

191
AUG 4 - 1914

Book "S" BOOK 2709
2709

FIELD NOTES

OF THE SURVEY OF THE

Subdivision lines of

Fractional Township No. 21 South, Range No. 17 East

And

Retracement of a portion of the North Boundary thereof.

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

John F. Hesse

In the capacity of U. S. Surveyor, under instructions dated August 24, 1911,

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 11, 1911, pursuant to authority contained in the Act of

Congress dated August 23, 1912

Survey commenced December 14, 1912

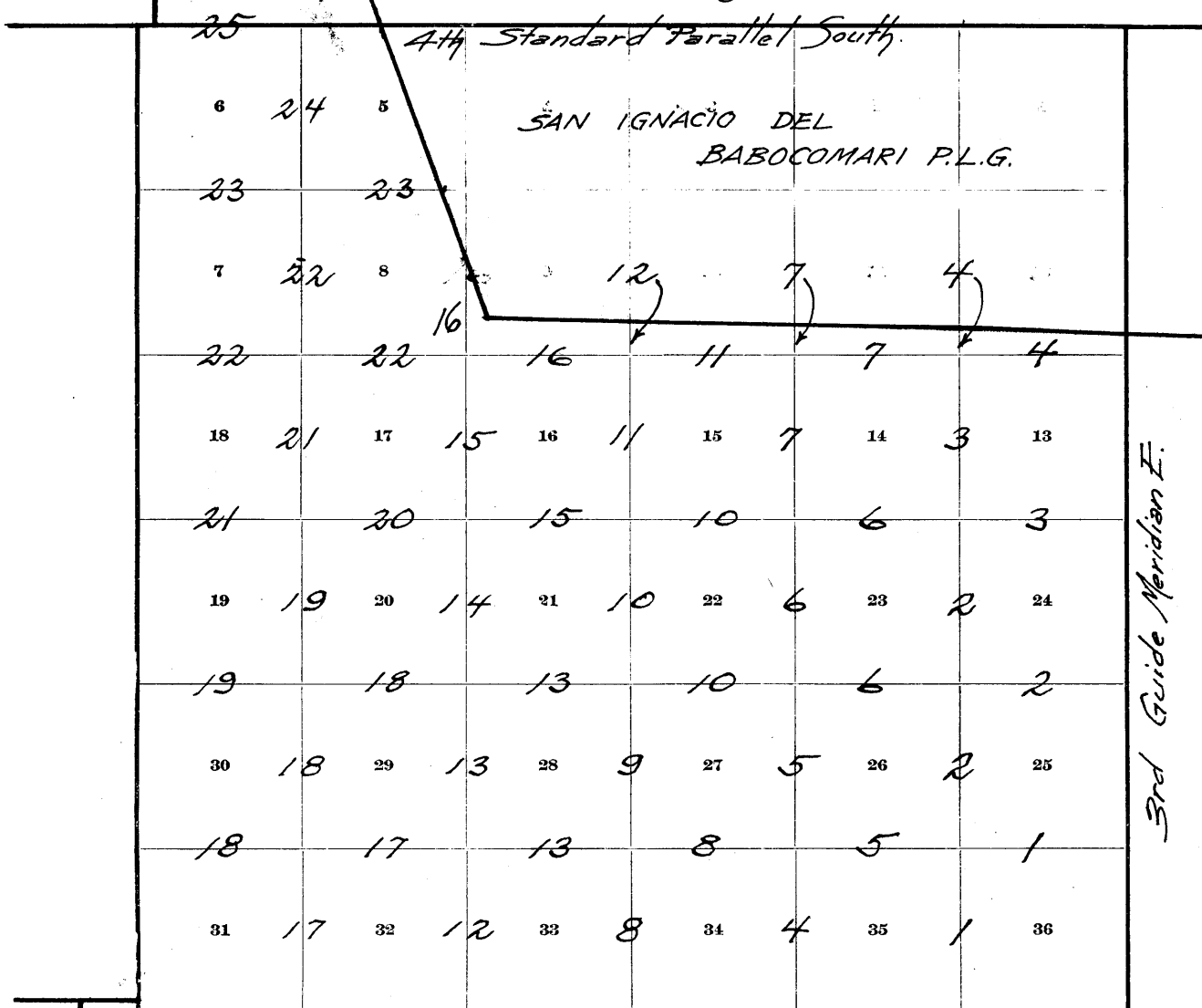
Survey completed " 29, 1912

BOOK 2709

Book No. 2709

INDEX DIAGRAM.

Fractional Township 21 South, Range 17 East.



3rd Guide Meridian E.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

Survey commenced December 14, 1912, and executed with a W. and L. E. Gurley transit, not numbered, with solar attachment. The horizontal limb is provided with one double vernier reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was approved by the supervising surveyor August 28, 1912.

At 8h. 00m. a.m., l.m.t., I set off 31° 33' N. on the lat. arc; 23° 10' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36 on the S. bdy. of the Tp., which is a rock in place, marked and witnessed as described by the surveyor general.

Thence I run

N. 0° 01' W. bet. secs. 35 and 36.

Descend through heavy timber and brush.

12.00 Cross wash 15 lks. wide course N. E. and over rolling land, descending.

30.00 Leave timber and brush.

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 $\frac{1}{4}$ S35 in W. S36 in E. and 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

53.50 Cross wash 15 lks. wide course N. E.

80.00 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

T21SR17E In N. and 1912 in S. half;

S26 in N. W.

S25 in N. E.

S36 in S. E. and

S35 in S. W. quadrant; from which

A juniper 28 ins. diam., bears N. $66\frac{1}{2}$ W. 362 lks. dist., marked T21SR17ES26BT.

No other bearings available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, rolling and mountainous.

Soil, rocky; 4th. rate.

Timber, oak and juniper.

Undergrowth, oak and cedar. Good grass.

East on a random line bet. secs. 25 and 36

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

79.90 Intersect E. bdy. of Tp. 5 lks. S. of the cor. of secs. 25, 30, 31 and 36, re-established by me, as described in Book "R" Thence I run

S. 89° 58' W. on a true line bet. secs. 25 and 36.

Over rolling land, through heavy timber and brush.

39.95 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 $\frac{1}{4}$ S25 in N. and S36 1912 in S. half; from which

An oak 10 ins. diam., bears N. 19 W. 101 lks. dist., marked $\frac{1}{4}$ S25BT.

An oak 14 ins. diam., bears S. 83 E. 183 lks. dist., marked $\frac{1}{4}$ S36BT.

45.50 Cross wash 30 lks. wide course N. E.

67.00 Leave timber and brush.

79.90 The cor. of secs. 25, 26, 35 and 36.

Land, rolling hills.

Soil, E. 60.00 chs. sandy loam mixed with rocks and gravel 2nd. rate. W. 19.90 chs. Solid limestone ledges; 4th. rate.

Timber oak.

Undergrowth, oak. Good grass.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
	N. 0 01' W. bet. secs. 25 and 26. Over rolling land.
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 $\frac{1}{4}$ S26 in W. and S25 in E. and 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
79.88	Cross fence bears N. 85 W. and S. 85 E.
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 T21SR17E in N. and 1912 in S. half; S23 in N. W. S24 in N. E. S25 in S. E. and S26 in S. W. quadrant; dig pits 18 x 18 x 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. Land, rolling. Soil, S. 15.00 chs. solid limestone ledges; 4th. rate. N. 65.00 chs. rich black loam, fine texture, dry; 1st. rate. No timber. December 14; At this cor. I set off $23^{\circ} 13'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ} 34\frac{1}{2}'$ N.
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	N. 89 58' E. on a random line bet. secs. 24 and 25.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect E. bdy. of Tp. 21 lks. N. of the cor. of secs. 19, 24, 25 and 30, re-established by me, as described in book "R" Thence I run N. $89^{\circ} 53'$ W. on a true line bet. secs. 24 and 25. Over rolling land.
3.20	Cross road bears N. W. and S. E.
39.97	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 $\frac{1}{4}$ S24 in N. and S25 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
78.24	Cross fence bears N. E. and S. W.
79.94	The cor. of secs. 23, 24, 25 and 26. Land, rolling. Soil, sandy loam, dry, medium texture; 1st. rate. No timber.
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	N. 0 01' W. bet. secs. 23 and 24. Over level land.
21.27	Cross fence bears E. and W.
24.20	Cross wash 10 lks. wide course N. E.
27.10	Cross road bears N. E. and S. W.
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 $\frac{1}{4}$ S23 in W. S24 in E. and 1912 in S. half; dig pits 18 x 18 x 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.
53.40	Cross road bears N. E. and S. W.
65.10	Cross road bears N. E. and S. W.
67.02	H. L. Stoddard house bears N. 29 30' E.
75.86	Cross fence bears N. E. and S. W.
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 T21SR17E in N. and 1912 in S. half; S14 in N. W. S13 in N. E. S24 in S. E. and S23 in S. W. quadrant; dig pits 18 x 18 x 12 ins. in

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

	each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor; from which An oak 10 ins. diam., bears S. 13 E. 396 lks. dist., marked T21SR17ES24BT. No other bearings available. From this cor. P. A. Blauser house bears N. 68 E. H. L. Stoddard house bears S. 83 10' E. Land, rolling. Soil, rich black loam, fine texture, dry; 1st. rate. No timber.
40.00	S. 89 53' E. on a random line bet. secs. 13 and 24. Set temp. $\frac{1}{4}$ sec. cor.
79.92	Intersect E. bdy. of Tp. 5 lks. S. of the cor. of secs. 13, 18, 19 and 24, re-established by me, as described in book "R" Thence I run N. 89 55' W. on a true line bet. secs. 13 and 24. Over level land,
0.54	Cross fence bears N. and S.
1.20	Cross wash 20 lks. wide course N. E.
2.20	Cross fence bears N. E. and S. W. and through orchard.
8.60	Cross fence bears N. E. and S. W. Leave orchard and over rolling land.
39.96	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 $\frac{1}{4}$ S13 in N. and S24 1912 in S. half; dig pits 18 x 18 x 12 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.
59.92	Cross fence bears N. and S.
60.58	Cross road bears N. E. and S. W.
68.30	Cross road bears N. W. and S. E.
71.30	Cross fence bears N. E. and S. W.
79.92	The cor. of secs. 13, 14, 23 and 24. Land, rolling. Soil, rich black loam, fine texture, dry; 1st. rate. No timber.
	December 14. 1912.
	December 16: At 8h. 00m. a.m., l.m.t., I set off $31^{\circ} 35\frac{1}{2}'$ N. on the lat. arc; $23 16\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24. Thence I run N. $0^{\circ} 01'$ W. bet. secs. 13 and 14. Over rolling land.
5.30	Cross road bears N. W. and S. E.
18.25	P. A. Blauser house bears S. 51 45' E.
26.40	Cross fence bears N. E. and S. W.
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 $\frac{1}{4}$ S14 in W. S13 in E. and 1912 in S. half; dig pits 18 x 18 x 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. From this cor. Frank Jolly house bears N. 85 30' W. John McCarty house bears S. 78 15' W.
45.18	Cross fence bears N. E. and S. W.
66.00	Cross wash 6 lks. wide course N. E.
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 T21SR17E in N. and 1912 in S. half; S11 in N. W. S12 in N. E.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains

- S13 in S. E. and
S14 in S. W. quadrant; and raise a mound of stone 2
ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, rolling.
Soil, rich black loam, dry, medium texture; 1st. rate.
No timber.
-
- 40.00 S. $89^{\circ} 55'$ E. on a random line bet. secs. 12 and 13
Set temp. $\frac{1}{4}$ sec. cor.
79.96 Intersect E. bdy. of Tp. 2 lks. N. of the cor. of secs.
7, 12, 13 and 18, re-established by me, as described in
book "R" Thence I run
N. $89^{\circ} 54'$ W. on a true line bet. secs. 12 and 13.
Over rolling land.
39.98 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 $\frac{1}{4}$ S12 in N.
and S13 1912 in S. half; from which
An oak 7 ins. diam., bears S. $53\frac{1}{2}^{\circ}$ W. 90 lks.
dist., marked $\frac{1}{4}$ S13BT.
No other bearings available. Raise a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
41.50 Cross wash 40 lks. wide course N. E.
79.96 The cor. of secs. 11, 12, 13 and 14.
Land, rolling.
Soil, rich black loam, dry, medium texture; 1st. rate.
No timber.
-
- 10.39 N. $0^{\circ} 01'$ W. bet. secs. 11 and 12.
Over rolling land.
Intersect S. bdy. of San Ignacio Del Babocomari S.P.L.G.
N. $88^{\circ} 07'$ W. 5.86 chs. from the 19 Mile cor. which is a
stone marked and witnessed as described by the surveyor
general. At point of intersection I
Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the
ground for closing cor. of secs. 11 and 12, marked on
brass cap
CC E. of center;
SIDB in N. E. and
T21SR17E 1912 in S. W. half;
S12 in S. E. and
S11 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.
Land, rolling.
Soil, rich black loam, dry, medium texture; 1st. rate.
No timber.
December 16; At this cor. I set off $23^{\circ} 19'$ S. on the
decl. arc; and observe the sun on the meridian at noon;
the resulting lat. is $31^{\circ} 36\frac{1}{2}'$ N.
December 16, 1912.
-
- December 15: At 8h. 00m. a.m., l.m.t., I set off $31^{\circ} 33'$
N. on the lat. arc; $23^{\circ} 13\frac{1}{2}'$ S. on the decl. arc; and
determine a meridian with the solar at the cor. of secs.
2, 3, 34 and 35 on the S. bdy. of the Tp. which is a stone
marked and witnessed as described by the surveyor general.
Thence I run
N. $0^{\circ} 01'$ W. bet. secs. 34 and 35.
Descend, through heavy timber and dense brush.
14.80 Cross wash 40 lks. wide course S. W. ascend.
16.10 Ridge bears N. E. and S. W. descend.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains	
18.70	Cross draw 100 lks. wide course S. W. ascend.
36.30	Ridge bears N. W. and S. E. descend.
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 $\frac{1}{4}$ S34 in W. S35 in E. and 1912 in S. half; from which A juniper 6 ins. diam., bears N. 39° W. 100 lks. dist., marked $\frac{1}{4}$ S34HT. A juniper 8 ins. diam., bears S. 133° E. 51 lks. dist., marked $\frac{1}{4}$ S35BT.
45.00	Leave timber and over rolling land descending.
60.00	Leave brush.
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 T21SR17E in N. and 1912 in S. half; S27 in N. W. S26 in N. E. S35 in S. E. and S34 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling and mountainous. Soil, rocky; 4th. rate. Timber, juniper and oak. Undergrowth, sweet cedar and oak. Good grass.
40.00	East on a random line bet. secs. 26 and 35. Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line, 2 lks. N. of the cor. of secs. 25, 26, 35 and 36. Thence I run N. $89^{\circ} 59'$ W. on a true line bet. secs. 26 and 35. Over rolling hilly land.
40.01	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 $\frac{1}{4}$ S26 in N. and S35 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
80.02	The cor. of secs. 26, 27, 34 and 35. Land, rolling hills. Soil, rocky; 4th. rate. No timber. Good grass. December 15; At this cor. I set off $23^{\circ} 16\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ} 33\frac{1}{2}'$ N.
9.90	N. $0^{\circ} 01'$ W. bet. secs. 26 and 27. Over rolling land. Cross fence bears N. W. and S. E.
12.10	Cross wash 15 lks. wide course N. E.
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 $\frac{1}{4}$ S27 in W. S26 in E. and 1912 in S. half; dig pits 18 x 18 x 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.
54.10	Cross fence bears N. E. and S. W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked on brass cap T21SR17E in N. and 1912 in S. half; S22 in N. W. S23 in N. E. S26 in S. E. and S27 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling. Soil, S. 22.00 chs. rocky; 4th. rate.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains

N. 58.00 chs..black loam, mixed with gravel, dry; 1st. rate.
No timber.. Good grass.

40.00 S. 89° 59' E. on a random line bet. secs. 23 and 26.
Set temp. $\frac{1}{4}$ sec. cor.
79.94 Intersect N. and S. line 9 lks. S. of the cor. of secs. 23, 24, 25 and 26.
Thence I run
S. 89° 57' W. on a true line bet. secs. 23 and 26.
Ascending over rolling land.
1.22 Cross fence bears N. 85° W. and S. 85° E.
23.06 Ridge bears N. and S. and from this point
W. H. Collie house bears S. 65° 45' W. 12.15 chs. dist.
27.70 Cross wash 15 lks. wide course N. E.
35.60 Cross road bears N. E. and S. W.
39.97 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 $\frac{1}{4}$ S23 in N. and S26 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
79.94 The cor. of secs. 22, 23, 26 and 27.
Land, rolling.
Soil, sandy loam, fine texture, dry, 1st. rate. Except 15.00 chs. E. of wash which is rocky; 4th. rate.
No timber. Good grass.

N. 0° 01' W. bet. secs. 22 and 23.
Over rolling land.
1.80 Cross road bears N. E. and S. W.
21.00 Cross draw. 50 lks. wide course E.
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 $\frac{1}{4}$ S22 in W. S23 in E. and 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable..
47.46 From this point T. W. Yeary house bears S. 53° 50' W. 48.30 chs. dist.
John McCarty house bears N. 32° E.
Frank Jelly house bears N. 29° 10' E.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked on brass cap
T21SR17E in N. and
1912 in S. half;
S15 in N. W.
S14 in N. E.
S23 in S. E. and
S22 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, rolling.
Soil, rich black loam, dry, medium texture; 1st. rate.
No timber. Good grass.

December 15, 1912.

December 16:
40.00 N. 89° 57' E. on a random line bet. secs. 14 and 23.
Set temp. $\frac{1}{4}$ sec. cor.
80.02 Intersect N. and S. line 5 lks. N. 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 rolling land.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
1.83	Cross fence bears N. and S.
40.01	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 $\frac{1}{4}$ S14 in N. and S23 1912 in S. half; dig pits 18 x 18 x 12 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.
80.02	The cor. of secs. 14, 15, 22 and 23. Land, rolling. Soil, rich black loam, dry, medium texture; 1st. rate. No timber. Good grass.

	N. 0 01' W. bet. secs. 14 and 15. Over rolling land.
21.20	Cross fence bears E. and W. and over plowed land.
36.70	Cross fence bears E. and W. leave plowed land.
36.85	Cross road bears N. W. and S. E.
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 $\frac{1}{4}$ S15 in W. S14 in E. and 1912 in S. half; dig pits 18 x 18 x 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. From this cor. I. P. Frazier house bears N. 85 52' W. 18.00 chs. dist.
42.10	Cross road bears N. E. and S. W.
80.00	Set an iron post 3 ft. long, 20 ins. diam., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked on brass cap T21SR17E in N. and 1912 in S. half; S10 in N. W. S11 in N. E. S14 in S. E. and S15 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling. Soil, rich black loam, dry, medium texture; 1st. rate. No timber. Good grass.

40.00	N. 89 59' E. on a random line bet. secs. 11 and 14. Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect N. and S. line 7 lks. S. of the cor. of secs. 11, 12, 13 and 14. Thence I run S. 89 56' W. on a true line bet. secs. 11 and 14. Over rolling land.
27.30	Cross wash 8 lks. wide course N. E.
39.30	Cross road bears N. and S.
39.42	Cross fence bears N. and S.
39.99	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 $\frac{1}{4}$ S11 in N. and S14.1912 in S. half; dig pits 18 x 18 x 12 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.
40.28	Cross road bears N. E. and S. W.
65.00	Cross wash 15 lks. wide course N. E.
79.98	The cor. of secs. 10, 11, 14 and 15. Land, rolling. Soil, black loam, dry, medium texture; 1st. rate. No timber. Good grass.

	N. 0 01' W. bet. secs. 10 and 11. Over rolling land.
1.20	Cross fence bears E. and W.

.Subdivision of Tp. 22 S. Rg. 17 E.

chains.

13.04

Intersect S. bdy. of San Ignacio Del Babacomari P. L. G. N. $88^{\circ} 07'$ W. 5.65 chs. from the 20 mile cor. which is a stone marked and witnessed as described by the surveyor general. At point of intersection I set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 10 and 11, marked on brass cap
 CC E. of center;
 SIDB in N. E. and
 T21SR17E 1912 in S. W. half;
 S11 in S. E. and
 S10 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.
 Land, rolling.
 Soil, black loam, dry, medium texture; 1st. rate,
 No timber. Good grass.

December 16, 1912.

December 17: At 8h. 00m, a.m., l.m.t., I set off $31^{\circ} 33'$ N. on the lat. arc; $23^{\circ} 19'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34 on the S. bdy. of the Tp. which is a stone marked and witnessed as described by the surveyor general.

Thence I run.

N. $0^{\circ} 02'$ W. bet. secs. 33 and 34.

0.50

Cross wash 15 lks. wide course S. W. ascend, through heavy timber and brush.

30.00

Ridge bears N. W. and S. E. descend.

33.80

Cross wash 15 lks. wide course N. E.

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 $\frac{1}{4}$ S33 in W. S34 in E. and 1912 in S. half; from whichAn oak 10 ins. diam., bears S. 58 E. 127 lks. dist., marked $\frac{1}{4}$ S34BT.A juniper 10 ins. diam., bears N. 15 W. 142 lks. dist., marked $\frac{1}{4}$ S33BT.

44.00

Cross wash 10 lks. wide course S. E. ascend.

54.00

Cross wash 5 lks. wide course S. W.

57.60

Ridge bears E. and W. descend.

80.00

Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked on brass cap.

T21SR17E in N. and
1912 in S. half;

S28 in N. W.

S27 in N. E.

S34 in S. E. and

S33 in S. W. quadrant; from which

An oak 6 ins. diam., bears N. 38 W. 87 lks. dist., marked T21SR17ES28BT.

An oak 6 ins. diam., bears N. 21 E. 53 lks. dist., marked T21SR17ES27BT.

An oak 14 ins. diam., bears S. $37\frac{1}{2}$ E. 64 lks. dist., marked T21SR17ES34BT.An oak 10 ins. diam., bears S. $82\frac{1}{2}$ W. 134 lks. dist., marked T21SR17ES33BT.

Land, mountainous..

Soil, rocky; 4th. rate.

Timber, oak and juniper.

Undergrowth, oak, cedar and manzanita.

40.00

East on a random line bet. secs. 27 and 34.

79.88

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

Intersect N. and S. line 5 lks. S. of the cor. of secs. 26, 27, 34 and 35.

Thence I run

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
	S. $89^{\circ} 58'$ W. on a true line bet. secs. 27 and 34. Over rolling land.
15.00	Cross wash 20 lks. wide course N. E. and ascend.
37.50	Ridge bears N. E. and S. W. and along rough N. slope of mountain through heavy timber and brush.
39.94	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 $\frac{1}{4}$ S27 in N. and S34 1912 in S. half; from which An oak 14 ins. diam., bears N. 10° W. 16 lks. dist., marked $\frac{1}{4}$ S27BT. An oak 16 ins. diam., bears S. 33° W. 78 lks. dist., marked $\frac{1}{4}$ S34BT.
57.00	Ridge bears N. and S.
65.00	Cross wash 8 lks. wide course N. W.
79.88	The cor. of secs. 27, 28, 33 and 34. Land, mountainous. Soil, rocky; 4th. rate. Except from 13.00 chs. to 25.00 chs. which is loam, dry, medium texture; 1st. rate. Timber oak. Undergrowth, oak. December 17: At this cor. I set off $23^{\circ} 21\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ} 33\frac{1}{2}'$ N.
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	N. $0^{\circ} 02'$ W. bet. secs. 27 and 28. Descending through heavy timber and brush.
6.00	Leave timber and brush.
12.30	Cross wash 10 lks. wide course N. E.
20.00	Ascend through heavy timber and brush.
35.00	Ridge bears N. E. and S. W. descend.
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 $\frac{1}{4}$ S28 in W. S27 in E. and 1912 in S. half; from which An oak 8 ins. diam., bears S. $20\frac{1}{4}^{\circ}$ E. 142 lks. dist., marked $\frac{1}{4}$ S27BT. An oak 10 ins. diam., bears N. 88° W. 107 lks. dist., marked $\frac{1}{4}$ S28BT.
45.00	Cross draw 500 lks. wide and over rolling land.
52.50	Cross draw 700 lks. wide course N. E.
67.50	Cross draw 300 lks. wide course N. E.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 21, 22, 27 and 28, marked on brass cap T21SR17E in N. and 1912 in S. half; S21 in N. W. S22 in N. E. S27 in S. E. and S28 in S. W. quadrant; from which An oak 6 ins. diam., bears N. $6\frac{1}{2}^{\circ}$ W. 88 lks. dist., marked T21SR17ES28BT. An oak 6 ins. diam., bears N. $32\frac{3}{4}^{\circ}$ E 89 lks. dist., marked T21SR17ES22BT An oak 6 ins. diam., bears S. $32\frac{3}{2}^{\circ}$ E. 38 lks. dist., marked T21SR17ES27BT. An oak 6 ins. diam., bears S $22\frac{1}{2}^{\circ}$ W. 112 lks. dist., marked T21SR17ES28BT. Land, mountainous and rolling. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak.

December 17, 1913.

December 18: At 8h. 00m. a.m., l.m.t., I set off $31^{\circ} 34\frac{1}{2}'$ N. on the lat. arc; $23^{\circ} 20\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
	.21, 22, 27 and 28.
	Thence I run
	N. 89° 58' E. on a random line bet. secs. 22 and 27.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line 7 lks. S. of the cor. of secs. 22, 23, 26 and 27.
	Thence I run
	S. 89° 55' W. on a true line bet. secs. 22 and 27.
	Over rolling land, ascending gradually.
4.10	Cross road bears N. E. and S. W.
16.00	Cross wash 10 lks. wide course N. E.
17.00	Through heavy timber and brush.
27.30	Cross road bears N. W. and S. E.
39.97	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 $\frac{1}{4}$ S22 in N. and S27 1912 in S. half; from which
	An oak 10 ins. diam., bears S. 76 W. 93 lks. dist., marked $\frac{1}{4}$ S27BT.
	An oak 16 ins. diam., bears N. 82 W. 112 lks. dist., marked $\frac{1}{4}$ S22BT.
79.94	The cor. of secs. 21, 22, 27 and 28.
	Land, rolling.
	Soil, rocky; 4th. rate.
	Timber, oak.
	Undergrowth, oak.
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	N. 0° 02' W. bet. secs. 21 and 22.
	Over rolling land, through heavy timber and brush.
5.00	Cross draw 300 lks. wide course N. E.
15.00	Cross draw 400 lks. wide course N. E.
30.00	Leave timber and brush
32.50	Cross road bears N. W. and S. E.
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 $\frac{1}{4}$ S21 in W. S22 in E. and 1912 in S. half; from which
	An oak 18 ins. diam., bears N. 56 W. 182 lks. dist., marked $\frac{1}{4}$ S21BT.
	An oak 9 ins. diam., bears N. 22 E. 214 lks. dist., marked $\frac{1}{4}$ S22BT.
42.00	Through heavy timber and brush.
46.00	Cross draw 800 lks. wide course N. E.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked on brass cap
	T21SR17E in N. and 1912 in S. half;
	S16 in N. W.
	S15 in N. E.
	S22 in S. E. and S21 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, rolling.
	Soil, Rocky; 4th. rate.
	Timber, oak.
	Undergrowth, oak.
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	N. 89° 55' E. bet. secs. 15 and 22.
40.00	Set temp. $\frac{1}{4}$ sec. cor.,
79.98	Intersect N. and S. line 9 lks. S. of the cor. of secs. 14, 15, 22 and 23.
	Thence I run
	S. 89° 51' W. on a true line bet. secs. 15 and 22.
	Over rolling land.
25.00	Through heavy timber and brush.
36.50	Cross wash 10 lks. wide course N. E.
39.99	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 $\frac{1}{4}$ S15 in N.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
	and S22 1912 in S. half; from which An oak 8 ins. diam., bears S. 85 W. 31 lks. dist., marked $\frac{1}{2}$ S22BT. An oak 6 ins. diam., bears N. 3 W. 47 lks. dist., marked $\frac{1}{2}$ S15BT.
79.98	The cor. of secs. 15, 16, 21 and 22. Land, rolling. Soil, black loam, dry, medium texture; 1st. rate. Timber, oak. Undergrowth, oak. December 18: At this cor. I set off 23' 23" S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31° 35 $\frac{1}{2}$ ' N.
13.40	N. 0° 02' W. bet. secs. 15 and 16. Over rolling land, through heavy timber and brush. Bottom of bluff 30 ft. high, leave timber and over level land.
27.40	Over rolling land, through scattering timber.
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 $\frac{1}{2}$ S16 in W. S15 in E. and 1912 in S. half; from which An oak 8 ins. diam., bears S. 82 W. 112 lks. dist., marked $\frac{1}{2}$ S16BT. An oak 6 ins. diam., bears S. 70 E. 30 lks. dist., marked $\frac{1}{2}$ S15BT.
67.90	Cross draw 20 lks. wide course N. E.
69.30	Cross road bears N. E. and S. W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 9, 10, 15 and 16 , marked on brass cap T21SR17E in N. and 1912 in S. half; S9 in N. W. S10 in N. E. S15 in S. E. and S16 in S. W. quadrant; from which An oak 8 ins. diam., bears N. 45 E. 170 lks. dist., marked T21SR17ES10BT. An oak 16 ins. diam., bears S. 85 E. 272 lks. dist., marked T21SR17ES15BT. No other bearings available. Raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak.
40.00	N. 89° 51' E. bet. secs. 10 and 15, on a random line Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line 12 lks. N. of the cor. of secs. 10, 11, 14 and 15. Thence I run S. 89° 56' W. on a true line bet. secs. 10 and 15. Over rolling land.
19.60	Cross fence bears N. and S.
19.70	Cross road bears N. and S.
39.97	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 $\frac{1}{2}$ S10 in N. and S15 1912 in S. half; dig pits 18 x 18 x 12 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.
69.00	Cross wash 10 lks. wide course N. E.
69.60	Cross road bears N. E. and S. W.
79.94	The cor. of secs. 9, 10, 15 and 16. Land, rolling. Soil, loam, dry, medium texture; 1st. rate.

Subdivision of Tp. 21 S. Rg. 17 E.

chains.

No timber.

15.83

N. 0° 02' W. bet. secs. 9 and 10.
Over level land.
Intersect S. bdy. of San Ignacio Del Babocomari P. L. G.
N. 88° 07' W. 5.47 chs. from the 21 mile cor. which is a
stone marked and witnessed as described by the surveyor
general. At point of intersection I
Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the
ground for closing cor. of secs. 9 and 10, marked on brass
cap
CC E. of center;
SIDB in N. E. and
T21SR17E 1912 in S. W. half;
S10 in S. E. and
S9 in S. W. quadrant; dig pits 24 x 28 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.
Land, level.
Soil, loam, dry, medium texture; 1st. rate.
No timber.

December 18, 1912.

December 19: At 8h. 00m. a.m., 1.m.t., I set off 31° 33'
N. on the lat. arc; 23° 22' S. on the decl. arc; and
determine a meridian with the solar at the true point for
cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the Tp.,
which is 100 lks. W. of the witness cor, a stone marked
and witnessed as described by the surveyor general.

Thence I run

N. 0° 02' W. bet. secs. 32 and 33
Ascending rough S. W. slope of mountain through scattering
timber.

1.05 Cross wash 8 lks. wide course S. W.
17.00 Ridge bears N. E. and S. W.
25.30 Cross wash 20 lks. wide course S. W.
30.00 Ridge bears N. E. and S. W.
35.90 Cross wash 20 lks. wide course S. W.
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 $\frac{1}{4}$ S32 in W.
S33 in E. and 1912 in S. half; and raise a mound of stone
2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
42.00 Ridge bears N. E. and S. W.
46.50 Cross wash 20 lks. wide course S. W.
55.00 Ridge bears E. and W. descend N. E. slope through heavy
timber.
62.30 Cross wash 20 lks. wide course N. E.
69.80 Ridge bears N. E. and S. W.
76.50 Cross wash 40 lks. wide course N, E.
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
T21SR17E in N. and
1912 in S. half;
S29 in N. W.
S28 in N. E.
S33 in S. E. and
S32 in S. W. quadrant; from which
An oak 12 ins. diam., bears N. $39\frac{1}{2}$ W, 70
lks. dist., marked T21SR17ES29BT.
An oak 8 ins. diam., bears N. $66\frac{1}{2}$ E. 148
lks. dist., marked T21SR17ES28BT
An oak 16 ins. diam., bears S. 19 E. 154
lks. dist., marked T2SR17ES33BT

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

	<p>An oak 6 ins. diam., bears S. $60\frac{3}{4}$ W. 224 lks. dist., marked T21 SR17ES32BT.</p> <p>Land, mountainous. Soil, rocky; 4th. rate. Timber, oak.</p>
40.00	East on a random line bet. secs. 28 and 33.
79.96	Set temp. $\frac{1}{4}$ sec. cor.
	Intersect N. and S. line 5 lks. S. of the cor. of secs. 27, 28, 33 and 34.
	Thence I run
	S. 89 $\frac{1}{2}$ 58' W. bet. secs. 28 and 33.
15.00	Along N. slope of mountain, through heavy timber and brush
38.00	Cross wash 20 lks. wide course N. E.
39.98	Cross wash 15 lks. wide course N. E.
	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 $\frac{1}{4}$ S28 in N. and S33 1912 in S. half; from which
	An oak 8 ins. diam., bears S. 38 W. 106 lks. dist., marked $\frac{1}{4}$ S33BT.
	No other bearings available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
46.20	Cross wash 20 lks. wide course N. E.
76.40	Cross wash 40 lks. wide course N. E.
79.96	The cor. of secs. 28, 29, 32 and 33.
	Land, mountainous. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak.
	December 19: At this cor. I set off 23 $\frac{1}{2}$ 24' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31 $\frac{1}{2}$ 33 $\frac{1}{2}$ ' N.
	N. 0 $\frac{1}{2}$ 02' W. bet. secs. 28 and 29.
12.00	Descending through heavy timber and brush.
29.60	Cross wash 12 lks. wide course N. E. and ascend.
40.00	Cross wash 40 lks. wide course S. E.
	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 $\frac{1}{4}$ S29 in W. S28 in E. and 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
52.00	Top high ridge bears N. E. and S. W. descend.
61.50	Cross wash 10 lks. wide course S. W. ascend.
77.20	High ridge bears E. and W. top mountain about 5.00 chs. E.
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
	T21SR17E in N. and 1912 in S. half;
	S20 in N. W.
	S21 in N. E.
	S28 in S. E. and
	S29 in S. W. quadrant; from which
	An oak 10 ins. diam., bears N. 72 E. 44 lks. dist., marked T21SR17ES21BT.
	No other bearings available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak, sweet cedar and manzanita.
40.00	N. 89 $\frac{1}{2}$ 58' E. on a random line bet. secs. 21 and 28. Set temp. $\frac{1}{4}$ sec. cor.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.
 80.04 Intersect N. and S. line 14 lks. N. of the cor. of secs. 21, 22, 27 and 28.
 Thence I run
 N. 89° 56' W. on a true line bet. secs. 21 and 28.
 Ascending over rolling land, through heavy timber and dense brush.
 10.00 Cross draw 10.00 chs. wide course N. E.
 20.00 Ascend steep E. slope.
 40.02 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 $\frac{1}{4}$ S21 in N. and S28 1912 in S. half; from which
 An oak 10 ins. diam., bears N. 21 E. 110 lks. dist., marked $\frac{1}{4}$ S21BT.
 An oak 10 ins. diam., bears S. 54 E. 41 lks. dist., marked $\frac{1}{4}$ S28BT.
 40.70 Cross wash 8 lks. wide course N. E.
 65.00 Cross wash 8 lks. wide course N. E.
 77.40 Ridge bears N. and S. descend.
 80.04 The cor. of secs. 20, 21, 28 and 29.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak.
 Undergrowth, oak and sweet cedar.

December 19, 1912.

December 20: At 8h. 00m. a.m., l.m.t., I set off 31° 34 $\frac{1}{2}$ ' N. on the lat. arc; 23° 23' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.

Thence I run
 N. 0° 02' W. bet. secs. 20 and 21.
 Descend steep N. W. slope through dense brush and timber.
 21.50 Cross wash 15 lks. wide course N. E.
 25.30 Cross road bears N. E. and S. W.
 38.00 Cross wash 15 lks. wide course S. E.
 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 $\frac{1}{4}$ S20 in W. S21 in E. and 1912 in S. half; from which
 An oak 6 ins. diam., bears N. 32 $\frac{1}{2}$ ° W. 35 lks. dist., marked $\frac{1}{4}$ S20BT.
 A juniper 8 ins. diam., bears S. 34 E. 45 lks. dist., marked $\frac{1}{4}$ S21BT.
 54.70 Cross wash 10 lks. wide course S. E. ascend.
 60.00 Ridge bears N. W. and S. E. descend.
 65.00 Cross wash 8 lks. wide course E. ascend.
 71.70 Ridge bears E. and W. descend.
 79.50 Wash 6 lks. wide course E. ascend.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked on brass cap
 T21SR17E in N. and
 1912 in S. half;
 S17 in N. W.
 S16 in N. E.
 S21 in S. E. and
 S20 in S. W. quadrant; from which
 An oak 6 ins. diam., bears N. 52 W. 28 lks. dist., marked T21SR17ES17BT.
 An oak 8 ins. diam., bears N. 55 $\frac{1}{2}$ ° E. 82 lks. dist., marked T21SR17ES16BT.
 An oak 8 ins. diam., bears S. 70 E. 187 lks. dist., marked T21SR17ES21BT.
 An oak 8 ins. diam., bears S. 62 $\frac{1}{2}$ ° W. 71 lks. dist., marked T21SR17ES20BT.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak.
 Undergrowth, oak, sweet cedar and buckbrush.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
40.00	S. 89° 56' E. on a random line bet. secs. 16 and 21.
80.12	Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line 9 lks. N. of the cor. of secs. 15, 16, 21 and 22
	Thence I run
	N. 89° 52' W. on a true line bet. secs. 16 and 21.
	Over rolling land, through heavy timber and brush:
35.00	Ridge bears N. and S. descend
40.06	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 $\frac{1}{4}$ S16 in N. and S21 1912 in S. half; from which
	An oak 8 ins. diam., bears N. 11 E. 43 lks. dist., marked $\frac{1}{4}$ S16BT.
	An oak 10 ins. diam., bears S. 9 W. 22 lks. dist., marked $\frac{1}{4}$ S21BT.
40.20	Cross wash 8 lks. wide course N. E.
53.70	Cross same wash course S. E.
66.25	Cross wash 10 lks. wide course S. E.
66.75	Cross wash 10 lks. wide course N. E.
73.20	Cross same wash course S. E.
80.12	The cor. of secs. 16, 17, 20 and 21. Land, rolling hills. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak and sweet cedar.
	December 20: At this cor. I set off 23° 25 $\frac{1}{2}$ ' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31° 35 $\frac{1}{2}$ ' N.
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	N. 0° 02' W. bet. secs. 16 and 17. Over rolling mountainous land, through dense brush and heavy timber.
5.00	Ridge bears N. W. and S. E.
22.70	Cross wash 10 lks. wide course S. E.
25.00	Descend.
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 $\frac{1}{4}$ S17 in W. S16 in E. and 1912 in S. half; from which
	An oak 9 ins. diam., bears N. 80 W. 62 lks. dist., marked $\frac{1}{4}$ S17BT.
	An oak 6 ins. diam., bears S. 73 E. 42 lks. dist., marked $\frac{1}{4}$ S16BT.
43.20	Cross road bears E. and W.
49.00	Low ridge bears N. E. and S. W.
61.10	Cross wash 40 lks. wide course E. ascend.
67.85	Ridge bears E. and W. descend.
77.15	Cross road bears E. and W.
78.00	Cross wash 8 lks. wide course E.
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
	T21SR17E in N. and 1912 in S. half; S8 in N. W. S9 in N. E. S16 in S. E. and S17 in S. W. quadrant; from which
	An oak 20 ins. diam., bears N. 60 W. 4 lks. dist., marked T21SR17ES8BT.
	An oak 10 ins. diam., bears N. 37 $\frac{1}{2}$ E. 214 lks. dist., marked T21SR17ES9BT.
	An oak 6 ins. diam., bears S. 45 $\frac{1}{2}$ E. 218 lks. dist., marked T21SR17ES16BT.
	An oak 8 ins. diam., bears S. 30 $\frac{1}{2}$ W. 139 lks. dist., marked T21SR17ES17BT.
	Land, mountainous. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak, sweet cedar and manzanita.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.	
	S. 89 [✓] 52' E. on a random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect N. and S. line 16 lks. S. of the cor. of secs. 9, 10, 15 and 16,
	Thence I run
	N. 89 [✓] 59' W. on a true line bet. secs. 9 and 16.
	Over rolling land.
20.00	Ascend.
26.50	Ridge bears N. W. and S. E.
30.00	Over rolling land, through heavy timber.
39.99	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 $\frac{1}{4}$ S9 in N. and S16 1912 in S. half; from which
	An oak 6 ins. diam., bears N. 10 W. 64 lks. dist., marked $\frac{1}{4}$ S9BT.
	An oak 6 ins. diam., bears S. 78 E. 23 lks. dist., marked $\frac{1}{4}$ S16BT.
40.70	Cross drain 5 lks. wide course N. E. descend steep W. slope.
60.00	Cross wash 30 lks. wide course N. E. and over rolling land.
63.70	Cross road bears N. and S.
79.98	The cor. of secs. 8, 9, 16 and 17. Land, mountainous and rolling. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak.
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	N. 0 [✓] 02' W. bet. secs. 8 and 9.
	Ascend along S. W. slope through heavy timber and brush.
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 $\frac{1}{4}$ S8 in W. S9 in E. and 1912 in S. half; from which
	An oak 8 ins. diam., bears N. 58 E. 35 lks. dist., marked $\frac{1}{4}$ S9BT.
	An oak 10 ins. diam., bears S. 74 W. 54 lks. dist., marked $\frac{1}{4}$ S8BT.
46.17	Intersect W. bdy. of San Ignacio Del Babocomari P. L. G. S. 19°04'5" E. 14.65 [✓] chs. from the 22 $\frac{1}{2}$ mile cor. which is a stone marked and witnessed as described by the surveyor general. At point of intersection I
	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 8 and 9, marked on brass cap
	CC E. of center;
	SIDB in N. E. and
	T21SR17E 1912 in S. W. half;
	S9 in S. E. and
	S8 in S. W. quadrant; from which
	An oak 6 ins. diam., bears S. 6 E. 187 lks. dist., marked CCT21SR17ES9BT.
	An oak 10 ins. diam., bears N. 74 $\frac{1}{2}$ W. 32 lks. dist., marked CCT21SR17ES8BT.
	Land, mountainous. Soil, rocky; 4th. rate. Timber, oak. Undergrowth, oak.

December 20, 1912.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

December 21: At 8h. 00m. a.m., l.m.t., I set off $31^{\circ} 33'$ N. on the lat. arc; $23^{\circ} 23\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32 on the S. bdy. of the Tp. which is a stone marked and witnessed as described by the surveyor general.

Thence I run

N. $0^{\circ} 03'$ W. bet. secs. 31 and 32.
Ascending through scattering brush and timber.

16.00 Ridge bears N. E. and S. W. descend.
25.00 Cross wash 5 lks. wide course N. W.
30.50 Cross wash 7 lks. wide course N. W.
33.00 Cross wash 8 lks. wide course N. W.
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 $\frac{1}{4}$ S31 in W. S32 in E. and 1912 in S. half; from which

An oak 10 ins. diam., bears N. 38° E. 97 lks. dist., marked $\frac{1}{4}$ S32BE.
An oak 8 ins. diam., bears N. 20° W. 63 lks. dist., marked $\frac{1}{4}$ S31BT.

44.30 Cross wash 20 lks. wide course N. W.
50.00 Cross wash 6 lks. wide course N. W.
69.60 Cross wash 20 lks. wide course S. W. and ascend.
79.15 Cross wash 5 lks. wide course S. E.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked on brass cap

T21SR17E in N. and 1912 in S. half;
S30 in N. W.
S29 in N. E.
S32 in S. E. and S31 in S. W. quadrant; from which

An oak 14 ins. diam., bears N. 74° W. 230 lks. dist., marked T21SR17ES30BT.
An oak 8 ins. diam., bears N. 20° E. 125 lks. dist., marked T21SR17ES29BT.
An oak 12 ins. diam., bears S. 54° E. 219 lks. dist., marked T21SR17ES32BT
An oak 14 ins. diam., bears S. 18° W. 132 lks. dist., marked T21SR17ES31BT

Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak and juniper.
Undergrowth, oak and sweet cedar.

December 21: At this cor. I set off $23^{\circ} 25\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ} 33\frac{1}{2}'$ N.

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

40.00 Set temp. $\frac{1}{4}$ sec. cor..
80.02 Intersect N. and S. line 5 lks. N. of the cor. of secs. 28, 29, 32 and 33.

Thence I run

N. $89^{\circ} 58'$ W. on a true line bet. secs. 29 and 32.
Ascend along rough N. E. slope through heavy timber and brush.

37.30 Ridge bears N. W. and S. E. Top of Canelo Mts. and descend steep rocky S. W. slope through dense brush and scattering timber.

40.01 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 $\frac{1}{4}$ S29 in N. and S32 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

64.50 Cross wash 15 lks. wide course S. W. ascend.
80.02 The cor. of secs. 29, 30, 31 and 32.
Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak.
Undergrowth, oak, manzanita and sweet cedar.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

- December 25: At 8h. 00m. a.m., l.m.t., I set off $31^{\circ} 33\frac{1}{2}'$ N. on the lat. arc; $23^{\circ} 21'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32
 Thence I run
 West on a random line bet. secs. 30 and 31.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 52.38 Intersect W. bdy. of Tp. 5 lks. N. of the cor. of secs. 30 and 31, re-established by me, as described in book "T."
 Thence I run
 N. $89^{\circ} 57'$ E. on a true line bet. secs. 30 and 31.
 Over rolling land, through scattering timber.
 8.65 Cross wash 20 lks. wide course S. E. ascend.
 12.38 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 $\frac{1}{4}$ S30 in N. and S31 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 25.50 Ridge bears N. E. and S. W. descend.
 28.60 Cross wash 10 lks. wide course S. W. ascend.
 46.50 Ridge bears N. E. and S. W. descend.
 51.40 Cross wash 5 lks. wide course S. E. ascend.
 52.38 The cor. of secs. 29, 30, 31 and 32.
 Land, rolling and mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak.
-
- N. $0^{\circ} 03'$ W. bet. secs. 29 and 30.
 Ascend rough S. W. slope through heavy timber and dense brush.
 26.40 Ridge bears E. and W. Top of Canelo Mts. and descend.
 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 $\frac{1}{4}$ S30 in W. S29 in E. and 1912 in S. half; from which
 An oak 12 ins. diam., bears N. 73° W. 63 lks. dist., marked $\frac{1}{4}$ S30BT.
 An oak 6 ins. diam., bears S. 15° E. 23 lks. dist., marked $\frac{1}{4}$ S29BT.
 54.70 Cross wash 10 lks. wide course S. E.
 60.00 Cross wash 100 lks. wide course S. E. and ascend along rough W. slope of mountain.
 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
 T21SR17E in N. and 1912 in S. half;
 S19 in N. W.
 S20 in N. E.
 S29 in S. E. and S30 in S. W. quadrant; from which
 An oak 8 ins. diam., bears N. 37° W. 112 lks. dist., marked T21SR17ES19BT.
 A juniper 6 ins. diam., bears N. 54° E. 170 lks. dist., marked T21SR17ES20BT.
 An oak 8 ins. diam., bears S. 10° E. 52 lks. dist., marked T21SR17ES29BT.
 An oak 14 ins. diam., bears S. 78° W. 47 lks. dist., marked T21SR17ES30BT.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak and juniper.
 Undergrowth, oak, manzanita and sweet cedar.
 December 25: At this cor. I set off $23^{\circ} 23\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $31^{\circ} 34\frac{1}{2}'$ N.
-
- S. $89^{\circ} 58'$ E. on a random line bet. secs. 20 and 29.

. Subdivision of Tp. 21 S. Rg. 17 E.

Chains.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.94 Intersect N. and S. line 7 lks. S. of the 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.
Descend steep rocky W. slope of mountain through dense brush and heavy timber.
11.75 Cross wash 30 lks. wide course N. E. and ascend.
13.10 Cross road bears N. E. and S. W.
22.70 Cross wash 6 lks. wide course S. E. and along S. slope.
33.30 Cross wash 8 lks. wide course S. E. scattering timber.
39.97 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 $\frac{1}{4}$ S20 in N. and S29 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
40.30 Cross wash 5 lks. wide course S. E.
51.70 Cross wash 6 lks. wide course S. E.
56.10 Cross wash 7 lks. wide course S. E.
63.40 Cross wash 10 lks. wide course S. E. ascend.
77.30 Ridge bears N. E. and S. W. descend.
79.94 The cor. of secs. 19, 20, 29 and 30.
Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak and juniper.
Undergrowth, oak, manzanita, sweet cedar and buck brush.

December 25; 1912.

December 26: At 8h. 00m. a.m., l.m.t., I set off $31^{\circ} 34\frac{1}{2}'$ N. on the lat. arc; $23^{\circ} 19'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30

Thence I run
S. $89^{\circ} 57'$ W. on a random line bet. secs. 19 and 30.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
52.24 Intersect W. bdy. of Tp. 7 lks. S. of the cor. of secs. 19 and 30, re-established by me, as described in book "T"
Thence I run
S. $89^{\circ} 58'$ E. on a true line bet. secs. 19 and 30.
Descend through dense brush and heavy timber.
1.15 Cross wash 8 lks. wide course N. W. ascend.
11.15 Ridge bears N. W. and S. E. descend.
12.24 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 $\frac{1}{4}$ S19 in N. and S30 1912 in S. half; from which
A juniper 12 ins. diam., bears N. 26 E. 204. lks. dist., marked $\frac{1}{4}$ S19BT.
No other bearing available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor Pits impracticable.
16.00 Ascend.
22.00 Ridge bears N. and S. descend.
28.00 Cross wash 7 lks. wide course S. E.
37.15 Cross wash 10 lks. wide course S. E.
43.70 Cross wash 8 lks. wide course S. E. ascend.
52.24 The cor. of secs. 19, 20, 29 and 30.
Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak and juniper.
Undergrowth, oak, manzanita and sweet cedar.

N. $0^{\circ} 03'$ W. bet. secs. 19 and 20.
Descend through heavy timber and brush.

10.50 Cross wash 15 lks. wide course N. E. ascend.
22.00 Ridge bears E. and W. Top of mountain about 5 chs. W. descend.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the

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Chains.

- ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S19 in W. S20 in E. and 1912 in S. half; from which
 An oak 10 ins. diam., bears N. 65 W. 122 lks. dist., marked $\frac{1}{4}$ S19BT.
 An oak 14 ins. diam., bears S. 52 $\frac{1}{2}$ E. 150 lks. dist., marked $\frac{1}{4}$ S20BT.
- 49.40 Cross wash 5 lks. wide course N. E. ascend.
 54.80 Ridge bears E. and W. descend.
 61.70 Cross wash 5 lks. wide course E. ascend.
 66.40 Ridge bears E. and W. descend.
 72.60 Cross wash 5 lks. wide course E.
 76.80 Ridge bears E. and W. descend.
 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
 T21SR17E in N. and 1912 in S. half;
 S18 in N. W.
 S17 in N. E.
 S20 in S. E. and S19 in S. W. quadrant; from which
 A juniper 20 ins. diam., bears N. 53 W. 85 lks. dist., marked T21SR17ES18BT.
 An oak 4 ins. diam., bears N. 38 E. 72 lks. dist., marked T21SR17ES17BT.
 A juniper 10 ins. diam., bears S. 14 $\frac{3}{4}$ E. 75 lks. dist., marked T21SR17ES20BT.
 A juniper 16 ins. diam., bears S. 65 $\frac{1}{2}$ W. 11 lks. dist., marked T21SR17ES19BT.
- Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak and juniper.
 Undergrowth, oak, manzanita and sweet cedar.
 December 26: At this cor. I set off 23' 21" S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31° 35 $\frac{1}{2}$ ' N.
-
- N. 89 59' E. on a random line bet. secs. 17 and 20
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line 16 lks. S. of the cor. of secs. 16, 17, 20 and 21.
 Thence I run.
 S. 89 52' W. on a true line bet. secs. 17 and 20.
 Ascending through heavy timber and brush.
- 12.90 Descend.
 16.80 Cross wash 20 lks. wide course N. E. ascend.
 27.30 Ridge bears N. E. and S. W. descend.
 29.40 Cross wash 8 lks. wide course N. ascend.
 39.99 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 $\frac{1}{4}$ S17 in N. and S20 1912 in S. half; from which
 An oak 6 ins. diam., bears N. 12 W. 17 lks. dist., marked $\frac{1}{4}$ S17BT.
 An oak 12 ins. diam., bears S. 64 E. 22 lks. dist., marked $\frac{1}{4}$ S20BT.
- 42.00 Ridge bears N. W. and S. E. descend.
 47.30 Cross wash 8 lks. wide course N. W. ascend.
 55.60 Ridge bears N. E. and S. W. descend.
 63.44 Cross wash 7 lks. wide course N. E. ascend.
 79.98 The cor. of secs. 17, 18, 19 and 20.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak.
 Undergrowth, oak.

December 26, 1912.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

- December 28: At 8h. 00m. a.m., l.m.t., I set off 31 35½' N. on the lat. arc; 23 14' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20
Thence I run
N. 89 58' W. on a random line bet. secs. 18 and 19.
40.00 Set temp. ¼ sec. cor.
52.18 Intersect W. bdy. of Tp. 7 lks. S. of the cor. of secs. 18 and 19, established by me, as described in book "T."
Thence I run
S. 89 53' E. on a true line bet. secs. 18 and 19.
Ascend through heavy timber and brush.
9.50 Ridge bears N. and S. descend.
12.18 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S18 in N. and S19 1912 in S. half; from which
A juniper 14 ins. diam., bears N. 49 W. 154 lks. dist., marked ¼ S18BT.
A juniper 16 ins. diam., bears S. 28 E. 196 lks. dist., marked ¼ S19BT.
37.50 Cross wash 10 lks. wide course S. ascend.
46.50 Ridge bears N. and S. descend.
52.18 The cor. of secs. 17, 18, 19 and 20.
Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak and juniper.
Undergrowth, oak, manzanita and sweet cedar.

- N. 0 03' W. bet. secs. 17 and 18.
Along E. slope through dense brush and heavy timber.
12.80 Cross wash 5 lks. wide course E. ascend.
15.00 Ridge bears E. and W. descend.
24.40 Cross wash 8 lks. wide course S. E. and over rolling mountainous land.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S18 in W. S17 in E. and 1912 in S. half; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
57.60 Cross wash 8 lks. wide course S. E. ascend.
63.00 Ridge bears E. and W. descend.
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
T21SR17E in N. and
1912 in S. half;
S7 in N. W.
S8 in N. E.
S17 in S. E. and
S18 in S. W. quadrant; from which
An oak 8 ins. diam., bears N. 70 W. 93 lks. dist., marked T21SR17ES7BT.
An oak 14 ins. diam., bears N. 36 E. 56 lks. dist., marked T21SR17ES8BT.
An oak 8 ins. diam., bears S. 81½ E. 81 lks. dist., marked T21SR17ES17BT.
An oak 4 ins. diam., bears S. 19 W. 105 lks. dist., marked T21SR17ES18BT.

Land, mountainous.

Soil, rocky; 4th. rate.

Timber, oak and juniper.

Undergrowth, oak and manzanita.

December 28: At this cor. I set off 23 15½' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31 36½' N.

Subdivision of Tp. 21 S. Rg. 17 E.

Chains.

- N. 89' 52' E. on a random line bet. secs. 8 and 17.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.04 Intersect N. and S. line 16 lks. N. of the cor. of secs. 8, 9, 16 and 17.
 Thence I run
 S. 89' 59' W. on a true line bet. secs. 8 and 17.
 Over rolling land, through heavy timber gradual descent.
 5.00 Cross wash 20 lks. wide course S. E. leave timber.
 27.00 Ridge bears N. and S. and through heavy timber.
 40.02 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 $\frac{1}{4}$ S8 in N. and S17 1912 in S. half; from which
 A juniper 12 ins. diam., bears N. $2\frac{1}{2}$ E. 59 lks. dist., marked $\frac{1}{4}$ S8BT.
 A juniper 14 ins. diam., bears S. $51\frac{1}{2}$ W. 52 lks. dist., marked $\frac{1}{4}$ S17BT.
 40.85 Cross wash 5 lks. wide course N. W.
 49.85 Cross wash 25 lks. wide course N. E.
 63.40 Cross wash 8 lks. wide course N. E.
 67.75 Cross road bears N. W. and S. E.
 80.04 The cor. of secs. 7, 8, 17 and 18.
 Land, rolling.
 Soil, rocky; 4th. rate.
 Timber, oak and juniper.
-
- N. 89' 53' W. on a random line bet. secs. 7 and 18.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 52.02 Intersect W. bdy. of Tp. 9 lks. N. of the cor. of secs. 7 and 18, established by me, as described in book "T."
 Thence I run
 S. 89' 59' E. on a true line bet. secs. 7 and 18.
 Ascend through scattering timber and brush.
 10.30 Ridge bears N. and S. descend.
 12.02 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 $\frac{1}{4}$ S7 in N. and S18 1912 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 18.60 Cross wash 8 lks. wide course N. E.
 26.80 Cross wash 20 lks. wide course N. W. ascend.
 43.75 Ridge bears N. W. and S. E. descend.
 48.75 Cross wash 10 lks. wide course N. W.
 52.02 The cor. of secs. 7, 8, 17 and 18.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak and juniper.
 Undergrowth, oak and sweet cedar.
- December 28, 1912.
-
- December 29: At 8h. 00m. a.m., l.m.t., I set off 31' $36\frac{1}{2}$ ' N. on the lat. arc; 23' $10\frac{1}{2}$ ' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.
 Thence I run
 N. 0' 03' W. bet. secs. 7 and 8.
 Over rolling land, through heavy timber and brush.
 23.45 Cross road bears N. W. and S. E.
 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 $\frac{1}{4}$ S7 in W. S8 in E. and 1912 in S. half; from which
 An oak 14 ins. diam., bears N. $87\frac{1}{2}$ W. 60 lks. dist., marked $\frac{1}{4}$ S7BT.
 An oak 10 ins. diam., bears N. 39 E. 164 lks. dist., marked $\frac{1}{4}$ S8BT.
 41.90 Cross wash 8 lks. wide course N. E.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the

Subdivision of Tp. 21 S. Rg. 18 E.

Chains.

ground for cor. of secs. 5, 6, 7 and 8, marked on brass cap

T21SR17E in N. and

1912 in S. half;

S6 in N. W.

S5 in N. E.

S8 in S. E. and

S7 in S. W. quadrant; from which

An oak 4 ins. diam., bears N. 49 W. 117

lks. dist., marked T21SR17ES6BT.

An oak 12 ins. diam., bears N. 40 $\frac{1}{2}$ E. 40

lks. dist., marked T21SR17ES5BT.

An oak 10 ins. diam., bears S. 10 E. 36

lks. dist., marked T21SR17ES8BT.

An oak 8 ins. diam., bears S. 54 $\frac{1}{2}$ W. 209

lks. dist., marked T21SR17ES7BT.

Land, rolling.

Soil, sandy loam mixed with rocks and gravel; 2nd. rate.

Timber, oak and juniper.

Undergrowth, oak, manzanita and sweet cedar.

- N. 89 59' E. bet. secs. 5 and 8
 Over rolling land, through heavy timber and brush.
- 16.70 Cross wash 5 lks. wide course S. E.
 22.90 Cross wash 8 lks. wide course N. E.
 24.80 Cross wash 30 lks. wide course 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 $\frac{1}{4}$ S5 in N. and S8 1912 in S. half; from which
 An oak 5 ins. diam., bears N. 54 E. 80
 lks. dist., marked $\frac{1}{4}$ S5BT.
 An oak 8 ins. diam., bears N. 29 E. 53
 lks. dist., marked $\frac{1}{4}$ S8BT.
- 44.20 Gross wash 8 lks. wide course N.
 52.90 Cross wash 10 lks. wide course N. W.
 55.20 Cross wash 10 lks. wide course N.
 60.50 Ridge bears N. and S.
 62.00 Leave timber and brush.
 68.31 Intersect W. bdy. of San Ignacio Del Babe.comari P. L. G. 21.37 chs. N. 19°4'5" W. of the 22 $\frac{1}{2}$ mile cor. which is a stone marked and witnessed as described by the surveyor general. At point of intersection I
 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 5 and 8, marked on brass cap
 CC E. of center;
 SIDB in N. E. and
 T21SR17E 1912 in S. W. half;
 S5 in N. W. and
 S8 in S. W. quadrant; dig pits 24 x18 x 12 ins. cross-wise on each line N. and S. 3 ft. and W. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.
 Land, rolling.
 Soil, sandy loam, mixed with rocks and gravel; 2nd. rate.
 Timber, oak and juniper.
 Undergrowth, oak and sweet cedar.

- N. 89 59' W. on a random line bet. secs. 6 and 7
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 51.80 Intersect W. bdy. of Tp. 5 lks. N. of the cor. of secs. 6 and 7, established by me, as described in book "T."
 Thence I run
 N. 89 58' E. on a true line bet. secs. 6 and 7.
 Ascend through dense brush and heavy timber.
 7.60 Ridge bears N. and S. descend.

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Chains.

- 11.80 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 $\frac{1}{4}$ S6 in N. and S7 1912 in S. half; from which
 An oak 10 ins. diam., bears N. $12\frac{1}{2}$ E. 28
 lks. dist., marked $\frac{1}{4}$ S8BT.
 A juniper 8 ins. diam., bears S. $53\frac{1}{4}$ W. 28
 lks. dist., marked $\frac{1}{4}$ S7BT.
- 12.30 Cross wash 15 lks. wide course N. W.
- 16.75 Ridge bears N. W. and S. E.
- 22.25 Cross wash 20 lks. wide course N. over rolling land.
- 38.00 Cross road bears N. W. and S. E.
- 51.80 The cor. of secs. 5, 6, 7 and 8.
 Land, rolling and mountainous.
 Soil, rocky; 4th. rate.
 Timber, oak and juniper.
 Undergrowth, oak and sweet cedar.
 December 29: At this cor. I set off 23 12' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 31 37' N.

- N. 0 03' W. bet. secs. 5 and 6.
 Over rolling land, through heavy timber and brush.
- 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 $\frac{1}{4}$ S6 in W. and S5 1912 in E. half; from which
 An oak 4 ins. diam., bears S. $42\frac{1}{2}$ E. 88
 lks. dist., marked $\frac{1}{4}$ S5BT.
 An oak 6 ins. diam., bears S. 34 W. 113
 lks. dist., marked $\frac{1}{4}$ S6BT.
- 80.84 Intersect 4th. Standard Parallel South 3.36 chs. E. of the standard $\frac{1}{4}$ sec. cor. on the S. bdy. of sec. 31 which is a stone marked and witnessed as described by the surveyor general. At point of intersection I
 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 5 and 6, marked on brass cap
 CC S. of center;
 T2OSR17E S31 S32 in N. and
 1912 in S. half;
 S5 in S. E. and
 S6 in S. W. quadrant; from which
 An oak 8 ins. diam., bears S. $58\frac{1}{2}$ E. 84
 lks. dist., marked CCT21SR17ES5BT.
 An oak 8 ins. diam., bears S. 24 W. 125
 lks. dist., marked CCT21SR17ES6BT.
- Land, rolling.
 Soil, rocky; 4th. rate.
 Timber, oak and juniper.
 Undergrowth, oak and sweet cedar.

December 29, 1912.

GENERAL DESCRIPTION

The southwestern part of this township lies on the Canelo Mountains and is rough and mountainous and covered with a good growth of oak and juniper timber, while the rest of the township is rolling and open and covered with grass.

There is no water in the township excepting at Alamo springs, located in sec. 6.

There is one settler in sec. 13, two in sec. 14, one in sec. 15, one in 22, two in 24, and one in sec. 26.

The lands surveyed in Tps. 21 S. Rgs. 17 and 18 E. cover all the settlers who applied for the survey and those not located have either moved away or disposed of their claims.

John A. Hesse
 U. S. Surveyor.

Retracement of a part of the Fourth Standard Parallel
 South, through Rg. 17 E.

Chains.

December 29:

I commence at the $\frac{1}{4}$ sec. cor. on the S. bdy. of sec. 31,
 previously described

Thence I run

West on S. bdy. of sec. 31

Over rolling land, through scattering timber and brush.

16.60 Cross wash 5 lks. wide course N. W.

23.80 Cross wash 5 lks. wide course N. W.

39.60 Fall 63 lks. S. of the standard cor. of Tps. 20 S. Rgs. 16
 and 17 E. previously described.

The course of the half mile is N. 89 05' W. 39.61 chs.

Land, rolling.

Soil, rocky; 4th. rate.

Timber, oak and Juniper.

Undergrowth, oak.

December 29, 1912.

John P. Hesse
 U. S. Surveyor.

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,
 John F. Hesse, U. S. Surveyor, during the periods and in the capacities
 stated opposite our several signatures, in surveying all those parts or portions of Tr. 31 S. Rg.
 17 E.

of the Gila and Salt River Base Meridian, in the State of Arizona,
 which are represented in the foregoing field notes as having been executed by him, and under his direc-
 tion; and that said survey has been, in all respects, to the best of our knowledge and belief, well and
 faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
D. C. Nicoll	Dec. 14, 1912	Dec. 19, 1912	Chairman
James Ridge	Dec. 14, 1912	Dec. 21, 1912	Axman
G. E. Lang	Dec. 14, 1912	Dec. 30, 1912	Chairman
F. E. Ayers	Dec. 14, 1912	Dec. 30, 1912	Plagman Chairman
W. F. Ridge	Dec. 14, 1912	Dec. 30, 1912	axman
P. L. Macomb	Dec. 20, 1912	Dec. 30, 1912	Plagman
E. L. Haukett	Dec. 14, 1912	Dec. 30, 1912	Cornucopia

Subscribed and certified to before me on the dates of the final service as shown above.

John P. Hesse
 U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, John F. Hesse, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona bearing date of the 24th day of AUGUST, 191¹, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision lines of Tp. 21 S. Rg. 17 E. and retraced a part of the Fourth Standard Parallel South through Rg. 17 E.

of the Gila and Salt River Base & Meridian, in the State of Arizona., which are represented in the foregoing field notes as having been executed 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 U. S. 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 F. Hesse
U. S. Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }
this 4th day of August, 1914.

Frank S. Ingalls
Surveyor-General of Arizona.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona NOV 14 1914

The foregoing field notes of the survey of the subdivision lines of T. 21 S. R. 17 E. and retracement of a portion of the 4th Standard Parallel South, through R. 17 E. of the Gila and Salt River Base and Meridian
Arizona

executed by John F. Hesse, U. S. Surveyor,
under his special instructions dated August 24, 191¹, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
U. S. Surveyor General.
of ARIZONA

~~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.~~