, over rough broken ground.
2.00	Arroyo, 20 lks. wide, course SW. Ascend.
23.00	Road bears NE. and SW.
35.00	Top of Butte on E. side, descend.
40.00	Set a limestone, 15x9x5 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
41.00	Arroyo, 10 lks. wide, course West.
43.00	Arroyo, 10 lks. wide, course West. Ascend mountain ridge, bears E. and W.
76.26	Top of ridge, runs back West. Mining camp bears N.69°45'E., about 15 chs. dist. Descend.
80.00	Set a quartzite stone, 15x10x6 ins., 10 ins. in the ground for the cor. of secs. 14, 15, 22 and 23, mkd. with 3 notches on the S. and 2 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Land rough and rocky and mountainous 80.00 chs. Soil 3rd and 4th rate. No timber. December 21, 1910.

From the cor. of secs. 3, 4, 33 and 34, on the S. bdy., which I find marked and witnessed, as described by the Surveyor General, N.0°02'W. bet. secs. 33 and 34 over very rough and rocky ground.	
17.05	Fence bears E. and W. Descend.
23.50	Old road and wash, course West.
32.00	West side of wash, course W.; ascend.
40.00	Set a quartzite stone, 18x18x7 ins., 12 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
43.00	Top of ridge bears E. and West, thence over rolling ground. Descend.
61.00	Arroyo, 50 lks. wide, course W.
77.50	Draw, 1ch wide, course SW.
80.00	Set a limestone, 18x6x6 ins., 12 ins. in the ground for the cor. of secs. 27, 28, 33 and 34, mkd. with 1 notch on the S. and 3 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Land rolling, rough and rocky. Soil 3rd and 4th rate. No timber.

S.89°54'E. on a random line bet. secs. 27 and 34.	
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect the N. and S. line at a point 5 lks. S. of the cor. of secs. 26, 27, 34 and 35. Thence I run N.89°56'W. on a true line bet. secs. 27 and 34.
40.00	Set a quartzite stone, 15x8x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
40.30	Arroyo 20 lks. wide, course SW.
78.00	Arroyo 10 lks. wide, course SW. Ascend.
80.00	The cor. of secs. 27, 28, 33 and 34. Land rolling. Soil 2nd rate. No timber.
Dec. 22nd:- At this cor. I set off 23°26'S. on the decl. arc and at 11h.58m. a. m., l. m. t., obs. the sun on the mer., the resulting lat. is 31°49'N	

N.0°02'W. bet. secs. 27 and 28 over rolling ground. Ascend.	

Chains.	
2.00	Low ridge bears NE. and SW. Descend.
7.00	Old road bears NE. and SW.
7.50	Draw, 20 lks. wide, course SW. Thence over rolling ground.
9.79	Road bears NE. and SW.
31.00	Arroyo, 2 chs. wide, course SW.
39.00	Arroyo, 30 lks. wide, course SW.
40.00	Set a porphyry stone, 15x8x7 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
78.00	Arroyo 10 lks. wide, course SW.
80.00	Set a quartzite stone 18x18x8 ins., 12 ins. in the ground for the cor. of secs. 21, 22, 27 and 28, mkd. with 2 notches on the S. and 3 notches on the E. edge, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. and rolling. Soil 2nd rate. No timber.

	S. 89°56'E. on a random line bet. secs. 22 and 27.
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect the N. and S. line at a point 9 lks. S. of the cor. of secs. 22, 23, 26 and 27. Dec. 22nd:- At 4h. p. m. l. m. t., I set off 23°24'S. on the decl. arc, 58°10' on the co-lat. arc and determine a mer. with the solar at this cor. Thence I run West on a true line bet. secs. 22 and 27 over rolling ground.
1.25	Arroyo 20 lks. wide, course SW.
39.95	Set a limestone, 14x12x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
78.00	Arroyo 10 lks. wide course SW.
79.90	The cor. of secs. 21, 22, 27 and 28. Land rolling. Soil 2nd rate. No timber. Dec. 22nd, 1910.

	N. 0°02'W. bet. secs. 21 and 22 over rolling ground.
35.72	Road bears NE. and SW.
37.00	Arroyo, 50 lks. wide, course SW.
38.75	Arroyo, 50 lks. wide, course SW.
40.00	Set a marble stone, 12x9x5 ins., 8 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
40.65	Fence of Preston's bears NW. and SE. Every indication of good quality of marble in this vicinity.
50.50	Mining shaft.
52.12	Mining shaft.
52.50	Mining shaft West about 50 lks.
80.00	Set a quartz stone, 18x9x4 ins., 12 ins. in the ground for the cor. of secs. 15, 16, 21 and 22, mkd. 18S on NE., 23E on SE. with 3 notches on the E. and S. edges. raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. There are a few scrub oaks along this line. No timber. Soil 3rd rate. Land rolling, rocky and semi-mountainous. Dec. 23rd:- At this cor. I set off 23°26' S. on the decl. arc, and at 11h. 59m. a. m., l. m. t., obs. the sun on the mer., the resulting lat. is 31°51' N

Subdivisional Lines of T. 18 S. R. 23 E.

Chains.	East on a random line bet. secs. 15 and 22.
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
79.80	Intersect the N. and S. line at a point 14 lks. N. of the cor. of secs. 14, 15, 22 and 23.
	Thence I run, N. 89° 54' W. on a true line bet. secs. 15 and 22 ascending over rough and rocky ground.
10.00	Mountain ridge bears N. and S. Descend, slope 27°.
39.90	Set a limestone, 15x7x5 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
48.90	Arroyo, 50 lks. wide, course SW. Ascend over very steep and rocky ground, in order to avoid impassable Point of rock and secure better ground for measurement, I offset North 4 chs.
65.00	Fence bears N. and S. Top of high rocky ridge bears N. and S. House of Preston's bears S 11° 25' E. about 40 chs. dist. Descend.
79.80	Offset South 4 chs. to the cor. of secs. 15, 16, 21 and 22.
	Dec. 23rd:- At 4 h. p. m. 1. m. t., I set off 23° 23' S. on the decl. and 58° 09' on the co-lat. arc and determine a mer. with the solar at this cor.
	Land mountainous. Soil 4th and 5th rate, rocky. Scattering scrub oak brush. Land mountainous and exceptionally difficult to survey, 79.80 chs.
	December 23, 1910.

	From the cor. of secs. 4, 5, 32 and 33 on S. bdy. marked and witnessed as described by the Surveyor General I run,
	N. 0° 02' W. bet. secs. 32 and 33 descending North side of Butte.
9.00	Old road and foot of Butte bears NE. and SW.
40.00	Set a limestone, 18x15x4 ins., 12 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
80.00	Set a limestone, 12x10x5 ins., 8 ins. in the ground for the cor. of secs. 28, 29, 32 and 33, mkd. with 1 notch on the S. and 4 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
	Land mountainous, and rolling. Soil 4th and 3rd rate. No timber. Mountainous land 9.00 chs.

	S. 89° 54' E. on a random line bet. 28 and 33.
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect the N. and S. line at a point 14 lks. S. of the cor. of secs. 27, 28, 33 and 34.
	Thence I run West on a true line bet. secs. 28 and 33.
6.50	Draw 10 lks. wide, course SW.
77.00	Old road bears NE. and SW.
7.20	Road bears NE. and SW.
39.99	Set a limestone, 20x8x8 ins., 15 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
79.98	The cor. of secs. 28, 29, 32 and 33. Land rolling. Soil 2nd rate. No timber.

	N. 0° 02' W. bet. secs. 28 and 29 over rolling ground.
4.00	Arroyo, 50 lks. wide, course SW.
14.00	Road bears NE. and SW.
40.60	Set a limestone, 15x6x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
40.10	Arroyo, 10 lks. wide, course SW.
80.00	Set a granite stone, 15x10x5 ins., 10 ins. in the ground

Subdivisional Lines of T. 18 S. R. 23 E.

Chains.

for the cor. of secs. 20, 21, 28 and 29, mkd. with 2 notches on the S. and 4 notches on the E. edge, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Land rolling. Soil 3rd rate. No timber.

Dec. 24th;- At this cor. I set off $23^{\circ}25'S$. on the decl. arc, and at 12h 00' m., l. m. t., obs. the sun on the mer., the resulting lat. is $31^{\circ}50'$. u.

East on a random line bet. secs. 21 and 28.

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

80.00 Intersect the cor. of secs. 21, 22, 27 and 28,
Thence I run West on a true line bet. secs. 21 and 28 over rolling ground.

32.00 Road bears NE. and SW.

35.00 Arroyo, 1 ch. wide, course SW.

40.00 Set a porphyry stone, $15 \times 7 \times 6$ ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

51.33 Road bears NE. and SW.

70.00 Draw, 1 ch. wide, course SW.

80.00 The cor. of secs. 20, 21, 28 and 29.

Land rolling. Soil 2nd rate. No timber.

 $N.0^{\circ}02'W$. bet. secs. 20 and 21 over rolling ground.

9.50 Arroyo, 10 lks. wide, course SW.

40.00 Set a limestone, $15 \times 7 \times 5$ ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

50.00 Road bears NE. and SW.

80.00 Set a granite stone, $20 \times 7 \times 6$ ins., 15 ins. in the ground for the cor. of secs. 16, 17, 20 and 21, mkd. with 3 notches on the S. and 4 notches on the E. edge, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Land rolling. Soil 2nd rate. No timber.

Dec. 24th;- At 3h, p. m., l. m. t. I set off $23^{\circ}24'S$. on the decl. arc, $58^{\circ}09'$ on the co-lat. arc and determine a mer. with the solar at this cor.

East on a random line bet. secs. 16 and 21.

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

80.20 Intersect the N. and S. line at a point 3 lks. S. of the cor. of secs. 15, 16, 21 and 22.
Thence I run, $S.89^{\circ}59'W$. on a true line bet. secs. 16 and 21 through oak brush.

3.00 Arroyo, 50 lks. wide, course SW.

29.50 Foot of a rocky point, ascent almost vertical,

30.00 Top of rocky point, runs back N., descend.

37.00 Foot of rocky point, runs back east.

40.10 Set a granite stone, $12 \times 10 \times 7$ ins., 8 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

41.02 Fence bears N. and S.

80.20 The cor. of secs. 16, 17, 20 and 21.

Land rough and rocky and exceptionally difficult to survey. No timber except some scrub oak brush. Soil 3rd rate. Land rough and rocky and exceptionally difficult to survey 7 chs.

Dec. 24th, 1910.

Subdivisional Lines of T. 18 S., R. 23 E.

Chains.

From the cor. of secs. 5, 6, 31 and 32 on the S. bdy. of the township, which cor. is a quartzite stone, 10x8x6 ins. above ground, properly marked and witnessed as described by the Surveyor General, I run

N. 0°03'W. bet. secs. 31 and 32 over rolling ground.

40.00 Set a quartzite stone, 12x7x6 ins., 8 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

62.00 Arroyo, 50 lks. wide, course SW.
Ascend.

72.00 Ridge bears NE. and SW. Descend.

79.80 Arroyo, 10 lks. wide, course SW.

80.00 Set a quartzite stone, 20x7x7 ins., 15 ins. in the ground for the cor. of secs. 29, 30, 31 and 32, mkd. with 1 notch on the S. and 5 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

An oak, 12 ins. in diam bears S. 11°15'W., 159 lks. dist., mkd. T18SR23ES31BT.

An oak 4 ins. diam. bears S. 42°E., 157 lks. dist., mkd. T18SR23ES32BT. No other bearings available.

Land rolling. Soil 2nd rate. No timber with exception of above bearing trees.

S. 89°54'E. on a random line bet. secs. 29 and 32.

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

79.88 Intersect the cor. of secs. 28, 29, 32 and 33.

Thence I run N. 89°54'W. on a true line bet. secs. 29 and 32 over rolling ground.

3.00 Arroyo, 50 lks. wide, course SW.

12.40 Road bears NE. and SW.

27.00 Arroyo, 50 lks. wide., course SW.

39.99 Set a limestone, 15x7x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

Ascend.

50.00 Little ridge bears NE. and SW. Descend.

79.80 Arroyo, 10 lks. wide, course SW.

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

At this cor, Dec. 26th:- Set off 23°21 $\frac{1}{2}$ 'S. on the decl. arc, and at 12h noon, obs. the sun on the mer., the resulting lat. is 31°49'N.

Land rolling. Soil 3rd rate. No timber.

N. 89°54'W. on a true line bet. secs. 30 and 31.

27.00 Arroyo, 50 lks. wide, course SW.

39.00 Arroyo, 50 lks. wide, course SW.

40.00 Set a porphyry stone, 12x7x6 ins., 8 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

78.15 Intersect the W. bdy. of the township at a point 70 lks. S. 0°35' W. of the cor. of secs. 25, 30, 31 and 36, a granite stone 9x8x6 ins. above ground, properly marked, mound of stone East of cor.

Set a limestone, 15x9x9 ins., 10 ins. in the ground for the closing cor of secs. 30 and 31, mkd. CC on E. with 1 groove on S. and 5 grooves on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, E. of cor.

Land rolling. Soil 2nd rate. No timber.

Subdivisional Lines of T. 18 S., R. 23 E.

Chains.	
	N.0°03'W. bet. secs. 29 and 30, over rolling ground,
40.00	Set a quartzite stone, 14x10x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
80.00	Set a porphyry stone, 15x10x4 ins., 10 ins. in the ground for the cor. of secs. 19, 20, 29 and 30, marked with 2 notches on the S. and 5 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Land rolling. Soil 3rd rate. No timber. Dec. 26th, 1910.

	S.89°54'E. on a random line bet. secs. 20 and 29.
40.00	Set a temp. $\frac{1}{4}$ sec. cor
80.00	Intersect the N. and S. line at a point 3 lks. S. of the cor. of secs. 20, 21, 28 and 29. Thence I run, N. 89°55'W. on a true line bet. secs. 20 and 29.
15.00	Arroyo, 50 lks. wide, course S.80°W.
40.00	Set a quartzite stone, 20x10x4 ins., 15 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
41.00	Arroyo, 50 lks. wide, course SW
80.00	The cor. of secs. 19, 20, 29 and 30. Land rolling. Soil 2nd rate. No timber.

	N.0°03'W. bet. secs. 19 and 20 over rolling ground.
4.60	Arroyo, 5 lks. wide, course SW.
11.50	Arroyo, 10 lks. wide, course West.
26.00	Arroyo, 10 lks. wide, course W.
40.00	Set a porphyry stone, 15x8x6 ins., 10 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. This corner is set in a little grassy valley, about 5 chs. wide. Ascend.
45.00	Low ridge bears E. and W., descend
50.00	Draw, 4 chs. wide, course N.80°W. Ascend.
58.00	Ridge bears E. and W., descend.
80.00	Set a granite stone, 12x9x5 ins., 8 ins. in the ground for the cor. of secs. 17, 18, 19 and 20, mkd. with 3 notches on the S. and 5 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. This corner is set in a little valley, course N.80°W. Land rolling. Soil 2nd rate. No timber.
	Dec. 27th:- At 10h, a. m., 1. m. t., set off 23°20'S. on the decl. arc, 58°9' on the co-lat. arc, and determine a mer. with the solar at this cor.

	The flag being visible on the cor. of secs. 16, 17, 20 and 21, I run N.89°54'E. on a true line bet. secs. 17 and 20, for direction and on a random for dist.
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect the cor. of secs. 16, 17, 20 and 21. Thence I run, S.89°54'W. on a true line bet. secs. 17 and 20, down wide draw, through scattering oak scrub.

Subdivisional Lines of T. 18 S., R. 23 E.

Chains.

- 39.95 Set a quartzite stone, 12x8x6 ins., 8 ins. in the ground, for the $\frac{1}{4}$ sec. cor., mkd. $\frac{1}{4}$ on N. face and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
- 54.00 Wash, 50 lks. wide, course N.80°W.
- 62.00 Same wash, course S.80°W.
- 65.00 Same wash, course N.80°W.
- 79.90 The cor. of secs. 17, 18, 19 and 20.
Land sloping to West. Soil 3rd rate. Scrub oak.

11.30 a. m. Dec. 27th, 1910.

Retracement of a part of the W. bdy. of T. 18 S., R. 23 E.

From the cor. of Tps. 18 S. and 19 S., Rs. 22 and 23 E., which is a mesquite post, 4 ins. sq., mkd. and witnessed as described by the Surveyor General, I run.

North on a random line bet. secs. 31 and 36.

- 40.05 Fell 50 lks. W. of the $\frac{1}{4}$ sec. cor. ^{stone 8x6x4 ins.} mkd. & desc. by the S. G.
- 80.25 Fell 91 lks. W. of the cor. of secs. 25, 30, 31 and 36,
Hence I run

S.0°35'W. from the cor. of secs. 25, 30, 31 and 36, a granite stone, 9x8x6 ins., above ground, properly marked and witnessed as described by the Surveyor General.

- 40.20 The $\frac{1}{4}$ cor. above described.

Thence S.0°43'W. from the $\frac{1}{4}$ sec. cor.

- 40.05 The cor. of Tps. 18 and 19 S., R. 22 and 23 E., above described.

Note:- This work was executed with other work on Dec. 26th, 1911.

Hugh F. Dullal
U. S. D. S.

GENERAL DESCRIPTION.

The land surveyed in this township and described in the preceding notes is grazing land. It is fit for very little else. The NE. portion of this township is the roughest kind of mountains.

Hugh F. Dullal
U. S. D. S.

Jr

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

See Book 0

LIST OF NAMES.

BOOK 2280

A list of the names of the individuals employed by

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

showing the respective capacities in which they acted:

-, *Chainman.*
-, *Chainman.*
-, *Moundman.*
-, *Moundman.*
-, *Asman.*
-, *Asman.*
-, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

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

..... of the

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

-, *Chainman.*
-, *Chainman.*
-, *Moundman.*
-, *Moundman.*
-, *Asman.*
-, *Asman.*
-, *Flagman.*

Subscribed and sworn to before me this }
day of, 19 }



10 For FINAL OATH OF UNITED STATES DEPUTY SURVEYOR. (See Book 0)

BOOK 2280

....., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for, bearing date of the day of, 19, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

..... of the meridian, in the of, 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 and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....
United States Deputy Surveyor.

Subscribed by said, and sworn to before me }
this day of, 19



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

.....
Francis C. King, June 13, 1912.

The foregoing field notes of the survey of
lines of T. 18 R. 23 E. 5th and 6th
Range Base and Meridian, Arizona

executed by
under his contract No. 163, dated May 16, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
United States Surveyor General.

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

.....
United States Surveyor General.