

Book "G"
Subdivisions
FIELD NOTES

BOOK 2772

OF THE SURVEY OF

PART OF THE

SUBDIVISION LINES OF

TOWNSHIP 5 SOUTH RANGE 29 EAST

Of the Gila and Salt River Base and Meridian,

In the State of ARIZONA

EXECUTED BY

WILLIAM B. KIMMEL

~~*****~~
In the capacity of U. S. Surveyor, under instructions dated August 25, 1910, issued by the United States Surveyor General to govern surveys included in Group No. 26, which were approved by the Commissioner of the General Land Office, September 9, 1910, pursuant to authority contained in the Act of Congress dated June 23, 1913.

Survey commenced November 20, 1913

Survey completed February 1, 1914

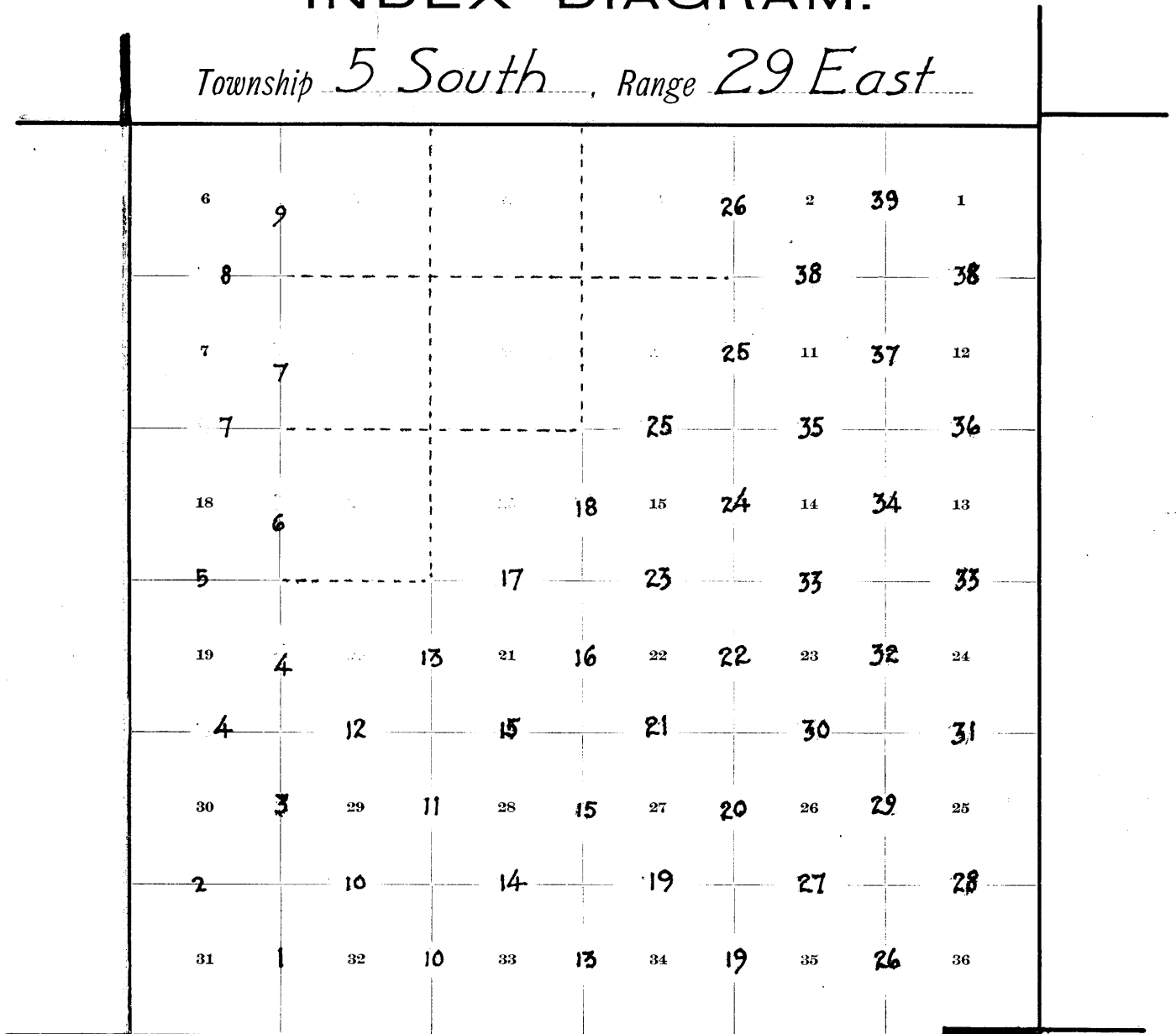
42
1A

Book "G"

BOOK 2772

INDEX DIAGRAM.

Township *5 South*, Range *29 East*



First Standard Parallel South

6-151

- Notes in Book "A", this Group
- " " " "B" " "
- Surveyed
- Unsurveyed

Partial Subdivision of Township 5 South, Range 29 East. 12

Chains.

Survey commenced Nov.20, 1913, and executed with Young and Sons' LightMountain Transit, No.8541,with Smith Solar Attachment. For description of instrument,and certificate of approval, see Book "A."

At the original standard cor. of secs.31 and 32 on the south bdy.of the Tp. (1stStand. Parallel S.) which is a stone 20x14x7 ins. above ground, marked and witnessed as described by the Surveyor General, I set off 32°56½' N. on the lat.arc; 19°41½'S. on the decl.arc; and determine a meridian with the solar, and mark a point in this meridian on a stake firmly set in the ground, 5 chs. north of my station, at 4h. p.m.,l.m.t., Nov.20,1913.

Nov.21,1913: At 3h. 28m. a.m.,l.m.t., I observe Polaris at Western elongation, and mark a point in the line thus determined on a stake, set 5 chs.north of my station.

At 7h.45m. a.m.,l.m.t., I turn off the azimuth of Polaris to the right from the line established this morning,1° 22½', and find that the meridian thus determined coincides with the meridian given by the solar the evening before.

At 8h. a.m., l.m.t., I set off 32°56½'N. on the lat.arc; 19°50½'S. on the decl.arc; and determine a meridian with the solar. The meridian thus determined coincides with the meridian determined by observation on Polaris at elongation. I therefore conclude that the adjustments of the solar apparatus are satisfactory.

To determine the value of the stadia interval, I measure a base from the center line of the transit of 14.83' chs., at which point the reading of the level rod is 7.408 ft.

At a distance of 18.00 chs., the rod reading is 8.993 ft., and from 10.00 chs., the rod reads 4.992 ft. In all these cases, the vertical angle is zero. For this instrument, fbcsl constant is 1.025 ft.,or .016 chs. I therefore, conclude that for this instrument, one foot on the rod is equivalent to 2.00 chs. horizontal distance.

From the original standard cor. of sec.31 and 32, hereinbefore described, I run, N.0°1' E. bet. secs.31 and 32.

20.35 Along slight south slope, through scattering undergrowth. Descend slightNW. slope, 50 ft.to

34.00 Thence over level land.

35.00 Descend rocky NW. slope, 50 ft.to

36.55 Foot of descent; ascend SW. slope, 80 ft.

40.00 Set an iron post, 3 ft.long,1 in. in diam., 26 ins. in the ground, for ¼ sec.cor., marked on brass cap, 1913 on S.rim, ¼ S 31 in W., and S 32 in E.half; and raise a mound of stone, 2 ft. base, 1½ ft. high, west of cor. Pits impracticable.

47.00 Thence over level mesa.

53.00 Descend slight NE. slope.

60.00 Top of cliffs, bears NE. and SW., 350 ft.to bottom.

63.00 Foot of cliffs; descend NW. slope, 600 ft.to

80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs. 29,30,31 and 32, marked on brass cap, 1913 on S.rim, T 5 S R 29 E in N.half; S 30 in NW., S 29 in NE., S 32 in SE., and S 31 in SW.quadrant; and raise a mound of stone 2 ft.base, 1½ ft. high,W. of cor. Pits impracticable.

Note: At this corner, Nov.21, 1913, I set off 19°54'S. on the decl.arc; and at apparent noon, I observe the sun on the meridian; the resulting lat.is 32°57½'N. Land,level, rolling and mountainous.

2. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

Soil, rocky, 4th rate.
No timber.
Undergrowth, scattering mesquite and catclaw.
Mountainous land, 20 chs.

- 40.00 West, on a random line, bet. secs.30 and 31.
- 80.18 Set temp. $\frac{1}{4}$ sec.cor.
Intersect the west bdy.of the Tp., 32 lks.south of the cor.of secs.25,30,31 and 36, established by me, as described in Book "A."
Thence I run,
S.89°46'E., on a true line, bet. secs.30 and 31.
Through dense undergrowth. Ascend slight SW. slope, 15 ft. to
- 2.50 Spur ridge, brs.S. Descend SE. slope, 180 ft.
- 10.00 Descend SE. slope.
- 17.80 Trail, brs.NE and SW.
- 19.50 Draw, course NE. Ascend NW. slope, 30 ft.to
- 24.00 Thence along N. slope.
- 26.00 Descend east slope, 130 ft.to
- 33.50 Gulch, course S. Ascend SW. slope, 15 ft.to
- 36.00 Spur ridge, brs.S. Descend slight SE. slope.
- 40.09 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,
1913 on S.rim,
 $\frac{1}{4}$ S 30 in N., and
S 31 in S.half;
and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,N.of corner. Pits impracticable.
Descend slight east slope.
- 45.50 Top of bluff, brs.NW and SE. Descend NE. slope, 70 ft.
Rock corral brs.S.21°E., about 2 chs.dist.
Mexican cabin, brs.S.21°E., about 4 chs.dist.
Mexican cabin, brs.N. 26°E., about 10 chs.dist.
- 48.10 Foot of bluff, brs.N.and S. Small irrigation ditch at foot of bluff, course S.
- 48.20 Right edge of Eagle Creek, 50 lks.wide, 8 ins. deep,course SE.
- 49.75 Trail, brs.NE and SW.
- 50.45 Wire fence brs.NW and SE. Enter field.
- 54.00 Leave field; ascend west slope, 100 ft.
Mexican cabin brs.N. about 4chs.dist.
- 55.00 Wire fence brs.N and S.
- 57.00 Spur ridge, brs.SW. Trail on ridge, brs.NE and SW.
Descend SE. slope, 100 ft. to Gila River.
- 58.75 Trail, brs.NE and SW.
- 62.00 Enter Gila River bottom.
- 65.00 Road, brs.N. to Clifton and S. to Solomonsville.
- 66.00 Old wagon road, brs.N.and S.
- 67.20 Right edge of Gila River, 2.60 chs.wide, 3 ft. deep,course SW.
- 69.80 Left edge of Gila River.
- 71.00 Leave river bottom, along south bank of canyon, course W. Ascend NW. slope, 75 ft.to
- 73.10 Spur ridge, brs. N. Thence along south bank of canyon, course W.
- 80.18 The cor.of secs.29,30, 31 and 32.
Land, rolling, hilly and mountainous.
Soil, 2nd rate along river; 4th rate on slopes.
Timber, scattering cottonwood, willow and mesquite along river.
Undergrowth, dense mesquite, catclaw and cacti.
Mountainous land, 54 chs.

Partial Subdivision of Township 5 South, Range 29 East, 3.

Chains.

N.0°1'E., bet. secs.29 and 30.
 Descend N. slope, 50 ft.to
 2.30 Canyon, course west. Ascend south slope, 65 ft.
 5.50 North bank of canyon. Thence over rolling, rocky west slope.
 12.00 Ascend slight SW. slope, 70 ft.
 23.40 R. N. Campbell's cabin, under bluff, and not in sight, brs. approximately west 10 chs.dist.
 South bank of canyon; descend N. slope, 90 ft.
 27.85 Canyon, course NW. Ascend N. slope, 75 ft.
 31.50 North bank of canyon; continue to ascend SW. slope.
 34.00 Spur ridge, brs.west. Descend NW. slope, 175 ft.
 34.75 Trail, brs. NW. and SE.
 39.10 Top of sloping cliffs, 20 ft.high; descend.
 40.00 Point for $\frac{1}{4}$ sec.cor. falls on smooth rock face, inaccessible.
 40.25 As this point is the nearest practical point for witness cor. I
 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, at this point, for witness cor. to the $\frac{1}{4}$ sec.cor., marked on brass cap,
 1913 on S.rim,
 W C $\frac{1}{4}$ in N., half, and
 S 29 in SE., and
 S 30 in SW.quadrant;
 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, west of cor. Pits impracticable.
 40.53 Instrument point from which I take stadia measurement to rod on north side of Gila River. Rod reading (mean of three) 2.130 ft. Ratio, 1 ft. = 2 chs. Focal constant 1.025 ft. Level. Therefore, the dist. to rod = 2.130×2 plus $.016 = 4.28$ chs., which added to 40.53 chs. = 44.81 chs. rod point. From instrument point I run, N.0°1'W. 7 lks.to
 40.60 Left edge of Gila River, course SW. I obtain width of river as 3.70 chs. by running S. 0°1'E. from rod point, 51 lks.to
 44.30 Right edge of river.
 44.81 Stadia rod point. From this point, I triangulate the dist.on sec.line, over cliffs on north side of river. Set a flag on line, on top of cliffs, and from 44.81 chs pt. I measure base line N.73°18'E., 26.06 chs., from the NE. end of which the flag on top of cliffs brs.N. 41°54' W. The distance on sec.line is found from the following;

$$\frac{\sin. 64^{\circ}48' \times 26.06}{\sin. 41^{\circ}55'} = 35.29 \text{ chs.}$$
 which added to 44.81 chs. = 80.10 chs. flag point on top of cliffs N. of Gila River.
 From the NE. end of the measured base line W.L. Keppler's cabin brs. N.62° W., about 10 chs.dist.
 45.50 Road, brs.E. to Clifton and west to Solomonsville.
 48.00 Leave river bottom, brs.E. and W. Discontinue chaining at this point. Ascend south slope, 950 ft. to cor. on top of cliffs; the dist. on sec.line obtained by triangulation described above.
 50.20 (Approx.) dry wash, at mouth of gulch, 20 lks.wide, course SE.
 51.30 (Approx.) Foot of bluff, brs.NW. and SE. Ascend broken, rocky south slope.
 80.10 Flag point of triangulation, from 44.81 ch.point. This being 10 lks. N.0°1' E. of the point for sec.cor., I return, S.0° 1'W., 10 lks.to
 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs. 19,20, 29 and 30, marked on brass cap,
 1913 on S.rim,
 T5 S R 29 E in N.half;
 S19 in NW.,
 S 20 in NE.,
 S 29 in SE., and
 S 30 in SW. quadrant;



4. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

	and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling, hilly and mountainous. Soil, sandy, 2nd rate in river bottom; rocky, 4th rate on slopes. Timber, none, except willow, cottonwood and mesquite along river. Undergrowth, dense mesquite, catclaw and cacti. Mountainous land, 70 chs. Nov. 21, 1913.

	Nov. 22, 1913: At 8h. 57m. a.m., l.m.t., I set off $32^{\circ}58\frac{1}{2}'$ N. on the lat. arc; $20^{\circ}5'S.$ on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30, hereinbefore described.
40.00	Thence I run, N. $89^{\circ}46'W.$, on a random line, bet. secs. 19 and 30.
80.16	Set temp. $\frac{1}{4}$ sec. cor. Intersect the west bdy. of the Tp., 23 lks. N. of the cor. of secs. 19, 24, 25 and 30, established by me, as described in Book "A."
	Thence I run, S. $89^{\circ}56'E.$, on a true line, bet. secs. 19 and 30.
13.65	Through dense undergrowth. Descend SE. slope, 200 ft. to Gulch, course SE. Thence over rolling land.
22.15	Ridge, brs. SE. and NW. Descend NE. slope, 90 ft. to Canyon, course SE. Ascend SW. slope, 35 ft. to
27.15	Thence along south slope.
30.00	Top of cliff, 100 ft. to bottom, brs. N. and S.
31.00	Foot of cliff brs. N. and S.
32.50	Right edge of Eagle Creek, 45 lks. wide, 8 ins. deep, course south.
33.50	Deserted cabin, brs. N. 50 lks. dist.
37.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for witness cor. to $\frac{1}{4}$ sec. cor., marked on brass cap,
39.72	1913 on S. rim, W C $\frac{1}{4}$ in E. half; S 19 in NW., and S 30 in SW. quadrant; from which, A sycamore, 30 ins. in diam., brs. N. $73\frac{1}{4}^{\circ}W.$, 255 lks. dist., marked W C $\frac{1}{4}$ S 19 BT. A sycamore, 30 ins. in diam., brs. S. $77\frac{1}{2}^{\circ}W.$, 360 lks. dist., marked W C $\frac{1}{4}$ S 30 B T.
	Ascend NW. slope, 200 ft.
40.08	Point for $\frac{1}{4}$ sec. cor. falls on face of cliff; impracticable to set post.
48.00	Spur ridge, brs. NW. Descend NE. slope, 20 ft. to Canyon, course NW. Ascend west slope, to
51.00	Spur ridge, brs. NW. Descend NE. slope.
53.00	Gulch, course NW. Ascend 700 ft. to cor.
54.00	Trail, brs. NE. and SW.
60.30	Rock cliff, brs. NE. and SW., 50 ft. high.
64.30	Cliff, 30 ft. high, brs. NE. and SW.
67.60	Mexican cabin, brs. N. $38^{\circ}35'W.$
67.90	Thence along south slope, near top of cliff, 150 ft. to bottom.
80.16	The cor. of secs. 19, 20, 29 and 30. Land hilly and mountainous. Soil, 2nd rate along Eagle Creek; 4th rate rest of mile. Timber, sycamore, willow and mesquite. Undergrowth, catclaw, mesquite and cacti. Mountainous land, 52 chs.

	N. $0^{\circ}1'E.$, bet. secs. 19 and 20.
1.50	Through dense undergrowth. Ascend south slope, 25 ft. to Thence along rolling mesa.

Partial Subdivision of Township 5 South, Range 29 East. 5.

Chains,

12.00 Descend NW. slope, 75 ft.
15.35 Trail, brs.NE. and SW.
21.75 Canyon, course W. Ascend SW. slope, 95 ft.to
30.75 Spur ridge, brs.W. Descend NW. slope, 115 ft.to
35.50 Gulch, course W. Thence along west slope.
40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, 1913 on S.rim, $\frac{1}{4}$ S 19 in W., and S 20 in E.half; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, west of corner. Pits impracticable.

42.50 Gulch, course W. Ascend SW. slope, 55 ft.
49.50 Trail, brs.E. and W.
50.00 Ridge, brs.E. and W. Descend NW. slope, 450 ft.to
70.00 Gulch, course NW.; ascend.
75.00 Spur ridge, brs.WNW.; descend.
77.00 Gulch, course W. Ascend SW. slope, 50 ft.to
80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs. 17,18,19 and 20, marked on brass cap, 1913 on S.rim, T5 S R 29 E in N.half; S 18 in NW., S 17 in NE., S 20 in SE., and S 19 in SW.quadrant; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, west of corner. Pits impracticable.

Land, mountainous and hilly.
Soil, rocky, 4th rat,
No timber.
Undergrowth, dense mesquite, greasewood, catclaw, and cacti.
Mountainous land, 58 chs.
Note: At apparent noon, Nov.22, 1913, I set off $20^{\circ}7'$ s. on the decl.arc; and observe the sun on the meridian at the cor.of secs. 19,20,29 and 30. The resulting lat.is $32^{\circ} 58\frac{1}{2}'$ N.
Nov.22, 1913.

Nov.25, 1913:
N. $89^{\circ} 56'$ W., on a random line, bet. secs.18 and 19.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
80.24 Intersect the west bdy.of the Tp., 5 lks. N.of the cor. of secs.13,18,19 and 24, established by me, as described in Book "A."
Thence I run,
S. $89^{\circ}58'$ E., on a true line, bet. secs.18 and 19.
Through scattering undergrowth. Descend broken NE. slope, 140 ft.to
18.40 Descend precipitous NE. slope, 540 ft.to
35.00 Foot of cliffs in Eagle Creek bottom. Thence across Eagle Creek bottom.
38.00 Foot of cliff, 50 ft.high, brs.N. 80° E. and W.
Leave Eagle Creek bottom.
39.00 Top of cliff.
40.12 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, 1913 on Srim, $\frac{1}{4}$ S 18 in N., and S 19 in S.half; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high,S. of cor. Perpendicular precipice on north side prevented placing mound there.
Ascend NW. slope, to
42.00 Spur ridge, brs.N.; descend.
43.00 Top of cliff, brs.NW. and SE. Descend NE. slope, 100 ft.to
45.00 Foot of cliff, brs.NW. and SE.
45.55 Trail, brs. NW. and SE. Enter Eagle Creek bottom.

6. Partial Subdivision of Township 5 South Range 29 East.

Chains.

49.65 Right bank of Eagle Creek, 40 lks.wide, 8 ins. deep, course SE.

50.20 Top of cliff, 30 ft.high, brs. NW. and SE. Ascend SW. slope, 190 ft.

54.65 Top of cliff, 20 ft.high, brs.NW. and SE. Descend SE. slope, 60 ft.to

56.75 Gulch, course S. Thence along broken S. slope.

64.25 Gulch, course SW.; ascend.

66.25 Spur ridge, brs. SW. Descend.

68.25 Ascend SW. slope, 250 ft.to.

80.24 The cor.of secs.17,18, 19 and 20. Land, mountainous and hilly. Soil, 2nd rate along Eagle Creek; remainder of mile, 4th rate. No timber, except sycamore and willow along Eagle Creek. Undergrowth, scattering greasewood, mesquite and caclaw. Mountainous land, 70 chs.

Nov.25, 1913.

Nov. 26, 1913: At 9h. 53m. a.m., l.m.t., I set off $32^{\circ} 59' N.$ on the lat.arc; $20^{\circ} 54\frac{1}{2}' S.$ on the decl.arc; and determine a meridian with the solar at the cor.of secs. 17.18, 19 and 20, hereinbefore described.

Thence I run, N. $0^{\circ} 1' E.$, bet. secs. 17 and 18. Through scattering undergrowth. Ascend SW. slope, 20 ft.to

3.50 Spur ridge, brs.W. Thence over rolling, rocky land. Descend.

5.90 Gulch, course west; ascend.

10.00 Ridge, brs.E.and W.; descend.

12.50 Gulch, course W.; ascend.

16.00 Ridge, brs.E.and W.; descend.

21.00 Gulch, course SW.; ascend.

24.00 Ridge, brs.E.and W. Descend NE. slope, 210 ft.to

37.45 Gulch, course NW. Ascend SW. slope, 35 ft.to

40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, 1913 on S.rim, $\frac{1}{4}$ S 18 in W., and S 17 in E.half; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high, west of corner. Pits impracticable.

Note: At this corner, Nov.26, 1913, I set off $20^{\circ} 56' S.$ on the decl.arc; and at apparent noon, I observe the sun on the meridian; the resulting lat.is $32^{\circ} 59\frac{1}{2}' N.$

Descend.

45.20 Canyon, course W. Ascend rocky south slope, 400 ft.

47.30 North bank of canyon. Thence along east slope.

50.00 Ascend SE.slope.

61.15 Top of sandstone cliffs, 100 ft.high, brs. E.and W. Continue to ascend SE. slope.

64.25 Spur ridge, brs.SE. Thence along broken east slope.

75.00 Draw, course E.; ascend.

80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs.7,8,17 and 18, marked on brass cap, 1913 on S.rim, T 5 S R.29 E in N.half; S 7 in NW., S 8 in NE., S 17 in SE., and S 18 in SW.quadrant; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, hilly and mountainous. Soil, very rocky, 4th rate. No timber.

Partial Subdivision of Township 5 South, Range 29 East. 7.

Chains.

Undergrowth, scattering mesquite, catclaw, cacti and greasewood.
Mountainous land, 72 chs.

40.00 N. 89°58'W., on a random line, bet. secs. 7 and 18.
 79.99 Set temp. 1/4 sec. cor.
 Intersect west bdy. of Tp., 7 lks. north of the cor. of secs. 7, 12, 13 and 18, established by me, as described in Book "A."
 Thence I run,
 9.00 N. 89°59'E., on a true line, bet. secs. 7 and 18.
 Through dense undergrowth. Descend NE. slope, 270 ft. to Canyon, 100 lks. wide, course SE. Ascend SW. slope, 100 ft. to
 11.75 End of ascent; thence along south slope.
 15.50 Descend east slope, 50 ft. to
 18.65 Gulch, course S. Ascend SW. slope, 60 ft. to
 22.25 Spur ridge, brs. S. Descend SE. slope, 140 ft. to
 26.00 Canyon, course S. Ascend SW. slope, 140 ft. to
 27.60 End of ascent; thence along level mesa.
 36.60 Descend SE. slope, 40 ft. to
 38.00 Canyon, course S. Ascend SW. slope, 40 ft. to
 39.755 This being the nearest practical point to set witness cor., I set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, at this point, for witness cor. to 1/4 sec. cor. marked on brass cap,
 1913 on S. rim,
 W C 1/4 in E. half;
 S 7 in NW., and
 S 18 in SW. quadrant; from which,
 A cottonwood, 30 ins. in diam., brs. S. 47 1/2° W.,
 215 lks. dist., marked W C 1/4 S 18 B T.
 No other trees within limits; raise a mound of stone 2 ft. base. 1 1/2 ft. high, north of cor. Pits impracticable.
 39.90 Top of precipice, 70 ft. to bottom, brs. N. and S.
 39.995 True point for 1/4 sec. cor. falls on steep side of precipice; inaccessible
 40.32 Foot of precipice; small irrigation ditch, course S.
 41.90 West channel of Eagle Creek, 40 lks. wide, 6 ins. deep, course S.
 43.60 Trail, brs. NE. and SW.
 45.45 East channel of Eagle Creek, 70 lks. wide, 10 ins. deep, course S.
 46.75 Foot of sandstone cliffs. Ascend NW. slope, 800 ft. to
 67.50 Top of peak on spur ridge, brs. NE. and SW. Descend E. slope, of sandstone mountain, 400 ft.
 76.00 Spur ridge, brs. SE. Continue to descend SE. slope.
 79.99 The cor. of secs. 7, 8, 17 and 18.
 Land, hilly and mountainous.
 Soil, 2nd rate on creek; remainder of mile rocky, 4th rate.
 Timber, cottonwood and willow along creek.
 Undergrowth, dense catclaw, cacti, greasewood and mesquite.
 Mountainous land, 78 chs.

Nov. 26, 1913.

Dec. 2, 1913: At 8h. 3m. a.m., l.m.t., I set off 33°00'N. on the lat. arc; 21°53 1/2'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18, hereinbefore described.

Thence I run,
 2.10 N. 0°1'E., bet. secs. 7 and 8.
 Along rocky east slope, through scattering undergrowth.
 Canyon, course SE. Ascend S. slope, 400 ft. Ascend in small wash, course S.

8. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

- 20.50 Top of conical hill, 75 lks.W. Descend NW. slope, 350 ft.
 23.65 Trail, brs. E. and W.
 25.00 Head of gulch, course NW. Descend NW. slope.
 31.00 Spur ridge, brs.NW. Descend NE. slope, to
 39.60 Gulch, course NW. Ascend SW. slope, 20 ft.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,
 1913 on S.rim,
 $\frac{1}{4}$ S 7 in W., and
 S 8 in E.half;
 and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high,W.
 of cor. Pits impracticable.
- 42.00 Spur ridge, brs.W.; descend.
 43.00 Gulch, course W. Ascend SW. slope, 135 ft.to
 52.64 Ridge, brs. E. and W. From this point, line passes over
 a deep V-shaped canon, course W. Discontinue chaining
 and take stadia measurement to rod on north side of canyon;
 Rod reading (mean of three) 6.149 ft. Ratio 1 ft. = 2 chs.
 Focal constant, 1.025 ft. Vertical angle, plus $6^{\circ}36'$
 The distance on sec.line to rod = $6.149 \times 2 \times .9868$ plus
 $.016 = 12.07$ chs., which added to 52.64 chs. =
- 64.71 Rod point on ridge, brs.E. and W.
 65.57 From this point, I take stadia measurement over another
 deep V-shaped canyon, course W., to rod on N. side of
 same. Rod reading (mean of three) 5.364 ft. Ratio,
 1 ft. = 2 chs. Focal constant, 1.025 ft. Angle of de-
 pression, -1° . The dist. on sec.line to rod =
 $5.364 \times 2 \times .9997$ plus $.016 = 10.74$ chs., which added
 to 65.57 chs. =
- 76.51 Rod point on ridge, brs.E. and W. Descend N. slope, 65 ft.
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs. 5,6,7 and 8, marked on
 brass cap,
 1913 on Srim,
 T 5 S R 29 E in N.half;
 S 6 in NW.,
 S 5 in NE.,
 S 8 in SE., and
 S 7 in SW.quadrant; and raise a mound of
 stone, 2 ft.base, $1\frac{1}{2}$ ft. high, west of cor. Pits im-
 practicable.
 Land, mountainous and hilly.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, scattering mesquite, cacti and catclaw.
 Mountainous land, 80 chs.
-
- 40.00 S. $89^{\circ}59'$ W., on a random line, bet. secs.6 and 7.
 Set temp. $\frac{1}{4}$ sec.cor.
 79.90 Intersect west bdy.of Tp., 370 lks.south of the witness
 cor. to c pr.of secs. 1,6,7 and 12, established
 by me, as described in Book "A" at 3.72 chs. north
 of true corner point.
 Thence I run, from true point for cor.,
 N. $89^{\circ}58'$ E., on a true line, bet. secs.6 and 7.
 Through scattering undergrowth. Ascend SW. slope, 150 ft.
 to
- 5.00 Spur ridge, brs.S. Descend SE. slope, 125 ft.to
 8.50 Canyon, course NE. Ascend NW. slope, 300 ft.to
 25.00 Ridge, brs.NE. and SW. Descend SE. slope, over perpendic-
 ular precipices.
 32.50 Foot of precipices, bear N. and S.
 35.00 Rodger's house brs.N.150 lks.dist.
 35.77 Trail, brs.N. and S.
 36.64 Fence, brs.N. and S. Enter Rodger's field.
 36.77 Small ditch, course S.
 36.82 Small ditch, course S.
 38.58 Small irrigation ditch, course S. Leave cultivated land.

Partial Subdivision of Township 5 South, Range 29 East. 9.

Chains.

39.22 This being the nearest practical point for witness cor., I Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, at this point for witness cor. to $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S. rim,
 W $C\frac{1}{4}$ in E. half;
 S 6 in NW., and
 S 7 in SW. quadrant; from which,
 A cottonwood, 67 ins. in diam., brs. N. 39° E., 67 lks. dist., marked W C $\frac{1}{4}$ S 6 B T.
 A cottonwood, 8 ins. in diam., brs. S. 51° E., 41 lks. dist., marked W C $\frac{1}{4}$ S 7 B T.

39.24 Wire fence brs. N. and S. Leave field.

39.95 True point for $\frac{1}{4}$ sec. cor. falls on sandbar; impracticable to set post.

40.30 Right edge of Eagle Creek, 80 lks. wide, 6 ins. deep, course south.

42.20 Ditch, 1 ft. wide, course S.
 Foot of bluffs, bears N. and S.
 Ascend west slope in canyon, course west.

58.00 Leave canyon; ascend NNW. slope.

70.00 Ledge brs. NE. and SW. 70.00
 Thence along north slope.

76.00 Descend NE. slope, 20 ft. to
 79.90 The cor. of secs. 5, 6, 7 and 8.

Note: At this corner, Dec. 2, 1913, I set off $21^{\circ}56\frac{1}{2}'$ S. on the decl. arc; and at apparent noon, I observe the sun on the meridian; the resulting lat. is $33^{\circ} 1' N$.
 Land, hilly and mountainous.
 Soil, 2nd rate on Eagle Creek; remainder of mile, rocky, 4th rate.
 No timber.
 Undergrowth, mesquite, catclaw and cacti.
 Mountainous land, 70 chs.

40.00 N. $0^{\circ}1'$ E., on a random line bet. secs. 5 and 6.
 Set temp. $\frac{1}{4}$ sec. cor.

80.20 Intersect the north bdy. of the Tp., 9 lks. west of the cor. of secs. 5, 6, 31 and 32, established by me, as described in Book "A."
 Thence I run,
 S. $0^{\circ}5'$ W., on a true line, bet. secs. 5 and 6.
 Through dense undergrowth. Ascend NW. slope, 70 ft. to
 6.25 Ridge, brs. NE. and SW. Descend SE. slope, 375 ft.
 10.00 Thence along east slope.
 14.00 Descend on ridge, brs. N. and S.
 26.40 Descend SE. slope.
 38.20 Foot of descent; thence along west slope.
 40.20 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S. rim,
 $\frac{1}{4}$ S 6 in W., and
 S 5 in E. half;
 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.
 Ascend NW. slope, 60 ft. to
 49.00 Ridge, brs. NE. and SW. Thence along east slope.
 58.00 Spur ridge, brs. SE. Descend S. slope, 350 ft. to
 72.70 Canyon, course W. Ascend steep N. slope, 150 ft. to
 76.70 South edge of canyon, 76.70
 80.20 The cor. of secs. 5, 6, 7 and 8.
 Land, hilly and mountainous. Soil, very rocky, 4th rate.
 No timber.
 Undergrowth, dense mesquite, catclaw and cacti.
 Mountainous land, 60 chs.

Dec. 2, 1913.

10. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

Jan. 13, 1914: At 8h. 5m. a.m., l.m.t., I set off $32^{\circ}56\frac{1}{2}'$ N. on the lat. arc; $21^{\circ}30'$ S. on the decl. arc; and determine a meridian with the solar at the original standard cor. of secs. 32 and 33 on the south bdy. of the Tp., (1st. Standard Parallel South,) which is a lava stone in place, $15 \times 15 \times 10$ ins. above ground, marked and witnessed as described by the Surveyor General.

The line, bet. secs. 32 and 33, runs down a crooked, deep, box canyon, impassible on the sec. line. I therefore, run traverse line along east rim of canyon, through sec. 33 as follows:

From the standard cor. of secs. 32 and 33, I run, S. $77^{\circ}16'E$, 9.50 chs.

Thence N. $19^{\circ}32'E$, 17.90 chs.

Thence N. $13^{\circ}15'W$, 25.91 chs. to a point which is 40.00 chs. N., and 9.31 chs. east of the standard cor. of secs. 32 and 33, and 9.30 chs. east of the true point for $\frac{1}{4}$ sec. cor., of secs. 32 and 33. As the true point for $\frac{1}{4}$ sec. cor. is inaccessible, and as this point is as near to said cor. point as it is practicable to establish a witness cor., I establish a witness cor. to $\frac{1}{4}$ sec. cor., as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, at this point on traverse line, marked on brass cap,

1913 on S. rim,
W C $\frac{1}{4}$ in N. half;
S 33 in SE., and
S 32 in SW. quadrant;

and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, west of corner. Pits impracticable.

Thence I continue traverse line through sec. 33, as follows:

N. $12^{\circ}30'E$, 9.86 chs.

Thence N. $21^{\circ}32'E$, 14.82 chs.

Thence N. $0^{\circ}15'W$, 16.59 chs., to a point which is 80.00 chs. N., and 16.82 chs. E. of the standard corner of secs. 32 and 33, and 16.80 chs. E. of the true point for cor. of secs. 28, 29, 32 and 33. As this true corner point falls in an inaccessible place where it would be impracticable to set corner; therefore, I establish a witness corner to cor. of secs. 28, 29, 32 and 33 at the last point on the traverse, 16.80 chs. east of true cor. point, as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, marked on brass cap, 1913 on S. rim,

W C N of center,
T 5 S R 29 E in N. half;
S 29 in NW.,
S 28 in NE.,
S 33 in SE., and
S 32 in SW. quadrant;

and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W of corner. Pits impracticable.

Land, mountainous.

Soil, very rocky, 4th rate.

Timber, scattering cedar.

Undergrowth, mesquite and cacti.

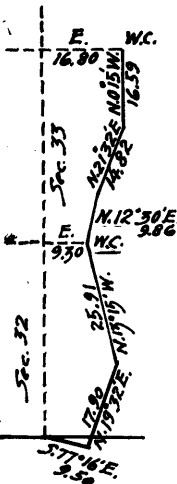
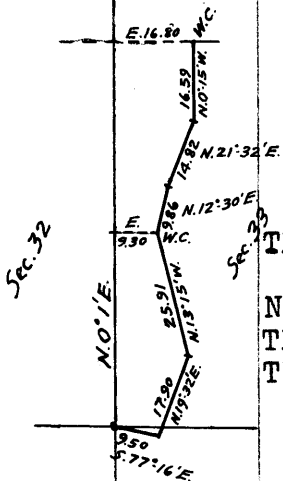
Mountainous land, 80 chs.

Jan. 13, 1914.

Jan. 12, 1914.

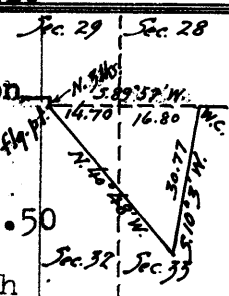
West on a random line, bet. secs. 29 and 32, from the witness cor. to cor. of secs. 28, 29, 32 and 33, described above.

It being impossible to chain on this line, I set a flag across a deep canyon, on west bank, S. $89^{\circ}57'W$, and measure a base line from the witness corner S. $10^{\circ}3'W$, 30.77 chs., from the SW. end of which the flag brs.



Partial Subdivision of Township 5 South, Range 29 East. 11.

Chains.



N.40°48' W. The distance from witness cor. to flag on line, S.89°57' W. is obtained, from the following:

$$\frac{\sin. 50^\circ 51' \times 30.77}{\sin. 49^\circ 15'} = 31.50 \text{ chs.}$$

This line being run S.89° 57' W. for a distance of 31.50 chs.; The flag point is therefore 3 lks. S. of an E. and W. line. I therefore set over a point 3 lks. north of flag point, and run west on random line, continuing measurement from witness cor. to cor. of secs. 28, 29, 32 and 33.

56.80
96.48

(40.00 plus 16.80) Set temp. $\frac{1}{4}$ sec. cor. Intersect the N. and S. line, 5 lks. south of the cor. of secs. 29, 30, 31 and 32, hereinbefore described. Therefore, the true course of line, bet. secs. 29 and 32 is S. 89°58' E., and the true length of line = 96.48 chs. - 16.80 chs. = 79.68 chs.

Thence I run, S.89°58' E., on a true line, bet. secs. 29 and 32. Along north slope, through scattering timber and undergrowth.

3.68
5.50
7.70
11.50
14.00
16.30
35.80
37.80
39.84

Descend NE. slope, 45 ft. to Bottom of canyon, course NW. Ascend SW. slope, 35 ft. to Ridge, brs. NW. Descend slight NE. slope. Enter canyon, course NW. Leave canyon, course N.; ascend. Cliff, 60 ft. high, brs. N. and S. Ascend SW. slope, 790 ft. to Ridge, brs. NW. and SE. Descend NE. slope, 10 ft. to Gulch, course NW. Ascend SW. slope, 275 ft. Set an iron post 3 ft. long, 1 in in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 29 in N., and S 32 in S. half;

54.88
58.60
64.10
79.68
96.48

and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of corner. Pits impracticable. Rocky ridge, brs. NW. and SE. Descend NE. slope, 240 ft. Ledge, 40 ft. to foot, brs. NW. and SE. Ledge, 80 ft. to bottom, brs. NW. and SE. West edge of canyon, course S. The true point for sec. cor., which is inaccessible. Witness cor. to cor. of secs. 28, 29, 32 and 33, on the east edge of canyon. Land, mountainous. Soil, rocky, 4th rate. Timber, scattering cedar. Undergrowth, scattering mesquite, cacti and catclaw. Mountainous land, 80.00 chs. Jan. 12, 1914.

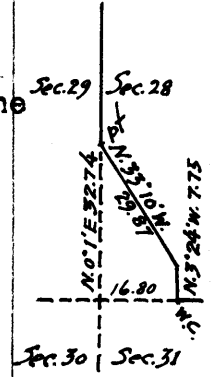
Jan. 13, 1914: It being impossible to chain the entire south half of line bet. secs. 28 and 29, I begin at the witness cor. to cor. of secs. 28, 29, 32 and 33, hereinbefore described, and run on traverse line in sec. 28.

N.3° 24' W., 7.75 chs. Thence N. 33°10' W., 29.87 chs. to a point on the sec. line 32.74 chs. N.0°1' E., from the true point for cor. of secs. 28, 29, 32 and 33.

Thence I run, continuing measurement from cor. point, N.0°1' E., bet. secs. 28 and 29. Descend NE. slope, 60 ft. through scattering timber and undergrowth.

37.65
40.00

Rim rock, 10 ft. high, brs. NW. and SE. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 29 in W., and S 28 in E. half; and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of corner.



12. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

Pits impracticable.

Descend steep NE' slope, 575 ft.

54.90 Rock spur on line.

64.36 Set flag for triangulation across Gila River.

65.25 Top of bluff, 150 ft. above river, brs. E. and W. Discontinue chaining and at

Set a flag on the north side of river, on line, and measure a base line from it, N. 89° 59' W., 13.00 chs. From the west end of this base line, the flag on the south side of the river brs. S. 46° 01' E. The distance is given from the following: $\cot. 46^\circ 01' E. \times 13.00 = 12.54$ chs. This added to 64.36 chs. makes the dist. across river to the flag 76.90 chs.

76.90 Flag point on bluff on north side of river, brs. E. and W.; ascend south slope.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 20, 21, 28 and 29, marked on brass cap,

1913 on S. rim,
T 5 S R 29 E in N. half;
S 20 in NW.,
S 21 in NE.,
S 28 in SE., and
S 29 in SW. quadrant;

and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

Land, mountainous and hilly.

Soil, rocky, 4th rate.

Timber, scattering cedar.

Undergrowth, scattering mesquite, catclaw and cacti.

Mountainous land, 75 chs.

Note; The sky was overcast at noon, making an observation for latitude impossible.

Jan. 13, 1914.

Jan. 20, 1914:

13.56 N. 89° 58' W., on a random line, bet. secs. 20 and 29. East bank of canyon, 200 ft. deep. Impossible to chain across; therefore, I take stadia measurement to rod on line, on west side of canyon. Rod reading (mean of three) 6.075 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Level. The dist. on random line to rod point is therefore 6.075×2 plus $.016 = 12.17$ chs. which added to 13.56 chs. =

25.73 Rod point.

40.00 Set temp. ¼ sec. cor.

79.84 Intersect N. and S. line at the cor. of secs. 19, 20, 29 and 30, hereinbefore described.

Thence 1 run,

S. 89° 58' E., on a true line, bet. secs. 20 and 29.

Across broken south slope, through scattering undergrowth.

4.85 Descend east slope, 200 ft. to

16.85 Canyon, course SSW. Ascend NW. slope, 235 ft. to

23.85 Ridge, brs. NNE. and SSW. Descend SE. slope, 200 ft. to

28.88 Canyon, course SW. Ascend SW. slope, 300 ft. to

39.92 Set an iron post 3 ft. long in ground, 24 ins. in the ground for ¼ sec. cor. marked on brass cap, 1913 on S. rim.

¼ S 20 in N., and
S 29 in S. half;

and raise a mound of stone, 2 ft. base, 1½ ft. high, north of cor. Pits impracticable.

Continue to ascend SW. slope.

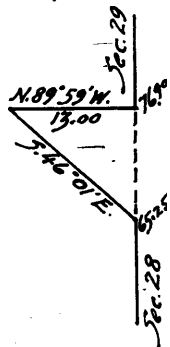
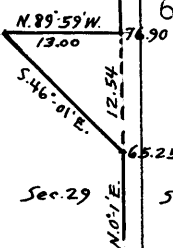
45.40 Narrow, rocky ridge, brs. N. and S. Descend E. slope, 350 ft. to

54.12 West side of canyon, 200 ft. deep, course SSW.

66.28 East bank of canyon. Ascend west slope, 80 ft. to

73.34 Spur ridge, brs. S. Descend SE. slope, 45 ft. to

77.85 Thence along rocky south slope.



Partial Subdivision of Township 5 South, Range 29 East. 13.

Chains.

79.84 The cor. of secs. 20, 21, 28 and 29. Land, mountainous. Soil, very rocky, 4th rate. No timber. Undergrowth, scattering mesquite, catclaw and cacti. Mountainous land, 80 chs.

Jan. 20, 1914.

At 9h. 57m., a.m., l.m.t., I set off 32° 58½' N. on the lat. arc; 20° 10½' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29, hereinbefore described.

Thence I run, N. 0° 1' E., bet. secs. 20 and 21. Through dense undergrowth. Ascend steep south slope, 270 ft. to

7.20 Feet of rim rock, 30 ft. high, brs. NE and SW.; ascend.
7.50 Rocky ridge, brs. NE and SW. Descend NW. slope, 150 ft. to
18.50 Gulch, course SW. Ascend SE. slope, 240 ft. to
31.50 Ridge, brs. NE and SW. Descend NE. slope, 35 ft. to
38.00 Draw, course W. Ascend SW. slope, 130 ft.
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, 1913 on S. rim, ¼ S 20 in W., and S 21 in E. half;

and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

50.75 Spur ridge, brs. W. Descend N. slope, 35 ft. to
62.00 Gulch, course W. Ascend SW. slope, 115 ft. to
70.00 Ridge, brs. NW and SE. Descend NE. slope, 105 ft. to
74.40 Gulch, course E. Ascend SE. slope, 30 ft. to
79.00 Spur ridge, brs. NE. Descend NW. slope, to
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 16, 17, 20 and 21, marked on brass cap, 1913 on S. rim, T 5 S R 29 E in N. half; S 17 in NW., S 16 in NE., S 21 in SE. and S 20 in SW. quadrant;

and raise a mound of stone, 2 ft. base, 1½ ft. high, west of cor. Pits impracticable.

Land, rolling, hilly and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, dense catclaw, mesquite and greasewood.

Mountainous land, 80 chs.

Note: The sky was overcast at noon, making an observation for latitude impossible.

Jan. 20, 1914.

Jan. 14, 1914: At 8h. 10m. a.m., l.m.t., I set off 21° 20' S. on the decl. arc; 32° 56½' N. on the lat. arc; and determine a meridian with the solar at the true cor. point, 13.00 chs. west of the witness corner to the standard cor. of secs. 33 and 34. on the S. bdy. of the Tp., (1st. Stand. Par. South) which is a lava stone, 6x6x10 ins. above ground, marked and witnessed as described by the Surveyor General.

Thence I run, from true cor. point, N. 0° 2' E., bet. secs. 33 and 34.

Through scattering timber and dense undergrowth. Descend north slope, 175 ft. to

9.75 Canyon, 125 lks. wide, course E. Ascend SE. slope, 140 ft. to
18.50 Spur ridge, brs. E. Descend NE. slope, 90 ft.

14. Partial S. division of Township 5 South, Range 29 East.

Chains.

22.75 Gulch, course E. Ascend SE. slope, 205 ft.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S. rim,
 $\frac{1}{4}$ S 33 in W., and
 S 34 in E. half;
 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, west of corner. Pits impracticable.

46.20 Old road, brs. NE. to Clifton, and SW. to Solomonsville.
 49.00 Spur ridge, brs. E. Descend NE. slope, 430 ft.
 56.00 Trail, brs. NE. to Clifton, and SW. to Solomonsville.
 59.00 Rocky ridge, brs. NE. and SW. Descend NW. slope.
 68.70 Rim rock, brs. NE. and SW. Perpendicular descent of 12 ft.
 72.00 Descend on ridge, brs. N. and S.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 27, 28, 33 and 34, marked on brass cap,
 1913 on S. rim,
 T 5 S R 29 E in N. half;
 S 28 in NW.,
 S 27 in NE.,
 S 34 in SE., and
 S 33 in SW. quadrant;
 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, west of corner. Pits impracticable.

Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate.
 Timber, scattering cedar.
 Undergrowth, dense mesquite, catclaw and cacti.
 Mountainous land, 52 chs.

40.00 West, on a random line, bet. secs. 28 and 33.
 63.18 Set temp. $\frac{1}{4}$ sec. cor.
 Fall 9 lks. N. of the witness cor. to cor. of secs. 28, 29, 32 and 33, set 16.80 chs. east of the true point for cor., as hereinbefore described.
 The true length of line, bet. secs. 28 and 33 is therefore, 63.18 chs. plus 16.80 chs. = 79.98 chs., and the true course is N. $89^{\circ} 56'$ E. At this course, the witness cor. to cor. of secs. 28, 29, 32 and 33 is found to be 2 lks. S. of the true line, bet. secs. 28 and 33; therefore, I set over a point 2 lks. north of the witness cor., and measuring from the true point for cor. of secs. 28, 29, 32 and 33, I run, N. $89^{\circ} 56'$ E., on a true line, bet. secs. 28 and 33.
 Through scattering timber and undergrowth. Descend SE. slope, 215 ft. to

28.00 Gulch, course SE. Ascend SW. slope, 30 ft. to
 35.50 Spur ridge, brs. S. Descend SE. slope, 95 ft. to
 39.99 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S. rim,
 $\frac{1}{4}$ S 28 in N., and
 S 33 in S. half;
 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, north of cor. Pits impracticable.

Continue to descend SE. slope, 260 ft. to
 57.50 Canyon, course NE. Ascend NW. slope, 110 ft. to
 69.00 Spur ridge, brs. NE. Descend east slope, 240 ft. to
 76.50 Enter gulch, course SW., from WSW., 100 lks. wide.
 78.00 Leave gulch, ascend NW. slope, 10 ft. to
 79.98 The cor. of secs. 27, 28, 33 and 34.
 Land, rolling, hilly and mountainous.
 Soil, very rocky, 4th rate.
 Timber, very scattering cedar.
 Undergrowth, scattering mesquite, catclaw and cacti.
 Mountainous land, 56 chs. Jan. 14, 1914.

Partial Subdivision of Township 5 South, Range 29 East, 15.

Chains

Jan. 15, 1914: At 7h. 54m. a.m., l.m.t., I set off $21^{\circ}9'S$. on the decl. arc; $32^{\circ}57\frac{1}{2}'N$. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34, hereinbefore described.

Thence I run,
 $N.0^{\circ}2'E$, bet. secs. 27 and 28.

Through dense undergrowth. Descend NW. slope, 10 ft. to Gulch, course NE. Ascend broken SE slope, 30 ft. to

5.50
7.00 Spur ridge, brs. E. Descend.
9.00 Gulch, course E.; ascend.
12.00 Spur ridge, brs. E. Descend NE. slope, 75 ft. to
15.00 Thence along west bank of canyon, course N.
19.00 Canyon, course NE. Ascend SE. slope, 15 ft. to
26.00 Descend NE. slope, 85 ft. to
31.00 Gulch, course E. Ascend broken SE. slope.
34.00 Spur ridge, brs. E. Descend.
36.00 Gulch, 2 chs. wide, 50 ft. deep, course E. Ascend SE. slope, 125 ft.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 28 in W., and S 27 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.

41.00 Spur ridge, brs. E. Descend NE. slope, 80 ft. to
47.85 Gulch, course E. Ascend SE. slope, 90 ft. to
56.00 Spur ridge, brs. E. Descend NE. slope, 115 ft. to
58.40 Top of bluff, brs. NE. and SW. Perpendicular descent of 100 ft.

61.00 Gulch, course NE. Ascend SE. slope, 35 ft. to
64.00 Spur ridge, brs. E. Descend NE. slope, 35 ft. to
67.00 Gulch, course E. Ascend SE. slope, 40 ft. to
69.00 Spur ridge, brs. SE. Descend NE. slope, 160 ft.
73.00 Spur ridge, brs. E. Descend N. slope, to
78.80 Foot of descent; ledge 20 ft. to foot, brs. E. and W.
80.00 Point for sec. cor. falls where it cannot be established; therefore, continue $N.0^{\circ}2'E$ to

80.15 The nearest practical point for witness cor., where I Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for witness cor. to cor. of secs. 21, 22, 27 and 28, marked on brass cap, 1913 on S. rim, W C N of center, T. 5 S R 29 E in N. half; S 21 in NW., S 22 in NE., S 27 in SE., and S 28 in SW quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.

Land, rolling and hilly.
Soil, very rocky, 4th rate.
No timber.
Undergrowth, dense mesquite, catclaw and cacti.
Jan. 15, 1914.

Jan. 16, 1914:
From the true point for cor. of secs. 21, 22, 27 and 28, I run,
 $S.89^{\circ}56'W$., on a random line, bet. secs. 21 and 28.

18.38 Bluff 60 ft. above Gila River, brs. $N.70^{\circ}E$., and $S.70^{\circ}W$. Discontinue chaining, and take stadia measurement across Gila and San Francisco Rivers at their point of junction. Rod reading (mean of three) 8.301 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Angle of depression = $9^{\circ}16'$. The dist. on random line to rod is therefore $8.301 \times 2 \times .9741$ plus $.016 = 16.19$ chs., which added to 18.38 chs. Rod point on cliff, brs. NE. and SW.; thence by chain

34.57

16. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

- measurement.
- 40.00 Set temp, $\frac{1}{4}$ sec. cor.
- 43.29 Impossible to chain from here. Take stadia measurement along edge of cliffs. Rod reading (mean of three) 10.946 ft. Ratio 1 ft. = 2 chs. Focal constant, 1.025 ft. Level. The dist. on random line to rod is therefore 10.946×2 plus .016 = 21.91 chs. which added to 43.29 chs. =
- 65.20 Rod point on side of cliffs. Take stadia measurement across deep box canyon, course SE. Rod reading (mean of three) 3.573 ft. Ratio 1 ft. = 2 chs. Focal constant, 1.025 ft. Angle of depression = 8° . The dist. on random line from rod to instrument is therefore $3.573 \times 2 \times .9806$ plus .016 = 7.02 chs., which added to 65.20 chs. =
- 72.22 Instrument point on spur ridge, brs. SE.
- 80.06 Intersect the N. and S. line, 14 lks. south of the cor. of secs. 20, 21, 28 and 29, hereinbefore described. Thence I ran. S. $89^{\circ}58'$ E., on a true line, bet. secs. 21 and 28. Along broken south slope, through scattering timber and undergrowth.
- 7.85 Spur ridge, brs. SE. West edge of deep box canyon, course SE.
- 14.86 Point on side of cliffs. Thence along edge of cliffs.
- 40.03 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 21 in N., and S 28 in S. half; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Thence along broken south slope, above cliff.
- 45.52 Point on cliff brs. NE and SW. 75 lks. S. of point a cliff brs. W., which is 400 ft. perpendicularly above Gila River.
- 61.68 Bluff, 60 ft. above Gila River, brs. N. 70° E. and S. 70° W., on east bank of river.
- 66.00 Gulch, course N. Thence along broken N. slope.
- 72.00 Descend NE. slope.
- 76.00 Mexican's stone house (unfinished) brs. N. 1.75 chs. dist.
- 80.06 The point for cor. of secs. 21, 22, 27 and 28. Land, mountainous and hilly. Soil, 2nd rate along river; rocky, 4th rate on slopes. Timber, cottonwood along river. Undergrowth, scattering mesquite, catclaw, and cacti. Mountainous land, 65 chs.

Jan. 16, 1914.

- Jan. 21, 1914.
- N. $0^{\circ}2'$ E., bet. secs. 21 and 22, from true cor. point. Descend N. slope, through dense undergrowth.
- 0.15 Witness cor. to cor. of secs. 21, 22, 27 and 28, hereinbefore described.
- 2.48 Trail, brs. NW and SE.
- 4.35 Gila River 1 ch. wide, 4 ft. deep, course W.
- 5.50 North bank of river; ascend south slope.
- 8.85 Top of bluff, brs. E and W. Ascend SW. slope, 120 ft. to
- 11.00 Thence along west slope.
- 14.15 Gulch, course SW. Ascend SE. slope.
- 24.00 Ridge, brs. E and W. Descend NW slope, 30 ft. to
- 27.08 Top of cliff, 250 ft. perpendicularly above the San Francisco River. Line is tangent to east bank of river. River approaches line, course S. 20° E., and leaves it course SW. A canyon, course west enters river at this bend, across which I cannot chain; therefore, take stadia measurement to rod on line on N. side of this canyon.

Partial Subdivision of Township 5 South, Range 29 East. 17.

Chains.

Rod reading (mean of three) 6.866 ft. Ratio 1 ft. = 2 chs.
 Focal constant, 1.025 ft. Vertical angle plus 12°30'.
 The dist. on sec. line to rod is therefore, 6.866 x 2 x .9532 plus .016 = 13.10 chs., which added to 27.08 chs. = 40.18 chs., rod point, from which I return on sec. line, S. 0°2' W., 0.68 chs. to

39.50 Cliff, 40 ft. high, brs. NW and SE.
 Thence I run, N. 0° 2' E., continuing measurement from point for cor. of secs. 21, 22, 27 and 28.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, 1913 on S. rim, ¼ S 21 in W., and S 22 in E. half;
 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

40.18 Stadia rod point. Thence over level mesa.

46.00 Gulch, course west. Thence along broken west slope.

60.00 Descend north slope, 65 ft.

72.95 Ruins of rock house, brs. W. 10 lks. dist.

73.12 A point 1 lk. east of a post, painted white, 4 ins. square, set in a mound of stone, marked SW cor. Toltec No. 4 on N., and Toltec 5 NW. cor. on S.

74.50 Foot of cliffs, 60 ft. high, bears east and west.

74.85 Wagen road brs. NE to Clifton, and SW to Solomonsville.

76.00 Enter San Francisco River bottom, brs. E and W.

77.00 San Francisco River, 2 chs. wide, 2 ft. deep, course west.

80.00 Point for sec. cor. falls in river bottom, subject to overflow; therefore, impracticable to set post at this point. Continue N. 0° 2' E. to

81.25 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for witness cor. to cor. of secs. 15, 16, 21 and 22, marked on brass cap, 1913 on S. rim, W C N of center, T 5 S R 29 E in N. half; S 16 in NW., S 15 in NE., S 22 in SE., and S 21 in SW. quadrant, and raise a mound of stone, 2 ft. base, 1½ ft. high, west of cor. Pits impracticable.
 Land, level, hilly and mountainous.
 Soil, 2nd rate on river; 4th rate on slopes.
 No timber.
 Undergrowth, dense mesquite, catclaw and cacti.
 Mountainous land, 52 chs.

At 10h. a.m., l.m.t., I set off 32°59' N. on the lat. arc; 19°57½' S. on the decl. arc; and determine a meridian with the solar at the point for cor. of secs. 15, 16, 21 and 22.

Thence I run, N. 89°58' W., on a random line, bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

80.26 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 16, 17, 20 and 21, here in before described.

Thence I run, S. 89° 55' E., on a true line, bet. secs. 16 and 21. Through scattering undergrowth. Descend NE. slope, 345 ft. to

15.00 Gulch, course SE. Ascend SW. slope, 55 ft. to

19.00 Spur ridge, brs. S. Thence along broken S. slope, to

25.50 Gulch, course S. Ascend SW. slope, 120 ft. to

32.50 Ridge, brs. S. at foot of sandstone point, 60 ft. high. Descend broken east slope, 125 ft. to

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

18. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

1913 on S rim,
 $\frac{1}{4}$ S 16 in N., and
 S 21 in S. half;
 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.
 of cor. Pits impracticable.
 Descend E. slope, 80 ft. to
 42.75 Gulch, course SE. Ascend SW. slope, 15 ft.
 45.50 Spur ridge, brs. SE. Descend SE. slope, 55 ft. to
 51.70 Gulch, course S. Ascend SW. slope, 80 ft.
 57.25 Spur ridge, brs. SE. Descend broken SE. slope, 170 ft.
 70.25 Spur ridge, brs. SE. Descend broken SE. slope, 220 ft.
 74.00 Enter river bottom. Enter dense undergrowth, brs. NE
 and SW.
 80.26 True point for cor. of secs. 15, 16, 21 and 22, in San Fran-
 cisco River Bottom, 1.25 chs. S. $0^{\circ}2'$ W. of the wit-
 ness cor.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate.
 No timber, except cottonwood in river bottom.
 Undergrowth, dense greasewood, catclaw, mesquite and
 cacti.
 Mountainous land, 48 chs.
 Note: Absent from line at noon; did not make observa-
 tion for lat.

Jan. 21, 1914.

Jan. 29, 1914:

N. $0^{\circ}2'$ E., bet. secs. 15 and 16, from the witness cor. to
 cor. of secs. 15, 16, 21 and 22, measuring from true cor. pt.,
 which is 1.25 chs. S. $0^{\circ}2'$ W.,
 Ascend almost impassible cliffs, 425 ft. to
 12.24 Ridge, brs. NW and SE. Descend NE. slope, 140 ft. to
 20.00 Gulch, course SE. Ascend SW. slope, 185 ft.
 22.00 Spur ridge, brs. SE. Continue to ascend SW. slope.
 23.00 Gulch, course SE. Continue to ascend SW. slope.
 31.25 Spur ridge, brs. W. Descend slight NW. slope.
 35.50 Gulch, course SW. Ascend S. slope, 80 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S rim,
 $\frac{1}{4}$ S 16 in W., and
 S 15 in E. half;
 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
 west of cor. Pits impracticable.
 Continue to ascend S. slope, 145 ft. to
 47.20 Ridge, brs. NW and SE. Descend N. slope, 130 ft. to
 54.00 Gulch, course E. Ascend S. slope, 320 ft. to
 67.00 Ridge, brs. E. and W. Descend NE. slope, 100 ft. to
 74.50 Gulch, course E. Ascend SE. slope, 110 ft. to
 80.00 High ridge, brs. E. and W. Set an iron post, 3 ft. long,
 2 ins. in diam., 24 ins. in the ground, for cor. of
 secs. 9, 10, 15 and 16, marked on brass cap,
 1913 on S rim,
 T. 5 S R 29 E in N. half;
 S 9 in NW.,
 S 10 in NE.,
 S 15 in SE., and
 S 16 in SW. quadrant;
 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, west
 of cor. Pits impracticable.
 Land, rolling, hilly and mountainous.
 Soil, very rocky, 4th rate.
 No timber.
 Undergrowth, dense greasewood, mesquite, catclaw and cacti.
 Mountainous land, 70 chs.

Jan. 29, 1914.

Partial Subdivision of Township 5 South, Range 29 East. 19.

Chains.

Jan. 16, 1914: At 7h. 55m. a.m., l.m.t., I set off $32^{\circ} 56\frac{1}{2}'$ N. on the lat. arc; $20^{\circ} 58\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar, at the true point for standard cor. of secs. 34 and 35, on south bdy. of Tp. (1st. Stand. Par. South), which is 1 ch. east of the witness cor., which is cor. of secs. 34 and 35, a stone 12x10x8 ins. above ground, marked and witnessed as described by the Surveyor General.

Thence I run, from true cor. point, $N. 0^{\circ} 2' E.$, bet. secs. 34 and 35.

Descend in wash.

0.70 Leave wash, course N. $25^{\circ} E.$ Thence along east slope, through dense undergrowth.

7.00 Spur ridge, brs. NE and SW. Descend slight N. slope.

9.00 Box canyon, 1 ch. wide, 20 ft. deep, course E. Ascend SE. slope, 215 ft. to

25.00 Ridge, brs. NE and SW. Descend NW. slope, 245 ft.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 34 in W., and S 35 in E. half; from which, A cedar, 6 ins. in diam., brs. N. $67\frac{1}{2}^{\circ} E.$, 123 lks. dist., marked $\frac{1}{4}$ S 35 B. T.

No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, west of cor. Pits impracticable.

41.00 Gulch, course NE. Ascend SE. slope, 100 ft. to

50.50 Ridge, brs. NE and SW. Descend NE. slope, 80 ft. to

55.00 Gulch, course NE. Ascend SE. slope, 55 ft. to

61.00 Spur ridge, brs. SE. Descend NW. slope, 165 ft. to

70.32 South bank of deep box canyon, course NE. Impossible to chain across; therefore, take stadia measurement to rod on line on N. bank, Rod reading (mean of three) 0.835 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Level. The dist. on sec. line to rod is therefore, 0.835×2 plus .016 = 1.69 chs., which added to 70.32 chs. =

72.01 Rod point on N. bank of canyon; ascend SE. slope, 25 ft.

74.00 Spur ridge, brs. E. Descend NE. slope, 130 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 26, 27, 34 and 35, marked on brass cap, 1913 on S. rim, T 5 S R 29 E in N. half; S 27 in NW., S 26 in NE., S 35 in SE., and S 34 in SW. quadrant; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, west of cor. Pits impracticable.

Note: At this corner, Jan. 16, 1914, I set off $20^{\circ} 58' S.$ on the decl. arc; and at apparent noon, I observe the sun on the meridian; the resulting lat. is $32^{\circ} 57\frac{1}{2}' N.$

Land, rolling, hilly and mountainous.

Soil, very rocky, 4th rate,

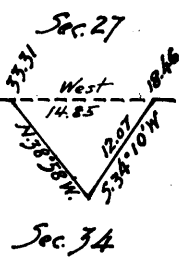
Timber, none.

Undergrowth, mesquite, catclaw and cacti.

Mountainous land, 60 chs.

Jan. 14, 1914.

18.46 West, on a random line, bet. secs. 27 and 34. Impossible to chain from here, because of deep box canyon. Set a flag on line, on west bank of canyon; then from 18.46 chs. station measure a base line S. $34^{\circ} 10' W.$, 12.07 chs., from the SW. end of which the flag brs. N. $38^{\circ} 58' W.$ A longer base could not be secured. The distance across is obtained from the following:



20. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

$\frac{\sin. 73^{\circ} 08' \times 12.07}{\sin. 51^{\circ} 02'}$ = 14.85 chs., which added to 18.46 chs. =

33.31 Flag point on west bank of canyon.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.99 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 27, 28, 33 and 34, hereinbefore described.
 Thence I run,
 N. $89^{\circ} 57'$ E. on a true line, bet. secs. 27 and 34.
 Ascend rolling NW. slope, 335 ft. to
 20.00 Ridge, brs. NE. and SW. Descend SE. slope, 240 ft.
 22.90 Old wagon road, brs. NE. and SW.
 25.00 Spur ridge, brs. SE. Continue to descend SE. slope.
 33.50 Gulch, course SE. Ascend SW. slope, 35 ft. to
 39.995 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 27 in N., and S 34 in S. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 Ascend SW. slope, 20 ft. to
 46.68 West bank of box canyon, course N.
 61.53 Ridge, brs. N. and S. East bank of box canyon. Descend SE. slope, 270 ft. to
 73.40 Canyon, course NE. Ascend NW. slope, 95 ft. to
 79.99 The cor. of secs. 26, 27, 34 and 35.
 Land, hilly and mountainous.
 Soil, very rocky, 4th rate,
 No timber.
 Undergrowth, dense mesquite, catclaw and cacti.
 Mountainous land, 62 chs.

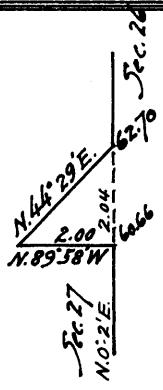
Jan. 14, 1914.

 Jan. 16, 1914:
 N. $0^{\circ} 2'$ E., bet. secs. 26 and 27.
 Through scattering timber and dense undergrowth. Descend NW. slope, 175 ft. to
 5.40 Gulch, course NE. Ascend SE. slope, 45 ft. to
 14.40 Thence along east slope.
 25.20 Descend NE. slope, 170 ft.
 27.00 Mexican cabin, brs. E., and about 10 chs. dist.
 31.20 Canyon, 130 ft. deep, course E.
 33.20 Ascend steep south slope, 130 ft. to
 39.10 Ridge, brs. E. and W. Descend N. slope, 140 ft.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 27 in W., and S 26 in E half; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 44.83 Trail, brs. NW. and SE.
 45.40 Top of bluff at head of gulch, course N. Descend in gulch.
 49.00 Leave gulch.; ascend SE. slope.
 50.79 Wheel for raising water, brs. N. 74° E., about 5 chs. dist.
 50.80 Rock spur brs. E. Descend NE. slope.
 50.96 Wire fence brs. NW. and SE.
 51.54 Ditch at foot of bluff, 2 ft. wide, 18 ins. deep, course NW.
 51.90 Trail, brs. NW. and SE.
 52.25 Wire fence brs. NW. and SE. South edge of Gila River.
 53.40 North bank of Gila River, course W. Thence across river bottom.
 56.63 Wire fence, brs. NW. and SE.
 56.94 Wagon road brs. NW. and SE.
 60.66 To measure dist. over a cliff, from this point I measure off a base line, N. $89^{\circ} 58'$ W., 2.00 chs. from the west

Partial Subdivision of Township 5 South, Range 29 East, . 21.

Chains,

end of which a flag on line on top of cliff, brs. N.44° 29'E. The distance is given by the following:
 $\cot.44^\circ 27' \times 2 = 2.04$ chs., which added to
 60.66 chs. = 62.70 chs., flag point.
 From the west end of the measured base line,
 Hot Springs Hotel, Mrs. Geo. Sark, Prop., brs. N., about
 4 chs. dist.
 Bath house, brs. N. about 3 chs. dist.
 Hot well, brs. N. 9° W., about 3 chs. dist.
 Merenci Hot Springs, along Gila River, bear N. 66° W.,
 about 8 chs. dist. Temperature, 125° F. No indication
 of sulphur.



- 61.00 Road brs. E and W.
- 61.60 Foot of bluff, brs. NW. and SE., 60 ft. high. Discontinue chaining.
- 62.70 Flag point of triangulation described above; impossible to chain from here; therefore, I take stadia measurement across cliffs and canyon, course SW. Rod reading (mean of three) 2.070 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Angle of depression - 4°. The dist. on sec. line to instrument is therefore $2.070 \times 2 \times .9951$ plus .016 = 4.14 chs., which added to 62.70 chs. =
- 66.84 Instrument point. From this point, chaining is impossible over rocky points alongside of a broken zigzag canyon, course S. 20° W.; therefore, I take stadia measurement to rod on line on ridge. Rod reading (mean of three) 6.555 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Vertical angle plus 7°. The dist. on sec. line to rod is therefore, $6.555 \times 2 \times .9851$ plus .016 = 12.93 chs. which added to 66.84 chs. =
- 79.77 Rod point on ridge, brs. NE. and SW. Trail brs. NE. and SW. Descend NW. slope.
- 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 22, 23, 26 and 27, marked on brass cap,
 1913 on S. rim,
 T 5 S R 29 E in N. half;
 S 22 in NW.,
 S 23 in NE.,
 S 26 in SE., and
 S 27 in SW. quadrant;
 and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, west of cor. Pits impracticable.
 Land, rolling and mountainous.
 Soil, 2nd rate on river bottom; 4th rate on slopes.
 Timber, cottonwood, and mesquite along river bottom.
 Scattering cedar remainder of mile.
 Undergrowth, mesquite, catclaw, greasewood and cacti.
 Mountainous land, 48 chs.

Jan. 16, 1914,

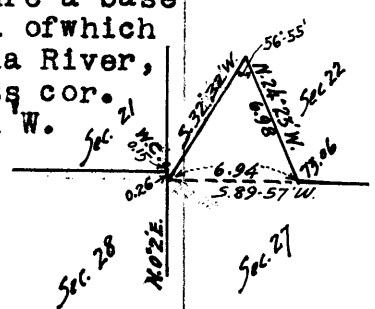
Jan. 21, 1914: At 7h. 30m., a.m., l.m.t., I set off 32° 58 1/2' N. on the latic; 19° 55 1/2' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

Thence I run, S. 89° 57' W., on a random line, bet. secs. 22 and 27.

40.00
73.06

Set temp. 1/4 sec. cor.
 East bank of Gila River. At this point, I measure a base line, N. 24° 23' W., 6.98 chs. from the NW. end of which a flag set on random line on west side of Gila River, at a point 41 lks. S. 0° 2' W. from the witness cor. to cor. of secs. 21, 22, 27 and 28, brs. S. 37° 32' W.

The distance is found from the following:
 $\frac{\sin. 56^\circ 55'}{\sin. 57^\circ 25'} \times 6.98 = 6.94$ chs.
 which added to 73.06 chs. =



22. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

80.00 Flag point. As this is 41 lks. S. $0^{\circ}2'W.$ of the witness cor. which is 15 lks. N. $0^{\circ}2'E.$ of true cor. point, the falling of the random line bet. secs. 22 and 27 is therefore, 41 lks. - 15 lks. = 26 lks. S. of the true point for cor. of secs. 21, 22, 27 and 28, hereinbefore described.

Thence I run,
S $89^{\circ}52'E.$ on a true line, bet. secs. 22 and 27.
Across river bottom, through dense undergrowth.

1.35 Trail, brs. NW and SE.
2.64 Trail, brs. NW and SE.
3.60 Gila River, 2 chs. wide, 2 ft. deep, course NW.
6.94 Bluff, 70 ft. high, brs. NW and SE. Ascend SW. slope, 100 ft. to

14.00 Spur ridge, brs. SW. Descend SE. slope, 40 ft. to
18.00 Gulch, course SW. Ascend NW. slope, 100 ft. to
24.00 Ridge, brs. NE and SW. Ascend SW. slope, 45 ft. to
32.00 Ridge, brs. N. and S. Descend SE. slope, 85 ft. to
35.75 Gulch, course S. Ascend SW. slope, 30 ft. to
38.00 Ridge, brs. N. and S. Descend E. slope, 35 ft. to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 22 in N., and S 27 in S. half;
and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, north of cor. Pits impracticable. Ascend.

43.00 Ridge, brs. NW and SE. Descend NE. slope, 45 ft. to
45.80 Gulch, course SE. Ascend SW. slope, 100 ft. to
49.50 Rock spur, brs. SE. Descend E. slope, 50 ft. to
51.75 Gulch, course S. Ascend west slope, 95 ft. to
55.50 Ridge, brs. N. and S. Descend east slope, 110 ft. to
61.00 Gulch, course S. Ascend 55 ft. to
62.50 Spur ridge, brs. S. Trail, brs. NE and SW. Descend NE. slope, 75 ft. to
67.00 Gulch, course SE. Ascend to
70.15 Spur ridge, brs. SW. Descend SE. slope, to
74.00 Canyon, course SE. Ascend NW. slope, to
78.00 Spur ridge, brs. NW. Descend NW. slope to
80.00 The cor. of secs. 22, 23, 27 and 28.
Land, hilly and mountainous. ²⁶
Soil, rocky, 4th rate.
No timber.
Undergrowth, dense greasewood, catclaw, mesquite and cacti.
Mountainous land, 60 chs.

Jan. 21, 1914/

Jan. 23, 1914:

At 8h. 55m. a.m., l.m.t., I set off $19^{\circ}30'S.$ on the decl. arc; $32^{\circ}58\frac{1}{2}'N.$ on the lat. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27, hereinbefore described.

Thence I run,

N. $0^{\circ}2'E.$, bet. secs. 22 and 23.

Over rolling land, through scattering timber and dense undergrowth. Ascend.

1.50 Spur ridge, brs. W. Descend NW. slope, 25 ft. to
7.00 Gulch, course SW. Ascend SE. slope, 180 ft. to
34.00 Gulch, course SE. Ascend S. slope, 160 ft. to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 22 in W., and S 23 in E. half;
and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Partial Subdivision of Township 5 South, Range 29 East. 23.

Chains.

41.00 Ridge, brs. E and W. Descend N. slope, on spur ridge, 230 ft. to
 50.00 Gulch, course NW. Ascend SW. slope, 50 ft. to
 55.40 Spur ridge, brs. E. Descend NW. slope, 50 ft. to
 58.50 Gulch, course W. Ascend S. slope, 155 ft. to
 65.50 Ridge, brs. E and W. Descend NE. slope, 160 ft. to
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, marked on brass cap,
 1913 on S. rim,
 T 5 S R. 29 E in N. half;
 S 15 in NW.,
 S 14 in NE.,
 S 23 in SE., and
 S 22 in SW. quadrant;
 and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, west of cor. Pits impracticable.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate,
 Timber, very scattering cedar.
 Undergrowth, dense greasewood, catclaw, mesquite and cacti.
 Mountainous land, 56 chs.
 Jan. 23, 1914.

Jan. 29, 1914: At 9h. 55m. a.m., l.m.t., I set off 32°59' N. on the lat. arc; 18°00' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23, above described.

40.00 Thence I run,
 79.92 N. 89°52' W., on a random line, bet. secs. 15 and 22. Set temp. 1/4 sec. cor.
 Intersect N. and S. line, 1.48 chs. south of the witness cor. to cor. of secs. 15, 16, 21 and 22, which is 1.25 chs. N. 0°2' E. of the true cor. pt. The falling of the random line bet. secs. 15 and 22, is therefore 1.48 chs. - 1.25 chs. = 23 lks. south of the true cor. point, hereinbefore described.

Thence I run,
 S. 89° 42' E., on a true line, bet. secs. 15 and 22.
 In dry bed of San Francisco River, through dense undergrowth.

4.95 Leave river bottom, course NW.; ascend SW. slope, to
 6.50 Spur ridge, brs. SE. Ascend SW. slope, 65 ft. to
 19.34 Ridge, brs. NW. and SE. Descend east slope, 90 ft. to
 21.72 Box canyon, course SE. Ascend slight SW. slope, 55 ft. to
 34.90 Ridge, brs. NW. and SE. Descend E. slope, 80 ft. to
 38.40 Gulch, course SE. Ascend SW. slope, 30 ft.
 39.96 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

1913 on S. rim,
 1/4 S 15 in N., and
 S 22 in S. half;
 and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, north of cor. Pits impracticable.

42.00 Thence along south slope.
 44.00 Descend SE. slope, 160 ft.
 52.00 Descend E. slope.
 54.92 Wagon road, brs. N. to Clifton, and S. to Solomonsville.
 56.00 West bank of San Francisco River, 150 fks. wide, 2 ft. deep, course SW.
 57.50 East bank of river. Ascend NW. slope, to
 59.35 Ridge, brs. NE. and SW. Thence across broken N. slope.
 79.92 The cor. of secs. 14, 15, 22 and 23.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate on slopes; 2nd rate along river.
 Timber, none. Undergrowth, mesquite, catclaw, greasewood and cacti. Mountainous land, 46 chs.
 Jan. 29, 1914.

24. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

Jan. 26, 1914.
 N.0°2'E., bet. secs.14 and 15.
 Through dense undergrowth. Descend NE slope, 55 ft. to
 Gulch, course NW. Ascend SW slope, 50 ft. to
 Spur ridge, brs.W. Descend NW slope, 10 ft. to
 Gulch, course W. Ascend SW slope, 115 ft. to
 Ridge, brs.E and W. Descend NW slope, 40 ft. to
 Precipitous descent, 320 ft., brs. E and W.
 Foot of bluff; thence along San Francisco River bottom.
 Wagon road brs.E and W.
 San Francisco River, 150 lks.wide, 2 ft. deep, course NW.
 Leave river bottom; asc. broken SE slope 100 ft. to
 Spur ridge, brs. E. Impossible to chain across deep box
 canyon, course SE. Therefore, I take stadia measure-
 ment to rod on sec.line on N.side of canyon. Rod read-
 ing, (mean of three) 7.927 ft. Ratio, 1 ft. = 2 chs.
 Focal constant, 1.025 ft. Vertical angle plus 9°30'.
 The dist.on sec.line to rod is therefore, $7.927 \times 2 \times$
 $.9728$ plus $.016 = 15.44$ chs., which added to 31.25 chs.
 $= 46.69$ chs. rod point. As the true point for $\frac{1}{4}$ sec.
 cor. is inaccessible, to locate witness cor.as near
 to cor.point as practical, I return by chain measurement
 on sec.line
 S.0°2'W., 1.59 chs. from rod point at 46.69 chs. pt. to
 45.10 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for witness cor.to $\frac{1}{4}$ sec.cor., marked on brass
 cap,
 1913 on S.rim,
 W C $\frac{1}{4}$ in N.half;
 S 14 in SE., and
 S 15 in SW quadrant;
 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
 west of cor. Pits impracticable.
 Thence I run,
 N.0°2'E., bet. secs.14 and 15, continuing measurement from
 cor.of secs. 14,15,22 and 23.
 Ascend SW slope.
 45.30 Trail brs. NW and SE. Thence over rolling land; ascend.
 46.69 Rod point on ridge, brs.NW and SE. Descend NE slope, 25
 ft. to
 55.68 Gulch, course SE. Ascend SW slope, 65 ft. to
 60.66 Ridge, brs.NW and SE. Descend gentle NE slope, to
 67.66 Gulch, course E.; ascend.
 69.16 Spur ridge, brs.E. Descend NE slope, 65 ft. to
 72.10 Gulch, course E. Ascend SE slope, 50 ft. to
 77.65 Spur ridge, brs.E. Descend N. slope, 60 ft. to
 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs. 10,11, 14 and 15, marked
 on brass cap,
 1913 on S.rim,
 T 5 S R 29 E in N.half;
 S 10 in NW.,
 S 11 in NE.,
 S 14 in SE.; and
 S 15 in SW. quadrant; from which,
 A cedar, 8 ins. in diam., brs.N. $42\frac{1}{2}$ °W., 97
 lks.dist., marked T 5 S R 29 E S 10 BT.
 No other trees within limits. Raise a mound of stone 2
 ft.base, $1\frac{1}{2}$ ft. high, west of cor. Pits impracticable.
 Land, mountainous and hilly.
 Soil, very rocky, 4th rate.
 Timber, very scattering cedar.
 Undergrowth, dense greasewood, catclaw and cacti.
 Mountainous land, 58 chs.
 Jan. 26, 1914.

Partial Subdivision of Township 5 South, Range 29 East 25.

Chains.

Jan. 29, 1914:
 N. 89°42'W., on a random line, bet. secs.10 and 15.
 40.00 Set temp. ¼ sec.cor.
 79.92 Intersect N. and S. line, 33 lks.N. of the cor. of secs. 9,10,
 15 and 16, hereinbefore described.
 Thence I run,
 S.89°56'E., on a true line, bet. secs-10 and 15.
 Along ridge, brs.E. and W., through dense undergrowth, and
 scattering timber.
 2.00 Descend slight SE. slope.
 7.00 Spur ridge, brs. SE. Descend NE. slope, 290 ft.
 27.00 Spur ridge, brs. NE. Descend E. slope.
 27.50 Gulch, course NE. Thence along north slope.
 35.00 Spur ridge, brs. NE. Descend E. slope, 105 ft.
 39.96 Set an iron post, 1 in. long, in diam., 26 ins. in the ground,
 for ¼ sec.cor., marked on brass cap,
 1913 on S.rim,
 ¼ S 10 in N., and
 S 15 in S.half;
 and raise a mound of stone, 2 ft. base, 1½ ft. high, N.
 of corner. Pits impracticable.
 41.80 Gulch, course NE. Descend NE. slope, 65 ft.to
 47.30 Gulch, course SE. Ascend SW. slope, 190 ft.
 55.70 Gulch, course SW. Ascend SW. slope.
 61.90 Ridge, brs. NW and SE. Descend NE. slope, 140 ft.to
 69.90 Wash, course N.E. Thence along N. slope.
 77.00 Descend NE. slope, 130 ft.to
 79.92 The cor. of secs. 10,11,14 and 15.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate.
 Timber, very scattering cedar.
 Undergrowth, dense greasewood, mesquite, catclaw and cacti.
 Mountainous land, 44 chs.

Jan.29, 1914.

Jan. 27, 1914: At 2h. 5m. p.m., l.m.t., I set off 33°00'N.
 on the lat.arc; 18°28½' S. on the decl.arc; and de-
 termine a meridian with the solar at the cor. of secs.
 10,11,14 and 15, hereinbefore described.
 Thence I run,
 N.0°2'E., bet. secs.10 and 11.
 Through scattering undergrowth. Descend NE. slope, 10
 ft.to
 1.50 Gulch, course SE. Ascend S. slope, 55 ft.to
 3.65 Spur ridge, brs. SE. Thence along east slope.
 9.00 Descend NE. slope, 70 ft.to
 15.00 Box canyon, course SE. Ascend SW. slope.
 24.00 Gulch, course SW. Ascend SW. slope, 255 ft.to
 35.00 Ridge, brs. NW. and SE. Thence along east slope.
 36.50 Trail, brs. NW. and SE.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for ¼ sec.cor., marked on brass cap,
 1913 on S.rim,
 ¼ S 10 in W., and
 S 11 in E. half;
 and raise a mound of stone, 2 ft. base, 1½ ft. high, W.
 of corner. Pits impracticable.
 Thence along east slope.
 42.00 Ascend slight SE. slope, 75 ft.to
 54.00 Descend NE. slope, 45 ft.to
 58.00 Gulch, course E. Ascend SE. slope, 85 ft.to
 74.00 Gulch, course E. Ascend SE. slope, 100 ft.to
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 2,3, 10 and 11, marked
 on brass cap,
 1913 on S.rim,
 T 5 S R 29 E in N.half;
 S 3 in NW.,
 S 2 in NE.,

26. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

S 11 in SE., and
S 10 in SW. quadrant;
and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.
of corner. Pits impracticable.

Land, rolling, hilly and mountainous.

Soil, rocky, 4th rat.

No timber.

Undergrowth, scattering greasewood, mesquite, catclaw and
cacti. Mountainous land, 32 chs.

Note: The sky was overcast at noon, making an observation
for latitude impossible.

Jan. 27, 1914.

Jan. 29, 1914:

N. $0^{\circ}2'$ E., on a random line, bet. secs. 2 and 3.

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

80.26 Intersect N. bdy. of Tp., 26 lks. west of the cor. of secs.
2, 3, 34 and 35, established by me, as described in Book
"A."

Thence I run,

S. $0^{\circ}13'$ W., on a true line, bet. secs. 2 and 3.

Through dense undergrowth. Ascend NE. slope, 55 ft. to

13.00 Spur ridge, brs. E. Descend SE. slope, 60 ft. to

17.00 Gulch, course E. Ascend NE. slope, 135 ft. to

21.85 Spur ridge, brs. E. Continue to ascend NE. slope, to

27.75 Ridge, brs. NW. and SE. Descend SW. slope, 170 ft. to

36.75 Gulch, course SE. Ascend NE. slope, 50 ft.

40.26 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

1913 on S. rim,

$\frac{1}{4}$ S 3 in W., and

S 2 in E. half;

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of
corner. Pits impracticable.

41.06 Ridge, brs. NW. and SE. Descend S. slope, 75 ft. to

44.55 Gulch, course SE. Ascend NE. slope, 150 ft. to

47.65 Ridge, brs. NW. and SE. Descend SW. slope, 215 ft. to

61.30 Gulch, course SE. Ascend NE. slope, 50 ft. to

80.26 The cor. of secs. 2, 3, 10 and 11.

Land, rolling, hilly and mountainous.

Soil, very rocky, 4th rate.

No timber.

Undergrowth, dense greasewood, catclaw, mesquite, and
cacti.

Mountainous land, 50 chs.

Jan. 29, 1914.

Jan. 17, 1914: At 8h. 32m., a.m., l.m.t., I set off off.
 $32^{\circ}56\frac{1}{2}'$ N. on the lat. arc; $20^{\circ}47'$ S. on the decl. arc;
and determine a meridian with the solar at the stand.
cor. of secs. 35 and 36, on south bdy. of Tp. (1st. Stand.
Parallel S.) reestablished by me, as described in
Book "B."

Thence I run,

N. $0^{\circ}3'$ E., bet. secs. 35 and 36.

Through scattering undergrowth. Descend NE. slope, 285
ft. to

26.90 Gulch, course E. Ascend SE. slope, 80 ft. to

37.00 Thence along east slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ind. in
the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

1913 on S. rim,

$\frac{1}{4}$ S 35 in W., and

S 36 in SE. half;

and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.
of cor. Pits impracticable.

Partial Subdivision of Township 5 South, Range 29 East. 27.

Chains.

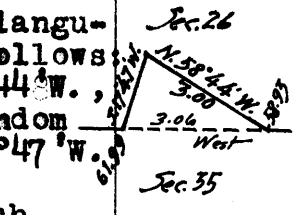
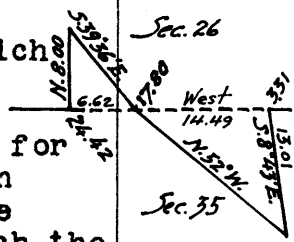
42.00 Descend NE slope, 45 ft. to
 Draw, course E. Ascend SE slope, 70 ft. to
 51.00 Ridge, brs. NE and SW. Descend slight NE slope, 165 ft. to,
 70.00 Thence along east slope.
 76.90 Trail, brs. NE and SW.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, marked on brass cap,
 1913 on S rim,
 T 5 S R 29 E in N. half;
 S 26 in NW.
 S 25 in NE.,
 S 36 in SE., and
 S 35 in SW. quadrant;
 and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of corner. Pits impracticable.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4h rate.
 No timber.
 Undergrowth, scattering mesquite, catclaw and cacti.
 Mountainous land, 32 chs.
 Jan. 17, 1914.

Jan. 16, 1914:
 West, on a random line, bet. secs. 26 and 35.
 3.31 East edge of deep box canyon, course N. Impossible to chain. Triangulate distance to a flag set on line on west side of canyon, as follows: From 3.31 ch. station, I measure a base line, S. 8° 43' E., 13.01 chs. to a point from which the flag brs. N. 52° W. Distance across is given from the following:

$$\frac{\sin 43^\circ 17' \times 13.01}{\sin 38^\circ} = 14.49 \text{ chs.}, \text{ which}$$
 added to 3.31 chs. =
 17.80 Flag point on spur ridge, brs. NE. Leave flag here for triangulation across Gila River. From a point on right bank of Gila River, west of flag, I measure a base line, north, 8.00 chs. to a point from which the flag brs. S. 39° 36' E. The dist. on random line from flag point on spur ridge, on left bank to my triangulation point on right bank of Gila River is therefore,

$$\tan 39^\circ 36' \times 8.00 = 6.62 \text{ chs.}, \text{ which added to } 17.80 \text{ chs.} =$$
 24.42 Triangulation point on right bank of Gila River. Thence by chain measurement,
 40.00 Set temp. sec. cor.
 58.93 Point on sand bar, on right bank of Gila River. Triangulate the dist. on random line across river, as follows: From 58.93 ch. station, I measure a base line N. 58° 44' W., 3.00 chs. to a point from which a flag set on random line on the left bank of the Gila River brs. S. 17° 47' W. The distance across is found from the following:

$$\frac{\sin 76^\circ 31' \times 3.00}{\sin 72^\circ 13'} = 3.06 \text{ chs.}, \text{ which}$$
 added to 58.93 chs. =
 61.99 Flag point on left bank of Gila River. Thence by chain measurement,
 80.05 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 26, 27, 34 and 35, hereinbefore described. Thence I run,
 N. 89° 58' E. on a true line, bet. secs. 26 and 35. Through scattering undergrowth.
 1.30 Spur ridge, brs. NE. Descend SE. slope, 195 ft.
 8.05 Gulch, course NE. Ascend NW slope.
 11.00 Spur ridge, brs. NE. Descend NE slope, 190 ft.
 18.00 Left bank of Gila River.
 Trail, brs. NW and SE.



28. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

- 18.30 Gila River, 250 lks.wide, 3 ft. deep, course NW.
 21.00 Right bank of Gila River; ascend SW. slope, 30 ft.
 25.00 Leave river bottom; thence along rocky broken south slope.
 40.025 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, 1913 on S.rim, $\frac{1}{4}$ S 26 in N., and S 35 in S.half; from which, A cottonwood, 14 ins. in diam., brs.S.41°E., 206 lks.dist., marked $\frac{1}{4}$ S 35 B T.
 No other trees within limits; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, north of cor. Pits impracticable.
 Mexican cabin, brs.S. 7°W., about 10 chs.dist.
 45.00 Enter river bottom, brs.NE and SW.
 45.75 Trail, brs.NE and SW.
 52.25 Dry channel of river, course SW.
 56.00 Right bank of Gila River, 1 ch. wide, 4 ft.deep, muddy water, course SW.
 57.00 Left bank of Gila River; ascend.
 62.20 Spur ridge, brs.NE. Descend into deep box canyon.
 65.00 (Approx.) Gulch, course N. in bottom of canyon; ascend.
 76.80 Ridge, brs.N.and S. Descend E. slope, 45 ft.to
 80.05 The cor.of secs.25,26, 35 and 36.
 Land, level, rolling, hilly and mountainous.
 Soil, rocky, 4th rate on slopes; 2nd rate along river.
 No timber, except cottonwood and mesquite along river.
 Undergrowth, scattering mesquite and catclaw.
 Mountainous land, 60 chs.

Jan. 16, 1914.

Jan. 19, 1914. At 8h. 7m. a.m., l.m.t., I set off $32^{\circ}57\frac{1}{2}'$ N. on the lat.arc; $20^{\circ}23'S$. on the decl.arc; and determine a meridian with the solar, at the cor.of secs. 25,26, 35 and 36, hereinbefore described.

Thence I run,

East, on a true line, bet. secs.25 and 36.

Through scattering undergrowth. Descend east slope, 80 ft.to

- 4.75 Gulch, course NE. Ascend NW. slope, 40 ft.to
 9.00 Spur ridge, brs.N. Descend E. slope, 40 ft.to
 11.50 Gulch, course N. Ascend NW. slope, 90 ft.to
 19.00 Ridge, brs.NE and SW. Descend E. slope, 100 ft.to
 24.20 Gulch, course NE.; ascend.
 28.00 Spur ridge, brs.N.; descend.
 32.00 Gulch, course N. Ascend west slope, 85 ft.to
 35.75 Ridge, brs.NE. and SE. Descend E. slope, 50 ft.
 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, 1913 on S rim, $\frac{1}{4}$ S 25 on N., and S 36 in S.half; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, N.of cor. Pits impracticable.
 40.75 Gulch, course NE. Ascend NW. slope, 80 ft.to
 49.00 Spur ridge, brs.N.; descend.
 51.00 Head of draw, course NW.; ascend.
 53.00 Ridge, brs.NE and SW. Descend E. slope, 75 ft.to
 62.00 Gulch, course N. Ascend W. slope, 60 ft.to
 69.00 Ridge, brs.N.and S. Descend E. slope, 50 ft.to
 73.80 Box canyon, course N. Ascend SW. slope, 70 ft.to
 79.00 Thence along level mesa.
 89.00 Descend east slope of canyon, 100 ft.to
 91.60 Canyon, course NE. Ascend NW. slope, 75 ft.to
 101.00 Spur ridge, brs.N. Descend E. slope, 65 ft.to
 105.00 Gulch, course N. Ascend SW. slope, 35 ft.to

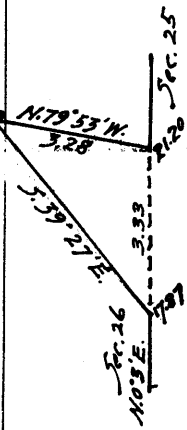
Partial Subdivision of Township 5 South, Range 29 East. 29.

Chains.

109.00 Spur ridge, brs.N. Descend slight NE. slope, 20 ft.
 111.05 Trail, brs.N. and S.
 115.06 Gulch, course NW. Point for closing cor. of secs. 25 and 36, from which point the original cor. of secs. 25, 30, 31 and 36, on east bdy. of Tp. (5th. Guide Meridian East) which is a stone, 12x8x2 ins. above ground, marked and witnessed as described by the Surveyor General, brs.N. 7.90 chs. dist. Change old cor. to refer to secs. 30 and 31 of T. 5 S., R. 30 E. only. Return west to
 114.20 And set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for witness cor. to closing cor. of secs. 25 and 36, marked on brass cap,
 1913 on S. rim,
 W C C C E of center,
 T 5 S in N. half;
 S 30, S 31, E 30 E in E. half;
 S 25 in NW., and
 S 36 R 29 E in SW. quadrant;
 and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of corner. Pits impracticable.
 Land, mountainous and hilly.
 Soil, rocky, 4th rat.
 No timber.
 Undergrowth, greasewood, mesquite, and catclaw.
 Mountainous land, 74 chs.

 From the cor. of secs. 25, 26, 35 and 36, I run, N. 0° 3' E., bet. secs. 25 and 26. Descend NE. slope, 275 ft., through dense undergrowth.
 3.00 Trail, brs. NW and SE.
 7.44 Cabin, brs. N: 43° W.
 Water wheel, brs. N. 39° W.
 Cabin north of river, brs. N. 15 1/2° W.
 Water wheel brs. N. 27 1/2° E.
 13.00 Descend in draw, course N.
 14.60 Wire fence, brs. E. and W.
 16.00 Enter Gila River bottom, brs. E. and W.
 17.87 Wire fence brs. E. and W. Leave flag on line at this point for triangulation across Gila River.
 18.64 Wagon road, brs. E. and W.
 19.55 Left edge of water in Gila River, course W., about 3 ft. deep. Obtain width of stream by triangulation, as follows: From a point on line on right side of river, I measure a base line, N. 79° 53' W., 3.28 chs. to a point from which the flag on line at wire fence at 17.87 chs. station, brs. S. 39° 27' E.; therefore, the distance on sec. line is found from the following:

$$\frac{\sin 40^\circ 26'}{\sin 39^\circ 30'} \times 3.28 = 3.33 \text{ chs. which added to } 17.87 \text{ chs.} = 21.20 \text{ chs. Triangulation point.}$$
 From the west end of measured base line, a Mexican cabin brs. S. 52° W., and from the same point, Water wheel on right side of river, in sec. 25, brs. E.
 From the triangulation point on sec. line at 21.20 chs. station, I return on sec. line, S. 0° 3' W., 40 lks. to
 20.80 Right edge of water in Gila River. Therefore, the width of water is 20.80 - 19.55 = 1.25 chs.
 Thence I run, N. 0° 3' E., continuing measurement from the cor. of secs. 25, 26, 35 and 36.
 21.00 Enter cultivated land.
 23.85 Irrigation ditch, course NW.
 24.00 Foot of bluff, brs. NW and SE.
 25.39 Top of bluff. Ascend SW. slope, 90 ft.
 32.04 Cabin brs. S. 30° W.
 Cabin brs. S. 53° W.
 Cabin brs. S. 54° W.
 Water wheel brs. S. 81° W.



30. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

- 33.00 Spur ridge, brs. NW. Descend N. slope, 80 ft. to
 34.40 Trail, brs. E. and W. Thence along broken west slope.
 40.00 Point for $\frac{1}{4}$ sec. cor. falls on precipice, where it cannot be
 established.
 41.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for witness cor. to $\frac{1}{4}$ sec. cor., marked on
 brass cap,
 1913 on S rim,
 W $C\frac{1}{4}$ in N. half;
 S 25 in SE, and
 S 26 in SW. quadrant;
 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
 west of corner. Pits impracticable.
 Along broken west slope.
 52.00 Gulch, course SW. Ascend broken SE. slope, 80 ft. to
 58.00 Gulch, course SW. Continue to ascend SE. slope, 70 ft. to
 62.00 Spur ridge, brs. SE. Descend NE. slope, 65 ft. to
 66.50 Gulch, course SE. Ascend SW. slope, 175 ft.
 68.00 Ascend on ridge, brs. N. and S.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 23, 24, 25 and 26, marked
 on brass cap,
 1913 on S rim,
 T 5 S R 29 E in N. half;
 S 23 in NW.,
 S 24 in NE.,
 S 25 in SE., and
 S 26 in SW. quadrant;
 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W
 of corner. Pits impracticable.
 Land, mountainous and hilly.
 Soil, 1st rate on river; rest of mile, rocky, 4th rate.
 Timber, cottonwood on river.
 Undergrowth, dense greasewood, mesquite, catclaw, and cacti.
 Mountainous land, 65 chs.
 Note: The sky was overcast at noon, making an observa-
 tion for alt. impossible.
 Jan. 19, 1914.

- Jan. 23, 1914:
 S. $89^{\circ} 58'$ W., on a random line, bet. secs. 23 and 26.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.90 Intersect N. and S. line, at the cor. of secs. 22, 23, 26 and
 27, hereinbefore described.
 Thence I run;
 N. $89^{\circ} 58'$ E., on a true line, bet. secs. 23 and 26.
 Ascend NW. slope, 56 ft.
 Through dense undergrowth. Ascend NW. slope, 50 ft.
 0.80 Trail, brs. NE and SW.
 4.25 Ridge, brs. N. and S. Descend east slope, 90 ft. to
 8.10 Gulch, course S. Thence along broken S. slope, to
 13.70 Gulch, course SW. Ascend NW. slope, 55 ft. to
 18.60 Ridge, brs. NE. and SW. Descend SE. slope, 40 ft. to
 22.75 Gulch, course SW. Ascend broken SW. slope, 270 ft.
 39.95 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S rim,
 $\frac{1}{4}$ S 23 in N., and
 S 26 in S. half;
 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N.
 of corner. Pits impracticable.
 42.50 Ridge, brs. NW and SE. Thence along N. slope, to
 47.90 Head of gulch, course NW. Ascend NW. slope, 60 ft. to
 51.85 Ridge, brs. NE. and SW. Descend SE. slope, 40 ft.
 52.00 Telephone line (in course of construction) brs. NE and SW.

Page 2772

Partial Subdivision of Township 5 South, Range 29 East, 31.

Chains.	
53.00	House brs.S 3°W., about 40 chs.dist.
60.60	Ridge, brs. N.and S. Descend NE slope, 145 ft.to
72.00	Gulch, course S. Ascend SW. slope, 90 ft.to
79.90	The cor.of secs.23,24, 25 and 26. Note: At this cor. Jan.23, 1914, I set off 19° 29'S.on the decl. arc; and at apparent noon, I observe the sun on the meridian; the resulting latis 32° 58½'N. Land, hilly and mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, dense greasewood, catclaw, mesquite and cacti. Mountainous land, 60 chs. Jan.23,1914.

	Jan. 24, 1914: East, on a true line, bet. secs.24 and 25. Through dense undergrowth; descend east slope, 70 ft.to
4.75	Gulch, course SE. Ascend W. slope, 15 ft.to
7.00	Spur brs.S. Descend SE.slope, 45 ft.to
9.75	Gulch, course SW. Ascend west slope, 45 ft.to
12.50	Ridge, brs.N.and S. Trail, brs.N.and S. on ridge. Descend east slope, 45 ft.to
18.00	Gulch, course SE. Thence along south slope.
24.00	Ridge, brs.NW and SE. Descend east slope, 60 ft.to
28.00	Gulch, course SE. Thence along south slope.
33.50	Gulch, course S. Ascend SW. slope, 15 ft.to
38.00	Ridge, brs.N.and S. Descend SE slope, 40 ft.
40.00	Set an iron post, 3 ft.long, 1 in.in diam., 26 ins. in the ground, for ¼ sec.cor., marked on brass cap, 1913 on S.rim, ¼ S 24 in N., and S 25 in S.half; and raise a mound of stone 2 ft.base, 1½ ft. high,N. of cor. Pits impracticable.
40.75	Spur ridge brs.S.
42.00	Ridge, brs.NW and SE. Descend east slope, 75 ft.to
48.00	Gulch, course SE. Thence along slight south slope.
50.75	Trail, brs. NE and SW.
53.00	Low ridge, brs:NW and SE. Descend gradually.
54.10	Wagon road, brs.N and S.
57.00	Gulch, course SE. Ascend SW. slope, 15 ft.to
59.00	Ridge, brs.SE and NW. Thence along N. slope.
62.00	Ascend NW slope, 15 ft.to
63.00	Thence along ridge, brs.E.and W.
74.00	Descend NE slope, 40 ft.to
79.00	Gulch, course S. Ascend W. slope, 20 ft.to
81.50	Ridge, brs.N.and S. Descend east slope, 20 ft.to
84.00	Gulch, course S. Trail in gulch, brs.N and S. Ascend W. slope, 30 ft.to
85.50	Spur ridge, brs. S. Descend.
87.00	Gulch, course.SW. Ascend W. slope, 70 ft.to
92.00	Ridge, brs.NE and SW. Descend SE slope, 25 ft.to
94.00	Gulch, course SW. Ascend W. slope, 90 ft.to
100.00	Ridge, brs.N.and S. Old road brs.N.and S. on ridge. Descend E. slope,30 ft.to
105.50	Gulch, course S. Ascend SW. slope, 15 ft.to
107.00	Ridge, brs.N and S. Descend E. slope, 15 ft.to
109.25	Gulch, course.S. Thence over rolling land.
112.00	Ridge, brs.NW and SE. Descend NE slope, 30 ft.to
115.27	Intersect the east bdy.of Tp. (5th.Guide Meridian East) 8.01 chs.south of the original cor. of secs.19,24,25 and 30, which is a boulder, 12x8x6 ins. above ground, marked and witnessed as described by the Surveyor General. I alter this old cor. to refer to secs. 19 and 30 of T5 S.,R.30 E. only, by building the mound of stone on the east. At point of intersection, I Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 24 and 25, marked

32. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

on brass cap,
 1913 on S rim,
 C C E. of center,
 T 5 S in N.,
 S 19, S 30, R 30 E in E. half;
 S 24 in NW., and
 S 25, R 29 E in SW. quadrant;
 and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W of
 cor. Pits impracticable.

Land, mountainous and hilly.
 Soil, very rocky, 4th rate,
 No timber.
 Undergrowth, dense greasewood, catclaw, mesquite and cacti.
 Mountainous land, 51 chs.

Jan. 24, 1914.

Jan. 26, 1914: At 7h. 55m. a.m. l.m.t., I set off 32°
 58 1/2' N. on the lat. arc; 18° 46 1/2' S. on the decl. arc; and
 determine a meridian with the solar at the cor. of
 secs. 23, 24, 25 and 26, hereinbefore described.

Thence I run,
 N. 0° 3' E., bet. secs. 23 and 24.
 Through very scattering undergrowth. On ridge, brs. N.
 and S.; ascend 85 ft. to

14.00 Ridge, brs. NW and SE. Thence along broken east slope.
 14.45 Telephone line (in course of construction), brs. E and W.
 14.55 Wagon road, brs. E and W.
 20.00 Wagon road brs. E and W.
 Descend NE slope, 55 ft. to
 23.75 Gulch, course E. Ascend S. slope, 70 ft. to
 27.70 Ridge, brs. E and W.
 37.50 Ridge, brs. E and W.
 40.00 Ridge, brs. NE and SW. Set an iron post 3 ft. long, 1 in.
 in diam., 26 ins. in the ground, for 1/4 sec. cor., marked
 on brass cap,

1913 on S rim,
 1/4 S 23 in W., and
 S 24 in E. half;
 and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W
 of corner. Pits impracticable.

45.00 Descend NW. slope, 265 ft. to
 Gulch, course SW. Ascend SE. slope, to
 51.00 Gulch, course SE. Ascend SE. slope, to
 68.00 Ridge, brs. NE and SW. Descend NW. slope, 140 ft. to
 72.25 Spur ridge, brs. NW and SE. Descend N. slope, to
 77.65 Gulch, course NE. Thence along east slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 13, 14, 23 and 24, marked
 on brass cap,

1913 on S rim,
 T 5 S R 29 E in N. half;
 S 14 in NW.,
 S 13 in NE.,
 S 24 in SE., and
 S 23 in SW. quadrant;

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W.
 of cor. Pits impracticable.

Note: At this cor., Jan. 26, 1914, I set off 18° 45 1/2' S. on
 the decl. arc, and at apparent noon, I observe the sun
 on the meridian; the resulting lat. is 32° 59' N.

Land, rolling and hilly.
 Soil, rocky, 4th rate.
 Timber, very scattering cedar.
 Undergrowth, dense greasewood, catclaw and cacti.

Partial Subdivision of Township 5 South, Range 29 East. 33.

Chains.

40.00 S. 89° 58' W., on a random line, bet. secs. 14 and 23.
 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 14, 15, 22 and 23, hereinbefore described.

Thence I run,
 N. 89° 57' E., on a true line, bet. secs. 14 and 23.

2.00 Through dense undergrowth; descend NE. slope, 50 ft. to
 Gulch, course NW. Ascend NW. slope, 75 ft. to

8.15 Spur ridge, brs. N. Descend NE. slope, 200 ft. to

13.00 Canyon, course NE. Ascend NW. slope, 200 ft. to

16.74 Spur ridge, brs. N. Descend NE. slope, 200 ft. to

20.20 Canyon, course N. Ascend NW. slope, 200 ft. to

24.25 Spur ridge, brs. N. Descend NE. slope, 55 ft. to

27.75 Gulch, course N. Ascend NW. slope, 25 ft. to

30.00 Spur ridge, brs. N. Descend east slope, 55 ft. to

32.00 Gulch, course NE. Ascend NW. slope, 115 ft. to

38.00 Spur ridge, brs. N.; descend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S. rim,
 $\frac{1}{4}$ S 14 in N., and
 S 23 in S. half;
 and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N.
 of cor. Pits impracticable.

Descend slight NE. slope.

41.50 Gulch, course N. Ascend NW. slope, 60 ft. to

45.00 Spur ridge, brs. N. Descend NE. slope, 65 ft. to

51.00 Gulch, course N. Ascend W. slope, 110 ft. to

57.00 Spur ridge, brs. NW. Descend NE. slope, 50 ft. to

62.50 Gulch, course NW. Ascend SW. slope, 150 ft. to

68.90 Spur ridge, brs. NW. Ascend NW. slope, 30 ft. to

75.00 Spur ridge, brs. NE. Descend NE. slope, 10 ft. to

76.00 Gulch, course NE. Ascend.

77.10 Trail, brs. NE and SW. Ascend NW. slope, 30 ft. to

77.65 Spur ridge, brs. NE. Descend SE. slope, 40 ft. to

80.00 The cor. of secs. 13, 14, 23 and 24.
 Land, hilly and mountainous.
 Soil, very rocky, 4th rate.
 No timber.
 Undergrowth, dense greasewood, catclaw, mesquite, and
 cacti.
 Mountainous land, 70 chs.

East, on a true line, bet. secs. 13 and 24.
 Through dense undergrowth. Descend NE. slope, 35 ft. to

1.75 Gulch, course N. Ascend NW. slope, 80 ft. to

6.00 Ridge, brs. NE and SW. Descend SE. slope, 145 ft. to

18.00 Gulch, course NE. Ascend NW. slope, 30 ft. to

23.50 Ridge, brs. NE and SW. Descend NE. slope, 105 ft. to

33.00 Gulch, course SE. Ascend SW. slope, to

34.00 Spur ridge, brs. S. Thence along broken S. slope, to

38.60 Gulch, course S. Ascend W. slope.

38.75 Trail, brs. N. and S. Ascend SW. slope.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
 1913 on S. rim,
 $\frac{1}{4}$ S 13 in N., and
 S 24 in S. half;
 and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N.
 of cor. Pits impracticable.

Ascend SW. slope, 15 ft. to

42.50 Ridge, brs. NW and SE. Descend NE. slope, 55 ft. to

48.00 Gulch, course SE. Ascend SW. slope, 25 ft. to

49.40 Telephone line brs. NW and SE. Descend NE. slope, 65 ft. to

52.50 Gulch, course S. Ascend SW. slope, to

56.50 Ridge, brs. NW and SE. Descend NE. slope, to

61.70 Gulch, course SE. Ascend SW. slope, 40 ft.

64.19 Morenci Southern R.R. brs. N. 54 $\frac{3}{4}$ ° W. and S. 54 $\frac{3}{4}$ ° E.

34. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

66.00 Ridge, brs.NE and SW. Descend SE slope, 15 ft.
66.55 Wagon road, brs.NE and SW.
67.10 Morenci Southern Telephone line, brs. NW and SE.
69.00 Gulch, course.S. Ascend SW slope, 44 ft.to
73.55 Ridge, brs.NW and SE.
Old road on ridge, brs.NW and SE.
Descend NE slope, 60 ft.to
79.75 Gulch, course SE. Ascend SW slope, 35 ft.to
84.00 Ridge, brs.NW and SE. Descend NE slope, 25 ft.to
87.00 Gulch, course SE. Ascend SW slope, 65 ft.to
94.00 Ridge, brs N.and S. Descend E. slope, 60 ft.to
99.00 Gulch, course S. Ascend SW slope, 60 ft.to
105.00 Ridge, brs.NW and SE. Descend NE slope, 55 ft.to.
110.00 Gulch, course S. Ascend W. slope, 35 ft.to
115.22 Intersect eastbdy.of Tp. (5th.Guide Meridian East) 8.01
chains S.of the original cor.of secs. 13,18,19 and
24, which is a wash boulder, 8x8x5 ins. above ground,
marked and witnessed as described by the Surveyor Gen-
eral. Change cor.t refer to secs. 18 and 19, T.5 S.,
R.30 E., only.
At point of intersection, set an iron post, 3 ft.long, 2
ins. in diam., 24 ins. in he ground, for closing cor.
of secs.13 and 24, marked on brass cap,
1913 on S.rim,
C C E of center,
T 5 S in N.half;
S 18, S 19, R 30 E in E.half;
S 13 in NW., and
S 24 R 29 E in SW. quadrant;
and raise a mound of stone 2 ft.base, 1 1/2 high,west of
corner.
Pits impracticable.
Land, rolling and hilly.
Soil, very rocky, 4th rate.
No timber.
Undergrowth, dense greasewood, mesquite, catclaw, and
cacti.

From the cor.of secs. 13,14,23 and 24, I run,
N.0°3'E., bet. secs.13 and 14.
Descend NW slope, 45 ft. Through dense undergrowth. De-
scend NE slope, 45 ft.to
4.00 Thence along eastslope.
8.00 Spur ridge, brs. NE. Trail, brs.NE and SW. on ridge. De-
scend NW slope, 110 ft.to
16.00 Gulch, course NE. Ascend SE slope, to
18.00 Spur ridge, brs.NE. Descend N. slope, 30 ftto
21.00 Gulch,course NW. Ascend SW slope, 55 ft.to
26.00 Ridge, brs.NW and SE. Descend NE slope, 55 ftto
31.60 Gulch, course NW. Ascend SW slope, 55 ft.to
40.00 Ridge, brs. NW and SE.
Set an iron post, 3 ft.long, 1 in. indiam.,.26 ins. in
the ground, for 1/4 sec.cor., marked on brass cap,
1913 on S.rim,
1/4 S 14 in W., and
S 13 in E.half;
and raise a mound of stone, 2 ftbase, 1 1/2 ft. high,W.
of cor. Pits impracticable.
Descend NE slope, 175 ft.to
52.00 Gulch, course NW. Thence along west slope.
60.00 Spur ridge, brsNW. Descend NE slope, 110 ftto
65.40 Gulch, course NW. Ascend SW slope, to
68.00 Spur ridge, brs.NW. Descend N. slope, to
69.50 Gulch, ourse W. Ascend S. slope, 130 ft.to
74.15 Ridge, brs.E.and W. Descend NW slope, 45 ft.to
77.00 Gulch, course NW. Ascend SW slope, to
78.00 Spur ridge, brs.NW. Descend N. slope to
80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in
the ground, for cor.of secs. 11,12,13 and 14, marked

Chains.

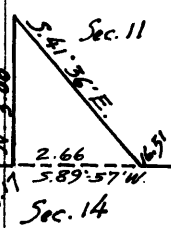
on brass cap,
 1913 on S.rim,
 T5 S R 29 E in N.half;
 S 11 in NW.,
 S 12 in NE.,
 S 13 in SE., and
 S 14 in SW. quadrant;
 and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of
 corner. Pits impracticable.

Land, rolling, hilly and mountainous.
 Soil, very rocky, 4th rate.
 No timber.
 Undergrowth, dense mesquite, greasewood, catclaw and cacti.
 Mountainous land, 50 ahs.

Jan. 26, 1914.

Jan. 27, 1914.

16.51 S. 89° 57' W., on a random line, bet. secs. 11 and 14.
 Left bank of San Francisco River. Leave flag on line at
 this point for triangulation across river. From a
 point on line on right bank of river, I measure a line
 north, 3.00 chs. to a point from which the flag on left
 bank brs. S. 41° 36' E. The distance across is given
 by: $\tan. 41^\circ 36' \times 3.00 = 2.66$ chs., which added to
 16.51 chs. =



19.17 Triangulation point. Thence by chain measurement,
 40.00 Set temp. 1/4 sec. cor.
 44.03 Trail, brs. N. and S. on spur ridge, brs. S. Line from
 this point passes over a box canyon, over which I cannot
 chain; therefore, I take stadia measurement to rod
 on line on ridge on west side of canyon. Rod reading
 (mean of three) 2.444 ft. Ratio, 1 ft. = 2 chs. Focal
 constant, 1.025 ft. Angle of depression - 3° 45'. The
 dist. on random line to rod is therefore, $2.444 \times 2 \times$
 $.9956$ plus $.016 = 4.88$ chs., which added to 44.03 chs.
 =

48.91 Rod point on spur ridge brs. S. From this point, line
 passes over two V-shaped canyons, which cross the line
 from the north and northwest. As chaining across
 these canyons is impossible, I take stadia measurement
 to rod at this point from instrument set at a point on
 random line on spur ridge, brs. S. on W. side of these
 canyons. Rod reading (mean of three) 7.209 ft. Ratio,
 1 ft. = 2 chs. Focal constant, 1.025 ft. Angle of de-
 pression - 9° 20'. The dist. from rod to instrument is
 therefore, $7.209 \times 2 \times .9737$ plus $.016 = 14.05$ chs.,
 which added to 48.91 chs. =

62.92 Instrument point. Thence by chain measurement
 72.68 From this point the random line passes over deep box
 canyon, course S2, over which I cannot chain; therefore,
 I take stadia measurement to rod on random line on west
 side of canyon, at a point 5 lks. S. of the cor. of secs.
 10, 11, 14 and 15. Rod reading, (mean of three) 3.784 ft.
 Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Level.
 The dist. on random line to rod is therefore, 3.784×2
 plus $.016 = 7.58$ chs., which added to 72.68 chs. =

80.26 Rod point and end of random line, S. 89° 57' W. bet. secs. 11
 and 14. This point being 5 lks. S. of the cor. of secs.
 10, 11, 14 and 15, the true course of line bet. secs. 11
 and 14 is therefore, N. 89° 59' E., and the true length,
 80.26 chs.

Therefore, from the cor. of secs. 10, 11, 14 and 15, I run,
 N. 89° 59' E., on a true line, bet. secs. 11 and 14. Descend
 steep rough E. slope, into deep box canyon.
 5.00 (Approx.) bottom of canyon, course S. Ascend steep rough
 west slope, into

36. Partial Subdivision of Township 5 South, Range 29 East.

Chains.	
7.58	East side of canyon. Ascend SW. slope, 160 ft. to
17.34	Spur ridge, brs.S. Descend steep east slope, into canyon.
21.25	(Approx.) bottom V-shaped canyon, course SSE. Ascend abruptly.
23.00	(Approx.) narrow spur, brs.S. Descend abruptly.
24.25	(Approximate) bottom of V-shaped canyon, course S. Ascend abruptly.
31.35	Spur ridge, brs.S. Descend steep east slope, to
33.25	(Approx.) bottom of box canyon, course S. Ascend SW. slope, 30 ft. to
36.50	Spur ridge, brs.S. Descend SE. slope, 70 ft.
40.13	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 11 in N., and S 14 in S. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
46.00	Gulch, course S. Ascend SE. slope, 35 ft. to
47.00	Spur ridge, brs.S. Descend SE. slope, 190 ft.
56.70	Top of bluff; continue to descend SE. slope.
57.25	Ditch, at foot of bluff, course S. 20°W. Enter San Francisco River bottom.
58.25	Wagon road brs.N. and S.
61.09	Right bank of San Francisco River, running water, 1 ch. wide, 2 ft deep, course SW.
63.75	Left bank of river. Ascend NW. slope, 110 ft.
65.25	Bluff, brs. NE. and SW. Ascend W. slope to
72.00	Spur brs.SW. Descend SE. slope, to
75.00	Gulch, course SW.; ascend.
80.26	The cor. of secs. 11, 12, 13 and 14. Land, mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, dense greasewood, catclaw, mesquite and cacti. Mountainous land, 78.00 chs.

Jan. 27, 1914.

Jan. 28, 1914. At 9h. 55m. a.m., l.m.t., I set off 33° 00' N. on the lat. arc; 18° 16' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14, hereinbefore described.

Thence I run,

East, on a true line, bet. secs. 12 and 13.

Through scattering timber and dense undergrowth. Ascend NW. slope, 160 ft. to

9.00	Spur ridge, brs.NW. Descend NE. slope, 110 ft. to
19.50	Gulch, course NW. Ascend SW. slope, 100 ft. to
30.00	Spur ridge, brs.NW. Descend NE. slope, 25 ft. to
30.90	West bank of Morenci Southern R.R. cut, brs.NE. and SW.
31.65	East bank of cut.
36.00	Ascend in gulch, course W., 60 ft. to
39.00	Telephone line, brs.NE. and SW. Leave gulch; ascend SW. slope, 50 ft.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, 1913 on S. rim, $\frac{1}{4}$ S 12 in N., and S 13 in S. half; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, north of cor. Pits impracticable.
49.00	Spur ridge, brs.NW. Descend NE. slope, 60 ft. to
53.00	Spur ridge, brs.N. Descend E. slope, 75 ft. to
56.00	Gulch, course NW. Ascend W. slope, 75 ft. to
60.00	Spur ridge, brs.N.
	Wagon road on ridge, brs. N. and S. Descend NE. slope, 90 ft. to
65.00	Gulch, course N. Ascend NW. slope, 85 ft.
69.88	U.S.L.M. No. 2, which is a post. 4 ins. square, 5 ft. above

Partial Subdivision of Township 5 South, Range 29 East. 37.

Chains.	
	ground, marked C M 4 on S., and /face U S L M No.2 on N, brs. N. 13° 18' E. Green house brs. N. 41° 40' E. Morenci Southern bridge across river brs. N. 51° E.
70.00	Spur ridge, brs. NW. Descend NE slope, 70 ft. to
74.80	Gulch, course NW. Ascend SW slope, 75 ft. to
78.70	Spur ridge, brs. NW. Descend NE slope, 30 ft. to
84.00	Gulch, course NW. Ascend SW slope, 65 ft. to
87.00	Spur ridge, brs. NW. Descend NE slope, 40 ft. to
90.50	Gulch, course N. Ascend NW slope, 60 ft.
93.66	From this point, U.S.L.M. No.2 brs. N. 23° 3' W. Green house brs. N. 2° E. Railroad bridge, brs. N. 5° E.
94.00	Spur ridge, brs. N. Descend NE slope, 125 ft. to
102.00	Gulch, course N. Ascend NW slope, 25 ft. to
108.50	Spur ridge, brs. N. Descend NW slope, 60 ft. to
113.40	Gulch, course NW. Ascend SW slope, 20 ft. to
115.21	Intersect the East bdy. of the Tp. (5th. Guide Mer. E.) 8.06 chs. south of the original cor. of secs 7, 12, 13 and 18, which is a wash boulder 6 x 8 x 8 ins. above ground, marked and witnessed, as described by the Surveyor General. Change this old cor. to refer to secs. 7 and 18 of T. 5 S., R. 30 E. only. At the point of intersection, I set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing corner of secs. 12 and 13, marked on brass cap, 1913 on S. rim, C C E of center, T 5 S in N. half; S 7, S 18, R 30 E in E. half; S 12 in NW., and S 13, R 29 E in S W, quadrant; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable. Note: At this corner, Jan. 28, 1914, I set off 18° 14 1/2' S. on the decl. arc, and at apparent noon, I observe the sun on the meridian; the resulting lat. is 33° 00' N. Land, rolling, hilly and mountainous. Soil, rocky, 4th rate. Timber, very scattering cedar. Undergrowth, dense greasewood, catclaw and mesquite. Mountainous land, 74 chs.

	From the cor. of secs. 11, 12, 13 and 14, I run, N. 0° 3' E., bet. secs. 11 and 12. Descend broken NW. slope. Through dense undergrowth.
4.00	Gulch, course W. Thence along west slope, to
12.00	Gulch, course W. Ascend slight SW. slope, 25 ft. to
14.00	Thence over level land.
24.00	Gulch, course W.; ascend.
29.00	Spur ridge, brs. W. Descend NW. slope, 15 ft. to
34.00	Trail, brs. NE and SW. Descend N. slope, 130 ft. to
38.75	Gulch, course W. Ascend SW. slope, to
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap, 1913 on S. rim, 1/4 S 11 in W., and S 12 in E. half; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable. Foot of cliff, 20 ft. high, brs. NW and SE.
40.55	Rocky spur ridge, brs. NW. Descend.
41.30	Wagon road, brs. NE. and SW.
44.00	San Francisco River, 80 lks. wide, 3 ft. deep, course SW. Ascend perpendicular bluff on north side of river.
46.00	Top of bluff. Ascend south slope, 157 ft. to
61.75	Ridge, brs. NW and SE. Descend NE slope, 50 ft. to
69.50	Head of gulch, course SE. Ascend S. slope, 70 ft. to

38. Partial Subdivision of Township 5 South, Range 29 East.

Chains.

75.30 Ridge, brs.E. and W. Descend N. slope, 65 ft.to
 78.00 Gulch, course NE. Ascend SE. slope, 10 ft.to
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs.1,2,11 and 12, marked on
 brass cap, 1913 on S.rim,
 T 5 S R 29 E in N.half;
 S 2 in NW.,
 S 1 in NE.,
 S 12 in SE., and
 S 11 in SW. quadrant;
 and raise a mound of stone, 2 ft. base, 1½ ft. high,W.
 of corner. Pits impracticable.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, greasewood, mesquite, cacti and catclaw.
 Mountainous land, 32 chs.
 Jan.28, 1914.

Jan. 29, 1914.
 S.89°59'W., on a random line, bet. secs.2 and 11.
 40.00 Set temp.¼ sec.cor.
 80.05 Intersect N.and S. line, 16 lks.S.of the cor.of secs.2,
 3, 10 and 11, hereinbefore described.
 Thence I run,
 S.89°54'E., on a true line, bet. secs.2 and 11.
 Through scattering undergrowth. Descend SE. slope, 90 ft.
 to
 4.25 Gulch, course S. Ascend SW. slope, 95 ft.to
 10.00 Spur ridge, brs.S. Descend SE. slope, 130 ft.to
 19.00 Gulch, course SE. Ascend SW. slope, 70 ft.to
 24.00 Ridge, brs.NW and SE. Descend NE. slope, 165 ft.to
 40.025 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for ¼ sec.cor., marked on brass cap,
 1913 on S.rim,
 ¼ S 2 in N., and
 S 11 in S.half;
 and raise a mound of stone, 2 ft.base, 1½ ft. high,N.
 of corner. Pits impracticable.
 Descend NE. slope, 55 ft.to
 44.00 Gulch, course SE. Ascend SW. slope, 80 ft.to
 50.00 Spur ridge, brs.S. Descend SE. slope, 55 ft.to
 53.50 Gulch, course SW. Ascend W. slope, 55 ft.to
 55.50 Spur ridge, brs.S. Descend E. slope, 30 ft.to
 59.50 Gulch, course S. Ascend SW. slope, 35 ft.to
 61.50 Spur ridge, brs.SW. Descend east slope, 20 ft.to
 64.00 Gulch, course S. Ascend SW. slope, 80 ft.to
 71.20 Ridge, brs.NW and SE. Thence along N. slope, to
 74.00 Descend NE. slope, 80 ft.to
 80.05 The cor.of secs.1,2,11 and 12.
 Note: At this cor., Jan.29,1914, I set off 17°58½'S.on
 the decl. are; and at apparent noon, I observe the sun
 on the meridian; the resulting lat.is 33° 1'N.
 Land, rolling, hilly and mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, scattering greasewood, catclaw, mesquite and
 cacti.
 Mountainous land, 72 chs.

East, on a true line, bet. secs.1 and 12.
 Through dense undergrowth. Descend NE. slope, 115 ft.to
 6.40 Morenci Canyon, course SE. Ascend broken SW. slope, 280 ft.
 22.00 Head of gulch, course SW. Ascend W. slope.
 25.75 Ridge, brs.N.and S. Descend E. slope, 135 ft.to
 35.50 Wash, course S. Ascend SW. slope, 55 ftto

Partial Subdivision of Township 5 South, Range 29 East. 39.

Chains.

38.00 Ridge, brs.N.and S. Trail, brs.N.and S. on ridge.
Descend east slope.

40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,
1913 on S.rim,
 $\frac{1}{4}$ S 1 in N., and
S 12 in S.half;
and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high,
north of cor. Pits impracticable.

43.30 Gulch, course S. Ascend west slope, 35 ft.to

46.00 Spur ridge, brs.S.; descend.

48.00 Head of gulch, course SW. Ascend NW. slope, 110 ft.to

53.15 Telephone line, brs.NW and SE.

58.00 Ridge, brs.N.and S. Descend SE. slope, 80 ft.to

65.00 Head of gulch, course S. Ascend SW. slope, 30 ft.to

69.50 Spur ridge, brs.SE. Descend E. slope, 120 ft.to

77.35 Gulch, course S. Ascend W. slope, 190 ft.to

86.00 Thence over level land.

87.78 Morenci Southern Telephone line, brs.NW and SE.

96.73 Wagon road brs.N.and S.

99.00 Descend E. slope, 140 ft.

101.12 Morenci Southern R.R. brs.N.and S.

105.60 Gulch, course SE. Ascend SW. slope, 25 ft.to

108.00 Spur ridge, brs.S. Descend SE. slope, 60 ft.to

115.15 Intersect the east bdy.of the Tp. (5th.Guide Mer. East,)
8.18 chs.south of the original corner of secs.1,6,7 and 12
12, which is a wash boulder, 6 x 6 x 9 ins. above ground
marked and witnessed as described by the Surveyor
General. At a point
2 lks. east of the stone just described, is a post, 4
ins. square, 4 ft. above ground, set in a mound of
stone, marked SE. cor., Thelma on N., SW. cor. 3
Eleanor on E., and NW. cor. Newark on S.face.Change old
cor.of secs. 1,6,7 and 12 to refer to secs.6 and 7 of
T.5 S., R.30 E., only.
At point of intersection, set an iron post, 3 ft long,
2 ins. in diam., 24 ins. in the ground, for closing
corner of secs.1 and 12, marked on brass cap,
1913 on S.rim,
C C E of center,
T 5 S in N.half;
S 6, S 7, R 30 E in E.half;
S 1 in NW., and
S 12, R 29 E in SW. quadrant;
and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.
of corner. Pits impracticable.
Land, rolling, hilly and mountainous.
Soil, rocky, 4th rae.
No timber.
Undergrowth, mesquite, catclaw, greasewood and cacti.
Mountainous land, 74 chs.

Jan. 29, 1914.

Feb. 1, 1914:

N. 0° 3' E., on a random line, bet. secs. 1 and 2.

Partial Subdivision of T.5 S., R.29 E., S.4 E.

Chains.	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.48	Intersect N. bdy. of Tp., 12 lks. E. of the cor. of secs. 1, 2, 35 and 36, established by me post, 2 in. dia., 3 in. high, as described in book "A" filed in book 2772.
	Thence I run
	S.0° 2' E., on a true line, bet. secs. 1 and 2.
	Over level land, through dense undergrowth.
4.50	Desc. slight SE. slope, 40 ft. to
12.00	Gulch, course SW. Ascend.
18.25	Spur ridge, brs. SW.; thence over rolling land, along W. slope.
35.25	Enter Morenci Canyon.
38.90	Desc. in Morenci Canyon, 55 ft.
	Road in canyon, brs. NW. and SE.
40.48	Set an iron post, 3 ft. long, 1 in. dia., 25 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap; 1914 on S. rim,
	$\frac{1}{4}$ S2 in W. and
	S1 in E. half; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Leave canyon; asc. NW. slope, 45 ft. to
44.25	Spur ridge, brs. W. Thence along broken W. slope.
54.98	From this point, a post, 4 ins. square, 4 ft. above ground set in a mound of stone, marked C7 Bench #7 PL on NE. and C2 Bench #4 PL on SE., and 1-2-2448 on SW., brs. W. 123 lks. dist.
55.00	Placer prospect, 90 ft. long, 6 ft. wide, 10 ft. deep, on line.
62.50	Head of gulch, course SE. Thence across level mesa.
70.50	Top of bluff, brs. NW. and SE. Desc. N. bank of Morenci canyon, 50 ft. to
75.00	Morenci Canyon, course SE. Asc. NE. slope, 100 ft. to
79.50	Spur ridge, brs. E. Descend.
80.48	The cor. of secs. 1, 2, 11 and 12.
	Land, rolling, hilly and mountainous.
	Soil, very rocky 4th rate.
	No timber.
	Undergrowth, dense greasewood, cat claw, and cacti.
	Mountainous land, 26 chs.

Feb. 1, 1914.

General Description.

This township is mountainous and hilly, the soil is stony, 3rd and 4th rate, there are narrow strips of rich sandy loam 1st rate, along the Gila and San Francisco Rivers and Eagle Creek, there are several settlers along these streams,

There is some Placer Mining along San Francisco and Gila Rivers and Morenci Canyon.

Scattering Cottonwood, Sycamore, Ash, Walnut and Willows along the streams and in the gulches, a few scattering Cedar and Juniper on the mountains,

There is water in the Gila, San Francisco and Eagle all the year.

The township is covered with a short, rich, nutritious grass, fairly good grazing.

There are no settlers, water or agricultural land in the unsurveyed sections.

William B. Kimmel

U.S. Surveyor.

41 89
2772

FOR FINAL OATH OF UNITED STATES SURVEYOR.
See Book "D."

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, 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 _____ of the _____ Meridian, in the State of _____, 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 _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Arizona June 19____, 1915

The foregoing field notes of the survey of part of the
Subdivision Lines of
Township 5 South Range 29 East
of the Gila and Salt River Base and Meridian
in the State of Arizona

executed by William B. Kimmel U.S. Surveyor
under his special instructions dated August 25, 1910 for Group 26 _____, ~~191~~ having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank 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.