

W. & E. Boundary - T. 24 S. R. 14 E
P. CONTZEN - CONTRACT 55

1525

1525

BOOK 1525

4-671

FIELD NOTES
GENERAL LAND OFFICE.

West and East
bdys.

Tp. 24 S., R. 14 E.

Field Notes
of the survey of the
West and East Boundaries
of
Township N° 24 South
Range N° 14 East
of the
Gila and Salt River Base & Meridian
in the
Territory of Arizona,
as surveyed by
Philip Coutzen
U. S. Deputy Surveyor
under his Contract N° 55
Dated ^{June} July 23, 1899

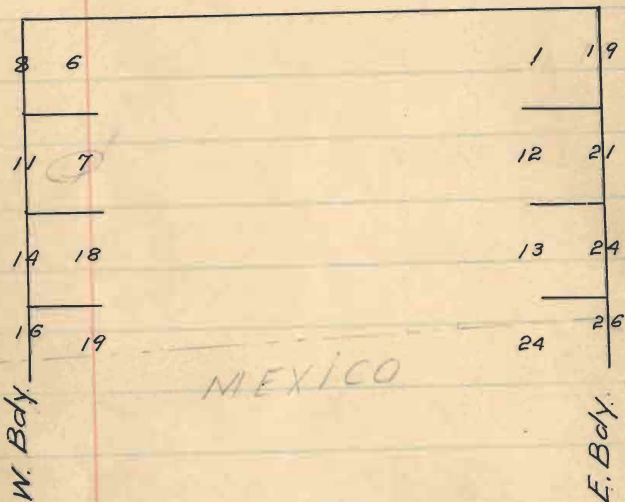
Survey commenced, Nov. 28, 1899
Survey completed, Dec 1, 1899

R.

BOOK 1525

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E. and W. Bdy's. T. 24 S. R. 14 E



West. Bdry.
East Bdry.

8

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West Boundary of T_p. 245

Survey commenced Nov. 28, 1899, and executed with a young & sons, light mountain transit N^o 5609, with a Smiths 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, tested on the true meridian at Tucson, A. T. found correct and was approved by the Surveyor General of Arizona, Oct. 6th 1899.

In order to test the solar apparatus, by comparing the

R. 14 E.

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results of observations on the sun made during a.m. and P.M. hours, with a true meridian determined by observations on Polaris, I proceed as follows:

At the cor. of Tps. 23 and 24 S., Rs. 13 and 14 E. which is a post, marked and witnessed as described by the surveyor general, - the post being badly decayed I destroyed the same and set a granite stone 18x6x6 ins. 12 ins. in the ground, marked with 6 notches on N, E, S and W edges and raise a mound of stone 3 ft. base 1 1/2 ft. high S. of Cor. - Nov. 28, 1899
At 3 P.M. l.m.t. I set off 31° 23' on the lat. arc, 21° 24' S

West Boundary of T24S.

on the decl. arc and mark the true meridian thus determined with the solar, by a cross on a stone firmly set in the ground 5 ch. N. of the instrument.

Nov. 29th at 4.39 am. local mean time, I observe Polaris at western elongation, in accordance with instructions in the manual, and mark the line thus determined by a tack driven in a wooden plug set in the ground 5 ch. N of my station.

at 8.30 am. local mean time I lay off the azimuth of Polaris $1^{\circ}26'$ to the east and mark the true meridian thus

14. E. continued

determined by cutting a small groove in the stone set yesterday, on which the true meridian falls, 0.15 ins. W. of the mark determined by the solar.

At 9. am. I set off $31^{\circ} 23'$ on the lat. arc; $21^{\circ} 31'$ on decl. arc, and mark the true meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.2 ins. W. of the true meridian established by the Polaris observation.

The solar apparatus by P.M. and a.m. observations defines positions for true meridians

West Boundary of T. 24 S.

chains.

about 0' 8" East, and 0' 11" West of the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 9 am, $N 12^{\circ} 30' W$; the angle thus determined reduced by the table page 100, gives the mean mag. decl. $12^{\circ} 27' E$.

From the Tp. Cor. above described, I run South, bet secs. 1 and 6, through oak timber $\frac{1}{2}$ underground descending.

2.50 Enter draw, course Easterly
6.00 Leave draw, course Easterly

R. 14 E. continued

chains.

- 15.60 Enter draw, course N. Easterly
- 17.75 Woodroad, bears N. Easterly & S. Westerly
- 18.10 Dry wash, 20 lks. wide, course N. Easterly
- 26.00 Leave draw, course, N. Easterly
- 27.00 Enter draw, course N. Westerly
- 27.10 Wash, 10 lks. wide, course N. Westerly;
- 30.25 Leave draw, course N. Westerly;
- 30.25 ascend along E. slope of ridge
- 39.75 Top of ridge, bears E. and W.
- 40.00 Set a Granite Stone 26 x 5 x 5 ins.
19 ins. in the ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ 1. on W. face 6. on E
face from which
An oak 7 ins. diam. bears S 15° E.
181 lks. dist. marked $\frac{1}{4}$ S. 6. B.T.
an oak 8 ins. diam. bears S 79° W.
137 lks. dist. marked $\frac{1}{4}$ S. 1. B.T.
and raise a mound of stone
2 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high. W. of cor.

West Boundary of T. 24 S.

chains

- 46.20 Top of ridge, bears E & W; descend
- 46.60 Gulch, 10 lks. wide, course Easterly
- 54.50 Gulch, 4 lks. wide, course Easterly
- 56.21 Live tree, oak 10 ins. diam. marked
with 2 notches on N. and S. sides
- 68.95 Wash, 10 lks. wide, course S. Easterly
- 69.90 Live tree oak 10 ins. diam. marked
with two notches on N. and S. sides
- 78.60 Wash 20 lks. wide, Course N. Easterly;
ascend
- 79.46 Live tree, white oak 10 ins. diam. marked
with two notches on N. and S. sides
- 80.00 Set a Sand Stone 18x8x8 ins.
12 ins. in the ground for cor. of
secs. 1, 6, 7 and 12. marked
with 1 notch on N. and 5 notches
on S. edges. from which
an oak 8 ins. diam. bears $N 53\frac{3}{4}^{\circ} E$.
103 lks. dist. marked T. 24 S., R 14 E.,
S. 6. B. T.
an oak 6 ins. diam. bears $N 75^{\circ} W$.
73 lks. dist. marked T. 24 S., R 13 E.

R. 14 E. continued.

chains.

S1. B.T. no other trees within limits, and raise a mound of stone $2\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor. pits impracticable
 Land mountainous and level.
 Soil, gravelly. 2nd and 3rd rate
 Timber, scattering oak.
 Mountainous Land 52.25 chs.

South, bet. secs. 7 and 12.
 over Mountainous and level land.

- 0.50 Top of ridge, bears E and W.
 6.00 Wash, 4 lks. wide, course S, Easterly
 7.50 Wash, 4 lks. wide, course S, Easterly
 18.10 Draw, 20 lks. wide, course Easterly
 20.00 Enter draw, course Easterly
 20.40 Road, "wood", bears E, and W.
 22.00 Leave draw, course Easterly
 30.50 Gulch, 10 lks. wide, course Easterly

West Boundary of T 24 S.

chains.

- 37.00 Enter draw, course S. Easterly
- 38.80 Leave draw, course S. Easterly
- 40.00 Set a Granite stone $24 \times 10 \times 8$ ins
 8 ins in the ground for $\frac{1}{4}$ sec. cor.
 marked $\frac{1}{4}$ 12. on W. face 7 on E
 face. from which
 a mesquite 3 ins. diam. bears
 $S 88 \frac{1}{2}^{\circ} E$ 140 lks. dist. marked
 $\frac{1}{4}$ S. 7. B.T. no other tree
 within limits. and raise a
 mound of stone $2 \frac{1}{2}$ ft. base
 $1 \frac{1}{2}$ ft. high W of cor.
- 41.60 Enter valley, bears N. Easterly
- 42.20 Road, bears N. E and S. Westerly
- 42.55 Wire fence, course S. $63^{\circ} W$.
- 50.60 Wash 10 lks. wide, course Easterly.
- 51.20 Wire fence, course S. S. Easterly
- 52.90 Road, bears N E and S. Westerly
- 56.00 small corral, 1 ch. E.

R. 14 E. continued.

chains.

- 58.00 *Road, bears NE. and S Westerly;
leave valley, and ascend spur.
- 60.00 Top of spur; descend.
- 62.20 Enter draw, course N. Easterly.
- 73.00 *same road, bears NE and S Westerly
- 78.30 Leave draw, course N. Easterly
- 80.00 set a granite stone 18x12x6 ins.
12 ins. in the ground for cor. of
secs. 7, 12, 13 and 18. marked
with 2 notches on N. and 4 notches
on S. edges. and raise a mound
of stone 2½ ft. base 1½ ft high
W. of cor. Pts impracticable.
Land mountainous and level.
Soil, gravelly and loam. 2nd and 3rd rate.
No timber.
Mountainous Land 37.80 chs.

West Boundary of T 24 S.

chains.

- South, bet. secs. 13 and 18.
over mountainous and level land.
- 0.60 Enter draw, course N. Westerly
- 2.40 Leave draw, course N. Westerly;
ascend
- 17.00 Trail, bears E and W.
- 40.00 Set a Granite Stone 18 x 8 x 6 ins.
12 ins. in the ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ 13 on W. face $\frac{1}{4}$ 18 on E.
face, from which
an oak 6 ins. diam. bears $N 58^{\circ} \frac{1}{2} E$
55 $\frac{1}{2}$ lks. dist. marked $\frac{1}{4}$ S. 18. B.T.
an oak 4 ins. diam. bears $N 73^{\circ} \frac{3}{4} W$.
80 lks. dist. marked $\frac{1}{4}$ S. 13. B.T. and
raise a mound of stone $2\frac{1}{2}$ ft. base
 $1\frac{1}{2}$ ft high, W. of cor.
- 41.00 Wash, 20 lks. wide course S. Easterly
- 42.00 Road, to Cor Blanco, bears SE and ^N Westerly
- 48.30 Road, bears E. and Westerly

R. 14 E.

continued

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chains

54.00

* adobe house bears S. 28° W.

56.40

Wash 30 lks. wide, course Easterly;
and enter valley.

56.90

Wire fence bears S 75° W. & N 75° E

69.00

* adobe house, bears S 49 1/2° W

69.80

Brush fence, bears NE and SW

70.00

Road, bears NE, and W.

leave valley and ascend.

80.00

Set a Granite Stone 18x8x6 ins.
12 ins. in the ground for cor. of
secs. 13, 18, 19 and 24, marked
with 3 notches on N. and S.
edges, from which
an oak 14 ins. diam, bears N 41 1/4° E
175 lks. dist. marked T. 24 S., R. 14 E.,
S. 18, B.T.
an oak 8 ins. diam bears N 13 1/4° W.
202 lks. dist. marked T. 24 S., R. 13 E.,
S. 13, B.T. No other trees within

West Boundary of T. 24. S.

chains.

limits, and raise a mound
of stones 2' ¹/₂ ft. base 1' ¹/₂ ft. high
W. of cor.

Land mountainous and level,
Soil gravelly, 2nd and 3rd rate
Timber, a few oaks.

Mountainous Land 64. chs.

South, bet. sec. 19 and 24,
over mountainous land,
descending.

7.40 Gulch, 4 lks. wide, course, S. Easterly,

7.50 Intersect International Bdy.
line bet. United States and Mexico
at a point $N 89^{\circ} 48' E$, 9.01 chs
from Iron Mon. N^o 123,

Set a Granite stone 18 x 14 x 8 ins
12 ins. in the ground for closing
cor. marked C.C. on N. face.

R. 14 E. concluded.

chains.

T. 24 S., R. 13 E. on W. face and
 T. 24 S., R. 14 E. on E. face, MEX. on S. face.
 an oak 3 ins. diam. bears N 6° E
 27 lks. dist. marked, C.C. T. 24 S.,
 R. 14 E. S. 19. B. T.

An oak 12 ins. diam. bears N 34 $\frac{3}{4}$ ° W.
 113 lks. dist. marked C.C. T. 24 S.,
 R. 13 E. S. 24. B. T. and raise
 a mound of stone 2 $\frac{1}{2}$ ft. base
 1 $\frac{1}{2}$ ft. high N. of cor.

Land mountainous.

Soil, gravelly; 3rd rate.

Timber a few oak ^{white}.

Mountainous Land 7.50 chs.

Nov. 29. 1899

East Boundary of T 24 S.

Dec 1 1899 at 7 am, l.m.t.
 I set off $31^{\circ}23'$ on the lat. arc,
 $21^{\circ}50'$ on the decl. arc, and
 determine a true meridian, at
 the Cor. of Tps. 23 and 24 S,
 R. 14 and 15 E, which is a
 post, marked and witnessed
 as described by the surveyor
 general. The post being badly
 decayed I destroyed the same
 and reestablish it at the same
 point as follows:

Set a Granite Stone $18 \times 10 \times 10$ ins
 12 ins. in the ground, marked
 with 6 notches on N.E., W and S
 edges, and raise a mound of
 stone 3 ft. base $1\frac{1}{2}$ ft high S of
 Cor.

Thence I run

chauss

South, bet. secs. 1 and 6.
 ascending from valley, through
 mesquite timber and undergrowth.

- 1.20 Top of ascent, bears E and W.
 7.30 Road, bears E and W.
 17.00 Road, bears E and W.
 21.00 ascent and leave mesquite;
 bears E and W.
 29.50 Top of ridge, bears E and W; descend.
 39.00 Dry wash, 4 lks. wide, course Easterly.
 40.00 Set a Granite Stone 18x12x8 ins
 12 ins. in the ground for $\frac{1}{4}$ sec. cor.
 marked, $\frac{1}{4}$ 1, on W. face, 6. on
 E. face, from which
 a Black oak 10 ins. diam. bears
 $N 52^{\circ} E$, 54 lks. dist. marked
 $\frac{1}{4}$ S. 6. B.T.
 a Black Oak 8 ins. diam. bears
 $S 7\frac{1}{4}^{\circ} E$, 70 lks. dist. marked

East Boundary of T24S.

Chains.

 $\frac{1}{4}$ S. 6. B. T.

- 42.40 Dry wash, 10 lks. wide, course S. westerly
- 46.40 Gulch, 40 lks. wide, course Easterly.
- 54.50 Gulch, 10 lks. wide, course Easterly
- 55.70 Gulch 10 lks. wide, course Easterly
- 62.60 Gulch 20 lks. wide, course Easterly
- 70.80 Gulch 6 lks. wide, course Easterly
- 77.60 Gulch 30 lks. wide, course Easterly
- 80.00 Set a Granite Stone, 18x10x6 ins.
12 ins in the ground for Cor. of
secs. 1, 6, 7 and 12, marked
with 1 notch on N. and 5 notches
on S. edges, from which
a mesquite 24 ins. diam. bears
N50 $\frac{1}{2}$ °E, 40 lks. dist, marked
T24S, R15E, S6. B. T.
a mesquite 7 ins. diam. bears
S78°E, 32 lks. dist marked
T24S, R15E, S7. B. T.

R. 14E. Continued.

chains.

a mesquite 14 ins. diam. bears
 S 22° W. 67 lks. dist. marked
 T. 24S., R. 14E., S. 12, 13, T.

an oak 8 ins. diam. bears N 39 1/4° W
 120 lks. dist. marked T. 24S.,
 R. 14E., S. 1, B.T.

Land, level, rolling and mountainous.

Soil, gravelly; 2nd and 3rd rate.

Timber, mesquite and oak.

undergrowth, mesquite.

Land Mountainous, ^{and} covered with
 dense undergrowth. 80. chs.

South, bet. secs. 7 and 12.

over rolling and mountainous
 land, through scattering mesquite.

14.00 Wash, 4 lks. wide, course Easterly

16.70 Wash, 8 lks. wide, course Easterly

32.30 Wash, 4 lks. wide, course Easterly.

East Boundary of T24S.

Chains	
36.80	Enter gulch, course N, Easterly
37.50	Leave " " "
40.00	Set a Granite stone, 18x14x7 ins 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ 12 on W. face, 7 on E. face, from which an oak 14 ins. diam. bears N53°E, 130 lks. dist. marked $\frac{1}{4}$ 8 7. B.T. An oak 8 ins. diam. bears N63 $\frac{3}{4}$ °W 47 lks. dist. marked $\frac{1}{4}$ 3. 12. B.T.
43.00	Trail, bears NE, and S. Westerly
52.80	Wire fence, bears N81 $\frac{1}{2}$ °E and S81 $\frac{1}{2}$ °W.
55.50	Dry wash 10 lks. wide, course N, Easterly
56.00	Dry wash 10 lks. wide, course N, Easterly
68.35	Telephone line to Nogales, bears N78 $\frac{1}{2}$ °E and S78 $\frac{1}{2}$ °W; top of ascent; descend
69.00	Gulch 4 lks. wide, course S, Easterly
70.10	Gulch 8 lks. wide, course Easterly and ascend.

R. 14 E, continued

chains

80.00

Set a Granite stone 18x10x8 ins.
12 ins. in the ground for cor. of
secs. 7, 12, 13 and 18, marked
with 2 notches on N. and 4
notches on S. edges, from which
an oak 8 ins. diam. bears N79°E
419 lks dist. marked. T. 24S., R. 15E.,
S. 7, 13.T.

An oak 8 ins. diam. bears S55°E
376 lks. dist. marked. T. 24S., R. 15E.,
S. 18, 13.T. No other trees within
limits, and raise a mound
of stone 2½ ft. base, 1½ ft. high
W of cor.

Land rolling & mountainous.
Soil, gravelly, 2nd and 3rd rate.
Timber, scattering oak & mesquite.
Mountainous land. 24. chs.

East Boundary of T. 24 S.

chains.

- South, bet. secs. 13 and 18,
over mountainous and level land,
descending.
- 7.60 Draw, 20 lks. wide, course N. Easterly
- 12.00 Top of ridge, bears NE. and SW.
x
- 33.22 chimney on adobe House, bears $S 41\frac{1}{4}^{\circ} E$.
- 38.40 Gulch 6 lks. wide, course S. Easterly
- 40.00 Set a Granite stone $24 \times 10 \times 10$ ins.
18 ins. in the ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ 13 on W. face, 18 on
E. face, from which
an oak 5 ins. diam. bears
 $N 61\frac{1}{4}^{\circ} E$, 162 lks. dist. marked
 $\frac{1}{4}$ S. 18. B.T.
an oak 5 ins. diam. bears
 $S 72^{\circ} W$, 120 lks. dist. marked
 $\frac{1}{4}$ S. 13. B.T. and raise a mound
of stone $2\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft.
high. W. of cor.

R. 14 E. continued

BOOK 1525

25

chains

- 48.00 Enter valley, course Easterly
- 49.90 Wash 30 lks. wide, course Easterly.
- 54.20 Road bears NW and S. Easterly;
chimney on adobe house bears $S 68^{\circ} E$
- 57.20 Leave valley, course Easterly;
ascend.
- 62.50 Enter draw, course N. Easterly
- 66.00 Leave draw, course N. Easterly;
ascend along W. slope of ridge.
- 75.00 descend.
- 80.00 Set a sand stone $18 \times 8 \times 6$ ins.
12 ins. in the ground for cor. of
secs. 13, 18, 19 and 24, marked
with 3 matches on N. and S. edges,
from which
an oak 8 ins. diam. bears $N 67\frac{1}{2}^{\circ} W$.
279 lks. dist. marked, T. 24 S., R. 14 E.,
S. 13, B. T. no other trees within
limits, and raise a mound of

East Boundary of T 24 S.

chains

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

Land mountainous and level.
Soil, gravelly, 2nd and 3rd rate
Timber, scattering oak, some ash
and walnut along wash in valley.
Mountainous Land 62. chs.

South, bet. secs. 19 and 24.
over mountainous land.

0.10 Intersect International Bdy.
Line bet. United States and
Mexico, at a point $S 89^{\circ} 17' W$
49.63 chs. dist. from Masonry Mon.
No. 118.

Set a granite stone $20 \times 10 \times 6$ ins
 14 ins. in the ground for closing
cor. marked C.C. on N. face,
T. 24 S., R. 14 E. on W. face, T 24 S. R. 15 E.
R. 15 E. on E. face and MEX.

R. 14 E.

chains.

on S. face and raise a mound
of stone $2\frac{1}{2}$ ft base, $1\frac{1}{2}$ ft. high,
N of Cor.

Sand Mountainous.

Soil, gravelly; 3rd rate

No timber.

Mountainous Sand 10 lks.

Dec 1, 1899

General Description

This line runs over Mountainous and some rolling land which is covered with good grass and some scattering oak and mesquite timber. The land towards the East in T24S R 15E is covered mostly by the Buena Vista Grant.

Philip Conzen
U. S. Deputy Surveyor

BOUNDARIES OF T.24.S.R.13.E

LATITUDES, DEPARTURES AND CLOSING ERRORS

LINE DESIGNATED	TRUE BEARING	DISTANCE	LATITUDES		DEPARTURES	
			N.	S.	E.	W.
N. Bdy. T.24.S. R.13. E.	S 89° 53' W.	478.14		0.97		478.14
SANTA CAUZ GUIDE MER.	SOUTH	248.60		248.60		
INTERNATIONAL BDX LINE	N 89° 48' E	478.29	1.50		478.29	
E. Bdy. T.24.S. R.13. E.	NORTH	247.50	247.50			
CONVERGENCY						0.22
TOTALS			249.00	249.57	478.29	478.36
				249.00		478.29

ERROR IN LAT. 0.57 ERROR IN DEP. 0.07

BOUNDARIES OF T.24.S.R.14.E

LATITUDES, DEPARTURES AND CLOSING ERRORS

LINE DESIGNATED	TRUE BEARING	DISTANCE	LATITUDES		DEPARTURES	
			N	S	E	W
N. Bdy. T.24.S.R.14.E	N. 89° 50' E	79.77	0.83		79.77	
	N. 89° 45' E	1.45	00		1.45	
	N. 89° 45' E	78.63	0.34		78.63	
	N. 89° 45' E	1.37	00		1.37	
	N. 89° 45' E	78.25	0.34		78.25	
	S. 88° 45' E	1.75		0.04	1.75	
	S. 88° 45' E	79.80		1.74	79.78	
	S. 89° 25' E	0.20		0.00	0.20	
	S. 89° 25' E	80.00		0.81	80.00	
	S. 89° 50' E	80.00		0.23	80.00	
	SOUTH	240.10		240.10		
E. Bdy. T.24.S.R.14.E	S. 89° 17' W	381.77		4.77	381.74	
S. Bdy. T.24.S.R.14.E	S. 89° 33' W	12.70		0.10	12.70	
	S. 89° 48' W	86.92		0.30	86.92	
W. Bdy. T.24.S.R.14.E	NORTH	247.50	247.50			
CONVERGENCY						
TOTALS			248.41	248.09	481.42	481.36
			248.09		481.36	

ERROR IN LAT. 0.32 ERROR IN DEP. 0.06

U. S. Surveyor-General's Office,
Tucson, Arizona, Aug. 4, 1900

The foregoing field notes of the sur-
vey of *The Wand E. Bly*.....
of T. 24 S. R. 14 E.....

.....
of the G. & S. R. B. & M. Arizona,
executed by P. Contzen, D. S., under
his contract No. 55, dated June 23,
1899, having been critically examined,
and the necessary corrections and ex-
planations made, the said field notes
and the surveys they describe are here-
by approved.

George Christ
U. S. Surveyor-General.

Commissioner approved Feb'y 4-1901.
Filed Feb'y 9-1901.