75

3626

BOOK "K"

4—679

BOOK 3626

FIELD NOTES

OF THE SURVEY OF ~~THE~~

Part of the East Boundary,
The West Boundary,
Part of the South Boundary and
Part of the Subdivision of
T. 32 N., R. 9 W.

Of the Gila and Salt River Base and *Meridian,*
In the State of Arizona

EXECUTED BY

Dupree R. Averill
and
William E. Hiester

*In the capacity of U. S. Surveyor*s, *under Special Instructions dated* October 12, *1916*, *issued by the United States Surveyor General to govern surveys included in Group No.* 72, Arizona, *which were approved by the Commissioner of the General Land Office,* October 24, *1916, and Assignment Instructions dated* April 3, *19*17 and August 11, 1921.

Survey commenced August 29, *1917*

Survey completed December 13, *1921*

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1A

3626

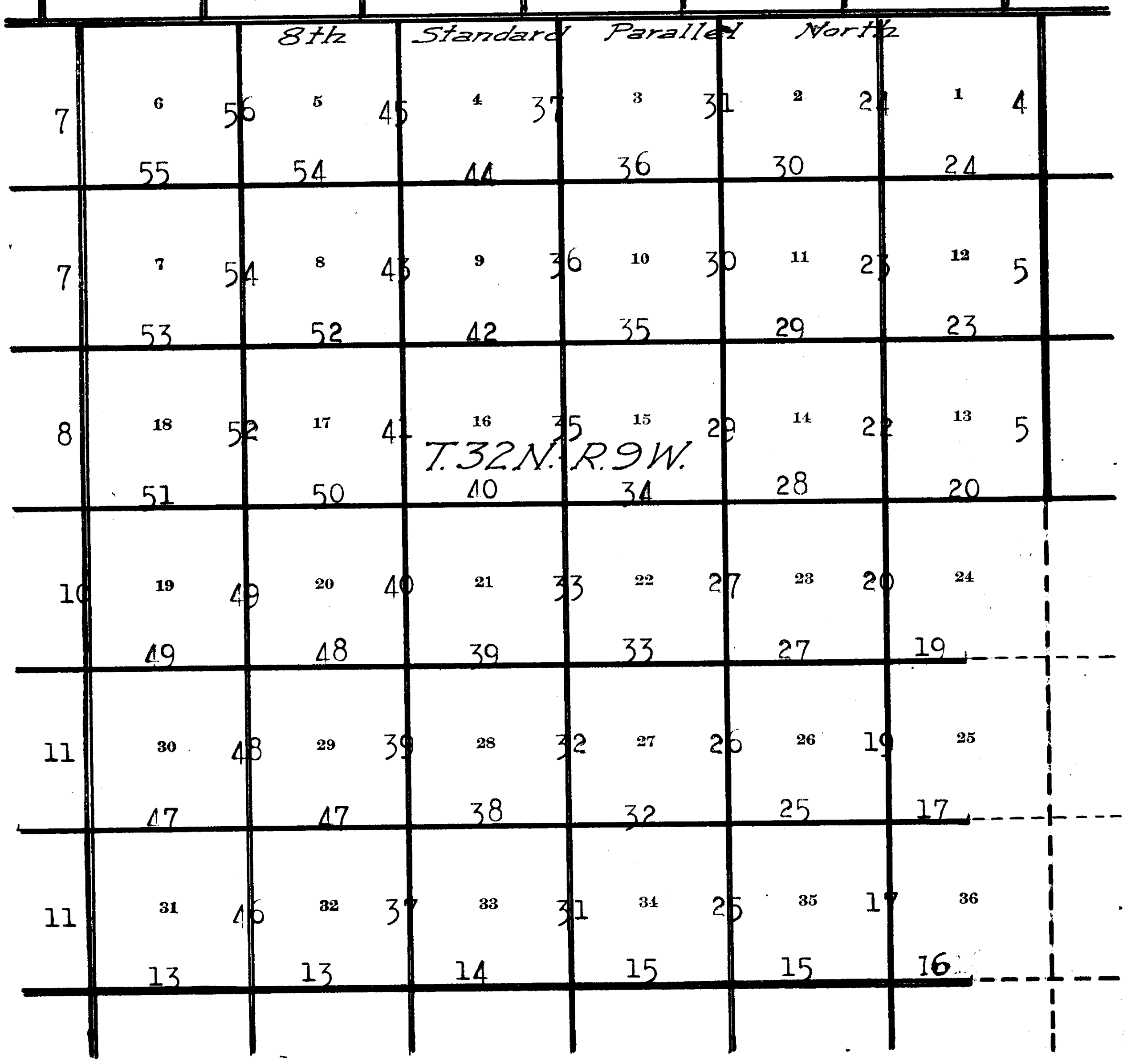
Book "K"

Group 72 ---- Arizona

BOOK 3626

INDEX DIAGRAM.

Township 32 North, *Range* 9 West


8th Standard Parallel North
T.32N. R.9W.
7 6 56 5 45 4 37 3 31 2 21 1 4
55 54 44 36 30 24
7 7 54 8 43 9 36 10 30 11 23 12 5
53 52 42 35 29 23
8 18 52 17 41 16 35 15 29 14 22 13 5
51 50 40 34 28 20
10 19 49 20 40 21 33 22 27 23 20 24
49 48 39 33 27 19
11 30 48 29 39 28 32 27 26 26 19 25
47 47 38 32 25 17
11 31 46 32 37 33 31 34 25 35 17 36
13 13 14 15 15 16

——— *Lines surveyed under this group.*

------- *Unsurveyed.*

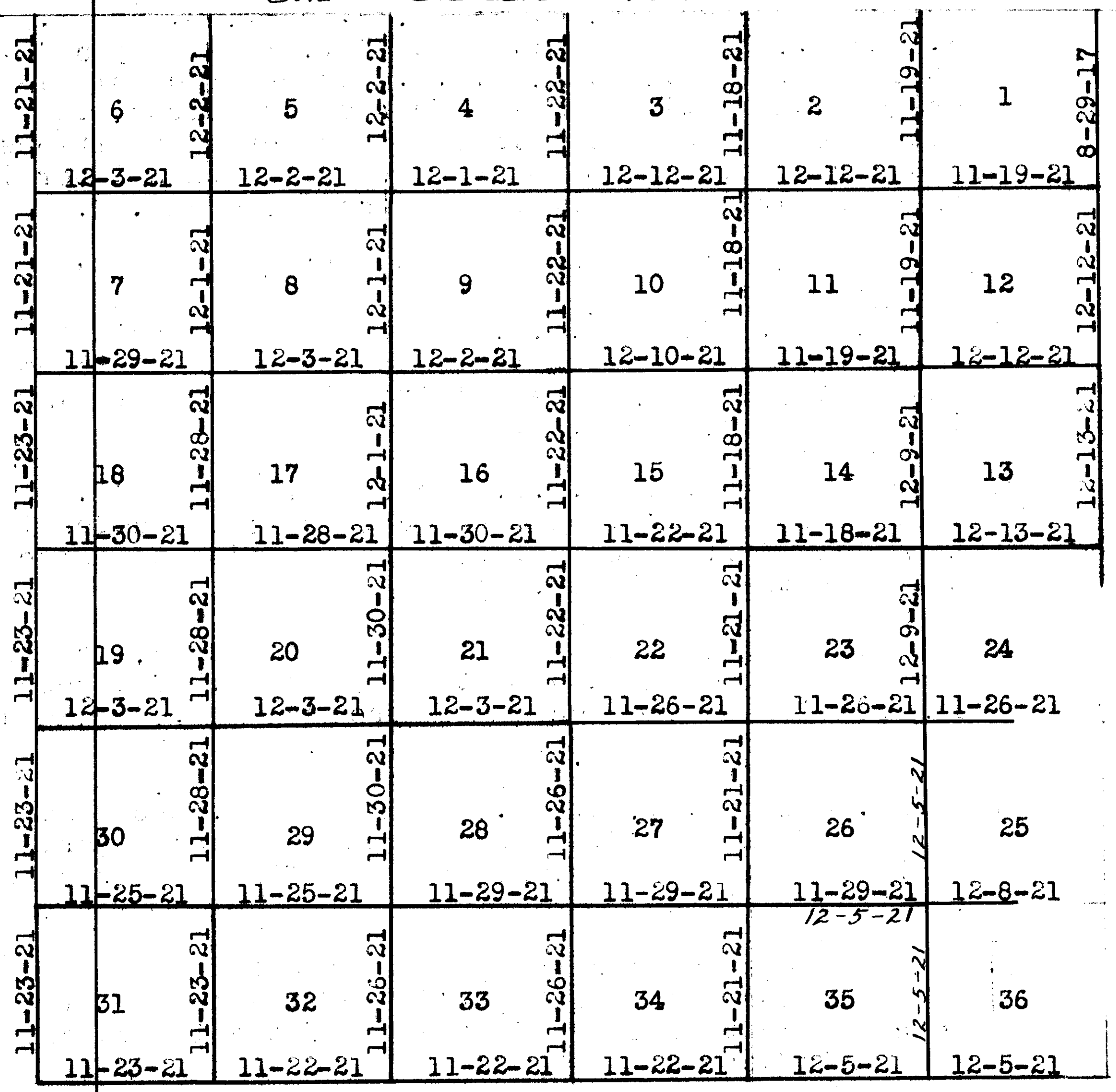
Book "K"

Group 72- Arizona

DATE DIAGRAM

T.32 N., R.9 W.

For dates of survey of this line see Books "B" and "J"
8th Standard Parallel North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36
12-5-21

Lines in black surveyed by Dupree R. Averill.

Lines in red surveyed by William E. Hiester.

Survey commenced August 29, 1917, and executed with Young and Sons light mountain transits Nos. 8480 and 8478, and Buff and Buff light mountain transits Nos. 9208, 10125, 9977 and 9225; each instrument is equipped with full vertical circle and Smith solar attachment; unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

Field Test of Instruments Nos. 8480, 8478 and 9208.

August 11, 1917. We examine the adjustments of the instruments and correct all errors; then, to test the solar apparatus, by comparing their indications, resulting from observations made during a.m. and p.m. hours, with a meridian established by Polaris observations, we proceed as follows:

At our camp in sec. 25, T. 33 N., R. 8 W., G. and S. R. B. and M., Arizona, lat. 36°13½'N., long. 113°6½'W., at 10 hrs. 14 m., p.m., l.m.t., we observe Polaris at eastern elongation, making four observations, two each with the telescope in direct and reversed positions, and marking the mean point in the line thus determined on a peg driven firmly in the ground, 5 chs. N.

Azimuth of Polaris at eastern elongation is 1°24½'.
August 12, 1917.
At 8 hrs. 0 m., a.m., l.m.t., we lay off the azimuth of Polaris, 1°24½' to the west, and mark the meridian thus determined by a tack driven in a peg set firmly in the ground, 5 chs. N.

At 9 hrs. 0 m., a.m., l.m.t., we set off 36°13½'N. on the lat. arcs; 15°2'N. on the decl. arcs; and determine a meridian with each solar, which we find to agree with the true meridian.

At apparent noon, with the lat. arcs unchanged, we observe the sun on the meridian with each solar. The resulting readings of the decl. arcs are 14°59½'N., which agree with the computed decl. of the sun.

At 3 hrs. 0 m., p.m., l.m.t., with the lat. arcs unchanged, we set off 14°57½'N. on the decl. arcs and determine a meridian with each solar, which we find to agree with the true meridian.

As all of the solar observations during the usual hours of solar work come within 1'30" of the true meridian, we conclude that the adjustments of the instruments are satisfactory.

Unless otherwise specified, all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Lufkin standard steel tape and found correct. The measurements are made on the slope, the vertical angles determined and the slope measurements properly reduced to true horizontal distances.

Field tests of Instruments Nos. 10125, 9977 and 9225.

Nov. 8, 1921: We examine the adjustments of the instruments and correct all errors; then, to test the solar apparatus, by comparing their indications, resulting from observations made during a.m. and p.m. hours with a meridian established by Polaris observations, we proceed as follows:

At our camp in sec. 23, T. 33 N., R. 9 W., G. and S. R. B. and M., Arizona, lat. 36°14½'N., long. 113°14½'W., at 4 hrs. 22.3 m., a.m., l.m.t., we observe Polaris at western elongation, making four observations, two each with telescope in direct and reversed positions, and marking the mean point in the line thus determined on a peg driven firmly in the ground, 5 chs. N.

Azimuth of Polaris at western elongation is 1°22½'.

At 8 hrs. 0 m., a.m., l.m.t., we lay off the azimuth of Polaris, 1°22½' to the east, and mark the meridian thus determined by a tack driven in a peg set firmly in the ground, 5 chs. N.

At 9 hrs. 0 m., a.m., l.m.t., we set off 36°14½'N. on the lat. arcs; 16°31½'S. on the decl. arcs; and determine a meridian with each solar, which we find to agree with the true meridian.

At apparent noon, with the lat. arcs unchanged, we observe the sun on the meridian with each solar. The resulting readings of the declination arcs are 16°34'S., which agree with the computed decl. of the sun.

At 3 hrs. 0 m., p.m., l.m.t., with the lat. arcs unchanged, we set off 16°36'S. on the decl arcs and determine a meridian with each solar, which we find to agree with the true meridian.

As all of the solar observations during the usual hours of solar work come within 1'30" of the true meridian, we conclude that the adjustments of the instruments are satisfactory.

Unless otherwise specified, all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Lufkin standard steel tape and found correct. The measurements are made on the slope, the vertical angles determined, and the slope measurements properly reduced to true horizontal distances.

Survey of Part of the East Boundary of T. 32 N., R. 9 W.

Chains.

From the standard cor. of Ts. 33 N., Rs. 8 and 9 W., which is an iron post, described in Book "B",
East 17.91 chs., and
Set an iron post, 3 ft. long, 3 ins. diam., 22 ins. in the ground, in a mound of stone, for closing cor. of Ts. 32 N., Rs. 8 and 9 W., marked on brass cap

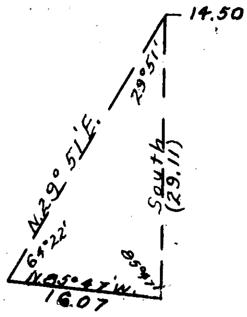
T33N R8W
S31
S 1 | S 6
R9W | R8W
T32N
C C

From which
A pinyon, 10 ins. diam., brs. S.44°E., 103 lks. dist., marked T32N R8W S6 CC.BT
A pinyon, 14 ins. diam., brs. S.13°W., 83 lks. dist., marked T32N R9W S1 CC.BT

Thence
South bet. secs. 1 and 6.
Over rolling mesa, through heavy timber and scattering undergrowth.

9.50 Rim of mesa, brs. NW. and SE. Desc. 155 ft.

14.50 Top of cliff, brs. NW. and SE. Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base N.85°47'W. 16.07 chs., from the W. end of which, flag at the 14.50 chs. point brs. N.29°51'E. The three angles of the triangle are therefore 29°51', 85°47' and 64°22', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{16.07} = \frac{\sin.\ 64°22'}{\sin.\ 29°51'}$$

log. 16.07 = 1.206016
log. sin. 29°51' = 9.696995
1.509021
log. sin. 64°22' = 9.955005
log. X = 1.464026
X = 29.11 chs., which added to 14.50 chs., gives 43.61 chs.

Thence North 3.61 chs. to

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

¼
S 1 | S 6
1917

And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

43.61 Triangulation point, 930 ft. below 14.50 ch. point. Continue descent, 40 ft., over rolling land.

50.00 Asc. 25 ft.

55.70 Desc. 90 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 14 ins. in the ground, in a mound of stone, with stone marked cross (X) at base of post, for cor. of secs. 1, 6, 7 and 12 marked on brass cap

T32N
R9W | R8W
S 1 | S 6
S12 | S 7
1917

Chains

And raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, W. of cor.
Land, rolling and mountainous.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, sagebrush and cactus.

South bet. secs. 7 and 12.
Over broken lava flow, through scattering undergrowth.
10.00 Desc. 205 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, 28 ins. in a mound of stone, 3 ft. base, with stone marked cross (X) at foot of post, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$
S 12 | S 7
1921

And raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, W. of cor.
Continue descent, 290 ft.
56.00 Lava outcrop, 20 ft. high, 30 ft. long, 15 ft. through, on line.
80.00 Apex of small lava spur, sloping S. Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, 12 ins. in a mound of stone, 2 ft. base, for cor. of secs. 7, 12, 13 and 18, marked on brass cap

T 32 N
R 9 W | R 8 W
S 12 | S 7
S 13 | S 18
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, broken.
Soil, lava, 4th rate.
Timber, none.
Undergrowth, quinine brush, greasewood, mescal, Spanish bayonet and cactus.

South bet. secs. 13 and 18.
Over broken lava flow, through scattering undergrowth.
Desc. 360 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, in a mound of stone, 5 ft. base, 3 ft. high, with stone marked cross (X) at base of post, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$
S 13 | S 18
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Continue descent, 75 ft.
55.00 Leave lava flow, enter sand stone formation. Asc. 305 ft.
67.80 Spur, slopes S. 10° W. Desc. 215 ft.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 16 ins. in the ground, in a mound of stone, 4 ft. base, 20 ins. high, with stone marked (X) at base of post, for cor.

Chains

of secs. 13, 18, 19 and 24, marked on brass cap

T 32 N
R 9 W | R 8 W
S 13 | S 18
S 24 | S 19
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor. At 13.90 chs. S. of this cor. is the rim of the Colorado River Canyon, bearing NE. and SW.

Center of the Colorado River course SW. is about 65 chs. S. of this cor.

Impracticable to continue the survey of this range line.

Land, broken.

Soil, lava flow and sandstone, 4th rate.

Timber, none.

Undergrowth, greasewood, quinine, Spanish bayonet, mescal and cactus.

Survey of the
West Boundary of T. 32 N., R. 9 W.

Chains.

From the standard cor. of Ts. 33 N., Rs. 9 and 10 W., which is an iron post, described in Book "B",
East 20.02 chs., and
Set an iron post, 3 ft. long, 3 ins. diam., 30 ins. in the ground, for closing cor. of Ts. 32 N., Rs. 9 and 10 W., marked on brass cap

T33N R9W
S31
S 1 | S 6
C | C
R10W | R9W
T32N
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, S. of cor.
Thence
South bet. secs. 1 and 6.
Over broken land, through scattering undergrowth.
Desc.
1.00 Wash, course E. Thence along E. slope.
22.90 Wash, 10 lks. wide, course NE. Asc. 175 ft.
29.45 Rim rock, brs. E. and W. Thence over rolling land.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, 32 ins. in a mound of stone, 5 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼
S 1 | S 6
1921

50.00 Asc. 20 ft.
51.50 Spur, slopes E. Desc. 155 ft.
54.30 Rim rock, 40 ft. high, brs. E. and W. Continue descent.
56.10 Wash, 20 lks. wide, course E. Asc. 60 ft.
60.00 Thence over rolling land.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 32 ins. in the ground, for cor. of secs. 1, 6, 7 and 12, marked on brass cap

T32N
R10W R9W
S 1 | S 6
S12 | S 7
1921

And raise a mound of stone, 2 ft. base, 1½ ft high, W. of cor.
Land, rolling and broken.
Soil, sandy and rocky, 3rd and 4th rates.
Timber, none.
Undergrowth, greasewood, sagebrush, quinine brush, mesquite and cactus.
Good grazing.

South bet. secs. 7 and 12.
Over broken land, through scattering undergrowth.
Desc.
14.40 Wash, 20 lks. wide, course SE. Asc. 150 ft.
27.70 Spur, slopes SE. Rim rock, brs. NNW. and SE. Desc.
29.90 Wash, 20 lks. wide, 5 ft. deep, course E. Asc. 30 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, 30 ins. in a mound of stone, 5 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

Survey of the
West Boundary of T. 32 N., R. 9 W.

Chains.

S12 $\frac{1}{4}$ S 7

1921

Asc. 65 ft.

49.00 Spur, slopes W., from conical peak 2 chs. East, 120 ft. high. Desc. 155 ft.

63.30 Wash, 20 lks. wide, 6 ft. deep, course E. Asc. 75 ft.

69.80 Spur, slopes SE. ~~Desc.~~ 20 ft.

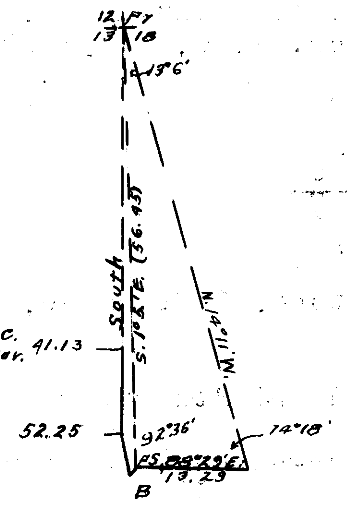
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the ground, 32 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) at foot of post, for cor. of secs. 7, 12, 13 and 18, marked on brass cap

T32N
R10W R9W
S12 S 7
S13 S18
1921

Land, broken.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush, cat claw, greasewood, mescal, and cactus.
Good grass.

South bet. secs. 13 and 18.
Over broken land, through scattering undergrowth.
Desc. 65 ft.

10.12 Rim rock, 200 ft. high, brs. NE. and SW. From this point, spring and troughs br. S.13$\frac{3}{4}$°W. From this point, set flag "A" S.16$\frac{3}{4}$°E. 0.62 chs. on point of cliffs. Impossible to chain from this point. Triangulate as follows:



From the cor. of secs. 7, 12, 13 and 18, set flag "B" on a bearing S.1°5'E. From "B" measure a base S.88°29'E. 13.29 chs., from the E. end of which, flag at the cor. of secs. 7, 12, 13 and 18 brs. N.14°11'W. The three angles of the triangle are therefore 92°36', 13°6' and 74°18', the sum of which is 180°. The distance triangulated on the bearing S.1°5'E. is given by the sine proportion as follows:

$$\frac{X}{13.29} = \frac{\sin.\ 74°18'}{\sin.\ 13°6'}$$

Log. 13.29 = 1.123525
log. sin. 13°6' = 9.355358
1.768167
log. sin. 74°18' = 9.983487
log. X = 1.751654
X = 56.45 chs. From this point, "B", run traverse as follows:

S.46°W. 1.32 chs.
N.1°20'W. 5.11 " to a point on sec.line 52.25 chs. South of the cor. of secs. 7, 12, 13 and 18.

Thence North bet. secs. 13 and 18, 11.12 chs. by chaining.
Desc. 52.25-11.12=41.13 [illegible] ft. high, bearing E. and

40.00 The true point for $\frac{1}{4}$ sec. cor. falls in Parashont Canyon.

41.13 Set an iron post, 3 ft. long, 1 in. diam., on bed rock,

Survey of the
West Boundary of T. 32 N., R. 9 W.

Chains.

in a mound of stone, 3 ft. base, 30 ins. high, with stone marked cross (X) at foot of post, for witness cor. to $\frac{1}{4}$ sec. cor., marked on brass cap

W C
$\frac{1}{4}$
S13 S18

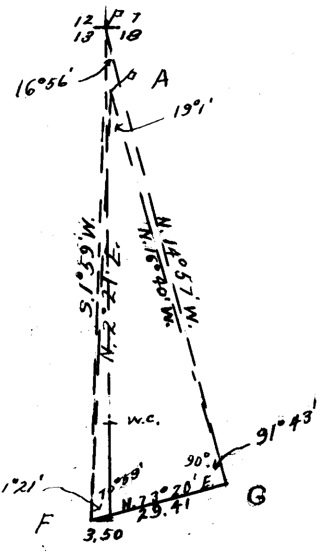
1921

Cor. stands on S. edge of box canyon, 100 ft. deep, course SW.

Thence, south on true line Asc. 840 ft. to.

52.25 Impossible to chain from this point. Triangulate as follows:

From the cor. of secs. 7, 12, 13 and 18, set a flag on a bearing S.1°59'W. at "F". From "F", measure a base N.73°20'E. 29.41 chs. to "G". From "G", flag at the cor. of secs. 7, 12, 13 and 18 brs. N.14°57'W. Also from "G", flag "A" described in last triangulation brs. N.16°40'W. and from "F", flag "A" brs. N.2°21'E. In the first triangle, the three angles are 71°21', 16° 56' and 91°43', the sum of which is 180°. In the second triangle, the angles are 70°59', 19°1' and 90°, the sum of which is 180°. The distance triangulated on the bearing S.1°59'W. is given by the sine proportion;



$$\frac{X}{29.41} = \frac{\sin.\ 91°43'}{\sin.\ 16°56'}$$

log. 29.41 = 1.468495
log. sin. 16°56' = 9.464279
2.004216
log. sin. 91°43' = 9.999805
log. X = 2.004021
X = 100.93 chs. The latitude and departure of this line are respectively 100.87 chs. and 3.49 chs.

In the second triangle, the distance triangulated on the bearing S.2°21'W. is given by

$$\frac{29.41}{\cos.\ 70°59'}$$

log. 29.41 = 1.468495
log. cos. 70°59' = 9.513009
log. X = 1.955486
X = 90.26 chs. The latitude and departure of this line are respectively 90.18 chs. and 3.70 chs. By computation, flag "A" is found to be 10.71 chs. South and 0.18 chs. East of the cor. of secs. 7, 12, 13 and 18. 90.18 + 10.71 = 100.89 chs. I therefore assume the latitude of point F. from the cor. of secs. 7, 12, 13 and 18 to be the mean of 100.87 chs. and 100.89 chs., or 100.88 chs., and the departure to be the mean of 3.49 chs. and 3.52 chs., or 3.50 chs.

Thence East 3.50 chs. to true line bet. secs. 19 and 24.

Thence North by chaining 20.28 chs.

80.00 The true point for cor. of secs. 13, 18, 19 and 24 is inaccessible.

Survey of the
West Boundary of T. 32 N., R. 9 W.

Chains.

Land, mountainous and broken.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, sagebrush, greasewood, mescal and cactus.

From the true point for cor. of secs. 13, 18, 19 and 24, (inaccessible)
South bet. secs. 19 and 24.
Over mountainous land, through scattering undergrowth.

0.60 Set an iron post, 3 ft. long, 2 ins. diam., 2 ins. in the ground, 30 ins. in a mound of stone, 3 ft. base, with stone marked cross (X) alongside, for witness cor. to cor. of secs. 13, 18, 19 and 24, marked on brass cap

W C
T32N
R10W | R9W
S13 | S18
S24 | S19
1921

From which
Face of cliff brs. S.51°E., 52 lks. dist., marked T32N R9W S19 X BO.
Face of cliff brs. S.$21\frac{1}{2}$°W., 13 lks. dist., marked X BO.
Face of cliff brs. N.$77\frac{3}{4}$°W. 29 lks. dist. marked X BO.

Cor. is set on ledge, 50 ft. high, bearing NW. and SE.
Asc. 150 ft.

5.38 Spur, slopes NW. From this point, Frog Spring brs. N.50°W. Desc.

18.68 Head of draw, course NW. Asc. through scattering timber.

20.88 Desc.

22.40 Wash, 10 lks. wide, 3 ft. deep, course NW. Asc. 130 ft.

25.40 Trail, brs. NW. and SE., Spring to road and Bundyville via Whitmore Wash.

26.30 Same wash, 10 lks. wide, 3 ft. deep, course NE. Continue ascent.

34.30 Trail, brs. NE. and SW. Leave timber, brs. NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 15 ins. in the ground, in a mound of stone, 26 ins. high, 5 ft. base with stone marked cross (X) at base of post, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$
S24 | S19
1921

Continue ascent.

42.70 Spur, slopew W. Desc. 60 ft.

50.00 Thence over bench.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, with stone marked cross (X) alongside of post, for cor. of secs. 19, 24, 25 and 30, marked on brass cap

T32N
R10W | R9W
S24 | S19
S25 | S30
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land mountainous and broken.
Soil, rocky, 3rd and 4th rates.
Timber, pinyon and cedar.
Undergrowth, quinine brush, sagebrush, dogwood, scrub oak

Chains.

cat claw, Spanish bayonet and mescal.

South bet. secs. 25 and 30.
Over rolling bench land, through scattering undergrowth.
1.60 Wash, 10 lks. wide, 4 ft. deep, course W.
16.40 Same trail, brs. NW. and SE.
25.00 Asc. 40 ft.
39.75 Desc. 10 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, with stone marked cross (X) alongside of post, for ¼ sec. cor., marked on brass cap

¼
S25 | S30
1921

And raise a mound of stone, 5 ft. base, 4 ft. high, W. of cor.
Asc. 45 ft.
55.00 Ridge, brs. NW. and SE. Desc. over cliffs, 590 ft.
58.60 Cliff, brs. NW. and SE., 40 ft. high.
60.00 Cliff, 50 ft. high, brs. NW. and SE.
79.15 Wash, 10 lks. wide, 4 ft. deep, course SW.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., on ledge, 36 ins. in a mound of stone, with stone marked cross (X) at base of post, for cor. of secs. 25, 30, 31 and 36, marked on brass cap

T32N
R10W | R9W
S25 | S30
S36 | S31
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, rolling bench and rough mountainous.
Soil, rocky, 3rd and 4th rate
No timber.
Undergrowth, quinine, cat claw, sagebrush, scrub oak, Spanish bayonet and cactus.

South bet. secs. 31 and 36.
Over broken and mountainous land, through scattering undergrowth.
2.80 Wash, 10 lks. wide, 5 ft. deep, course NW.
3.30 Same wash, 10 lks. wide, 5 ft. deep, course SE. Asc. 145 ft.
18.00 Spur, slopes SE. Desc. 130 ft.
25.00 Wash, 30 lks. wide, course SE. Asc. 105 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in a mound of stone, 4 ft. base, 3 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S31 | S36
1921

And raise a mound of stone, 5 ft. base, 4 ft. high, W. of cor.
Desc. 25 ft.
44.90 Wash, 20 lks. wide, course SE. Asc. 120 ft.
67.00 Thence over level bench.

Chains.

74.00 Desc. 125 ft.

79.00 Wash, 30 lks. wide, course SE. Asc. 20 ft.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 30 ins. in a mound of stone, 6 ft. base, for cor. of Ts. 31 and 32 N., Rs. 9 and 10 W., marked on brass cap

T32N
R10W | R9W
S36 | S31
S 1 | S 6
T31N
1921

From which
A cedar, 14 ins. diam., brs. N.33°E., 100 lks. dist., marked T32N R9W S31 BT.
A cedar, 14 ins. diam., brs. S.17°E., 31 lks dist., marked T31N R9W S6 BT.
A cedar, 12 ins. diam., brs. S.82¾°W., 51 lks. dist., marked T31N R10W S1 BT.
A cedar, 12 ins. diam., brs. N.28½°W., 211 lks. dist., marked T32N R10W S36 BT.

Land, broken and mountainous.

Soil, rocky, 4th rate.

Timber, cedar.

Undergrowth, quinine brush, sagebrush, cat claw, Spanish bayonet, mescal, scrub oak and cactus.

Survey of Part of the
South Boundary of T. 32 N., R. 9 W.

Chains.

From the cor. of Ts. 31 and 32 N., Rs. 9 and 10 W., which is an iron post, hereinbefore described,
East on a true line, bet. secs. 6 and 31.
Over rough broken land, through scattering timber and undergrowth.
Desc. 400 ft. over SE. slope.

38.42 (As per instructions) Set an iron post, 3 ft. long, 1 in diam., 10 ins. in the ground, in a mound of stone, 4 ft. base, 26 ins. high, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

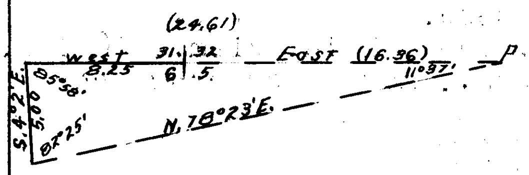
$$\frac{1}{4}\ \frac{S31}{S6}$$
1921

Asc.
48.00 Spur, slopes S. Desc.
51.00 Wash, 10 lks. wide, course SE.
53.80 Wash, 10 lks. wide, course S. Asc.
58.80 Ridge, brs. N. and S. Desc.
68.40 Center of wash, 1 ch. wide, course SE. Asc. 220 ft.
78.42 (As per instructions) Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, 28 ins. in a mound of stone, with stone marked cross (X) at foot of post, for cor. of secs. 5, 6, 31 and 32, marked on brass cap

T32N R9W
$$\begin{array}{c|c} S31 & S32 \\ \hline S6 & S5 \end{array}$$
T31N
1921

Land, rough broken.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, quinine brush, sagebrush, cat claw, Spanish bayonet, mescal, scrub oak and cactus.

East on a true line, bet. secs. 5 and 32.
Over mountainous land, through scattering timber and undergrowth.
Impossible to chain from this cor. Set a flag ahead on line, and from a point 8.25 chs. West of the cor. of secs. 5, 6, 31 and 32, measure a base S.4°2'E. 5.00 chs.--impossible to secure longer base--from the south end of which, flag brs. N.78°23'E. The three angles of the triangle are therefore 82°25', 85°58' and 11°37', the sum of which is 180°. The distance triangulated is given by the sine proportion;



$$\frac{X}{5.00} = \frac{\sin.\ 82°25'}{\sin.\ 11°37'}$$

$$\begin{array}{rcl} \log\ 5.00 & = & 0.698970 \\ \log.\ \sin.\ 11°37' & = & \underline{9.303979} \\ & & 1.394991 \\ \log.\ \sin.\ 82°25' & = & \underline{9.996185} \\ \log.\ X & = & 1.391176 \\ X & = & 24.61\ \text{chs., or } 16.36\ \text{chs.} \end{array}$$

East of the cor. of secs. 5, 6, 31 and 32.
16.36 Triangulation point 570 ft. above the cor. of secs. 5, 6, 31 and 32. Continue East on a true line, bet. secs. 5 and 32.
17.50 Offset North 1.00 chs., and continue East on offset line, through sec. 32.

Survey of Part of the South Boundary of T. 32 N., R. 9 W.

Chains.

40.00 South 1.00 chs. to true line, and set an iron post, 3 ft. long, 1 in. diam., on bed rock, in a mound of stone, 4 ft. base, 3 ft. high, for ¼ sec. cor., marked on brass cap

¼ S32
S 5
1921

From which
A cedar, 6 ins. diam., brs. S.38¼°E., 57 lks. dist. marked ¼S5 BT.
Cliff, facing south, marked X BO at a point 4 ft. above foot, brs. N.66½°W., 9 lks. dist.

Continue East on offset line, 1.00 ch. North.
45.70 Wash, 20 lks. wide, course SW.
54.50 Canyon, 50 lks. wide, 75 ft. deep, course SW.
56.40 Wash, 20 lks. wide, course SW.
68.70 Wash, 20 lks. wide, course NW.
79.00 South 1.00 ch. to true line, and continue East on true line, bet. secs. 5 and 32.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 4, 5, 32 and 33, marked on brass cap

T32N R9W
S32 | S33
S 5 | S 4
T31N
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, N. of cor.

Land, precipitous cliffs and mountains.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, quinine brush, sagebrush, cat claw, Spanish bayonet and cactus.

East on a true line, bet. secs. 4 and 33.
Over broken land, through scattering undergrowth.
22.00 Wash, 20 lks. wide, course SW. Asc. 95 ft.
33.20 Spur, slopes S. Desc. 30 ft.
34.00 Wash, 10 lks. wide, course S. Asc. 90 ft.
39.00 Ridge, brs. N. and S. Desc.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap

¼ S33
S 4
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, N. of cor.

64.50 Wash, 20 lks. wide, course SE.
66.40 Wash, 10 lks. wide, course S. Asc. 65 ft.
71.30 Spur, slopes SE. Desc. 155 ft.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, in a mound of stone, 3 ft. base, with stone marked cross (X) alongside, for cor. of secs. 3, 4, 33 and 34, marked on brass cap

T32N R9W
S33 | S34
S 4 | S 3
T31N

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

Chains.

Land, broken.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, sagebrush, Spanish bayonet, cat claw and cactus.

East on a true line, bet. secs. 3 and 34.
Over broken land, through scattering undergrowth.
Desc. gradual slope. 225 ft. to
40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, 18 ins. in a mound of stone, 3 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

$\frac{1}{4}\,\frac{\text{S34}}{\text{S 3}}$
1921

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., on ledge rock, in a mound of stone, 4 ft. base, 36 ins. high, with cross (X) at base of post, for cor. of secs. 2, 3, 34 and 35, marked on brass cap

T32N R9W
S34|S35
S 3|S 2
T31N
1921

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
Land, broken.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, sagebrush, Spanish bayonet, cat claw and cactus.

East on a true line, bet. secs. 2 and 35.
Over broken land, through scattering undergrowth.
Desc. 170 ft.
28.50 Wash, 20 lks. wide, 15 ft. deep, course SE.
40.00 Set an iron post, 3 ft. long, 1 in. diam., on ledge rock, in a mound of stone, 3 ft. base, 3 ft. high, with cross (X) at base of post, for ¼ sec. cor., marked on brass cap

$\frac{1}{4}\,\frac{\text{S35}}{\text{S 2}}$
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.
Desc. 110 ft.
67.80 Wash, 10 lks. wide, course S. Asc.
73.75 Top of cliff, 150 ft. high, brs. N. and S. Continue ascent.
77.80 Spur, slopes S. Desc.
79.90 Cliff, 20 ft. high, brs. NE. and SW. Desc.
80.00 Ledge, foot of cliff, 6 ft. wide, brs. NW. and SE. Set an iron post, 3 ft long, 2 ins. diam., 36 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) at base of post, for cor. of secs. 1, 2, 35 and 36, marked on brass cap

92 16

BOOK 3626

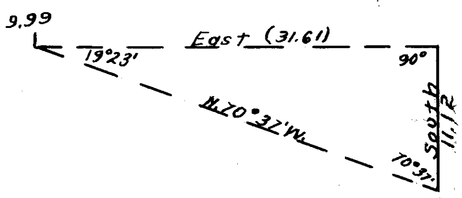
Survey of Part of the South Boundary of T. 32 N., R. 9 W.

Chains.

T32N | R9W
S35 | S36
S 2 | S 1
T31N
1921

Face of cliff, about 4 ft. above foot, marked X BO brs. N.89°W. 3 lks. dist.
No other bearings available.
Land, broken.
Soil, rocky, 4th rate.
No timber.
Undergrowth, quinine brush, cat claw, Spanish bayonet, greasewood and cactus.

East on a true line, bet. secs. 1 and 36.
Over broken mountainous land, through scattering undergrowth.
Desc. 170 ft.
4.60 Gulch, 10 lks. wide, course S. Asc. 220 ft.
9.60 Spur, slopes S. Desc.
9.99 Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base South. 11.12 chs. From the S. end of base, flag at the 9.99 ch. point brs. N.70°37'W. The three angles of the triangle are therefore 90°, 70°37' and 19°23', the sum of which is 180°. The distance triangulated is given by tan. 70°37' X 11.12 = 2.84229 X 11.12 = 31.61 chs. which added to 9.99 chs., gives 41.60 chs. to



Triangulation point, 1460 ft. below 9.99 ch. point. Thence West 1.60 chs. to
40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ sec. cor., marked on brass cap

¼ S36
S 1
1921

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
Thence East on a true line, bet. secs. 1 and 36.
41.60 Triangulation point above described. Desc. 160 ft.
48.50 Spurs, slopes SE. and NE. Desc. 225 ft.
55.90 Top of cliff, 200 ft. high, brs. N. and S. Colorado River at foot of cliff, at about 57.00 chs., flows S. Impossible to continue from this point.
Land, broken cliffs and precipitous mountains.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, greasewood, Spanish bayonet, ocotillo, mescal, cat claw and cactus.

Chains

From the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of Tp., which is an iron post, hereinbefore described, N.0°1'W., bet. secs. 35 and 36.
Over broken mountainous land, through scattering undergrowth.
Asc. 140 ft.

11.60 Spur, slopes NE. from peak, 50 lks. west. To avoid cliffs to north traverse as follows:

East	0.95	chs.	
N.20½°E.	6.46	"	
N.27¼°W.	7.00	"	to point on sec. line.
S.0°1'E.	4.07	"	to a point 8.20 chs.

N.0°1'W. of 11.60 ch. point.
11.60 + 8.20 =

19.80 Foot of cliffs, bearing NE. and SW. Thence N.0°1'W., bet. secs. 35 and 36, descending 370 ft. over cliffs, bearing NE. and SW.

32.80 Spur, slopes NW. Continue descent.

37.10 Draw, course NW. Thence along W. slope.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 4 ins. in the ground to bed rock, supported in a mound of stone with stone marked cross (X) at base of post for ¼ sec. cor. marked on brass cap

¼
S 35 | S 36
1921

Asc. 15 ft. over cliff.

43.80 Top of cliff, bears NNE. and S. Desc. 240 ft.

65.30 Enter wash, 30 lks. wide, 10 ft. deep, course N., from SE.

71.00 Leave wash, course N.20°E.

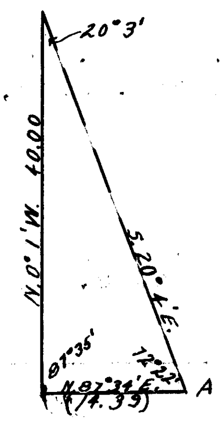
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in the ground to bed rock, supported in a mound of stone with stone marked cross (X) at base of post, for cor. of secs. 25, 26, 35 and 36, marked on brass cap

T32N R9W
S 26 | S 25
S 35 | S 36
1921

And raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.

Land, broken mountainous.
Soil, rocky, 4th. rate.
Timber; none.
Undergrowth, greasewood, quinine brush, spanish bayonet, mescal and cactus.

East, on a true line bet. secs. 25 and 36.
Over mountainous land, through scattering undergrowth.
Impossible to chain from this cor. Set a flag on a bearing N.87°34'E. Measure a base N.0°1'W., 40.00 chs. dist. to a point from which flag bears S.20°4'E. The three angles of the triangle are therefore 20°3', 72°22' and 87°35', the sum of which is 180°. The distance triangulated is given by the sine proportion:

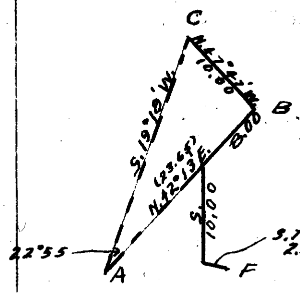


$$\frac{X}{40.00} = \frac{\sin. 20°3'}{\sin. 72°22'}$$

log. 40.00 = 1.602060
log. sin.72°22' = 9.979100
1.622960
log. sin.20°3' = 9.535092
log. X = 1.158052
X = 14.39 chs.to point "A".

Chains

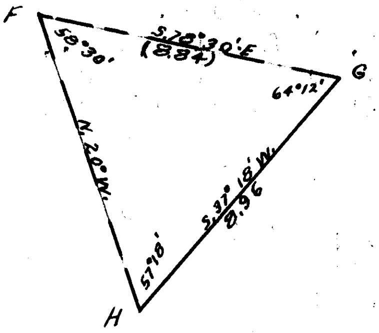
From Point "A", set Flag "B" on a bearing N.42°13'E. From Flag "B" measure a base N.47°47'W., 10.00 chs. to Flag "C" from which Flag "A" bears S.19°18'W. The three angles of the triangle are therefore 67°5', 90° and 22°55', the sum of which is 180°. The distance AB is given by tan. 67°5' X 10.00 = 2.36541 X 10.00 = 23.65 chs.



From "B", run traverse as follows:

S.42°13'W.	8.00 chs.	
South	10.00 "	
S.78½°E.	2.38 "	to Flag "F".

At 0.10 chs. on last course, old trail leads south to Colorado River,



From Flag "F", triangulate as follows:
Set Flag "G" on a bearing S.78°30'E. From Flag "G", measure a base S.37°18'W., 8.96 chs. to Flag "H", from which Flag "F" bears N.20°W. The three angles of the triangle are therefore 58°30', 64°12' and 57°18', the sum of which is 180°. The distance FG is given by the sine proportion:

$$\frac{X}{8.96} = \frac{\sin.\ 57°18'}{\sin.\ 58°30'}$$

log. 8.96 = 0.952308
log.sin. 58°30' = 9.930766
1.021542
log.sin. 57°18' = 9.925060
log. X = 0.946602
X = 8.84 chs.

From "G", run traverse as follows:

N.89°40'E. 4.11 chs. (At 3.50, cliff 100 ft. high, brs. N. and S.)
North .01 ". to point on line 40.00 chs. east of the cor. of secs. 25, 26, 35 and 36, therefore at

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground, to bed rock, supported in a mound of stone, with stone marked cross (X) at base of post, for ¼ sec. cor. marked on brass cap

$$\frac{1}{4}\ \frac{S\ 25}{S\ 36}$$
1921

And raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

Thence east on true line bet. secs. 25 and 36.

Desc. 35 ft. to

40.75 High water mark of Colorado, bears N. and S. Desc. 14 ft.

42.35 Edge of water of Colorado River, 5.50 chs. wide, course S.

Land; mountainous.

Soil; rocky, 4th. rate.

Timber; very scattering cedar.

Undergrowth; greasewood, sagebrush, catclaw, spanish bayonet, mescal, quinine brush and cactus.

Chains.

N.0°1'W., bet. secs. 25 and 26.
Over broken mountainous land, through scattering undergrowth.
Desc.

5.50 Wash, 10 lks. wide, 4 ft. deep, course E. Asc. 185 ft.

38.20 Gulch, 10 lks. wide, 5 ft. deep, course E. Continue ascent.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 3 ins. in the ground, 33 ins. in a mound of stone, 5 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼
S26 | S25
1921

Continue ascent, 395 ft., over cliffs and rim rock.

51.25 Spur, slopes E. Desc. 505 ft.

59.10 Wash, 10 lks. wide, 5 ft. deep, course NE. Thence over rolling land.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for cor. of secs. 23, 24, 25 and 26, markedon brass cap

T32N R9W
S23 | S24
S26 | S25
1921

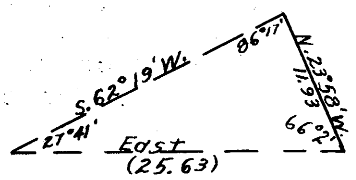
And raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.

Land, broken mountainous.
Soil, rocky, 3rd and 4th rates.
Timber, none.
Undergrowth, greasewood, sagebrush, cat claw, Spanish dagger, mescal, quinine brush and cactus.

East on a true line, bet. secs. 24 and 25.
Over mountainous land, through scattering undergrowth.
Desc. 70 ft.

10.40 Wash, 30 lks. wide, 5 ft. deep, course SE.

12.06 Cliffs, br. N. and S. Impracticable to chain from this point. Set a flag ahead, on opposite side of wash. Vertical angle to wash, -36°. From flag, measure a base N.23°58'W., 11.93 chs., from N. end of which, flag brs. S.62°19'W. Also from a point 2.90 chs. West of flag on E. side of wash, vertical angle to wash is -51°. The three angles of the triangle are therefore 86°17', 66°2' and 27°41', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{11.93} = \frac{\sin. 86°17'}{\sin. 27°41'}$$

$$\begin{array}{rcl} \log. 11.93 & = & 1.076640 \\ \log. \sin. 27°41' & = & \underline{9.667065} \\ & & 1.409575 \\ \log. \sin. 86°17' & = & \underline{9.999086} \\ \log. X & = & 1.408661 \\ X & = & 25.63 \end{array}$$

chs., which added to 12.06 chs., gives 37.69 chs. The approximate topography is as follows:

Chains. Desc. 690 ft.

26.00 Wash, course S. Asc. 690 ft.

34.79 Cliffs, br. N. and S. Asc. 35 ft.

37.69 Triangulation point. Thence by chaining. Desc. 90 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., on cross (X) on ledge rock, in a mound of stone, 4 ft. base, 3 ft high, for ¼ sec. cor., marked on brass cap

¼ S24
S25
1921

Cor. stands on ledge, 20 ft. long, extending N. and S.

41.50 Cliffs, br. N.20°E. and S.20°W. Impossible to project line any farther. From this point, the distance to the nearer bank of the Colorado River is found by triangulation to be 19.45 chs., and to the farther bank, 28.55 chs.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, greasewood, cat claw, sagebrush, quinine brush, Spanish bayonet and mescal.

N.0°1'W. bet. secs. 23 and 24.

Over broken mountainous land, through scattering undergrowth.

Desc. 20 ft.

4.00 Wash, 30 lks. wide, 3 ft. deep, course SE. Thence along E. slope, descending 15 ft.

6.30 Wash, 10 lks. wide, 3 ft. deep, course SE. Asc. 350 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, 18 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S23 | S24
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W of cor.

Continue ascent, 290 ft.

40.80 Head of gulch, course SW. Continue ascent.

45.00 Spur, slopes SE. Continue ascent.

54.00 Rim rock, brs. N.20°E. and S.20°W. Desc. 55 ft.

71.20 Rim rock, brs. N.5°W. and SE. Desc. 110 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., on ledge rock, over cross (X), in a mound of stone, 3 ft. high, 5 ft base, for cor. of secs. 13, 14, 23 and 24, markedon brass cap

T32N R9W
S14 | S13
S23 | S24
1921

Land, broken mountainous.

Soil, rocky, 3rd and 4th rates.

No timber.

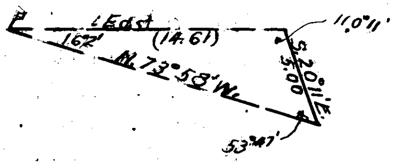
Undergrowth, greasewood, cat claw, sagebrush, quinine brush, Spanish bayonet, mescal and cactus.

East on a random line, bet. secs. 13 and 24.

Impracticable to chain from this cor. Triangulate as follows: Set a flag ahead

Chains.

on line, from which I measure a base S.20°11'E. 5.00 chs., from the S. end of which, flag at the cor. of secs. 13, 14, 23 and 24 brs. N.73°58'W. The three angles of the triangle are therefore 16°2', 110°11' and 53°47', the sum of which is 180°. The distance triangulated is given by the sine proportion:

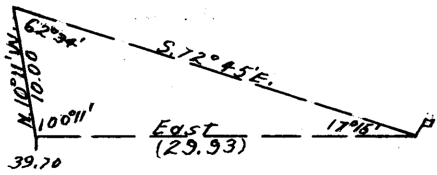


$$\frac{X}{5.00} = \frac{\sin.\ 53°47'}{\sin.\ 16°2'}$$

log. 5.00 = 0.698970
log. sin. 16°2' = 9.441218
1.257752
log. sin. 53°47' = 9.906760
log. X = 1.164512
X = 14.61 chs.

14.61 Continue East on a random line, bet. secs. 13 and 24, distance by chaining.

40.00 Set temp. ¼ sec. cor. Impracticable to chain from this point; triangulate as follows:
Set a flag ahead on line. From the 39.70 ch. point, measure a base N.10°11'W. 10.00 chs., from the N. end of which, flag brs. S.72° 45'E. The three angles of the triangle are therefore 62° 34', 17°15' and 100°11', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{10.00} = \frac{\sin.\ 62°34'}{\sin.\ 17°15'}$$

log. 10.00 = 1.000000
log. sin. 17°15' = 9.472086
1.527914
log. sin. 62°34' = 9.948192
log. X = 1.476106
X = 29.93 chs., which added to 39.70 chs., gives

69.63 Thence East on a random line, bet. secs. 13 and 24, distance by chaining.

80.18 Fall 19 lks. S. of the cor. of secs. 13, 18, 19 and 24, on the E. bdy. of Tp., which is an iron post, hereinbefore described.

Thence
S.89°52'W. on a true line, bet. secs. 13 and 24.
Over mountainous land, through scattering undergrowth.
Asc. 90 ft.

2.70 Spur, slopes SW. Desc. 295 ft.,

10.55 Thence by triangulation, as hereinbefore described, topography approximate.

37.00 Wash, 20 lks. wide, course SW.

40.09 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, in a mound of stone, 4 ft. base, 2½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\ \frac{S13}{S24}$$

1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.

Asc. 180 ft. Distance by chaining.

65.57 Top of ascent, brs. N. and S. Left edge of canyon, 300

Survey of Part of the
Subdivision of T. 32 N., R. 9 W.

Chains.

deep, course S. Thence Distance by triangulation, topography approximate.

74.78 Wash in canyon, course S. Asc. 300 ft.

80.18 The cor. of secs. 13, 14, 23 and 24.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, black brush, cactus and dogwood.

N.0°1'W. bet. secs. 13 and 14.

Over mountainous land, through scattering undergrowth.

Desc. 345 ft.

4.00 Wash in canyon, 40 lks. wide, course E. Continue descent.

14.70 Wash in canyon, 40 lks. wide, course SE.

19.74 Same wash, 40 lks. wide, course SW. Asc. 25 ft.

24.00 Same wash, 40 lks. wide, 20 ft. deep, course SE. Asc. 470 ft.

32.40 Top of rim rock, 80 ft. high, brs. NW. and SE. Thence over lava flow, continuing ascent.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, 24 ins. in a mound of stone, 3 ft. base, with stone marked cross alongside, for ¼ sec. cor., marked on brass cap

¼
S14 | S13

1921

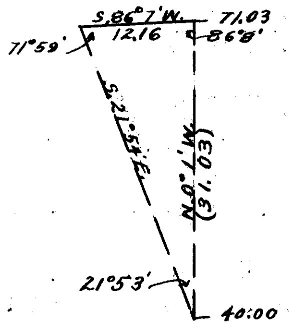
And raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.

Continue ascent.

44.40 Rim rock, 150 ft. high, brs. NE. and SW. Desc. 270 ft.

49.60 Wash in canyon, 40 lks. wide, 20 ft. deep, course SW. Asc. 45 ft.

51.40 Cliffs, br. NE. and SW. Extreme point of lava flow from West. Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base S.86°7'W. 12.16 chs., from the W. end of which, flag at the ¼ sec. cor. bet. secs. 13 and 14 brs. S.21°54'E. The three angles of the triangle are therefore 71°59', 86°8' and 21°53', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{12.16} = \frac{\text{sin. } 71°59'}{\text{sin. } 21°53'}$$

log. 12.16 = 1.084934

log. sin. 21°53' = 9.571380

1.513554

log. sin. 71°59' = 9.978165

log. X = 1.491719

X = 31.03 chs., which added to 40.00 chs., gives 71.03 chs.

71.03 Thence by chaining, ascending.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, 24 ins. in a mound of stone, 3 ft. base, with stone marked cross (X) alongside, for cor. of secs. 11, 12, 13 and 14, marked on brass cap

T32N R9W
S11 | S12
S14 | S13
1921

BOO

Chains.

Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, greasewood, cat claw and cactus.

N.89°52'E. on a random line, bet. secs. 12 and 13.
40.00 Set temp. ¼ sec. cor.
80.28 Fall 5 lks. N. of the cor. of secs. 7, 12, 13 and 18, on the E. bdy. of Tp., which is an iron post, hereinbefore described.
Thence
S.89°54'W. on a true line, bet. secs. 12 and 13.
Over broken land, through scattering undergrowth.
Desc. 35 ft., over lava flow.
5.28 Gulch, course S. Asc. 60 ft., over sandstone.
14.30 Spur, slopes S. Desc. 30 ft.
20.30 Rim rock, 40 ft. high, brs. N. and S. Desc. 210 ft.
33.60 Gulch, course SW. Desc. 55 ft. over lava flow.
40.14 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, 28 ins. in a mound of stone, 6 ft. base, with stone marked cross (X) at foot of post, for ¼ sec. cor., marked on brass cap

¼ S12
S13
1921

Continue descent, 210 ft.
43.58 Wash, 20 lks. wide, 15 ft. deep, course SW. Continue desc.
61.08 Wash, 10 lks. wide, 5 ft. deep, course SW. Continue descent.
80.28 The cor. of secs. 11, 12, 13 and 14.
Land, broken and mountainous.
Soil, rocky, 4th rate; lava and sandstone formations.
Timber, very few cedars.
Undergrowth, greasewood, sagebrush, cactus, Spanish bayonet, dogwood, black brush.

N.0°1'W. bet. secs. 11 and 12.
Over mountainous land, through scattering undergrowth.
Asc. 50 ft.
4.00 Desc. 15 ft.
14.60 Wash, 20 lks. wide, course SW. Asc. 50 ft.
30.00 Desc. 70 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, in a mound of stone, 4 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S11 | S12
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Asc.
63.90 Wash, 20 lks. wide, course SW.
75.70 Wash, 30 lks wide, course SW.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, marked on brass cap

Chains.

T32N R9W
S 2|S 1
S11|S12
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, mountainous.
Soil, 4th rate, lava formation.
Timber, none.
Undergrowth, black brush, and cactus.

N.89°54'E. on a random line, bet. secs. 1 and 12.
40.00 Set temp. ¼ sec. cor.
80.24 Fall 2 lks. N. of the cor. of secs. 1, 6, 7 and 12, on the E. bdy. of Tp., which is an iron post, hereinbefore described.
Thence
S.89°55'W. on a true line, bet. secs. 1 and 12.
Over mountainous land, through scattering undergrowth.
Desc. 270 ft.
40.12 Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, in a mound of stone, 3 ft. base, 1 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼ S 1
S12
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, N. of cor.
Continue descent, 220 ft.
67.15 Continue descent, 225 ft., over cliffs.
75.05 Wash, 30 lks. wide, 20 ft. deep, course SW. Asc. 50 ft.
80.24 The cor. of secs. 1, 2, 11 and 12.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, black brush and dogwood.

N.0°1'W. on a true line, bet. secs. 1 and 2.
Over mountainous land, through scattering undergrowth.
Asc. [illegible]
10.00 Desc. 120 ft.
14.10 Wash, 20 lks. wide, course SW. Asc.
18.60 Desc. 70 ft.
25.10 Wash, 20 lks. wide, course SW. Asc. 300 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, in a mound of stone, 3 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S 2|S 1
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.
Continue ascent, 75 ft.
48.10 Desc. 125 ft.
64.20 Wash, 50 lks. wide, course SW. Asc. 110 ft.
80.17 Intersect the 8th Standard Parallel North, 17.61 chs. East of the standard cor. of secs. 35 and 36, T. 33 N., R. 9 W., which is an iron post, described in Book "B".

Survey of Part of the Subdivision of T. 32 N., R. 9 W.

Chains.

At the point of intersection,
Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground, in a mound of stone, 4 ft. base, 1 ft. high, for closing cor. of secs. 1 and 2, marked on brass cap

T33N R9W
S36
C|C
S 2|S 1
T32N R9W
1921

From which
A cedar, 20 ins. diam., brs. S.25¾°E., 216 lks. dist., marked T32N R9W S1 CC BT.
A cedar, 18 ins. diam., brs. S.70¾°W., 328 lks. dist., marked T32N R9W S2 CC BT.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, very scattering cedar.
Undergrowth, sagebrush and dogwood.

From the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of Tp., which is an iron post, hereinbefore described,
N.0°1'W. bet. secs. 34 and 35.
Over broken land, through scattering undergrowth.
Desc. 125 ft. over NE. slope.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 36 ins. in a gap between two sandstone ledges, with cross on ledge beside cap, for ¼ sec. cor., marked on brass cap

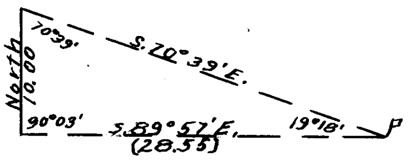
¼
S34|S35
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Continue descent, 40 ft. over NE. slope.
65.00 Continue descent, 40 ft. over NW. slope.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground, in a mound of stone, 4 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for cor. of secs. 26, 27, 34 and 35, marked on brass cap

T32N R9W
S27|S26
S34|S35
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, broken.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, cat claw, sagebrush and black brush.

East on a random line, bet. secs. 26 and 35.
40.00 Set temp. ½ sec. cor.
51.57 Impracticable to chain from this point. The cor. of secs. 25, 26, 35 and 36 brs. S.89°57'E. From the 51.57 ch. point, measure a base North 10.00 chs., from the N. end of which,



Chains.

the cor. of secs. 25,26, 35 and 36 brs. S.70°39'E. The three angles of the triangle are therefore 19°18', 90°3' and 70°39', the sum of which is 180°. The distance triangulated is given by the sine proportion:

$$\frac{X}{10.00} = \frac{\sin. 70°39'}{\sin. 19°18'}$$

$$\begin{array}{rcl} \text{log. } 10.00 & = & 1.000000 \\ \text{log. sin. } 70°39' & = & \underline{9.974748} \\ & & 0.974748 \\ \text{log. sin. } 19°18' & = & \underline{9.519190} \\ \text{log. } X & = & 1.455558 \\ X & = & 28.55 \end{array}$$

chs., which added to 51.57 chs., gives 80.12 chs. The latitude of the line bearing S.89°57'E. 28.55 chs. is 0.03 chs.; the computed falling would be as follows;

80.12 Intersect N. and S. line, 3 lks. N. of the cor. of secs. 25, 26, 35 and 36.

Thence

N.89°59'W. on a true line, bet. secs. 26 and 35.

Over mountainous land, through scattering undergrowth.

Asc. 955 ft., distance by triangulation.

28.55 Cliffs, br. N. and S. Continue ascent, 45 ft., distance by chaining.

32.65 Thence over level land.

40.06 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, in a mound of stone, 4 ft. base, 2 ft. high, for ¼ sec. cor., marked on brass cap

¼ S26
S35
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.

45.00 Desc. 75 ft., over cliffs, bearing NW. and SE.

55.70 Wash, 20 lks. wide, course SE. Asc. 115 ft.

75.10 Spur, slopes SW. Desc. 85 ft.

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

Land, mountainous and level.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, sagebrush, cactus and cat claw.

N.0°1'W. bet. secs. 26 and 27.

Over rolling mountainous land, through scattering undergrowth.

Desc. 130 ft.

25.10 Draw, course NW. Asc. 25 ft.

30.00 Desc. 300 ft.

37.20 Cliff, 140 ft. high, brs. NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, in a mound of stone, 3 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S27 | S26
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

Continue descent, 260 ft.

50.00 Asc. 25 ft.

68.00 Desc. 60 ft.

Chains.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 32 ins. in the ground, with stone marked cross (X) alongside, for cor. of secs. 22, 23, 26 and 27, marked on brass cap

T32N R9W
S22 | S23
S27 | S26
1921

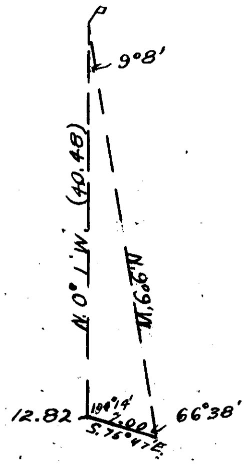
And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, black brush.
From this cor., Cane Spring brs. N.65¼°W.

S.89°59'E. on a random line, bet. secs. 23 and 26.
40.00 Set temp. ¼ sec. cor.
80.36 Intersect N. and S. line, 23 lks. N. of the cor. of secs. 23, 24, 25 and 26.
Thence
N.89°49'W. on a true line, bet. secs. 23 and 26.
Over rough mountainous land, through scattering undergrowth.
Asc. 180 ft.
23.85 Spur, slopes N. Desc. 55 ft.
29.65 Wash, 20 lks. wide, 6 ft. deep, course N. Thence along N. slope.
37.15 Wash, 10 lks. wide, course NE. Asc.
40.18 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, 32 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

S23
¼ S26
1921

Asc. 595 ft.
66.05 Spur, slopes N. Desc. 370 ft.
80.36 The cor. of secs. 22, 23, 26 and 27.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, greasewood, quinine brush, sagebrush and cactus.

N.0°1'W. bet. secs. 22 and 23.
Over rolling mountainous land, through scattering undergrowth.
Desc. 50 ft.
12.82 Right rim of box canyon, 200 ft. deep, course E. Impracticable to chain; triangulate as follows: Set a flag ahead on line, and from the 12.82 ch. point, measure a base S.75°47'E. 7.00 chs. -- impracticable to chain longer base--from the E. end of which, flag brs. N.9°9'W. The three angles of the triangle are therefore 9°8', 66°38' and 104°14', the sum of which is 180°. The dist-



Chains.

ance triangulated is given by the sine proportion:

$$\frac{X}{7.00} = \frac{\sin.\ 66°38'}{\sin.\ 9°\ 8'}$$

log. 7.00 = 0.845098
log. sin. 9°8' = 9.200666
1.644432
log. sin. 66°38' = 9.962836
log. X = 1.607268
X = 40.48 chs. which added to 12.82 chs., gives 53.30 chs. Thence measure S.0°1'E. 13.30 chs. The approximate topography is as follows:

18.00 Canyon, course E. Asc. 400 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, in a mound of stone, 5 ft. base, 2 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S22|S23
1921

From this cor., Cane Spring bears S.63°W.
Continue ascent, 285 ft.

53.30 Triangulation point. Rim rock, brs. NW. and SE. Asc. 50 ft

57.00 Thence over level land.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 14 ins. in the ground, in a mound of stone, 4 ft. base, 2 ft. high, with stone marked cross (X) alongside, for cor. of secs. 14, 15, 22 and 23, marked on brass cap

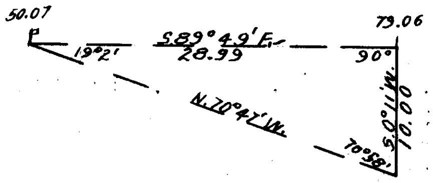
T32N R9W
S15|S14
S22|S23
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, level and mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, black brush and cat claw.

S.89°49'E. on a random line, bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.

50.07 Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base S.0°11'W. 10.00 chs., from the S. end of which, flag at the 50.07 ch. point brs. N.70°47'W. The three angles of the triangle are therefore 90°, 70°58' and 19°2', the sum of which is 180°. The distance triangulated is given by tan. 70°58' X 10.00 = 2.89873 X 10.00 = 28.99 chs., which added to 50.07 chs., gives



79.06 Thence S.89°49'E. on a random line, bet. secs. 14 and 23, distance by chaining.

80.32 Intersect N. and S. line, 14 lks. N. of the cor. of secs. 13, 14, 23 and 24.
Thence
N.89°43'W. on a true line, bet. secs. 14 and 23.
Over mountainous land, through scattering undergrowth.
Asc. 55 ft.

Chains.

1.26 Spur, slopes N. Rim of canyon, brs. N. and S.10°E. Thence by triangulation, as hereinbefore described.

30.25 Triangulation point. Bluff and rim rock, brs. NW. and SE. Thence by chaining, ascending gradually.

40.16 Set an iron post, 3 ft. long, 1 in. diam., on surface rock, in a mound of stone, with cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼ S14
S23
1921

Continue gradual ascent.

80.32 The cor. of secs. 14, 15, 22 and 23.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, greasewood, Spanish bayonet and mescal.

N.0°1'W. bet. secs. 14 and 15.

Over broken land, through scattering undergrowth.

Desc. 125 ft.

15.00 Wash, 20 lks. wide, course NE. Asc. 40 ft.

30.00 Desc. 40 ft.

33.40 Wash, 20 lks. wide, course E. Thence over level land.

40.00 Set an iron post, 3 ft. long, 1 in. diam., on sandstone ledge, 15 ft. long, in a mound of stone, 6 ft. base, 3 ft. high, with cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼
S15 | S14
1921

Continue over level land.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, and in a mound of stone, 2 ft. base, 1 ft. high, for cor. of secs. 10, 11, 14 and 15, marked on brass cap

T32N R9W
S10 | S11
S15 | S14
1921

And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, broken and level.

Soil, rocky, lava and sandstone formations, 4th rate.

Timber, none.

Undergrowth, sagebrush, cat claw, and yucca.

S.89°43'E. on a random line, bet. secs. 11 and 14.

40.00 Set temp. ¼ sec. cor.

80.26 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 11, 12, 13 and 14.

Thence

N.89°40'W. on a true line, bet. secs. 11 and 14.

Over rolling mountainous land, through scattering undergrowth.

Desc. 235 ft.

17.30 Center of wash, 1.50 chs. wide, in box canyon, course SE. Asc. 125 ft.

20.00 Right rim of canyon, brs. NW. and SE. Continue ascent, 130 ft.

BOOK 2329

Chains.

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

¼ S11
S14
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.
Asc. 295 ft.
69.00 Top of crater. Desc. 225 ft.
80.26 The cor. of secs. 10, 11, 14 and 15.
Land, rolling mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, dogwood.

N.0°1'W. bet. secs. 10 and 11.
Over level land, through dense undergrowth.
38.00 Wash, 20 lks. wide, 20 ft. deep, course E. Asc.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, in a mound of stone, 4 ft. base, 2 ft. high, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼
S10 | S11
1921

56.64 Wash, 20 lks. wide, course E.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for cor. of secs. 2, 3, 10 and 11, marked on brass cap

T32N | R9W
S 3 | S 2
S10 | S11
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, level.
Soil, 4th rate.
No timber.
Undergrowth, sagebrush and dogwood.

S.89°40'E. on a random line, bet. secs. 2 and 11.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 1, 2, 11 and 12.
Thence
N.89°42'W. on a true line, bet. secs. 2 and 11.
Over rolling land, through scattering undergrowth. Desc. 350 ft.
40.04 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for ¼ sec. cor., marked on brass cap

¼ S 2
S11
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.
Desc 110 ft.
70.50 Wash, 50 lks. wide, 10 ft. deep, course S. Asc. 40 ft.
80.08 The cor. of secs. 2, 3, 10 and 11.

Survey of Part of the
Subdivision of T. 32 N., R. 9 W.

Chains.

Land, rolling.
Soil, rocky, lava formation, 4th rate.
Timber, none.
Undergrowth, sagebrush and dogwood.

N.0°1'W. on a true line, bet. secs. 2 and 3.
Over level land, sloping E., through scattering undergrowth.
16.70 Center of wash, 150 lks. wide, course SE.
26.70 Same wash, course SW., from N.
31.20 Same wash, 1 ch. wide, course S., from NW.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ sec. cor., marked on brass cap

¼
S 3 | S 2
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.
67.30 Wash, 20 lks. wide, course W.
75.10 Wash, 50 lks. wide, course SW.
79.73 Intersect N. bdy. of Tp. (8th Standard Parallel North) at a point 17.48 chs. East of the TRUE POINT FOR standard cor. of secs. 34 and 35, T. 33 N., R. 9 W., WITNESSED 0.40 CHS. EAST BY an iron post, described in Book "B".
At the point of intersection,
Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for closing cor. of secs. 2 and 3, marked on brass cap

T33N R9W
S35
S 3 | S 2
C | C
T32N | R9W
1921

And raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor.
Land, level.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush and dogwood.

From the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of Tp., which is an iron post, hereinbefore described,
N.0°2'W. bet. secs. 33 and 34.
Over rolling mountainous land, through scattering undergrowth.
Asc. 25 ft.
1.00 Thence along E. slope.
8.00 Desc. 130 ft.
13.90 Wash, 10 lks. wide, course E.
20.00 Draw, 10 lks. wide, course E. Asc. 130 ft.
36.10 Cliff, 50 ft. high, brs. NE. and SW. Continue ascent.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 3 ins. in the ground, in a mound of stone, 4 ft. base, 33 ins. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S33 | S34
1921

Chains.

Desc. 15 ft.
41.00 Asc. 70 ft.
53.20 Spur, slopes NE. Desc. 195 ft.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, in a mound of stone, 3 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for cor. of secs. 27, 28, 33 and 34, marked on brass cap

T32N R9W
S28 | S27
S33 | S34
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, rolling mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush, cactus, cat claw.

East on a random line, bet. secs. 27 and 34.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 26, 27, 34 and 35.
Thence
S.89°58'W. on a true line, bet. secs. 27 and 34.
Over rolling land, through scattering undergrowth.
Desc. 145 ft., over cliffs.
13.00 Wash, 20 lks. wide, course N. Asc. 145 ft.
40.04 Set an iron post, 3 ft. long, 1 in. diam., 2 ins. in the ground, on ledge rock, in a mound of stone, 3 ft. base, 3 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼ S27
S34
1921

Desc.
50.80 Wash, 10 lks. wide, course NE. Asc.
53.00 Desc. 40 ft.
55.30 Wash, 20 lks. wide, course NE. Asc. 115 ft.
80.08 The cor. of secs. 27, 28, 33 and 34.
Land, rolling.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush, dogwood, and black brush.

N.0°2'W. bet. secs. 27 and 28.
Over rolling land, through scattering undergrowth.
Along E. slope.
5.00 Desc. 25 ft.
5.50 Asc. 15 ft.
13.00 Desc. 70 ft.
16.00 Asc. 60 ft.
21.00 Spur, slopes NE. Desc. 70 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, 4 ft. base, 3 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S28 | S27
1921

Chains.

Desc. 55 ft.
45.00 Wash, 20 lks. wide, course NE. Asc. 80 ft.
65.00 Desc. 60 ft.
73.20 Wash, 20 lks. wide, course NE. Thence along E. slope.
79.93 Set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, 5 ft. base, 3 ft. high, with stone marked cross (X) alongside, for witness cor. to cor. of secs. 21, 22, 27 and 28, marked on brass cap

T32N R9W
W C
S21 | S22
S28 | S27
1921

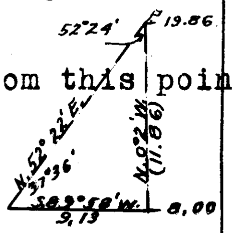
80.00 Impossible to establish cor. securely at true point for cor. of secs. 21, 22, 27 and 28. Mark cross (X) at true point for cor.
Land, rolling.
Soil, rocky, 3rd and 4th rates.
Timber, none.
Undergrowth, sagebrush, cactus, cat claw and Spanish bayonet.

From the true point for cor. of secs. 21, 22, 27 and 28,
N.89°58'E. on a random line, bet. secs. 22 and 27.
40.00 Set temp. ¼ sec. cor.
79.94 Intersect N. and S. line, 19 lks. S. of the cor. of secs. 22, 23, 26 and 27.
Thence
S.89°50'W. on a true line, bet. secs. 22 and 27.
Over mountainous land, through scattering undergrowth.
Desc. 70 ft.
0.95 Top of bluff, brs. N. and S. Continue descent.
8.55 Wash, 20 lks. wide, 6 ft. deep, course NE. Asc. 40 ft.
11.65 Spur, slopes NE. Desc. 20 ft.
20.95 Wash, 10 lks. wide, 5 ft. deep, course NE. Asc. 85 ft.
39.97 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, 4 ft. base, 32 ins. high with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼ S22
S27
1921

Asc. 80 ft.
40.95 Rim rock, brs. N. and S. Continue gradual ascent.
60.95 Ridge, brs. NE. and SW. Desc. 30 ft.
77.55 Draw, course NE. Asc. 60 ft.
79.94 The true point for cor. of secs. 21, 22, 27 and 28.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, greasewood, sagebrush, cat claw, cactus, and Spanish bayonet.

From the true point for cor. of secs. 21, 22, 27 and 28,
N.0°2'W. bet. secs. 21 and 22.
Over mountainous land, through scattering undergrowth.
Asc. 55 ft.
8.00 Sandstone spur, slopes NE. Desc.
10.00 Cliffs, br. E. and W. Impossible to chain from this point. Set a flag ahead on line, and from the 8.00 ch. point, measure a base S.89°58'W. 9.13 chs.--impracticable to



BOOK 3626

Chains.	
	secure longer base--from the W. end of which, flag brs. N.52°22'E. The three angles of the triangle are therefore 90°, 52°24' and 37°36', the sum of which is 180°. The distance triangulated is given by tan. 52°24' X 9.13 = 1.29853 X 9.13 = 11.86 chs., which added to 8.00 chs., gives 19.86 chs.
	The approximate topography is as follows:
	Desc. 300 ft.
16.00	Center of wash, course E. Asc. 300 ft.
19.86	Rim of canyon, brs. E. and W. Thence by chaining, ascending 45 ft.
30.00	Spur, slopes E. Desc. 60 ft.
38.00	Wash, course SE. Asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam , 4 ins. in the ground, 32 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap ¼ S21 | S22 1921 Asc. 45 ft.
49.00	Wash, 10 lks. wide, 5 ft. deep, course SE. Asc.
53.50	Spur, slopes E. Desc. 10 ft.
58.00	Draw, course E. Asc. 75 ft.
62.00	Ridge, brs. E. and W. Desc. 35 ft.
73.00	Wash, 15 lks. wide, 6 ft. deep, course SE. Asc. 30 ft.
78.00	Center of gulch, 2 chs. wide, 50 ft. deep, course E. Asc. 105 ft.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, 30 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) at foot of post, for cor. of secs. 15, 16, 21 and 22, marked on brass cap T32N R9W S16 | S15 S21 | S22 1921 And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, rocky, 4th rate.
	No timber.
	Undergrowth, quinine brush, greasewood, cat claw, Spanish bayonet, cactus and mescal.

Chains.	
	N.89°50'E. on a random line, bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
80.24	Intersect N. and S. line, 11 lks. N. of the cor. of secs. 14, 15, 22 and 23.
	Thence
	S.89°55'W. on a true line, bet. secs. 15 and 22.
	Over mountainous land, through scattering undergrowth.
4.25	Head of draw, course NE. Asc. 30 ft.
19.85	Ridge, brs. N. and S. Desc. 295 ft.
28.00	Trail, brs. SE. to Cane Spring and NW. to road and Frog Spring. End of road brs. NW. 5 chs. dist.
33.25	Gulch, 10 lks. wide, 3 ft. deep, course S. Continue descent.
34.25	Cliff, brs. NW. and SE. Continue descent.
39.05	Wash, 30 lks. wide, course SE. Asc.
40.12	Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, 4 ft. base, 32 ins. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap ¼ S15 / S22 1921

Survey of Part of the Subdivision of T. 32 N., R. 9 W.

Chains.

Continue ascent, 270 ft.
40.85 Bluff, 20 ft. high, brs. NW. and SE. Continue ascent.
59.95 Spur, slopes SE. Continue ascent.
80.24 The cor. of secs. 15, 16, 21 and 22.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, cat claw, greasewood, cactus, Spanish bayonet and mescal.

N.0°2'W. bet. secs. 15 and 16.
Over broken and mountainous land, through scattering undergrowth.
Asc. 65 ft.
0.71 Trail, brs. SW. to Frog Spring and NE. to Cane Spring and road.
6.20 Spur, slopes E. Desc. 105 ft.
20.10 Draw, course E. Asc. 60 ft.
25.00 Spur, slopes E. Desc. 105 ft.
34.50 Wash, 20 lks. wide, course SE. Asc. 120 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, 18 ins. in a mound of stone, 3 ft. base, for ¼ sec. cor., marked on brass cap

¼
S16 | S15
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Asc. 125 ft.
48.50 Spur, slopes E. Desc. 70 ft.
53.20 Gulch, course E. Asc. 155 ft.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, in a mound of stone, 4 ft. base, 28 ins. high, with stone marked cross (X) at base of post, for cor. of secs. 9, 10, 15 and 16, marked on brass cap

T32N R9W
S 9 | S10
S16 | S15
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, broken and mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, greasewood, cactus, Spanish bayonet and mescal.

N.89°55'E. on a random line, bet. secs. 10 and 15.
40.00 Set temp. ¼ sec. cor.
79.92 Intersect N. and S. line, 12 lks. S. of the cor. of secs. 10, 11, 14 and 15.
Thence
S.89°50'W. on a true line, bet. secs. 10 and 15.
Over bench land, through scattering undergrowth.
12.90 Road, brs. N. to Bundyville and Mt. Trumbull and S. to Frog Spring and Cane Spring.
39.96 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, in a mound of stone, for ¼ sec. cor., marked on brass cap

S10
¼
S15
1921

36
112

BOOK 3626

Chains.

And raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
Asc. 365 ft.
43.30 Wash, 10 lks. wide, course SE.
57.40 Wash, 5 lks. wide, 5 ft. deep, course SE.
60.30 Same wash, 5 lks. wide, 3 ft. deep, course NE. Continue ascent.
79.92 The cor. of secs. 9, 10, 15 and 16.
Land, bench.
Soil, rocky, 3rd and 4th rates.
No timber.
Undergrowth, quinine brush, greasewood.

N.0°2'W. bet. secs. 9 and 10.
Over broken land, through scattering undergrowth.
Asc. 75 ft.
20.80 Wash, 20 lks. wide, 10 ft. deep, course E. Asc. 40 ft.
34.40 Spur, slopes SE. Desc. 55 ft.
37.70 Wash, 10 lks. wide, 5 ft. deep, course SE. Asc.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground, 12 ins. in a mound of stone, for ¼ sec. cor., marked on brass cap

¼
S 9 | S10
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Continue ascent, 120 ft.
49.10 Spur, slopes E. Desc. 255 ft.
61.70 Wash, 20 lks. wide, 10 ft. deep, course E. Continue descent.
79.40 Gulch, 10 lks. wide, 5 ft. deep, course E. Asc.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 2 ins. in the ground, in a mound of stone, 4 ft. base, 34 ins. high with stone marked cross (X) alongside, for cor. of secs. 3, 4, 9 and 10, marked on brass cap

T32N R9W
S 4 | S 3
S 9 | S10
1921

Land, broken.
Soil, rocky, 4th rate.
No timber.
Undergrowth, quinine brush, greasewood, cactus, mescal and Spanish bayonet.

N.89°50'E. on a random line, bet. secs. 3 and 10.
40.00 Set temp. ¼ sec. cor.
80.00 Intersect N. and S. line, 14 lks. S. of the cor. of secs. 2, 3, 10 and 11.
Thence
S.89°44'W. on a true line, bet. secs. 3 and 10.
Over mountainous land, through scattering undergrowth.
Asc. 155 ft.
21.00 Road, brs. N. and S. Continue ascent.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, in a mound of stone, 3 ft. base, 1½ ft. high, for ¼ sec. cor., marked on brass cap

¼ S 3
S10
1921

Chains.	
	And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.
	Continue ascent, 350 ft.
80.00	The cor. of secs. 3, 4, 9 and 10.
	Land, mountainous.
	Soil, rocky, 4th rate.
	Timber, none.
	Undergrowth, dogwood.
	N.0°2'W. on a true line, bet. secs. 3 and 4.
	Over broken land, through scattering undergrowth.
	Along E. slope.
1.70	Wash, 10 lks. wide, 5 ft. deep, course E. Asc. 40 ft.
15.50	Spur, slopes E. Desc. 55 ft.
19.80	Wash, 20 lks. wide, 20 ft. deep, course E. Asc. 120 ft.
31.10	Spur, slopes E. Desc. 140 ft.
35.10	Wash, 10 lks. wide, 5 ft. deep, course NE. Continue descent, 75 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, 24 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside post, for ¼ sec. cor., marked on brass cap ¼ S 4 | S 3 1921
	Continue descent,
41.20	Wash, 30 lks. wide, 20 ft. deep, course E. Asc. 65 ft.
42.80	Spur, slopes E. Desc. 185 ft.
48.50	Wash, 20 lks. wide, 10 ft. deep, course E.
80.07	Intersect the N. bdy. of Tp. (8th Standard Parallel North) at a point 17.66 chs. East of the standard cor. of secs. 33 and 34, T. 33 N., R. 9 W., which is an iron post, described in Book "B".
	At the point of intersection,
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, 12 ins. in a mound of stone, 3 ft. base, for closing cor. of secs. 3 and 4, marked on brass cap T33N R9W S34 S 4 | S 3 C | C T32N R9W 1921
	And raise a mound of stone, 4 ft. base, 3½ ft. high, S. of cor.
	Land, broken.
	Soil, rocky, 4th rate.
	No timber.
	Undergrowth, quinine brush, sagebrush, Spanish bayonet, cac cactus, mescal, cat claw and greasewood.
	From the cor. of secs. 4, 5, 32 and 33, on the S. bdy. of Tp., which is an iron post, hereinbefore described,
	N.0°3'W. bet. secs. 32 and 33.
	Over rolling mountainous land, through scattering timber and undergrowth.
	Asc. 255 ft.
15.40	Wash, 20 lks. wide, 10 ft. deep, course SW. Continue ascent.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the

Chains.

ground, in a mound of stone, 2 ft. base, 1 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S32 | S33
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Continue ascent, 25 ft.
44.30 Spur, slopes W. Desc. 30 ft.
49.80 Wash, 20 lks. wide, course SW. Asc. 115 ft.
57.80 Spur, slopes W. Desc. 45 ft.
71.20 Draw, 10 lks. wide, course W. Asc. 75 ft.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 22 ins. in the ground, in a mound of stone, 2 ft. base, 1 ft. high, with stone marked cross (X) alongside, for cor. of secs. 28, 29, 32 and 33, marked on brass cap

T32N R9W
S29 | S28
S32 | S33
1921

From which
A cedar, 14 ins. diam., brs. N.33°E., 198 lks. dist., marked T32N R9W S28 BT.
A cedar, 14 ins. diam., brs. N.16¼°W., 165 lks. dist., marked BT.
No other trees within limits.
Land, rolling mountainous.
Soil, rocky, 3rd and 4th rate.
Timber, cedar.
Undergrowth, sagebrush, black brush, Spanish bayonet and cactus.

East on a random line, bet. secs. 28 and 33.
40.00 Set temp. ¼ sec. cor.
80.04 Intersect the cor. of secs. 27, 28, 33 and 34.
Thence
West on a true line, bet. secs. 28 and 33.
Over rolling mountainous land, through scattering undergrowth.
Asc. 280 ft.
18.00 Desc. 25 ft.
30 05 Wash, 20 lks wide, course NE. Asc. 105 ft.
40.02 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, in a mound of stone, 3 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼ S28
S33
1921

Continue ascent, 150 ft.
46.25 Spur, slopes NW. Desc. 155 ft.
57.75 Wash, 10 lks. wide, course N. Asc. 125 ft.
62.75 Spur, slopes N. Desc. 120 ft.
64.85 Draw, 20 lks. wide, course NE. Asc. 60 ft.
75.05 Spur, slopes NW. Desc. 130 ft.
80.04 The cor. of secs. 28, 29, 32 and 33.
Land, rolling mountainous.
Soil, rocky, 3rd and 4th rates.
Timber, none.
Undergrowth, sagebrush, black brush, Spanish bayonet, cactus and cat claw.

Survey of Part of the
Subdivision of T. 32 N., R. 9 W.

Chains.	
	N.0°3'W. bet. secs. 28 and 29.
	Over rolling mountainous land, through scattering undergrowth.
	Asc. 20 ft.
7.80	Spur, slopes W. Desc. 295 ft.
36.20	Wash, 10 lks. wide, course NE.
37.80	Wash, 10 lks. wide, course E. Asc. 20 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap
	¼ S29 | S28 1921
	And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
	Asc. 190 ft.
40.70	Wash, 10 lks. wide, course SE. Continue ascent.
54.70	Wash, 10 lks. wide, course SE. Continue ascent.
59.70	Wash, 10 lks. wide, course SE. Continue ascent.
69.50	Trail, brs. NE. to road and SW. to Frog Spring.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, with stone marked cross (X) alongside, for cor. of secs. 20, 21, 28 and 29, marked on brass cap
	T32N R9W S20 | S21 S29 | S28 1921
	And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
	Land, rolling mountainous.
	Soil, rocky, 4th rate.
	Timber, none.
	Undergrowth, sagebrush and black brush.

	East on a random line, bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
80.14	Intersect the true point for cor. of secs. 21, 22, 27 and 28, witnessed at 0.07 chs. S.0°2'E. as hereinbefore described.
	Thence
	West on a true line, bet. secs. 21 and 28.
	Over rolling land, through scattering timber and undergrowth.
	Asc. 55 ft.
7.00	Desc. 10 ft.
10.45	Center of wash, 1 ch. wide, 40 ft. deep, course NE. Asc.
20.05	Desc. 55 ft.
27.65	Center of wash, 1 ch. wide, course SE. Asc. 85 ft.
40.07	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, in a mound of stone, 3 ft. base, 3 ft. high, with stone marked cress (X) alongside, for ¼ sec. cor., marked on brass cap
	¼ S21 S28 1921
	From which
	A cedar, 12 ins. diam., brs. S.76½°E., 499 lks. dist., marked ¼S28 BT.
	No other trees within limits.
	Continue ascent, 65 ft.
53.15	Spur, slopes S. Desc. 65 ft.

Chains.

57.05 Asc. 75 ft.
66.85 Trail, brs. NE. to road and SW. to Frog Spring.
74.15 Trail, brs. NE. and SW. Asc. 30 ft.
80.14 The cor. of secs. 20, 21, 28 and 29.
Land, rolling.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, black brush.

N.0°3'W. bet. secs. 20 and 21.
Over rolling land, through scattering timber and undergrowth.
0.10 Wash, 10 lks. wide, course NE.
6.30 Wash, 10 lks. wide, course NE.
26.60 Wash, 10 lks. wide, 10 ft. deep, course SE.
36.40 Wash, 10 lks. wide, 10 ft. deep, course SE.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, in a mound of stone, 3 ft. base, 1½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S20 | S21
1921

And raise a mound ~~of stone~~, 4 ft. base, 3 ft. high, W. of cor.
Desc. 55 ft.
55.10 Asc. 255 ft., over cliffs.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., on ledge rock, in a mound of stone, 6 ft. base, 3 ft. high, with cross at base of post, for cor of secs. 16, 17, 20 and 21, marked on brass cap

T32N R9W
S17 | S16
S20 | S21
1921

From which
A cedar, 12 ins diam., brs. S.43¼°E., 141 lks. dist., marked T32N R9W S21 BT.
A cedar, 10 ins. diam., brs. N.65¼°E., 183 lks. dist., marked BT.
A cedar, 6 ins. diam., brs. S.16½°W., 54 lks. dist., marked T32N R9W S20 BT.
No other trees within limits.
Land, rolling.
Soil, rocky, 3rd and 4th rates.
Timber, cedar.
Undergrowth, black brush and sagebrush.

East on a random line, bet. secs. 16 and 21.
40.00 Set temp. ¼ sec. cor.
80.24 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 15, 16, 21 and 22.
Thence
N.89°57'W. on a true line, bet. secs. 16 and 21.
Over broken mountainous land, through scattering undergrowth.
Asc. 160 ft.
1.00 Trail, brs. NE. and SW.
8.00 Thence along S. slope.
12.30 Wash, 20 lks. wide, 10 ft. deep, course SE. Asc. 130 ft.
18.00 Spur, slopes SE. Desc.

Book 36

Survey of Part of the
Subdivision of T. 32 N., R. 9 W.

Chains.

25.80 Head of gulch, course SE. Asc. 265 ft.

40.12 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, 26 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼ S16
S21
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.

From this cor., West end of short drift fence, four wire, brs. S.2¾°W. Fence extends SE.

Continue ascent.

44.93 Spur, slopes SE. From this point, West end of drift fence brs. S.8½°E. East end of drift fence, brs. S.27¼°E. Continue ascent, 100 ft.

55.00 Ridge, brs. N.70°E. and SW. From this point, East end of drift fence brs. S.38¾°E. Thence along N. slope.

64.00 Ridge, brs. NW. and SE. Desc.

67.00 Head of gulch, course S. Asc. 140 ft.

69.80 Rim rock, 15 ft. high, brs. NE. and SW. Continue ascent.

78.40 Spur, slopes SE. Desc. 15 ft.

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

Land, broken mountainous.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, quinine brush, greasewood, cat claw, Spanish bayonet, cactus and mescal.

N.0°3'W. bet. secs. 16 and 17.

Over rough mountainous land, through scattering timber and undergrowth.

Asc. 195 ft.

7.20 Spur, slopes SE. Desc. 30 ft.

13.00 Asc. 295 ft.

28.20 Spur, slopes SW. Desc. 195 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, in a mound of stone, 4 ft. base, 1 ft. high, for ¼ sec. cor., marked on brass cap

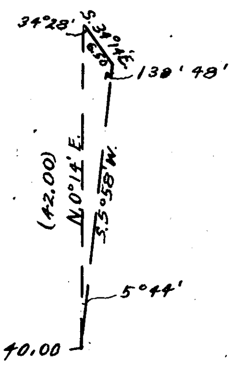
¼
S17 | S16
1921

From which

A sandstone ledge, 5 ft. above ground, marked B X O, brs. S.66½°E., 11 lks. dist.

A cedar. 20 ins. diam., brs. S.74¼°W., 88 lks. dist., marked ¼S17 BT.

Impossible to chain from this point because of ravines and cliffs. Set a flag ahead on a bearing N.0°14'E., from which I measure a base S.34°14'E. 6.50 chs.--impossible to secure longer base--from the E. end of which, flag at the ¼ sec. cor. of secs. 16 and 17 brs. S.5° 58'W. The three angles of the triangle are therefore 34°28', 139°48' and 5°44', the sum of which is 180°. The distance triangulated is given by the sine proportion:



Chains.

$$\frac{X}{6.50} = \frac{\sin.\ 139°48'}{\sin.\ 5°44'}$$

log. 6.50 = 0.812913
log. sin. 5°44' = 8.999560
1.813353
log sin. 139°48' = 9.809868
log. X = 1.623221
X = 42.00 chs., which added to 40.00 chs., gives 82.00 . Thence S.0°3'E. 2.00 chs. and West 0.20 chs. to true line.

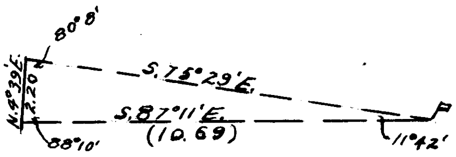
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, in a mound of stone, 4 ft. base, 2 ft. high, with stone marked cross (X) alongside, for cor. of secs. 8, 9, 16 and 17, marked on brass cap

T32N R9W
S 8 | S 9
S17 | S16
1921

And raise a mound of stone, 5 ft. base, 3 ft. high, W. of cor.

This cor. is 350 ft. above ¼ sec. cor.
Land, rough mountainous.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, black brush and sagebrush.

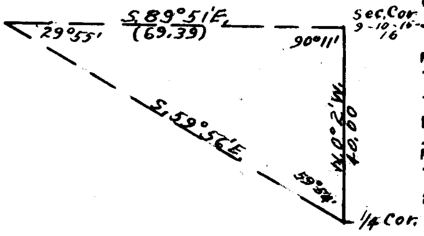
S.89°57'E. on a random line, bet. secs. 9 and 16.
Impracticable to measure on random line; proceed as follows:



From a point 0.26 chs. N. of the cor. of secs. 8, 9, 16 and 17, set a flag on a bearing S.87°11'E. From the same point, measure a base N.4°39'E. 2.20 chs., from the N. end of which, flag brs. S.75°29'E. The three angles of the triangle are therefore 80°8', 11°42' and 88°10', the sum of which is 180°. The distance triangulated is given by the sine proportion:

$$\frac{X}{2.20} = \frac{\sin.\ 80°8'}{\sin.\ 11°42'}$$

log. 2.20 = 0.342423
log. sin. 80°8' = 9.993528
0.335951
log. sin. 11°42' = 9.307041
log. X = 1.028910
X = 10.69 chs. The latitude and departure of this line are respectively 0.53 chs. S. and 10.68 chs. East. Thence North 0.22 chs. to a point from which the cor. of secs. 9, 10, 15 and 16 is plainly visible and brs. S.89°51'E. The ¼ sec. cor. of secs. 15 and 16 is also visible and brs. S.59°56'E. The Three angles of this triangle are therefore 29°55', 90°11' and 59°54', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{40.00} = \frac{\sin.\ 59°54'}{\sin.\ 29°55'}$$

Chains.

log. 40.00 = 1.602060
log. sin. 59°54' = 9.937092
1.539152
log. sin. 29°55' v = 9.697874
log. X = 1.841278
X = 69.39 chs., which added to 10.68 chs., gives 80.07 chs., at which point intersect the cor. of secs. 9, 10, 15 and 16. The falling of the random run S.89°57'E. would therefore be 16 lks. N. of the cor. of secs. 9, 10, 15 and 16.

Thence
N.89°50'W. on a true line, bet. secs. 9 and 16.
Over mountainous land, through scattering undergrowth.
Asc. 755 ft., distance by chaining.

22.80 Wash, 20 lks. wide, 5 ft. deep, course SE. Continue ascent.
27.10 Spur, slopes SE. Continue ascent.
35.00 Asc. over cliffs, bearing NE. and SW.
40.03½ The true point for ¼ sec. cor. is inaccessible, on face of cliff, 100 ft. high, bearing NE. and SW.
40.66 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, 30 ins. high, 4 ft. base, with stone marked cross (X) at foot of post, for witness cor. to ¼ sec. cor., marked on brass cap

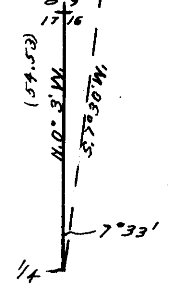
$\frac{1}{4}\,\frac{\text{S 9}}{\text{S16}}$ W C
1921

Thence by triangulation, as hereinbefore described.

47.35 Rim rock, brs. N.20°E. and S.20°W. Thence by chaining.
47.80 Spur, slopes S. Desc. 60 ft.
56.25 Head of draw, course S. Asc. 450 ft.
64.65 Cliff, 70 ft. high, brs. NE. and SW. Continue ascent.
69.39 Thence by triangulation, as hereinbefore described.
80.07 The cor. of secs. 8, 9, 16 and 17.

Land, broken mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, greasewood, cactus, Spanish bayonet.

N.0°3'W. bet. secs. 8 and 9.
Over rough mountainous land, through scattering undergrowth.
Impossible to chain from this point. Set a flag ahead on line, from which I measure a base S.43°58'E. 9.16 chs.--impracticable to secure longer base--from the S. end of which, flag at the ¼ sec. cor. bet. secs. 16 and 17 brs. S.7°30'W. The three angles of the triangle are therefore 43°55', 128°32' and 7°33', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{9.16} = \frac{\sin.\ 128°32'}{\sin.\ 7°33'}$$

log. 9.16 = 0.961895
log. sin. 7°33' = 9.118567
1.843328
log. sin. 128°32' = 9.893343
log. X = 1.736671
X = 54.53 chs., or 14.53 chs. N.0°3'W. of the cor. of secs. 8, 9, 16 and 17.

Survey of [illegible] Part of the Subdivision of T. 32 N., R. 9 W.

Chains.

Continue N.0°3'W. bet. secs. 8 and 9, over level bench land.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, with stone marked cross (X) alongside for ¼ sec. cor., marked on brass cap

¼
S 8 | S 9
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.

53.71 Rim, brs. NE. and SW. Offset East 8.00 chs., and continue N.0°3'W. on offset line, through sec. 9.

80.00 Thence West 4.82 chs. to rim, brs. N. and S., 700 ft. high.
1 lk. S., Set an iron post, 3 ft. long, 2 ins. diam., on ledge rock, in a mound of stone, 4 ft. base, 3 ft. high, with stone marked cross (X) alongside, for witness cor. to cor. of secs. 4, 5, 8 and 9, marked on brass cap

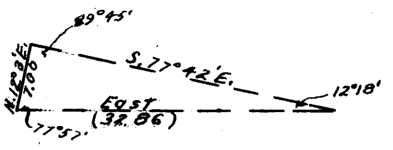
T32N R9W
WC S 5 | S 4
S 8 | S 9
1921

Land, mountainous and level.
Soil, rocky, 3rd and 4th rates.
Timber, none.
Undergrowth, sagebrush, black brush, cactus, and Spanish bayonet.

From the witness cor. to cor. of secs. 4, 5, 8 and 9, which is 3.18 chs. S.89°50'E. of the true point for said cor., S.89°50'E. on a random line, bet. secs. 4 and 9, continuing measurement.

40.00 Set temp. ¼ sec. cor.

47.20 Offset South 0.10 chs. Impossible to chain from this point; triangulate as follows:



The cor. of secs. 3, 4, 9 and 10 brs. East. From offset point, measure a base N.12°3'E. 7.00 chs. --impracticable to secure longer base--from the N. end of which, the cor. of secs. 3, 4, 9 and 10 brs. S.77°42'E. The three angles of the triangle are therefore 12°18', 77°57' and 89°45', the sum of which is 180°. The distance triangulated is given by the sine proportion:

$$\frac{X}{7.00} = \frac{\sin. 89°45'}{\sin. 12°18'}$$

$$\begin{array}{rl}
\log. 7.00 & = 0.845098 \\
\log. \sin. 12°18' & = \underline{9.328442} \\
 & 1.516656 \\
\log. \sin. 89°45' & = \underline{9.999996} \\
\log. X & = 1.516652 \\
X & = 32.86 \text{ chs.}
\end{array}$$

X = 32.86 chs., which added to 47.20 chs., gives 80.06. The true course of this mile is therefore N.89°50'W. and the true length is 80.06 chs.

From the cor. of secs. 3, 4, 9 and 10,
N.89°50'W. on a true line, bet. secs. 4 and 9.
Over mountainous land, through scattering undergrowth.
Asc. 1135 ft., distance by triangulation.

Chains.

32.85 Rim of canyon, brs. N. and S. Thence over level land.

40.03 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for ¼ sec. cor., marked on brass cap

¼ S 4
S 9
1921

Dig pits, 18 X 18 X 12 ins., E. and W. of post, 3 ft. dist.

(76.88) The witness cor. to cor. of secs. 4, 5, 8 and 9. Desc. 600 ft.

80.06 The true point for cor. of secs. 4, 5, 8 and 9, (Inaccessible)

Land, level and mountainous.
Soil, 3rd and 4th rates.
Timber, none.
Undergrowth, sagebrush.

From the true point for cor. of secs. 4, 5, 8 and 9, inaccessible, offset East 8.00 chs.; thence

N.0°3'W. on true offset line, through sec. 4.

Over rolling land, through scattering undergrowth.

Desc. 105 ft.

30.00 Asc. 55 ft.

40.00 Thence West 8.00 chs. to true line, and point for ¼ sec. cor. of secs. 4 and 5, where I

Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, on ledge rock, in a mound of stone, 3 ft. base, 2½ ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S 5 | S 4
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

Thence

N.0°3'W. on a true line, bet. secs. 4 and 5, continuing measurement.

Asc. 130 ft.

70.00 Desc. 30 ft.

79.90 Intersect the North Boundary of Tp. (8th Standard Parallel North) at a point 17.61 chs. East of the standard cor. of secs. 32 and 33, T. 33 N., R. 9 W., which is an iron post, described in Book "B".

At the point of intersection,

Set an iron post, 3 ft. long, 2 ins. diam., 14 ins. in the ground, in a mound of stone, 3 ft. base, 2 ft. high, with stone marked cross (X) alongside, for closing cor. of secs. 4 and 5, marked on brass cap

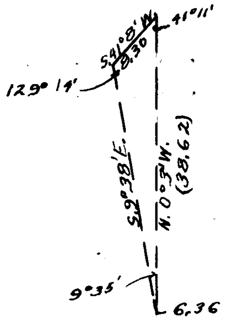
T33N R9W
S33
S 5 | S 4
C | C
T32N R9W
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, S. of cor.

Land, rolling.
Soil, rocky, 3rd and 4th rates.
No timber.
Undergrowth, sagebrush and black brush.

Chains.

From the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of Tp., which is an iron post, hereinbefore described,
N.0°3'W. bet. secs. 31 and 32.
Over mountainous land, through scattering timber and undergrowth.
Asc. 25 ft.
3.00 Desc. 25 ft.
6.36 Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base S.41°8'W. 8.30 chs.--impracticable to secure longer base--from the W. end of which, flag at the 6.36 ch. point brs. S.9°38'E. The three angles of the triangle are therefore 41°11', 9°35' and 129°14', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{8.30} = \frac{\sin.\ 129°14'}{\sin.\ 9°35'}$$

$$\begin{array}{rcl} \log.\ 8.30 & = & 0.919078 \\ \log.\ \sin.\ 9°35' & = & \underline{9.221367} \\ & & 1.697711 \\ \log.\ \sin.\ 129°14' & = & \underline{9.889064} \\ \log.\ X & = & \underline{1.586775} \\ X & = & 38.62 \end{array}$$

chs., which added to 6.36 chs., gives 44.98 chs.
The approximate topography is as follows:
30.00 Draw, course SW. Asc. over cliffs.
From the 44.98 ch. point, measure S.0°3'E. 4.98 chs.,
44.98 - 4.98 =
40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in a mound of stone, 4 ft. base, 2 ft. high, for ¼ sec. cor., marked on brass cap

¼
S31 | S32
1921

From which
A cedar, 12 ins. diam., brs. S.87°E., 20 lks. dist., marked ¼S32 BT.
A sandstone, 20 X 6 X 4 ft. above ground, marked B X O brs. N.27¼°W., 20 lks. dist.
Asc. 160 ft.
57.70 Trail, brs. E. to road and W. to Frog Spring.
77.80 Thence along E. slope.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, in a mound of stone, 4 ft. base, 2½ ft. high, with stone marked cross (X) alongside, for cor. of secs. 29, 30, 31 and 32, marked on brass cap

T32N R9W
S30 | S29
S31 | S32
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
Land, mountainous.
Soil, rocky, 4th rate
Timber, cedar.
Undergrowth, sagebrush, black brush and cactus.

Chains.

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

40.00 Set temp. ¼ sec. cor.

79.82 Intersect N. and S. line, 20 lks. N. of the cor. of secs. 28, 29, 32 and 33.

Thence

N.89°51'W. on a true line, bet. secs. 29 and 32.

Over rolling mountainous land, through scattering undergrowth.

Desc. 370 ft.

18.70 Wash, 20 lks. wide, course NW. Continue descent.

38.40 Head of draw, 30 lks. wide, course SW. Continue descent.

39.91 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, in a mound of stone, 2 ft. base, 1 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\frac{S29}{S32}$$
1921

From which
A cedar, 12ins. diam., brs. N.81¾°E., 150 lks. dist., marked ¼S29 BT.

No other trees within limits.

Continue descent.

44.20 Draw, 50 lks. wide, course SW. Continue descent, 25 ft.

46.30 Old trail, brs. NE. to road and SW. to Frog Spring.

54.80 Asc. 150 ft.

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

Land, rolling mountainous.

Soil, rocky, 4th rate.

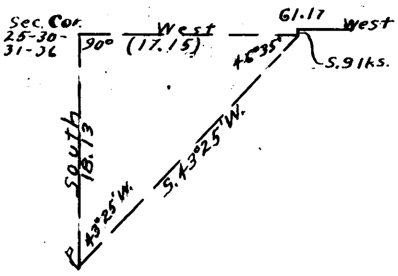
Timber, cedar.

Undergrowth, sagebrush and black brush.

West on a random line, bet. secs. 30 and 31.

40.00 Set temp. ¼ sec. cor.

61.17 Impracticable to chain from this point. From a point 0.09 chs. S., the cor. of secs. 25, 30, 31 and 36 brs. West, and a flag 18.13 chs. S. of the cor. of secs. 25, 30, 31 and 36 brs. S.43°25'W. The three angles of the triangle are therefore 43°25', 90° and 46°35', the sum of which is 180°. The distance triangulated is given by tan. 43°25' X 18.13 = 0.94620 X 18.13 = 17.15 chs., which added to 61.17 chs., gives 78.32 chs. The falling of the theoretical random line is therefore 0.09 chs. North.



78.32 Fall 9 lks. N. of the cor. of secs. 25, 30, 31 and 36, on the W. bdy. of Tp., which is an iron post, hereinbefore described.

Thence

N.89°56'E. on a true line, bet. secs. 30 and 31.

Over mountainous land, through scattering undergrowth.

Asc. 545 ft., distance by traingulation.

17.15 Triangulation point; thence by chaining, descending 155 ft.

34.00 Canyon, 40 lks. wide, course S. Asc. 80 ft.

38.32 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, in a mound of stone, 4 ft. base, 3 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\frac{S30}{S31}$$
1921

Chains.	
	And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.
	Desc. 55 ft.
44.40	Center of canyon, 1.50 chs. wide, 50 ft. deep, course SW. Asc. 290 ft. 51.00 Trail bears SE. + NW.
76.30	Spur, slopes SE. Desc. 40 ft.
78.32	The cor. of secs. 29, 30, 31 and 32.
	Land, mountainous.
	Soil, rocky, 4th rate.
	Timber, none.
	Undergrowth, sagebrush.
	N.0°3'W. bet. secs. 29 and 30.
	Over broken mountainous land, through scattering undergrowth.
	Desc. 75 ft.
9.25	Wash, 10 lks. wide, 5 ft. deep, course SE. Asc. 80 ft.
14.90	Spur, slopes SE. Desc. 95 ft.
18.50	Wash, 10 lks. wide, 5 ft. deep, course SE. Asc. 170 ft.
21.50	Wash, 10 lks. wide, 4 ft. deep, course SE. Continue ascent.
26.20	Wash, 10 lks. wide, 4 ft. deep, course SW. Continue ascent.
39.45	Wash, 20 lks. wide, 5 ft. deep, course SE.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, 16 ins. in a mound of stone, 3 ft. base, for ¼ sec. cor., marked on brass cap
	¼ S30 | S29 1921
	And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Asc. 940 ft.
71.50	Cliffs, br. NE. and SW. Continue ascent.
78.40	Ridge, brs. NE. and SW. Desc. 40 ft.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, with stone marked cross (X) alongside, for cor. of secs. 19, 20, 29 and 30, marked on brass cap
	T32N | R9W S19 | S20 S30 | S29 1921
	And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	From this cor., Copper Mountain Mine Building brs. N.67¼°W.
	Land, broken mountainous.
	Soil, rocky, 4th rate.
	Undergrowth, quinine brush, sagebrush, Spanish bayonet, cat claw, and cactus.
	No timber.
	S.89°51'E. on a random line, bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line, 16 lks. S. of the cor. of secs. 20, 21, 28 and 29
	Thence
	N.89°58'W. on a true line, bet. secs. 20 and 29.
	Over rough mountainous land, through scattering undergrowth.
0.10	Wash, 10 lks. wide, course NE. Asc. 470 ft.
39.98	Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the

BOOK 3323

Chains.

ground, in a mound of stone, 4 ft. base, 2 ft. high, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\frac{S20}{S29}$$
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.

Continue ascent, 875 ft.

76.10 Ridge, brs. NE. and SW. Desc. 125 ft.

79.96 The cor. of secs. 19, 20, 29 and 30.

Land, rough mountainous.

Soil, rocky, 4th rate.

Timber, none.

Undergrowth, sagebrush, dogwood, and black brush.

S.89°56'W. on a random line, bet. secs. 19 and 30.

40.00 Set temp. ¼ sec. cor.

78.62 Fall 21 lks. S. of the cor. of secs. 19, 24, 25 and 30, on the W. bdy. of Tp. which is an iron post, hereinbefore described.

Thence

S.89°55'E. on a true line, bet. secs. 19 and 30.

Over broken land, through scattering timber and undergrowth.

17.20 Asc.

38.62 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, 18 ins. in a mound of stone, 3 ft. base, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\frac{S19}{S30}$$
1921

And raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Asc. 140 ft.

45.00 Spur, slopes NW. Continue ascent.

57.70 Spur, slopes NW. Desc. 95 ft.

62.50 Wash, 10 lks. wide, course NW. Asc. 620 ft.

78.62 The cor. of secs. 19, 20, 29 and 30.

Land, broken and mountainous.

Soil, rocky, 3rd and 4th rates.

Timber, cedar.

Undergrowth, quinine brush, Spanish bayonet, cactus, and mescal.

N.0°3'W. bet. secs. 19 and 20.

Over broken mountainous land, through scattering undergrowth.

Desc. 825 ft.

20.00 Wash, 10 lks. wide, 5 ft. deep, course NW. Continue descent.

23.00 Wash, 15 lks. wide, 6 ft. deep, course NW. Continue descent.

33.50 Spur, slopes NW. Continue descent.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, 26 ins. in a mound of stone, 5 ft. base, [illegible], with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

Chains.

$\frac{1}{4}$
S19 | S20
1921

And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

Continue descent, 290 ft.

57.10 Wash, 10 lks. wide, 5 ft. deep, course NW. Continue descent.

65.50 Wash, 10 lks. wide, 4 ft. deep, course NW. Asc. 175 ft.

75.72 Spur, slopes NW. From this point, Copper Mountain Mine Building brs. N.85°5'W. Desc. 165 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, 20 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside, for cor. of secs. 17, 18, 19 and 20, marked on brass cap

T32N R9W
S18 | S17
S19 | S20
1921

And raise a mound of stone, 5 ft. base, 5 ft. high, W. of cor.

Land, broken mountainous.

Soil, rocky, 3rd and 4th rates.

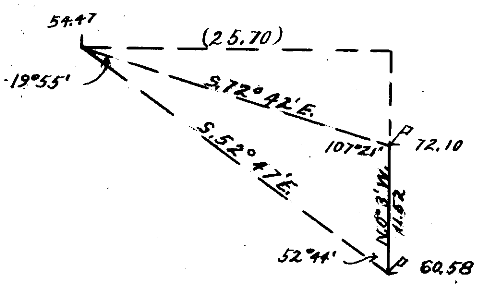
Timber, occasional cedar.

Undergrowth, quinine Spanish bayonet, mescal, sagebrush, dogwood, and cactus.

S.89°58'E. on a random line, bet. secs. 17 and 20.

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

54.47 Impracticable to chain from this point. Triangulate as follows: Flag 60.58 chs. N.0°3'W. of the cor. of secs. 20, 21, 28 and 29 brs. S.52°47'E. and flag 72.10 chs. N.0°3'W. of the same cor. brs. S.72°42'E. The three angles of the triangle are therefore 19°55', 107°21' and 52°44', the sum of which is 180°. The distance triangulated to the point 72.10 chs. N.0°3'W. of the cor. of secs. 20, 21, 28 and 29 is given as follows:



$$\frac{X}{11.52} = \frac{\sin. 52°44'}{\sin. 19°55'}$$

log. 11.52 = 1.061452
log. sin. 52°44' = 9.900818
0.962270
log. sin. 19°55' = 9.532312
log. X = 1.429958
X = 26.91 chs. The latitude and departure of this line are respectively 8.00 chs. and 25.70 chs. The latter distance added to 54.47 chs., gives 80.17 chs. The falling of the theoretical random run on the bearing S.89°58'E. is as follows:

80.17 Intersect N. and S. line, 8 lks. N. of the cor. of secs. 16, 17, 20 and 21.

Thence

N.89°55'W. on a true line, bet. secs. 17 and 20.

Over broken mountainous land, through scattering timber and undergrowth.

The approximate topography is as follows:

Asc. 130 ft.

Chains.

6.00 Spur, slopes S. Desc. 200 ft.
14.00 Head of draw, course SE. Asc. 350 ft., over cliffs and rim rock.
25.70 Cliff, brs. NE. and SW. Continue ascent. Dist. by chaining.
25.95 Spur, extends 10 ft. N. Balanced rock, 10 X 10 X 10 ft., on tip of spur, brs. N. 10 lks. dist. Asc. 125 ft.
30.55 Spur, slopes N. Desc. 375 ft.
40.08½ Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, 18 ins. in a mound of stone, 3 ft. base, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\,\frac{S17}{S20}$$
1921

And raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.15 Gulch, course N.80°W. Continue descent, 220 ft.
55.05 Wash, 10 lks. wide, 5 ft. deep, course NW. Asc. 15 ft.
57.50 Spur, slopes N. Thence along N. slope.
67.75 Spur, slopes NW. Desc. 165 ft.
78.92 Gulch, course N. Asc. 25 ft.
80.17 The cor. of secs. 17, 18, 19 and 20.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, quinine brush, sagebrush, Spanish bayonet, mescal, dogwood, and cactus.

N.89°55'W. on a random line, bet. secs. 18 and 19.
40.00 Set temp. ¼ sec. cor.
78.11 Fall 14 lks. S. of the true point for cor. of secs. 13, 18, 19 and 24, on the W. bdy. of Tp., witnessed by an iron post 0.60 chs. South, as hereinbefore described.
From the true point for cor.,
S.89°49'E. on a true line, bet. secs. 18 and 19.
Over mountainous land, through scattering timber and undergrowth.
Desc.
2.10 Gulch, course NW. Asc. 100 ft.
4.00 Rim of canyon, brs. N. and S. Desc.
11.70 Gulch, 10 lks; wide, 3 ft. deep, course NW. Asc. 80 ft.
15.30 Spur, slopes NW. Desc.
19.85 Wash, 10 lks. wide, 4 ft. deep, course NW. Asc. 150 ft.
38.11 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, and in a mound of stone, 2 ft. base, 1 ft. high, for ¼ sec. cor., marked on brass cap

$$\frac{1}{4}\,\frac{S18}{S19}$$
1921

And raise a mound of stone, 4 ft. base, 4 ft. high, N. of cor.
Continue ascent, 10 ft.
39.35 Knoll. Desc. 95 ft.
44.60 Wash, 10 lks. wide, 3 ft. deep, course NE. Thence over level land.
53.10 Desc. 25 ft.
55.65 Wash, 20 lks. wide, 10 ft. deep, course N. Asc. 205 ft.
72.80 Spur, slopes NW. Desc. 55 ft.
78.11 The cor. of secs. 17, 18, 19 and 20.
Land, mountainous and level.
Soil, rocky, 4th rate.
Timber, cedar.
Undergrowth, quinine brush, sagebrush, cat claw, dogwood, mescal, scrub oak, Spanish bayonet, and cactus.

BOOK 5323

Chains.

N.0°3'W. bet. secs. 17 and 18.
Over broken land, through scattering timber and undergrowth.
Desc. 135 ft.
10.60 Wash, 10 lks. wide, 4 ft. deep, course NW. Asc. 110 ft.
19.46 Spur, slopes NW. Desc. 285 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, 24 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap

¼
S18 | S17

1921

And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
43.55 Wash, 10 lks. wide, in box canyon, 40 ft. deep, course NW.
45.00 Asc. 140 ft.
62.15 Spur, slopes NW. Desc. 310 ft.
79.15 Wash, 10 lks. wide, course W. Asc. 25 ft.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 7, 8, 17 and 18, marked on brass cap

T32N R9W
S 7 | S 8
S18 | S17
1921

And raise a mound of stone, 4 ft. base, 2½ ft. high, W. of cor.
Land, broken.
Soil, rocky, 3rd and 4th rates.
Timber, pinyon and cedar.
Undergrowth, quinine brush, sagebrush, scrub oak, dogwood, cactus, Spanish bayonet, and mescal.

S.89°55'E. on a random line, bet. secs. 8 and 17.
40.00 Set temp. ¼ sec. cor.
80.28 Intersect N. and S. line, 35 lks. S. of the cor. of secs. 8, 9, 16 and 17.
Thence
S.89°50'W., on a true line, bet. secs. 8 and 17.
Over broken and mountainous land, through scattering undergrowth.
Desc. 1000 ft.
8.90 Gulch, 20 lks. wide, 4 ft. deep, course SW. Continue descent.
29.75 Wash, 10 lks. wide, 3 ft. deep, course SW. Asc.
35.30 Spur, slopes SW. Desc. 95 ft.
40.14 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for ¼ sec. cor., marked on brass cap

S 8
¼ S17
1921

And raise a mound of stone, 3 ft. base, 3 ft. high, N. of cor.
Desc. 175 ft.
54.25 Wash, 10 lks. wide, 6 ft. deep, course NW. Asc. 10 ft.
60.15 Spur, slopes NW. Desc. 170 ft.
74.50 Wash, 20 lks. wide, 5 ft. deep, course NW. Asc. 45 ft.
78.30 Spur, slopes NW. Desc. 35 ft.
80.28 The cor. of secs. 7, 8, 17 and 18.
Land, broken and mountainous.
Soil, rocky, 4th rate.
Timber, none.

Chains.

Undergrowth, quinine brush, sagebrush, cat claw, cactus, Spanish bayonet, and mescal.

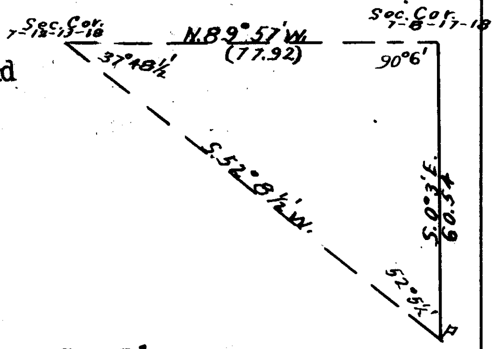
From the cor. of secs. 7, 8, 17 and 18, the cor. of secs. 7, 12, 13 and 18, on the W. bdy. of Tp., is plainly visible and brs. N.89°57'W.

Thence

N.89°57'W. on a random line for distance only, bet. secs. 7 and 18.

34.46 Impossible to chain farther. Set temp. witness cor. to ¼ sec. cor.

I proceed to the cor. of secs. 7, 12, 13 and 18, on the W. bdy. of Tp., from which a flag 60.54 chs. S.0°3'E. of the cor. of secs. 7, 8, 17 and 18 brs. S.52°8½'E. The three angles of the triangle are therefore 37°48½', 90°6' and 52°5½', the sum of which is 180°. The distance triangulated is given by the sine proportion;



$$\frac{X}{60.54} = \frac{\sin.\ 52°5\tfrac{1}{2}'}{\sin.\ 37°48\tfrac{1}{2}'}$$

$$\begin{array}{rcl}
\log.\ 60.54 & = & 1.782042 \\
\log.\ \sin.\ 52°5\tfrac{1}{2}' & = & \underline{9.897074} \\
 & & 1.679116 \\
\log.\ \sin.\ 37°48\tfrac{1}{2}' & = & \underline{9.787476} \\
\log.\ X & = & 1.891640 \\
X & = & 77.92 \text{ chs.}
\end{array}$$

77.92 Intersect the cor. of secs. 7, 12, 13 and 18, on the W. bdy. of Tp., which is an iron post, hereinbefore described.

Thence

S.89°57'E. on a true line, bet. secs. 7 and 18.

Over mountainous land, through scattering undergrowth, distance by triangulation. The approximate topography is as follows:

Desc. 65 ft.

19.90 Top of cliffs, right rim of canyon, brs. NE. and SW. Desc. 470 ft.

23.50 Foot of cliffs, brs. NE. and SW. Continue descent, 320 ft.

33.30 Wash, 30 lks. wide, in bottom of canyon, course SW. Asc. 790 ft.

37.92 The true point for ¼ sec. cor. falls on cliffs.

43.46 Top of cliffs, and left rim of canyon, brs. N. and S. Desc., distance by chaining.

44.17 Set an iron post, 3 ft. long, 1 in. diam., 3 ins. in the ground, against point of rock, marked with cross (X), and in a mound of stone, 4 ft. base, 30 ins. high, for witness cor. to ¼ sec. cor., marked on brass cap

$$\text{WC}\ \tfrac{1}{4}\ \frac{\text{S}\ 7}{\text{S}18}$$

1921

And raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Continue descent, 160 ft.

59.40 Gulch, 10 lks. wide, 4 ft. deep, course NW. Asc. 35 ft.

61.30 Spur, slopes NW. Desc.

65.10 Wash, 10 lks. wide, 5 ft. deep, course NW. Asc. 40 ft.

71.40 Spur, slopes NW. Desc. 45 ft.

76.25 Wash, 20 lks. wide, 6 ft. deep, course NW. Asc. 35 ft.

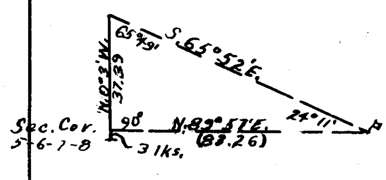
77.92 The cor. of secs. 7, 8, 17 and 18.

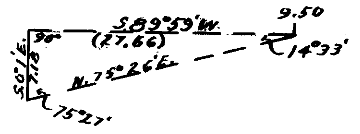
Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinyon.

Chains.	
	Undergrowth, quinine brush, sagebrush, cat claw, cactus, mescal, and Spanish bayonet.
	N.0°3'W. bet. secs. 7 and 8. Over broken land, through very scattering cedar and undergrowth. Asc. 25 ft.
1.50	Spur, slopes NW. Desc. 65 ft.
5.70	Wash, 10 lks. wide, 5 ft. deep, course NW. Asc. 25 ft.
8.80	Spur, slopes W. Desc. 180 ft.
19.40	Wash, 20 lks. wide, 10 ft. deep, course NW. Asc. 25 ft.
30.00	Desc. 19 ft.
37.95	Wash, 20 lks. wide, 6 ft. deep, course NW. Continue descent 25 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., on surface rock, over cross (X) on rock, in a mound of stone, 4 ft. base, 3 ft. high, for ¼ sec. cor., marked on brass cap
	¼ S 7│S 8 1921
	And raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.
42.00	Desc.
45.20	Wash, 5 lks. wide, 3 ft. deep, course NW. Asc. gradually.
56.21	Spur, slopes W. Desc. 45 ft.
58.70	Wash, 10 lks. wide, 10 ft. deep, course W. Asc. 115 ft.
61.00	Rim rock, 30 ft. high, brs. NW. and SE.
64.50	Rim rock, brs. E. and SW. Desc. 150 ft.
66.60	Wash, 20 lks. wide, in bottom of canyon, course W. Asc. 150 ft.
70.00	Rim, brs. E. and W. Continue ascent, 25 ft.
78.80	Rim, brs. E. and W. Desc. 50 ft.
79.55	Wash, in canyon, course W. Asc. 15 ft.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., on surface rock, over cross (X) on rock, in a mound of stone, 5 ft. base, 3 ft. high, for cor. of secs. 5, 6, 7 and 8, marked on brass cap
	T32N R9W S 6│S 5 S 7│S 8 1921
	And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, broken. Soil, rocky, 4th rate. Timber, very scattering cedar and pinyon. Undergrowth, sagebrush, quinine brush, cat claw, cactus, mescal, and Spanish bayonet.
	From the cor. of secs. 5, 6, 7 and 8, the witness cor. to cor. of secs. 4, 5, 8 and 9 is plainly visible, and brs. N.89°56'E. From the cor. of secs. 5, 6, 7, and 8, N.89°56'E., on a random line, for distance only, bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
44.49	Impracticable to chain from this point. Return to the cor. of secs. 5, 6, 7 and 8, and measure a base N.0°3'W. 37.42 chs., from the N. end of which, flag at the witness cor. to cor. of secs.



Chains.	
	4, 5, 8 and 9, 3.18 S.89°50'E of the true point for cor. of secs. 4, 5, 8 and 9, brs. S.65°52'E. From a point 3 lks. N.0°3'W. of the cor. of secs. 5, 6, 7 and 8, the witness cor. to cor. of secs. 4, 5, 8 and 9 brs. N.89°57'E. The three angles of the triangle are therefore 65°49', 24°11' and 90°, the sum of which is 180°. The distance triangulated is given by tan. 65°49' X 37.39 = 2.22683 X 37.39 = 83.26 chs. Therefore at
80.08	Intersect the true point for cor. of secs. 4, 5, 8 and 9, (inaccessible).
	Thence
	S.89°56'W. on a true line, bet. secs. 5 and 8.
	Over mountainous land, through scattering undergrowth.
	Desc. about 270 ft., over cliffs.
2.00	Foot of cliffs, brs. N. and S. Continue descent, 870 ft.
38.60	Continue descent, 110 ft.
40.04	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, 30 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside, for ¼ sec. cor., marked on brass cap ¼ S 5 S 8 1921
	Continue descent, 205 ft.
57.50	Wash, 10 lks. wide, 5 ft. deep, course SW. Continue descent.
63.10	Wash, 50 lks. wide, 20 ft. deep, course SW. Continue descent.
78.80	Center of gulch, 1 ch. wide, 20 ft. deep, course SW. Continue descent, 35 ft., from rim of gulch.
80.08	The cor. of secs. 5, 6, 7 and 8.
	Land, mountainous.
	Soil, rocky, 4th rate.
	Timber, none.
	Undergrowth, quinine brush, sagebrush, cat claw, cactus, mescal, and Spanish bayonet.
	From the cor. of secs. 5, 6, 7 and 8, the cor. of secs. 1, 6, 7 and 12, on the W. bdy. of Tp., is plainly visible, and brs. S.89°59'W.
	From the cor. of secs. 5, 6, 7 and 8,
	S.89°59'W. on a random line for distance only, bet. secs. 6 and 7.
9.50	Impossible to chain from this point. Set a flag ahead on line, from which I measure a base S.0°1'E. 7.18 chs.--impracticable to secure longer base--from the S. end of which, flag at the 9.50 ch. point brs. N.75°26'E. The three angles of the triangle are therefore 75°27', 14°33' and 90°, the sum of which is 180°. The distance triangulated is given by tan. 75°27' X 7.18 = 3.85284 X 7.18 = 27.66 chs., which added to 9.50 chs., gives 37.16 chs.  S.89°59'W. (27.66) 9.50 90° 14°33' S.0°1'E. 7.18 N.75°26'E. 75°27'
37.16	Continue S.89°59'W. on a random line, bet. secs 6 and 7.
40.00	Set temp. ¼ sec. cor.
77.80	Intersect the cor. of secs. 1, 6, 7, and 12, on the W. bdy. of Tp., which is an iron post, hereinbefore described.
	Thence
	N.89°59'E. on a true line, bet. secs. 6 and 7.
	Over bench land, through scattering undergrowth.

Chains.

Desc.

10.00 Wash, 20 lks. wide, 3 ft. deep, course NE.

37.80 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, 32 ins. high, 6 ft. base, with stone marked cross (X) at base of post, for ¼ sec. cor., marked on brass cap

¼ S 6
S 7
1921

40.80 Rim of cliffs, brs. N. and S. Desc. 400 ft., topography approximate and distance by triangulation.

46.00 Wash, in bottom of canyon, course S. Asc. 190 ft.

50.35 Left rim of canyon, brs. N. and S. Continue ascent, 215 ft.

68.30 Rim rock, brs. NW. and E. Desc. 30 ft.

72.85 Gulch, course S. Desc. 30 ft.

77.80 The cor. of secs. 5, 6, 7 and 8.

Land, broken and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sagebrush, cat claw.

N.0°3'W. on a true line, bet. secs. 5 and 6.

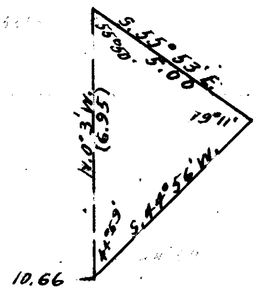
Over broken bench, through scattering undergrowth.

Asc. 35 ft.

0.45 Rim, brs. NE. and W.

4.95 Head of box gulch, course SW. From this point, SW. end of four wire drift fence brs. N.53½°E. 0.50 chs. dist. Fence extends N.53½°E. Asc. 25 ft.

10.66 From this point, NE. end of drift fence brs. S.60½°E. Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base S.55°53'E. 5.00 chs.--impossible to secure longer base--from the E. end of which, flag at the 10.66 ch. point brs. S.44°56'W. The three angles of the triangle are therefore 55°50', 79°11', and 44°59', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{5.00} = \frac{\sin. 79°11'}{\sin. 44°59'}$$

log. 5.00 = 0.698970
log. sin. 79°11' = 9.992214
0.691184
log. sin. 44°59' = 9.849359
log. X = 0.841825
X = 6.95 chs., which added to 10.66 chs., gives

17.61 Thence N.0°3'W. bet. secs. 5 and 6, continuing measurement, distance by chaining. Asc. 20 ft.

21.50 Spur, slopes W. Desc. 175 ft.

34.90 Gulch, 15 lks. wide, 100 ft. deep, course W. Asc. 65 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, 4 ft. base, 28 ins. high, with stone marked cross (X) at foot of post, for ¼ sec. cor., marked on brass cap

¼
S 6 | S 5
1921

BOOK 3[illegible]

Survey of Part of the Subdivision of T. 32 N., R. 9 W.

Chains.

Continue ascent, 30 ft.
44.00 Spur, slopes W. Desc. 20 ft.
46.30 Wash, 20 lks. wide, 10 ft. deep, course NW. Asc. 30 ft.
49.80 Spur, slopes SW. Desc. 80 ft.
58.80 Draw, course W. Asc. 55 ft.
62.80 Spur, slopes W. Desc. 130 ft.
69.70 Wash, course W. Asc. 125 ft.
74.40 Spur, slopes W. Desc. 60 ft.
79.40 Wash, 20 lks. wide, 10 ft. deep, course W. Asc. 10 ft.
80.00 Intersect the N. bdy. of Tp. (8th Standard Parallel North) at a point 17.85 chs. East of the TRUE POINT FOR standard cor. of secs. 31 and 32, T. 33 N., R. 9 W. WITNESSED 0.25 CHS.E. BY an iron post, described in Book "B".

At the point of intersection;

Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, 18 ins. in a mound of stone, 4 ft. base, with stone marked cross (X) alongside, for closing cor. of secs. 5 and 6, marked on brass cap

T33N R9W
S32
S 6 | S 5
T32N | R9W
C | C
1921

And raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, broken and mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, quinine brush, greasewood, sagebrush, cat claw, Spanish bayonet, cactus, and mescal.

The continued satisfactory adjustment of the solar transits during the survey of this township is indicated from field tests as described in Book "M".

Boundaries of That Portion of T. 32 N., R. 9 W. Surveyed under Group 72, Arizona.

Latitudes, departures and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
South Boundary.	West.	398.42				398.42
West Boundary.	North.	480.00	480.00			
North Boundary. (8th Std. Par. N.	East.	477.89			477.89	
East Boundary.	South.	240.00		240.00		
Subdivisional Boundary.	S.89°52'W. S. 0° 1'E.	80.18 240.00		.19 240.00	 .07	80.18
Convergency.					.49	
Totals.			480.00	480.19 480.00	478.45	478.60 478.45
Error in latitude				0.19		
Error in departure						0.15

GENERAL DESCRIPTION.

The portion of T. 32 N., R. 9 W. surveyed under Group 72, Arizona, is a very mountainous, broken, and precipitous country, with narrow areas of level or rolling bench land bounded by rim rock. All the drainage is into the Colorado River, through deep box canyons and rocky, 4th rate soil. There is a sparse growth of cedar and pinyon timber and sagebrush, cat claw, quinine brush, mescal, Spanish dagger, cactus, dogwood, black brush, and scrub oak undergrowth. The Colorado River makes unsurveyable portions of secs. 24, 25, and 36. A road from the north extends into sec. 15, and thence by trail to Cane Springs in sec. 22, and to Frog Spring in sec. 13, T. 32 N., R. 10 W. There are no settlers. No evidence of mineral was observed during the survey of this township.

4—680

BOOK 3326

FIELD ASSISTANTS. to Dupree R. Averill and William E. Hiester, U.S. Surveyors.

NAMES.	CAPACITY.
Clifton Hildebrand	First Chainman.
Rexford Perkins	Second Chainman.
Edgar Biebe	Flagman.
Alma Eq Flanigan	Cornerman.
Walter Thomas	First Chainman.
Henry Hiester	First Chainman.
Hale Pierce	Second Chainman.
George M. Tucker	Flagman.
Lowell McAllister	Cornerman.
Hugh Bowers	Cornerman.
Henry McKelvey	Axman.
A.A.Brown	Axman.
Thomas I. Ison	Cornerman.

CERTIFICATE OF UNITED STATES SURVEYOR.

BOOK 3626

I, Dupree R. Averill, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 72, Arizona bearing date of the 12th day of October, 1916, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

The East Boundary,
The West Boundary and
The Subdivision of
T. 32 N., R. 9 W.

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes and by diagram on page 1 hereof as having been executed by me, and under my direction; and 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 Group 72, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Phoenix Arizona
January 3, 1924

Dupree R. Averill
U. S. Surveyor.

~~APPROVAL.~~

~~Office of the United States Surveyor General,~~

~~, 19~~

~~The foregoing field notes of the survey of~~

executed by

under his special instructions dated , 19 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

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

~~*U. S. Surveyor General.*~~

BOOK 3626

4—680

FIELD ASSISTANTS. to
Dupree R. Averill and William E. Hiester, U.S. Surveyors.

NAMES.	CAPACITY.
See page 59 of	this book.

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62 BOOK 3626

CERTIFICATE OF UNITED STATES SURVEYOR.

I, William E. Hiester, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 72, Arizona bearing date of the 12th day of October, 1916, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

The East Boundary,
The West Boundary,
The South Boundary and
The Subdivision of
T.32 N.,R.9 W. of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes and by diagram on page 1 hereof as having been executed by me, and under my direction; and 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 Group 72, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Wolf Hole Arizona
March 14. 1924

William E. Hiester
U. S. Surveyor.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, May 15, 1924.

The foregoing field notes of the survey of

Part of the East Boundary,
The West Boundary,
Part of the South Boundary and
Part of the Subdivision of
T. 32 N., R. 9 W. of the Gila and Salt River Base and Meridian
in the State of Arizona

executed by Dupree R. Averill and William E. Hiester, U.S. Surveyors under ~~his~~ special instructions dated October 12, 1916 for Group 72, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Charles M. Donohoe
U. S. Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above-described surveys in~~

~~, has been correctly copied from the original notes on file in this office.~~

~~*U. S. Surveyor General.*~~

6—2764