

Canyon brs. N. $52^{\circ}57'E$. A prominent and peculiar shaped peak
brs. S. $59^{\circ}22'E$. A crack in the red sandstone brs. N. $20^{\circ}56'W$.

Thence I run N. $76^{\circ}39'E$ ^{from} a true line. Mag. Decl. $14^{\circ}38'E$.

- 2.72 Cross trail. brs. N.
4.25 Cross trail. brs. N. $10^{\circ}W$.
8.59 Monument on West side of Cataract Creek.
8.97 Brink of canyon.
9.09 Cross U.G. & P. Mines Co. wagon road brs. N. $15^{\circ}W$.
10.59 West bank of creek. Course of creek about North.
13.10 East bank of creek.
14.20 Bot. East wall canyon.
15.29 Monument on East side.
20.97 Cross side canyon. brs. N.
35.529 The point where I establish the N.E. Cor. by setting a sandstone 24 x 15 x 8 ins. 18 ins. in the ground, marked Y.I.R. N.E. Cor. on S.W. face and G.C.F.R. on N.E. face with x for exact corner point. From which a large sandstone boulder marked x B.R. brs. S. $24^{\circ}17'W$. 23.8 lks.

Center of prominent peak on upper rim of canyon brs. N. $43^{\circ}40'E$. Prominent peak on upper rim brs. N. $71^{\circ}30'W$. Raised a mound of stone 4 ft. base 3 ft. high on North.
Nov. 30th. 1904.

Dec. 1st. At 8 a.m., l.m.t. I set off $21^{\circ}45'$ for my decl. and $53^{\circ}45'$ for my co-lat. and determine a true meridian at the N.E. Cor. previously established by me.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the East. Over rough and rocky ground.

S. $48^{\circ}W$. 16.205 chs. At 6.01 cross gulch brs. N.W.

At 11.44 cross trail. brs. S.W.

S. $34^{\circ}W$. 8.55 chs.

S. $38^{\circ}30'W$. 5.868 chs.

S. $13^{\circ}E$. 7.354 chs.

S. $23^{\circ}17'E$. 6.494 chs. to point where I establish the 1st. mile corner by setting a sandstone 32 x 12 x 7 ins. 24 ins. in the ground, mkd. Y.I.R. on W. face and G.C.F.R. on E. and 1 M. on North face. Raised a mound of stone 4 ft. base 3 ft. high on North. A large sandstone boulder mkd. x B.R. brs. S. $73^{\circ}37'E$. 68.2 lks. A prominent peak brs. S. $58^{\circ}30'W$. Land Mountainous.

Soil rocky, 4th. rate.

No timber.

Dec. 1st. 1904.

Section 36. A prominent and peculiar shaped rock
in the red sandstone strata. A crack in the
strata runs N. 38° E. on a true line. N. 14° 30' E.

1. 38° E. on a true line.

2. 38° E. on a true line.

3. 38° E. on a true line.

4. 38° E. on a true line.

5. 38° E. on a true line.

6. 38° E. on a true line.

7. 38° E. on a true line.

8. 38° E. on a true line.

9. 38° E. on a true line.

10. 38° E. on a true line.

38. 38° E. on a true line.

39. 38° E. on a true line.

40. 38° E. on a true line.

41. 38° E. on a true line.

42. 38° E. on a true line.

43. 38° E. on a true line.

44. 38° E. on a true line.

45. 38° E. on a true line.

46. 38° E. on a true line.

47. 38° E. on a true line.

48. 38° E. on a true line.

49. 38° E. on a true line.

50. 38° E. on a true line.

51. 38° E. on a true line.

52. 38° E. on a true line.

53. 38° E. on a true line.

54. 38° E. on a true line.

55. 38° E. on a true line.

56. 38° E. on a true line.

57. 38° E. on a true line.

58. 38° E. on a true line.

59. 38° E. on a true line.

60. 38° E. on a true line.

61. 38° E. on a true line.

62. 38° E. on a true line.

63. 38° E. on a true line.

64. 38° E. on a true line.

65. 38° E. on a true line.

66. 38° E. on a true line.

Dec. 2nd. at 8 a.m., l.m.t. I set off $21^{\circ}54'S$ for my decl. and $53^{\circ}45'$ for my co-lat. and determine a true meridian with the solar at the 1 M. Cor.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the East. Over rough and mountainous land, through dense underbrush of Catclaw and chaparral, fallen boulders and vines.

S. $29^{\circ}30'W$. 6.765 chs.

S. $19^{\circ}57'W$. 2.548 chs.

S. $1^{\circ}56'W$. 2.342 " to point in wagon road.

S. $45^{\circ}16'W$. 13.383 " along road. to pt. opposite Supai Falls

S. $42^{\circ}30'W$. 4.965 "

S. $17^{\circ}09'E$. 2.773 "

S. $51^{\circ}39'E$. 2.344 "

S. $48^{\circ}51'E$. 9.039 "

S. $7^{\circ}20'E$. 7.074 " to pt. from which Kid Jones huts brs.
about S. $22^{\circ}W$. 6.40 chs.

S. $19^{\circ}19'E$. 5.671 "

S. $30^{\circ}00'E$. 1.289 "

Dec. 2nd. 1904.

Dec. 3rd. at 8 a.m., l.m.t. I set off $22^{\circ}03'S$ for my decl. and $53^{\circ}46'$ for my co-lat. and determine a true meridian with the solar at the point where I stopped on the preceding day. Thence I run,

S. $35^{\circ}37'E$. 7.615 chs. to pt. from which Man-i-ka-ja's hut
brs. S. $12^{\circ}20'E$. 4.00 chs.

S. $36^{\circ}51'E$. 6.137 "

S. $49^{\circ}33'E$. 6.177 " to pt. from which Spoonheads hut brs.
S. $24^{\circ}02'W$. 3.30 chs.

S. $73^{\circ}00'E$. 1.878 " to pt. where I establish the 2nd. mile corner by setting a sandstone 24 x 12 x 12 ins. 15 ins. in the ground, mkd. Y.I.R. on the S. face, G.C.F.R. on the N. face and 2 M. on the W. face, with x for exact corner point.

From which a tree in the center of top of West Supai Gods brs. S. $14^{\circ}45'E$. A prominent pinnacle on the upper rim of Cataract canyon brs. S. $64^{\circ}37'E$. A large sandstone boulder on the North about 10 lks. dist. is mkd. with x B.O.

Raised a mound of stones 4 ft. base 3 ft. high on the North. Land Mountainous.

Soil Rocky 4th. rate.

No timber.

Dec. 3rd. 1904.

Dec. 2nd at 8 a.m. I set off to the west for my day and
to determine a true meridian with the
solar at the 1st Cor.

Traced I run with members along the foot of the wall
of red sandstone bounding the bottom lands of
Creek on the East. Over rough and mountainous land, through
dense underbrush of Catalpa and cypripedium, fallen log
and vines.

- 2. 30 30' W. 8. 785 cha.
- 2. 18 57' W. 8. 548 cha.
- 2. 1 58' W. 8. 342 " to point in wagon road.
- 2. 48 18' W. 13. 38 " along road to opposite Sugar Falls
- 2. 48 30' W. 4. 985 "
- 2. 18 08' E. 2. 773 "
- 2. 51 38' E. 2. 344 "
- 2. 48 51' E. 8. 033 "
- 2. 7 20' E. 7. 074 " to pt. from which Kid Jones has
about 2. 28 W. 8. 40 cha.
- 2. 18 18' E. 2. 871 "
- 2. 30 00' E. 1. 289 "

Dec. 2nd. 1904.

Dec. 3rd at 8 a.m. I set off to the west for my day and
to determine a true meridian with the
solar at the point where I stopped on the preceding day.

Traced I run.
2. 38 37' W. 7. 815 cha. to pt. from which Man-i-ka-ja's and
pra. 2. 18 30' E. 4. 00 cha.

- 2. 38 51' E. 8. 137 "
- 2. 42 38' E. 8. 177 " to pt. from which Kocconaga and pra.
2. 34 08' W. 8. 30 cha.

2. 73 00' E. 1. 878 " to pt. where I established the 2nd
corner by setting a sandstone 34 x 18 x 18 in. in
the ground, N. 45. 1. R. on the S. face, S. 45. 1. R. on the W. face
and S. W. on the W. face, with x for exact corner point.

From which a tree in the center of top of West
2000 pra. 2. 14 45' E. A prominent pinnacle on the upper rim
of Cataract canyon pra. 2. 51 37' E. A large sandstone corner
on the North about 10 in. high is marked with 45. 0.

Wanted a mound of stones 4 ft. base 3 ft. high on the North
3000 Mountainous.
2000 Rocky Mt. range.

Dec. 2nd. 1904.

Dec. 4th. at 8 a.m., l.m.t. I set off $22^{\circ}11'$ for my decl. and $53^{\circ}46'$ for my co-lat. and determine a true meridian with the solar at the 2 M. Cor.

(X) Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the East, over rough and mountainous land, through dense underbrush of Catclaw, Mesquite, Chaparral and Arrow weed, fallen boulders, etc. etc.

S. $73^{\circ}00'E$. 8.589 chs. to point from which the Pow Wow hut
brs. S. $68^{\circ}10'W$. 15.30 chs.

S. $49^{\circ}00'E$. 5.047 "

N. $00^{\circ}00'E$. 1.644 "

(X) Dec 4th 1904, at the 2 M. Cor., I set off $22^{\circ}15'$ and at noon observe the sun on the meridian, and obtain on the lat. arc, the reading $53^{\circ}46'7''$ which agrees with my other readings,

$53^{\circ}46'$ for my co-lat. and determine a true meridian with the solar at the point where I left off on the preceding day, and continue the meanders.

S. $19^{\circ}38'E$. 7.106 chs.

S. $49^{\circ}18'E$. 7.094 "

S. $42^{\circ}02'E$. 6.092 "

S. $25^{\circ}53'W$. 6.589 "

S. $9^{\circ}53'W$. 1.688 " to point from which Dirty Shortys hut
brs. N. $41^{\circ}30'W$. 10.30 chs. Rock Jones hut
brs. S. $73^{\circ}45'W$. 9.80 chs.

S. $38^{\circ}57'E$. 1.589 "

S. $42^{\circ}18'E$. 5.721 "

S. $42^{\circ}18'E$. 3.818 " to point where I establish the 3rd. mile corner by setting a limestone 24 x 12 x 12 ins. 18 ins. in the ground, mkd. Y.I.R. on the west face, G.C.F.R. on the east face and 3 M. on the north face with x for exact corner point, and raised a mound of stone 4 ft. base 3 ft. high north of corner.

From which x B.O. on wall brs. East 11.4 lks. dist. The west God brs. N. $73^{\circ}30'W$.

Land mountainous.

Soil rocky 4th. rate.

No timber.

Mountainous land and land covered with dense undergrowth boulders, etc. etc. 80.00 chs.

Dec. 5th. 1904

BOOK 1958
4A

Dec. 4th at 8 a.m. I set off on my way to the ...
to my co-laborer and determine a true meridian with
the solar at the S.M. corner.

Thence I run with members along the foot of the wall
of red sandstone bounding the bottom lands of Cataract
Creek on the East, over rough and mountainous land, through
these underbrush of Catalpa, Madroño, Opuntia and Arrow
weed, tall grass, etc. etc.

S. 73 00' E. 8.589 chs. to point from which the Row was put
S. 2.68 10' W. 15.30 chs.

- " S. 43 00' E. 5.047
- " N. 66 00' E. 1.844
- " N. 10 32' E. 7.268
- " N. 38 45' E. 9.128
- " S. 18 01' E. 8.838 " To point.

Dec. 4th. 1804.

Dec. 5th at 8 a.m. I set off on my way to the ...
to my co-laborer and determine a true meridian with
the solar at the point where I left off on the preceding
day, and continue the members.

- S. 19 38' E. 7.108 chs.
- " S. 49 18' E. 7.094
- " S. 43 08' E. 6.092
- " S. 33 33' W. 6.588
- " S. 19 53' W. 1.688 " to point from which Dirty Shingles was

S. 41 30' W. 10.30 chs. Rock corner
S. 2.73 45' W. 9.80 chs.

- " S. 38 57' E. 1.588
- " S. 42 18' E. 5.721
- " S. 42 18' E. 3.808 " to point where I established the 3rd.

the corner by setting a limestone 24 x 12 x 12 lbs. 18
ins. in the ground, N. 1.1. R. on the west face, S. 1.1. R. on
the east face and 3 M. on the north face with a hole exact
corner point, and raised a mound of stone 4 ft. base 3 ft.
high north of corner.

From which x B.O. on wall was 11.4 lbs. dia. The west
for S. 73 30' W.

land mountains.
Both rocky and water.
No timber.

mountainous land and land covered with dense undergrowth
boundaries, etc. etc. 80.00 chs.

Dec. 5th. 1804.

Dec. 6th. at 8 a.m., l.m.t. I set off $22^{\circ}26'S$ for my decl. and $53^{\circ}46'$ for my co-lat. and determine a true meridian with the solar at the 3 M. Cor.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the east, over rough and mountainous land through dense underbrush, fallen boulders and vines.

S. $34^{\circ}19'W$. 2.706 chs.
 S. $83^{\circ}30'W$. 10.624 "
 N. $62^{\circ}16'W$. 4.115 "
 N. $28^{\circ}02'W$. 3.660 "
 S. $83^{\circ}30'W$. 1.370 "
 S. $47^{\circ}25'W$. .826 "
 S. $23^{\circ}40'E$. 3.219 "
 S. $27^{\circ}00'W$. 4.988 "
 S. $78^{\circ}34'W$. 6.521 "to point.

Dec. 6th. 1904.

Dec. 7th. at 8 a.m., l.m.t. I set off $22^{\circ}34'$ for my decl. and $53^{\circ}46'$ for my co-lat. and determine a true meridian with the solar at the point where I left off on the previous day.

I continue the meanders.

S. $54^{\circ}32'W$. 1.460 chs.
 S. $22^{\circ}22'W$. 2.527 "
 S. $48^{\circ}10'W$. 2.922 "
 S. $0^{\circ}52'E$. 3.880 "to point in wagon road.
 S. $3^{\circ}38'E$. 2.443 "
 S. $14^{\circ}19'E$. 3.090 "
 S. $9^{\circ}40'W$. 3.982 "
 S. $3^{\circ}38'E$. 5.966 "
 S. $19^{\circ}30'E$. 4.982 "
 S. $40^{\circ}29'E$. 6.176 " to point from which Capt. Bills hut brs.
 N. $63^{\circ}10'W$. 16.00 chs. Pan-aha-motas hut
 brs. N. $67^{\circ}30'W$. 15.90 chs. Sa-nillas hut
 brs. S. $14^{\circ}W$. 14.25 chs. Capt. Gabes hut
 brs. N. $89^{\circ}30'W$. 6.70 chs.

S. $7^{\circ}10'E$. 4.541 " to point where I set the 4 mile Cor.
 which is a sandstone $30 \times 16 \times 10$ ins. $2\frac{1}{2}$ ins. in the ground
 mkd. Y.I.R. on the W. face, G.C.F.R. on the E. face, 4 M. on the
 N. face and x for exact corner point. raised a mound of stone
 4 ft. base 3 ft. high on the north. From which a x B.O. on wall
 brs. N. $43^{\circ}28'E$. 44.5 lks. dist. A large boulder mkd. x B.O. brs
 S. $16^{\circ}41'W$. 19.4 lks.
 Land mountainous.

Dec. 6th. at 8 a.m. I set off at 8:30 for my destination
to the north and determine a true meridian with the
solar at the 3 M. Cor.

Since I run with readers along the foot of the wall of
red sandstone bounding the bottom lands of Ustark Creek
on the east, over rough and mountainous land through dense
underbrush, fallen conifers and vines.

- 2.34 18'W. 2.708 cha.
- " 2.33 30'W. 10.824
- " 2.32 18'W. 4.115
- " 2.31 02'W. 3.680
- " 2.30 30'W. 1.370
- " 2.29 30'W. 8.828
- " 2.28 40'E. 3.219
- " 2.27 00'W. 4.988
- 2.26 34'W. 6.521 " to point.

Dec. 6th. 1894.

Dec. 7th. at 8 a.m. I set off at 8:30 for my destination
to the north and determine a true meridian with the
solar at the point where I left off on the previous day.
I continue the readers.

- 2.25 32'W. 1.480 cha.
- " 2.24 32'W. 2.527
- " 2.23 10'W. 2.922
- 2.22 02'E. 3.880 " to point in wagon road.
- " 2.21 38'E. 2.443
- " 2.20 19'E. 3.090
- " 2.19 40'W. 3.982
- " 2.18 36'E. 2.988
- " 2.17 30'E. 4.982
- 2.16 28'E. 6.187 " to point from which Capt. Ellis had the

pts. N. 83 10'W. 18.000 cha. Pan-sha-ma-cha
pts. N. 87 30'W. 15.900 cha. Sa-ni-cha
pts. S. 14 14'W. 14.250 cha. Capt. Gibbs has
pts. N. 89 30'W. 6.700 cha.

2.15 10'E. 4.541 " to point where I set the 4 mile cor.

which is a sandstone 30 x 18 x 10 ins. in the ground
the Y.I.W. on the W. face, G.C.V.R. on the E. face, A.W. on the
N. face and X for exact corner point. raised a mound of stone
4 ft. high on the north. From which a 5.0.0. on wall
pts. N. 48 28'E. 44.514 cha. A large sandstone
2.14 41'W. 13.414 cha.

LAND BOUNDARIES.

Soil rocky, Ath. rate.

No timber. Mountainous land and land covered with dense underbrush 80.00 chs.

Dec. 7th. 1904.

Dec. 8th. at 8 a.m., l.m.t. I set off $22^{\circ}40'S$ for my decl. and $53^{\circ}47'$ for my co-lat. and determine a true meridian with the solar at the 4 M. Cor.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the east, over rough and mountainous land and through dense underbrush and fallen boulders.

S. $7^{\circ}10'E$. 3.773 chs.

S. $33^{\circ}50'E$. 4.032 "

S. $10^{\circ}25'W$. 8.291 "

S. $30^{\circ}27'E$. 6.585 " to point in edge of road, creek 20ft. W.

S. $39^{\circ}04'E$. 3.660 "

S. $45^{\circ}16'E$. 1.546 "

S. $28^{\circ}31'E$. 4.034 "

S. $71^{\circ}59'E$. .706 "

S. $36^{\circ}46'E$. 2.976 "

S. $45^{\circ}53'E$. 4.199 "

S. $55^{\circ}25'E$. 1.287 "

S. $62^{\circ}28'E$. 2.015 "

S. $13^{\circ}41'E$. 4.508 " to point.

Dec. 8th. 1904.

Dec. 9th. at 8 a.m., l.m.t. I set off $22^{\circ}46'S$ for my decl. and $53^{\circ}47'$ for my co-lat. and determine a true meridian with the solar at the point where I left off on the previous day and continue the meanders,

S. $54^{\circ}40'E$. 2.012 chs.

S. $8^{\circ}31'W$. 10.530 "

S. $34^{\circ}02'E$. .944 "

S. $70^{\circ}45'E$. 8.412 "

S. $70^{\circ}45'E$. 1.385 "

S. $70^{\circ}30'E$. 6.720 "

S. $48^{\circ}02'E$. 2.300 " to the point where I set the 5 M. Cor.

which is a sandstone 26 x 15 x 8 ins. surrounded by mound of stone, mkd. Y.I.R. on the S.W. face, G.C.F.R. on the S.E. face

5 M. on the N.W. face and cross for exact corner point.

Raised a mound of stone 4 ft. base 3 ft. high on W.W.

From which x B.O. on perpendicular wall brs. S. $69^{\circ}30'E$. 19.4

lks. dist. The S.W. Cor. Y.I.R. brs. S. $62^{\circ}37'$ W.

Land Mountainous.

2011 Rocky Ath. rate.
No timber. Mountainous land and land covered with dense
underbrush 80.00 chs.

Dec. 27. 1904.

Dec. 27. at 8 a.m. I set off S 40' for my decl. and
S 47' for my co-lat. and determine a true meridian with the
solar at the 4 N. Cor.
Thence I run with members along the foot of the wall of
red sandstone bounding the bottom lands of Cataract Creek
on the east, over rough and mountainous land and through
dense underbrush and fallen boulders.

- 2. 7 10' E. 3. 773 chs.
- " 2. 33 50' E. 4. 032
- " 2. 10 22' W. 8. 291
- " 2. 30 27' E. 8. 285 " to point in edge of road, creek, S 014' W.
- " 2. 38 04' E. 3. 860
- " 8. 42 16' E. 1. 248
- " 2. 38 31' E. 4. 034
- " 2. 71 59' E. 7. 708
- " 2. 38 46' E. 2. 278
- " 2. 42 03' E. 4. 188
- " 2. 38 22' E. 1. 287
- " 2. 62 28' E. 2. 012
- 2. 13 41' E. 4. 208 " to point.

Dec. 27. 1904.

Dec. 27. at 8 a.m. I set off S 46' for my decl. and
S 47' for my co-lat. and determine a true meridian with the
solar at the point where I left off on the previous day
and continue the members,

- 2. 54 40' E. 2. 012 chs.
- " 2. 5 31' W. 10. 830
- " 2. 34 02' E. 8. 244
- " 2. 70 42' E. 8. 412
- " 2. 70 42' E. 1. 385
- " 2. 70 30' E. 8. 720
- 2. 46 02' E. 2. 300 " to the point where I set the 2. 001.

which is a sandstone 28 x 12 x 8 ins. surrounded by sand
of stone, Mkd. Y. I. W. on the S.W. face, S. S. P. R. on the N.E. face
3. 7 on the N.W. face and cross for exact corner point.

Raised a mound of stone 4 ft. high on W.W.
From which x 2.0 on perpendicular wall 2. 62 30' E. 10. 4
The place. The S.W. face. 1. 1. 2. 62 30' W.

Soil Rocky 4th.rate.

Scattering Cottonwood trees.

Mountainous land and land covered with dense undergrowth
80.00 chains.

Dec.9th.1904.

Dec.10th.at 8 a.m.,l.m.t.I set off 22°52'S for my decl and
53°48' for my co-lat.and determine a true meridian with the
solar at the 5.M.Cor.

Thence I run with meanders along the foot of the wall of
red sandstone bounding the bottom lands of Cataract Creek
on the east,over rough and rocy mountainous lands.

S.38°51'E. 3.030 chs.

S.10°43'E. 2.530 "

S.12°48'W. 1.982 " to the S.E.Cor.of the Yavasupai Indian
Reservation,which I established as follows.

By referring to the blue print furnished me I was enabled
to locate the narrow pass,and after diligent search suc-
ceeded in finding the monument on the West side of Cataract
Creek. I then run East from this monument (MAGNETIC COURSE)
to the wall of red sandstone bounding the bottom lands of
Cataract Creek on the east where I established the S.E.
Cor.of the Yavasupai Indian Reservation by setting a sand-
stone 25 x 20 x 8 ins.18 ins.in the ground,mkd.Y.I.R.S.E.
Cor.on the N.W.face,G.C.F.R.on the S.E.face and x for
exact corner point.From which a very prominent round top
peak on upper rim of Cataract Canyon brs.S.32 54'W.A point
on upper rim of canyon brs.N.60 04'W.the 5.M.Cor.on E.bdy.
brs N.15°55'W.A prominent peak on upper side of canyon brs.
S.76 07'W.a x B.O.on wall brs.S.14 06'E,9.5 lks.dist.
Raised a mound of stones 4ft.base 3ft.high on North.
Thence I run

N.75°36'W.on a true line,Mag.Decl.14°24'E

At 8.45 cross wagon road.

At 9.00 chs.cross trail.

At 10.445 the monument on the west side of Cataract
Creek,set a sandstone 36 x 16 x 6 ins.surrounded by mound
of stones for the S.W.Cor.of the Yavasupai Indian Reserva-
tion,mkd.Y.I.R.S.W.Cor.on N.face,G.C.FR.on S.face,and x
for exact corner point,and raised a mound of stones 4 ft.
base 3ft.high on West.From which x B.O.on large sandstone
boulder brs.S.38°06'E.59 lks.dist.5M.Cor.brs.N.62°57'E.
A prominent point on upper rim on the West side brs.N.39°
17'W.A point on the East side of the canyon brs.N.63°18'E.

Cor.Secs.14,15,22 & 23.Tp.32 N,4 W.brs.S.4°41'W.4 miles
19 chains,24.24 lks.dist.

Dec.10th.1904.

Rocky Ash rate.

Containing cottonwood trees.

Some of the land and covered with dense undergrowth.

30.00 acres.

Dec. 21, 1904.

Dec. 21, 1904. I set off at 8 A.M. for my bed and
to determine a true meridian with the
aid of the S.W. Cor.

Trace I run with meanders along the foot of the hill
and sandstone bounding the bottom lands of Cataract Creek
on the east, over rough and rocky horizontal lands.

S. 28 51' E. 3.030 chs.

S. 10 48' E. 2.830 "

S. 12 48' W. 1.988 " to the S.W. Cor. of the Yavapai Indian
Reservation, which I established as follows.

By referring to the blue print furnished me I was enabled
to locate the narrow pass, and after diligent search suc-
ceeded in finding the monument on the west side of Cataract
Creek. I then ran East from this monument (MAGNETIC COURSE)
to the wall of red sandstone bounding the bottom lands of
Cataract Creek on the east where I established the S.W.

Cor. of the Yavapai Indian Reservation by setting a mark
stone 28 x 20 x 8 in. in the ground, N. 1. 1. 3. 2. 2.
Cor. on the N.W. face, S. 0. 7. 5. on the S.E. face, 2. 8. 1. 2. 2.

at the corner point from which a very prominent rock point
is on upper rim of Cataract Canyon S. 32 54' W. A point
on upper rim of canyon S. 1. 8. 0. 4' W. the S.W. Cor. on E. 2. 3. 2.
S. 1. 15 52' W. A prominent peak on upper side of canyon S.
S. 7. 0. 0' W. x 7. 0. 0' on wall S. 1. 4 06' E. 9. 5' high. 1. 4. 2. 2.

S. 7. 38' W. on a true line, S. 4. 2. 1. 2. 2.

At 8. 45 cross wagon road.

At 9. 00 cross trail.

At 10. 45 the monument on the west side of Cataract
Creek, a sandstone 36 x 18 x 6 in. surrounded by rocks
of stones for the S.W. Cor. of the Yavapai Indian Reserva-
tion, S. 1. 1. 3. 2. 2. Cor. on N. face, S. 0. 7. 5. on S. face, 2. 8. 1. 2. 2.
at exact corner point, and raised a mound of stones 4 ft.
high on West. side which x 8. 0. 0. on large sandstone
boundary S. 38 08' E. 5. 9' high. S. 4. 2. 1. 2. 2. Cor. S. 7. 38 00' W.
A prominent point on upper rim on the West side S. 1. 8. 0. 4' W.
17' W. A point on the East side of the canyon S. 1. 8. 0. 4' W.

S. 1. 4. 2. 2. Cor. S. 1. 4. 2. 2. W. 1. 4. 2. 2. 1. 4. 2. 2. 1. 4. 2. 2. 1. 4. 2. 2.
Dec. 21, 1904.

Dec. 11th. at 8 a.m., l.m.t. I set off $22^{\circ}57'$ for my decl. and $53^{\circ}48'$ for my co-lat. and determined a true meridian with the solar at the S.W. Cor. of the Yavasupai Indian Reservation.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the West, over rough and mountainous lands, through dense undergrowth of Catclaw and mesquite brush.

N. $71^{\circ}16'W$. 5.757 chs.

N. $70^{\circ}07'W$. 8.006 "

N. $53^{\circ}37'W$. 4.748 "

N. $25^{\circ}29'W$. 3.802 "

N. $15^{\circ}40'E$. 4.214 "

N. $13^{\circ}18'E$. .663 "

N. $17^{\circ}25'E$. 3.720 "

N. $20^{\circ}28'W$. 1.500 " to point from which S.W. Cor. of School

House brs. N. $83^{\circ}55'E$. 53 lks. dist. S.E.

Cor. Engine Room brs. N. $39^{\circ}36'E$. 5.55 chs

S.E. Cor. of P.O. bldg. brs. N. $29^{\circ}57'E$.

4.55 chs. About 1 chain East of this

point is the beginning of the springs

but the water does not reach its max-

imum flow (about 4000 Cu. Ft. per Min.)

for several chains. It is impossible to

locate these springs accurately.

N. $34^{\circ}24'W$. 1.588 " to point from which Farmers Cottage brs

S. $77^{\circ}48'E$. 4.10 chs. Agents dwelling brs

N. $18^{\circ}07'E$. 2.25 chs.

Dec. 11th. 1904.

Dec. 12th. 1904. at 8 a.m., l.m.t. I set off $23^{\circ}02'$ for my decl. and $53^{\circ}47'$ for my co-lat. and determine a true meridian with the solar at the point where I left off yesterday, I continue the meanders by running,

N. $34^{\circ}24'W$. 2.121 chs.

N. $52^{\circ}59'W$. 5.775 "

N. $37^{\circ}28'W$. 6.315 "

S. $54^{\circ}39'W$. 1.015 "

S. $50^{\circ}29'W$. 5.685 "

N. $47^{\circ}51'W$. 5.708 " across Hualpai Canyon, at 2.01 chs

cross trail, brs N.E. and S.W.

N. $17^{\circ}47'E$. 1.300 " to point where I set the 6 M. Cor. A

sandstone 30 x 15 x 8 ins. 24 ins. in the ground, mkd. Y.I.R.

Dec. 11th. at 8 a.m. I set off 23 02' for my destination
and 23 40' for my co-lateral and determined a true meridian with
the solar at the 2.W. Cor. of the Yawandai Indian Reservior.

These I run with sundials along the foot of the wall of
red sandstone bounding the bottom lands of Cataract Creek
on the West, over rough and mountainous lands, through dense
undergrowth of Catalpa and mesquite brush.

- N. 71 18' W. 5. 757 chs.
- " N. 70 07' W. 8. 008 "
- " N. 68 37' W. 4. 748 "
- " N. 25 29' W. 3. 808 "
- " N. 15 40' E. 4. 214 "
- " N. 13 18' E. 688 "
- " N. 17 25' E. 3. 730 "
- " N. 20 28' W. 1. 500 "

" to point from which S. F. Cor. of School
House pra. N. 83 55' E. 63 lbs. dist. S. N. E.
Cor. Engine Room pra. N. 29 38' E. 5. 730 chs.
S. E. Cor. of P. O. bldg. pra. N. 28 27' E.

4. 53 chs. About 1 chain East of this
point is the beginning of the spring
but the water does not reach the
spring flow (about 4000 ft. per min.)
for several chains. It is impossible to
locate these springs accurately.

" to point from which Lawrence Cor. pra.
S. 77 43' E. 4. 10 chs. A. 10 chs. A. 10 chs. A. 10 chs.
N. 18 07' E. S. 25 chs.

Dec. 11th. 1894.

Dec. 12th. 1894. at 8 a.m. I set off 23 02' for my destination
and 23 40' for my co-lateral and determined a true meridian with
the solar at the point where I left off yesterday. I then
drew the sundials by running.

- N. 34 34' W. 2. 181 chs.
- " N. 78 59' W. 5. 775 "
- " N. 38 28' W. 6. 315 "
- " S. 24 29' W. 1. 015 "
- " S. 20 29' W. 5. 685 "

" across Halfway Canyon, at S. 0. 10 chs.
cross trail, pra. N. E. 2. 10 chs.
" to point where I set off S. 2. 10 chs.
S. 2. 10 chs. in the ground, N. E. 2. 10 chs.

on the east face, G.C.F.R. on the west face, 6.M. on south face and x for exact corner point. Raised a mound of stone 4 ft. base 3 ft. high on line S.17°47'W. from which x B.O. on wall brs N.24°53'W. 9 lks. dist. A prominent peak on upper rim of Cataract Canyon brs N.63°25'E.

Land mountainous and rough.

Soil rocky 4th. rate.

Scattering Cottonwood trees.

Mountainous land and land covered with dense undergrowth of brush. 80.00chs.

Dec. 12th. 1904

Dec. 13th. at 8 a.m., l.m.t. I set off 23°06' for my decl. and 53°47' for my co-lat. and determine a true meridian with the solar at the 6.M. Cor.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the West, over rough and mountainous lands, through dense undergrowth of Catclaw, Mesquite and Chaparral.

N. 41°32'E. 5.170 chs.

N. 1°55'W. 2.750 "

N. 19°47'W. 2.097 "

N. 26°36'W. 7.261 " to point from which Lanomens hut brs.
S. 43°E. 14.60 chs.

N. 1°39'W. 8.273 "

N. 16°07'W. 7.456 "

N. 27°20'W. 2.983 "

N. 52°49'W. 4.135 "

N. 57°35'W. 2.185 "

N. 62°26'W. 1.024 "

Dec. 13th. 1904.

Dec. 14th. at 8 a.m., l.m.t. I set off 23°10' for my decl. and 53°47' for my co-lat. and determine a true meridian with the solar at the point where I left off on the previous day, I continue the meanders by running,

S. 88°54'W. 11.423 chs. to point, this course crosses a side canyon diagonally. at 8.94 cross bed of same course East.

N. 24°14'E. 4.095 "

N. 59°05'E. 3.797 "

N. 44°34'E. 3.870 "

N. 26°00'E. 1.048 "

N. 4°18'E. 2.874 "

of the east face, U.C.T. on the west face, 8.2. on south
 face and for exact corner point. Measured a distance of 100
 4 1/2 paces 2 1/2 high on line S. 1/4 N. 1/4 W. from which a 2.0. on
 wall was N. 84 33' W. 9 1/2 dist. A prominent peak of granite
 of Cataract Canyon was N. 83 25' E.
 Sand mountains and rough
 Soil rocky thin trees.
 Scattered Cottonwood trees.
 Mountains and land covered with dense vegetation
 of brush, 33.00000.

Dec. 18th. 1904

Dec. 18th at 8 a.m. I set off 33 10 for the
 33 1/2 for my coil and returning a fine ridge
 corner at the 8.2.000.
 These I run the markers along the foot of the wall
 of red sandstone bounding the bottom lands of Cataract
 Creek on the West, over rough and mountainous lands, forming
 dense undergrowth of Gambel, Resolute and Spanish.

- N. 41 32' E. 7.190 cns.
- " N. 1 32' W. 2.750 "
- " N. 19 47' W. 2.000 "
- N. 88 38' W. 7.281 " to point from which distance was
 2.43 E. 11.80 cns.
- " N. 1 32' W. 6.278 "
- " N. 19 07' W. 7.458 "
- " N. 88 30' W. 2.282 "
- " N. 88 40' V. 4.138 "
- " N. 88 30' W. 2.135 "
- " N. 88 30' W. 1.084 "

Dec. 18th. 1904

Dec. 18th at 8 a.m. I set off 33 10 for the
 33 1/2 for my coil and returning a fine ridge
 the corner and going where I left off on the
 1/2 I continue the markers of running,
 2.00 34' W. 11.288 cns. to point, this course covered a fine
 canyon diagonally 8.34 cns. to
 of same course East.

- " N. 34 14' E. 4.032 "
- " N. 80 08' E. 3.797 "
- " N. 44 34' E. 3.070 "
- " N. 80 00' E. 2.971 "
- " N. 44 18' E. 2.271 "

N. 9°30'E. 2.327 chs.

N. 22°55'W. 6.635 " to the 7 M. Cor. where I set a sandstone 28 x 18 x 10 ins. supported by a mound of stones, mkd. Y.I.B. on east face, G.C.F.R. on west face, 7 M. on south face and x for exact corner point. from which xt B.O. on large sandstone boulder brs. N. 33°48'W. 7 lks. dist. A prominent peak on upper rim brs. N. 73°30'E. Raised a mound of stone 4 ft. base 3 ft. high on west.

Land mountainous.

Soil rocky 4th. rate.

No timber.

Mountainous land and land covered with a dense undergrowth of brush 80.00 chs.

Dec. 14th. 1904.

Dec. 15th. 1904. at 8 a.m., l.m.t. I set off 23°13' for my decl. and 53°47' for my co-lat. and determine a true meridian with the solar at the 7 M. Cor.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract Creek on the West, over rough and mountainous lands, and dense undergrowth.

N. 22°40'W. 4.145 chs. to point from which Vetchners house or hut, brs. N. 84°30'E. 9 chs. Tiavas hut brs. N. 41°E. 8.35 chs.

N. 15°03'E. 7.806 "

N. 45°46'E. 23.539 " to point under Supai Gods. from which Princes hut brs. S. 19°30'W. 15.50 chs. TOB-Be-E's hut brs. S. 17°W. 17.30 chs. Smileys hut brs. S. 42°15'E. 8.80 chs.

N. 13°39'E. 2.212 "

S. 83°32'W. .447 " to point from which hut brs. N. 62 55'E 19.60 chs. another brs. N. 33°25'E. 20.80 chs.

Dec. 15th. 1904.

Dec. 16th. at 8 a.m., l.m.t. I set off 23°16'S for my decl. and 53°46' for my co-lat. and determine a true meridian with the solar at the point where I left off on yesterday, I continue the meanders by running,

N. 81°53'W. 21.106 chs.

N. 42°52'W. 9.799 "

N. 64°24'W. 3.362 "

S. 88°10'W. .923 "

W. 28° 30' E. 2.327 chs.
 W. 28° 30' E. 2.327 chs. "to the V.M. Cor. where I set a sandstone
 28 x 18 x 10 lbs. supported by a mound of stones, 18 x 18 x 10 lbs.
 on east face, 17.7 ft. on west face, V.M. on south face and
 X for exact corner point, from which 200 ft. on large sand-
 stone boulder, W. 38° 48' N. 1.5 ft. dist. A prominent peak
 on upper rim, W. 30° E. raised a mound of stones 10 ft.
 high on west.
 Sand mountains.
 Soil rocky 4th rate.
 No timber.
 Mountains land and land covered with a dense under-
 growth of brush 80.00 chs.
 Dec. 14th. 1904.

Dec. 15th. 1904. at 8 a.m. I set off 33 lbs. for my
 bed and 23 lbs. for my coat and determine a true meridian
 with the solar at the V.M. Cor.
 Hence I ran with members along the foot of the wall of
 red sandstone bounding the bottom lands of Cataract Creek
 on the West, over rough and mountainous lands, and hence
 under town.
 W. 32° 40' W. 4.146 chs. to point from which return course
 or put, W. 34° 30' E. 2 chs. dist. to
 W. 41° E. 2.3 chs.
 " W. 15° 03' E. 7.308
 " W. 45° 10' E. 23.639 " to point under Sugar toes, from which
 Prince and W. 19° 30' W. 15.700 chs.
 TOR-30-E's put W. 17° 30' chs.
 Believa put W. 24° 15' E. 8.30 chs.
 " W. 13° 30' E. 8.318
 " 2.88 33' W. 44V " to point from which put W. 63° 30' E.
 19.60 chs. another W. 33° 22' E. 20.80
 chs.
 Dec. 15th. 1904.

Dec. 16th. at 8 a.m. I set off 33 lbs. for my bed and
 23 lbs. for my coat and determine a true meridian with
 the solar at the point where I left off on yesterday.
 contains the members of running.
 W. 51° 53' W. 21.106 chs.
 " W. 48° 58' W. 9.799
 " W. 64° 34' W. 9.368
 " 2.30 10' W. 9.388

S.34°05'W. 1.770 chs.

S.36°14'W. 4.285 "

S.42°38'W. .600 to the 8 M. Cor. where I set a sandstone 28 x 12 x 10 ins. supported by mound of stones, mkd. Y.I.R. on N.W. face and G.C.F.R. on S.E. face and 8 M. on N.E. face and x for exact corner point, from which x B.O. brs. S.42°14'W. 36 lks. dist. chisled on a projecting rock or boulder. A detached peak of the upper rim of Cataract and Grand Canyon brs. N. 4°18'W. Raised a mound of stones on North 4 ft. base 3 ft. high.

Land mountainous. ~~bb.~~

Soil rocky 4th. rate.

No timber.

Mountainous land and land covered with a dense undergrowth 80.00 chains.

Dec. 16th. 1904.

Dec. 17th. at 8 a.m., l.m.t. I set off 23°18'S for my decl. and 53°46'N for my co-lat. and determine a true meridian with the solar at the 8 M. Cor.

Thence I run with meanders along the foot of the wall of red sandstone bounding the bottom lands of Cataract creek on the west, over rough mountainous lands, through dense underbrush.

S.42°38'W. 5.791 chs.

S.71°44'W. 6.138 "

N.49°37'W. 5.447 "

N.29°16'E. 6.505 "

N.13°57'E. 2.407 "

N. 7°29'W. 2.080 "

N.14°00'E. 14.372 " to point from which Butcher Boy's hut brs. S.34°10'E. 11.75 chs. Princes hut brs. S.56°15'E. 10.80 chs. Smileys hut brs. N.83°00'E. 8.40 chs.

Dec. 17th. 1904.

Dec. 18th. at 8 a.m., l.m.t. I set off 23°20'S for my decl. and 53°46'N for my co-lat. and determine a true meridian with the solar at the point where I left off on the day previous, I continue the meanders by running,

N.13°23'E. 2.630 chs.

N. 7°50'W. 7.576 " to point from which Capt. Burro's hut brs. S.51°E. 1.35 chs. Smiley's hut brs. S.45°45'E. 7.40 chs.

2.34 02'W. 1.770 chs.

2.38 14'W. 4.387 "

2.42 38'W. 3.310 to the S.M.Gor. where I set a sandstone
38 x 18 x 10 feet supported by mound of stones, also Y.I.R.
to N.E. face and S.W. face and S.W. face

2.46 14'W. 3.310 to exact corner point, from which a S.O. line

14'W. 38'W. 3.310 to a projecting rock or

A detached peak of the upper rim of detached and

2.50 14'W. 3.310 to mound of stones on

4 ft. base 8 ft. high.

Dec. 1878. Sandstone

2.54 14'W. 3.310

No timber.

Mountains and hills covered with a dense

30.00 of line.

Dec. 1878. 1073.

Dec. 1878. at 8 a.m. I set off 38' for

and 38' for an exact and determine a

with the solar as the S.W. corner.

Thence I ran with numbers along the foot of the hill

of red sandstone bounding the bottom land of

creek on the west, over rough mountains

6 feet under

2.12 30'W. 5.781 chs.

2.16 44'W. 8.138 "

2.20 37'W. 6.447 "

2.24 18'E. 8.502 "

2.28 37'E. 8.407 "

2.32 32'W. 8.080 "

2.36 00'E. 14.378 " to point from which

but 2.34 10'E. 11.110 chs. 11.110

but 2.36 15'E. 10.800 chs. 10.800

but 2.38 00'E. 8.400 chs. 8.400

Dec. 1878. 1074.

Dec. 1878. at 8 a.m. I set off 38' for

and 38' for an exact and determine a

with the solar as the point where I left off

previously, I continue the numbers by

2.42 38'E. 8.950 chs.

2.46 30'W. 7.875 " to point from which

but 2.51 15'E. 1.350 chs. 1.350

2.50 47'E. 7.460 chs.

N.30°08'W. 2.876 chs.

N.44°54'W. 1.859 "

N.52°40'W. 9.965 " to point from which Ss-Nillas hut brs.
N.24°W.2.30 chs.

N.55°28'W. 2.447 "

N.69°04'W. 7.959 " to point.

N.11°05'W. 1.84 " to the 9 M. Cor. where I set a sand-
stone 24 x 12 x 8 ins. 10 ins. in the ground, mkd. Y.I.R.
on east face, G.C.F.R. on west face, 9 M. on south face and
x for exact corner point, from which x B. on large
boulder brs. S. 5°40'E. 81 lks. dist. A prominent point on
upper rim brs. S. 62°30'E. raised a mound of stone on North
4 ft. base 3 ft. high.

Land mountainous.

Soil rocky 4th. rate.

No timber.

Mountainous land and land covered with a dense under-
growth 80.00 chains.

Dec. 18th. 1904.

Dec. 19th at 8 a.m., l.m.t. I set off 23°22'S for my decl. and
53°46' for my co-lat. and determine a true meridian with
the solar at the 9 M. Cor.

Thence I run with meanders along the foot of the wall
of red sandstone bounding the bottom lands of Cataract
Creek on the west, over rough and mountainous lands and
through dense underbrush of Catclaw, fallen boulders, etc.
N.11°05'W 5.985 chs.

N. 6°16'E. 7.164 "

N.67°12'E. 11.382 " to point from which Etah's hut brs.

N.70°30'E. 9.80 chs. Another hut brs.

S.68°E. 10.00 chs. Supai Charlie's hut

brs. S.45°E. 12.50 chs. Watahomjie's

hut brs. S.43°45'E. 18.00 chs.

N.63°00'E. 14.341 "

N.55°23'E. 7.573 "

Dec. 19th. 1904.

N. 3°31'W. 21.802 "

N. 6°30'W. 5.259 "

N.50°06'W. 1.503 " to the place of beginning the exterior
boundaries of this survey. Containing 518.85 acres.

Land mountainous.

Soil rocky 4th. rate.

No timber.

mountainous land and land covered with a dense under-
growth 80.00 chs.

N. 30° 00' W. 2.878 chs.

" " N. 44° 54' W. 1.829 "

N. 52° 40' W. 2.365 " to point from which Sa-Willas but 300 ft. N. 84° W. S. 30 chs.

N. 72° 28' W. 2.447 "

N. 89° 04' W. 1.722 " to point.

N. 11° 05' W. 1.910 " to the S. E. Cor. where I saw a sandstone 84 x 12 x 8 ins. in the ground, N. 1. R.

on east face, S. 30° E. on west face, S. on south face, S. for exact corner point, from which x 2.0 on large

border N. 25° 40' E. 81 ins. dist. A prominent point on upper rim N. 68° 30' E. raised a sound of stone on north

4 ft. base 3 ft. high.

Land boundaries.

Soil rocky 4 ft. base.

No timber.

Boundaries of land and land covered with a heavy growth 30.00 chs.

Dec. 18th. 1904.

Dec. 19th. 8 a.m. I set off 33 1/2 " for a field 32 1/2 " to determine a true meridian which

the center of the S. E. Cor.

Trace I ran with markers along the foot of the wall of red sandstone bounding the lower lands of the creek on the west, over rough and scattered land through dense underbrush of catalpa, fallen hemlock,

N. 11° 05' W. 2.255 chs.

N. 8° 10' E. 1.724 "

N. 87° 12' E. 1.522 " to point from which Sa-Willas but 300 ft.

N. 70° 30' E. 2.80 chs. Another point

N. 88° E. 10.00 chs. Great Catalpa

N. 25° 40' E. 12.50 chs. Waterford's

not N. 25° 40' E. 12.50 chs.

N. 38° 00' E. 1.341 "

Dec. 19th. 1904.

N. 55° 28' E. 1.722 "

N. 13° 31' W. 2.182 "

N. 5° 30' W. 2.222 "

N. 50° 00' W. 1.500 " to the place of beginning the exterior boundaries of this survey. Containing 513.634 acres.

Land boundaries.

Soil rocky 4 ft. base.

No timber.

Boundaries of land and land covered with a heavy growth 30.00 chs.

General Description.

Cataract Canyon is one of the side canyons tributary to the Grand Canyon of the Colorado River in Northern Arizona. The head waters of Cataract creek are in the Bill Williams mountains about sixty miles to the South of the Supai Indian Reservation, but the canyon proper does not begin to box until it reaches a point in Tp. 29 N. R. 2. W. G. & S. R. B. & M. and when the reservation is reached it is in walls some three thousand feet high.

It lies in Tp. 33 N. R. 4 W., G. & S. R. B. & M. on unsurveyed lands, but approximately in Secs. 10, 15, 22, 23, 26 and 27. It is reached by two tortuous trails, one from the East down Tobi Cobi canyon, thence into the main canyon, a distance of eight or ten miles; the other from the west down the Hualpai Canyon about the same distance. These trails are known by the names of Tobi Cobi trail, and Hualpai trail.

There are perhaps some 150 Supai Indians dwelling in this village in huts of grass, weeds and willow poles. There have been no allotments and the Indians farm little plots of ground all over the reservation. They are not thrifty and a good deal of valuable land is permitted to remain idle and overgrown with willows and weeds.

While my notes have shown that every foot of the line traversed by me was mountainous and covered with a dense undergrowth, it must not be inferred that the reservation is similarly covered, for this rough country only extends a few feet from the perpendicular walls of red sandstone in places, while in others it will extend some several hundred feet. I have hugged this wall as closely as I could and have not excluded any of the bottom lands of Cataract Creek. The land, with the exception of the lower part of the reservation, is uniformly level, the soil is a sandy loam and is very productive. Peaches, Apricots, Figs, Nectarines and grapes grow in profusion. Corn, Pumpkins, Squash, beans, tomatoes, watermelon and canteloupe are the principal products. There are no white settlers within the lines of the reservation. The water, which rises in numerous springs near the Agency, is pure but carries a great deal of lime and is used by the Indians in irrigating their patches of ground. I have taken the distance and bearing to reach hut in the village, still it counts for very little for the Indians are continually moving, burning their old huts, and new ones are springing up all the time.

Great care was exercised in running these lines and the

General Description.

Cataract Canyon is one of the side canyons tributary to the Grand Canyon of the Colorado River in Northern Arizona. The head waters of Cataract creek are in the Bill Williams mountains about sixty miles to the south of the Yavapai Indian Reservation, but the canyon proper does not begin to form until it reaches a point in T. 29 N. 2. W. 2. E. 2. S. and when the reservation is reached it is in walls some three thousand feet high.

It lies in T. 29 N. 2. W. 2. E. 2. S. on unurveyed lands, but approximately in Secs. 10, 13, 22, 23, 26 and 27. It is reached by two tortuous trails, one from the East down Tooti Gobi canyon, thence into the main canyon, a distance of eight or ten miles; the other from the west down the Yavapai canyon about the same distance. These trails are known by the names of Tooti Gobi trail, and Yavapai trail. There are perhaps some 150 Yavapai Indians dwelling in this village in mats of grass, weeds and willow poles. There have been no allotments and the Indians have little idea of groups all over the reservation. They are not strictly and a good deal of valuable land is permitted to remain idle and overgrown with willows and weeds.

While my notes have shown that every foot of the reservation is covered with mountains and covered with a dense undergrowth, it must not be inferred that the reservation is entirely covered, for this rough country only extends a few feet from the perpendicular walls of red sandstone

in places, while in others it will extend some several hundred feet. I have hunted this wall as closely as I could and have not excluded any of the bottom lands of Cataract Creek. The land, with the exception of the lower part of the reservation, is uniformly level, the soil is a sandy loam and is very fertile. Pecans, Apricots, Figs, Apples, and grapes grow in profusion. Corn, Pumpkins, Beans, Peas, tomatoes, watermelon and cantaloupe are the principal products. There are no white settlers within the lines of the reservation. The water, which rises in numerous springs near the Agency, is pure but carries a great deal of lime and is said by the Indians to irritate their parches of the throat. I have taken the distance and bearing to each but in the village, still it counts for very little for the Indians are continually moving, during their old times, and new ones are continually moving in.

There are no white settlers in the reservation and the Indians are continually moving, during their old times, and new ones are continually moving in.

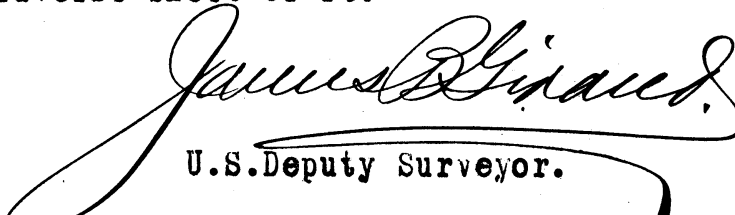
General description cont.

high walls interfered so with the sunlight that I found it necessary to leave the wall at intervals to go into the sunlight in order to recover my course. It was hardly ever possible to take a full chain and plumb bobs were used all the time..

Four days were consumed in running the connecting line up Hualpai Canyon to the fractional Tp. 32 N.R. 4 W. and in running this line a total ascent of nearly four thousand feet was attained.

In compiling the traverse sheet to accompany these notes I have, for convenience, numbered them and begin my numbers with the most westerly point, so that no minus quantities would have to be dealt with in the D.M.D. col.

Of a necessity the connecting line had to be traversed and I append a traverse sheet of it.


U.S. Deputy Surveyor.



General description cont.

high walls interferred so with the sunlight that I found it necessary to leave the wall at intervals to go into the sunlight in order to recover my course. It was hardly ever possible to take a full chain and plumb line were used all the time.

Four days were consumed in running the connecting line up Hualapai Canyon to the fractional T.P. 38 N.R. 4. W. and in turning this line a total ascent of nearly four thousand feet was attained.

In compiling the traverse sheet to accompany these notes I have, for convenience, numbered them and begin my numbers with the most westerly point, so that no errors or omissions could have to be dealt with in the D. U. S. Of a necessity the connecting line had to be traversed and I append a traverse sheet of it.

U. S. Deputy Surveyor.

Connecting line from the S.W. Cor. of the Reservation to the Cor. of Secs. 14, 15, 22 & 23 Tp. 32 N. R. 4 W. G. & S. R. B. & M.

A portion of this line was run while meandering the West foot wall of Cataract Creek and is put down here without comment.

Beginning at the S.W. Cor. of the Y.I.R. previously described.

N. 71° 16' W. 5.757 chs.

N. 70° 07' W. 8.006 "

N. 53° 37' W. 4.748 "

N. 25° 29' W. 3.802 "

N. 15° 40' E. 4.214 "

N. 13° 18' E. .663 "

N. 17° 25' E. 3.720 "

N. 20° 28' W. 1.500 "

N. 34° 24' W. 1.588 "

N. 34° 24' W. 2.121 "

N. 52° 59' W. 5.775 "

N. 37° 28' W. 6.315 "

S. 54° 39' W. 1.015 "

S. 50° 29' W. 5.685 "to point in Hualpai Canyon.

Dec. 20th. 1904. at 8 a.m., l.m.t. I set off 23° 22' for my decl. and 53° 47' for my co-lat. and determine a true meridian with the solar at the point in Hualpai Canyon previously set by me, and as above notes show.

Thence I run up Hualpai Canyon with its meanders,

S. 56° 51' W. 21.351 chs.

S. 7° 00' E. 4.939 "

S. 8° 39' W. 6.794 "

S. 12° 53' W. 10.431 "

S. 63° 36' W. 4.741 "

N. 71° 22' W. 5.553 "

S. 65° 12' W. 4.955 "

S. 13° 42' E. 3.598 "

S. 26° 14' E. 2.287 "

S. 4° 10' W. 2.495 "

S. 54° 37' W. 15.494 "

S. 9° 07' W. 9.779 "

S. 46° 41' W. 8.120 "

S. 19° 57' W. 6.878 "

S. 30° 28' E. 6.575 "

S. 41° 10' W. 6.969 "

S. 51° 25' W. 4.264 "

S. 22° 24' E. 13.515 "

S. 45° 00' W. 5.874 "

~~82~~

Connecting line from the S.W. corner of the section to the corner of Sec. 14, T. 33 S. R. 4 W. N. 1 E. A portion of this line was run while measuring the West foot wall of Cataract Creek and is put down here without comment.

Beginning at the S.W. corner of the Y.I.R. previously described:

N. 71 16' W. 5.787 chs.
 " N. 70 07' W. 8.008 "
 " N. 68 37' W. 4.748 "
 " N. 66 28' W. 3.803 "
 " N. 64 40' E. 4.314 "
 " N. 63 18' E. 3.883 "
 " N. 61 28' E. 3.789 "
 " N. 59 28' W. 1.800 "
 " N. 57 24' W. 1.589 "
 " N. 55 24' W. 2.181 "
 " N. 53 28' W. 2.776 "
 " N. 51 28' W. 2.315 "
 " S. 54 39' W. 1.015 "

S. 50 29' W. 5.685 " to point in National Canyon.

Dec. 20th 1904 at 3 a.m. I set off to find the point and to determine a line which with the corner of the point in National Canyon would not be beyond as above notes show.

Traced the line in National Canyon with the bearings:

S. 50 51' W. 3.351 chs.
 " N. 7 00' E. 4.989 "
 " N. 6 59' W. 6.794 "
 " S. 13 30' W. 10.431 "
 " N. 68 38' W. 7.711 "
 " N. 71 28' W. 6.553 "
 " S. 69 18' W. 4.555 "
 " S. 67 48' E. 6.388 "
 " S. 66 14' E. 6.387 "
 " S. 64 10' W. 6.432 "
 " S. 61 37' W. 12.434 "
 " S. 59 07' W. 6.773 "
 " S. 56 11' W. 8.130 "
 " S. 53 27' W. 8.873 "
 " S. 50 28' E. 6.573 "
 " S. 47 10' W. 6.989 "
 " S. 44 35' W. 7.305 "
 " S. 41 24' E. 13.715 "
 " S. 38 20' W. 6.374 "

Continuation of connecting line up Hualpai Canyon.

S. 28° 36' W. 11.408 chs. to point.

Dec. 20th. 1904.

 Dec. 21st. at 8 a.m., l.m.t. I set off 23° 23' for my decl. and 53° 28' for my co-lat. and determine a true meridian with the solar at the point where I left off on the day before.

I continue the meanders up Hualpai Canyon,

S. 28° 26' W. 6.851 chs.

S. 14° 09' W. 7.205 "

N. 83° 59' W. 12.346 "

S. 78° 15' W. 1.040 "

S. 0° 37' E. 12.499 "

S. 7° 05' W. 6.972 "

S. 77° 20' W. 9.127 "

S. 11° 41' E. 10.506 "

S. 79° 55' W. 13.720 "

S. 1° 14' W. 17.240 "

S. 45° 54' W. 9.380 "

S. 29° 58' W. 9.740 "

S. 9° 02' E. 20.364 "

S. 2° 52' W. 17.156 " to point which I mark.

Dec. 21st. 1904.

 Dec. 22nd. 1904 at 8 a.m., l.m.t. I set off 23° 23' for my decl. and 53° 50' for my co-lat. and determine a true meridian with the solar at the point where I left off on the day before, I continue up Hualpai Canyon and on to the upper rim of Cataract Canyon,

S. 1° 10' E. 16.060 chs.

S. 33° 22' W. 16.936 "

S. 9° 10' W. 12.630 "

S. 34° 0' E. 73.348 " to point which I mark.

Dec. 22nd. 1904.

 Dec. 23rd. 1904. at 8 a.m., l.m.t. I set off 23° 23' for my decl. and 53° 51' for my co-lat. and determine a true meridian with the solar at the point where I left off on the preceding day, I resume work running,

S. 86° 00' E. 7.178 chs.

S. 62° 40' E. 4.239 "

S. 60° 20' E. 11.197 "

S. 28° 00' E. 9.924 "

~~31~~

Continuation of connecting line up Hualapai Canyon.

2.88 38'W.11.408 chs. to point.

Dec. 30th. 1904.

... I continue the markers up Hualapai Canyon, ... the solar at the point where I left off on the day before.

- 2.88 38'W. 9.871 chs.
- 2.14 08'W. 7.808 "
- W. 83 52'W. 18.348 "
- 2.70 42'W. 1.040 "
- 2.0 38'W. 18.400 "
- 2.7 02'W. 8.272 "
- 2.77 20'W. 8.187 "
- 2.11 41'E. 10.708 "
- 2.79 20'W. 13.780 "
- 2.1 14'W. 17.240 "
- 2.46 04'W. 2.330 "
- 2.82 28'W. 2.740 "
- 2.0 28'E. 20.384 "

2.3 28'W. 17.188 " to point which I mark.
Dec. 31st. 1904.

... I continue up Hualapai Canyon and on to the upper ... the solar at the point where I left off on the day before.

- 2.1 12'E. 19.080 chs.
- 2.02 22'W. 18.938 "
- 2.0 10'W. 12.920 "
- 2.84 0'E. 73.348 " to point which I mark.

Dec. 30th. 1904.

... I continue up Hualapai Canyon and on to the upper ... the solar at the point where I left off on the day before.

- 2.88 02'E. 7.173 chs.
- 2.88 00'W. 4.839 "
- 2.88 00'W. 11.187 "
- 2.88 00'W. 8.932 "

Continuation of connecting line up Hualpai Canyon.

S.37°07'E. 8.090 chs.

S.36°18'E.12.741 "

S.12°49'E.10.969 "

N.87°07'E. 6.017 "

N.87°10'E.10.167 "

N.68°24'E.10.782 "

N.81°00'E. 7.923 "

N.66°00'E.15.136 " to the Cor.of Secs.14,15,22 and 23.

in Tp.32 N.R.4 W.,G.& S.R.B.& M.which is a stone set in the ground properly marked and witnessed as described by the Surveyor General.

This line lies in the bottom of Hualpai Canyon for about six miles when it begins the rapid ascent of the limestone walls,

Land is mountainous.

Soil rocky 4th.rate.

No timber.

Dec.23rd.1904.

James B. Girard
U.S. Deputy Surveyor.

EB

Continuation of connecting line to Halper Canyon.

8.37 07'E. 3.000 chs.

" 8.38 18'E. 12.741 "

" 8.42 40'E. 10.808 "

" 8.47 07'E. 9.017 "

" 8.52 10'E. 10.187 "

" 8.57 34'E. 10.783 "

" 9.02 00'E. 7.928 "

9.07 00'E. 12.138 " to the cor. of Secs. 14, 15, 16 and 20.

in T. 33 N. R. 4 W. S. 2. S. 2. E. 1. which is a stone set in

the ground, roughly marked and witnessed as described by

the Surveyor General.

This line is the portion of Section line

about six miles when it begins the said section of the

of section 14.

and is continuous.

Half mile from the

to station.

Sec. 14, 15, 16.

U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

19
83

LIST OF NAMES.

BOOK 1958

A list of the names of the individuals employed by James B. Girard, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the exterior boundaries of the Yava Supai Indian Reservation, showing the respective capacities in which they acted:

- L. W. Hanson, Chainman.
- A. M. Oliver, Chainman.
- P. W. Latimer, Moundman.
- _____ Moundman.
- _____ Axman.
- _____ Axman.
- J. R. Goodman, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted James B. Girard, United States Deputy Surveyor, in surveying all those parts or portions of the exterior boundaries of the Yava Supai Indian Reservation

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

- General for Arizona
- L. W. Hanson, Chainman.
 - A. M. Oliver, Chainman.
 - Park H. Latimer, Moundman.
 - _____ Moundman.
 - _____ Axman.
 - _____ Axman.
 - J. R. Goodman, Flagman.

Subscribed and sworn to before me this 23rd day of December, 1904



James B. Girard
U.S. Deputy Surveyor

84 00
BOOK 1958

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, James B Girard, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank A Ingalls United States Surveyor General for Arizona, bearing date of the 19th day of August, 1904 I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Exterior Boundaries of the Yava Supai Indian Reservation.

Base 7 of the Gila Salt River meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

James B Girard
United States Deputy Surveyor.

Subscribed by said James B Girard and sworn to before me
this 24th day of June, 1905

J. M. Watts
Clerk U.S. Court



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ar., Nov. 6, 1905, 189

The foregoing field notes of the survey of the Exterior boundaries of the Yava Supai Indian Reservation, situate in T 33 N, R 4 W (unsurveyed) of the Gila and Salt River Base and Meridian, in the territory of Arizona.

executed by James B Girard under his contract No. 122, dated August 19, 1904, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank A Ingalls
United States Surveyor General.

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

~~United States Surveyor General.~~

Book A

4-679.

1958

BOOK 1958

FEB. 25 1905
JUN. 26 1905

62

FIELD NOTES

1958

OF THE SURVEY OF THE

1958

Exterior boundaries of the Yavapai Indian Reservation

1958

1958

Of the *Line of Salt River Pass* & Meridian,

AS SURVEYED BY

James G. Lissard

United States Deputy Surveyor,

Under his Contract No. *122*, dated *August 19th*, 18*90*4

Survey commenced *Thursday November 29th*, 18*90*4

Survey completed *Friday December 23rd*, 18*90*4

6-161

1958

1958

1958

1A
63

BOOK 1958

NAMES AND DUTIES OF ASSISTANTS.

L. W. Hanson, Chairman.
A. N. Oliver, Chairman.
P. W. Latimer, Moundman.
J. R. Goodman, Flagman.

INDEX DIAGRAM.

Township....., *Range*.....

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

Meanders Page.....

64 LB
BOOK 1958

PRELIMINARY OATHS OF ASSISTANTS.

WE, L. W. Hanson and A. N. Oliver

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

exterior boundaries of the Gava Supai Indian Reservation

L. W. Hanson, Chainman.

A. N. Oliver, Chainman.

Subscribed and sworn to before me this 29th
day of November, 1894



James B. Girard
U.S. Deputy Surveyor

I, P. W. Lattimer and

do solemnly swear that ~~we~~ ^{we} will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given ~~us~~ ^{me}, to the best of ~~our~~ ^{my} skill and ability, in the survey of

exterior boundaries of the Gava Supai Indian Reservation.

Park W. Lattimer, Moundman.

....., Moundman.

Subscribed and sworn to before me this 29th
day of November, 1894



James B. Girard
U.S. Deputy Surveyor

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

....., Axman.

....., Axman.

Subscribed and sworn to before me this
day of, 189.....



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

the exterior boundaries of the Gava Supai Indian Reservation.

F. R. Goodman Flagman.

Subscribed and sworn to before me this 29th
day of November, 1894



James B. Girard
U.S. Deputy Surveyor

Nov. 29th, 1904, at the monument erected by Lieutenant Palfry on the west side of Cataract Canyon, at 8 A.M. l.t.m. I set off $21^{\circ}26'$ for my declination and $53^{\circ}45'$ for my co.lat. and determine a true meridian with the solar and mark the line thus determined by a cross on a rock about 5 chs. north of the monument.

Nov. 29th at 3 P.M. l.t.m. I set off $21^{\circ}30'$ for my declination and $53^{\circ}45'$ for my co.lat. and determine a true meridian with the solar at the same point where I established the meridian by forenoon observation. I find that my instrument gives the same true north line.

Nov. 29th at the monument erected by Lieutenant Palfry on the west side of Cataract Canyon (being the same point where A.M. and P.M. observations were made) at 14 h. 06.6 m. l.t.m. (astronomical) I observe polaris at western elongation in accordance with instructions in the manual, and mark the line thus determined by a cross on a rock in place about 5 chs. north of my station.

Nov. 30th at 8 A.M. at the same point, I lay off the azimuth of polaris to the ^{East} right which is $1^{\circ}29'$ and find that the line coincides with the same true north line established the preceding day by A.M. and P.M. observations.

65
10
BOOK 1958

Nov. 21, 1904, at the point established by
Lieutenant Hart on the west side of Cataract Canyon.
At 8 A.M. I set out on my expedition
for my camp and descending a trail
marked with the solar and star lines
which were on a rock about 500 feet from
the point.
Nov. 22, at 8 A.M. I started on my
expedition and on my way
determined a true meridian line at the
point where I established the meridian by
observation. I find that my instrument gives
true north line.
Nov. 23, at the point established by
Lieutenant Hart on the west side of
Cataract Canyon (point where
the point where A.M. and P.M. observations
were made) I observed
the solar and star lines in accordance with
instructions in the manual, and mark the line
determined by a cross on a rock in place about 500
feet from my station.
Nov. 24, at 8 A.M. at the same point, I lay off
the south of point of the right which is
and find that the line coincides with the true north
line established the preceding day by A.M. and P.M.
observations.

1905 2
66

Survey of the
Exterior Bds. of YAVASUPAI INDIAN RESERVATION.

Prescott, Ariz. Dec. 31st. 1904.

Hon. F. S. Ingalls.
U. S. Surveyor General,
Phoenix, Arizona.

BOOK 1958

Sir:--

Tuesday November 29th. 1904 I proceeded to the crest of the third falls of Cataract Creek, which I found to be Bridal Veil Falls, where I instituted a search for the monuments placed there by Lieut. Carl Palfry, of the Corps of Engineers of the Army, in the summer of 1881.

These monuments are still standing and are plainly visible, being in their relative position with respect to Cataract Creek and the blue print you furnished me taken from a tracing of a reconnoissance survey made by Lieut. Palfry.

(X) A line drawn between these two monuments passes directly over the crest of the third (Bridal Veil) falls of Cataract Creek, so I proceed to establish the North Boundary of the Reservation, which I did as follows;.

Survey executed with an A. Lietz, Compound Mining Transit No. 902 provided with a Saegmuller Solar Attachment.

~~I examine the adjustments of the instrument and find it to be in perfect adjustment, I establish a meridian in the forenoon by solar observation, which I check by afternoon observation, I further verify the perfect adjustment of my instrument by daylight observation of Polaris and as a final check I observe Polaris at its elongation by the common method and finding my instrument giving unvarying results I presume it to be correct.~~

~~Nov. 29th. 1904.~~

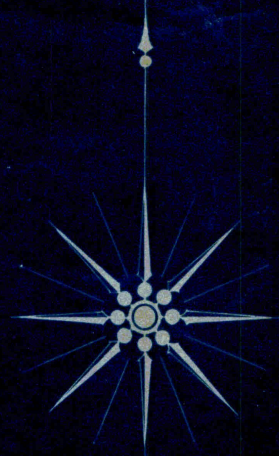
November 30th. 1904. At 8 a. m., l. m. t. I set off $21^{\circ} 36' 58''$ for my decl. and $53^{\circ} 45'$ for my colatitude and determine a true meridian with the solar at the monument on the West side of Cataract Creek and direct my telescope at the monument on the East side, I find the course to be $N. 62^{\circ} 01' E.$ (MAGNETIC) I extend this line to the boundary wall of red sandstone on the West where I establish the INITIAL MONUMENT and N. W. COR. by setting a Limestone $24 \times 12 \times 10$ ins. 18 ins. in the ground, marked Y. I. R. I. M. N. W. COR. on S. E. face and G. C. F. R. on the N. W. face, with x for exact corner point.

From which a prominent point of upper rim of Cataract

T 33 N R 4 W

Public Land.
Unsurveyed.

Public Land.
Unsurveyed.



SE COR
 Latitude 36°12'00"N.
 Longitude 112°40'51"W.
 Mag. Decl. 14°24'E.

Cor. to Secs. 14, 15, 22, 8, 23 T. 32 N. R. 4 W. E. 1/4 54. 1/4 W. 4. 1/4 19. C. 1/4 76. 1/4 S.

Gataract Cañon.

Sur
 Rese
 Con

Proceeding, this, Dec. 1881.

Hon. F. M. Ingalls,
U.S. Surveyor General,
Phoenix, Arizona.

Sir:

Tuesday November 28th 1881 I proceeded to the crest
of the third falls of Catawba Creek, which I found to be
situated West Falls, where I instituted a search for the mon-
uments placed there by Lieut. Carl Parry, of the Corps of
Engineers of the Army, in the summer of 1881.

These monuments are still standing and are plainly
visible, being in their relative position with respect to
Catawba Creek and the line which you indicated as taken
from a tracing of a reconnaissance survey made by Lieut.

Parry.

A line drawn between these two monuments passed directly
over the crest of the third (West) falls of Catawba
Creek, as I proceed to establish the North boundary of the
Reservation, which I did as follows:

Survey executed with an A. B. L. Gun and spirit level
No. 1005 provided with a special level attachment.
I examine the adjustment of the instrument and find it
to be in perfect adjustment, I establish a vertical line
in the forenoon by solar observation, which I check by solar
noon observation, I further verify the general adjustment
of the instrument by daylight observation of Polaris and
as a final check I observe Polaris as the elevation by
the common method and finding my instrument to be un-
varying results I presume it to be correct.
Nov. 28th 1881.

November 30th 1881. At 8 a.m. I set out at 10
for my field and 53 fathoms by collimation and bearing
the vertical with the solar of the monument on the West
side of Catawba Creek and direct by collimation at the
monument on the East side, I find the course to be N. 88° 01' E.
(MAGNETIC) I extend this line to the boundary well of the
Reservations on the West where I establish the point
WEST and N.E. COR. by setting a distance 24 x 15 in the
line in the ground, marked Y. I. R. I. N. E. COR. on E. S.
line and N.E. COR. on the N.W. face, with a four foot corner
stone.

I also find a prominent point of upper rim of Catawba