

DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY

GEORGE OTIS SMITH, DIRECTOR

BULLETIN 564

CANCELLED.

RESULTS OF SPIRIT LEVELING  
IN OKLAHOMA

1895 TO 1912, INCLUSIVE

R. B. MARSHALL, CHIEF GEOGRAPHER

PART OF WORK DONE IN COOPERATION WITH TERRITORY OF OKLAHOMA,  
1905 TO 1907, INCLUSIVE, AND WITH STATE OF OKLAHOMA,  
1908, 1911, AND 1912



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1914



# CONTENTS.

	Page.
Introduction.....	5
Cooperation.....	5
Previous publication.....	5
Personnel.....	5
Classification.....	5
Bench marks.....	5
Datum.....	6
Topographic maps.....	7
Primary leveling.....	7
Wyandotte quadrangle (Delaware and Ottawa counties).....	7
Vinita quadrangle (Craig County).....	9
Nowata quadrangle (Nowata and Washington counties).....	10
Claremore quadrangle (Rogers, Tulsa, and Wagoner counties).....	12
Pryor quadrangle (Mayes County).....	14
Siloam Springs quadrangle (Delaware County).....	15
Winslow quadrangle (Sequoyah County).....	16
Tahlequah quadrangle (Adair, Cherokee, and Sequoyah counties).....	17
Muskogee quadrangle (Cherokee, Muskogee, and Wagoner counties).....	18
Okmulgee quadrangle (Muskogee, Okmulgee, and Wagoner counties).....	20
Nuyaka quadrangle (Creek County).....	21
Wewoka quadrangle (Hughes and Okfuskee counties).....	21
Canadian quadrangle (McIntosh and Pittsburg counties).....	22
Sansbois quadrangle (Haskell County).....	23
Sallisaw quadrangle (Haskell, Le Flore, and Sequoyah counties).....	24
Fort Smith quadrangle (Le Flore County).....	26
Poteau Mountain quadrangle (Le Flore County).....	26
Winding Stair quadrangle (Le Flore County).....	27
Tuskahoma quadrangle (Latimer and Pushmataha counties).....	29
McAlester quadrangle (Pittsburg County).....	31
Coalgate quadrangle (Coal and Pittsburg counties).....	32
Stonewall quadrangle (Pontotoc County).....	34
Pauls Valley quadrangle (Garvin and McClain counties).....	35
Rush Springs quadrangle (Garvin, Grady, and Stephens counties).....	37
Chickasha quadrangle (Canadian and Grady counties).....	38
Seminole quadrangle, comprising Maud, Prague, Seminole, and Shawnee 15' quadrangles (Pottawatomie and Seminole counties).....	40
Sac and Fox 30' quadrangle, comprising Agra, Chandler, Mallon, and Sac and Fox 15' quadrangles (Lincoln County).....	41
Pawnee quadrangle (Pawnee and Payne counties).....	41
Hominy quadrangle (Creek, Osage, and Tulsa counties).....	42
Addington quadrangle (Jefferson and Stephens counties).....	42
Ardmore quadrangle (Carter, Love, and Murray counties).....	43
Tishomingo quadrangle (Johnston and Marshall counties).....	44

## Primary leveling—Continued.

	Page.
Atoka quadrangle (Atoka and Bryan counties) .....	45
Antlers quadrangle (Atoka, Choctaw, and Pushmataha counties) .....	46
Alikchi quadrangle (Choctaw and Pushmataha counties) .....	48
Lukfata quadrangle (McCurtain County) .....	48
Duqueen quadrangle (McCurtain County) .....	49
Shawneetown quadrangle (McCurtain County) .....	49
Horatio quadrangle (McCurtain County) .....	50
Clarksville quadrangle (Choctaw County) .....	50
Paris quadrangle (Choctaw County) .....	51
Bonham quadrangle (Bryan County) .....	51
Denison quadrangle (Marshall County) .....	52
Gainesville quadrangle (Love County) .....	52
Montague quadrangle (Jefferson County) .....	53
Addington, Rush Springs, and Chickasha quadrangles (Canadian, Grady, Jefferson, and Stephens counties) .....	54
Pawhuska quadrangle (Osage County) .....	56
Claremore, Hominy, Pawnee, Pond Creek, Newkirk, and Washunga quad- rangles (Creek, Grant, Kay, Osage, Pawnee, Payne, and Tulsa coun- ties) .....	62
Agra, Chandler, Mallon, Maud, Prague, Sac and Fox 15', and Shawnee quad- rangles (Lincoln, Payne, and Pottawatomie counties) .....	81
Guthrie, Kingfisher, and Perkins quadrangles (Canadian, Kingfisher, Lincoln, Logan, and Oklahoma counties) .....	88
Edmond, Luther, McComb, McLoud, Moore, and Norman quadrangles (Canadian, Cleveland, Lincoln, Logan, McClain, Oklahoma, and Potta- watomie counties) .....	92
Platte National Park (Murray County) .....	102
Appendix A: Elevations adjusted by the Coast and Geodetic Survey from precise leveling .....	103
Appendix B: Secondary elevations .....	114
Index .....	115

---

ILLUSTRATION.

	Page.
PLATE I. Geological Survey bench marks .....	5





GEOLOGICAL SURVEY STATION MARKS.

A, Tablet used in cooperating States. The State name is inserted at G.  
 B and D, Copper temporary bench mark, consisting of a nail and copper washer.  
 A, C, and E, Tablets for stone or concrete structures.  
 F, Iron post used where there is no rock.

# RESULTS OF SPIRIT LEVELING IN OKLAHOMA, 1895 TO 1912, INCLUSIVE.

R. B. MARSHALL, Chief Geographer.

## INTRODUCTION.

*Cooperation.*—The Territory of Oklahoma contributed financially to the work of 1905 to 1907 inclusive through the Territorial Survey Commission, and the State of Oklahoma contributed financially to the work of 1908, 1911, and 1912, through the State Geological Survey, of which Charles N. Gould was director from 1908 to 1911 inclusive and D. W. Ohern was director in 1912.

*Previous publication.*—The results of spirit leveling previously published in Bulletin 175, containing descriptions and elevations of bench marks established in the former Indian Territory, 1895 to 1898, inclusive, and based on the unadjusted elevation (446.29 feet) of Coast and Geodetic Survey bench mark XLI at Fort Smith, Ark., have been corrected to agree with the 1912 adjustment of precise leveling of the Coast and Geodetic Survey and are here republished, pages 8 to 56, inclusive, together with all results of spirit leveling in Oklahoma by the United States Geological Survey since 1898. The elevations are likely to be changed only slightly by any future adjustment.

*Personnel.*—The field work from 1895 to 1898 inclusive was done under C. H. Fitch, topographer; that for 1899 to 1906 inclusive under E. M. Douglas, geographer; that for 1907 to 1909 inclusive under E. C. Barnard, geographer; and that for later years under Sledge Tatum, geographer, under the general direction of R. B. Marshall, chief geographer.

*Classification.*—No precise leveling has been done by the United States Geological Survey in this State. For primary lines standard Y levels are used; lines are run in circuits or are closed on precise lines, with an allowable closing error in feet represented by  $0.05 \sqrt{D}$ , in which D is the length of the circuit in miles, sufficient care being given the work to maintain this standard. For circuit closures careful office adjustments are made, the small outstanding errors being distributed over the lines.

*Bench marks.*—The standard bench marks are of two forms. The first form is a circular bronze or aluminum tablet (C and E, Pl. I),

3½ inches in diameter and one-fourth inch thick, having a 3-inch stem, which is cemented in a drill hole in solid rock in the wall of some public building, a bridge abutment, or other substantial masonry structure. The second form (*F*, Pl. I), used where masonry or rock is not available, consists of a hollow wrought-iron post 3½ inches in outer diameter and 4 feet in length. It is split at the bottom and expanded to a width of 10 inches in order to give a firm bearing on the earth and is set about 3 feet in the ground. A bronze or aluminum-bronze cap is riveted upon the top of the post. A third style of bench mark with abbreviated lettering (*B* and *D*, Pl. I), is used for unimportant points. This consists of a special copper nail, 1½ inches in length, driven through a copper washer seven-eighths of an inch in diameter.

The tablets, as well as the caps on the iron posts, are appropriately lettered, and State cooperation is indicated by the addition of the State name (*G*, Pl. I).

The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot, as determined by the levelman. These numbers are stamped with  $\frac{3}{16}$ -inch steel dies on the tablets or post caps, to the left of the word "feet." The office adjustment of the notes and the reduction to mean sea level datum may so change some of the figures that the original markings are 1 or 2 feet in error. It is assumed that engineers and others who have occasion to use the bench-mark elevations will apply to the Director of the United States Geological Survey at Washington, D. C., for the adjusted values, and will use the markings as identification numbers only.

*Datum.*—All United States Geological Survey elevations are referred to mean sea level, which is the level that the sea would assume if the influence of tides and winds were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. *Mean sea level is the average height of the water, all stages of the tide being considered.* It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long narrow bays, rivers, and like features will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea level as determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

The connection with tidal stations for bench marks in certain areas that lie at some distance from the seacoast is still uncertain, and this fact is indicated by the addition of a letter or word to the right of the word "Datum" on tablets or posts. For such areas corrections of published results will be made from time to time as the precise-level lines of the United States Geological Survey or other Government organizations are extended.

*Topographic maps.*—Maps of the following quadrangles, wholly or partly in Oklahoma, have been published by the United States Geological Survey up to December 6, 1913. They may be obtained (except as noted) for 10 cents each, or \$3 for 50, on application to the Director of the Survey at Washington, D. C.:

Addington (Ind. T.). <sup>1</sup>	Montague (Tex.-Ind. T.).
Agra.	Muskogee (Ind. T.).
Alikchi (Ind. T.).	Nowata (Ind. T.).
Antlers (Ind. T.).	Nuyaka (Ind. T.).
Ardmore (Ind. T.).	Okmulgee (Ind. T.).
Atoka (Ind. T.).	Pauls Valley (Ind. T.).
Canadian (Ind. T.).	Pawhuska.
Chandler.	Perkins.
Chickasha (Ind. T.-Okla.).	Poteau Mountain (Ark.-Ind. T.).
Claremore (Ind. T.).	Pryor (Ind. T.).
Coalgate (Ind. T.).	Rush Springs (Ind. T.).
Denison (Tex.-Ind. T.).	Sallisaw (Ind. T.).
Dequeen (Ark.-Okla.).	Sansbois (Ind. T.).
Fort Smith (Ark.-Ind. T.).	Shawnee.
Gainesville (Tex.-Ind. T.).	Siloam Springs (Ind. T.-Ark.).
Indian Territory contour map, 20 cts.	Stonewall (Ind. T.).
Joplin (Kans.-Mo.-Ind. T.).	Tablequah (Ind. T.-Ark.).
Joplin district (Mo.-Kans.-Okla.),	Tishomingo (Ind. T.).
double sheet, 20 cts.	Tuskahoma.
Kingfisher.	Vinita (Ind. T.).
Lukfata (Ind. T.).	Wewoka (Ind. T.).
Luther.	Winding Stair.
McAlester.	Winslow (Ark.-Ind. T.).
McComb.	Wyandotte (Okla.-Mo.-Kans.).
Maud.	

## PRIMARY LEVELING.

### Wyandotte Quadrangle.

[Latitude 36° 30'–37°; longitude 94° 30'–95°.]

### DELAWARE AND OTTAWA COUNTIES.

A. F. Hassan ran the railroad levels; George Nick, W. E. Earle, and H. L. Muldrow, jr., did the leveling along township and section lines.

<sup>1</sup>“(Ind. T.)” refers to present heading of published sheets.

From Afton along St. Louis & San Francisco R. R. to the Missouri-Oklahoma boundary line.

	Feet.
Afton, 0.2 mile north of, in coping stone on south side of west abutment of bridge 245, over Horse Creek; copper bolt.....	778. 537
Wyandotte, 2 miles south of, in south coping stone of west abutment of bridge over Grand River; copper bolt.....	747. 868
Wyandotte, 5 miles north of, in stone on south side of west pier of bridge 222, over Lees Creek; copper bolt.....	819. 227
Missouri-Oklahoma boundary line, 10 feet north of track and 4 feet south of "State Line" signboard; iron post.....	851. 321

Along township and section lines:<sup>1</sup>

T. 28 N., Rs. 21 and 22 E., closing corner of; iron post.....	776. 834
Grand River meander corner between sec. 6, T. 28 N., R. 22 E., and sec. 31, T. 29 N., R. 21 E.; iron post on right bank of river.....	777. 610
Grand River meander corner between sec. 6, T. 27 N., R. 23 E., and sec. 31, T. 28 N., R. 23 E.; iron post on right bank of river.....	744. 441
Tps. 27 and 28 N., Rs. 22 and 23 E., corner of; iron post.....	775. 993
Tps. 27 and 28 N., Rs. 21 and 22 E., corner of; iron post.....	811. 795
Tps. 26 and 27 N., Rs. 21 and 22 E., corner of; iron post.....	767. 492
Tps. 26 and 27 N., Rs. 22 and 23 E., corner of; iron post.....	798. 342
Grand River meander corner between sec. 36, T. 27 N., R. 23 E., and sec. 1, T. 26 N., R. 23 E.; iron post on right bank of river.....	731. 784
Grand River meander corner between sec. 32, T. 26 N., R. 24 E., and sec. 5, T. 25 N., R. 24 E.; iron post on right bank of river.....	706. 101
Tps. 25 and 26 N., Rs. 23 and 24 E., corner of; iron post.....	740. 121
Tps. 25 and 26 N., Rs. 22 and 23 E., corner of; iron post.....	854. 281
Tps. 25 and 26 N., Rs. 21 and 22 E., corner of; iron post.....	783. 431
T. 25 N., Rs. 21 and 22 E., standard corner of; iron post.....	839. 243
T. 24 N., Rs. 22 and 23 E., closing corner of; iron post.....	702. 571
T. 25 N., Rs. 22 and 23 E., standard corner of; iron post.....	739. 011
T. 24 N., Rs. 23 and 24 E., closing corner of; iron post.....	758. 979
T. 25 N., Rs. 23 and 24 E., standard corner of; iron post.....	755. 609
T. 24 N., Rs. 24 and 25 E., closing corner of; iron post.....	881. 663
T. 25 N., Rs. 24 and 25 E., standard corner of; iron post.....	880. 193
Missouri-Oklahoma boundary line, closing corner Tps. 24 and 25 N., R. 25 E.; iron post.....	908. 013
Seneca-Cherokee boundary line, closing corner T. 25 N., Rs. 23 and 24 E.; iron post.....	776. 499
Seneca-Cherokee boundary line, closing corner T. 25 N., Rs. 24 and 25 E.; iron post.....	837. 103
Seneca-Cherokee boundary line, intersection with west boundary line of Missouri, T. 25 N., R. 25 E., of Indian Territory Survey; iron post.....	755. 733
Arkansas-Oklahoma boundary line, closing corner Tps. 23 and 24 N., R. 25 E.; iron post.....	1, 034. 393
Tps. 23 and 24 N., Rs. 24 and 25 E., corner of; iron post.....	1, 033. 603
Tps. 23 and 24 N., Rs. 23 and 24 E., corner of; iron post.....	904. 573
Tps. 23 and 24 N., Rs. 22 and 23 E., corner of; iron post.....	898. 403

<sup>1</sup> Figures adjusted with reference to work done in 1906 in the Joplin district, Mo.

## Vinita Quadrangle.

[Latitude 36° 30'–37° ; longitude 95°–95° 30'.]

## CRAIG COUNTY.

The railroad levels were run by Robert Coe, C. B. Odell, and A. F. Hassan. C. B. Odell, E. W. Hill, W. E. Earle, and A. F. Hassan did the leveling along township and section lines.

**From Big Cabin along Missouri, Kansas & Texas Ry. to Kansas-Oklahoma boundary line.**

	Feet.
Big Cabin, 3.75 miles north of, east side of north abutment of bridge 227 over Whiteoak Creek, near mile pole 443, in angle coping stone; copper bolt.....	671.632
Vinita, in northwest angle of Missouri, Kansas & Texas and St. Louis & San Francisco railroads, 13.8 feet west of the Missouri, Kansas & Texas track, and 22.9 feet north of the St. Louis & San Francisco track, 4.2 feet north of a telegraph pole; iron post.....	699.616
Vinita, in second stone from north end of second course of foundation stone above sidewalk of Hotel Cobb, a brick building owned by S. S. Cobb; bronze tablet.....	706.869
Kelso, 0.8 mile north of, in bottom stone of east side of south abutment of bridge 220, 160 feet north of mile pole 433; copper bolt.....	753.398
Bluejacket, between main track and "house track," south of station building, 22.9 feet from west rail of main track, 21.5 feet from east rail of house track, and 42.4 feet from south end of building; square hole cut in sandstone post, 4 by 13 inches, surface flush with ground.....	777.965
Bluejacket, 2 miles north of, 0.25 mile north of mile pole 425, on west side of south abutment of bridge 217, 8 inches from west edge of seat stone; copper bolt.....	766.022
Russell Creek, 2 miles north of, in first step on east side of north abutment of bridge 213, 1,400 feet north of mile pole 414; copper bolt.....	802.816
Kansas-Oklahoma boundary line, intersection of railroad with, in sandstone post 14 by 14 by 5 inches, flush with ground, 49.6 feet from west rail of track and referenced by three posts situated as follows: 3.4 feet northwest, 2.5 feet east, and 4 feet southwest from stone; square hole.....	839.895

**From Chelsea along St. Louis & San Francisco R. R. to Albia.**

Chelsea, in sandstone post 8 by 10 by 22 inches, buried flush with ground, 11.5 feet from northwest corner of station building and 15.6 feet from east rail of track; copper bolt.....	719.547
Chelsea, in northeast corner of stone bank building at Olive and Fifth Streets; bronze tablet.....	722.351
Vinita, 1 mile west of, in southwest coping stone of south abutment of bridge over Big Cabin Creek; copper bolt.....	680.491

## Along township lines.

	Feet.
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 17 and 18 E.; iron post-----	905. 345
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 18 and 19 E.; iron post-----	939. 223
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 19 and 20 E.; iron post-----	909. 785
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 20 and 21 E.; iron post-----	831. 574
Kansas-Oklahoma boundary line, beside the "Zero" milepost and 400 feet west of the Neosho or Grand River; iron post-----	784. 579
T. 29 N., Rs. 20 and 21 E., standard corner of; iron post-----	837. 560
T. 28 N., Rs. 20 and 21 E., closing corner of; iron post-----	892. 353
T. 29 N., Rs. 19 and 20 E., standard corner of; iron post-----	950. 341
T. 28 N., Rs. 19 and 20 E., closing corner of; iron post-----	899. 543
T. 29 N., Rs. 18 and 19 E., standard corner of; iron post-----	961. 686
T. 28 N., Rs. 18 and 19 E., closing corner of; iron post-----	899. 426
T. 29 N., Rs. 17 and 18 E., standard corner of; iron post-----	831. 686
T. 28 N., Rs. 17 and 18 E., closing corner of; iron post-----	849. 686
Tps. 27 and 28 N., Rs. 17 and 18 E., corner of; iron post-----	807. 640
Tps. 27 and 28 N., Rs. 18 and 19 E., corner of; iron post-----	828. 426
Tps. 27 and 28 N., Rs. 19 and 20 E., corner of; iron post-----	960. 580
Tps. 27 and 28 N., Rs. 20 and 21 E., corner of; iron post-----	795. 640
Tps. 26 and 27 N., Rs. 20 and 21 E., corner of; iron post-----	776. 550
Tps. 26 and 27 N., Rs. 19 and 20 E., corner of; iron post-----	760. 481
Tps. 26 and 27 N., Rs. 18 and 19 E., corner of; iron post-----	831. 782
Tps. 26 and 27 N., Rs. 17 and 18 E., corner of; iron post-----	781. 550
Tps. 25 and 26 N., Rs. 17 and 18 E., corner of; iron post-----	737. 860
Tps. 25 and 26 N., Rs. 18 and 19 E., corner of; iron post-----	798. 887
Tps. 25 and 26 N., Rs. 19 and 20 E., corner of; iron post-----	722. 841
Tps. 25 and 26 N., Rs. 20 and 21 E., corner of; iron post-----	743. 871
T. 24 N., Rs. 21 and 22 E., closing corner of; iron post-----	823. 583
T. 25 N., Rs. 20 and 21 E., standard corner of; iron post-----	677. 606
T. 24 N., Rs. 20 and 21 E., closing corner of; iron post-----	720. 663
T. 25 N., Rs. 19 and 20 E., standard corner of; iron post-----	690. 976
T. 24 N., Rs. 19 and 20 E., closing corner of; iron post-----	701. 317
T. 25 N., Rs. 18 and 19 E., standard corner of; iron post-----	913. 550
T. 24 N., Rs. 18 and 19 E., closing corner of; iron post-----	900. 438
T. 25 N., Rs. 17 and 18 E., standard corner of; iron post-----	790. 416
Tps. 23 and 24 N., Rs. 17 and 18 E., corner of; iron post-----	714. 251
Tps. 23 and 24 N., Rs. 18 and 19 E., corner of; iron post-----	844. 677
Tps. 23 and 24 N., Rs. 19 and 20 E., corner of; iron post-----	686. 819
Tps. 23 and 24 N., Rs. 20 and 21 E., witness corner to; iron post-----	661. 117
Tps. 23 and 24 N., Rs. 21 and 22 E., corner of; iron post. (This bench mark is just north of Vinita quadrangle on Missouri, Kansas & Texas Ry.)-----	824. 513

## Nowata Quadrangle.

[Latitude 36° 30'-37°; longitude 95° 30'-96°.]

## NOWATA AND WASHINGTON COUNTIES.

C. B. Odell ran the railroad levels; W. S. D. Moore, G. Nick, J. P. Thayer, and A. F. Hassan did the leveling along township and section lines.

## From Talala along St. Louis, Iron Mountain &amp; Southern Ry. to Seminole.

	Feet.
Talala, in sandstone post 7 by 9 by 18 inches, buried flush with ground, 8.6 feet from southeast corner of station building; copper bolt-----	685. 805
Nowata, in sandstone post 8 by 8 by 26 inches, buried flush with ground, 8.7 feet south from southeast corner of station building, 14 feet from track; copper bolt-----	696. 000
Nowata, in sandstone sill, northeast corner of J. H. Bartlett's "City Dry Goods Store"; bronze tablet-----	704. 919
Nowata, 3 miles north of, in second capstone from east end of center pier bridge over California Creek; square hole-----	663. 291
Seminole, 4 miles north of, in sandstone post 6 by 8 by 24 inches, buried flush with ground, 8.8 feet west of track and 1.4 feet from post marking intersection of railroad and Kansas-Oklahoma boundary line, which is near thirty-fourth milepost of boundary line; copper bolt-----	733. 004

## Along township and section lines.

Kansas-Oklahoma boundary line, closing corner Osage-Cherokee boundary line, T. 29 N., R. 12 E.; iron post-----	944. 691
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 12 and 13 E.; iron post-----	722. 136
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 13 and 14 E.; iron post-----	809. 136
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 14 and 15 E.; iron post-----	875. 911
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 15 and 16 E.; iron post-----	737. 705
Kansas-Oklahoma boundary line, closing corner T. 29 N., Rs. 16 and 17 E.; iron post-----	759. 705
T. 29 N., Rs. 16 and 17 E., standard corner of; iron post-----	810. 936
T. 28 N., Rs. 16 and 17 E., closing corner of; iron post-----	739. 936
T. 29 N., Rs. 15 and 16 E., standard corner of; iron post-----	716. 154
T. 28 N., Rs. 15 and 16 E., closing corner of; iron post-----	761. 137
T. 29 N., Rs. 14 and 15 E., standard corner of; iron post-----	949. 196
T. 28 N., Rs. 14 and 15 E., closing corner of; iron post-----	922. 979
T. 29 N., Rs. 13 and 14 E., standard corner of; iron post-----	784. 176
T. 28 N., Rs. 13 and 14 E., closing corner of; iron post-----	743. 266
T. 29 N., Rs. 12 and 13 E., standard corner of; iron post-----	707. 136
T. 28 N., Rs. 12 and 13 E., closing corner of; iron post-----	744. 429
Osage-Cherokee boundary line, Tps. 28 and 29 N., R. 12 E., closing corner of; iron post-----	796. 146
Osage-Cherokee boundary line, Tps. 27 and 28 N., R. 12 E., closing corner of; iron post-----	695. 122
Tps. 27 and 28 N., Rs. 12 and 13 E., corner of; iron post-----	690. 461
Tps. 27 and 28 N., Rs. 13 and 14 E., corner of; iron post-----	801. 549
Tps. 27 and 28 N., Rs. 14 and 15 E., corner of; iron post-----	848. 489
Timber Hill triangulation station, northeast part of NW. $\frac{1}{4}$ sec. 5, T. 28 N., R. 15 E., 20 feet left of signal tower; copper bolt in stone-----	971. 557
Tps. 27 and 28 N., Rs. 15 and 16 E., corner of; iron post-----	798. 369
Tps. 27 and 28 N., Rs. 16 and 17 E., corner of; iron post-----	710. 341
Tps. 26 and 27 N., Rs. 16 and 17 E., corner of; iron post-----	742. 337



	Feet.
Tps. 26 and 27 N., Rs. 15 and 16 E., corner of; iron post-----	691. 224
Tps. 26 and 27 N., Rs. 14 and 15 E., corner of; iron post-----	898. 167
Tps. 26 and 27 N., Rs. 13 and 14 E., corner of; iron post-----	816. 317
Tps. 26 and 27 N., Rs. 12 and 13 E., corner of; iron post-----	671. 111
Osage-Cherokee boundary line, closing corner Tps. 26 and 27 N., R. 12 E.; iron post-----	676. 597
Osage-Cherokee boundary line, closing corner Tps. 25 and 26 N., R. 12 E.; iron post-----	926. 586
Tps. 25 and 26 N., Rs. 12 and 13 E., corner of; iron post-----	658. 118
Tps. 25 and 26 N., Rs. 13 and 14 E., corner of; iron post-----	720. 425
Tps. 25 and 26 N., Rs. 14 and 15 E., corner of; iron post-----	763. 682
Nowata triangulation station, south-central part of SW. $\frac{1}{4}$ sec. 33, T. 26 N., R. 15 E., in stone 6 inches square; copper bolt-----	904. 857
Tps. 25 and 26 N., Rs. 15 and 16 E., corner of; iron post-----	692. 902
Tps. 25 and 26 N., Rs. 16 and 17 E., corner of; iron post-----	643. 710
T. 25 N., Rs. 16 and 17 E., standard corner of; iron post-----	650. 830
T. 24 N., Rs. 16 and 17 E., closing corner of; iron post-----	639. 062
T. 25 N., Rs. 15 and 16 E., standard corner of; iron post-----	697. 935
T. 24 N., Rs. 15 and 16 E., closing corner of; iron post-----	687. 99
T. 25 N., Rs. 14 and 15 E., standard corner of; iron post-----	813. 72
T. 24 N., Rs. 14 and 15 E., closing corner of; iron post-----	810. 58
T. 25 N., Rs. 13 and 14 E., standard corner of; iron post-----	629. 305
T. 24 N., Rs. 13 and 14 E., closing corner of; iron post-----	630. 695
T. 25 N., Rs. 12 and 13 E., standard corner of; iron post-----	737. 278
T. 24 N., Rs. 12 and 13 E., closing corner of; iron post-----	735. 468
Osage-Cherokee boundary line, closing corner Tps. 24 and 25 N., R. 12 E.; iron post-----	844. 288
Osage-Cherokee boundary line, closing corner Tps. 23 and 24 N., R. 12 E.; iron post-----	882. 165
Tps. 23 and 24 N., Rs. 12 and 13 E., corner of; iron post-----	792. 533
Tps. 23 and 24 N., Rs. 13 and 14 E., corner of; iron post-----	615. 923
Tps. 23 and 24 N., Rs. 14 and 15 E., corner of; iron post-----	696. 817
Tps. 23 and 24 N., Rs. 15 and 16 E., corner of; iron post-----	766. 326
Tps. 23 and 24 N., Rs. 16 and 17 E., corner of; iron post-----	753. 849

#### Claremore Quadrangle.

[Latitude 36°-36° 30'; longitude 95° 30'-96°.]

#### ROGERS, TULSA, AND WAGONER COUNTIES.

C. B. Odell ran the railroad levels. W. S. D. Moore, C. B. Odell, A. F. Hassan, and J. P. Thayer did the leveling along township and section lines.

From Inola along St. Louis, Iron Mountain & Southern Ry. to Oologah.

	Feet.
Inola, in sandstone post, 4 by 6 by 24 inches, buried flush with sur- face, 10.2 feet from southeast corner of station building; copper bolt-----	602. 821
Claremore, in top course of foundation stone, at southwest corner of First National Bank building, on northeast corner of Third Street and Wichita Avenue; bronze tablet-----	602. 077

	Feet.
Claremore, in sandstone post 8 by 8 by 18 inches, 9.1 feet south from southeast corner of station building, 12.6 feet west of St. Louis, Iron Mountain & Southern track; copper bolt.....	610. 01
Claremore, 1 mile north of, in sandstone post 6 by 9 by 20 inches, flush with surface, 7.8 feet east of St. Louis, Iron Mountain & Southern Ry., 7.8 feet west of St. Louis & San Francisco R. R. tracks, 27.6 feet north of the intersection of these roads; copper bolt.....	614. 164
Sageeyah, on sandstone post 9 by 9 by 18 inches, 10 feet west of track and 12 feet south from southeast corner of station building; cross.....	646. 515
Sageeyah, 1 mile north of, near center of bridge structure over Verdigris River; "U. S. B. M." stamped in southeast iron tube.....	595. 489
Oologah, in stone 7 by 9 by 17 inches, 10.7 feet from south end of station and 12 feet from track, and buried flush with surface; copper bolt.....	657. 614

## From Claremore along St. Louis &amp; San Francisco R. R. to Tulsa.

Claremore, St. Louis & San Francisco R. R. station, in sandstone post 8 by 8 by 20 inches, 10.4 feet from northwest corner of building, 18.7 feet east of track, buried flush with surface; copper bolt.....	601. 687
Catoosa, 1 mile north of, in capstone on south side of east pier, bridge over Verdigris River; copper bolt.....	573. 724
Tulsa, 6 miles north of, in first capstone on south end of east abutment, bridge over Mingo Creek; square hole.....	604. 568
Tulsa, in sandstone post 8 by 8 by 22 inches, 18.6 feet west of track, 12.7 feet from southeast corner of station, buried flush with surface; copper bolt.....	698. 127
Tulsa, in southwest corner stone of second course above sidewalk of stone building known as the Lynch Building; bronze tablet.....	711. 045
Tulsa, 0.5 mile south of, in west side of north pier, bridge over Arkansas River; copper bolt.....	643. 95

## Along township lines.

Tps. 22 and 23 N., Rs. 16 and 17 E., corner of; iron post.....	739. 19
Tps. 22 and 23 N., Rs. 15 and 16 E., corner of; iron post.....	620. 23
Tps. 22 and 23 N., Rs. 14 and 15 E., corner of; iron post.....	666. 665
Tps. 22 and 23 N., Rs. 13 and 14 E., corner of; iron post.....	629. 285
Tps. 22 and 23 N., Rs. 12 and 13 E., corner of; iron post.....	665. 745
Oklahoma-Cherokee boundary line, closing corner Tps. 22 and 23 N., R. 12 E., iron post.....	647. 305
Tps. 21 and 22 N., Rs. 16 and 17 E., corner of; iron post.....	662. 045
Tps. 21 and 22 N., Rs. 15 and 16 E., corner of; iron post.....	625. 6
Tps. 21 and 22 N., Rs. 14 and 15 E., corner of; iron post.....	720. 3
Tps. 21 and 22 N., Rs. 13 and 14 E., corner of; iron post.....	690. 345
Tps. 21 and 22 N., Rs. 12 and 13 E., corner of; iron post.....	630. 51
Oklahoma-Cherokee boundary line, closing corner Tps. 21 and 22 N., R. 12 E., iron post.....	621. 175
Oklahoma-Cherokee boundary line, closing corner Tps. 20 and 21 N., R. 12 E., iron post.....	749. 34
T. 20 N., Rs. 12 and 13 E., closing corner of; iron post.....	630. 207

	Feet.
T. 21 N., Rs. 12 and 13 E., standard corner of; iron post.....	627. 61
T. 20 N., Rs. 13 and 14 E., closing corner of; iron post.....	582. 08
T. 21 N., Rs. 13 and 14 E., standard corner of; iron post.....	580. 995
T. 20 N., Rs. 14 and 15 E., closing corner of; iron post.....	788. 005
T. 21 N., Rs. 14 and 15 E., standard corner of; iron post.....	797. 135
T. 20 N., Rs. 15 and 16 E., closing corner of; iron post.....	597. 316
T. 21 N., Rs. 15 and 16 E., standard corner of; iron post.....	599. 516
T. 20 N., Rs. 16 and 17 E., closing corner of; iron post.....	606. 427
T. 21 N., Rs. 16 and 17 E., standard corner of; iron post.....	615. 905
Tps. 19 and 20 N. Rs. 16 and 17 E., corner of; iron post.....	621. 161
Tps. 19 and 20 N. Rs. 15 and 16 E., corner of; iron post.....	647. 111
Tps. 19 and 20 N. Rs. 14 and 15 E., corner of; iron post.....	632. 821
Tps. 19 and 20 N., Rs. 13 and 14 E., corner of; iron post.....	617. 821
Tps. 19 and 20 N., Rs. 12 and 13 E., witness corner of; iron post.....	717. 821
Tps. 18 and 19 N., Rs. 12 and 13 E., corner of; iron post.....	630. 679
Tps. 18 and 19 N., Rs. 13 and 14 E., corner of; iron post.....	696. 349
Tps. 18 and 19 N., Rs. 14 and 15 E., corner of; iron post.....	701. 139
Tps. 18 and 19 N., Rs. 15 and 16 E., corner of; iron post.....	752. 849
Tps. 18 and 19 N., Rs. 16 and 17 E., corner of; iron post.....	542. 579

#### Pryor Quadrangle.

[Latitude 36°-36° 30'; longitude 95°-95° 30'.]

#### MOYES COUNTY.

The railroad levels were run by C. B. Odell, A. F. Hassan, and Robert Coe. W. S. D. Moore, A. F. Hassan, E. W. Hill, J. P. Phelan, W. E. Earle, and H. L. Muldrow, jr., did the leveling along township lines.

#### From Leliaetta along Missouri, Kansas & Texas Ry. to Big Cabin.

	Feet.
Leliaetta, 2 miles north of, square hole cut in a limestone post, the exposed surface of which is 1.1 feet by 0.45 feet, buried flush with ground between sixth and seventh telegraph poles north of mile-post 482, 50 feet from north telegraph pole, and 27 feet west of track .....	583. 084
Choteau; in sandstone post 6 by 10 by 18 inches, buried flush with ground 10 feet west of track and 10.5 feet south of station; square hole .....	628. 235
Choteau, 1 mile north of, in coping stone west side of south pier, bridge over Choteau Creek; square hole.....	588. 294
Pryor Creek, 2 miles south of, in coping stone, northwest corner of north abutment bridge 244, over Pryor Creek; square hole.....	598. 632
Pryor Creek, in sandstone post 2 by 4 by 24 inches, buried flush with ground near southeast corner of station; U. S. + B. M.....	628. 236
Pryor Creek, in third course of stone above sidewalk, at south end of general merchandise store occupied by J. L. Baugh; bronze tablet .....	633. 976
Perry, 2 miles south of, in second coping stone of east end, south abutment of bridge 237, near mile pole 460; square hole.....	617. 849
Perry, 1 mile north of, in east coping stone, south abutment of bridge 235, 2,000 feet north of mile pole 457; copper bolt.....	652. 499

Feet.

Adair, 3 miles north of, in top stone of ballast wall on east side of south abutment of bridge over Rock Creek, about one-fourth mile north of mile pole 451; copper bolt-----	664. 277
Big Cabin, 3 miles south of, in top stone at east end of south abutment of bridge 230, near mile pole 450; square hole-----	662. 925

## Along township lines.

Tps. 22 and 23 N., Rs. 17 and 18 E., corner of; iron post-----	807. 056
Tps. 22 and 23 N., Rs. 18 and 19 E., corner of; iron post-----	636. 896
Tps. 22 and 23 N., Rs. 19 and 20 E., corner of; iron post-----	661. 296
Tps. 22 and 23 N., Rs. 20 and 21 E., corner of; iron post-----	693. 056
Tps. 22 and 23 N., Rs. 21 and 22 E., corner of; iron post-----	857. 823
Tps. 21 and 22 N., Rs. 21 and 22 E., corner of; iron post-----	1, 016. 053
Tps. 21 and 22 N., Rs. 20 and 21 E., corner of; iron post-----	945. 551
Tps. 21 and 22 N., Rs. 19 and 20 E., corner of; iron post-----	674. 151
Tps. 21 and 22 N., Rs. 18 and 19 E., witness corner of; iron post----	609. 760
Tps. 21 and 22 N., Rs. 17 and 18 E., corner of; iron post-----	801. 292
T. 20 N., Rs. 17 and 18 E., closing corner of; iron post-----	630. 354
T. 21 N., Rs. 17 and 18 E., standard corner of; iron post-----	632. 144
T. 20 N., Rs. 18 and 19 E., closing corner of; iron post-----	622. 374
T. 21 N., Rs. 18 and 19 E., standard corner of; iron post-----	623. 604
T. 20 N., Rs. 19 and 20 E., closing corner of; iron post-----	658. 933
T. 21 N., Rs. 19 and 20 E., standard corner of; iron post-----	663. 995
T. 20 N., Rs. 20 and 21 E., closing corner of; iron post-----	894. 933
T. 21 N., Rs. 20 and 21 E., witness corner to standard corner of; iron post-----	789. 013
T. 20 N., Rs. 21 and 22 E., closing corner of; iron post-----	964. 313
T. 21 N., Rs. 21 and 22 E., standard corner of; iron post-----	1, 001. 823
Tps. 19 and 20 N., Rs. 21 and 22 E., corner of; iron post-----	1, 128. 225
Tps. 19 and 20 N., Rs. 20 and 21 E., corner of; iron post-----	903. 415
Tps. 19 and 20 N., Rs. 19 and 20 E., corner of; iron post-----	646. 085
Tps. 19 and 20 N., Rs. 18 and 19 E., corner of; iron post-----	656. 565
Tps. 19 and 20 N., Rs. 17 and 18 E., corner of; iron post-----	630. 255
Tps. 18 and 19 N., Rs. 17 and 18 E., corner of; iron post-----	611. 454
Tps. 18 and 19 N., Rs. 18 and 19 E., corner of; iron post-----	629. 560
Tps. 18 and 19 N., Rs. 19 and 20 E., corner of; iron post-----	887. 155
Tps. 18 and 19 N., Rs. 20 and 21 E., corner of; iron post-----	922. 186
Tps. 18 and 19 N., Rs. 21 and 22 E., corner of; iron post-----	966. 446

## Siloam Springs Quadrangle.

[Latitude 36°-36° 30'; longitude 94° 30'-95°.]

## DELAWARE COUNTY.

The railroad levels were run by Robert Coe and W. S. D. Moore. W. E. Earle, G. Nick, E. W. Hill, S. C. Pitts, and H. L. Muldrow, jr., did the leveling along township lines.

## Along Kansas City Southern Ry. to Siloam Springs, Ark.

Feet.

Tps. 18 and 19 N., Rs. 25 and 26 E., corner of, 12 chains west from railroad; iron post-----	1, 048. 378
Intersection of railroad with Arkansas-Oklahoma boundary line; iron post-----	976. 33

## Along township lines.

	Feet.
Tps. 22 and 23 N., Rs. 22 and 23 E., corner of; iron post-----	1, 027. 486
Tps. 22 and 23 N., Rs. 23 and 24 E., corner of; iron post-----	1, 063. 416
Tps. 22 and 23 N., Rs. 24 and 25 E., corner of; iron post-----	1, 135. 653
Arkansas-Oklahoma boundary line, closing corner Tps. 22 and 23 N., R. 25 E.; iron post-----	1, 069. 253
Arkansas-Oklahoma boundary line, witness to closing corner Tps. 21 and 22 N., R. 25 E.; iron post-----	987. 812
Tps. 21 and 22 N., Rs. 24 and 25 E., corner of; iron post-----	981. 663
Tps. 21 and 22 N., Rs. 23 and 24 E., corner of; iron post-----	1, 034. 203
Tps. 21 and 22 N., Rs. 22 and 23 E., corner of; iron post-----	969. 553
T. 20 N., Rs. 22 and 23 E., closing corner of; iron post-----	1, 061. 673
T. 21 N., Rs. 22 and 23 E., standard corner of; iron post-----	1, 003. 103
T. 20 N., Rs. 23 and 24 E., closing corner of; iron post-----	1, 100. 203
T. 21 N., Rs. 23 and 24 E., standard corner of; iron post-----	1, 091. 423
T. 20 N., Rs. 24 and 25 E., closing corner of; iron post-----	1, 144. 603
T. 21 N., Rs. 24 and 25 E., standard corner of; iron post-----	1, 163. 743
T. 20 N., Rs. 25 and 26 E., closing corner of; iron post-----	1, 163. 485
Arkansas-Oklahoma boundary line, closing corner Tps. 20 and 21 N., R. 25 E.; iron post-----	1, 142. 713
Arkansas-Oklahoma boundary line, closing corner Tps. 19 and 20 N., R. 26 E.; iron post-----	1, 152. 427
Tps. 19 and 20 N., Rs. 25 and 26 E., corner of; iron post-----	1, 129. 422
Tps. 19 and 20 N., Rs. 24 and 25 E., corner of; iron post-----	979. 373
Tps. 19 and 20 N., Rs. 23 and 24 E., corner of; iron post-----	1, 113. 823
Tps. 19 and 20 N., Rs. 22 and 23 E., corner of; iron post-----	1, 110. 753
Tps. 18 and 19 N., Rs. 22 and 23 E., corner of; iron post-----	1, 007. 273
Tps. 18 and 19 N., Rs. 23 and 24 E., corner of; iron post-----	1, 050. 231
Tps. 18 and 19 N., Rs. 24 and 25 E., corner of; iron post-----	1, 079. 578
Arkansas-Oklahoma boundary line, closing corner Tps. 18 and 19 N., R. 26 E.; iron post-----	1, 101. 062

## Winslow Quadrangle.

[Latitude 35° 30'-36°; longitude 94°-94° 30'.]

## SEQUOYAH COUNTY.

Levels for this small fractional quadrangle were run by J. H. Carlock and H. M. Tidwell.

## Along township lines.

	Feet.
Arkansas-Oklahoma boundary line, closing corner Tps. 15 and 16 N., R. 26 E.; iron post-----	1, 064. 238
Tps. 14 and 15 N., Rs. 26 and 27 E., corner of; iron post-----	1, 576. 13
Arkansas-Oklahoma boundary line, closing corner Tps. 14 and 15 N., R. 27 E.; iron post-----	1, 583. 43
Arkansas-Oklahoma boundary line, closing corner Tps. 13 and 14 N., R. 27 E.; iron post-----	1, 019. 74
Tps. 13 and 14 N., Rs. 26 and 27 E., corner of; iron post-----	958
T. 12 N., Rs. 26 and 27 E., closing corner of; iron post-----	592. 308
T. 13 N., Rs. 26 and 27 E., standard corner of; iron post-----	659. 058
Arkansas-Oklahoma boundary line, closing corner Tps. 12 and 13 N., R. 27 E.; iron post-----	702. 888

Tahlequah Quadrangle.<sup>1</sup>

[Latitude 35° 30'–36°; longitude 94° 30'–95°.]

ADAIR, CHEROKEE, AND SEQUOYAH COUNTIES.

The railroad levels were run by E. L. Faison, W. S. D. Moore, and Robert Coe. W. S. D. Moore, J. H. Carlock, J. P. Walker, H. L. Muldrow, jr., H. M. Tidwell, H. H. Hellen, and D. Hannegan did the leveling along township lines.

## From Marble along Kansas City Southern Ry. to Westville.

	Feet.
Marble, 2 miles south of, intersection of railroad with third standard parallel north. R. 23 E., near railroad mile pole 283; iron post-----	637. 527
Marble, 1 mile north of, intersection of railroad with township line, T. 13 N., Rs. 23 and 24 E., near railroad mile pole 280; iron post----	641. 991
Bunch, 1½ miles south of, bridge over Sallisaw Creek; on northwest corner of south abutment-----	736. 515
Kenedy's siding, 2 miles north of, intersection of railroad with township line, Tps. 14 and 15 N., R. 24 E., 1,000 feet south of railroad mile pole 268; iron post-----	840. 17
Stilwell, in northeast corner of foundation stone of coal chute; square hole -----	1, 108. 048
Barren, 2 miles south of, intersection of railroad with fourth standard parallel, 45 feet west of quarter corner of sec. 34, T. 17 N., R. 25 E., 660 feet north of mile pole 252; iron post-----	926. 316
Barren, one-half mile south of, bridge over Barren Forks, on last coping stone of north abutment; northwest anchor bolt-----	878. 073
Westville, intersection of railroad and township line, Tps. 17 and 18 N., R. 26 E., 1,480 feet north of mile pole 245, 1,700 feet south of Westville station; iron post-----	1, 126. 442

## Along township lines.

Tps. 17 and 18 N., Rs. 22 and 23 E., corner of; iron post-----	731. 011
Tps. 17 and 18 N., Rs. 23 and 24 E., corner of; iron post-----	1, 082. 411
Tps. 17 and 18 N., Rs. 24 and 25 E., corner of; iron post-----	1, 109. 151
Tps. 17 and 18 N., Rs. 25 and 26 E., corner of; iron post-----	1, 125. 833
Arkansas-Oklahoma boundary line, closing corner Tps. 17 and 18 N., R. 26 E.; iron post-----	1, 178. 843
Arkansas-Oklahoma boundary line, closing corner fourth standard parallel, R. 26 E.; iron post-----	1, 121. 296
T. 17 N., Rs. 25 and 26 E., standard corner of; iron post-----	1, 080. 946
T. 16 N., Rs. 25 and 26 E., closing corner of; iron post-----	1, 132. 766
T. 17 N., Rs. 24 and 25 E., standard corner of; iron post-----	1, 158. 445
T. 16 N., Rs. 24 and 25 E., closing corner of; iron post-----	1, 076. 095
T. 17 N., Rs. 23 and 24 E., standard corner of; iron post-----	1, 087. 815
T. 16 N., Rs. 23 and 24 E., closing corner of; iron post-----	1, 062. 815
T. 17 N., Rs. 22 and 23 E., standard corner of; iron post-----	894. 772
T. 16 N., Rs. 22 and 23 E., closing corner of; iron post-----	923. 739
Tps. 15 and 16 N., Rs. 22 and 23 E., witness corner to; iron post-----	625. 736

<sup>1</sup> There is an unadjusted error of 4 feet in the leveling in this quadrangle. The elevations given are therefore of but little value.

	Feet.
Tps. 15 and 16 N., Rs. 23 and 24 E., corner of; iron post.....	984. 496
Tps. 15 and 16 N., Rs. 24 and 25 E., corner of; iron post.....	1, 021. 158
Tps. 15 and 16 N., Rs. 25 and 26 E., corner of; iron post.....	1, 113. 968
Tps. 14 and 15 N., Rs. 25 and 26 E., corner of; iron post.....	1, 228. 88
Tps. 14 and 15 N., Rs. 24 and 25 E., corner of; iron post.....	1, 355. 76
Tps. 14 and 15 N., Rs. 23 and 24 E., corner of; iron post.....	1, 017. 062
Tps. 14 and 15 N., Rs. 22 and 23 E., corner of; iron post.....	806. 762
Tps. 13 and 14 N., Rs. 22 and 23 E., corner of; iron post.....	1, 285. 271
Tps. 13 and 14 N., Rs. 23 and 24 E., corner of; iron post.....	768. 501
Tps. 13 and 14 N., Rs. 24 and 25 E., corner of; iron post.....	1, 176. 571
Tps. 13 and 14 N., Rs. 25 and 26 E., corner of; iron post.....	804. 851
T. 13 N., Rs. 25 and 26 E., standard corner of; iron post.....	762. 628
T. 12 N., Rs. 25 and 26 E., closing corner of; iron post.....	696. 128
T. 13 N., Rs. 24 and 25 E., standard corner of; iron post.....	889. 194
T. 12 N., Rs. 24 and 25 E., closing corner of; iron post.....	800. 308
T. 13 N., Rs. 23 and 24 E., standard corner of; iron post.....	723. 787
T. 12 N., Rs. 23 and 24 E., closing corner of; iron post.....	641. 786
T. 13 N., Rs. 22 and 23 E., standard corner of; iron post.....	566. 678
T. 12 N., Rs. 22 and 23 E., closing corner of; iron post.....	713. 482

#### Muskogee Quadrangle.

[Latitude 35° 30'-36°; longitude 95°-95° 30'.]

#### CHEROKEE, MUSKOGEE, AND WAGONER COUNTIES.

The railroad levels were run by Robert Coe, G. A. Purington, A. F. Hassan, J. P. Phelan, and C. B. Odell. W. S. D. Moore, C. B. Odell, A. F. Hassan, E. M. Fry, E. L. Faison, George Nick, J. P. Walker, H. L. Muldrow, jr., and H. H. Hellen did the leveling along township lines.

There is a break of 1 foot between elevations in this quadrangle and those in Tahlequah and Sansbois quadrangles.

#### From Checotah along Missouri, Kansas & Texas Ry. to Wagoner.

	Feet.
Oktaha, 2 miles south of, 84.5 feet west of track, 1,815 feet south of milepost 519, opposite old water-tank foundation, in natural ledge; copper bolt.....	554. 745
Summit, 1½ miles south of, 8 inches from east ledge of the east coping stone of south pier, bridge 273; copper bolt.....	573. 745
Muskogee, at southeast corner of Hotel Adams lawn, 24.3 feet from railroad, 19.7 feet from hotel; iron post.....	602. 829
Muskogee, in second course of stone above sidewalk of First National Bank building, at left of entrance; bronze tablet (possibly destroyed).....	611. 618
Wybark, 1 mile south of, in top stone on east side of ballast wall, south abutment Missouri, Kansas & Texas Ry. bridge over Arkansas River; square hole.....	530. 559
Blackstone, ¼ mile north of, in coping stone of east side of south abutment of bridge over Verdigris River; copper bolt.....	521. 941
Gibson station, ¼ mile south of, in west coping stone of north abutment of bridge south of mile pole 493; square hole.....	538. 302

	Feet.
Wagoner, 54 feet north of intersection of Missouri, Kansas & Texas and St. Louis, Iron Mountain & Southern railroads, in stone; copper bolt.....	581. 472
<b>From Illinois along St. Louis, Iron Mountain &amp; Southern Ry. to Wagoner.</b>	
Illinois, 2 miles south of, in coping stone of north side of west pier of bridge over Illinois River; copper bolt.....	480. 282
Illinois, 2½ miles north of, at intersection of railroad and third standard parallel north; a sandstone post 18 by 18 by 15 inches, set between two small elm trees, which are 55.8 east of railroad.....	503. 203
Braggs, 3 miles south of, 45 feet east of railroad, in 24-inch post oak tree; nail.....	497. 454
Braggs, 3 miles north of, in third coping stone of north end of east pier of bridge 104, which is 700 feet west of mile pole 567; copper bolt.....	505. 315
Fort Gibson, 2½ miles south of, in second coping stone of east pier of bridge 106 over Bayou Manard; square hole.....	513. 732
Fort Gibson, 1 mile north of, in third coping stone of east pier of bridge over Grand River; copper bolt.....	518. 515
Correta, 1 mile south of, 75 feet east of track, 300 feet east of mile pole 579, in 12-inch post oak; nail.....	553. 334
Correta, 1 mile north of, 75 feet east of track, 90 feet north of mile pole 581, in 20-inch red oak; nail.....	518. 528
Wagoner, in first course of stone, 2½ feet above sidewalk, and 8 inches from south corner of First National Bank Building; bronze tablet..	591. 436

**Along township lines.**

Tps. 17 and 18 N., Rs. 17 and 18 E., corner of; iron post.....	558. 162
Tps. 17 and 18 N., Rs. 18 and 19 E., corner of; iron post.....	548. 261
Tps. 17 and 18 N., Rs. 19 and 20 E., corner of; iron post.....	694. 926
Tps. 17 and 18 N., Rs. 20 and 21 E., corner of; iron post.....	679. 141
Tps. 17 and 18 N., Rs. 21 and 22 E., corner of; iron post.....	931. 561
T. 17 N., Rs. 21 and 22 E., standard corner of; iron post.....	801. 569
T. 16 N., Rs. 21 and 22 E., closing corner of; iron post.....	817. 089
T. 17 N., Rs. 20 and 21 E., standard corner of; iron post.....	814. 423
T. 16 N., Rs. 20 and 21 E., closing corner of; iron post.....	759. 873
T. 17 N., Rs. 19 and 20 E., standard corner of; iron post.....	682. 989
T. 17 N., Rs. 18 and 19 E., standard corner of; iron post.....	568. 105
T. 17 N., Rs. 17 and 18 E., standard corner of; iron post.....	516. 175
Tps. 15 and 16 N., Rs. 17 and 18 E., corner of; iron post.....	611. 222
Tps. 15 and 16 N., Rs. 18 and 19 E., corner of; iron post.....	518. 2
Tps. 15 and 16 N., Rs. 19 and 20 E., corner of; iron post.....	604. 499
Tps. 15 and 16 N., Rs. 20 and 21 E., corner of; iron post.....	669. 365
Tps. 15 and 16 N., Rs. 21 and 22 E., corner of; iron post.....	835. 446
Tps. 14 and 15 N., Rs. 21 and 22 E., corner of; iron post.....	771. 502
Tps. 14 and 15 N., Rs. 20 and 21 E., corner of; iron post.....	663. 562
Tps. 14 and 15 N., Rs. 18 and 19 E., corner of; iron post.....	563. 153
Tps. 14 and 15 N., Rs. 17 and 18 E., corner of; iron post.....	629. 221
Tps. 13 and 14 N., Rs. 17 and 18 E., corner of; iron post.....	615. 197
Tps. 13 and 14 N., Rs. 18 and 19 E., corner of; iron post.....	573. 197
Tps. 13 and 14 N., Rs. 20 and 21 E., corner of; iron post.....	779. 775
Tps. 13 and 14 N., Rs. 21 and 22 E., corner of; iron post.....	530. 225
T. 13 N., Rs. 21 and 22 E., standard corner of; iron post.....	831. 097



	Feet.
T. 12 N., Rs. 21 and 22 E., closing corner of; iron post.....	802. 963
T. 13 N., Rs. 20 and 21 E., standard corner of; iron post.....	613. 945
T. 12 N., Rs. 20 and 21 E., closing corner of; iron post.....	507. 083
T. 13 N., Rs. 19 and 20 E., standard corner of; iron post.....	536. 045
T. 12 N., Rs. 19 and 20 E., closing corner of; iron post.....	547. 099
T. 13 N., Rs. 18 and 19 E., standard corner of; iron post.....	513. 016
T. 12 N., Rs. 18 and 19 E., closing corner of; iron post.....	515. 755
T. 13 N., Rs. 17 and 18 E., standard corner of; iron post.....	711. 045
T. 12 N., Rs. 17 and 18 E., closing corner of; iron post.....	736. 745

### Okmulgee Quadrangle.

[Latitude 35° 30'-36°; longitude 95° 30'-96°.]

### MUSKOGEE, OKMULGEE, AND WAGONER COUNTIES.

W. S. D. Moore, C. B. Odell, A. F. Hassan, E. M. Fry, E. H. Lonsdale, and E. L. Faison had charge of independent level parties.

#### Along township lines.

	Feet.
Tps. 17 and 18 N., Rs. 12 and 13 E., corner of; iron post.....	723. 067
Tps. 17 and 18 N., Rs. 13 and 14 E., corner of; iron post.....	621. 257
Tps. 17 and 18 N., Rs. 14 and 15 E., corner of; iron post.....	632. 297
Tps. 17 and 18 N., Rs. 15 and 16 E., corner of; iron post.....	726. 357
Tps. 17 and 18 N., Rs. 16 and 17 E., corner of; iron post.....	527. 007
T. 17 N., Rs. 16 and 17 E., standard corner of; iron post.....	607. 495
T. 17 N., Rs. 15 and 16 E., standard corner of; iron post.....	568. 459
T. 17 N., Rs. 14 and 15 E., standard corner of; iron post.....	707. 2
T. 17 N., Rs. 13 and 14 E., standard corner of; iron post.....	600. 175
T. 17 N., Rs. 12 and 13 E., standard corner of; iron post.....	714. 175
Tps. 15 and 16 N., Rs. 12 and 13 E., corner of; iron post.....	719. 168
Tps. 15 and 16 N., Rs. 13 and 14 E., corner of; iron post.....	657. 172
Tps. 15 and 16 N., Rs. 14 and 15 E., corner of; iron post.....	673. 174
Tps. 15 and 16 N., Rs. 15 and 16 E., corner of; iron post.....	565. 187
Tps. 15 and 16 N., Rs. 16 and 17 E., corner of; iron post.....	570. 268
Tps. 14 and 15 N., Rs. 16 and 17 E., corner of; iron post.....	653. 174
Tps. 14 and 15 N., Rs. 15 and 16 E., corner of; iron post.....	610. 19
Tps. 14 and 15 N., Rs. 14 and 15 E., corner of; iron post.....	674. 174
Tps. 14 and 15 N., Rs. 13 and 14 E., corner of; iron post.....	771. 188
Tps. 14 and 15 N., Rs. 12 and 13 E., corner of; iron post.....	888. 166
Tps. 13 and 14 N., Rs. 12 and 13 E., corner of; iron post. (Destroyed.)	
Tps. 13 and 14 N., Rs. 13 and 14 E., corner of; iron post.....	701. 195
Tps. 13 and 14 N., Rs. 14 and 15 E., corner of; iron post.....	661. 198
Tps. 13 and 14 N., Rs. 15 and 16 E., corner of; iron post.....	638. 197
Tps. 13 and 14 N., Rs. 16 and 17 E., corner of; iron post.....	683. 855
T. 13 N., Rs. 16 and 17 E., standard corner of; iron post.....	614. 863
T. 12 N., Rs. 16 and 17 E., closing corner of; iron post.....	619. 846
T. 13 N., Rs. 15 and 16 E., standard corner of; iron post.....	647. 858
T. 12 N., Rs. 15 and 16 E., closing corner of; iron post.....	642. 823
T. 13 N., Rs. 14 and 15 E., standard corner of; iron post.....	808. 861
T. 12 N., Rs. 14 and 15 E., closing corner of; iron post.....	745. 85
T. 13 N., Rs. 13 and 14 E., standard corner of; iron post.....	663. 86

	Feet.
T. 12 N., Rs. 13 and 14 E., closing corner of; iron post.....	651. 866
T. 13 N., Rs. 12 and 13 E., standard corner of; iron post.....	792. 952
T. 12 N., Rs. 12 and 13 E., closing corner of; iron post.....	810. 215

**Nuyaka Quadrangle.**

[Latitude 35° 30'–36°; longitude 96°–96° 30'.]

**CREEK COUNTY.**

The leveling in this quadrangle was done by W. S. D. Moore, W. R. Manning, A. F. Hassan, E. M. Fry, E. L. Faison, C. B. Odell, and E. H. Lonsdale.

**Along township lines.**

	Feet.
Tps. 17 and 18 N., Rs. 8 and 9 E., corner of; iron post.....	834. 885
Tps. 17 and 18 N., Rs. 11 and 12 E., corner of; iron post.....	652. 175
T. 17 N., Rs. 11 and 12 E., standard corner of; iron post.....	884. 175
T. 16 N., Rs. 11 and 12 E., closing corner of; iron post.....	846. 027
T. 17 N., Rs. 10 and 11 E., standard corner of; iron post.....	770. 137
T. 16 N., Rs. 10 and 11 E., closing corner of; iron post.....	702. 285
T. 16 N., Rs. 9 and 10 E., closing corner of; iron post.....	761. 305
T. 17 N., Rs. 8 and 9 E., standard corner of; iron post.....	926. 309
Tps. 15 and 16 N., Rs. 8 and 9 E., corner of; iron post.....	783. 763
Tps. 15 and 16 N., Rs. 9 and 10 E., corner of; iron post.....	760. 385
Tps. 15 and 16 N., Rs. 10 and 11 E., corner of; iron post.....	972. 152
Tps. 15 and 16 N., Rs. 11 and 12 E., corner of; iron post.....	795. 165
Tps. 14 and 15 N., Rs. 11 and 12 E., corner of; iron post.....	834. 169
Tps. 14 and 15 N., Rs. 10 and 11 E., corner of; iron post.....	729. 351
Tps. 14 and 15 N., Rs. 9 and 10 E., corner of; iron post.....	801. 297
Tps. 14 and 15 N., Rs. 8 and 9 E., corner of; iron post.....	848. 11
Tps. 13 and 14 N., Rs. 8 and 9 E., corner of; iron post.....	720. 728
Tps. 13 and 14 N., Rs. 9 and 10 E., corner of; iron post.....	759. 488
Tps. 13 and 14 N., Rs. 10 and 11 E., corner of; iron post.....	676. 398
Tps. 13 and 14 N., Rs. 11 and 12 E., corner of; iron post.....	872. 598
T. 13 N., Rs. 11 and 12 E., standard corner of; iron post.....	844. 561
T. 13 N., Rs. 10 and 11 E., standard corner of; iron post.....	751. 85
T. 13 N., Rs. 9 and 10 E., standard corner of; iron post.....	785. 842
T. 13 N., Rs. 8 and 9 E., standard corner of; iron post.....	879. 842

**Wewoka Quadrangle.**

[Latitude 35°–35° 30'; longitude 96°–96° 30'.]

**HUGHES AND OKFUSKEE COUNTIES.**

The railroad levels were run by E. L. Faison. W. S. D. Moore, W. R. Manning, and E. L. Faison had independent level parties.

**From Holdenville along Choctaw, Oklahoma & Gulf R. R. to Wewoka.**

	Feet.
Holdenville, 3 miles east of, in large stone; square hole 30 feet south of track, 35 feet east of trestle No. 154.....	815. 159
Holdenville, at northwest corner of platform, 75 feet west of station building, 15 feet north of track; iron post.....	864. 244
Wewoka, south of track, 5 feet east of mile pole No. 99 and 2,400 feet west of station building; iron post.....	787. 777

## Along township lines.

	Feet.
Tps. 11 and 12 N., Rs. 8 and 9 E., corner of; iron post.....	897. 574
Tps. 11 and 12 N., Rs. 9 and 10 E., corner of; iron post.....	905. 053
Tps. 11 and 12 N., Rs. 10 and 11 E., corner of; iron post.....	891. 442
Tps. 11 and 12 N., Rs. 11 and 12 E., corner of; iron post.....	717. 635
Tps. 10 and 11 N., Rs. 11 and 12 E., corner of; iron post.....	727. 820
Tps. 10 and 11 N., Rs. 10 and 11 E., corner of; iron post.....	894. 888
Tps. 10 and 11 N., Rs. 9 and 10 E., corner of; iron post.....	856. 552
Tps. 10 and 11 N., Rs. 8 and 9 E., corner of; iron post.....	827. 552
Tps. 9 and 10 N., Rs. 8 and 9 E., corner of; iron post.....	848. 339
Tps. 9 and 10 N., Rs. 9 and 10 E., corner of; iron post.....	857. 408
Tps. 9 and 10 N., Rs. 10 and 11 E., corner of; iron post.....	750. 466
Tps. 9 and 10 N., Rs. 11 and 12 E., corner of; iron post.....	734. 606
T. 9 N., Rs. 11 and 12 E., standard corner of; iron post.....	834. 355
T. 9 N., Rs. 10 and 11 E., standard corner of; iron post.....	788. 733
T. 9 N., Rs. 9 and 10 E., standard corner of; iron post.....	735. 665
T. 9 N., Rs. 8 and 9 E., standard corner of; iron post.....	848. 689
Tps. 7 and 8 N., Rs. 8 and 9 E., corner of; iron post.....	800. 229
Tps. 7 and 8 N., Rs. 9 and 10 E., corner of; iron post.....	868. 392
Tps. 7 and 8 N., Rs. 10 and 11 E., corner of; iron post.....	922. 665
Tps. 7 and 8 N., Rs. 11 and 12 E., corner of; iron post.....	813. 312
Tps. 6 and 7 N., Rs. 11 and 12 E., corner of; iron post.....	856. 293
Tps. 6 and 7 N., Rs. 10 and 11 E., corner of; iron post.....	829. 287
Tps. 6 and 7 N., Rs. 9 and 10 E., corner of; iron post.....	802. 311
Tps. 6 and 7 N., Rs. 8 and 9 E., corner of; iron post.....	754. 323

## Canadian Quadrangle.

[Latitude 35°-35° 30'; longitude 95° 30'-96°.]

## McINTOSH AND PITTSBURG COUNTIES.

The railroad levels were run by G. A. Purington. E. L. Faison, W. R. Manning, W. S. D. Moore, George Nick, and J. P. Walker did the leveling along township lines.

## From McAlester along Missouri, Kansas &amp; Texas Ry. to Checotah.

	Feet.
McAlester, 3 miles north of, post oak; 50 feet east of track and 1,100 feet south of mile pole 561, nail in 36 inch.....	625. 557
Reams, 0.3 mile south of, in first coping stone of northeast abutment of trestle 317, 3,000 feet north of mile pole 556; copper bolt.....	614. 067
Reams, 5 miles north of, in stone on northeast abutment, north end of trestle 310, which is the first trestle south of mile pole 550; copper bolt.....	611. 022
South Canadian, 0.25 mile north of, in root of 24-inch blackjack oak, 60 feet west of track and 60 feet north of mile pole 547; nail.....	656. 873
South Canadian, 3½ miles north of, in first coping stone of northwest abutment bridge 304 over South Canadian River; copper bolt.....	558. 558
Eufaula, 1,000 feet north of station building, in 12-inch red oak, 50 feet west of track and 140 feet north of mile pole 538; nail.....	619. 219
Eufaula, 2 miles north of, in first coping stone on northwest abutment of bridge 298 over North Canadian River; copper bolt.....	551. 439

	Feet.
Bond, in stone on northwest side of stone culvert, north of section house 75, 90 feet north of switch; copper bolt-----	663. 031
Checotah, 0.3 mile south of, in cottonwood tree 60 feet west of track and 100 feet north of mile pole 525; nail-----	639. 201

## Along township lines.

Tps. 11 and 12 N., Rs. 12 and 13 E., corner of; iron post-----	874. 865
Tps. 11 and 12 N., Rs. 13 and 14 E., corner of; iron post-----	595. 88
Tps. 11 and 12 N., Rs. 14 and 15 E., corner of; iron post-----	759. 826
Tps. 11 and 12 N., Rs. 15 and 16 E., corner of; iron post-----	661. 538
Tps. 11 and 12 N., Rs. 16 and 17 E., corner of; iron post-----	642. 989
Tps. 10 and 11 N., Rs. 16 and 17 E., corner of; iron post-----	631. 512
Tps. 10 and 11 N., Rs. 15 and 16 E., corner of; iron post-----	610. 978
Tps. 10 and 11 N., Rs. 14 and 15 E., corner of; iron post-----	633. 342
Tps. 10 and 11 N., Rs. 13 and 14 E., corner of; iron post-----	665. 469
Tps. 10 and 11 N., Rs. 12 and 13 E., corner of; iron post-----	737. 478
Tps. 9 and 10 N., Rs. 12 and 13 E., corner of; iron post-----	805. 885
Tps. 9 and 10 N., Rs. 13 and 14 E., corner of; iron post-----	717. 269
Tps. 9 and 10 N., Rs. 14 and 15 E., corner of; iron post-----	674. 545
Tps. 9 and 10 N., Rs. 15 and 16 E., corner of; iron post-----	633. 256
Tps. 9 and 10 N., Rs. 16 and 17 E., corner of; iron post-----	567. 803
T. 9 N., Rs. 16 and 17 E., standard corner of; iron post-----	564. 048
T. 9 N., Rs. 15 and 16 E., standard corner of; iron post-----	606. 900
T. 9 N., Rs. 14 and 15 E., standard corner of; iron post-----	677. 827
T. 9 N., Rs. 13 and 14 E., standard corner of; iron post-----	696. 866
T. 9 N., Rs. 12 and 13 E., standard corner of; iron post-----	722. 91
Tps. 7 and 8 N., Rs. 12 and 13 E., corner of; iron post-----	840. 844
Tps. 7 and 8 N., Rs. 13 and 14 E., corner of; iron post-----	704. 795
Tps. 7 and 8 N., Rs. 14 and 15 E., corner of; iron post-----	653. 81
Tps. 7 and 8 N., Rs. 15 and 16 E., corner of; iron post-----	719. 276
Tps. 7 and 8 N., Rs. 16 and 17 E., corner of; iron post-----	762. 818
Tps. 6 and 7 N., Rs. 16 and 17 E., corner of; iron post-----	763. 818
Tps. 6 and 7 N., Rs. 15 and 16 E., corner of; iron post-----	559. 947
Tps. 6 and 7 N., Rs. 14 and 15 E., corner of; iron post-----	882. 861
Tps. 6 and 7 N., Rs. 13 and 14 E., corner of; iron post-----	659. 959
Tps. 6 and 7 N., Rs. 12 and 13 E., corner of; iron post-----	768. 841

## Sansbois Quadrangle.

[Latitude 35°-35° 30'; longitude 95°-95° 30'.]

## HASKELL COUNTY.

The leveling was done by G. A. Purington, W. S. D. Moore, George Nick, and J. P. Walker.

## Along township lines.

	Feet.
Tps. 11 and 12 N., Rs. 17 and 18 E., corner of; iron post-----	658. 974
Tps. 11 and 12 N., Rs. 18 and 19 E., corner of; iron post-----	599. 494
Tps. 11 and 12 N., Rs. 19 and 20 E., corner of; iron post-----	559. 625
Tps. 11 and 12 N., Rs. 20 and 21 E., corner of; iron post-----	472. 948
Tps. 11 and 12 N., Rs. 21 and 22 E., corner of; iron post-----	520. 914

	Feet.
Tps. 10 and 11 N., Rs. 21 and 22 E., corner of; iron post.....	562. 5
Tps. 10 and 11 N., Rs. 20 and 21 E., corner of; iron post.....	470. 641
Tps. 10 and 11 N., Rs. 19 and 20 E., corner of; iron post.....	562. 514
Tps. 10 and 11 N., Rs. 18 and 19 E., corner of; iron post.....	874. 383
Tps. 10 and 11 N., Rs. 17 and 18 E., corner of; iron post.....	588. 11
Tps. 9 and 10 N., Rs. 17 and 18 E., corner of; iron post.....	873. 508
Tps. 9 and 10 N., Rs. 18 and 19 E., corner of; iron post.....	817. 035
Tps. 9 and 10 N., Rs. 19 and 20 E., corner of; iron post.....	518. 562
Tps. 9 and 10 N., Rs. 20 and 21 E., corner of; iron post.....	543. 781
Tps. 9 and 10 N., Rs. 21 and 22 E., corner of; iron post.....	607. 42
T. 9 N., Rs. 21 and 22 E., standard corner of; iron post.....	475. 754
T. 8 N., Rs. 21 and 22 E., closing corner of; iron post.....	479. 854
T. 9 N., Rs. 20 and 21 E., standard corner of; iron post.....	684. 274
T. 8 N., Rs. 20 and 21 E., closing corner of; iron post.....	708. 724
T. 9 N., Rs. 19 and 20 E., standard corner of; iron post.....	629. 104
T. 8 N., Rs. 19 and 20 E., closing corner of; iron post.....	657. 434
T. 9 N., Rs. 18 and 19 E., standard corner of; iron post.....	903. 987
T. 8 N., Rs. 18 and 19 E., closing corner of; iron post.....	939. 289
T. 9 N., Rs. 17 and 18 E., standard corner of; iron post.....	836. 587
T. 8 N., Rs. 17 and 18 E., closing corner of; iron post.....	842. 344
Tps. 7 and 8 N., Rs. 17 and 18 E., corner of; iron post.....	917. 597
Tps. 7 and 8 N., Rs. 18 and 19 E., corner of; iron post.....	618. 317
Tps. 7 and 8 N., Rs. 19 and 20 E., corner of; iron post.....	534. 857
Tps. 7 and 8 N., Rs. 20 and 21 E., corner of; iron post.....	622. 677
Tps. 7 and 8 N., Rs. 21 and 22 E., corner of; iron post.....	604. 797
Tps. 6 and 7 N., Rs. 21 and 22 E., corner of; iron post.....	803. 106
Tps. 6 and 7 N., Rs. 20 and 21 E., corner of; iron post.....	833. 526
Tps. 6 and 7 N., Rs. 19 and 20 E., corner of; iron post.....	950. 666
Tps. 6 and 7 N., Rs. 18 and 19 E., corner of; iron post.....	1, 295. 066
Tps. 6 and 7 N., Rs. 17 and 18 E., corner of; iron post.....	902. 81

## Sallisaw Quadrangle.

[Latitude 35°-35° 30'; longitude 94° 30'-95°.]

## LE FLORE, HASKELL, AND SEQUOYAH COUNTIES.

The railroad levels were run by Robert Coe, G. A. Purington, E. L. Faison, E. M. Fry, C. H. Hickman, and J. W. Phelan. J. H. Carlock, J. P. Walker, D. Voorhees, E. M. Fry, and G. A. Purington did the leveling along township lines.

## From Sallisaw along Kansas City Southern Ry. to Poteau.

	Feet.
Sallisaw, at south end of platform, east of track, at Kansas City Southern Ry. station; iron post.....	526. 051
Sallisaw, 4 miles south of, intersection of railroad with sixth guide meridian east, in line of telegraph poles, 3,000 feet north of mile pole 295; iron post.....	568. 902
Gans, 0.5 mile south of, the intersection of railroad with township line, Tps. 10 and 11 N., R. 25 E., in line of telegraph poles, 35 feet west of track; iron post.....	483. 36
Redland, 0.5 mile south of, intersection of railroad with township line, Tps. 9 and 10 N., R. 25 E., 15 feet west of track; iron post....	432. 433

	Feet.
Oak Lodge, 2½ miles south of, intersection of railroad with second standard parallel north, R. 25 E., 50 feet west of track, in white oak (blazed and marked); spike-----	476.52
Shady Point, 0.5 mile south of, intersection of township line, Tps. 7 and 8 N., R. 25 E., 100 feet south of mile pole 321, 60 feet west of track; iron post-----	429.365
Poteau, at south end of station platform, 36 feet west of main track; iron post-----	458.805
Poteau, 1.8 miles south of, intersection of railroad with township line, Tps. 6 and 7 N., R. 25 E., 60 feet west of track, in water oak; nail-----	443.605

From Cameron along St. Louis & San Francisco R. R. to Poteau.

Cameron, 57 feet east of track, 60 feet north of station building, in stone monument, referenced by a stone 12 feet north and one 12 feet east; copper bolt-----	489.391
Cameron, in fifth stone above foundation course at southeast corner of general store and post-office building, owned by Mrs. F. H. Carr, 170 feet west of St. Louis & San Francisco track, 27 feet south of prolonged line of south end of station building; bronze tablet-----	489.318
Cameron, 5 miles south of, 60 feet east of track, 260 feet north of mile pole 441, in 12-inch hickory tree; nail-----	447.279
Poteau, 2 miles south of, 70 feet west of track, 800 feet south of mile pole 447, in "twin" post oak; nail-----	507.296

From Cherokee along St. Louis, Iron Mountain & Southern Ry. to Vian.

Cherokee, 5 miles west of, at bridge 26, 70 feet south of track, in 15-inch black oak tree; spike-----	482.546
Muldrow, sandstone post, 24 by 6 by 6 inches, buried 6 inches below surface, 71.3 feet from northeast corner of station building, 30 feet from "mail grab"; marked B + M-----	512.646
Hanson, 100 feet south of track, in 4-inch red oak tree; spike-----	570.541
Sallisaw, buried south of station building, 40.6 feet from southeast and 44.8 feet from southwest corners of same; sandstone post 24 by 8 by 5 inches, marked B + M, U.S.G.S.-----	531.988
McKey, 60 feet north of track, in 8-inch red oak; spike-----	537.886
Vian, buried 6 inches beneath the surface, south of station building, 31.7 feet from southwest and 36.7 feet from southeast corners of same; sandstone post 28 by 8 by 4 inches, marked B + M, U.S.G.S.-----	547.398

Along township lines.

Tps. 11 and 12 N., Rs. 22 and 23 E., corner of; iron post-----	479.908
Tps. 11 and 12 N., Rs. 23 and 24 E., corner of; iron post-----	552.194
Tps. 11 and 12 N., Rs. 24 and 25 E., corner of; iron post-----	534.458
Tps. 11 and 12 N., Rs. 25 and 26 E., corner of; iron post-----	686.798
Tps. 10 and 11 N., Rs. 25 and 26 E., corner of; iron post-----	479.475
Tps. 10 and 11 N., Rs. 24 and 25 E., corner of; iron post-----	566.690
Tps. 10 and 11 N., Rs. 23 and 24 E., corner of iron post-----	496.763
Tps. 10 and 11 N., Rs. 22 and 23 E., corner of; iron post-----	447.428
Tps. 9 and 10 N., Rs. 22 and 23 E., corner of; iron post-----	460.347
Tps. 9 and 10 N., Rs. 23 and 24 E., corner of; iron post-----	605.799
Tps. 9 and 10 N., Rs. 24 and 25 E., corner of; iron post-----	441.893
Tps. 9 and 10 N., Rs. 25 and 26 E., corner of; iron post-----	425.523

	Feet.
T. 8 N., Rs. 26 and 27 E., closing corner of; iron post.....	624.170
T. 9 N., Rs. 25 and 26 E., standard corner of; iron post.....	439.330
T. 8 N., Rs. 25 and 26 E., closing corner; iron post.....	442.310
T. 9 N., Rs. 24 and 25 E., standard corner of; iron post.....	572.124
T. 8 N., Rs. 24 and 25 E., closing corner of; iron post.....	564.134
T. 9 N., Rs. 23 and 24 E., standard corner of; iron post.....	555.414
T. 8 N., Rs. 23 and 24 E., closing corner of; iron post.....	542.174
T. 9 N., Rs. 22 and 23 E., standard corner of; iron post.....	695.254
T. 8 N., Rs. 22 and 23 E., closing corner of; iron post.....	635.344
Tps. 7 and 8 N., Rs. 22 and 23 E., corner of; iron post.....	657.547
Tps. 7 and 8 N., Rs. 23 and 24 E., corner of; iron post.....	467.857
Tps. 7 and 8 N., Rs. 24 and 25 E., corner of; iron post.....	521.567
Tps. 7 and 8 N., Rs. 25 and 26 E., corner of; iron post.....	425.987
Tps. 7 and 8 N., Rs. 26 and 27 E., corner of; iron post.....	522.832
Tps. 6 and 7 N., Rs. 26 and 27 E., corner of; iron post.....	585.206
Tps. 6 and 7 N., Rs. 25 and 26 E., corner of; iron post.....	445.066
Tps. 6 and 7 N., Rs. 24 and 25 E., corner of; iron post.....	712.936
Tps. 6 and 7 N., Rs. 23 and 24 E., corner of; iron post.....	1,289.656
Tps. 6 and 7 N., Rs. 22 and 23 E., corner of; iron post.....	513.136

#### Fort Smith Quadrangle.

[Latitude 35°-35° 30'; longitude 94°-94° 30'.]

#### LE FLORE COUNTY.

J. H. Carlock and E. M. Fry did the leveling.

#### Along township lines.

	Feet.
Tps. 11 and 12 N., Rs. 26 and 27 E., corner of; iron post.....	725.498
Arkansas-Oklahoma boundary line, closing corner Tps. 11 and 12 N., R. 27 E.; iron post.....	765.878
Arkansas-Oklahoma boundary line, closing corner of Tps. 10 and 11 N., R. 27 E.; iron post.....	437.655
Tps. 10 and 11 N., Rs. 26 and 27 E., corner of; iron post.....	420.205
Tps. 9 and 10 N., Rs. 26 and 27 E., corner of; iron post.....	422.853
Arkansas-Oklahoma boundary line, closing corner of Tps. 9 and 10 N., R. 27 E.; iron post.....	514.98
Arkansas-Oklahoma boundary line, closing corner second standard parallel north, R. 27 E.; iron post.....	556.94
Tp. 9 N., Rs. 26 and 27 E., standard corner of; iron post.....	621.790
Arkansas-Oklahoma boundary line, closing corner Tps. 7 and 8 N., R. 27 E.; iron post.....	613.082
Arkansas-Oklahoma boundary line, closing corner Tps. 6 and 7 N., R. 27 E.; iron post.....	1,390.736

#### Poteau Mountain Quadrangle.

[Latitude 34° 30'-35°; longitude 94°-94° 30'.]

#### LE FLORE COUNTY.

E. M. Fry ran the railroad levels. W. P. Halliday and E. M. Fry did the leveling along township lines.

## On Kansas City Southern Ry.

	Feet.
Page, 5 miles south of, intersection of railroad with Arkansas-Oklahoma boundary line; iron post-----	1, 225. 185

## Along township lines.

Arkansas-Oklahoma boundary line, closing corner of Tps. 5 and 6 N., R. 27 E.; iron post-----	1, 617. 750
Arkansas-Oklahoma boundary line, closing corner of Tps. 4 and 5 N., R. 27 E.; corner stone-----	691. 944
Arkansas-Oklahoma boundary line, closing corner of Tps. 1 N. and 1 S., R. 27 E.; corner stone-----	949. 999

## Winding Stair Quadrangle.

[Latitude 34° 30'–35°; longitude 94° 30'–95°.]

## LE FLORE COUNTY.

Robert Coe, G. A. Purington, H. C. McCluer, and E. M. Fry ran the railroad levels. F. E. Fellows, G. A. Purington, E. M. Fry, W. P. Halliday, and G. H. Bartlett did the leveling along township lines.

## Along Choctaw, Oklahoma &amp; Gulf R. R. from Wister to Fanshawe.

	Feet.
Wister, in northeast angle of Choctaw, Oklahoma & Gulf and the St. Louis & San Francisco railroads, 150 feet from the Choctaw, Oklahoma & Gulf, and 350 feet from the St. Louis & San Francisco track; nail in 24-inch post oak-----	475. 852
Wister, 0.5 mile west of, in south coping stone of east abutment of bridge No. 1; square hole-----	482. 688
Wister, 1.5 miles west of, in north coping stone of east abutment of bridge No. 7. 500 feet west of milepost 214; square hole-----	499. 078
Fanshawe, 2 miles east of, in north coping stone of east abutment of bridge near milepost 207; square hole-----	555. 431
Fanshawe, 0.3 mile west of, 120 feet north of track and 100 feet west of milepost 205, 16-inch red oak tree; nail-----	556. 266
Fanshawe, 3 miles west of, 130 feet north and 200 feet west of milepost 202, 18-inch elm tree; nail-----	545. 724

## Along St. Louis &amp; San Francisco R. R. from Cavanal to Le Flore.

Cavanal, 180 feet left of track, nearly opposite milepost 451; 24-inch post oak tree-----	470. 773
Wister, 0.5 mile west of, in south coping stone of east pier of bridge 237 T; square hole cut-----	474. 481
Wister, 1 mile southwest of, 150 feet south and 75 feet east of milepost 454, in 8-inch black oak tree; nail-----	479. 916
Caston, 60 feet right of track, opposite milepost 456, in 30-inch white oak tree; nail-----	496. 669
Pocahontas, 120 feet north and 100 west of milepost 458, in 20-inch red oak tree; nail-----	563. 802



	Feet.
Folsom, 100 feet south of track, opposite milepost 463, in 16-inch white-oak tree; nail.....	492. 411
Le Flore, 90 feet south and 100 feet east of station building, in 10-inch elm tree; nail.....	534. 257

**Along Kansas City Southern Ry. from Heavener to Page.**

Heavener, 2 miles north of, at intersection of railroad with north boundary of T. 5 N., R. 25 E.; iron post.....	514. 004
Heavener, 1 mile north of, bridge over drain, in east coping stone of north abutment; copper bolt.....	567. 058
Heavener, 1 mile south of, 650 feet south of milepost 338; iron post.....	555. 006
Houston, 2 miles north of, at intersection of railroad with first standard parallel north, near milepost 342; iron post.....	506. 118
Houston, 0.3 mile south of, bridge over drain, in east coping stone of north abutment; copper bolt.....	542. 121
Thomasville, 0.3 mile south of, bridge over creek, in west coping stone or north abutment; copper bolt.....	658. 746
Page, 0.5 mile south of; 60 feet west of track, 35 feet south of mile pole 355; root of 16-inch basswood tree.....	928. 135

**Along township lines.**

Tps. 5 and 6 N., Rs. 26 and 27 E., corner of; iron post.....	982. 747
Tps. 5 and 6 N., Rs. 25 and 26 E., corner of; iron post.....	501. 077
Tps. 5 and 6 N., Rs. 24 and 25 E., corner of; iron post.....	458. 717
Tps. 5 and 6 N., Rs. 23 and 24 E., corner of; iron post.....	522. 897
Tps. 5 and 6 N., Rs. 22 and 23 E., corner of; iron post.....	553. 051
T. 4 N., Rs. 22 and 23 E., closing corner of; on stone.....	915. 324
T. 5 N., Rs. 22 and 23 E., standard corner of; iron post.....	724. 474
T. 4 N., Rs. 23 and 24 E., closing corner of; iron post.....	587. 816
T. 5 N., Rs. 23 and 24 E., standard corner of; on stone.....	642. 014
T. 4 N., Rs. 24 and 25 E., closing corner of; on stone.....	577. 704
T. 5 N., Rs. 24 and 25 E., standard corner of; iron post.....	542. 824
T. 4 N., Rs. 25 and 26 E., closing corner of; iron post.....	509. 324
T. 5 N., Rs. 25 and 26 E., standard corner of; iron post.....	505. 114
T. 4 N., Rs. 26 and 27 E., closing corner of; iron post.....	568. 044
T. 5 N., Rs. 26 and 27 E., standard corner of; iron post.....	579. 664
Tps. 3 and 4 N., Rs. 26 and 27 E., corner of; iron post.....	705. 152
Tps. 3 and 4 N., Rs. 25 and 26 E., corner of; iron post.....	600. 622
Tps. 3 and 4 N., Rs. 24 and 25 E., corner of; iron post.....	953. 566
Tps. 3 and 4 N., Rs. 23 and 24 E., corner of; iron post.....	1, 174. 351
Tps. 3 and 4 N., Rs. 22 and 23 E., corner of; iron post.....	1, 025. 439
Tps. 2 and 3 N., Rs. 22 and 23 E., corner of; iron post.....	642. 788
Tps. 2 and 3 N., Rs. 23 and 24 E., corner of; iron post.....	688. 231
Tps. 2 and 3 N., Rs. 24 and 25 E., corner of; iron post.....	912. 652
Tps. 2 and 3 N., Rs. 25 and 26 E., corner of; iron post.....	2, 472. 792
Tps. 2 and 3 N., Rs. 26 and 27 E., corner of; iron post.....	1, 273. 601
Tps. 1 and 2 N., Rs. 26 and 27 E., corner of; iron post.....	1, 979. 576
Tps. 1 and 2 N., Rs. 25 and 26 E., corner of; iron post.....	1, 924. 146
Tps. 1 and 2 N., Rs. 24 and 25 E., corner of; iron post.....	1, 480. 338
Tps. 1 and 2 N., Rs. 23 and 24 E., corner of; iron post.....	1, 281. 237
Tps. 1 and 2 N., Rs. 22 and 23 E., corner of; iron post.....	1. 345. 888
T. 1 S., Rs. 22 and 23 E., closing corner of; iron post.....	1, 395. 843

	Feet.
T. 1 N., Rs. 22 and 23 E., standard corner of; iron post-----	1, 383. 902
T. 1 S., Rs. 23 and 24 E., closing corner of; iron post-----	1, 637. 392
T. 1 N., Rs. 23 and 24 E., standard corner of; iron post-----	1, 758. 046
Base Line triangulation station, sec. 31, T. 1 N., R. 24 E., near south-west corner of SW. $\frac{1}{4}$ ; 10-inch white-oak tree which has been used as signal tree-----	1, 990. 843
T. 1 S., Rs. 24 and 25 E., closing corner of; iron post-----	889. 819
T. 1 N., Rs. 24 and 25 E., standard corner of; iron post-----	876. 553
T. 1 S., Rs. 25 and 26 E., closing corner of; iron post-----	868. 589
T. 1 N., Rs. 25 and 26 E., standard corner of; on stone-----	898. 769
T. 1 S., Rs. 26 and 27 E., closing corner of; iron post-----	942. 239
T. 1 N., Rs. 26 and 27 E., standard corner of; on stone-----	905. 909

## Tuskahoma Quadrangle.

[Latitude 34° 30'-35°; longitude 95°-95° 30'.]

## LATIMER AND PUSHMATAHA COUNTIES.

Robert Coe, H. C. McCluer, and G. A. Purington ran the railroad levels. E. L. Faison, F. E. Fellows, W. P. Halliday, G. H. Bartlett, W. A. Correll, C. Doster, W. S. D. Moore, G. A. Purington, and E. M. Fry did the leveling along township lines.

## Along St. Louis &amp; San Francisco R. R. from Bengal to Stanley.

	Feet.
Bengal, 0.3 mile northeast of, 60 feet southeast of track, 210 feet south of milepost 475; 15-inch red oak tree-----	628. 450
Compton, 0.7 mile southwest of, bridge 286, near top of west end of north abutment; copper bolt-----	908. 411
Talihina, 60 feet east of track, 100 feet south of milepost 484; 10-inch black gum tree-----	675. 727
Albion, 60 feet east of track, 400 feet south of milepost 490; 20-inch post oak tree-----	656. 655
Kiamichi, 0.7 mile northeast of, 40 feet west of track, 50 feet north of milepost 495; 15-inch post oak tree-----	604. 725
Tuskahoma, in northeast corner of foundation of water tank; copper bolt-----	570. 396
Clayton, 0.7 mile northeast of, 60 feet west of track, 80 feet northwest of milepost 506, near intersection with north boundary of T. 1 N., R. 19 E.; 10-inch post oak tree-----	576. 724
Elzey, one-half mile northeast of, 50 feet west of track, 400 feet north of milepost 510; 24-inch red oak tree-----	537. 12
Stanley, 60 feet southeast of track, 440 feet southwest of milepost 514; 10-inch hickory tree-----	518. 063

## Along Choctaw, Oklahoma &amp; Gulf R. R. from Redoak to Gaines Creek.

Redoak, 0.7 mile west of, 105 feet north of track, 165 feet west of milepost 195; post oak tree-----	596. 000
Panola, 5 miles west of, 110 feet north of track, 165 feet west of milepost 191; 22-inch post oak tree-----	616. 289
Panola, 0.3 mile east of, bridge 61, in first coping stone of northwestern pier; copper bolt-----	625. 148

	Feet.
Bridge 65, in first coping stone of north end of west abutment; square hole cut .....	593. 416
Wilburton, 285 feet east and 125 feet north of milepost 182, near bridge 73; 9-inch water elm tree.....	648. 876
Wilburton, 2 miles west of, bridge 77, in coping stone of north end of west abutment; copper bolt.....	679. 107
Wilburton, 4 miles west of, in stone at northeast corner of north end of culvert, 30 feet east of milepost 178; square hole cut.....	677. 612
Wilburton, 7 miles west of, near milepost 175, south end of east abutment of bridge 80; copper bolt set in stone.....	634. 415
Bridge 90 (over Gaines Creek), in north end of west abutment; square hole cut.....	641. 527

## Along township lines.

Tps. 5 and 6 N., Rs. 21 and 22 E., corner of; iron post.....	551. 131
Tps. 5 and 6 N., Rs. 20 and 21 E., corner of; iron post.....	701. 401
Tps. 5 and 6 N., Rs. 19 and 20 E., corner of; iron post.....	886. 542
Tps. 5 and 6 N., Rs. 18 and 19 E., corner of; iron post.....	626. 252
Tps. 5 and 6 N., Rs. 17 and 18 E., corner of; iron post.....	704. 382
T. 4 N., Rs. 17 and 18 E., closing corner of; iron post.....	629. 818
T. 5 N., Rs. 17 and 18 E., standard corner of; iron post.....	624. 67
T. 4 N., Rs. 18 and 19 E., closing corner of; iron post.....	1, 344. 525
T. 5 N., Rs. 18 and 19 E., standard corner of; iron post.....	1, 229. 921
T. 4 N., Rs. 19 and 20 E., closing corner of; iron post.....	841. 165
T. 5 N., Rs. 19 and 20 E., standard corner of; iron post.....	807. 855
T. 4 N., Rs. 20 and 21 E., closing corner of; iron post.....	761. 054
T. 5 N., Rs. 20 and 21 E., standard corner of; iron post.....	742. 054
T. 4 N., Rs. 21 and 22 E., closing corner of; iron post.....	842. 994
T. 5 N., Rs. 21 and 22 E., standard corner of; iron post.....	799. 504
Tps. 3 and 4 N., Rs. 21 and 22 E., corner of; iron post.....	717. 356
Tps. 3 and 4 N., Rs. 20 and 21 E., corner of; iron post.....	1, 803. 913
Tps. 3 and 4 N., Rs. 19 and 20 E., corner of; iron post.....	1, 060. 735
Tps. 3 and 4 N., Rs. 18 and 19 E., corner of; iron post.....	904. 365
Tps. 3 and 4 N., Rs. 17 and 18 E., corner of; iron post.....	841. 496
Tps. 2 and 3 N., Rs. 17 and 18 E., corner of; iron post.....	1, 045. 725
Tps. 2 and 3 N., Rs. 18 and 19 E., corner of; iron post.....	600. 305
Tps. 2 and 3 N., Rs. 19 and 20 E., corner of; iron post.....	895. 585
Tps. 2 and 3 N., Rs. 20 and 21 E., corner of; iron post.....	1, 096. 590
Tps. 2 and 3 N., Rs. 21 and 22 E., corner of; iron post.....	659. 120
Tps. 1 and 2 N., Rs. 21 and 22 E., corner of; iron post.....	1, 536. 404
Tps. 1 and 2 N., Rs. 20 and 21 E., corner of; iron post.....	1, 503. 564
Tps. 1 and 2 N., Rs. 19 and 20 E., corner of; iron post.....	1, 336. 135
Tps. 1 and 2 N., Rs. 18 and 19 E., corner of; iron post.....	624. 080
Tps. 1 and 2 N., Rs. 17 and 18 E., corner of; iron post.....	1, 346. 280
T. 1 S., Rs. 17 and 18 E., closing corner of; iron post.....	724. 385
T. 1 N., Rs. 17 and 18 E., standard corner of; iron post.....	682. 420
T. 1 S., Rs. 18 and 19 E., closing corner of; iron post.....	1, 066. 420
T. 1 N., Rs. 18 and 19 E., standard corner of; iron post.....	1, 092. 470
T. 1 S., Rs. 19 and 20 E., closing corner of; iron post.....	1, 083. 765
T. 1 N., Rs. 19 and 20 E., standard corner of; iron post.....	980. 190
T. 1 S., Rs. 20 and 21 E., closing corner of; iron post.....	1, 169. 377
T. 1 N., Rs. 20 and 21 E., standard corner of; iron post.....	962. 097
T. 1 S., Rs. 21 and 22 E., closing corner of; iron post.....	755. 813
T. 1 N., Rs. 21 and 22 E., standard corner of; iron post.....	805. 112

## McAlester Quadrangle.

[Latitude 34° 30'–35°; longitude 95° 30'–96°.]

## PITTSBURG COUNTY.

E. L. Faison, G. A. Purington, and H. C. McCluer ran the railroad levels. T. C. Catchings, H. L. Muldrow, jr., F. E. Fellows, E. L. Faison, W. A. Correll, Chase Doster, G. A. Purington, and W. S. D. Moore did the leveling along township lines.

## From McAlester, south along Missouri, Kansas &amp; Texas Ry. to Limestone Gap.

	Feet.
McAlester, 0.5 mile north of, 250 feet north of mile pole 564, in stone culvert; copper bolt.....	679.386
South McAlester, in northwest angle of Choctaw, Oklahoma & Gulf and Missouri, Kansas & Texas railroads, 49.42 feet west from southwest corner of Union Station; iron post.....	717.814
South McAlester, on north side of Front Street, in second base stone, 9.7 feet from southwest corner of the Kali-Inla Building, which is owned by the Choctaw, Oklahoma & Gulf R. R. Co.; bronze tablet..	724.140
Frink, 60 feet west of track, 50 feet south of mile pole 569, in 14-inch hickory tree; nail.....	755.083
Kiowa, 50 feet east of track, 200 feet north of mile pole 583, in 30-inch post oak tree; nail.....	740.392
Limestone Gap, 225 feet west of track, directly behind mile pole 591, in 18-inch elm tree; nail.....	642.907

## From Hartshorne along Choctaw, Oklahoma &amp; Gulf R. R. to Barnett.

Bridge 93, in stone on south end of west abutment; square hole.....	647.442
Hartshorne, in fourth stone above foundation course, at northeast corner of stone building owned by F. M. Savage, on Pennsylvania Avenue, 125 feet west of west line of Fifth Street, 670 feet south of main line of railroad, 2,500 feet east of post-office building; bronze tablet.....	705.719
Hartshorne, 13 miles west of, 650 feet west of mine No. 1, in north end of culvert; copper bolt.....	678.075
Hartshorne, 2 miles west of, in stone on north end of parapet wall of bridge 106; copper bolt.....	608.488
Alderson, in north end of west abutment of bridge 112; copper bolt..	682.633
Alderson, 1 mile west of, in stone on south end of west abutment of bridge 117, 75 feet east of mile pole 156; square hole.....	650.585
Krebs, 0.5 mile west of, in stone on southeast corner of east abutment of bridge 124; square hole.....	719.948
McAlester, 6 miles west of, on top stone of west pier of bridge 206, 150 feet west of mile pole 145; cross (+) mark.....	652.632
Barnett, 0.4 mile east of, 550 feet west of mile pole 141, 10 miles west of McAlester, in southwest corner of top stone of west pier of bridge 198; bronze tablet.....	702.922

## On St. Louis &amp; San Francisco R. R.

Butler, 4 miles north of, 40 feet west of track, 60 feet north of mile pole 518, near intersection of railroad with base line, in 8-inch red oak tree; nail .....	515.369
-------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------

## Along township lines.

Tps. 5 and 6 N., Rs. 12 and 13 E., corner of; iron post.....	765.930
Tps. 5 and 6 N., Rs. 13 and 14 E., corner of; iron post.....	625.758

	Feet.
Tps. 5 and 6 N., Rs. 14 and 15 E., corner of; iron post.....	721.504
Tps. 5 and 6 N., Rs. 15 and 16 E., corner of; iron post.....	604.726
Tps. 5 and 6 N., Rs. 16 and 17 E., corner of; iron post.....	680.647
T. 5 N., Rs. 16 and 17 E., standard corner of; iron post.....	670.143
T. 4 N., Rs. 16 and 17 E., closing corner of; iron post.....	670.395
T. 5 N., Rs. 15 and 16 E., standard corner of; iron post.....	625.619
T. 4 N., Rs. 15 and 16 E., closing corner of; iron post.....	624.505
T. 5 N., Rs. 14 and 15 E., standard corner of; iron post.....	796.435
T. 4 N., Rs. 14 and 15 E., closing corner of; iron post.....	812.305
T. 5 N., Rs. 13 and 14 E., standard corner of; iron post.....	784.633
T. 4 N., Rs. 13 and 14 E., closing corner of; iron post.....	800.059
T. 5 N., Rs. 12 and 13 E., standard corner of; iron post.....	707.162
T. 4 N., Rs. 12 and 13 E., closing corner of; iron post.....	701.041
Tps. 3 and 4 N., Rs. 12 and 13 E., corner of; iron post.....	782.868
Tps. 3 and 4 N., Rs. 13 and 14 E., corner of; iron post.....	733.466
Tps. 3 and 4 N., Rs. 14 and 15 E., corner of; iron post.....	789.241
Tps. 3 and 4 N., Rs. 15 and 16 E., corner of; iron post.....	760.992
Tps. 3 and 4 N., Rs. 16 and 17 E., corner of; iron post.....	927.74
Tps. 2 and 3 N., Rs. 16 and 17 E., corner of; iron post.....	706.472
Tps. 2 and 3 N., Rs. 15 and 16 E., corner of; iron post.....	890.21
Tps. 2 and 3 N., Rs. 14 and 15 E., corner of; iron post.....	1,070.514
Tps. 2 and 3 N., Rs. 13 and 14 E., corner of; iron post.....	774.979
Tps. 2 and 3 N., Rs. 12 and 13 E., corner of; iron post.....	720.130
Tps. 1 and 2 N., Rs. 12 and 13 E., corner of; iron post.....	826.527
Tps. 1 and 2 N., Rs. 13 and 14 E., corner of; iron post.....	791.630
Tps. 1 and 2 N., Rs. 14 and 15 E., corner of; iron post.....	997.780
Tps. 1 and 2 N., Rs. 15 and 16 E., corner of; iron post.....	1,026.780
Tps. 1 and 2 N., Rs. 16 and 17 E., corner of; iron post.....	704.780
T. 1 N., Rs. 16 and 17 E., standard corner of; iron post.....	1,018.635
T. 1 S., Rs. 16 and 17 E., closing corner of; iron post.....	977.634
T. 1 N., Rs. 15 and 16 E., standard corner of; iron post.....	1,083.223
T. 1 S., Rs. 15 and 16 E., closing corner of; iron post.....	1,040.298
T. 1 N., Rs. 14 and 15 E., standard corner of; iron post.....	970.811
T. 1 S., Rs. 14 and 15 E., closing corner of; iron post.....	966.211
T. 1 N., Rs. 13 and 14 E., standard corner of; iron post.....	750.391
T. 1 S., Rs. 13 and 14 E., closing corner of; iron post.....	757.279
T. 1 N., Rs. 12 and 13 E., standard corner of; iron post.....	661.985
T. 1 S., Rs. 12 and 13 E., closing corner of; iron post.....	658.885

### Coalgate Quadrangle.

[Latitude 34° 30'-35°; longitude 96°-96° 30'.]

### COAL AND PITTSBURG COUNTIES.

The railroad levels were run by G. A. Purington, W. R. Manning, and E. L. Faison. Robert Coe, T. C. Catchings, F. E. Fellows, W. S. D. Moore, J. P. Walker, and H. L. Muldrow, jr., did the leveling along township lines.

### From Stuart along Choctaw, Oklahoma & Gulf R. R. to Calvin.

	Feet.
Stuart, 3 miles east of, on south side of west pier of bridge 187, in northwest corner of top stone; square hole.....	694.005
Stuart, 1 mile east of, 300 feet west of bridge 186, 40 feet north of track near entrance to "cut," in large stone; square hole.....	709.868

	Feet.
Stuart, 60 feet north of track, 100 feet east of station, south of post office; iron post-----	723. 665
Calvin, south of track, in line of telegraph poles, 210 feet west of station ticket-office window; iron post-----	716. 473

## On Missouri, Kansas &amp; Texas Ry.

Chili, 60 feet east of track, 450 feet south of mile pole 596; 30-inch post oak tree-----	665. 435
Chili, 3 miles south of, 100 feet west of track, 700 feet north of mile pole 599; 10-inch elm tree-----	619. 31

## On Coalgate branch of Missouri, Kansas &amp; Texas Ry.

Coalgate, at southeast corner of station building, 50 feet east of track; iron post flush with ground-----	616. 417
Coalgate, in layer of foundation stone, 8 inches above the ground at the northwest corner of building owned by Cooperative Co. on Broadway, about 400 feet southwest of railway station building; bronze tablet-----	616. 494

## Along township lines.

Tps. 5 and 6 N., Rs. 8 and 9 E., corner of; iron post-----	898. 561
Tps. 5 and 6 N., Rs. 9 and 10 E., corner of; iron post-----	796. 412
Tps. 5 and 6 N., Rs. 10 and 11 E., corner of; iron post-----	820. 731
Tps. 5 and 6 N., Rs. 11 and 12 E., corner of; iron post-----	957. 682
T. 5 N., Rs. 11 and 12 E., standard corner of; iron post-----	785. 922
T. 4 N., Rs. 11 and 12 E., closing corner of; iron post-----	768. 778
T. 5 N., Rs. 10 and 11 E., standard corner of; iron post-----	889. 906
T. 4 N., Rs. 10 and 11 E., closing corner of; iron post-----	893. 260
T. 5 N., Rs. 9 and 10 E., standard corner of; iron post-----	825. 722
T. 4 N., Rs. 9 and 10 E., closing corner of; iron post-----	825. 839
T. 5 N., Rs. 8 and 9 E., standard corner of; iron post-----	894. 531
Choctaw-Chickasaw boundary line, closing corner of Tps. 4 and 5 N., R. 8 E.; iron post-----	787. 409
Choctaw-Chickasaw boundary line, closing corner of Tps. 3 and 4 N., R. 8 E.; iron post-----	762. 57
Tps. 3 and 4 N., Rs. 8 and 9 E., corner of; iron post-----	695. 506
Tps. 3 and 4 N., Rs. 9 and 10 E., corner of; iron post-----	712. 582
Tps. 3 and 4 N., Rs. 10 and 11 E., corner of; iron post-----	772. 741
Tps. 3 and 4 N., Rs. 11 and 12 E., corner of; iron post-----	700. 931
Tps. 2 and 3 N., Rs. 11 and 12 E., corner of; iron post-----	693. 594
Tps. 2 and 3 N., Rs. 10 and 11 E., corner of; iron post-----	665. 461
Tps. 2 and 3 N., Rs. 9 and 10 E., corner of; iron post-----	642. 594
Tps. 2 and 3 N., Rs. 8 and 9 E., corner of; iron post-----	699. 541
Choctaw-Chickasaw boundary line, closing corner of Tps. 2 and 3 N., R. 8 E.; iron post-----	729. 757
Choctaw-Chickasaw boundary line, closing corner of Tps. 1 and 2 N., R. 8 E.; iron post-----	630. 552
Tps. 1 and 2 N., Rs. 8 and 9 E., corner of; iron post-----	676. 54
Tps. 1 and 2 N., Rs. 9 and 10 E., corner of; iron post-----	666. 544
Tps. 1 and 2 N., Rs. 10 and 11 E., corner of; iron post-----	628. 553
Tps. 1 and 2 N., Rs. 11 and 12 E., corner of; iron post-----	642. 558
T. 1 N., Rs. 11 and 12 E., standard corner of; iron post-----	681. 348

	Feet.
T. 1 N., Rs. 10 and 11 E., standard corner of; iron post-----	565. 379
T. 1 N., Rs. 9 and 10 E., standard corner of; iron post-----	658. 884
T. 1 N., Rs. 8 and 9 E., standard corner of; iron post-----	650. 855
Choctaw-Chickasaw boundary line, closing corner of Tps. 1 N., and 1 S., R. 8 E.; iron post-----	734. 741

Along the Chickasaw-Choctaw boundary line.

Tps. 1 and 2 N., R. 8 E., closing corner of Chickasaw Survey; iron post-----	631. 058
Tps. 2 and 3 N., R. 8 E., closing corner of Chickasaw Survey; iron post-----	730. 303
Tps. 3 and 4 N., R. 8 E., closing corner of Chickasaw Survey; iron post-----	762. 347
Tps. 4 and 5 N., R. 8 E., closing corner of Chickasaw Survey; iron post-----	779. 795

Stonewall Quadrangle.

[Latitude 34° 30'-35°; longitude 96° 30'-97°.]

PONTOTOC COUNTY.

The leveling was done by W. R. Manning, W. S. D. Moore, J. P. Walker, E. M. Fry, E. T. King, and H. L. Muldrow, jr.

Along township and section lines.

	Feet.
Canadian River, meander corner on, between T. 5 N., R. 3 E., sec. 2, and T. 6 N., R. 3 E., sec. 35; iron post-----	918. 65
Canadian River, meander corner on, between T. 6 N., R. 3 E., sec. 25, and T. 6 N., R. 4 E., sec. 30; iron post-----	907. 28
Tps. 5 and 6 N., Rs. 3 and 4 E., corner of; iron post-----	1, 027. 43
Canadian River, meander corner on, between T. 5 N., R. 4 E., sec. 5, and T. 6 N., R. 4 E., sec. 32; iron post-----	898. 85
Canadian River, meander corner on, between T. 5 N., R. 4 E., sec. 1, and T. 5 N., R. 5 E., sec. 6; iron post-----	880. 794
Seminole-Oklahoma boundary, closing corner on, between fractional Tps. 5 and 6 N., R. 5 E.; iron post-----	1, 056. 695
Tps. 5 and 6 N., Rs. 5 and 6 E., corner of; iron post-----	931. 989
Tps. 5 and 6 N., Rs. 6 and 7 E., corner of; iron post-----	891. 552
Tps. 5 and 6 N., Rs. 7 and 8 E., corner of; iron post-----	852. 683
T. 5 N., Rs. 7 and 8 E., standard corner of; iron post-----	920. 331
T. 4 N., Rs. 7 and 8 E., closing corner of; iron post-----	949. 576
T. 5 N., Rs. 6 and 7 E., standard corner of; iron post-----	957. 867
T. 4 N., Rs. 6 and 7 E., closing corner of; iron post-----	948. 223
T. 5 N., Rs. 5 and 6 E., standard corner of; iron post-----	898. 745
T. 4 N., Rs. 5 and 6 E., closing corner of; iron post-----	886. 069
T. 5 N., Rs. 4 and 5 E., standard corner of; iron post-----	1, 001. 868
T. 4 N., Rs. 4 and 5 E., closing corner of; iron post-----	1, 008. 824
T. 5 N., Rs. 3 and 4 E., standard corner of; iron post-----	1, 096. 94
T. 4 N., Rs. 3 and 4 E., closing corner of; iron post-----	1, 083. 925
Tps. 3 and 4 N., Rs. 3 and 4 E., corner of; iron post-----	1, 085. 302
Tps. 3 and 4 N., Rs. 4 and 5 E., corner of; iron post-----	976. 885
Tps. 3 and 4 N., Rs. 5 and 6 E., corner of; iron post-----	934. 219

	Feet.
Tps. 3 and 4 N., Rs. 6 and 7 E., corner of; iron post-----	968.648
Tps. 3 and 4 N., Rs. 7 and 8 E., corner of; iron post-----	845.572
Tps. 2 and 3 N., Rs. 7 and 8 E., corner of; iron post-----	753.493
Tps. 2 and 3 N., Rs. 6 and 7 E., corner of; iron post-----	752.477
Tps. 2 and 3 N., Rs. 5 and 6 E., corner of; iron post-----	1,051.052
Tps. 2 and 3 N., Rs. 4 and 5 E., corner of; iron post-----	1,171.605
Tps. 2 and 3 N., Rs. 3 and 4 E., corner of; iron post-----	1,170.524
Tps. 1 and 2 N., Rs. 3 and 4 E., corner of; iron post-----	1,080.938
Tps. 1 and 2 N., Rs. 4 and 5 E., corner of; iron post-----	1,255.431
Tps. 1 and 2 N., Rs. 5 and 6 E., corner of; iron post-----	1,141.508
Tps. 1 and 2 N., Rs. 6 and 7 E., corner of; iron post-----	824.716
Tps. 1 and 2 N., Rs. 7 and 8 E., corner of; iron post-----	747.122
T. 1 N., Rs. 7 and 8 E., standard corner of; iron post-----	795.223
T. 1 N., Rs. 6 and 7 E., standard corner of; iron post-----	1,063.658
T. 1 N., Rs. 5 and 6 E., standard corner of; iron post-----	1,100.691
T. 1 N., Rs. 4 and 5 E., standard corner of; iron post-----	1,161.841
T. 1 S.; Rs. 4 and 5 E., closing corner of; iron post-----	1,157.909
T. 1 N., Rs. 3 and 4 E., standard corner of; iron post-----	1,200.234
T. 1 S., Rs. 3 and 4 E., closing corner of; iron post-----	1,196.88

## From Asher southwest to Canadian River.

	Feet.
Asher, south of railroad station, T. 6 N., R. 4 E., secs. 18 and 19, about 100 feet east of township line, in south fence line; iron post stamped "957 Adj 1903"-----	954.969
Wanette, 4.0 miles east of, T. 6 N., R. 3 E., corner of secs. 22, 23, 26, and 27, near southeast fence corner; iron post stamped "967 Adj 1903"-----	965.352
Tps. 5 and 6 N., R. 3 E., corner of secs. 33, 34, 3, and 4, near north- west fence corner; iron post stamped "1000 Adj 1903"-----	998.567

## Pauls Valley Quadrangle.

[Latitude, 34° 30'–35°; longitude, 97°–97° 30'.]

## GARVIN AND McCLAIN COUNTIES.

Robert Coe and A. F. Hassan ran the railroad levels. W. R. Manning, W. S. D. Moore, G. Given, E. M. Fry, and J. H. Carlock did the leveling along township and section lines.

## From Davis north along Gulf, Colorado &amp; Santa Fe Ry. to Wayne.

	Feet.
Davis, 0.25 mile north of, at intersection of Indian base line with line of telegraph poles adjacent to railroad, about 28 feet west of center of track, 48 feet north of tenth telegraph pole north of mile pole 478; iron post-----	840.434
Wynnewood, 3.5 miles south of, at intersection of railroad with north boundary of T. 1 N., R. 1 E., 24 feet west of center of track, in line with telegraph poles; iron post-----	822.317
Wynnewood, on Cherokee Street and Guy Avenue, in foundation stone of Citizens Bank Building, 12 feet south of northeast corner of building; bronze tablet-----	864.616
Wynnewood, 2.75 miles north of, at intersection of railroad with north boundary of T. 2 N., R. 1 E., 33 feet west of center of track, in line with telegraph poles, about 3 poles south of mile pole 491; iron post-----	845.292



	Feet.
Pauls Valley, at corner of Paul and Santa Fe avenues, in center of east face of second stone above foundation of northeast corner of stone building owned by C. J. Grant; bronze tablet.....	873. 182
Pauls Valley, 2.5 miles northwest of, Tps. 3 and 4 N., Rs. 1 E. and 1 W., about 900 feet west of railroad; iron post.....	884. 772
Paoli, 2 miles north of, at witness corner to quarter section corner of sec. 36, T. 5 N., R. 1 W., 300 feet east of intersection of railroad with first standard parallel north; iron post.....	935. 189

## Along township and section lines.

Tps. 5 and 6 N., Rs. 2 and 3 W., corner of; iron post.....	1, 077. 851
Tps. 5 and 6 N., Rs. 1 and 2 W., corner of; iron post.....	1, 121. 411
Tps. 5 and 6 N., Rs. 1 E. and 1 W., corner of; iron post.....	999. 561
Canadian River, meander corner on, T. 6 N., Rs. 1 E. and 1 W., secs. 31 and 36; iron post.....	990. 041
Canadian River, meander corner on, between T. 5 N., R. 1 E., sec. 1, and T. 5 N., R. 2 E., sec. 6; iron post.....	969. 577
Canadian River, meander corner on, between T. 5 N., R. 2 E., sec. 13, and T. 5 N., R. 3 E., sec. 18; iron post.....	939. 053
T. 5 N., Rs. 2 and 3 E., standard corner of; iron post.....	1, 023. 873
T. 4 N., Rs. 2 and 3 E., closing corner of; iron post.....	1, 015. 892
T. 5 N., Rs. 1 and 1 E., standard corner of; iron post.....	1,065. 907
T. 4 N., Rs. 1 and 2 E., closing corner of; iron post.....	1, 054. 255
Indian meridian, standard corner of Tps. 4 and 5 N., Rs. 1 E. and 1 W., at intersection with first standard parallel north; iron post.....	949. 571
T. 4 N., Rs. 1 and 2 W., closing corner of; iron post.....	1, 025. 479
T. 5 N., Rs. 1 and 2 W., standard corner of; iron post.....	1, 013. 619
T. 4 N., Rs. 2 and 3 E., closing corner of; iron post.....	982. 159
T. 5 N., Rs. 2 and 3 W., standard corner of; iron post.....	988. 349
Tps. 3 and 4 N., Rs. 2 and 3 W., corner of; iron post.....	990. 152
Tps. 3 and 4 N., Rs. 1 and 2 W., corner of; iron post.....	979. 882
Tps. 3 and 4 N., Rs. 1 and 2 E., corner of; iron post.....	922. 582
Tps. 3 and 4 N., Rs. 2 and 3 E., corner of; iron post.....	1, 042. 562
Tps. 2 and 3 N., Rs. 2 and 3 E., corner of; iron post.....	1, 106. 464
Tps. 2 and 3 N., Rs. 1 and 2 E., corner of; iron post.....	872. 954
Tps. 2 and 3 N., Rs. 1 E. and 1 W., corner of; iron post.....	892. 792
Tps. 2 and 3 N., Rs. 1 and 2 W., corner of; iron post.....	1, 053. 402
Tps. 2 and 3 N., Rs. 2 and 3 W., corner of; iron post.....	1, 093. 122
Tps. 1 and 2 N., Rs. 2 and 3 W., corner of; iron post.....	985. 612
Tps. 1 and 2 N., Rs. 1 and 2 W., corner of; iron post.....	941. 652
Tps. 1 and 2 N., Rs. 1 E. and 1 W., corner of; iron post.....	877. 342
Tps. 1 and 2 N., Rs. 1 and 2 E., corner of; iron post.....	841. 468
Tps. 1 and 2 N., Rs. 2 and 3 E., corner of; iron post.....	1, 049. 678
T. 1 N., Rs. 2 and 3 E., standard corner of; iron post.....	946. 134
T. 1 S., Rs. 2 and 3 E., closing corner of; iron post.....	938. 402
T. 1 N., Rs. 1 and 2 E., standard corner of; iron post.....	788. 783
T. 1 S., Rs. 1 and 2 E., closing corner of; iron post.....	790. 531
Indian meridian and Indian base, 4 feet south of initial point. at intersection of corner of Tps. 1 N. and 1 S., Rs. 1 E. and 1 W.: copper bolt set in rock in place.....	1, 042. 137
T. 1 N., Rs. 1 and 2 W., standard corner of; iron post.....	969. 267
T. 1 S., Rs. 2 and 3 W., closing corner of; iron post.....	932. 617
T. 1 N., Rs. 2 and 3 W., standard corner of; iron post.....	927. 147

## Rush Springs Quadrangle.

[Latitude 34° 30'–35°; longitude 97° 30'–98°.]

GARVIN, GRADY, AND STEPHENS COUNTIES.

The railroad levels were run by Robert Coe. E. M. Fry, W. S. D. Moore, J. P. Thayer, J. P. Walker, H. L. Baker, and W. R. Manning did the leveling along township lines.

From Ninnekah south along Chicago, Rock Island &amp; Pacific Ry. to Duncan.

	Feet.
Rush Springs, 6 miles north of, on first standard parallel north, between T. 4 N., R. 7 W., sec. 4, and T. 5 N., R. 7 W., sec. 33, 37.9 feet west of track, 15.3 feet south of 20th telegraph pole north of mile pole 451; iron post, 10 inches out of ground, stamped "1292"-----	<sup>1</sup> 292.501
Rush Springs, 1 mile north of township line, in middle of northeast face of second stone above sidewalk on left side of main entrance to Masonic Building; bronze tablet stamped "1349"-----	<sup>1</sup> 349.902
Marlow, 2.5 miles north of, at section corner between T. 2 N., R. 7 W., secs. 5 and 4, and T. 3 N., R. 7 W., secs. 32 and 33, 50 feet west of track; iron post stamped "1331"-----	<sup>1</sup> 331.989
Marlow, 3.75 miles south of, at section corner between T. 1 N., R. 7 W., secs. 4 and 5, and T. 2 N., R. 7 W., secs. 32 and 33, 730 feet east of track; iron post-----	<sup>1</sup> 305.030
Duncan, 0.3 mile north of, on Indian base line, at quarter section corner between T. 1 N., R. 7 W., sec. 32, and T. 1 S., R. 7 W., sec. 5, 1,000 feet west of track; iron post stamped "1127"-----	<sup>1</sup> 127.639

## Along township lines.

Chickasaw Nation, closing corner of Tps. 5 and 6 N., R. 7 W., on the west boundary of; iron post-----	1,096.628
Tps. 5 and 6 N., Rs. 6 and 7 W., corner of; iron post-----	1,163.078
Tps. 5 and 6 N., Rs. 5 and 6 W., corner of; iron post-----	1,019.568
Tps. 5 and 6 N., Rs. 4 and 5 W., corner of; iron post-----	1,140.081
Tps. 5 and 6 N., Rs. 3 and 4 W., corner of; iron post-----	1,010.871
T. 4 N., Rs. 3 and 4 W., closing corner of; iron post-----	964.219
T. 5 N., Rs. 3 and 4 W., standard corner of; iron post-----	963.769
T. 4 N., Rs. 4 and 5 W., closing corner of; iron post-----	995.55
T. 5 N., Rs. 4 and 5 W., standard corner of; iron post-----	995.59
T. 4 N., Rs. 5 and 6 W., closing corner of; iron post-----	1,093.847
T. 5 N., Rs. 5 and 6 W., standard corner of; iron post-----	1,125.028
T. 4 N., Rs. 6 and 7 W., closing corner of; iron post-----	1,234.623
T. 5 N., Rs. 6 and 7 W., standard corner of; iron post-----	1,281.216
Chickasaw Nation, closing corner of Tps. 4 and 5 N., R. 7 W., on the west boundary; iron post-----	1,286.383
Chickasaw Nation, closing corner of Tps. 3 and 4 N., R. 7 W., on west boundary; iron post-----	1,390.078
Tps. 3 and 4 N., Rs. 6 and 7 W., corner of; iron post-----	1,280.909
Tps. 3 and 4 N., Rs. 5 and 6 W., corner of; iron post-----	1,266.648

<sup>1</sup> Redetermined by Coast and Geodetic Survey.

	Feet.
Tps. 3 and 4 N., Rs. 4 and 5 W., corner of; iron post-----	1, 078. 802
Tps. 3 and 4 N., Rs. 3 and 4 W., corner of; iron post-----	1, 155. 492
Tps. 2 and 3 N., Rs. 3 and 4 W., corner of; iron post-----	1, 189. 132
Tps. 2 and 3 N., Rs. 4 and 5 W., corner of; iron post-----	1, 158. 645
Tps. 2 and 3 N., Rs. 5 and 6 W., corner of; iron post-----	1, 304. 554
Tps. 2 and 3 N., Rs. 6 and 7 W., corner of; iron post-----	1, 369. 498
Chickasaw Nation, closing corner of Tps. 2 and 3 N., R. 7 W., on west boundary; iron post-----	1, 272. 809
Chickasaw Nation, closing corner of Tps. 1 and 2 N., R. 8 W., on west boundary; iron post-----	1, 207. 868
Tps. 1 and 2 N., Rs. 7 and 8 W., corner of; iron post-----	1, 224. 289
Tps. 1 and 2 N., Rs. 6 and 7 W., corner of; iron post-----	1, 210. 596
Tps. 1 and 2 N., Rs. 5 and 6 W., corner of; iron post-----	1, 152. 754
Tps. 1 and 2 N., Rs. 4 and 5 W., corner of; iron post-----	1, 112. 515
Tps. 1 and 2 N., Rs. 3 and 4 W., corner of; iron post-----	1, 116. 662
T. 1 S., Rs. 3 and 4 W., closing corner of; iron post-----	1, 007. 549
T. 1 N., Rs. 3 and 4 W., standard corner of; iron post-----	1, 016. 701
T. 1 S., Rs. 4 and 5 W., closing corner of; iron post-----	1, 102. 181
T. 1 N., Rs. 4 and 5 W., standard corner of; iron post-----	1, 102. 437
T. 1 S., Rs. 5 and 6 W., closing corner of; iron post-----	1, 105. 984
T. 1 N., Rs. 5 and 6 W., standard corner of; iron post-----	1, 094. 764
T. 1 N., Rs. 6 and 7 W., standard corner of; iron post-----	1, 225. 358
T. 1 S., Rs. 7 and 8 W., closing corner of; iron post-----	1, 119. 669
T. 1 N., Rs. 7 and 8 W., standard corner of; iron post-----	1, 124. 245
Tps. 1 N. and 1 S., R. 8 W., closing corner of, which is intersection of base line and west boundary of Chickasaw Nation; iron post---	1, 124. 214

## Chickasha Quadrangle.

[Latitude 35°-35° 30'; longitude 97° 30'-98°.]

## CANADIAN AND GRADY COUNTIES.

Robert Coe ran the railroad levels. E. M. Fry did the leveling along township lines. Additional leveling was done in 1907 by F. M. Hutchinson.

From Minco south along Chicago, Rock Island & Pacific Ry. to Chickasha.

	Feet.
Minco, 1.5 miles south of, at quarter section corner between T. 9 N., R. 7 W., sec. 4, and T. 10 N., R. 7 W., sec. 33, about 150 feet east of track; iron post stamped "1284"-----	<sup>1</sup> 1, 284. 859
Minco, 7.5 miles south of, at corner of secs. 32 and 33, T. 9 N., R. 7 W., on second standard parallel north, about 600 feet west of track; iron post stamped "1201"-----	1, 202. 295
Chickasha, 4.5 miles north of, at quarter section corner between T. 7 N., R. 7 W., sec. 4, and T. 8 N., R. 7 W., sec. 33, about 600 feet east of track; iron post stamped "1102"-----	1, 102. 79
Chickasha, corner of Chickasha Avenue and Second Street, in middle of east face of foundation stone at northeast corner of brick building owned by J. C. Griggers; bronze tablet stamped "1091"-----	<sup>1</sup> 1, 091. 681
Chickasha, 1.8 miles south of, at quarter section corner between T. 6 N., R. 7 W., sec. 3, and T. 7 N., R. 7 W., sec. 34, about 180 feet west of track; iron post stamped "1084"-----	<sup>1</sup> 1, 084. 833

<sup>1</sup> Redetermined by Coast and Geodetic Survey precise leveling.

## Along township and section lines.

	Feet.
Chickasaw Nation, on west boundary of, closing corner of Tps. 9 and 10 N., R. 7 W.; iron post.....	1, 288. 234
Tps. 9 and 10 N., Rs. 6 and 7 W., corner of; iron post.....	1, 333. 264
Tps. 9 and 10 N., Rs. 5 and 6 W., corner of; iron post.....	1, 307. 484
Tps. 9 and 10 N., Rs. 4 and 5 W., corner of; iron post.....	1, 283. 364
Canadian River, meander corner on, between T. 9 N., R. 4 W., sec. 1, and T. 10 N., R. 4 W., sec. 36; iron post.....	1, 144. 784
Canadian River, meander corner on, between T. 8 N., R. 3 W., sec. 5, and T. 9 N., R. 3 W., sec. 32; iron post.....	1, 111. 527
T. 8 N., Rs. 3 and 4 W., closing corner of; iron post.....	1, 177. 927
T. 9 N., Rs. 3 and 4 W., standard corner of; iron post.....	1, 181. 667
T. 8 N., Rs. 4 and 5 W., closing corner of; iron post.....	1, 284. 667
T. 9 N., Rs. 4 and 5 W., standard corner of; iron post.....	1, 291. 357
T. 8 N., Rs. 5 and 6 W., closing corner of; iron post.....	1, 289. 305
T. 9 N., Rs. 5 and 6 W., standard corner of; iron post.....	1, 300. 825
T. 8 N., Rs. 6 and 7 W., closing corner of; iron post.....	1, 223. 095
T. 9 N., Rs. 6 and 7 W., standard corner of; iron post.....	1, 207. 505
Chickasaw Nation, on west boundary of, closing corner of Tps. 8 and 9 N., R. 7 W.; iron post.....	1, 184. 925
Chickasaw Nation, on west boundary of, closing corner of Tps. 7 and 8 N., R. 7 W.; iron post.....	1, 165. 92
Tps. 7 and 8 N., Rs. 6 and 7 W., corner of; iron post.....	1, 219. 17
Tps. 7 and 8 N., Rs. 5 and 6 W., corner of; iron post.....	1, 214. 160
Tps. 7 and 8 N., Rs. 4 and 5 W., corner of; iron post.....	1, 260. 947
Tps. 7 and 8 N., Rs. 3 and 4 W., corner of; iron post.....	1, 111. 747
Tps. 6 and 7 N., Rs. 3 and 4 W., corner of; iron post.....	1, 219. 867
Tps. 6 and 7 N., Rs. 4 and 5 W., corner of; iron post.....	1, 169. 427
Tps. 6 and 7 N., Rs. 5 and 6 W., corner of; iron post.....	1, 152. 761
Tps. 6 and 7 N., Rs. 6 and 7 W., corner of; iron post.....	1, 079. 051
Chickasaw Nation, on west boundary of, closing corner of Tps. 6 and 7 N., R. 7 W.; iron post.....	1, 156. 251

## From point near Oklahoma west along Chicago, Rock Island &amp; Pacific Ry. to Yukon.

Oklahoma, southwest corner of Broadway and Main Street, in southeast face of third stone above sidewalk, on left side of entrance to Security National Bank (formerly First National Bank); bronze tablet stamped "1199 Okla".....	1, 199. 463
Oklahoma, intersection of railroads northeast of, 60 feet east of Atchison, Topeka & Santa Fe Ry. tracks, 35 feet north of Choctaw, Oklahoma & Gulf R. R. tracks; iron post stamped "1197 Okla".....	1, 197. 771
Oklahoma, crossing of Atchison, Topeka & Santa Fe Ry. and Choctaw, Oklahoma & Gulf R. R.; top of rail.....	1, 198. 2
Milepost 26, 24 feet south of railroad track; iron post stamped "1211 Okla".....	1, 212. 122
Milepost 20, 24 feet south of railroad track; iron post stamped "1281 Okla".....	1, 281. 993

## From Oklahoma north 2.5 miles along Atchison, Topeka &amp; Santa Fe Ry.

Oklahoma, 100 feet south of southwest corner of Santa Fe and Fourteenth streets; iron post stamped "1231 Okla No. 46".....	1, 229. 884
----------------------------------------------------------------------------------------------------------------------------	-------------

From Oklahoma south along Atchison, Topeka & Santa Fe Ry. 4 miles to point near Flynn.

	Feet.
T. 11 N., R. 3 W., 45 feet southeast of northwest corner of sec. 10; iron post stamped "1179 Okla. No. 25"-----	1, 178. 154.
T. 11 N., R. 3 W., line between secs. 10 and 15, 60 feet east and 30 feet south of; iron post stamped "1204 Okla. No. 26"-----	1, 203. 052

Seminole Quadrangle, comprising Maud, Prague, Seminole, and Shawnee 15' quadrangles.

[Latitude 35°-35° 30'; longitude 96° 30'-97°.]

#### POTTAWATOMIE AND SEMINOLE COUNTIES.

The railroad levels were run by E. L. Faison. W. S. D. Moore, W. R. Manning, and E. L. Faison did the leveling along township lines.

From Wewoka along Choctaw, Oklahoma & Gulf R. R. to Shawnee.

	Feet.
Wewoka, 9 miles west of, 5.7 feet west of mile pole 90; iron post----	839. 87
Earlsboro, 17 feet west of main track, 200 feet north of station building; iron post-----	1, 026. 038
Shawnee, 15 feet north of track, at east end of station platform; iron post-----	1, 041. 998
Shawnee, 4 miles west of, near Dale, at mile pole 66; iron post-----	1, 019. 450

#### Along township lines.

Creek-Oklahoma boundary, closing corner of, Tps. 11 and 12 N., R. 6 E.; iron post-----	980. 680
Tps. 11 and 12 N., Rs. 6 and 7 E., corner of; iron post-----	923. 073
Tps. 11 and 12 N., Rs. 7 and 8 E., corner of; iron post-----	938. 815
Tps. 10 and 11 N., Rs. 7 and 8 E., corner of; iron post-----	990. 474
Tps. 10 and 11 N., Rs. 6 and 7 E., corner of; iron post-----	903. 175
Tps. 10 and 11 N., Rs. 5 and 6 E., corner of; iron post-----	990. 910
Seminole-Oklahoma boundary, closing corner of Tps. 10 and 11 N., R. 5 E.; iron post-----	947. 422
Seminole-Oklahoma boundary, closing corner of Tps. 9 and 10 N., R. 5 E.; iron post-----	995. 171
Tps. 9 and 10 N., Rs. 5 and 6 E., corner of; iron post-----	1, 019. 257
Tps. 9 and 10 N., Rs. 6 and 7 E., corner of; iron post-----	997. 229
Tps. 9 and 10 N., Rs. 7 and 8 E., corner of; iron post-----	991. 938
T. 9 N., Rs. 7 and 8 E., standard corner of; iron post-----	819. 467
T. 9 N., Rs. 6 and 7 E., standard corner of; iron post-----	854. 518
T. 8 N., Rs. 6 and 7 E., closing corner of; iron post-----	865. 218
T. 9 N., Rs. 5 and 6 E., standard corner of; iron post-----	845. 441
T. 8 N., Rs. 5 and 6 E., closing corner of; iron post-----	916. 992
Seminole-Oklahoma boundary, closing corner of Tps. 8 and 9 N., R. 5 E.; iron post-----	931. 54
Seminole-Oklahoma boundary, closing corner of Tps. 7 and 8 N., R. 5 E.; iron post-----	892. 088
Tps. 7 and 8 N., Rs. 5 and 6 E., corner of; iron post-----	903. 109
Tps. 7 and 8 N., Rs. 6 and 7 E., corner of; iron post-----	834. 061
Tps. 7 and 8 N., Rs. 7 and 8 E., corner of; iron post-----	958. 085

	Feet.
Tps. 6 and 7 N., Rs. 7 and 8 E., corner of; iron post.....	885.93
Tps. 6 and 7 N., Rs. 6 and 7 E., corner of; iron post.....	850.219
Tps. 6 and 7 N., Rs. 5 and 6 E., corner of; iron post.....	951.052
Seminole-Oklahoma boundary, closing corner of Tps. 5 and 6 N., R. 5 E.; iron post.....	1,056.695

**Sac and Fox 30' Quadrangle (comprising Agra, Chandler, Mallon, and Sac and Fox 15' quadrangles).**

[Latitude 35° 30'–36°; longitude 96° 30'–97°.]

#### LINCOLN COUNTY.

The level work in this quadrangle was done by W. R. Manning and E. L. Faison.

##### Along township lines.

	Feet.
Creek-Oklahoma boundary, closing corner of Tps. 17 and 18 N., R. 6 E.; iron post.....	830.313
Tps. 17 and 18 N., Rs. 6 and 7 E., corner of; in sandstone post, 48 by 8 by 6 inches, 45 inches in the ground; bronze tablet.....	840.155
Tps. 17 and 18 N., Rs. 7 and 8 E., corner of; iron post.....	921.435
T. 17 N., Rs. 7 and 8 E., standard corner of; iron post.....	949.307
T. 16 N., Rs. 7 and 8 E., closing corner of; iron post.....	956.793
T. 16 N., Rs. 6 and 7 E., closing corner of; iron post.....	962.832
Creek-Oklahoma boundary, standard corner of T. 17 N., Rs. 6 and 7 E. (which is also closing corner of Tps. 16 and 17 N., R. 6); iron post.....	977.295
Creek-Oklahoma boundary, closing corner of Tps. 15 and 16 N., R. 6 E.; iron post.....	835.402
Tps. 15 and 16 N., Rs. 6 and 7 E., corner of; iron post.....	844.658
Tps. 15 and 16 N., Rs. 7 and 8 E., corner of; iron post.....	815.15
Tps. 14 and 15 N., Rs. 7 and 8 E., corner of; iron post.....	765.915
Tps. 14 and 15 N., Rs. 6 and 7 E., corner of; iron post.....	878.491
Creek-Oklahoma boundary, closing corner of Tps. 14 and 15 N., R. 6 E.; iron post.....	861.016
Creek-Oklahoma boundary, closing corner of Tps. 13 and 14 N., R. 6 E.; iron post.....	788.57
Tps. 13 and 14 N., Rs. 6 and 7 E., corner of; iron post.....	784.411
Tps. 13 and 14 N., Rs. 7 and 8 E., corner of; iron post.....	774.044
T. 13 N., Rs. 7 and 8 E., standard corner of; iron post.....	862.455
T. 13 N., Rs. 6 and 7 E., standard corner of; iron post.....	868.482
Creek-Oklahoma boundary, closing corner of Tps. 12 and 13 N., R. 6 E.....	867.11

#### Pawnee Quadrangle.

[Latitude 36°–36° 30'; longitude 96° 30'–97°.]

#### PAWNEE AND PAYNE COUNTIES.

This bench mark was established by W. R. Manning on a double-rodged line.

	Feet.
T. 18 N., R. 6 E., corner of secs. 13 and 24, and T. 18 N., R. 7 E., corner of secs. 18 and 19, sandstone post, 35 by 6 by 6 inches; bronze tablet.....	780.287

<sup>1</sup> Redetermined by E. T. King in 1905.

## Hominy Quadrangle.

[Latitude 36°-36° 30'; longitude 96°-96° 30'.]

## CREEK, OSAGE, AND TULSA COUNTIES.

C. B. Odell ran the levels along the railroad, and he also had charge of an independent level party on township lines.

## Along St. Louis &amp; San Francisco R. R. from Red Fork to Sapulpa.

	Feet.
Red Fork, 3 miles south of, cut in capstone of south pier of bridge over Nickle Creek; square hole.....	731. 101
Sapulpa, into wall of Gladstone Hotel, 14 feet from east end and 3.5 feet above porch; bronze tablet.....	725. 749
Sapulpa, in sandstone post, 9 by 9 by 20 inches, buried flush with surface of ground, 11.5 feet from northwest corner of station; copper bolt.....	721. 391

## Along township lines.

Creek-Oklahoma boundary, closing corner of T. 19 N., Rs. 11 and 12 E.; iron post.....	739. 981
Tps. 18 and 19 N., Rs. 11 and 12 E., corner of; iron post.....	749. 431

## Addington Quadrangle.

[Latitude 34°-34° 30'; longitude 97° 30'-98°.]

## JEFFERSON AND STEPHENS COUNTIES.

The railroad levels were run by Robert Coe, who also had an independent party to run levels on the first standard parallel south. J. P. Walker, H. L. Baker, R. T. Carnall, R. Coe, and E. M. Fry did the leveling along township lines.

## From Comanche south along Chicago, Rock Island &amp; Pacific Ry. to Ryan.

	Feet.
Comanche, south of station building, between the platform and a telegraph pole; iron post.....	980. 023
Addington, in the northwest corner of top stone of north foundation and in second tier from front of water tank; square hole.....	917. 955
Addington, 4.5 miles south of, in coping stone on west end of south pier of bridge 3202 over Cow Creek, about 1,100 feet north of mile pole 499; square hole.....	<sup>1</sup> 883. 614
Sugden, 0.5 mile south of standard corner of T. 5 S., Rs. 7 and 8 W., about 1,600 feet west of intersection of railroad with first standard parallel south; iron post.....	<sup>1</sup> 844. 352
Ryan, 1 mile north of, on outside anchor bolt on west side of south pier of bridge 3212 over Beaver Creek.....	<sup>1</sup> 827. 525

## Along township lines.

Chickasaw Nation, west boundary of, closing corner of fractional Tps. 1 and 2 S., R. 8 W.; iron post.....	1, 096. 255
Tps. 1 and 2 S., Rs. 7 and 8 W., corner of; iron post.....	1, 123. 575
Tps. 1 and 2 S., Rs. 6 and 7 W., corner of; iron post.....	1, 127. 800
Tps. 1 and 2 S., Rs. 5 and 6 W., corner of; iron post.....	1, 082. 180

<sup>1</sup> Redetermined by Coast and Geodetic Survey.

	Feet.
Tps. 1 and 2 S., Rs. 4 and 5 W., corner of; iron post-----	1, 218. 530
Tps. 1 and 2 S., Rs. 3 and 4 W., corner of; iron post-----	1, 084. 979
Tps. 2 and 3 S., Rs. 3 and 4 W., corner of; iron post-----	1, 056. 532
Tps. 2 and 3 S., Rs. 4 and 5 W., corner of; iron post-----	967. 309
Tps. 2 and 3 S., Rs. 5 and 6 W., corner of; iron post-----	931. 839
Tps. 2 and 3 S., Rs. 6 and 7 W., corner of; iron post-----	988. 069
Tps. 2 and 3 S., Rs. 7 and 8 W., corner of; iron post-----	1, 062. 569
Chickasaw Nation, west boundary of, closing corner of fractional Tps. 2 and 3 S., R. 8 W.; iron post-----	1, 005. 699
Chickasaw Nation, west boundary of, closing corner of fractional Tps. 3 and 4 S., R. 8 W.; iron post-----	970. 45
Tps. 3 and 4 S., Rs. 7 and 8 W., corner of; iron post-----	908. 59
Tps. 3 and 4 S., Rs. 6 and 7 W., corner of; iron post-----	969. 52
Tps. 3 and 4 S., Rs. 5 and 6 W., corner of; iron post-----	857. 17
Tps. 3 and 4 S., Rs. 4 and 5 W., corner of; iron post-----	975. 27
Tps. 3 and 4 S., Rs. 3 and 4 W., corner of; iron post-----	1, 038. 589
Tps. 4 and 5 S., Rs. 3 and 4 W., corner of; iron post-----	848. 547
Tps. 4 and 5 S., Rs. 4 and 5 W., corner of; iron post-----	820. 407
Tps. 4 and 5 S., Rs. 5 and 6 W., corner of; iron post-----	900. 277
Tps. 4 and 5 S., Rs. 6 and 7 W., corner of; iron post-----	894. 499
Tps. 4 and 5 S., Rs. 7 and 8 W., corner of; iron post-----	945. 746
T. 5 S., Rs. 6 and 7 W., standard corner of; iron post-----	913. 525
T. 5 S., Rs. 5 and 6 W., standard corner of; iron post-----	846. 510
T. 5 S., Rs. 4 and 5 W., standard corner of; iron post-----	797. 690
T. 6 S., Rs. 4 and 5 W., closing corner of; iron post-----	785. 540
T. 5 S., Rs. 3 and 4 W., standard corner of; iron post-----	847. 920
T. 6 S., Rs. 3 and 4 W., closing corner of; iron post-----	809. 775
Chickasaw Nation, west boundary of, closing corner of fractional Tps. 4 and 5 S., R. 8 W.; iron post-----	871. 986
Chickasaw Nation, west boundary of, closing corner of First Stand- ard Parallel South, in R. 8 W. of the Chickasaw Survey; iron post--	904. 740

## Ardmore Quadrangle.

[Latitude 34°-34° 30'; longitude 97°-97° 30'.]

## CARTER, LOVE, AND MURRAY COUNTIES.

The railroad levels were run by A. F. Hassan and Robert Coe. J. H. Carlock, H. L. Baker, E. M. Fry, R. T. Carnall, and Robert Coe did the leveling along township lines.

From Overbrook north along Gulf, Colorado & Santa Fe Ry. to Dougherty.

	Feet.
Overbrook, 4.5 miles south of, 8 inches from west edge of west coping of north pier of bridge 338, over Little Hickory Creek; cross mark-----	669. 778
Overbrook, 0.2 mile northwest of, standard corner of T. 5 S., Rs. 1 and 2 E., 1,300 feet west of railroad; iron post-----	767. 855
Ardmore, 1 mile south of, intersection of railroad with township line, between Tps. 4 and 5 S., R. 2 E., near mile pole 449, 30 feet west of center of track; iron post-----	863. 595
Ardmore, in sandstone foundation of Noble Bros.' hardware store, at southeast angle of railroad crossing on Main Street; bronze tablet-----	874. 243



	Feet.
Ardmore, 6 miles north of, intersection of railroad with township line, between Tps. 3 and 4 S., R. 2 E., in line with telegraph poles, 50 feet south of second pole west of track; iron post.....	710.629
Berwyn, 3 miles north of, in east side of coping stone of north pier of bridge 402, over Cool Creek, near mile pole 464; copper bolt....	754.135
Dougherty, 2 miles north of, intersection of railway with township line, between Tps. 1 and 2 S., R. 2 E., 30 feet of track, 6 feet south of telegraph pole, 300 feet south of bridge 417, which is 3,000 feet south of mile pole 472; iron post.....	763.309

## Along township lines.

Tps. 1 and 2 S., Rs. 2 and 3 W., corner of; iron post.....	1,049.499
Tps. 1 and 2 S., Rs. 1 and 2 W., corner of; iron post.....	1,173.409
Tps. 1 and 2 S., Rs. 1 E. and 1 W., corner of; iron post.....	1,306.019
Tps. 1 and 2 S., Rs. 1 and 2 E., corner of; iron post.....	1,092.449
Tps. 1 and 2 S., Rs. 2 and 3 E., corner of; iron post.....	788.419
Tps. 2 and 3 S., Rs. 2 and 3 E., corner of; iron post.....	810.712
Tps. 2 and 3 S., Rs. 1 and 2 E., corner of; iron post.....	911.352
Tps. 2 and 3 S., Rs. 1 E. and 1 W., corner of; iron post.....	914.662
Tps. 2 and 3 S., Rs. 1 and 2 W., corner of; iron post.....	885.942
Tps. 2 and 3 S., Rs. 2 and 3 W., corner of; iron post.....	1,035.887
Tps. 3 and 4 S., Rs. 2 and 3 W., corner of; iron post.....	879.959
Tps. 3 and 4 S., Rs. 1 and 2 W., corner of; iron post.....	929.269
Tps. 3 and 4 S., Rs. 1 E. and 1 W., corner of; iron post.....	870.609
Tps. 3 and 4 S., Rs. 1 and 2 E., corner of; iron post.....	750.469
Tps. 3 and 4 S., Rs. 2 and 3 E., witness corner of; iron post.....	719.959
Tps. 4 and 5 S., Rs. 2 and 3 E., corner of; iron post.....	892.545
Tps. 4 and 5 S., Rs. 1 and 2 E., corner of; iron post.....	860.495
Tps. 4 and 5 S., Rs. 1 E. and 1 W., corner of; iron post.....	952.405
Tps. 4 and 5 S., Rs. 1 and 2 W., corner of; iron post.....	858.992
Tps. 4 and 5 S., Rs. 2 and 3 W., corner of; iron post.....	992.832
T. 5 S., Rs. 2 and 3 W., standard corner of; iron post.....	929.665
T. 6 S., Rs. 2 and 3 W., closing corner of; iron post.....	932.53
T. 5 S., Rs. 1 and 2 W., standard corner of; iron post.....	891.375
T. 6 S., Rs. 1 and 2 W., closing corner of; iron post.....	904.07
Indian meridian, intersection of first standard parallel south with, Tps. 5 and 6 S., Rs. 1 E. and 1 W.; iron post.....	820.169
T. 5 S., Rs. 2 and 3 E., standard corner of; iron post.....	819.711

## Tishomingo Quadrangle.

[Latitude 34°-34° 30'; longitude 96° 30'-97°.]

## JOHNSTON AND MARSHALL COUNTIES.

The leveling was done by W. R. Manning, H. L. Muldrow, jr., and J. H. Carlock.

## Along township lines.

	Feet.
Tps. 1 and 2 S., Rs. 3 and 4 E., corner of; iron post.....	1,054.089
Tps. 1 and 2 S., Rs. 4 and 5 E., corner of; iron post.....	1,037.559
Tps. 1 and 2 S., Rs. 5 and 6 E., corner of; iron post.....	1,037.839
Tps. 1 and 2 S., Rs. 6 and 7 E., corner of; iron post.....	968.879
Tps. 1 and 2 S., Rs. 7 and 8 E., corner of; iron post.....	740.643

	Feet.
Tps. 2 and 3 S., Rs. 7 and 8 E., corner of; iron post.....	784.372
Tps. 2 and 3 S., Rs. 6 and 7 E., corner of; iron post.....	846.812
Tps. 2 and 3 S., Rs. 5 and 6 E., corner of; iron post.....	893.122
Tps. 2 and 3 S., Rs. 4 and 5 E., in township corner stone, which is a stone in place; bronze tablet.....	905.012
Tps. 2 and 3 S., Rs. 3 and 4 E., corner of; iron post.....	860.182
Tps. 3 and 4 S., Rs. 3 and 4 E., corner of; iron post.....	780.849
Tps. 3 and 4 S., Rs. 4 and 5 E., corner of; iron post.....	811.349
Tps. 3 and 4 S., Rs. 5 and 6 E., corner of; iron post.....	696.399
Tps. 3 and 4 S., Rs. 6 and 7 E., corner of; iron post.....	719.939
Tps. 3 and 4 S., Rs. 7 and 8 E., corner of; iron post.....	728.119
Tps. 4 and 5 S., Rs. 7 and 8 E., corner of; iron post.....	738.245
Tps. 4 and 5 S., Rs. 6 and 7 E., corner of; iron post.....	600.555
Tps. 4 and 5 S., Rs. 5 and 6 E., corner of; iron post.....	787.325
Tps. 4 and 5 S., Rs. 4 and 5 E., corner of; iron post.....	794.875
Tps. 4 and 5 S., Rs. 3 and 4 E., corner of; iron post.....	859.875
T. 5 S., Rs. 3 and 4 E., standard corner of; iron post.....	731.830
T. 6 S., Rs. 4 and 5 E., closing corner of; iron post.....	873.666
T. 5 S., Rs. 4 and 5 E., standard corner of; iron post.....	861.906
T. 5 S., Rs. 5 and 6 E., standard corner of; iron post.....	689.277
T. 5 S., Rs. 6 and 7 E., standard corner of; iron post.....	756.615
T. 5 S., Rs. 7 and 8 E., standard corner of; iron post.....	659.241

## Atoka Quadrangle.

[Latitude 34°-34° 30'; longitude 96°-96° 30'.]

## ATOKA AND BRYAN COUNTIES.

The railroad levels were run by G. A. Purington and W. R. Manning. Robert Coe, W. R. Manning, and H. L. Muldrow, jr., did the leveling along township lines.

From Stringtown southwest along Missouri, Kansas & Texas Ry. to Armstrong.

	Feet.
Stringtown, 0.5 mile south of, 100 feet east of track and 1,000 feet south of mile pole 603, in 10-inch elm tree; nail.....	596.404
Atoka, 0.25 mile north of, in second coping stone from east side of north pier of bridge 367, over Muddy Boggy Creek; copper bolt...	542.175
Peck, 40 feet east of track, 350 feet south of mile pole 615, in 14- inch black-jack oak tree; nail.....	617.896
Caney, 0.5 mile north of, in first step of west side of south abutment of bridge 388, 500 feet south of mile pole 621; copper bolt.....	519.017
Caddo, 2 miles north of, in second coping stone from east side of south abutment of bridge 403, 1,800 feet north of mile pole 627; copper bolt.....	593.361
Armstrong, in first coping stone from north edge of north abutment of bridge 421, over Blue River, 600 feet north of the Armstrong switch; copper bolt.....	569.291

On Coalgate branch of Missouri, Kansas & Texas Ry.

Lehigh, southwest corner of Main Street and "Wild Cat Row," in stone of first layer of foundation near northeast corner of building owned by Joe Grillery; bronze tablet.....	595.119
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------

## Along township lines.

	Feet.
Chickasaw-Choctaw boundary line, closing corner of Tps. 1 and 2 S., R. 8 E., of the Chickasaw survey; iron post-----	668. 793
Chickasaw-Choctaw boundary line, closing corner of Tps. 1 and 2 S., R. 8 E., of the Choctaw survey; iron post-----	668. 383
Tps. 1 and 2 S., Rs. 8 and 9 E., corner of; iron post-----	621. 530
Tps. 1 and 2 S., Rs. 9 and 10 E., corner of; iron post-----	597. 371
Tps. 1 and 2 S., Rs. 10 and 11 E., corner of; iron post-----	593. 414
Tps. 1 and 2 S., Rs. 11 and 12 E., corner of; iron post-----	599. 56
Tps. 2 and 3 S., Rs. 11 and 12 E., corner of; iron post-----	600. 036
Tps. 2 and 3 S., Rs. 10 and 11 E., corner of; iron post-----	634. 862
Tps. 2 and 3 S., Rs. 9 and 10 E., corner of; iron post-----	535. 452
Tps. 2 and 3 S., Rs. 8 and 9 E., corner of; iron post-----	637. 182
Chickasaw-Choctaw boundary line, closing corner of Tps. 2 and 3 S., R. 8 E., of the Choctaw survey; iron post-----	708. 002
Chickasaw-Choctaw boundary line, closing corner of Tps. 2 and 3 S., R. 8 E., of the Chickasaw survey; iron post-----	765. 902
Chickasaw-Choctaw boundary line, closing corner of Tps. 3 and 4 S., R. 8 E., of the Chickasaw survey; iron post-----	655. 299
Chickasaw-Choctaw boundary line, closing corner of Tps. 3 and 4 S., R. 8 E., of the Choctaw survey; iron post-----	653. 459
Tps. 3 and 4 S., Rs. 8 and 9 E., corner of; iron post-----	720. 342
Tps. 3 and 4 S., Rs. 9 and 10 E., corner of; iron post-----	690. 787
Tps. 3 and 4 S., Rs. 10 and 11 E., corner of; iron post-----	504. 794
Tps. 3 and 4 S., Rs. 11 and 12 E., corner of; iron post-----	559. 429
T. 4 S., Rs. 11 and 12 E., standard corner of; iron post-----	524. 342
T. 5 S., Rs. 11 and 12 E., closing corner of; iron post-----	504. 702
T. 4 S., Rs. 10 and 11 E., standard corner of; iron post-----	644. 052
T. 5 S., Rs. 10 and 11 E., closing corner of; iron post-----	649. 857
T. 4 S., Rs. 9 and 10 E., standard corner of; iron post-----	634. 057
T. 5 S., Rs. 9 and 10 E., closing corner of; iron post-----	632. 017
Tps. 4 and 5 S., Rs. 8 and 9 E., standard corner of; intersection of 1st standard parallel south with the 2d guide meridian east; iron post-----	602. 087
Chickasaw-Choctaw boundary line, closing corner of Tps. 4 and 5 S., R. 8 E., of the Choctaw survey; iron post-----	670. 087
Chickasaw-Choctaw boundary line, closing corner of Tps. 4 and 5 S., R. 8 E., of the Chickasaw survey; iron post-----	670. 907
Chickasaw-Choctaw boundary line, closing corner of Tps. 5 and 6 S., R. 8 E., of the Chickasaw and Choctaw surveys; iron post-----	710. 747
Tps. 5 and 6 S., Rs. 8 and 9 E., corner of; iron post-----	633. 960
Tps. 5 and 6 S., Rs. 9 and 10 E., corner of; iron post-----	636. 050
Tps. 5 and 6 S., Rs. 10 and 11 E., corner of; iron post-----	605. 815
Tps. 5 and 6 S., Rs. 11 and 12 E., corner of; iron post-----	716. 155

## Antlers Quadrangle.

[Latitude 34°-34° 30'; longitude 95° 30'-96°.]

## ATOKA, CHOCTAW, AND PUSHMATAHA COUNTIES.

H. C. McCluer ran the railroad levels. Robert Coe, R. T. Carnall, F. E. Fellows, and W. P. Halliday did the leveling along township lines.

## From Butler south along St. Louis &amp; San Francisco R. R. to Goodland.

Feet.

Butler, 140 feet east of track, 400 feet south of mile pole 522, in 14-inch elm tree; nail.....	530. 266
Wadena, 0.3 mile north of, in west end of south abutment of bridge; square hole.....	493. 085
Wadena, 90 feet east of track, 200 feet south of milepost 527; 10-inch elm tree.....	487. 525
Kosoma, 0.3 mile south of, 60 feet west of track, 1,700 feet south of mile pole 531; 12-inch post oak tree.....	484. 906
Rodney, 90 feet east and 600 feet south of mile pole 537, in 10-inch post oak tree; nail.....	470. 236
Davenport, 0.3 mile south of, 100 feet east of track, opposite mile pole 539, 15-inch red oak tree; nail.....	476. 086
Antlers, in section corner stone, common to secs. 3, 4, 9, and 10, T. 4 S., R. 16 E., 28 feet north of northwest corner of Antlers court house; square hole.....	510. 656
Antlers, 4 miles south of, 100 feet west of track, 175 feet south of mile pole 546, in 8-inch black-jack tree; nail.....	560. 553
Hamden, 60 feet west of track, 50 feet east of mile pole 549, in 24-inch red oak tree; nail.....	466. 361
Goodland, 2 miles north of, 60 feet west of track, 275 feet south of mile pole 554; 20-inch red oak tree.....	495. 916
Goodland, 1,000 feet north of station, 60 feet right of track, 120 feet north of mile pole 556; 6-inch elm tree.....	493. 769

## Along township lines.

Tps. 1 and 2 S., Rs. 12 and 13 E., corner of; iron post.....	726. 43
Tps. 1 and 2 S., Rs. 13 and 14 E., corner of; iron post.....	844. 145
Tps. 1 and 2 S., Rs. 14 and 15 E., corner of; iron post.....	945. 5
Tps. 1 and 2 S., Rs. 15 and 16 E., in township corner stone, which is a "stone in place"; bronze tablet.....	699. 305
Tps. 1 and 2 S., Rs. 16 and 17 E., corner of; iron post.....	667. 305
Tps. 2 and 3 S., Rs. 16 and 17 E., corner of; iron post.....	619. 838
Tps. 2 and 3 S., Rs. 15 and 16 E., corner of; iron post.....	814. 300
Tps. 2 and 3 S., Rs. 14 and 15 E., corner of; iron post.....	664. 911
Tps. 2 and 3 S., Rs. 13 and 14 E., corner of; iron post.....	582. 696
Tps. 2 and 3 S., Rs. 12 and 13 E., corner of; iron post.....	607. 021
Tps. 3 and 4 S., Rs. 12 and 13 E., corner of; iron post.....	570. 309
Tps. 3 and 4 S., Rs. 13 and 14 E., corner of; iron post.....	498. 984
Tps. 3 and 4 S., Rs. 14 and 15 E., corner of; iron post.....	624. 034
Tps. 3 and 4 S., Rs. 15 and 16 E., corner of; iron post.....	567. 304
Tps. 3 and 4 S., Rs. 16 and 17 E., corner of; iron post.....	455. 314
T. 4 S., Rs. 16 and 17 E., standard corner; iron post.....	470. 74
T. 5 S., Rs. 16 and 17 E., closing corner of; iron post.....	505. 57
T. 4 S., Rs. 15 and 16 E., standard corner of; iron post.....	631. 700
T. 5 S., Rs. 15 and 16 E., closing corner of; iron post.....	622. 555
T. 4 S., Rs. 14 and 15 E., standard corner of; iron post.....	576. 365
T. 5 S., Rs. 14 and 15 E., closing corner of; iron post.....	533. 220
T. 4 S., Rs. 13 and 14 E., standard corner of; iron post.....	546. 070
T. 5 S., Rs. 13 and 14 E., closing corner of; iron post.....	533. 610
T. 4 S., Rs. 12 and 13 E., standard corner of; iron post.....	467. 290
T. 5 S., Rs. 12 and 13 E., closing corner of; iron post.....	467. 555
Tps. 5 and 6 S., Rs. 12 and 13 E., corner of; iron post.....	731. 190
Tps. 5 and 6 S., Rs. 13 and 14 E., corner of; iron post.....	525. 790

	Feet.
Tps. 5 and 6 S., Rs. 14 and 15 E., corner of; iron post-----	483. 550
Tps. 5 and 6 S., Rs. 15 and 16 E., corner of; iron post-----	518. 050
Tps. 5 and 6 S., Rs. 16 and 17 E., corner of; iron post-----	534. 070

**Alikchi Quadrangle.**

[Latitude 34°-34° 30'; longitude 95°-95° 30'.]

**CHOCTAW AND PUSHMATAHA COUNTIES.**

The leveling was done by F. E. Fellows, V. T. Rhyne, W. P. Halliday, Oscar Jones, and G. H. Bartlett.

**Along township lines.**

	Feet.
Tps. 1 and 2 S., Rs. 17 and 18 E., corner of; iron post-----	569. 805
Tps. 1 and 2 S., Rs. 18 and 19 E., corner of; iron post-----	1, 041. 572
Tps. 1 and 2 S., Rs. 19 and 20 E., corner of; iron post-----	815. 782
Tps. 1 and 2 S., Rs. 20 and 21 E., corner of; iron post-----	748. 835
Tps. 1 and 2 S., Rs. 21 and 22 E., corner of; iron post-----	949. 200
Tps. 2 and 3 S., Rs. 21 and 22 E., corner of; iron post-----	1, 255. 669
Tps. 2 and 3 S., Rs. 20 and 21 E., corner of; iron post-----	594. 711
Tps. 2 and 3 S., Rs. 19 and 20 E., corner of; iron post-----	703. 490
Tps. 2 and 3 S., Rs. 18 and 19 E., corner of; iron post-----	975. 402
Tps. 2 and 3 S., Rs. 17 and 18 E., corner of; iron post-----	506. 459
Tps. 3 and 4 S., Rs. 17 and 18 E., corner of; iron post-----	694. 886
Tps. 3 and 4 S., Rs. 18 and 19 E., corner of; iron post-----	611. 142
Tps. 3 and 4 S., Rs. 19 and 20 E., corner of; iron post-----	847. 537
Tps. 3 and 4 S., Rs. 20 and 21 E., corner of; iron post-----	531. 073
Tps. 3 and 4 S., Rs. 21 and 22 E., corner of; iron post-----	702. 352
T. 4 S., Rs. 21 and 22 E., standard corner of; iron post-----	561. 901
T. 5 S., Rs. 21 and 22 E., closing corner of; iron post-----	528. 905
T. 4 S., Rs. 20 and 21 E., standard corner of; iron post-----	535. 619
T. 5 S., Rs. 20 and 21 E., closing corner of; iron post-----	548. 238
T. 4 S., Rs. 19 and 20 E., standard corner of; iron post-----	695. 713
T. 5 S., Rs. 19 and 20 E., closing corner of; iron post-----	683. 573
T. 4 S., Rs. 18 and 19 E., standard corner of; iron post-----	461. 334
T. 5 S., Rs. 18 and 19 E., closing corner of; iron post-----	468. 157
T. 4 S., Rs. 17 and 18 E., standard corner of; iron post-----	414. 246
T. 5 S., Rs. 17 and 18 E., closing corner of; iron post-----	416. 185
Tps. 5 and 6 S., Rs. 17 and 18 E., corner of; iron post-----	413. 873
Tps. 5 and 6 S., Rs. 18 and 19 E., corner of; iron post-----	436. 519
Tps. 5 and 6 S., Rs. 19 and 20 E., corner of; iron post-----	435. 284
Tps. 5 and 6 S., Rs. 20 and 21 E., corner of; iron post-----	608. 413
Tps. 5 and 6 S., Rs. 21 and 22 E., corner of; iron post-----	392. 405

**Lukfata Quadrangle.**

[Latitude 34°-34° 30'; longitude 94° 30'-95°.]

**MCCURTAIN COUNTY.**

The leveling was done by F. E. Fellows, W. P. Halliday, Oscar Jones, and G. H. Bartlett.

**Along township lines.**

	Feet.
Tps. 1 and 2 S., Rs. 22 and 23 E., corner of; iron post-----	780. 96
Tps. 1 and 2 S., Rs. 23 and 24 E., corner of; iron post-----	1, 091. 900

	Feet.
Tps. 1 and 2 S., Rs. 24 and 25 E., corner of; iron post-----	962.320
Tps. 1 and 2 S., Rs. 25 and 26 E., corner of; iron post-----	759.920
Tps. 1 and 2 S., Rs. 26 and 27 E., corner of; iron post-----	1,022.109
Tps. 2 and 3 S., Rs. 26 and 27 E., corner of; iron post-----	1,173.596
Tps. 2 and 3 S., Rs. 25 and 26 E., corner of; iron post-----	1,047.413
Tps. 2 and 3 S., Rs. 24 and 25 E., corner of; iron post-----	891.402
Tps. 2 and 3 S., Rs. 23 and 24 E., corner of; iron post-----	946.702
Tps. 2 and 3 S., Rs. 22 and 23 E., corner of; iron post-----	741.549
Tps. 3 and 4 S., Rs. 22 and 23 E., corner of; iron post-----	744.973
Tps. 3 and 4 S., Rs. 23 and 24 E., corner of; iron post-----	820.362
Tps. 3 and 4 S., Rs. 24 and 25 E., corner of; iron post-----	687.497
Tps. 3 and 4 S., Rs. 25 and 26 E., corner of; iron post-----	631.196
Tps. 3 and 4 S., Rs. 26 and 27 E., corner of; iron post-----	<sup>1</sup> 1,086.419
T. 4 S., Rs. 26 and 27 E., standard corner of; iron post-----	808.691
T. 5 S., Rs. 26 and 27 E., closing corner of; iron post-----	829.448
T. 4 S., Rs. 25 and 26 E., standard corner of; iron post-----	646.731
T. 5 S., Rs. 25 and 26 E., closing corner of; iron post-----	592.008
T. 4 S., Rs. 24 and 25 E., standard corner of; iron post-----	759.221
T. 5 S., Rs. 24 and 25 E., closing corner of; iron post-----	683.751
T. 4 S., Rs. 23 and 24 E., standard corner of; iron post-----	752.946
T. 5 S., Rs. 23 and 24 E., closing corner of; iron post-----	740.116
T. 4 S., Rs. 22 and 23 E., standard corner of; iron post-----	643.431
T. 5 S., Rs. 22 and 23 E., closing corner of; iron post-----	751.146
Tps. 5 and 6 S., Rs. 22 and 23 E., corner of; iron post-----	461.475
Tps. 5 and 6 S., Rs. 23 and 24 E., corner of; iron post-----	494.122
Tps. 5 and 6 S., Rs. 24 and 25 E., corner of; iron post-----	471.085
Tps. 5 and 6 S., Rs. 25 and 26 E., corner of; iron post-----	451.733
Tps. 5 and 6 S., Rs. 26 and 27 E., corner of; iron post-----	<sup>1</sup> 487.457

**Dequeen Quadrangle.**

[Latitude 34° 30'; longitude 94°-94° 30'.]

**McCURTAIN COUNTY.**

	Feet.
Arkansas-Choctaw boundary line closing corner, first standard parallel south, between Tps. 4 and 5 S., R. 27 E., cross on stone corner-----	735.421

**Shawneetown Quadrangle.**

[Latitude 33° 30'-34°; longitude 94° 30'-95°.]

**McCURTAIN COUNTY.**

The leveling was done by G. H. Bartlett, W. P. Halliday, F. E. Fellows, and O. Jones.

**Along township and section lines.**

	Feet.
Tps. 6 and 7 S., Rs. 22 and 23 E., corner of; iron post-----	403.219
Tps. 6 and 7 S., Rs. 23 and 24 E., corner of; iron post-----	398.309
Tps. 6 and 7 S., Rs. 24 and 25 E., corner of; iron post-----	360.814
Tps. 6 and 7 S., Rs. 25 and 26 E., corner of; iron post-----	390.282
Tps. 6 and 7 S., Rs. 26 and 27 E., corner of; iron post-----	329.908

<sup>1</sup> Bulletin 458, pp. 24-25.

	Feet.
Tps. 7 and 8 S., Rs. 26 and 27 E., corner of; iron post.....	398.212
Tps. 7 and 8 S., Rs. 25 and 26 E., corner of; iron post.....	344.116
Tps. 7 and 8 S., Rs. 24 and 25 E., corner of; iron post.....	447.219
Tps. 7 and 8 S., Rs. 23 and 24 E., corner of; iron post.....	505.622
Tps. 7 and 8 S., Rs. 22 and 23 E., corner of; iron post.....	419.255
Red River, left bank of; meander corner of T. 8 S., Rs. 22 and 23 E., secs. 19 and 24, 12-inch mulberry trees, which is northeast-bearing tree to meander corner.....	366.427
T. 9 S., Rs. 23 and 24 E., closing corner of; iron post.....	358.174
T. 8 S., Rs. 23 and 24 E., standard corner of; iron post.....	353.124
T. 9 S., Rs. 24 and 25 E., closing corner of; iron post.....	411.892
T. 8 S., Rs. 24 and 25 E., standard corner of; iron post.....	384.307
T. 9 S., Rs. 25 and 26 E., closing corner of; iron post.....	413.175
T. 8 S., Rs. 25 and 26 E., standard corner of; iron post.....	422.708
T. 9 S., Rs. 26 and 27 E., closing corner of; iron post.....	402.327
T. 8 S., Rs. 26 and 27 E., standard corner of; iron post.....	402.157
Tps. 9 and 10 S., 26 and 27 E., corner of; iron post.....	353.927
Tps. 9 and 10 S., Rs. 25 and 26 E., corner of; iron post.....	335.072
Tps. 9 and 10 S., Rs. 24 and 25 E., witness corner of; iron post.....	338.989
Red River, left bank of, 850 feet south of Harris Ferry; witness cor- ner to Tps. 9 and 10 S., Rs. 24 and 25 E., on root of 16-inch bois d'arc tree; nail.....	343.833
Red River, left bank of; meander corner of T. 9 S., Rs. 23 and 24 E., secs. 25 and 30; iron post.....	352.029

#### Horatio Quadrangle.

[Latitude 33° 45'-34° 15'; longitude 94° 15'-94° 30'.]

#### MCCURTAIN COUNTY.

Arkansas-Oklahoma boundary, closing corner, Tps. 7 and 8 S., R. 27 E.; iron post.....	402.38
Arkansas-Oklahoma boundary, closing corner, second standard paral- lel south, between Tps. 8 and 9 S., R. 27 E.; nail in root of bearing tree.....	395.555

#### Clarksville Quadrangle.

[Latitude 33° 30'-34°; longitude 95°-95° 30'.]

#### CHOCTAW COUNTY.

H. C. McCluer ran the railroad levels. J. H. Carlock, W. P. Halliday, and Oscar Jones did the leveling along township and section lines.

#### On the St. Louis & San Francisco R. R.

	Feet.
Arthur, Tex., 0.5 mile north of, in east coping stone of north abut- ment of bridge 440; copper bolt stamped 420.....	421.793

#### Along township and section lines.

Tps. 6 and 7 S., Rs. 17 and 18 E., corner of; iron post.....	515.662
Tps. 6 and 7 S., Rs. 18 and 19 E., corner of; iron post.....	391.369
Tps. 6 and 7 S., Rs. 19 and 20 E., corner of; iron post.....	399.483

# PRIMARY LEVELING.

51

	Feet.
Tps. 6 and 7 S., Rs. 20 and 21 E., corner of; iron post.....	453. 767
Tps. 6 and 7 S., Rs. 21 and 22 E., corner of; iron post.....	472. 276
Red River, on left bank of. meander corner between sec. 13, T. 7 S., R. 20 E., and sec. 18, T. 7 S., R. 21 E.; iron post.....	377. 754
Red River, on left bank of. meander corner between sec. 35, T. 7 S., R. 19 E., and sec. 2, T. 8 S., R. 19 E.; iron post.....	396. 641
Tps. 7 and 8 S., Rs. 18 and 19 E., corner of; iron post.....	485. 511
Tps. 7 and 8 S., Rs. 17 and 18 E., corner of; iron post.....	416. 361

## Paris Quadrangle.

[Latitude 33° 30'-34°; longitude 95° 30'-96°.]

## CHOCTAW COUNTY.

The levels were run by H. C. McCluer and J. H. Carlock.

From Grant south along St. Louis & San Francisco R. R. to Lenoir.

	Feet.
Grant, 0.25 mile south of, 50 feet west of track, 35 feet south of mile pole 564; 8-inch red oak tree.....	465. 78
Lenoir, 40 feet east of track and 350 feet south of mile pole 573; 8-inch post oak tree.....	528. 119

## Along township and section lines.

Tps. 6 and 7 S., Rs. 12 and 13 E., corner of; iron post.....	596. 712
Tps. 6 and 7 S., Rs. 13 and 14 E., corner of; iron post.....	604. 572
Tps. 6 and 7 S., Rs. 14 and 15 E., corner of; iron post.....	536. 282
Tps. 6 and 7 S., Rs. 15 and 16 E., corner of; iron post.....	486. 172
Tps. 6 and 7 S., Rs. 16 and 17 E., corner of; iron post.....	503. 002
Red River, meander corner between sec. 32, T. 7 S., and sec. 5. T. 8 S., R. 17 E.; iron post.....	414. 091

## Bonham Quadrangle.

[Latitude 33° 30'-34°; longitude 96°-96° 30'.]

## BRYAN COUNTY.

W. R. Manning and H. C. McCluer ran the railroad levels. W. R. Manning, H. L. Baker, and J. H. Carlock did the leveling along township lines.

From Durant along Missouri, Kansas & Texas Ry. to Colbert.

	Feet.
Durant, 0.4 mile south of, in second coping stone from the west, 1.7 feet from the north edge and 3.3 feet from the west edge of first coping stone of the north abutment of bridge 430, over Mineral Bayou; copper bolt.....	621. 092

## Along township lines.

Chickasaw-Choctaw boundary line, closing corner Tps. 6 and 7 S., R. 8 E., of the Choctaw survey; iron post.....	719. 556
Tps. 6 and 7 S., Rs. 8 and 9 E., corner of; iron post.....	670. 235
Tps. 6 and 7 S., Rs. 9 and 10 E., corner of; iron post.....	627. 352
Tps. 6 and 7 S., Rs. 10 and 11 E., corner of; iron post.....	567. 622
Tps. 6 and 7 S., Rs. 11 and 12 E., corner of; iron post.....	535. 862
Chickasaw-Choctaw boundary line, closing corner Tps. 7 and 8 S., R. 8 E., of Chickasaw survey; iron post.....	621. 137



	Feet.
Tps. 8 and 9 S., Rs. 8 and 9 E., corner of; iron post-----	626.566
Tps. 8 and 9 S., Rs. 9 and 10 E., corner of; iron post-----	643.386
Tps. 8 and 9 S., Rs. 10 and 11 E., corner of; iron post-----	495.896

**Denison Quadrangle.**

[Latitude 33° 30'-34°; longitude 96° 30'-97°.]

**MARSHALL COUNTY.**

The railroad levels were run by W. R. Manning, H. C. McCluer, R. T. Carnall, and A. F. Hassan. J. H. Carlock did the leveling along township and section lines.

**Along township and section lines.**

	Feet.
Tps. 6 and 7 S., Rs. 3 and 4 E., corner of; iron post-----	663.968
Tps. 6 and 7 S., Rs. 4 and 5 E., corner of; iron post-----	762.847
Tps. 6 and 7 S., Rs. 5 and 6 E., corner of; iron post-----	751.597
Tps. 6 and 7 S., Rs. 6 and 7 E., corner of; iron post-----	585.707
Tps. 6 and 7 S., Rs. 7 and 8 E., corner of; iron post-----	686.117
Tps. 7 and 8 S., Rs. 7 and 8 E., corner of; iron post-----	670.317
Red River, meander corner on, T. 7 S., R. 7 E., sec. 33, and T. 8 S., R. 7 E., sec. 4; on stone-----	543.917
Red River, meander corner on, between T. 7 S., R. 6 E., sec. 33, and T. 8 S., R. 6 E., sec. 4; on stone-----	551.431
Tps. 7 and 8 S., Rs. 5 and 6 E., corner of; iron post-----	727.421
Tps. 7 and 8 S., Rs. 4 and 5 E., corner of; iron post-----	723.071
Red River, meander corner on, between T. 7 S., R. 4 E., sec. 33, and T. 8 S., R. 4 E., sec. 4; on stone-----	570.661
Red River, meander corner on, between T. 7 S., R. 4 E., sec. 7, and T. 7 S., R. 3 E., sec. 12; iron post-----	594.758
Red River, meander corner on, between T. 7 S., R. 3 E., sec. 34, and T. 8 S., R. 3 E., sec. 3; on stone-----	606.526
Red River, meander corner on, between T. 8 S., R. 4 E., sec. 12, and T. 8 S., R. 4 E., sec. 7; iron post-----	578.420
Red River, meander corner on, between T. 8 S., R. 5 E., sec. 25, and T. 8 S., R. 6 E., 8 sec. 30; iron post-----	562.821
Red River, meander corner on, between T. 8 S., R. 8 E., sec. 31, and T. 9 S., R. 8 E., sec. 6; iron post-----	531.116

**Near Colbert.**

Colbert, 2.8 miles south of; in first step of the north abutment of bridge 451, over Red River; copper bolt 1.3 feet from north edge, 1 foot from south edge, and 0.9 foot from west edge-----	551.879
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------

**Gainesville Quadrangle.**

[Latitude 33° 30'-34°; longitude 97°-97° 30'.]

**LOVE COUNTY.**

The railroad levels were run by R. T. Carnall and Robert Coe. J. H. Carlock and R. T. Carnall did the leveling along township and section lines.

## At Marietta.

	Feet.
Marietta, near middle of east face of second stone above foundation at northeast corner of two-story stone store, owned and occupied by S. S. Evants; bronze tablet-----	846.420

## Along township and section lines.

Tps. 6 and 7 S., Rs. 2 and 3 W., corner of; iron post-----	922.810
Tps. 6 and 7 S., Rs. 1 and 2 W., corner of; iron post-----	772.048
Tps. 6 and 7 S., Rs. 1 W. and 1 E., corner of; iron post-----	919.128
Tps. 6 and 7 S., Rs. 1 and 2 E., corner of; iron post-----	798.118
Tps. 6 and 7 S., Rs. 2 and 3 E., corner of; iron post-----	664.278
Tps. 7 and 8 S., Rs. 2 and 3 E., corner of; iron post-----	739.136
Tps. 7 and 8 S., Rs. 1 and 2 E., corner of; iron post-----	781.736
Red River, meander corner on, between sec. 34, T. 7 S., R. 1 E., and sec. 3, T. 8 S., R. 1 E.; on stone-----	672.496
Red River, meander corner on, between sec. 31, T. 7 S., R. 1 E., and sec. 36, T. 7 S., R. 1 W.; on stone-----	677.768
Red River, meander corner on, between sec. 36, T. 7 S., R. 1 W., and sec. 1, T. 8 S., R. 1 W.; iron post-----	679.281
Tps. 7 and 8 S., Rs. 1 and 2 W., corner of; iron post-----	829.008
Red River, meander corner on, between sec. 31, T. 7 S., R. 2 W., and sec. 6, T. 8 S., R. 2 W.; iron post-----	722.500
Red River, meander corner on, between sec. 31, T. 7 S., R. 2 W., and sec. 36, T. 7 S., R. 3 W.; iron post-----	724.300
Red River, meander corner on, between sec. 13, T. 8 S., R. 2 W., and sec. 18, T. 8 S., R. 1 W.; iron post-----	698.600
Red River, meander corner on, between sec. 34, T. 8 S., R. 1 E., and sec. 3, T. 9 S., R. 1 E.; on stone-----	660.336
Tps. 8 and 9 S., Rs. 1 and 2 E., corner of; iron post-----	666.356
Red River, meander corner on, between sec. 34, T. 8 S., R. 2 E., and sec. 3, T. 9 S., R. 2 E.; on stone-----	629.306
Red River, meander corner on, between sec. 24, T. 8 S., R. 2 E., and sec. 19, T. 8 S., R. 3 E.; on stone-----	614.086

## Montague Quadrangle.

[Latitude 33° 30'-34°; longitude 97° 30'-98°.]

## JEFFERSON COUNTY.

Robert Coe ran the railroad levels. J. P. Walker and Robert Coe did the leveling along township and section lines.

## From Ryan along Chicago, Rock Island &amp; Pacific Ry. to Terral.

	Feet.
Terral, 1 mile south of, in west end of north pier of bridge 3219, over Red River; copper bolt-----	809.168

## Along township and section lines.

Red River, meander corner on, between sec. 32, T. 6 S., R. 7 W., and sec. 5, T. 7 S., R. 7 W.; iron post-----	814.996
Tps. 6 and 7 S., Rs. 6 and 7 W., corner of; iron post-----	929.023
Tps. 6 and 7 S., Rs. 5 and 6 W., corner of; iron post-----	854.832

<sup>1</sup> Redetermined by Coast and Geodetic Survey precise leveling.

	Feet.
Red River, meander corner on, between sec. 35, T. 6 S., R. 5 W., and sec. 2, T. 7 S., R. 5 W.; iron post-----	763.681
Red River, meander corner on, between sec. 33, T. 6 S., R. 4 W., and sec. 4, T. 7 S., R. 4 W.; iron post-----	749.300
Tps. 6 and 7 S., Rs. 3 and 4 W., corner of; iron post-----	810.255
Red River, meander corner on, between sec. 31, T. 7 S., R. 3 W., and sec. 36, T. 7 S., R. 4 W.; iron post-----	731.200
Red River, meander corner on, between sec. 35, T. 7 S., R. 6 W., and sec. 2, T. 8 S., R. 6 W.; iron post-----	774.220
Tps. 7 and 8 S., Rs. 6 and 7 W., corner of; iron post-----	887.929
Red River, meander corner on, between sec. 31, T. 7 S., R. 7 W., and sec. 6, T. 8 S., R. 7 W.; iron post-----	801.216
Red River, meander corner on, between sec. 18, T. 8 S., R. 6 W., and sec. 13, T. 8 S., R. 7 W.; iron post-----	794.136

**Addington, Rush Springs, and Chickasha Quadrangles.**

**CANADIAN, GRADY, JEFFERSON, AND STEPHENS COUNTIES.**

The leveling was done by W. A. Lindsay in 1898.

**ADDINGTON QUADRANGLE.**

[Latitude 34°-34° 30'; longitude 97° 30'-98°.]

**Along ninety-eighth meridian between Red and Canadian rivers.**

	Feet.
Initial point, concrete pier, stamped "854"-----	854.525
Milepost 1, stamped "913"-----	913.228
Milepost 2, stamped "927"-----	927.017
Milepost 3, stamped "863"-----	863.232
Milepost 4, stamped "889"-----	900.386
Milepost 5, stamped "933"-----	933.482
Milepost 6, stamped "910"-----	910.157
Milepost 7, stamped "868"-----	868.175
Milepost 8, stamped "882"-----	882.022
Milepost 9, stamped "868"-----	868.115
Milepost 10, stamped "875"-----	874.887
Milepost 11, stamped "883"-----	882.847
Milepost 12, stamped "884"-----	883.911
Milepost 13, stamped "895"-----	893.794
Milepost 14, stamped "897"-----	897.535
Milepost 15, stamped "931"-----	931.407
Milepost 16, stamped "973"-----	973.605
Milepost 17, stamped "979"-----	979.286
Milepost 18, stamped "972"-----	971.915
Milepost 19, stamped "939"-----	939.550
Milepost 20, stamped "945"-----	945.547
Milepost 21, stamped "1007"-----	1,007.607
Milepost 22, stamped "1017"-----	1,017.901
Milepost 23, stamped "1034"-----	1,034.513
Milepost 24, stamped "1034"-----	1,034.138
Milepost 25, stamped "1054"-----	1,054.409
Milepost 26, stamped "1075"-----	1,075.857
Milepost 27, stamped "1074"-----	1,074.373

<sup>1</sup> By Coast and Geodetic Survey precise leveling.

	Feet.
Milepost 28, stamped "1070"-----	1, 070. 798
Milepost 29, stamped "1127"-----	1, 127. 802
Milepost 30, stamped "1135"-----	1, 135. 799
Milepost 31, stamped "1143"-----	1, 143. 329
Milepost 32, stamped "1121"-----	1, 121. 457
Milepost 33, stamped "1104"-----	1, 104. 083

## RUSH SPRINGS QUADRANGLE.

[Latitude 34° 30'–35°; longitude 97° 30'–98°.]

	Feet.
Milepost 34, stamped "1137"-----	1, 137. 830
Milepost 35, stamped "1144"-----	1, 144. 452
Milepost 36, stamped "1147"-----	1, 147. 396
Milepost 37, stamped "1170"-----	1, 170. 249
Milepost 38, stamped "1211"-----	1, 211. 493
Milepost 39, stamped "1213"-----	1, 213. 249
Milepost 40, stamped "1206"-----	1, 206. 636
Milepost 41, stamped "1151"-----	1, 151. 480
Milepost 42, stamped "1196"-----	1, 196. 323
Milepost 43, stamped "1204"-----	1, 203. 928
Milepost 44, stamped "1237"-----	1, 237. 232
Milepost 45, stamped "1269"-----	1, 269. 883
Tps. 2 and 3 N., R. 8 W., closing corner of; stamped "1244"-----	1, 244. 761
Milepost 46, stamped "1243"-----	1, 243. 625
Milepost 47, stamped "1235"-----	1, 235. 373
Milepost 48, stamped "1241"-----	1, 241. 275
Milepost 49, stamped "1260"-----	1, 260. 260
Milepost 50, stamped "1297"-----	1, 297. 834
Milepost 51, stamped "1279"-----	1, 279. 632
Milepost 52, stamped "1357"-----	1, 357. 185
T. 3 N., R. 8 W., closing corner of; stamped "1361"-----	1, 361. 241
Tps. 3 and 4 N., R. 7 and 8 W., corner of; stamped "1362"-----	1, 362. 787
Milepost 53, stamped "1365"-----	1, 366. 086
Milepost 54, stamped "1356"-----	1, 356. 959
Milepost 55, stamped "1335"-----	1, 335. 513
Milepost 56, stamped "1308"-----	1, 308. 351
Milepost 57, stamped "1256"-----	1, 256. 371
Milepost 58, stamped "1328"-----	1, 328. 726
T. 5 N., Rs. 7 and 8 W., standard corner of; stamped "1333"-----	1, 333. 386
T. 4 N., Rs. 7 and 8 W., closing corner of; stamped "1307"-----	1, 307. 543
Milepost 59, stamped "1267"-----	1, 267. 795
Milepost 60, stamped "1232"-----	1, 233. 203
Milepost 61, stamped "1127"-----	1, 127. 287
Milepost 62, stamped "1114"-----	1, 114. 241
Milepost 63, stamped "1185"-----	1, 185. 922
Milepost 64, stamped "1174"-----	1, 174. 647
Tps. 5 and 6 N., Rs. 7 and 8 W., corner of; stamped "1130"-----	1, 130. 890
Milepost 65, stamped "1176"-----	1, 176. 671
Milepost 66, stamped "1245"-----	1, 246. 324
Milepost 67, stamped "1282"-----	1, 282. 534

<sup>1</sup>By Coast and Geodetic Survey precise leveling.

## CHICKASHA QUADRANGLE.

[Latitude 35°-35° 30'; longitude 97° 30'-98°.]

	Feet.
Milepost 68, stamped "1181"-----	1, 182. 130
Milepost 69, stamped "1217"-----	1, 217. 382
Milepost 70, stamped "1188"-----	1, 189. 160
Milepost 71, stamped "1207"-----	1, 208. 193
Milepost 72, stamped "1108"-----	1, 108. 901
Milepost 73, stamped "1105"-----	1, 105. 532
Milepost 74, stamped "1098"-----	1, 098. 920
Milepost 75, stamped "1116"-----	1, 116. 686
Milepost 76, stamped "1160"-----	1, 160. 696
Tps. 7 and 8 N., Rs. 7 and 8 W., corner of; stamped "115s"-----	1, 159. 190
Milepost 77, stamped "1197"-----	1, 198. 099
Milepost 78, stamped "1185"-----	1, 185. 805
Milepost 79, stamped "1177"-----	1, 178. 117
Milepost 80, stamped "1210"-----	1, 210. 745
Milepost 81, stamped "1259"-----	1, 260. 310
Milepost 82, stamped "1290"-----	1, 291. 089
Tps. 8 and 9 N., R. 8 W., fractional closing corner of; on second standard parallel north, stamped "1293"-----	1, 294. 545
T. 9 N., Rs. 7 and 8 W., standard corner of; stamped "1239"-----	1, 240. 036
T. 8 N., Rs. 7 and 8 W., closing corner of; stamped "1234"-----	1, 234. 829
Milepost 83, stamped "1293"-----	1, 293. 959
Milepost 84, stamped "1294"-----	1, 295. 479
Milepost 85, stamped "1307"-----	1, 308. 374
Milepost 86, stamped "1357"-----	1, 358. 056
Milepost 87, stamped "1411"-----	1, 411. 691
Milepost 88, stamped "1327"-----	1, 328. 409
Tps. 9 and 10 N., Rs. 7 and 8 W., corner of; stamped "1408"-----	1, 409. 596
Milepost 98, stamped "1301"-----	1, 301. 678
Milepost 90, stamped "1366"-----	1, 367. 562
Milepost 91, stamped "1402"-----	1, 403. 537
Milepost 92, stamped "1320"-----	1, 321. 376
Witness corner to M. C., stamped "1300"-----	1, 301. 102
Meander corner, on south bank of Canadian River, stamped "1274"-----	1, 275. 132

## Pawhuska Quadrangle.

[Latitude 36° 30'-37°; longitude 96°-96° 30'.]

## OSAGE COUNTY.

The elevations in the following list were determined by primary leveling extended from the old bench marks along the Osage-Cherokee boundary, the heights of which were determined by a readjustment of leveling in Nowata quadrangle.

The closure errors of this work were excessive and two lines, closing on Osage-Cherokee boundary bench marks on the north and south side of T. 28 N., R. 12 E., are still unadjusted.

The leveling was done in 1908 by H. G. Parry, and in 1912 by H. L. Caldwell and R. M. Copeland.

---

<sup>1</sup> By Coast and Geodetic Survey precise leveling.

From Tps. 25 and 26 N., R. 12 E., on Osage-Cherokee boundary line, west and northwest to Okesa.

	Feet.
Reservation boundary, 1 mile west of, 20 feet south of well No. 10, lot No. 3, of Uncle Sam Oil Co., at bottom of large ravine, in foot of 16-inch oak tree; spike marked "779"-----	777.41
Reservation boundary, 1.2 miles west of, 4 feet west of north-south road on top of ridge, 0.2 mile west of Uncle Sam Oil Co. Well No. 12; spike in foot of jack oak tree, marked "934.4"-----	933.27
T. 25 N., R. 11 E., at northeast corner; iron post stamped "932" (General Land Office post)-----	931.222
T. 25 N., R. 11 E., northeast corner of sec. 2; iron post stamped "916.2" (General Land Office post)-----	915.192
T. 25 N., R. 11 E., at quarter corner north side of sec. 2; iron post stamped "843.9" (General Land Office post)-----	842.913
T. 25 N., R. 11 E., northeast corner of sec. 3; small iron post stamped "807" (General Land Office post)-----	806.016
Intersection of township line and Rock Creek, 1.3 miles northwest of, on wagon road from Rock Creek to Okesa, 20 feet north of road, 0.2 mile north of lone oil well, in top of flat rock marked by mound and blazed tree; aluminum tablet stamped "969"-----	963.036

From Tps. 26 and 27 N., R. 12 E., about 2.3 miles southwest of Bartlesville, southwest along Missouri, Kansas & Texas Ry. to Okesa.

Sand Creek, east end of bridge across, south of track, on top of stone coping, marked "692.8"-----	691.51
Bartlesville, 6.4 miles southwest of, four telegraph poles south of milepost 204, west side of right of way, 500 feet south of old wagon road creek crossing; iron post stamped "726.2"-----	724.797

From Okesa southwest along Missouri, Kansas & Texas Ry. to Nelagoney, thence southeast along Midland Valley R. R. to Nichols siding.

Okesa, in front of station door; top of rail-----	721.8
Okesa, 0.9 mile southwest of, 100 feet south of track, 60 feet east of wagon road, 200 feet southeast of trestle, in top of large flat rock marked by mound; aluminum tablet stamped "757"-----	756.203
Okesa, 4.1 miles southwest of, on base of milepost 212 (telegraph pole); 60-d. spike marked "903.2" (on opposite side of post is railroad bench mark)-----	902.40
Railroad bench mark on above-described milepost 212-----	902.92
Tps. 25 and 26 N., Rs. 10 and 11 E., corner of townships; probably an iron post stamped "948.6"-----	947.129
Okesa, 5 miles southwest of, 100 feet west of track at north end of cut, 1,200 feet south of road crossing, on slope of hill, in top of large boulder; aluminum tablet stamped "890"-----	889.155
Nelagoney, 1.5 miles northeast of, 40 feet north of first telegraph post north of milepost 216, on west side of right of way, 6 feet from fence, in top of large boulder 6 by 10 feet and 4 feet above ground; aluminum tablet stamped "796"-----	795.077
Nelagoney, 1,000 feet east of, at south end of railroad bridge across Bird Creek, on top of stone abutment marked "773.3"-----	772.47
Nelagoney, 0.7 mile south of, west of road at crossing, north of wagon road; iron post stamped "763"-----	762.929

Feet.

Bigheart, 2.6 miles north of, west side of track, on top of small hill and above cut, 400 feet north of private-road crossing, in top of sandstone rock 6 by 6 by 5 feet; aluminum tablet stamped "771"-----	770.822
T. 24 N., R. 10 E., 15 feet south of northwest corner of sec. 1; iron post stamped "775"-----	775.085
Bigheart, 1.2 miles south of, 0.3 mile north of Birch Creek bridge, 150 feet west of track, on hillside, in top of rock 6 by 10 by 2 feet marked by mound; aluminum tablet stamped "740"-----	740.065
Nichols siding, 1.5 miles north of, on east side of track, in cut, on point of rock, marked "729.4"-----	729.43

From Nichols siding east to Tps. 23 and 24 N., Rs. 12 and 13 E.

T. 24 N., R. 11 E., 135 feet west of corner of secs. 32 and 33, on township line, 100 feet west of Midland Valley R. R. at Nichols siding and water tank, in top of flat rock 6 by 8 by 1.5 feet; aluminum tablet stamped "721"-----	720.663
T. 24 N., R. 11 E., secs 32 and 33, on township line; small iron post stamped "712.2" (General Land Office post)-----	712.26
T. 24 N., R. 11 E., 500 feet east of corner of secs. 35 and 36, on township line, south edge of scattered timber, in top of flat rock flush with ground, marked by mound and blazed tree; aluminum tablet stamped "800"-----	800.121
Tps. 23 and 24 N., Rs. 11 and 12 E.; iron post stamped "729" (General Land Office post)-----	729.186
T. 24 N., R. 12 E., corner of secs. 32 and 33, on township line, in creek bottom flush with ground, elevation marked on witness tree "681.2"; top of small iron post (General Land Office post)-----	681.282

From Nelagoney southwest along Missouri, Kansas & Texas Ry. to Wynona, thence southeast to point 7.6 miles east of Wynona, and from point 1 mile west of Nichols siding to Nichols siding.

Nelagoney, at railroad crossing; top of rail-----	770.15
Nelagoney, 1.1 miles southwest of railroad crossing, at road crossing, corner of fence west of railroad and south of wagon road; iron post stamped "798"-----	797.118
Tps. 24 and 25 N., Rs. 9 and 10 E., 300 feet east of railroad, 300 feet south of road; township corner post (General Land Office post)---	894.746
Nelagoney, 5.5 miles southwest of, fourth telegraph post north of milepost 222, 100 feet west of big cut, top of grade, among large loose rocks, in top of flat rock 2 by 4 by 0.4 feet, marked by mound; aluminum tablet stamped "874"-----	873.329
Nelagoney, 8.5 miles southwest of, at crossing of Wynona-Pawhuska road, south of railroad, east of wagon road, 5 feet from telegraph pole; iron post stamped "858"-----	857.113
Wynona, in front of station; top of rail-----	885.97

NOTE.—An excessive error has been distributed in the remainder of this line to Nichols siding.

Wynona, 1 mile southeast of, on Avant wagon road, 10 feet south of road, on level prairie; iron post stamped "935"-----	934.196
Wynona, 3.5 miles east of, at brow of ridge, 8 feet south of road, in open place in scattering timber; iron post stamped "942"-----	941.367
Wynona, 5.7 miles east of, 0.4 mile east of forks of three roads, Hominy-Avant-Wynona, 200 feet east of main Avant road, on branch to Bigheart, 10 feet west of road; spike in base of 42-inch oak tree, marked "1008.5"-----	1,008.00

	Feet.
Wynona, 6.3 miles east of, 0.7 mile north of forks of Wynona-Bigheart-Avant roads, on Bigheart road, 20 feet east of road; iron post stamped "988"-----	987.524
From Wynona southwest, thence north and northwest to Foster.	
Tps. 23 and 24 N., R. 9 E., corner of secs. 5 and 31, top of iron post; paint point marked "829.3"-----	828.480
Tps. 23 and 24 N., Rs. 8 and 9, corner of; probably iron post stamped "792.3"-----	791.483
T. 24 N., Rs. 8 and 9 E., 250 feet distant N. 30° W. of corner of secs. 13 and 19, in top of sandstone rock 8 by 3 feet and 4 feet above ground; aluminum tablet stamped "956.9", marked with paint-----	956.117
In deep ravine course, 6 feet east of drain, in foot of oak tree; head of spike marked "859.3"-----	858.55
Foraker-Wynona and Blackburn-Pawhuska roads, in first fence east of crossing, 20 feet west of gate, 10 feet southwest of road; probably an iron post marked "1020.6"-----	1,019.863
Wynona, 9 miles northwest of, on wagon road 0.5 mile southeast of second gate east of Rs. 7 and 8 E., on this road, 40 feet south of road, 10 feet southwest of next following bench mark, marked by monument; iron post stamped "1066.2"-----	1,065.496
T. 25 N., Rs. 7 and 8 E., 4 feet north of quarter corner between secs. 24 and 19; iron post stamped "1069.4"-----	1,068.629
Tps. 25 and 26 N., Rs. 7 and 8 E., corner of townships; probably an iron post stamped "1015.6"-----	1,014.856
T. 26 N., Rs. 7 and 8 E., 2 feet north of corner of secs. 13 and 19; probably an iron post stamped "1038"-----	1,037.263
Tps. 26 and 27 N., Rs. 7 and 8 E., corner of townships; probably an iron post stamped "967.8"-----	967.086
Tps. 26 and 27 N., Rs. 7 and 8 E., 1.3 miles north of corner of townships, near top of long flat ridge, head of coulee, S. 15° E. course, on rock, marked by rock monument; point marked "1114.6"-----	1,113.81
From Nelagoney northwest along Midland Valley R. R. to Foster.	
Nelagoney, 2.4 miles northwest of, 450 feet north of railroad, 100 feet north of Nelagoney-Pawhuska wagon road, about 700 feet west of line between ranges 9 and 10 E., 1,000 feet east of road crossing, in top of rock 4 by 8 feet and 2 feet above ground, marked by monument; aluminum tablet stamped "795"-----	794.155
Pawhuska, east side of, on townsite line, 30 feet south of Pawhuska-Nelagoney wagon road, corner of railroad right of way; iron post stamped "812"-----	811.20
Pawhuska, in front of door of Midland Valley R. R. station; top of rail-----	813.3
Pawhuska, on door step of old Agency building-----	816.75
Pawhuska, 3.5 miles northwest of, 0.3 mile northwest of Savage's house, on point of hill sloping south, 40 feet north of railroad, 8 feet north of fence corner, in top of sandstone boulder 6 by 10 feet and 4 feet above ground, marked by mound; aluminum tablet stamped "834"-----	833.170
Pawhuska, 6.3 miles northwest of, 150 feet north of road crossing, 12 feet east of road, 40 feet west of Conway's house, in top of sandstone ledge 10 by 60 feet and 8 feet above ground; aluminum tablet stamped "875"-----	874.216



	Feet.
Pawhuska, 9.4 miles northwest of, 1.3 miles northwest of Myers siding, 60 feet south of railroad, 10 feet west of wagon road, at road crossing, at base of small walnut tree; probably an iron post stamped "899" -----	898.198
Pawhuska, 12.6 miles northwest of, two telegraph poles west of mile-post 215, south of cut, 60 feet north of road, in top of sandstone rock 2 by 2 feet and 2/3 foot above ground, marked by mound; aluminum tablet stamped "996" -----	995.181
Foster siding, 0.5 mile north of, at road crossing, east of railroad, and south of wagon road; iron post stamped "1105.6" -----	1,104.878
From point 2.5 miles northwest of Nelagoney north to T. 27 N., Rs. 9 and 10 E., corner of secs. 1 and 7, thence west to Foster.	
Tps. 25 and 26 N., Rs. 9 and 10 E., at corner of townships; iron post stamped "901" (General Land Office post) -----	900.504
Tps. 25 and 26 N., Rs. 9 and 10 E., 1.5 miles north by 0.25 mile east of corner of townships, on slope of hill on east side, 2 miles south of Sand Creek, 0.2 mile west of wagon road, on top of rock 2 by 4 feet and 2 feet above ground, marked by mound; paint point marked "891.8" -----	890.86
T. 26 N., Rs. 9 and 10 E., quarter corner between secs. 13 and 18, 6 feet north of; iron post stamped "806" -----	805.088
T. 26 N., Rs. 9 and 10 E., corner of secs. 12 and 18, on top of iron post; marked on old corner stone "895.6" (General Land Office post) -----	894.667
T. 26 N., Rs. 9 and 10 E., at corner of secs. 7 and 12, quarter corner, 20 feet east of fence corner; post marked "900.8" (General Land Office post) -----	899.898
T. 26 N., Rs. 9 and 10 E., at corner of secs. 1 and 7; iron post marked "829.8" (General Land Office post) -----	828.882
T. 26 N., Rs. 9 and 10 E., quarter corner between secs. 1 and 6; top of post marked "921" -----	920.089
Tps. 26 and 27 N., Rs. 9 and 10 E., corner of townships, at foot of big oak tree; iron post stamped "892" (General Land Office post) -----	891.486
T. 27 N., Rs. 9 and 10 E., corner of secs. 24 and 30; iron post stamped "964.3" (General Land Office post) -----	963.314
T. 27 N., Rs. 9 and 10 E., corner of secs. 13 and 19; iron post stamped "1062.9" (General Land Office post) -----	1,061.947
T. 27 N., Rs. 9 and 10 E., corner of secs. 13 and 19; iron post stamped "1064" -----	1,062.000
T. 27 N., R. 9 E., 4 feet south of corner of secs. 3, 4, 9, and 10; iron post stamped "1062" -----	1,061.414
Tps. 27 and 28 N., Rs. 8 and 9 E., corner of townships; iron post stamped "1096" (General Land Office post) -----	1,095.56
Tps. 27 and 28 N. R. 8 E., corner of secs. 3 and 4, on township line, 2 feet out of ground and set on blanket rock; iron post stamped "1098" -----	1,094.954
Tps. 27 and 28 N., Rs. 7 and 8 E., corner of; probably an iron post stamped "1151" -----	1,150.194
From point 1.5 miles north of Foster north, northeast, and east via Elgin to Tps. 28 and 29, R. 12 E., on Cherokee-Osage boundary. <sup>1</sup>	
T. 28 N., Rs. 7 and 8 E., corner of secs. 12, 13, 7, and 18, 1 foot south of; iron post stamped "1103" -----	1,102.30

<sup>1</sup>Error in this line is excessive and is not adjusted, a constant correction only being applied.

	Feet.
T. 29 N., R. 8 E., 1 foot north of corner of secs. 4 and 5; iron post presumably stamped "990"-----	989.552
Hewin's-Foraker-Elgin road forks, 0.8 mile east of, 6 feet north of Foraker-Elgin road, 10 feet west of fence, 4 feet south of fence; probably an iron post stamped "957.2"-----	956.482
Hewin's road forks, 2 miles east of, 50 feet south of Elgin road, 200 feet south of small reservoir, on top of sandstone 1 by 3 feet and 1 foot above ground, marked by monument; paint point marked "964.1"-----	963.32
T. 29 N., Rs. 8 and 9 E., 2 feet north of corner of secs. 13 and 19; iron post stamped "995.7"-----	994.938
Elgin, 2.5 miles southwest of, on Foraker road, on top of ridge between Buck Creek and Caney River, 20 feet south of road, in loose lime rock; iron post stamped "1032.4"-----	1,031.643
T. 29 N., Rs. 9 and 10 E., closing corner of secs. 13 and 18, 0.5 mile east of Elgin, in center of road; post marked "778" (General Land Office post)-----	777.255
On Oklahoma-Kansas boundary, secs. 17 and 18, in road; small iron post, marked on fence "781.6" (General Land Office post)-----	780.881
Elgin, 2.5 miles southeast of, on wagon road, 0.4 mile southeast of Steve Bolenger's house, at forks of road, 150 feet northeast of log house, 50 feet west of gate; probably an iron post stamped "766.4"-----	765.612
Chatauqua road, 500 feet east of, 1,000 feet east of white frame house, point in saddle where dim road turns east down Caney Valley, marked by monument, marked "809.3"-----	808.57
In valley of Caney River, 1 mile east of river at road crossing, 800 feet south of monument on south part of ridge, 200 feet east of fence corner, 80 feet west of three tall gate posts, in top of sandstone 2 by 8 by 0.5 feet, marked by mound; aluminum tablet stamped "807.5"-----	806.715
Krepp's house, 0.3 mile west of, 15 feet south of road, on west slope of hill at rock point, on sandstone 2 by 4 feet and 0.5 foot above ground, marked by monument; marked "796.9"-----	796.10
Sim's house, 0.4 mile west of, south of corner of secs. 27, 28, 33, and 34, 30 feet west of gate, in road to house; probably iron post stamped "728.8"-----	728.014
Tps. 28 and 29 N., R. 12 E., corner of Cherokee-Osage boundary, in Nowata quadrangle; old bench mark-----	794.65
From corner of Tps. 27 and 28 N., Rs. 9 and 10 E., to Tps. 27 and 28 N., R. 12 E., on Cherokee-Osage boundary. <sup>1</sup>	
Tps. 27 and 28 N., Rs. 9 and 10 E., corner of townships; probably iron post stamped "1052"-----	1,050.52
Tps. 27 and 28 N., R. 10 E., about 500 feet northwest of corner of secs. 3 and 33, northwest corner of field, 10 feet south of old road. 100 feet east of gate on pasture fence; iron post stamped "964"-----	963.120
Tps. 27 and 28 N., Rs. 10 and 11 E., corner of townships; iron post stamped "906" (General Land Office post)-----	904.525
Tps. 27 and 28 N., R. 11 E., 2 feet west of quarter corner between secs. 3 and 34; iron post stamped "804"-----	803.247
Tps. 27 and 28 N., Rs. 11 and 12 E., corner of townships; iron post stamped "834" (General Land Office post)-----	833.335

<sup>1</sup> Error in this line is excessive and is not adjusted, a constant correction only being applied.

	Feet.
Tps. 27 and 28 N., R. 12 E., closing corner, on Cherokee-Osage boundary line, about 0.3 mile north of Tps. 27 and 28 N., R. 12 E., on Osage Nation, old survey of Cherokee Nation; iron post-----	692. 978
Old Indian Territory bench marks on Osage-Cherokee boundary line with corrected elevations by local adjustment.	
Kansas-Cherokee boundary line, closing corner Osage-Cherokee boundary line, T. 29 N., R. 12 E.; iron post-----	944. 691
Osage-Cherokee boundary line, closing corner of Tps. 28 and 29 N., R. 12 E.; iron post-----	796. 146
Osage-Cherokee boundary line, closing corner of Tps. 27 and 28 N., R. 12 E.; iron post-----	695. 122
Osage-Cherokee boundary line, closing corner of Tps. 26 and 27 N., R. 12 E.; iron post-----	676. 599
Osage-Cherokee boundary line, closing corner of Tps. 25 and 26 N., R. 12 E.; iron post-----	926. 588
Osage-Cherokee boundary line, closing corner of Tps. 24 and 25 N., R. 12 E.; iron post-----	844. 330
Osage-Cherokee boundary line, closing corner of Tps. 23 and 24 N., R. 12 E.; iron post-----	882. 165

From point 4 miles southeast of Foraker to Foster.

T. 28 N., R. 8 E., corner between secs. 30 and 31 (south corner), east-west fence, east of track; top of rail-----	1, 162. 5
Milepost 221, opposite; top of rail-----	1, 153. 4
Foraker, 5.3 miles southeast of, 2.1 miles northwest of Blackland, north-south road crossing, in southeast angle, in southwest edge of warning post; spike marked "U. S. 1148"-----	1, 149. 73
Foraker, 6.2 miles southeast of, 1.4 miles northwest of Blackland, spike in telegraph pole east of track and at milepost 220, marked "1126"-----	1, 127. 66
Milepost 220, 0.2 mile south of, over stone culvert; rail-----	1, 122. 3
Blackland (formerly Foster), 0.5 mile north of, east-west road crossing, in southeast angle at fence corner; iron post stamped "1108"-----	1, 104. 878

From point 8 miles north of Hominy along Missouri, Kansas & Texas Ry. to Wynona.

Hominy, 8.2 miles north of, in bottom of milepost 228, spike marked "834"-----	833. 18
Hominy, 9.2 miles northeast of, in bottom of milepost 227, spike marked "866"-----	865. 26
Wynona, in front of station; top of rail-----	885. 7
Wynona, 1 mile northeast of, on east side of Wynona-Pawhuska wagon road, south side of railroad; iron post stamped "858"-----	857. 113
T. 24 N., R. 9 E., 0.6 mile southeast of northwest corner of sec. 26, on slight slope to west, 400 feet from top of slight ridge; iron post stamped "937"-----	934. 196

Claremore, Hominy, Pawnee, Pond Creek, Newkirk, and Washunga Quadrangles.  
CREEK, GRANT, KAY, OSAGE, PAWNEE, PAYNE, AND TULSA COUNTIES.

The following elevations were determined by primary leveling and are in agreement with Coast and Geodetic Survey 1912 adjustment.

The leveling was done in Pond Creek, Newkirk, and Washunga quadrangles, in 1911 and 1912, by R. M. Copeland; in Claremore and Hominy quadrangles, in 1911 and 1912, by H. L. Caldwell; in Pawnee quadrangle, in 1905, by E. T. King, and in 1911 and 1912, by R. M. Copeland and H. L. Caldwell.

## CLAREMORE QUADRANGLE.

[Latitude 36°-36° 30'; longitude 95° 30'-96°.]

From West Tulsa along St. Louis & San Francisco R. R. to Tulsa. (Line run twice.)

	Feet.
West Tulsa, 0.2 mile north of, first pier of the railroad bridge, from north bank of Arkansas River, at east end of pier; lettered square cut in stone, marked "U. S. $\square$ B. M."-----	636. 47
Tulsa, on south side of West First Street, 150 feet southeast of milepost 424, 270 feet from center line of track; square cut on concrete curb, marked "675"-----	674. 16
Tulsa, at First and Main Streets, in northwest corner of Turner Building; bronze tablet stamped "708" (old b. m.)-----	711. 045

From Tulsa north along Midland Valley R. R. to point near Skiatook.

Tulsa, 1.8 miles north of, in bottom of milepost 155; spike marked "671"-----	670. 44
Tulsa, 2.9 miles north of, north pier of railway bridge over Flat Rock Creek, in east end, opposite milepost 156; top of bolt marked "648"-----	647. 07
T. 20 N., R. 12 E., 0.3 mile west of northeast corner of sec. 24, on east side of railroad and south side of wagon road; iron post stamped "652 Okla"-----	651. 580
Turley, 1.4 miles south of, in bottom of milepost 158; spike marked "645"-----	644. 21
Turley, 0.3 mile south of, in bottom of milepost 159; spike marked "656"-----	655. 03
T. 20 N., Rs. 12 and 13 E., closing corner of secs. 1 and 6; iron post stamped "627" (old b. m.)-----	630. 207
T. 21 N., R. 12 E., 0.4 mile west of northeast corner of sec. 36, railroad crossing on east-west line between secs. 25 and 36, east side of railroad, south side of wagon road; iron post stamped "621 Okla"-----	620. 687
Sperry, 1.5 miles south of, in bottom of milepost 162; spike marked "609"-----	608. 51
Sperry, 0.5 mile south of, in bottom of milepost 163; spike marked "621"-----	620. 62
T. 21 N., R. 12 E., 0.25 mile west of northeast corner of sec. 14, at crossing of railroad and east-west line between secs. 11 and 14, on east side of railroad and north side of wagon road; iron post stamped "617 Okla"-----	616. 844
Sperry, 1.6 miles north of, in bottom of milepost 165; spike marked "619"-----	618. 34
Tps. 21 and 22 N., R. 12 E., on former Indian Territory-Oklahoma State line; iron post stamped "622" (U. S. Land Office mark)---	621. 822
T. 22 N., R. 12 E., northeast corner of sec. 22 and southeast corner of sec. 15; iron post stamped "633 Okla"-----	632. 342

## HOMINY QUADRANGLE.

[Latitude 36°-36° 30'; longitude 96°-96° 30'.]

From point near Terilton east along St. Louis & San Francisco R. R. to West  
Tulsa. (Leveled twice.)

	Feet.
Terilton, 0.4 mile southeast of, west side of north-south private-road crossing, 50 feet north of center of track, 175 feet northwest of milepost 455; iron post stamped "780 Okla"-----	779.017
Terilton, 2.6 miles southeast of, east side of north-south private-road crossing, on farm owned by T. E. Storm, on west bank of House Creek, 50 feet south of center line of track; iron post stamped "740 Okla"-----	738.999
Mannford, 0.1 mile southeast of station, east side of north-south highway crossing, 75 feet north of center of track; iron post stamped "740 Okla"-----	739.664
Mannford, 2.1 miles east of, at west side of north-south highway crossing, 50 feet north of center of track; iron post stamped "772 Okla"-----	771.125
Keystone, 1.9 miles west of, 210 feet northeast of milepost 444, 50 feet north of center of track, at east end of cut; iron post stamped "696 Okla"-----	695.789
Keystone, 520 feet east of station, at north-south highway crossing, 75 feet north of center of track, 375 feet west of milepost 442; iron post stamped "684 Okla"-----	683.668
Keystone, 4 miles southeast of, 70 feet south of milepost 438, south side of railway right of way, 50 feet south of center of track; iron post stamped "683"-----	682.179
Fisher, 0.2 mile southeast of, on west side of north-south highway crossing, 100 feet south of center of track; iron post stamped "653"-----	651.960
Lost City, 1.3 miles west of, 50 feet south of center of track, on east side of private-road crossing, 900 feet east of railway bridge over Fisher Creek; iron post stamped "649"-----	648.596
Price, 370 feet east of northeast corner of station platform, on east side of north-south private-road crossing, 20 feet south of center of main track, between main track and siding, 365 feet west of east end of point of siding; iron post stamped "656"-----	655.428
Price, 0.6 mile east of, 164 feet east of milepost 428; spike in center of track, marked "648"-----	647.41
Price, 1.6 miles east of, 212 feet east of milepost 427; spike in center of track, marked "645"-----	643.95
Price, 2.5 miles east of, 171 feet west of milepost 426; spike in center of track, marked "643"-----	642.38
West Tulsa, 0.5 mile southwest of, at crossed highways, 324 feet southeast of west point of Y, on St. Louis & San Francisco R. R., 245 feet south of north-south road crossing of same, 375 feet west of east-west road crossing of same, at fence corner in northwest angle of highways; iron post stamped "636 Okla"-----	635.403
From West Tulsa southwest along St. Louis & San Francisco R. R. to Sapulpa. (Leveled twice.)	
West Tulsa, 0.7 mile southwest of, in bottom of second telegraph pole south of milepost 426; spike marked "646"-----	645.85
Red Fork, 0.4 mile northeast of, in bottom of third telegraph pole south of milepost 427; spike marked "646"-----	645.02

	Feet.
Red Fork, 0.6 mile southwest of, at bottom of second telegraph pole south of milepost 428; spike marked "681"-----	680.66
Red Fork, 0.6 mile southwest of, on east side of north-south highway, 100 feet east of center of track; iron post stamped "685"-----	684.718
Red Fork, 1.5 miles south of, at bottom of milepost 429; spike marked "714"-----	713.70
New Taneha, 0.6 mile northeast of, at bottom of first telegraph pole northeast of milepost 430; spike marked "763"-----	762.71
New Taneha, 0.4 mile southwest of, opposite milepost 431, at east end of railway bridge over Nickle Creek, in capstone of pier; square cut, marked "736"-----	735.12
Taneha, 0.7 mile north of, corner of Tps. 18 and 19 N., Rs. 11 and 12 E.; iron post stamped "747," leaning at about a 60° angle from ground (old b. m.)-----	749.700
Taneha, 0.4 mile north of, at bottom of milepost 432; spike marked "779"-----	778.89
Taneha, 0.5 mile south of, at bottom of milepost 433; spike marked "776"-----	775.06
Taneha, 1.6 miles south of, 200 feet northwest of milepost 434, on north side of east-west highway, 100 feet west of center of track; iron post stamped "719"-----	718.868
Taneha, 2.6 miles south of, at bottom of milepost 435; spike marked "711"-----	710.18
Sapulpa, 1.2 miles north of station, at bottom of milepost 436; spike marked "690"-----	689.15
Sapulpa, 0.2 mile north of station, at bottom of milepost 437; spike marked "729"-----	728.77
Sapulpa, southwest corner of Main and Hobson streets, on east side of Ripley Hotel, 4 feet above sidewalk and 14 feet south of northeast corner of building; bronze tablet stamped "723" (old b. m.)-----	725.749

From Sapulpa northwest along highways to point 2 miles east of Mannford.

Sapulpa, 1.5 miles west of, in southeast concrete-filled caisson pier of east-west highway bridge over Rock Creek; top of bolt marked "681"-----	680.82
Sapulpa, 3.5 miles northwest of, on east side of north-south highway where it makes turn to northwest, about 0.25 mile south of northwest corner of sec. 22, T. 18 N., R. 11 E.; iron post stamped "708 Okla"-----	707.744
Sapulpa, 5.5 miles northwest of, 700 feet south of northwest corner of sec. 16, T. 18 N., R. 11 E., on east side of highway, in front of farmhouse of W. B. Braninburg, at bottom of gate post; spike marked "828"-----	827.13
Sapulpa, 6.5 miles northwest of, northwest corner of sec. 17, T. 18 N., R. 11 E., at northeast side of highway; iron post stamped "750 Okla"-----	749.436
T. 18 N., R. 11 E., northwest corner of sec. 8; highest point of rock, marked "749"-----	747.97
T. 18 N., R. 11 E., 200 feet east of northwest corner of sec. 7, in bottom of fence post on south side of highway; spike marked "734"-----	733.31
T. 18 N., R. 10 E., quarter corner north side of sec. 1; iron post stamped "770 Okla"-----	769.187

	Feet.
T. 19 N., R. 10 E., north side of sec. 36, where road crosses section line, 50 feet northwest of gate; top of large rock, marked "806"-----	805.68
T. 19 N., R. 10 E., northeast quarter of sec. 26, on east end of high east-west divide, 20 feet north of road where it makes turn to west; square cut on flat rock, marked "952"-----	951.76
T. 19 N., R. 10 E., quarter corner north side of sec. 27; iron post stamped "913 Okla"-----	912.814
T. 19 N., R. 10 E., sec. 21, 50 feet south of road at point where Keystone Road branches off from Sapulpa-Mannford Trail, 250 feet west of intersection of Gulf Pipe Line and Sapulpa-Mannford Trail, beside large monument of rocks; top of flat rock, marked "1017"-----	1,016.04
T. 19 N., R. 10 E., northwest corner of sec. 29; iron post stamped "934 Okla"-----	933.334
T. 19 N., R. 10 E., center of sec. 31, in bottom of corner fence post; spike marked "948"-----	947.04
Tps. 18 and 19 N., Rs. 9 and 10 E., corner of; iron post stamped "874 Okla"-----	873.226
T. 18 N., R. 9 E., northwest corner of sec. 1; highest point of rock, marked "860"-----	859.78
T. 18 N., R. 9 E., northwest corner of sec. 2; highest point of rock, marked "802"-----	801.61
T. 18 N., R. 9 E., northwest corner of sec. 3; iron post stamped "871 Okla"-----	870.624
T. 19 N., R. 9 E., 68 feet east by 142 feet north of southwest corner of sec. 27; square cut in top of large sandstone rock, marked "826"-----	825.62
T. 19 N., R. 9 E., northwest corner of sec. 22; iron post stamped "772 Okla"-----	771.557
Mannford, 2.1 miles east of, at west side of north-south highway crossing St. Louis & San Francisco R. R., 50 feet north of center of track; iron post stamped "772 Okla"-----	771.125
<b>From point near Cleveland north along St. Louis &amp; San Francisco R. R. to point 7 miles north of Hominy. (Leveled twice.)</b>	
Cleveland, 3.7 miles southwest of, crossing of east-west line north side of sec. 25 and Missouri, Kansas & Texas Ry., T. 21 N., R. 7 E., 0.25 mile east of northwest corner of sec. 25, south side of wagon road, east side of railroad; iron post stamped "865 Okla"-----	864.471
Cleveland, 2.9 miles southwest of, at bottom of milepost 251; spike marked "838"-----	836.87
Cleveland, 1.8 miles southwest of, at bottom of milepost 250; spike marked "786"-----	785.43
Cleveland, 1 mile southwest of, north-south line on west side of sec. 17, T. 21 N., R. 8 E., crossing Missouri, Kansas & Texas Ry., 0.2 mile south of northwest corner of sec. 17, east side of wagon road, south side of railroad; iron post stamped "754 Okla"-----	753.206
Cleveland, 0.25 mile northeast of, at bottom of milepost 248; spike marked "733"-----	732.51
Cleveland, 1.1 miles east of, at bottom of milepost 247; spike marked "712"-----	711.57
Osage, 0.4 mile south of, northwest corner of sec. 23, T. 21 N., R. 8 E.; iron post stamped "706 Okla"-----	705.505
Osage, 0.2 mile north of, at bottom of milepost 245; spike marked "727"-----	726.41

	Feet.
Osage, 1.1 miles north of, at bottom of milepost 244; spike marked "766"-----	764. 94
Osage, 2.2 miles north of, 0.2 mile east of milepost 243, at east end of railroad culvert; square cut on capstone, lettered "U. S. $\square$ B. M."-----	829. 96
Osage, 2.9 miles north of, quarter corner north side of sec. 1, T. 21 N., R. 8 E.; iron post stamped "847 Okla"-----	845. 822
Osage, 4.3 miles north of, at bottom of milepost 241; spike marked "914"-----	913. 33
Hominy, 3.6 miles southeast of, quarter corner north side of sec. 30, T. 22 N., R. 9 E.; iron post stamped "855 Okla"-----	853. 988
Hominy, 2.7 miles south of, at bottom of milepost 239; spike marked "815"-----	814. 67
Hominy, 1.7 miles south of, at bottom of milepost 238; spike marked "817"-----	816. 08
Hominy, 1.5 miles south of, at Missouri, Kansas & Texas Ry. crossing of east-west line on north side of sec. 13, T. 22 N., R. 8 E.; top of south end of west rail marked " $\square$ 806"-----	805. 30
Hominy, 0.7 mile south of, crossing of east-west line north side of sec. 12, T. 22 N., R. 8 E., and Missouri, Kansas & Texas Ry., 150 feet east of center of track, 0.4 mile east of northwest corner NW. $\frac{1}{4}$ sec. 12, on north side of east-west highway, west side of north-south highway; iron post stamped "784 Okla"-----	783. 003
Hominy, 1 mile north of, at bottom of milepost 235; spike marked "786"-----	784. 75
Hominy, 2 miles north of, at bottom of milepost 234; spike marked "818"-----	817. 35
Hominy, 2.75 miles north of, northwest corner of sec. 30, T. 23 N., R. 9 E.; iron post stamped "823 Okla"-----	822. 466
Hominy, 4.25 miles north of, at bottom of milepost 232; spike marked "770"-----	769. 34
Hominy, 5.25 miles north of, at bottom of milepost 231; spike marked "773"-----	772. 43
Hominy, 6.25 miles north of, at bottom of milepost 230; spike marked "790"-----	789. 39
T. 23 N., R. 9 E., quarter corner north side of sec. 5; iron post stamped "823 Okla"-----	821. 983
From Osage southeast along Missouri, Kansas & Texas Ry. to Keystone.	
Osage, northwest corner of sec. 23, T. 21 N., R. 8 E.; iron post stamped "706 Okla"-----	705. 505
Osage, 1.8 miles southeast of, at bottom of milepost 247; spike marked "705"-----	704. 32
Osage, 2.5 miles southeast of, crossing of north-south line between secs. 25 and 30, T. 21 N., Rs. 8 and 9 E., and Missouri, Kansas & Texas Ry., 0.15 mile south of northwest corner of sec. 30, on north side of railroad; iron post stamped "706 Okla"-----	704. 871
Osage, 3.8 miles southeast of, at bottom of milepost 249; spike marked "701"-----	700. 05
Indian, 0.25 mile southeast of, at bottom of milepost 250; spike marked "698"-----	697. 17
Prue, 1.6 miles northwest of, 400 feet east of milepost 251, east side of north-south road, north side of railroad, at crossing: iron post stamped "702 Okla"-----	701. 411



	Feet.
Prue, 0.6 mile west of, at bottom of milepost 252; spike marked "692"-----	691.00
Prue, 0.5 mile east of, at bottom of milepost 253; spike marked "699"-----	697.98
Prue, 0.9 mile east of, crossing of north-south line between secs. 1 and 2, T. 20 N., R. 9 E., and Missouri, Kansas & Texas Ry., 600 feet south of quarter corner on west side of sec. 1, west side of wagon road, north side of railroad; iron post stamped "690 Okla"-----	689.699
Prue, 1.5 miles east of, at bottom of milepost 254; spike marked "682"-----	681.17
Prue, 2.5 miles east of, at bottom of milepost 255; spike marked "692"-----	691.19
Prue, 3.5 miles southeast of, at bottom of milepost 256; spike marked "706"-----	705.36
Prue, 4.3 miles southeast of, quarter corner west side of sec. 9, T. 20 N., R. 10 E.; iron post stamped "682 Okla"-----	681.455
Prue, 5.8 miles southeast of, at bottom of milepost 258; spike marked "681"-----	680.28
Appalachia, 3 miles northwest of, at bottom of milepost 259; spike marked "676"-----	675.74
Appalachia, 2 miles northwest of, at bottom of milepost 260; spike marked "681"-----	680.19
Appalachia, 1.5 miles northwest of, in southeast quarter of sec. 29, T. 20 N., R. 10 E., at east-west road crossing Missouri, Kansas & Texas Ry., on north side of wagon road, east side of railroad; iron post stamped "678 Okla"-----	677.602
Appalachia, 1 mile northwest of, at bottom of milepost 261; spike marked "684"-----	683.49
Appalachia, 0.5 mile northwest of, at edge of right of way, Tulsa-Osage County line, at bottom of white post; spike marked "679"-----	678.86

From Mud Creek north to corner of sec. 3, T. 22 N., R. 10 E.

T. 20 N., R. 10 E., north side of sec. 5, on top of ridge west side of Mud Creek, 100 feet east of center of trail, in bottom of 18-inch oak tree; spike marked "855"-----	854.03
T. 21 N., R. 10 E., quarter corner north side of sec. 32; iron stake marked "863"-----	862.31
T. 21 N., R. 10 E., quarter corner north side of sec. 29; iron post stamped "829"-----	828.266
T. 21 N., R. 10 E., quarter corner north side of sec. 17; iron post stamped "853"-----	852.741
T. 21 N., R. 10 E., quarter corner west side of sec. 9; iron stake marked "826"-----	825.63
T. 22 N., R. 10 E., northwest corner of sec. 34; iron post stamped "824"-----	823.369
T. 22 N., R. 10 E., northwest corner of sec. 22; iron post stamped "682"-----	682.003
T. 22 N., R. 10 E., quarter corner west side of sec. 10; iron post stamped "733"-----	732.400
T. 22 N., R. 10 E., northwest corner of sec. 10; iron stake marked "825"-----	824.62

From Tulsa north along Midland Valley R. R. to point north of Skiatook, thence west along highways to sec. 12, T. 22 N., R. 8 E.

	Feet.
Skiatook, 1.5 miles south of, in bottom of milepost 167; spike marked "642"-----	641.39
Skiatook, 0.5 mile south of, in bottom of milepost 168; spike marked "650"-----	649.85
Skiatook, 1.9 miles north of, in bottom of milepost 170; spike marked "637"-----	636.00
Skiatook, 2.8 miles north of, directly opposite milepost 171, railway bridge, top of lag bolt on east end of pier; marked "653"-----	652.72
Skiatook, 3.9 miles north of, in bottom of milepost 172; spike marked "659"-----	658.46
Tps. 22 and 23 N., R. 12 E., corner of secs. 3, 4, 33, and 34; iron post stamped "649 Okla"-----	648.927
T. 22 N., R. 12 E., 0.25 mile west of northeast corner of sec. 5, at crossing of section line and north-south wagon road, at bottom of 18-inch oak tree; spike marked "940"-----	939.83
T. 23 N., R. 12 E., about 0.4 mile east of northwest corner of sec. 32, section line crossing north-south wagon road, in bottom of 9-inch oak tree; spike marked "956"-----	955.29
Tps. 22 and 23 N., Rs. 11 and 12 E.; General Land Office post stamped "927"-----	926.957
T. 22 N., R. 11 E., northwest corner of sec. 2; iron stake marked "910"-----	909.02
T. 22 N., R. 11 E., northwest corner of sec. 3; iron post stamped "832 Okla"-----	831.365
T. 22 N., R. 11 E., northwest corner of sec. 4, at fence corner; flat rock marked "921"-----	920.36
T. 22 N., R. 11 E., quarter corner north side of sec. 5; iron stake marked "851"-----	850.93
Tps. 22 and 23 N., Rs. 10 and 11 E.; General Land Office iron post stamped "834"-----	833.672
T. 23 N., R. 10 E., about on section line west side of sec. 36, east edge of timber, north side of east-west wagon road, on top of ridge, at bottom of 12-inch oak tree; spike marked "892"-----	891.79
T. 22 N., R. 10 E., quarter corner north side of sec. 3; iron stake marked "722"-----	721.45
T. 22 N., R. 10 E., northwest corner of sec. 3; iron post stamped "830 Okla"-----	829.738
T. 23 N., R. 10 E., west side of sec. 10, 0.3 mile north of southwest corner, 50 feet north of east-west road, at bottom of 11-inch oak tree; spike marked "881"-----	880.29
T. 23 N., R. 10 E., 0.1 mile north of southwest corner of west side of sec. 32, 150 feet south of wagon road, top of large rock, on section line; oak tree blazed and painted "930"-----	929.93
Tps. 22 and 23 N., Rs. 9 and 10 E.; General Land Office iron post stamped "820"-----	819.555
T. 22 N., R. 9 E., northwest corner of sec. 3; iron post stamped "740 Okla"-----	740.063
T. 22 N., R. 9 E., northwest corner of sec. 4; iron stake marked "748"-----	747.50

T. 22 N., R. 9 E., northwest corner of sec. 5; iron stake marked "775" _____	Feet. 774.23
T. 22 N., R. 8 E., crossing of Missouri, Kansas & Texas Ry. in sec. 12; iron post stamped "783 Okla" _____	783.003

## PAWNEE QUADRANGLE.

[Latitude 36°-36° 30'; longitude 96° 30'-97°.]

From point near Ripley east along Atchison, Topeka &amp; Santa Fe Ry. to point near Cushing.

Ripley, 1.25 miles southeast of, 15 feet east of section corner (monument destroyed), 5 feet east of track; iron post stamped "818 Adj 1903" _____	817.161
Ripley, 2.0 miles northeast of, at north-south public-road crossing, in northwest fence corner on railroad right of way; iron post stamped "815 Adj 1903" _____	813.693
Ripley, 5.5 miles east of, at north-south public-road crossing, in southeast fence corner; iron post stamped "812 Adj 1903" _____	811.228
Cushing, 2.0 miles northwest of, north-south road crossing, 750 feet northeast of milepost 48, in southwest fence corner; iron post stamped "910 Adj 1903" _____	909.181

From Cushing northeast along Missouri, Kansas & Texas Ry. to Jennings.  
(Leveled twice.)

Cushing, 0.8 mile northeast of, 6 feet west of center of track, in switch log at east end of passing track; spike marked "917" _____	916.44
Cushing, 2.7 miles northeast of, southwest corner of sec. 23, T. 18, R. 5 E., at crossed highways, 300 feet southeast of railway; iron post stamped "826 Okla" _____	825.484
Norfolk, 0.25 mile southwest of, at north side of east-west highway crossing, 50 feet east of center of track; iron post stamped "813 Okla" _____	811.969
Yale, 0.7 mile south of station, south side of east-west highway crossing, 80 feet west of center of track, 76 feet east of center of Santa Fe Ry. track; iron Missouri, Kansas & Texas Ry. post stamped "793 Okla" _____	792.590
Yale, 2.4 miles north of, north side of east-west crossing, 24 feet east of center of track; iron post stamped "886 Okla" _____	885.058
Yale, 3.8 miles northeast of, at southeast corner of sec. 33, T. 20 N., R. 6 E., 585 feet east of intersection of center line of Missouri, Kansas & Texas Ry. and Payne-Pawnee county line; iron post stamped "899 Okla" _____	898.051
Yale, 5.25 miles northeast of, 200 feet southeast of milepost 264, 20 feet south of center of track, 40 feet east of bridge; square cut in flat rock, marked "819" _____	818.08
Jennings, 2.9 miles southwest of, at east side of north-south private-road crossing, 50 feet south of center of track, 50 feet north of east-west highway, 40 feet west of bank of Kenny Creek, 530 feet west of milepost 263; iron post stamped "808 Okla" _____	807.693
Jennings, 0.2 mile northeast of station, on south side of private road crossing, 100 feet northwest of center of track, 73 feet west of milepost 260; iron post stamped "929 Okla" _____	927.915

	Feet.
Jennings, 150 feet northwest of station, in center of east-west road, 50 feet southwest of center of track; iron post stamped "855 Okla"-----	854. 784
From Jennings along St. Louis & San Francisco R. R. to point 3.4 miles northeast of Hallett. (Leveled twice.)	
Jennings, 0.9 mile northwest of, at bottom of milepost 460; spike marked "883"-----	882. 38
Hallett, 0.6 mile southwest of, at bottom of milepost 257; spike marked "935"-----	934. 16
Hallett, 0.4 mile northeast of, at bottom of milepost 256; spike marked "942"-----	941. 64
Hallett, 0.8 mile northeast of, west side of sec. 3, T. 20 N., R. 7 E., crossing of west boundary of sec. 3 and Missouri, Kansas & Texas Ry., east side of wagon road, north side of railroad, 0.3 mile north of southwest corner of sec. 3; iron post stamped "943 Okla"-----	942. 311
Hallett, 1.5 miles northeast of, at bottom of milepost 255; spike marked "968"-----	967. 38
Hallett, 2.5 miles northeast of, at bottom of milepost 254; spike marked "955"-----	953. 96
Hallett, 3.4 miles northeast of, at bottom of milepost 253; spike marked "919"-----	918. 11
From Ralston south along Atchison, Topeka & Santa Fe Ry. to Hallett.	
Ralston, 0.9 mile south of, in cut, 2,350 feet south of east-west road crossing track; point on top of stone milepost 44 marked "U. S. 830"-----	830. 02
Ralston, 1.9 miles south of, 2,000 feet southeast of north-south road crossing track; point on top of stone milepost 45 marked "U. S. 836"-----	835. 34
Milepost 46, top of-----	819. 8
Ralston, 3.2 miles south of, 1,600 feet south of milepost 46, at east-west road crossing track, in northeast angle near fence corner; iron post stamped "813"-----	812. 368
Ralston, 3.9 miles south of, 1,500 feet south of east-west road crossing track, top of stone milepost 47 marked "U. S. 806"-----	805. 89
Ralston, 4.9 miles south of, 1,000 feet north of Jobs siding; point on top of stone milepost 48 marked "U. S. 816"-----	815. 31
Ralston, 5.9 miles south of, 0.8 mile south of Jobs siding, 100 feet southwest of milepost 49, near west property fence; iron post stamped "835"-----	835. 070
Ralston, 7 miles south of, 1,000 feet south of north-south road crossing track; point on top of stone milepost 50, marked "U. S. 867"-----	866. 31
Skedee siding, 1.2 miles north of, near milepost 51, south bolt in east guard rail of trestle 50 D; marked "U.S.B.M. 846"-----	845. 24
Skedee siding, north end, near milepost 52, bolt on each side of switch stand marked "U. S."-----	837. 11
Skedee, southeast corner of hotel across track from station; iron post stamped "834"-----	833. 419
Skedee, in front of station; top of rail-----	843. 4
Skedee, 0.7 mile south of; point on top of stone milepost 53 marked "U. S. 862"-----	861. 60

	Feet.
Skedee, 1.7 miles southwest of, 300 feet northeast of Esau Junction; point on top of milepost 54 marked "U. S. 859"-----	858. 47
Esau Junction, railway branch to Pawnee; top of rail at switch-----	855. 8
Skedee, 2.6 miles south of, 530 feet north of milepost 55, where track passes through small cut, 2,300 feet north of Black Bear Creek Bridge 55 A, near west property line; iron post stamped "848"-----	847. 135
Skedee, 2.7 miles south of, opposite milepost 55, 2 feet west of track; top of rail driven in ground-----	832. 55
Bridge 55 A over Black Bear Creek; point on west side of south pier, marked "U. S. 826" (railroad bench mark)-----	825. 47
Skedee, 3.7 miles south of; point on top of stone milepost 56 marked "U. S. 817" (railroad bench mark)-----	816. 73
Skedee, 4.7 miles south of, 1,700 feet south of Cody; point on top of stone milepost 57 marked "U. S. 819"-----	819. 03
Skedee, 5.8 miles south of, 650 feet north of crossing of St. Louis & San Francisco track; point on top of stone milepost 58 marked "U. S. 816" (railroad bench mark)-----	845. 33
Crossing of the Eastern Oklahoma branch and the St. Louis & San Francisco R. R.; rail-----	845. 4
Skedee, 5.8 miles south of, 1,000 feet east of crossing of the St. Louis & San Francisco R. R. and the Eastern Oklahoma branch, in north-east angle of road crossing former railroad, 75 feet north of track, near east road fence; iron post stamped "862"-----	861. 195
Crossing of the Eastern Oklahoma branch and the St. Louis & San Francisco R. R., 1.2 miles east of, north-south road crossing track, in northwest angle, 30 feet north of track, on west side of road embankment; point on top of large flat rock marked "U. S. 900"-----	899. 46
Casey, 0.3 mile west of, 150 feet east of north-south road crossing, near telegraph pole; point on stone 2 feet high marked "U. S. 942"-----	941. 96
Casey, in front of station; top of rail-----	934. 2
Casey, 1.2 miles east of, north-south road crossing, in southeast angle, near fence corner, 30 feet south of track; iron post stamped "881"-----	880. 354
Valley Station, 2.1 miles east of Casey, east-west track, 10 feet south of crossing post, north corner of gravel platform; top of driftbolt through timbers marked "U. S. 915"-----	914. 78
Casey, 3 miles east of, 1,300 feet northwest of road crossing, west end of small fill, 6 feet north of south property fence, 50 feet south of marked telegraph pole, on top of gray sandstone; square hole marked "U. S. 861"-----	860. 38
Casey, 4.4 miles southeast of, east end of steel bridge over creek and north-south road, 75 feet northeast of, near north property fence; iron post stamped "809"-----	808. 800
T. 21 N., R. 7 E., corner of secs. 28, 33, 32, and 29; bolt driven flush with ground at center of crossroad, marked on rock at fence corner in southwest angle "U. S. 837"-----	836. 84
Casey, 6.2 miles southeast of, 1,000 feet southeast of Greenup station signboard, at milepost 463; spike in telegraph pole marked "U. S. 857"-----	856. 60
Casey, 6.6 miles southeast of, east side of north pier of water tank, at southeast corner; square marked "U. S. 872"-----	871. 05
Milepost 462; spike in, marked "U. S. 892"-----	891. 77

	Feet.
Hallett station, north corner of building, 20 feet north of, near east rail; square on concrete wall marked "U. S. 905"-----	904. 34
Hallett, in front of Missouri, Kansas & Texas Ry. station; top of rail-----	941. 6
Hallett, 0.4 mile east of, in bottom of milepost 256; spike marked "U. S. 842 B. M."-----	941. 62

## POND CREEK QUADRANGLE.

[Latitude 36° 30'-37°; longitude 97° 30'-98°.]

From Medford east along Atchison, Topeka &amp; Santa Fe Ry. to Deer Creek station. (Leveled twice.)

Medford, outer row of supports on north side of water tank, in southwest corner of east support; bottom of triangular hole-----	1,099. 161
Medford, crossing of Atchison, Topeka & Santa Fe and Chicago, Rock Island & Pacific tracks-----	1,090. 4
Medford, 60 feet from east track of Atchison, Topeka & Santa Fe Ry. and Chicago, Rock Island & Pacific Ry., in southeast angle, in Texas limestone post; bottom of square hole, lettered "U. S. □ B. M." (C. & G. S. b. m. S)-----	1,087. 265
Medford, 1 mile east of, north of track; top of northwest bolt holding semaphore post, marked "⊙ U. S."-----	1,084. 26
Medford, 2 miles east of, on small trestle marked "104 A"; top of last bolt at northeast corner, on guard rail-----	1,085. 52
Medford, 3.3 miles east of, in southeast angle of road crossing, in top of second fence post (30 feet) west of second telegraph pole (200 feet) east of road; spike bent over-----	1,083. 60
Medford, 3.3 miles east of, in southeast angle of road crossing, 140 feet south of southeast fence corner; iron post stamped "1080"-----	1,079. 892
Medford, 4.3 miles east of, in southeast angle of road crossing, in first telegraph pole east of road (10 feet); spike marked "U. S. 1085"-----	1,084. 36
Medford, 5.2 miles east of, in northeast angle of road crossing, in fence post 5 feet north of north rail under high end of cattle guard, on north side of post; head of a very twisted spike, marked "U. S. 1086"-----	1,085. 14
Medford, 6.2 miles east of, in southeast corner of road crossing, on brace from corner of fence toward cattle guard, 1 foot from north (lower) end; cut on west plank-----	1,080. 96
Medford, 6.2 miles east of, in northeast angle of road crossing, 10 feet north of corner fence; iron post stamped "1081"-----	1,080. 659
Hutchinson, south of milepost 109; top of vertical rail-----	1,110. 14
Numa, 0.02 mile east of station, at bottom of south brace of mail crane; top of bolt-----	1,117. 20
Numa, 0.1 mile east of station, north of track, on south side of switch stand; top of east spike, marked "U. S. 1116"-----	1,115. 83
Numa, 0.9 mile east of, in southeast angle of road crossing, in first telegraph pole east of road; spike marked "U. S. 1104"-----	1,103. 25
Numa, 1.8 miles east of, in southwest angle of road crossing, spike in second telegraph pole west of road-----	1,107. 92
Numa, 1.8 miles east of, in southwest angle of road crossing, 1 foot north of fence corner; iron post stamped "1108"-----	1,107. 729
Hutchinson, south of milepost 112; top of vertical rail-----	1,105. 03

	Feet.
Numa, 2.8 miles east of, in southeast angle of road crossing, in first telegraph pole east of road; spike marked "U. S. 1103"-----	1, 102. 74
Hutchinson, south of milepost 113; top of vertical rail-----	1, 099. 10
Numa, 3.7 miles east of, in southeast angle of road crossing, in telegraph pole east of road; spike marked "U. S. 1094"-----	1, 093. 55
Deer Creek, in front of station; top of rail-----	1, 087. 4

## NEWKIRK QUADRANGLE.

[Latitude 36° 30'-37°; longitude 97°-97° 30'.]

From Deer Creek east along Atchison, Topeka &amp; Santa Fe Ry. to point 2.3 miles east of Newkirk. (Leveled twice.)

Deer Creek, under west wall of station; a 4 by 6 inch timber in north end of which is a spike marked "U. S. 1088"-----	1, 087. 29
Deer Creek, 0.3 mile east of station, in southeast corner of road crossing, 1 foot east of corner fence post; iron post stamped "1085"-----	1, 084. 576
Deer Creek, 0.3 mile east of, in southeast corner of road crossing, in north side of corner fence post; spike-----	1, 084. 46
Hutchinson, south of milepost 115; top of vertical rail-----	1, 063. 00
Deer Creek, 1.3 miles east of, in southeast corner of road crossing, in south side of corner fence post; spike marked "U. S. 1045"-----	1, 044. 43
Deer Creek, 2.2 miles east of, in southeast corner of road crossing, in south side of corner fence post; spike marked "U. S. 1083"-----	1, 082. 88
Hutchinson, south of milepost 117; top of vertical rail-----	1, 078. 4
Deer Creek, 3.2 miles east of, in southwest corner of road crossing, 100 feet south of corner fence; iron post stamped "1087"-----	1, 086. 844
Deer Creek, 3.2 miles east of, in southeast corner of road crossing, on north side of crossing warning post; spike-----	1, 083. 21
Nardin, in front of station; top of rail-----	1, 083. 9
Nardin, at north edge of station platform, 25 feet east of building, 2 feet south of track; spike on pile, marked "U. S. 1084"-----	1, 083. 47
Nardin, 0.8 mile east of station, 400 feet east of milepost 119, in telegraph pole south of track; spike-----	1, 096. 49
Nardin, 1.1 miles east of, in southwest corner of crossing, in east face of corner fence post; spike marked "U. S. 1095"-----	1, 094. 44
Nardin, 2.2 miles east of, in northeast angle of road crossing, in west face of fence post under north end of cattle guard; spike-----	1, 081. 19
Nardin, 2.2 miles east of, in southwest corner of road crossing, 1 foot north of fence corner; iron post stamped "1084"-----	1, 083. 836
Nardin, 3.1 miles east of, in southeast corner of road crossing, in north face of post 3 feet east of fence corner; spike marked "U. S. 1067"-----	1, 067. 07
Nardin, 4 miles east of, in southeast corner of road crossing, in south face of post under cattle guard; spike marked "U. S. 1065"-----	1, 065. 04
Nardin, 5.1 miles east of, in northeast corner of road crossing, on brace from corner fence toward cattle guard, on west edge of plank; point-----	1, 050. 22
Nardin, 5.1 miles east of, in southwest corner of road crossing, 100 feet south of corner fence, corner common to secs. 24 and 19, T. 27 N., Rs. 1 and 2 W.; iron post stamped "1053"-----	1, 052. 696
Nardin, 6.1 miles east of, southeast corner of road crossing, in post 1 foot south of corner fence; spike marked "U. S. 1046"-----	1, 045. 08
Nardin, 7.1 miles east of, in southeast corner of road crossing, in north side of telegraph pole, 15 feet east of road at fence corner; spike marked "U. S. 1062"-----	1, 061. 93

	Feet.
Nardin, 7.6 miles east of, at curve on Atchison, Topeka & Santa Fe Ry. toward southeast, at culvert 125 B, 18½ inches south of north-east corner of culvert; nail-----	1,034.78
Blackwell, at Blackwell and 12th avenues, 25 feet southwest of T, on northwest side of telephone post 1 foot above ground; spike marked "U. S. 1026"-----	1,026.45
Blackwell, in southwest corner of lawn on south side of city hall, 20 feet south of southwest corner of building; iron post stamped "1020"-----	1,019.635
Blackwell, 0.7 mile northeast of, trestle over Chilkaskia River, in west end of guard rail on south side; top of bolt marked "U. S. 1004"-----	1,003.48
Blackwell, 1.4 miles northeast of, secs. 13 and 14, T. 27 N., R. 1 W., in northwest corner of road crossing, in south side of warning post; spike marked "U. S. 999"-----	998.56
Blackwell, 2.6 miles northeast of, corner of secs. 7, 12, 13, and 18, T. 27 N., Rs. 1 E and 1 W., in northwest corner of crossroads, 400 feet east of tracks; iron post stamped "1022"-----	1,021.647
Blackwell, 3.6 miles northeast of, 400 feet southwest of crossing, 1 foot above ground in telephone post; nail marked "U. S. 1037"-----	1,036.54
Blackwell, 4 miles northeast of, corner of secs. 5, 6, 7, and 8, T. 27 N., R. 1 E., in northeast angle of road crossing, in north side of post of cattle guard; nail marked "U. S. 1047"-----	1,046.82
Blackwell, 5.1 miles northeast of, in north face of 6th post west of second telegraph pole west of milepost 533; spike marked "U. S. 1064"-----	1,064.20
Blackwell, 5.6 miles northeast of, secs. 32, 33, 4 and 5, Tps. 27 and 28 N., R. 1 E., in southwest corner of road crossing, 30 feet south of tracks; iron post stamped "1079"-----	1,079.415
Blackwell, 6.8 miles northeast of, secs. 28 and 33, T. 28 N., R. 1 E., in northeast corner of road crossing, in east face of corner fence post; spike marked "U. S. 1122"-----	1,121.62
Blackwell, 7.2 miles northeast of, secs. 27 and 28, T. 28 N., R. 1 E., 350 feet northeast of road crossing, 180 feet northeast of milepost 531, in north side of telegraph pole; spike marked "U. S. 1129"-----	1,129.45
Peckham, 100 feet south of southeast corner of station, at corner of fence south of road; iron post stamped "1107"-----	1,107.433
Peckham, 0.6 mile northeast of, in southeast corner of road crossing, in west end of cattle guard; spike marked "U. S. 1128"-----	1,127.67
Peckham, 1 mile northeast of, in northeast angle of east-west road crossing, in west face of telephone pole; spike marked "U. S. 1143"-----	1,143.42
Peckham, 2.1 miles northeast of, in northwest angle of east-west road crossing, 60 feet west of track; spike in telegraph pole, marked "U. S. 1166"-----	1,166.39
Peckham, 3.4 miles northeast of, secs. 1 and 12, T. 28 N., R. 1 E., in northwest corner of road crossing, 100 feet west of track, near stone fence corner; iron post stamped "1163"-----	1,162.767
T. 28 N., Rs. 1 and 2 E., corner of secs. 1, 6, 7, and 12, in northeast corner of crossroads, in top of stone fence post; cut marked "U. S. 1168"-----	1,168.33
T. 28 N., R. 2 E., corner of secs. 5, 6, 7, and 8, 450 feet west of, on southeast end of northeast wing wall of small bridge; cut marked "U. S. 1130"-----	1,130.05



	Feet.
T. 28 N., R. 2 E., corner of secs. 4, 5, 8, and 9, in northeast corner of crossroads, in telephone pole 1 foot south of east brace to corner fence post; copper nail marked "U. S. 1139"-----	1, 139. 28
T. 28 N., R. 2 E., corner of secs. 3, 4, 9, and 10, in northeast angle of crossroads, in north brace to stone fence corner; chiseled square marked "U. S. 1148"-----	1, 152. 27
T. 28 N., R. 2 E., quarter corner between secs. 9 and 10, in center of road; top of stone-----	1, 148. 2
T. 28 N., R. 2 E., corner of secs. 9, 10, 15, and 16, in northeast corner of crossroads, 4 feet southeast of stone fence corner; iron post stamped "1144"-----	1, 144. 312
T. 28 N., R. 2 E., corner of secs. 10, 11, 14, and 15, in northeast corner of crossroads, southwest of and at base of stone fence corner; top of stone marked on east brace to corner "U. S. 1154"-----	1, 153. 68
T. 28 N., R. 2 E., corner of secs. 14, 15, 23, and 24, in northeast corner of crossroads, on top of corner fence post; temporary bench mark, marked "U. S. 1154"-----	1, 154. 48
T. 28 N., R. 2 E., 0.3 mile west of quarter corner between secs. 14 and 23, in fence post north of road; spike marked "U. S. 1138"---	1, 138. 48
T. 28 N., R. 2 E., quarter corner between secs. 14 and 23, at T road south, in post 10 feet west of division fence north of road; temporary bench mark-----	1, 156. 58
T. 28 N., R. 2 E., center of sec. 23, 0.5 mile north of Newkirk courthouse, 0.3 mile west of crossroads at northwest corner of town, in northwest angle on top of fence post; temporary bench mark-----	1, 139. 83
Newkirk, 1 foot north of street end of east sidewalk to courthouse, 1 foot west of main street sidewalk; iron post stamped "1154"-----	1, 153. 588
Newkirk, 1 mile east of, on south end of culvert, on west end of stone; chiseled square marked "U. S. 1147"-----	1, 147. 29
T. 28 N., Rs. 2 and 3 E., corner of secs. 19, 24, 25, and 30, 50 feet west of crossroads, on south end of culvert, on west end of wall; chiseled square marked "U. S. 1144"-----	1, 143. 78
T. 28 N., R. 3 E., corner of secs. 19, 20, 29, and 30, in northwest corner of crossroads, on northeast corner of stone under south doorstep of schoolhouse; chiseled square marked "U. S. 1169"-----	1, 169. 17

From Newkirk east along Atchison, Topeka & Santa Fe Ry. to point 3 miles southeast of Newkirk.

Newkirk, 0.2 mile east of, in base of semaphore; southwest bolt-----	1, 147. 56
Newkirk, 0.9 mile southeast of; top of stone milepost 2-----	1, 157. 84
Newkirk, 1.9 miles southeast of; top of stone milepost 3-----	1, 119. 02
Newkirk, 3.1 miles southeast of, secs. 5 and 6, T. 27 N., R. 3 E., in northeast corner of road crossing, near stone fence corner; iron post stamped "1100"-----	1, 099. 712

#### WASHUNGA QUADRANGLE.

[Latitude 36° 30'-37°; longitude 96° 30'-97°.]

From point 2.3 miles east of Newkirk east along highways to point 4.2 miles southeast of Foraker. (Leveled twice.)

T. 28 N., R. 3 E., corner of secs. 20, 21, 28, and 29, 300 feet northeast of crossroads, near fence north of road; iron post stamped "1124" (the 4 mark is indistinct from a flaw)-----	1, 123. 675
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------

	Feet.
Mound Valley School, in southeast corner of crossroads, on northwest corner of cement flags at north door; chiseled square marked "U. S. □"-----	1, 103. 34
T. 28 N., R. 3 E., quarter corner between secs. 22 and 27, 0.1 mile west of, on stone base of pump, south of road, in northwest corner; chiseled square marked "U. S. □ 1039"-----	1, 039. 19
T. 28 N., R. 3 E., corner of secs. 22, 23, 26, and 27, north side of road, 100 feet northwest of T road at corner, on southwest end of culvert; cut-----	1, 051. 11
T. 28 N., R. 3 E., 0.1 mile east of corner of secs. 23 and 26, on west end of south side wall of stone bridge; chiseled square marked "U. S. □ 1013"-----	1, 012. 90
T. 28 N., R. 3 E., secs. 23 and 26, Arkansas River crossing section line, on pier of steel bridge, north side, east end; top of rivet, marked "U. S. B. M. 1019"-----	1, 019. 14
T. 28 N., R. 3 E., 0.3 mile east of east edge of secs. 24 and 25, on top of prominent ridge, north of road, near fence; iron post stamped "1190"-----	1, 189. 965
Secs. 19, 30, 25, and 24, T. 28 N., Rs. 3 and 4 E., on top of corner stone; chiseled square marked "U. S. □ 1159"-----	1, 159. 46
T. 28 N., R. 4 E., corner of secs. 20, 29, 30, and 19, on top of corner stone; chiseled square marked "U. S. □ 1121"-----	1, 121. 37
T. 28 N., R. 4 E., quarter corner between secs. 20 and 29, on small stone bridge, west end, south wall; chiseled square marked "U. S. B. M. □ 1084"-----	1, 083. 70
T. 28 N., R. 4 E., corner of secs. 20, 21, 28, and 29, on top of corner stone; chiseled square-----	1, 139. 33
T. 28 N., R. 4 E., corner of secs. 22, 27, 28, and 21, in fence post northeast of crossroads; copper nail marked "U. S. 1135"-----	1, 135. 45
T. 28 N., R. 4 E., quarter corner between secs. 22 and 27; top of stone marked "1/4"-----	1, 142. 9
T. 28 N., R. 4 E., northeast corner of sec. 27, 0.1 mile west of, south of road, near fence, on ridge; iron post stamped "1181" (top of post is beaten concave)-----	1, 180. 726
T. 28 N., R. 4 E., corner of secs. 23, 26, 27, and 22; top of stone-----	1, 164. 2
T. 28 N., R. 4 E., corner of sec. 26, 0.2 mile east of, in corner fence post; copper nail marked "U. S. 1203"-----	1, 202. 82
T. 28 N., R. 4 E., northwest corner of sec. 36, in corner fence post southwest of; copper nail marked "U. S. 1205"-----	1, 205. 32
T. 28 N., R. 4 E., 950 feet northwest of corner of sec. 36, 10 feet north of small rock monument, in flat rock; aluminum tablet stamped "1180" (stamped 11 feet too low)-----	1, 190. 999
T. 28 N., R. 4 E., corner of sec. 36; top of stone marked "C 36"-----	1, 140. 0
T. 28 N., R. 4 E., about 0.2 mile northwest of south quarter of sec. 31, 150 feet northeast of Kirtley ranch house on Little Beaver Creek, west brace of corner fence post; copper nail marked "U. S. 1033"-----	1, 034. 37
Tps. 27 and 28 N., R. 5 E., corner of secs. 5, 6, 31, and 32, 0.2 mile east of, 15 feet southeast of T fence north of road; square hole in flat rock marked "U. S. 1094"-----	1, 095. 83
T. 28 N., R. 4 E., 0.2 mile west of corner of sec. 33, on slight ridge near fence; iron post stamped "1086"-----	1, 087. 911

	Feet.
T. 28 N., R. 5 E., quarter corner between secs. 34 and 35, 0.2 mile southeast of, south of creek, 200 feet northeast of small house, in top of post 5 feet north of T fence west; copper nail marked "U. S. 1042"-----	1, 043. 39
T. 28 N., R. 5 E., 0.25 mile south of corner common to secs. 35 and 36, north edge of section, on black walnut fence post, T fence west; paint mark marked "U. S. 1112"-----	1, 113. 75
T. 28 N., R. 5 E., corner of secs. 25, 26, 35, and 36; U. S. Land Office post, stamped with figures inverted if referred to lettering of post-----	1, 084. 5
T. 28 N., R. 5 E., 0.4 mile west of township line, secs. 25 and 36, on small ridge, on fence line south of road; iron post stamped "1143"-----	1, 144. 434
T. 28 N., Rs. 5 and 6 E., corner of secs. 30, 31, 36, and 26; U. S. Land Office post stamped "1141"-----	1, 142. 01
T. 28 N., R. 6 E., quarter corner between secs. 30 and 31; U. S. Land Office post stamped "1149"-----	1, 150. 48
T. 28 N., R. 6 E., corner of secs. 29, 30, 31, and 32; U. S. Land Office post stamped "1180"-----	1, 181. 77
T. 28 N., R. 6 E., quarter corner between secs. 29 and 30; U. S. Land Office post (top of post bent) stamped "1159"-----	1, 160. 10
T. 28 N., R. 6 E., corner of secs. 28, 29, 32, and 33, 20 feet southeast of U. S. Land Office post, southeast fence corner at crossroads; iron post stamped "1147"-----	1, 147. 444
T. 28 N., R. 6 E., line between secs. 28 and 33 crossing Salt Creek, in blazed elm tree on east bank, in branch on southwest side, 1.5 feet above ground; copper nail marked "U. S. 1114"-----	1, 115. 15
T. 28 N., R. 6 E., quarter corner between secs. 27 and 34; U. S. Land Office post stamped "1183"-----	1, 184. 94
T. 28 N., R. 6 E., corner of secs. 26, 27, 34, and 35; U. S. Land Office post stamped "1209"-----	1, 210. 16
T. 28 N., R. 6 E., 0.2 mile east of corner of secs. 26, 27, 34, and 35, at brink of hill; iron post stamped "1217"-----	1, 218. 168
T. 28 N., R. 6 E., corner of secs. 25, 36, 35, and 26; U. S. Land Office post stamped "1154"-----	1, 155. 00
T. 28 N., R. 6 E., line between secs. 25 and 36 crossing Elm Creek, on west bank; point on rock marked "U. S. 1142"-----	1, 143. 4
T. 28 N., Rs. 6 and 7 E., corner of secs. 30, 31, 25, and 36, corner fence post southeast of crossroads; copper nail marked "U. S. 1223"-----	1, 224. 08
Foraker, southwest corner of townsite, 0.5 mile west of station, center of road; cross on top of stone marked on fence post 15 feet north-west "U. S. 1247"-----	1, 248. 78
Foraker, building of Bank of Foraker, in southwest corner of pillar base at door; aluminum tablet stamped "1274"-----	1, 274. 970
Foraker, south edge of platform, 20 feet southwest of building; nail marked "U. S. 1270"-----	1, 271. 26
Foraker, 0.9 mile east of, on north guard rail, at east end of trestle 2253; top of bolt marked "U. S. 1265"-----	1, 266. 19
Foraker, 2 miles east of, on trestle 2242, on south guard rail, 15 feet east of west end; top of bolt-----	1, 238. 03
Foraker, 3.2 miles east of, 450 feet east of milepost 223, on property fence, 50 feet south of road, in top of post; copper nail-----	1, 215. 91

	Feet.
Foraker, 3 miles east of, north of road, 150 feet east of milepost 223, 50 feet north of railroad at curve; iron post stamped "1218"-----	1, 219. 809
Foraker, 4.2 miles southeast of, 3.3 miles northwest of Blackland, 450 feet east of milepost 222, on fourth post east of telegraph pole; copper nail marked "U. S. 1185"-----	1, 186. 36
From point 3 miles southeast of Newkirk southeast and south along Atchison, Topeka & Santa Fe Ry. to Ralston.	
Newkirk, 4.1 miles southeast of, 1,600 feet north of road crossing south of milepost 5, at north end of cut, east of track; point on rock marked "U. S. 1125"-----	1, 124. 74
Newkirk, 4.9 miles southeast of, 2,800 feet southeast of crossroads, on top of stone milepost 6; point marked "U. S. 1135" (railroad bench mark)-----	1, 134. 56
Mervine siding, at crossing of east-west road in northeast corner near corner of fence; iron post stamped "1150"-----	1, 149. 598
Mervine siding, 1 mile southeast of stone milepost 8; point on marked "U. S. 1123" (railroad bench mark)-----	1, 123. 32
Mervine siding, 2 miles southeast of, 100 feet west of milepost 9, southeast corner of stone culvert 8 d; chiseled square marked "U. S. 1098" (railroad bench mark)-----	1, 097. 58
Mervine siding, 3 miles southeast of, 200 feet north of milepost 10, in northeast corner of farm-road crossing, near property fence; iron post stamped "1171" (stamping is evidently in error)-----	1, 070. 454
Mervine siding, 4 miles southeast of, 100 feet east of north-south road crossing; top of stone milepost 11, marked "U. S. 1048"-----	1, 048. 11
Uncas, in front of station; top of rail-----	1, 032. 6
Uncas, 0.3 mile east of, at milepost 12; top of rail driven in ground marked "U. S. 1025"-----	1, 024. 66
Uncas, 1.4 miles southeast of, 300 feet east of milepost 13, at north- south road crossing, 200 feet south of track; iron post stamped "993"-----	992. 575
Uncas, 2.3 miles southeast of, 800 feet north of north-south road cross- ing; top of stone post marked "U. S. 990"-----	990. 07
Uncas, 3.3 miles southeast of; top of stone milepost 15, marked "U. S. 983"-----	983. 30
Uncas, 4.5 miles southeast of, 700 feet east of milepost 16, at north- south road crossing, south of track, near east cattle-guard fence; iron post stamped "989"-----	989. 286
Kaw, 0.4 mlie west of, 300 feet east of east-west road crossing; point on top of stone milepost 17 marked "U. S. 985"-----	984. 42
Kaw, in front of station; top of rail marked on west edge of brick platform "U. S. 985"-----	984. 5
Kaw, 0.7 mlie east of, 170 feet east of milepost 18, on south end of west pier of Arkansas River railroad bridge; square marked "U. S. B. M. 991"-----	990. 94
Arkansas River, bridge 18 A, at south end, on east pier (railroad bench mark)-----	995. 71
Kaw, 1.7 miles east of, 800 feet west of Soldani stockyard switch, in cut on top of ridge, 550 feet northeast of milepost 19, near north property fence; iron post stamped "1035"-----	1, 034. 427

	Feet.
Kaw, 2.8 miles east of, 1,100 feet east of north-south road crossing; point on top of stone milepost 20 marked "U. S. 1049"-----	1, 048. 98
Kaw, 3.8 miles east of; top of stone milepost 21, marked "1075"-----	1, 064. 47
Kaw, 5 miles southeast of, 1,100 feet southeast of stone milepost 22, in southeast corner of east-west road crossing, near corner fence; iron post stamped "1029"-----	1, 015. 951
Kaw, 5.1 miles southeast of, 2,200 feet west of north-south road cross- ing; point on top of stone milepost 23, marked "U. S. 1009"-----	998. 80
Kaw, 6.7 miles southeast of; point on top of stone milepost 24, marked "U. S. 974" (railroad bench mark)-----	964. 25
Burbank, 0.7 mile northwest of; point on top of stone milepost 25, marked "U. S. 946" (railroad bench mark)-----	945. 91
Burbank, 150 feet southeast of station, in northeast corner of east- west road crossing, near corner of fence; iron post stamped "935"-----	935. 265
Burbank, in front of station; top of rail-----	937. 4
Milepost 26; point on top-----	931. 9
Burbank, 1.7 miles southeast of; point on top of stone milepost 27, marked "U. S. 926"-----	926. 14
Burbank, 2.7 miles southeast of, 1,300 feet south of east-west road crossing, 150 feet southwest of milepost 28, near west property fence; iron post stamped "914"-----	914. 149
Burbank, 3.7 miles southeast of, 100 feet south of small stream; point on top of stone milepost 29, marked "U. S. 899" (railroad bench mark)-----	899. 01
Remington, 0.3 mile north of station; point on top of stone milepost 30, marked "U. S. 888" (railroad bench mark)-----	887. 48
Remington, in front of station; top of rail, marked "U. S. 886"-----	885. 5
Remington, 0.7 mile southeast of, 200 feet east of milepost 31, near north property fence, 60 feet from rock marked "→ U. S. B. M.," blazed tree 60 feet south, in 3-foot rock; aluminum tablet stamped "881"-----	881. 093
Remington, 1.7 miles southeast of, 400 feet south of east-west road; point on top of stone milepost 32, marked "U. S. 872"-----	872. 09
Remington, 2.7 miles southeast of, 900 feet northwest of north- south road crossing; point on top of stone milepost 33, marked "U. S. 867" (railroad bench mark)-----	866. 54
Remington, 3.7 miles south of, 100 feet northwest of milepost 34, near north property fence; iron post stamped "851"-----	849. 553
Remington, 4.7 miles south of, 150 feet east of north-south road crossing; point on top of stone milepost 35, marked "U. S. 854"-----	853. 09
Remington, 5.7 miles south of, 250 feet east of north-south farm-road crossing; point on top of stone milepost 36, marked "U. S. 853" (railroad bench mark)-----	851. 55
Fairfax, 0.6 mile north of, 200 feet west of north-south road crossing, in cut; point on top of stone milepost 37, marked "U. S. 843"-----	842. 05
Fairfax, in angle of brick platform, 15 feet southeast of station building; iron post stamped "843"-----	841. 300
Top of stone milepost 38, marked "835 U. S."-----	834. 1
Fairfax, 1.3 miles south of, in top of stone milepost 39; fossil shell marked "U. S. 814"-----	814. 02
Fairfax, 2.3 miles south of, 600 feet north of east-west road crossing near trestle; point on top of stone milepost 40, marked "U. S. 307" (railroad bench mark)-----	806. 31

	Feet.
Fairfax, 2.6 miles south of, 300 feet south of east-west road crossing, 15 feet east of west property fence, 900 feet south of milepost 40; iron post stamped "819"-----	818. 311
Fairfax, 3.4 miles south of, 1,200 feet northeast of railroad bridge across Arkansas River; point on top of stone milepost 41, marked "U. S. 811" (railroad bench mark)-----	810. 43
Arkansas River, north end of railroad bridge over-----	810. 9
Arkansas River, surface of water under railroad bridge, June 8, 1912-----	788
Arkansas River, south end of railroad bridge over-----	811
Ralston, 1 mile north of, 1,000 feet north of east-west road crossing; point on top of stone milepost 42, marked "U. S. 807"-----	806. 46
Ralston, in front of station; top of rail-----	810. 5
Ralston, 150 feet southwest of Atchison, Topeka & Santa Fe Ry. station, at west property fence; iron post stamped "805"-----	804. 905

Agra, Chandler, Mallon, Maud, Prague, Sac and Fox, and Shawnee Quadrangles.

#### LINCOLN, PAYNE, AND POTTAWATOMIE COUNTIES.

The elevations in the following list were determined by primary leveling, a prism level and yard rods being employed.

The leveling was done in 1905 by E. T. King; additional leveling in the Shawnee quadrangle, along the Choctaw, Oklahoma & Gulf R. R., was done in 1897 by E. L. Faison.

#### AGRA QUADRANGLE.

[Latitude 35° 45'—36°; longitude 96° 45'—97°.]

From Perkins northeast along Atchison, Topeka & Santa Fe Ry. to Ripley.

	Feet.
Perkins, 3.0 miles east of, north-south road crossing, in northwest fence corner, 200 feet northeast of milepost 33; iron post stamped "832 Adj 1903"-----	830. 663
Payne County, 125 feet east of township line between Rs. 3 and 4 E., T. 17 N., 10 feet south of track, in rock cliff; aluminum tablet stamped "827 Adj 1903"-----	825.813

From Cushing southwest along Missouri, Kansas & Texas Ry. to Carney.

Cushing, 0.25 mile west of Santa Fe station on Missouri, Kansas and Texas Ry., 2,000 feet southwest of railroad crossing; at west end of cut, at private-road crossing, 50 feet north of track; iron post stamped "966 Adj 1903" (elevation 962.169 by railroad)-----	965. 046
Cushing, 3.5 miles southwest of, in Lincoln County, at county line, 100 feet south of corner of secs. 17, 18, 19, and 20, in south fence corner in right-of-way; iron post stamped "1036 Adj 1903"-----	1, 034. 431
Agra, 4.0 miles northeast of, north-south road crossing, in southwest corner of fence; iron post stamped "1049 Adj 1903"-----	1, 047. 506
Agra, 0.5 mile east of, north-south road crossing, in southwest fence corner, 400 feet east of milepost 290; iron post stamped "1034 Adj 1903"-----	1, 032. 635
Agra, in front of station; top of rail-----	1, 035. 5
Agra, 2.5 miles southwest of, east-west road crossing, in north fence corner in railroad right-of-way; iron post stamped "1036 Adj 1903"-----	1, 034. 442

	Feet.
Tryon, 1.0 mile east of, north-south road crossing, 100 yards southeast of section corner, in southwest fence corner; iron post stamped "1032 Adj 1903"-----	1, 030. 655
Carney, 3.0 miles northeast of, east-west road crossing, 300 feet north of milepost 299, in northwest fence corner, 150 yards east of section corner; iron post stamped "1025 Adj 1903"-----	1, 023. 362

From Agra south along road to Chandler.

T. 16 N., R. 4 E., corner of secs. 14, 15, 22, and 23, near northwest fence corner in public right-of-way; iron post stamped "942 Adj 1903"-----	940. 702
Tps. 15 and 16 N., R. 4 E., corner of secs. 34 and 35 (Osage), and 2 and 3 (Union), 2 feet from southeast fence on corner post; iron post stamped "917 Adj 1903"-----	915. 642
T. 15 N., R. 4 E., line between secs. 22 and 23, 570 yards north of corner to secs. 22, 23, 26, and 27, on north face of hill near brow, 4 feet west of east fence line, in depression in rock ledge; aluminum tablet stamped "921 Adj 1903"-----	919. 350

From Davenport north along Eastern Oklahoma R. R. to milepost 95.

Milepost 99, 12 feet west of track, in top of milepost; aluminum tablet stamped "824 Adj 1903"-----	822. 655
Kendrick, in front of station; top of rail-----	834. 5
Kendrick, 2.0 miles north of, at east-west road crossing, on township line, in northwest corner of intersection, 75 feet north of milepost 95, in base of rock ledge; aluminum tablet stamped "869 Adj 1903"-----	867. 588

CHANDLER QUADRANGLE.

[Latitude 35° 30'-35° 45'; longitude 96° 45'-97°.]

From Lowe east along Chicago, Rock Island & Pacific R. R. to Chandler, thence east over St. Louis & San Francisco R. R. to Davenport.

Chandler, 7.0 miles northwest of, north-south road crossing, in southwest fence corner, on railroad right of way; iron post stamped "890 Adj 1903"-----	888. 355
Chandler, 2.0 miles northwest of, north-south road crossing, on east-west township line, in southeast fence corner on railroad right of way; iron post stamped "867 Adj 1903"-----	865. 870
Chandler, 150 feet southwest of station, on north side of road, near sidewalk and next to crossing post; iron post stamped "865 Adj 1903"-----	863. 271
Chandler, 1.5 miles northeast of, under bridge over track at north-south road crossing, half section line on section 3, 8 feet south of track; iron post stamped "977 Adj 1903"-----	975. 743
T. 14 N., Rs. 4 and 5 E., township line, north-south road crossing, 10 feet north of track, 1 foot south of crossing post; iron post stamped "886 Adj 1903"-----	884. 729
Davenport, at crossing of St. Louis & San Francisco and Atchison Topeka & Santa Fe railroads, 50 feet north of former, 50 feet west of latter, at corner of right-of-way fence; iron post stamped "840 Adj 1903"-----	838. 746

From Davenport southwest along Eastern Oklahoma branch of the Atchison, Topeka & Santa Fe Ry. to Meeker.

	Feet.
Milepost 106, on top of; aluminum tablet stamped "886 Adj 1903"---	853. 337
Sparks, 1.0 mile north of station, 725 feet north of crossing of Atchison, Topeka & Santa Fe Ry. and Fort Smith & Western R. R., on stone milepost 109; aluminum tablet stamped "798 Adj 1903"----	796. 325
Sparks, in front of station; top of rail-----	808.
Sparks, 2.0 miles southwest of, 630 yards north of line between secs. 24 and 25, T. 13 N., R. 4 E., in stone milepost; aluminum tablet stamped "819 Adj 1903"-----	817. 141
Payson, 0.5 mlie south of, 5.0 miles southwest of Sparks, 0.5 mile south of township line, in sec. 2, T. 12 N., R. 4 E., in stone milepost 115; aluminum tablet stamped "836 Adj 1903"-----	833. 886
T. 12 N., R. 5 E., corner of secs. 7, 8, 17, and 18, near southeast corner of fence; iron post stamped "1051 Adj 1903" (the above b. m. on a circuit east of track)-----	1, 049. 706
T. 12 N., R. 4 E., corner of secs. 10, 11, 14, and 15, near southeast corner of fence, in public right of way; iron post stamped "871 Adj 1903"-----	869. 561
Meeker, 0.5 mile north of, T. 12 N., R. 4 E., sec. 17, in stone milepost 119; aluminum tablet stamped "866 Adj 1903"-----	864. 108
Meeker, in front of station; top of rail-----	869.

From Warwick east along St. Louis & San Francisco R. R. to Chandler.

Warwick, 0.8 mile east of station, at De Bolt siding, north-south road crossing, between secs. 16 and 17, in northwest fence corner, in railroad right of way; iron post stamped "865 Adj 1903"-----	863. 149
Warwick, 3.0 miles east of, north-south road crossing, between secs. 14 and 15, 1,000 feet east of milepost 500, 10 feet north of railroad crossing post, in right of way; iron post stamped "834 Adj 1903"---	832. 598
Chandler, 4.0 miles southwest of, north-south road crossing (between sec. 24, McKinley Township, and sec. 19, Chandler Township), 8 feet north of tracks, near crossing post, in right of way; iron post stamped "825 Adj 1903"-----	822. 932

From Warwick southwest along Fort Smith & Western R. R. to Sparks, thence to point 3 miles east of Sparks.

McKinley Township, between secs. 23 and 24, north-south road crossing, 10 feet north of track, in public right of way, near railroad crossing post; iron post stamped "826 Adj 1903"-----	824. 652
Chandler Township, between secs. 30 and 31, east-west road crossing, northeast fence corner, railroad right of way; iron post stamped "817 Adj 1903"-----	815. 636
Chandler Township, between secs. 32 and 33, north-south road crossing, 25 feet north of railroad, near crossing post in public right of way; iron post stamped "828 Adj 1903"-----	825. 909
Chandler, 4.8 miles southeast of, north-south road crossing, northeast fence corner, in railroad right of way, 12 feet north of track; iron post stamped "802 Adj 1903"-----	800. 341
Crossing of Fort Smith & Western and Atchison, Topeka & Santa Fe railroads; on north rail-----	803.
Chuckaho, in front of station; top of rail-----	834.



	Feet.
Sparks, 3.0 miles east of, east-west road crossing, 0.25 mile west of corner of secs. 9, 10, 15, and 16, 10 feet north of track, in rock ledge; aluminum tablet stamped "838 Adj 1903"-----	836. 502
From Sparks 3.5 miles northeast along road.	
T. 13 N., R. 5 E., corner of secs. 3, 4, 9, and 10, near northwest corner of right of way, 200 yards east of Deep Fork, in sunken boulder; aluminum tablet stamped "785 Adj 1903"-----	783. 556
From Meeker west along highway 3 miles, thence north 6 miles, thence east 3 miles, thence north to Midlothian.	
T. 12 N., R. 3 E., corner of secs. 15, 16, 21, and 22, at northwest fence corner post; iron post stamped "928 Adj 1903"-----	919. 686
Tps. 12 and 13 N., R. 3 E., secs. 3 and 4 of the former and 33 of the latter, 10 feet east of southeast fence corner; iron post stamped "898 Adj 1903"-----	896. 604
T. 13 N., R. 3 E., corner of secs. 15, 16, 21, and 22, near southeast fence corner in public right of way; iron post stamped "979 Adj 1903"-----	977. 836
T. 13 N., Rs. 3 and 4 E., corner of secs. 13, 14, 18, and 19, near southeast fence corner in public right of way; iron post stamped "929 Adj 1903"-----	927. 677
T. 13 N., R. 4 E., quarter corner between secs. 16 and 17, east side of public right of way, in sunken boulder, 1 foot from fence line; aluminum tablet stamped "961 Adj 1903"-----	959. 103

## MALLON QUADRANGLE.

[Latitude 35° 45'-36°; longitude 96° 30'-96° 45'.]

From milepost 95 north along Eastern Oklahoma branch of the Atchison, Topeka &amp; Santa Fe Ry. to Cushing.

Milepost 91, in top of, 17 feet west of track; aluminum tablet stamped "948 Adj 1903"-----	946. 590
Cushing, 4.0 miles south of, in top of milepost 87; aluminum tablet stamped "857 Adj 1903"-----	855. 023

From Stroud north along road and west to Cushing.

Stroud, 3.0 miles north of, T. 15 N., R. 6 E., corner of secs. 3, 4, 9, and 10, near northwest fence corner in public right of way; iron post stamped "908 Adj 1903"-----	906. 067
Stroud, 6.0 miles north of, T. 16 N., R. 6 E., at corner of secs. 21, 22, 27, and 28, Ponca township, in buried boulder 2 feet from southwest corner; aluminum tablet stamped "926 Adj 1903"-----	924. 527
T. 16 N., R. 6 E., corner of secs. 3, 4, 9, and 10, 2 feet from northwest fence corner, in buried boulder; aluminum tablet stamped "997 Adj 1903"-----	994. 860
T. 17 N., R. 6 E., 700 yards north of corner of secs. 27, 28, 33, and 34, 12.5 feet east of west fence line, at large rock basin in public right of way, in rock ledge; aluminum tablet stamped "871 Adj 1903"-----	869. 571
Cushing, 0.5 mile south of, 6.0 miles east of, corner of secs. 3, 4, 9, and 10, 2 feet from southeast fence corner, in boulder; aluminum tablet stamped "894 Adj 1903"-----	892. 078
Cushing, 0.5 mile south and 3.0 miles east of, corner of secs. 6, 7, 1, and 12, 500 feet east of corner and township line, 7 feet north of south fence line, in rock; aluminum tablet stamped "874 Adj 1903"-----	871. 904

## MAUD QUADRANGLE.

[Latitude 35°-35° 15'; longitude 96° 45'-97°.]

From Tecumseh southwest along Eastern Oklahoma branch of the Atchison, Topeka &amp; Santa Fe Ry. to McComb.

	Feet.
T. 9 N., R. 3 E., sec. 27, in stone milepost 140; aluminum tablet stamped "987 Adj 1903"-----	985. 222
T. 8 N., R. 3 E., sec. 11, in stone milepost 143; aluminum tablet stamped "931 Adj 1903"-----	929. 239
McComb, 1.0 mile northeast of station, T. 8 N., R. 3 E., sec. 21, in stone milepost 146; aluminum tablet stamped "931 Adj 1903"-----	928. 968

From Avoca north along road to point near Sewell, thence north to point 2 miles east of Tecumseh.

Tps. 6 and 7 N., Rs. 3 and 4 E., corner of, 20 feet east of northeast fence corner; iron post stamped "1070 Adj 1903"-----	1, 068. 051
T. 7 N., Rs. 3 and 4 E., corner of secs. 13, 24, 18, and 19, near northwest corner fence post; iron post stamped "896 Adj 1903"-----	894. 915
Romulus, in front of station; top of rail-----	915.
Tps. 7 and 8 N., Rs. 3 and 4 E., corner of, near northwest fence corner; iron post stamped "1015 Adj 1903"-----	1, 013. 583
T. 8 N., Rs. 3 and 4 E., 175 feet north of corner of secs. 13, 24, 18, and 19, in west fence line; iron post stamped "998 Adj 1903"-----	996. 136
Tps. 8 and 9 N., Rs. 3 and 4 E., corner of, near southeast fence corner; iron post stamped "1030 Adj 1903"-----	1, 028. 776
T. 9 N., R. 4 E., corner of secs. 28, 29, 32, and 33, near northwest fence corner; iron post stamped "1027 Adj 1903"-----	1, 025. 822

## PRAGUE QUADRANGLE.

[Latitude 35° 15'-35° 30'; longitude 96° 30'-96° 45'.]

Near Prague.

Prague, 1.0 mile south of, on Lincoln-Pottawatomie county line, 10 feet south of southwest fence corner post, in sunken boulder; aluminum tablet stamped "961 Adj 1903"-----	959. 009
Prague, 2.0 miles south by 2.0 miles west of, T. 11 N., Rs. 5 and 6 E., corner of secs. 1, 6, 7, and 12, 12 feet west of southwest fence corner, in sunken boulder; aluminum tablet stamped "985 Adj 1903"-----	983. 190
T. 11 N., R. 5 E., secs. 10, 11, 14, and 15, near southwest fence corner post in east-west fence line, in sunken boulder; aluminum tablet stamped "975 Adj 1903"-----	973. 143
T. 12 N., Rs. 3 and 4 E., corner of secs. 13, 24, 18, and 19, 50 feet east of corner at south fence line; iron post stamped "977 Adj 1903"-----	975. 866

## SAC AND FOX 15' QUADRANGLE.

[Latitude 35° 30'-35° 45'; longitude 96° 30'- 96° 45'.]

From Prague north along road to Stroud, thence west to Davenport.

Prague, 3.5 miles north of, 55 feet northwest of corner of secs. 4, 5, 8, and 9, near northwest fence corner; iron post stamped "949 Adj 1903"-----	947. 390
Arlington, 250 feet east and 24 feet south of corner of secs. 20, 21, 28, and 29, 16 feet north of south fence line, in public right of way, in rock; aluminum tablet stamped "912 Adj 1903"-----	910. 624

	Feet.
T. 13 N., R. 6 E., on line between secs. 21 and 23, at bridge over Deer Creek, on north end of east stone abutment; chiseled circle with dot in center-----	819. 757
T. 13 N., R. 6 E., 375 feet northeast of corner of secs. 14, 15, 22, and 23, in public right of way, 31 feet east of west fence line, in rock outcrop; aluminum tablet stamped "868 Adj 1903"-----	866. 151
Sac and Fox Agency, 2.0 miles south and 1.0 mile east of, 560 feet north of, corner of secs. 2 and 3, North Creek Township, and 34 and 35 South Keokuk Township, 7 feet east of west fence line, in rock outcrop; aluminum tablet stamped "823 Adj 1903"-----	821. 434
Sac and Fox Agency, 1.0 mile east of, near corner of secs. 22, 23, 26, and 27, in public right of way, 1 foot from northwest fence corner; iron post stamped "757 Adj 1903"-----	755. 018
Stroud, 0.5 mile east and 2.5 miles south of, corner of secs. 2, 3, 10, and 11, near northwest fence corner; aluminum tablet stamped "807 Adj 1903"-----	804. 717
Stroud, 0.25 mile east of station, half-section line crossing, at northwest fence corner; iron post stamped "895 Adj 1903"-----	893. 394
Stroud, in front of station; top of rail-----	884.
Stroud, 2.25 miles west of, at north-south public-road crossing, in public right of way near northeast fence corner; iron post stamped "907 Adj 1903"-----	905. 499
Davenport, 2.0 miles northeast of, at east-west road crossing, west of railroad, in public right of way; iron post stamped "807 Adj 1903"-----	805. 177
From Stroud southeast to check Indian Territory levels. (Mean of direct and reverse lines.)	
Stroud, 3.0 miles southeast of, near corner of Tps. 14 and 15 N., Rs. 6 and 7 E.; iron post stamped "878"-----	878. 491
From point near Sparks northeast along road to Sac and Fox Agency.	
Tps. 13 and 14 N., R. 5 E., 50 feet northeast of corner to secs. 2, 3, 34, and 35, near northeast fence corner, in sunken boulder; aluminum tablet stamped "784 Adj 1903"-----	782. 418
Township corner, Tps. 13 and 14, Rs. 5 and 6 E., in public right of way, near southeast fence corner, in sunken boulder; aluminum tablet stamped "787 Adj 1903"-----	785. 052
Sac and Fox, 1.0 mile west of, corner of secs. 20, 21, 28, and 29, T. 14 N., R. 6 E., near northwest fence corner, in public right of way, in sunken boulder; aluminum tablet stamped "766 Adj 1903"-----	764. 610
Sac and Fox, 1.0 mile west by 2.0 miles north of, corner of secs. 8, 9, 16, and 17, T. 14 N., R. 6 E., near southeast fence corner in public right of way; iron post stamped "815 Adj 1903"-----	813. 681
From point near Sparks southwest along Fort Smith & Western R. R. to Prague.	
T. 13 N., R. 5 E., 0.25 mile south of corner to secs. 22, 23, 27, and 28, on line between secs. 27 and 28, 11 feet north of track; iron post stamped "815 Adj 1903"-----	813. 210
Wilzetla, in front of station; top of rail-----	830.
Wilzetla, 0.25 mile southeast of station, at road crossing between secs. 1 and 2, South Seminole Township, 12 feet north of tracks near crossing post, in public right of way; iron post stamped "825 Adj 1903"-----	823. 697

	Feet.
Prague, 3.0 miles northwest of, at public-road crossing near trestle 1625, 12 feet east of railroad, near crossing post; iron post stamped "860 Adj 1903"-----	858. 537

## SHAWNEE QUADRANGLE.

[Latitude 35° 15'–35° 30'; longitude 96° 45'–97°.]

From Meeker south along Eastern Oklahoma branch of the Atchison, Topeka & Santa Fe Ry. to Tecumseh.

Meeker, 3 miles southwest of, T. 12 N., R. 4 E., sec. 31, in stone milepost 122; aluminum tablet stamped "924 Adj 1903"-----	922. 564
Aydelotte, in front of station; top of rail-----	976.
Meeker, 5.5 miles south of, 7.0 miles north of Shawnee Township, T. 11 N., R. 4 E., sec. 18, in stone milepost 125; aluminum tablet stamped "993 Adj 1903"-----	991. 634
Shawnee, 4 miles north of, T. 11 N., R. 4 E., sec. 31, in stone milepost 128; aluminum tablet stamped "1002 Adj 1903"-----	1, 000. 716
Shawnee, 1 mile north of station, T. 10 N., R. 4 E., sec. 18, in stone milepost 131; aluminum tablet stamped "1040 Adj 1903"-----	1, 038. 503
Shawnee, in front of Santa Fe station; top of west rail of east track-----	1, 015. 5
Shawnee, 2 miles south of, on stone milepost 134; aluminum tablet stamped "997 Adj 1903"-----	995. 031
Tecumseh (Santa Fe station), in front of; top of rail-----	1, 042.
Tecumseh, 0.5 mile southwest of, in stone milepost 137; aluminum tablet stamped "1058 Adj 1903"-----	1, 056. 192

From Shawnee east along road 8 miles, thence north 5 miles, thence east to Bellemon.

Shawnee, 2 miles east of T. 10 N., R. 4 E., corner of secs. 9, 10, 15, and 16; 65 feet north of stream bed, in rock ledge near traveled roadway; aluminum tablet stamped "982 Adj 1903"-----	979. 815
T. 10 N., Rs. 4 and 5 E., 100 yards north of corner of secs. 1, 12, 6, and 7, in west fence line, opposite road leading east, in sunken boulder; aluminum tablet stamped "957 Adj 1903"-----	955. 545
Tps. 10 and 11 N., R. 5 E., corner of secs. 4, 5, 32, and 33, 30 feet north of northeast fence corner, in sunken boulder; aluminum tablet stamped "943 Adj 1903"-----	941. 745
T. 11 N., R. 5 E., corner of secs. 16, 17, 20, and 21, near southwest fence corner, in sunken boulder; aluminum tablet stamped "959 Adj 1903"-----	957. 138

From Shawnee south along road to point 2 miles east of Tecumseh.

Shawnee, 1 mile east of, T. 10 N., R. 4 E., line between secs. 28 and 29, at railroad crossing, near northeast corner; iron post stamped "979 Adj 1903"-----	976. 911
Shawnee, 1.5 miles south by 1.0 mile east of, line between secs. 32 and 33, at crossing of branch of Chicago, Rock Island & Pacific Ry., at southeast fence corner; iron post stamped "989 Adj 1903"-----	987. 871
Tecumseh, 2 miles east of, T. 9 N., R. 4 E., corner of secs. 8, 9, 16, and 17, 25 feet north of northeast fence corner; iron post stamped "1059 Adj 1903"-----	1, 067. 728

From Earlsboro northwest along Choctaw, Oklahoma & Gulf R. R. to milepost 452, 4 miles west of Shawnee.

	Feet.
Earlsboro, 200 feet north of station building, 17 feet west of main track; iron post-----	1, 026. 038
Shawnee, 15 feet north of track, at east end of station platform; iron post-----	1, 041. 998
T. 10 N., R. 3 E., sec. 10, 4 miles west of Shawnee, near Dale; 1,850 feet east of road crossing, 360 feet east of milepost 452, 32 feet south of track; iron post stamped "1018 Okla"-----	1, 019. 450

Guthrie 15', Kingfisher 30', and Perkins 15' quadrangles.

#### CANADIAN, KINGFISHER, LINCOLN, LOGAN, AND OKLAHOMA COUNTIES.

The elevations in the following list were determined by primary leveling, prism level and yard rods being employed.

The leveling in 1905 was done by E. T. King and that in 1906 by J. W. King; some work in Perkins and Guthrie quadrangles was done in 1897 by Robert Coe.

#### GUTHRIE QUADRANGLE.

[Latitude 35° 45'-36°; longitude 97° 15'-97° 30'.]

From Guthrie west along St. Louis, El Reno & Western Ry. to Dutcher station.

	Feet.
Guthrie, at south side of west entrance to new Federal building, in granite stone; aluminum tablet stamped "980 Adj 1903"-----	979. 508
Guthrie, in front of Guthrie National Bank, in rock at foot of iron column; aluminum tablet stamped "982 Okla"-----	983. 050
Guthrie, "Star Bazaar," in rock at side of west entrance; aluminum tablet stamped "984 Okla"-----	984. 408
Guthrie, 3.8 miles west of, at road crossing on line between secs. 13 and 24, T. 16 N., R. 3 W., on south side of road, west side of track, in corner of right-of-way fence; iron post stamped "1088 Adj 1903"-----	1, 087. 077

From Guthrie southwest along Atchison, Topeka & Santa Fe Ry. to Seward.

Guthrie, city hall, on rock on west side of south entrance; chiseled cross (Guthrie datum 974.207)-----	973. 239
Guthrie, 2.8 miles south of, at road crossing on line between secs. 20 and 29, T. 16 N., R. 2 W.; iron post stamped "944 Adj 1903"-----	942. 906
Seward, east of track, south of road near crossing; iron post stamped "979 Adj 1903"-----	978. 072

From Guthrie northeast along Atchison, Topeka & Santa Fe Ry. to Coyle.

Guthrie, 3.0 miles northeast of, at north-south road crossing, in southeast fence corner; iron post stamped "913 Adj 1903"-----	911. 549
Guthrie, 6.0 miles northeast of, at east-west road crossing on section line, in northwest fence corner; iron post stamped "942 Adj 1903"-----	941. 249
Russell station, 2.0 miles east of, on township line close to milepost 10, near trestle, east of drain, near fence; iron post stamped "899. Adj 1903"-----	897. 985
Pleasant Valley, 1.0 mile west of, at north-south public-road crossing, in southwest fence corner; iron post stamped "914 Adj 1903"-----	913. 132

	Feet.
Coyle, 3.0 miles northwest of, near north-south road crossing near trestle 23, on roadbed of railroad, 8 feet south of track; iron post stamped "879 Adj 1903"-----	877.944
Coyle, 1.0 mile northwest of, at north-south road crossing, in south-west fence corner; iron post stamped "879 Adj 1903"-----	877.734

From Guthrie east along Chicago, Rock Island & Pacific Ry. to Indian meridian.

Guthrie, 2.0 miles east of, at crossing of St. Louis & San Francisco R. R. with Fort Smith & Western R. R., in northwest right-of-way fence corner; iron post stamped "1069 Adj 1903"-----	1,068.149
Taylor, north-south road crossing, in northeast fence corner, in railroad right of way; iron post stamped "1176 Adj 1903"-----	1,174.817
Guthrie, 6.0 miles east of, north-south road crossing, in southwest fence corner; iron post stamped "1165 Adj 1903"-----	1,164.086
Indian meridian, 1.0 mile west of, north-south road crossing in north-west fence corner; iron post stamped "1161 Adj 1903"-----	1,160.155

From Guthrie east along road to T. 17 N., R. 1 E., sec. 22.

T. 16 N., R. 1 W., near quarter corner south side of sec. 5, in rock; tablet stamped "1198 Okla"-----	1,198.893
T. 16 N., R. 1 W., about 500 feet west of southeast corner of sec. 1, in rock; aluminum tablet stamped "1093 Okla"-----	1,094.326

#### KINGFISHER QUADRANGLE.

[Latitude 35° 30'-36°; longitude 97° 30'-98°.]

From Kingfisher east along Chicago, Rock Island & Pacific Ry. to Reeding.

Kingfisher, on south corner of iron shoe plate upon concrete, on which rests south iron column supporting standpipe to city water plant; square bounded by two edges of plate and two chisel marks (C. and G. S. b. m. F)-----	1,057.370
Kingfisher, 3.5 miles southeast of, close to parallel 35° 50' N. and north-south township line, in northwest corner of public-road crossing; iron post stamped "1155 Adj 1903"-----	1,154.645
Kingfisher, 5.5 miles southeast of, south of railroad, 75 feet west of crossing, in fence corner in railroad right of way, 200 yards west of corner of secs. 4, 5, 32, and 33; iron post stamped "1162 Adj 1903"-----	1,161.815
Reeding, 1.5 miles west of, 60 feet south of track, east of north-south road crossing, in fence corner in railroad right of way; iron post stamped "1153 Adj 1903"-----	1,152.224
Reeding, in front of station; top of rail-----	1,108
Reeding, 1.5 miles east of, at fence corner, northwest corner of road crossing between secs. 8 and 9; iron post stamped "1112 Adj 1903"-----	1,111.167

From point 4.0 miles southwest of Navina southwest along St. Louis, El Reno & Western Ry. to Piedmont.

Lockridge, 1.0 mile northwest of, east-west road crossing, in south-west corner; iron post stamped "1114 Adj 1903"-----	1,113.212
Lockridge, in front of station; top of rail-----	1,138
Lockridge, 1.5 miles south of, at north-south road crossing, in north-east fence corner in Oklahoma County, on Oklahoma-Canadian county line; iron post stamped "1162 Adj 1903"-----	1,161.420

	Feet.
Piedmont, 2.8 miles northeast of, at north-south road crossing, in southeast fence corner; iron post stamped "1174 Adj 1903"-----	1, 173. 857
Piedmont, at north-south road crossing, 150 yards southwest of station, in southeast fence corner; iron post stamped "1193 Adj 1903"-----	1, 192. 189
From point 2.5 miles north of Oklahoma north along Atchison, Topeka & Santa Fe Ry. to center of T. 13 N., R. 3 W.	
T. 12 N., R. 3 W., 50 feet northwest of Santa Fe crossing on line between secs. 4 and 9; iron post stamped "1158 Okla No. 47"-----	1, 156. 776
T. 13 N., R. 3 W., 75 feet east and 30 feet north of Santa Fe crossing on line between secs. 28 and 33; iron post stamped "1222 Okla No. 48"-----	1, 221. 112
T. 13 N., R. 3 W., 150 feet and 30 feet east of Santa Fe crossing on line between secs. 21 and 22; iron post stamped "1168 Okla No. 49"-----	1, 167. 592
From El Reno northeast along St. Louis, El Reno & Western Ry. to Piedmont.	
El Reno, on northeast face of First National Bank Building, at right-hand side of entrance, on second stone above sidewalk; bronze tablet stamped "1357 Adj 1903"-----	1, 358. 944
El Reno, 1.0 mile north of St. Louis, El Reno & Western station, at north-south road crossing, at southeast fence corner, about 50 feet from track; iron post stamped "1317 Adj 1903"-----	1, 316. 169
El Reno, 4.0 miles northeast of, 100 yards west of north-south road crossing, 50 yards north of railroad, in right of way; iron post stamped "1337 Adj 1903"-----	1, 336. 135
Richland, 2.0 miles west of, at north-south road crossing, on meridian 97° 50', in southeast fence corner; iron post stamped "1374 Adj 1903"-----	1, 373. 213
Richland, in front of station; top of rail-----	1, 358
Richland, at north-south road crossing, in southeast fence corner in railroad right of way; iron post stamped "1358 Adj 1903"-----	1, 357. 641
Richland, 2.5 miles northeast of, at east-west road crossing, in southwest fence corner in railroad right of way; iron post stamped "1239 Adj 1903"-----	1, 238. 013
From Yukon west along Choctaw, Oklahoma & Gulf R. R. to El Reno Junction.	
Yukon, in front of station; top of rail-----	1, 296. 3
Milepost 14, 25 feet south of railroad track; iron post stamped "1279 Okla"-----	1, 280. 512
Milepost 8, near first telegraph pole west of, 27 feet south of railroad track; iron post stamped "1306 Okla"-----	1, 307. 718
Fort Reno, in front of station; top of rail-----	1, 343. 0
Fort Reno, parade ground, foot of flagstaff; iron post stamped "1392 Okla"-----	1, 393. 695
El Reno Junction, crossing of railroads, 54 feet south of Choctaw, Oklahoma & Gulf R. R., 44 feet east of Chicago, Rock Island & Pacific R. R.; iron post stamped "1327 Okla"-----	1, 328. 938
From Reeding east along Chicago, Rock Island & Pacific Ry. to Navina.	
Reeding, 1.5 miles east of, at fence corner, northwest corner of road crossing between secs. 8 and 9; iron post stamped "1112 Adj 1903"-----	1, 111. 167
Cashion, 0.5 mile west of, at north-south public-road crossing, in northeast fence corner, in railroad right of way; iron post stamped "1114 Adj 1903"-----	1, 113. 601

	Feet.
Cashion, in front of station; top of rail.....	1, 120
Cashion, 2.25 miles east of, at north-south road crossing, between secs. 8 and 9, 20 feet west of northeast fence corner, in railroad right of way; iron post stamped "1071 Adj 1903".....	1, 070. 286
Navina, 1.0 mile west of, at north-south road crossing, at southwest fence corner, in railroad right of way; iron post stamped "1080 Adj 1903".....	1, 079. 810

From Navina southwest along St. Louis, El Reno & Western R. R. 4 miles.

Navina, 1.5 miles west of, at east-west road crossing, between secs. 1 and 12, in southwest fence corner, in railroad right of way; iron post stamped "1065 Adj 1903".....	1, 064. 491
Navina, 4.0 miles southwest of, road crossing between secs. 21 and 22, in northeast fence corner, in railroad right of way; iron post stamped "1014 Adj 1903".....	1, 013. 028

From Navina northeast along St. Louis, El Reno & Western R. R. To Dutcher  
station.

Navina, 1.0 mile northeast of, at east-west road crossing, east of track and north of road; iron post stamped "1058 Adj 1903".....	1, 057. 507
Navina, 3.8 miles northeast of, at road crossing on line between secs. on north side of track, on railroad right of way; iron post stamped "1094 Adj 1903".....	1, 092. 817

From Navina east along Chicago, Rock Island & Pacific Ry. to Seward.

Navina, 1.0 mile east of, at north-south road crossing, south of track, east of road, in right of way; iron post stamped "1030 Adj 1903".....	1, 028. 724
--------------------------------------------------------------------------------------------------------------------------------------------------	-------------

#### PERKINS QUADRANGLE.

[Latitude 35° 45'-36°; longitude 97°-97° 15'.]

From T. 17 N., R. 1 E., sec. 22 south to T. 15 N., R. 1 E., sec. 9.

T. 17 N., R. 1 E., near southeast corner of sec. 22; iron post stamped "937 Okla".....	937. 785
T. 16 N., R. 1 E., southeast corner of sec. 3; iron post stamped "1074 Okla".....	1, 075. 282
T. 16 N., R. 1 E., near southeast corner of sec. 27, bowlder; aluminum tablet stamped "945 Okla".....	945. 477
T. 15 N., R. 1 E., near southeast corner of sec. 3; iron post stamped "1011 Okla".....	1, 011. 753
T. 15 N., R. 1 E., southeast corner of sec. 28; iron post stamped "914 Okla".....	915. 361

From Coyle east along Atchison, Topeka & Santa Fe Ry. to Vinco.

Coyle, 1.0 mile northwest of, north-south road crossing, in southwest fence corner; iron post stamped "879 Adj 1903".....	877. 734
Coyle, 2.0 miles east of, 3.0 miles southwest of Goodnight, north-south road crossing, in northeast fence corner; iron post stamped "860 Adj 1903".....	858. 637
Goodnight, in front of station; top of rail.....	859. 2



	Feet.
Goodnight, 0.25 mile northeast of station, line between Logan and Payne counties (secs. 13 and 18, respectively), near northwest fence corner; iron post stamped "851 Adj 1903"-----	850.227
Perkins, 3.0 miles west of station, north-south road crossing, near northwest fence corner; iron post stamped "847 Adj 1903"-----	846.308
Perkins, 250 feet east of station, north-south road crossing, near South-west fence corner, on right of way, 12 feet south of track; iron post stamped "836 Adj 1903"-----	835.319

From Indian meridian southeast along Chicago, Rock Island & Pacific Ry. to Lowe.

Iconium, 1.0 mile west of north-south road crossing, 100 yards north of corner of secs. 8, 9, 17, and 16, in northwest fence corner; iron post stamped "1132 Adj 1903"-----	1,130.941
Iconium, 1 mile east of, east-west road crossing, south fence corner, 400 feet east of milepost 516; iron post stamped "1097 Adj 1903"--	1,095.920
Merrick, in front of station; top of rail-----	1,074
Merrick, 0.8 mile east of, 600 feet east of milepost 513, 100 yards east of road crossing, 85 feet north of track, near fence corner; iron post stamped "1082 Adj 1903"-----	1,080.362
Dudley, 1.5 miles northwest of, north-south road crossing, in south-west fence corner; iron post stamped "1083 Adj 1903"-----	1,081.192
Carney, 1.5 miles southwest of, crossing of St. Louis & San Francisco and Missouri, Kansas & Texas railroads, 150 feet east of former, 50 feet north of latter, 2 feet from fence corner bounding right of way; iron post stamped "1040 Adj 1903"-----	1,038.166
Carney, 4.0 miles southeast of, at north-south road crossing, in south-west fence corner, on railroad right of way; iron post stamped "979 Adj 1903"-----	977.589

From Carney southwest along Missouri, Kansas & Texas Ry. to Fallis.

Carney, 0.3 mile west of station, north-south road crossing, in south-east fence corner, 100 yards southeast of corner of secs. 31, 32, 5, and 6; iron post stamped "1059 Adj 1903"-----	1,057.886
Carney, 6.0 miles southwest of, north-south road crossing, west of section line, south of track; iron post stamped "958 Adj 1903"-----	956.863

Edmond, Luther, McComb, McCloud, Moore, and Norman 15' quadrangles.

CANADIAN, CLEVELAND, LINCOLN, LOGAN, McCLAIN, OKLAHOMA, AND POTTAWATOMIE COUNTIES.

The elevations in the following list were determined by primary leveling.

The leveling was done in Luther quadrangle in 1899 by Robert Coe and in 1906 by J. W. King; in Edmond quadrangle in 1896 and 1907 by J. W. King and F. M. Hutchinson, respectively; in McCloud quadrangle in 1897-99 by Coe, in 1906 by J. W. King, and in 1907 by Hutchinson; in Moore quadrangle in 1897 and 1907 by Coe and Hutchinson, respectively; in McComb quadrangle in 1898 by Coe,

in 1905 by E. T. King, and in 1907 by Hutchinson; in Norman quadrangle in 1897 and 1898 by Coe and in 1907 by Hutchinson.

## EDMOND QUADRANGLE.

[Latitude  $35^{\circ} 30' - 35^{\circ} 45'$ ; longitude  $97^{\circ} 15' - 97^{\circ} 30'$ .]

From Choctaw north 3.5 miles.

	Feet.
Choctaw, 2.5 miles north of, 30 feet south of fence post at northeast corner of sec. 11, T. 12 N., R. 1 W., on right of way, close to fence, in stone; bronze triangulation tablet stamped "1194 No. 11"	1, 192. 925
Choctaw, 3.5 miles north by 0.8 mile east of, at east end of bridge over north fork of Canadian River, close to fence on north side of road; triangulation tablet stamped "Prim. Trav. Sta. No. 8, 1907; No. 12, 1096"	1, 094. 969

From T. 13 N., R. 3 W., sec. 11 northeast and northerly to center of T. 15 N.

T. 13 N., R. 3 W., 50 feet northwest of crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 2 and 11; iron post stamped "1178 Okla. No. 50"	1, 177. 558
Edmond, T. 14 N., R. 3 W., 80 feet east and 30 feet north of street crossing of Atchison, Topeka & Santa Fe Ry., 350 feet north of station; iron post stamped "1200 Okla. No. 51"	1, 199. 263
T. 14 N., R. 3 W., 80 feet east and 30 feet north of crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 11 and 14; iron post stamped "1193 Okla. No. 52"	1, 192. 296
Waterloo, T. 15 N., R. 3 W., 80 feet east and 30 feet north of crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 3 and 34; iron post stamped "1133 Okla. No. 53"	1, 132. 367

Along line between ranges 1 and 2 west.

(Posts set but elevations not determined.)

T. 15 N., R. 1 W., 55 feet northeast of southwest corner of sec. 30; iron post stamped "No. 63."	
T. 14 N., R. 1 W., 45 feet southeast of northwest corner of sec. 7; iron post stamped "No. 64."	
T. 14 N., R. 2 W., 50 feet northwest of southeast corner of sec. 13; iron post stamped "No. 65."	
T. 14 N., R. 1 W., 75 feet southeast of crossing of Missouri, Kansas & Texas Ry. and line between secs. 31 and 36; iron post stamped "No. 66."	
T. 13 N., R. 2 W., 65 feet southwest of northeast corner of sec. 13; iron post stamped "No. 67."	
T. 13 N., R. 1 W., 50 feet northeast of southwest corner of sec. 19; iron post stamped "No. 68."	
T. 13 N., R. 2 W., 60 feet northwest of southeast corner of sec. 36; iron post stamped "No. 69."	
T. 12 N., R. 2 W., 75 feet southwest of crossing of Frisco railroad and line between secs. 1 and 6; iron post stamped "No. 70."	
T. 12 N., R. 2 W., 50 feet southwest of northeast corner of sec. 24; iron post stamped "No. 71."	

## LUTHER QUADRANGLE.

[Latitude 35° 30'-35° 45'; longitude 97°-97° 15'.]

From Harrah north along section lines to point 5 miles north of Luther.

	Feet.
T. 12 N., R. 1 E., southeast corner of sec. 11; iron post stamped "Oklahoma 1094"-----	1,095.510
T. 13 N., R. 1 E., near southeast corner of sec. 26; iron post stamped "1030 Okla"-----	1,030.544
T. 13 N., R. 1 E., near southeast corner of sec. 10, in rock; aluminum tablet stamped "1024 Okla"-----	1,024.834
T. 14 N., R. 1 E., southeast corner of sec. 27; iron post stamped "900 Okla"-----	900.619
T. 14 N., R. 1 E., southeast corner of sec. 9; iron post stamped "956 Okla"-----	957.039

From Fallis southeast along Fort Smith &amp; Western R. R. to Warwick.

Fallis, 0.5 mile south of Missouri, Kansas & Texas Ry. station, east-west road crossing, 600 feet north of milepost 311, at switch block west of track and north of wagon road; iron post stamped "880 Adj 1903"-----	878.757
Fallis, 2.5 miles southeast of, east-west road crossing, between secs. 5 and 8, near milepost 192, 10 feet north of track, 1 foot from crossing post; iron post stamped "866 Adj 1903"-----	863.985
Wellston, 0.5 mile northwest of, north-south road crossing, 2,000 feet east of milepost 190, between secs. 10 and 11, 10 feet north of track, in public right of way; iron post stamped "855 Adj 1903"-----	853.699
Wellston-McKinley township line, between sec. 12 (Wellston) and sec. 7 (McKinley), 15 feet north of track near half-mile post; iron post stamped "847 Adj 1903"-----	845.391

From Wellston south to point 6 miles north of McLoud.

Wellston, 0.5 mile south of, at corner of secs. 14, 15, 22, and 23, T. 14 N., R. 2 E., on stone; marked "U. S. B. M. 867"-----	866.97
Wellston, 1.5 miles south of, about 40 feet northwest of corner of secs. 22, 23, 26, and 27, T. 14 N., R. 2 E., in right of way, near fence on east side of sec. 22; iron post stamped "No. 1-951"-----	950.748
Wellston, 2.5 miles south of, 55 feet north of corner of secs. 26, 27, 34, and 35, in right of way, on top of stone; cross marked "U. S. B. M. 1012"-----	1,011.93
Wellston, 3.5 miles south of, 35 feet northwest of stone at corner between secs. 34 and 35, on south line of T. 14 N., R. 2 E., near fence corner, in right of way; triangulation tablet stamped "987 No. 2"-----	987.010
Wellston, 5.25 miles south of, on top of hill, west of road, in base of tree trunk, on west side; nail marked "U. S. B. M. 992"-----	991.51
Wellston, 5.5 miles south of, about 45 feet south of corner of secs. 10, 11, 14, and 15, T. 13 N., R. 2 E., on east side of road, in base of tree trunk; nail marked "U. S. B. M. 948"-----	947.88
T. 13 N., R. 2 E., about 45 feet northwest of corner of secs. 14, 15, 22, and 23, in right of way, 12 feet north of post at southeast corner of sec. 15; iron post stamped "941 No. 3"-----	940.265

Feet.

T. 13 N., R. 2 E., about 45 feet northwest of corner of secs. 26, 27, 34, and 35, in east-west right of way, in base of tree trunk; nail marked "U. S. B. M. 1055"-----	1, 055. 08
T. 13 N., R. 2 E., on east side of sec. 34, 9.5 miles south of Wellston, about 50 feet north of township line, in right of way near fence; iron post stamped "1071 No. 4"-----	1, 071. 089
T. 12 N., R. 2 E., at corner of secs. 9, 10, 15, and 16, in base of large tree at northeast corner of sec. 9; nail marked "U. S. B. M. 1091"-----	1, 090. 43
T. 12 N., R. 2 E., west of sec. 9, in right of way near fence, about 80 feet from corner; tablet stamped "1060 No. 5"-----	1, 059. 913

From point 3.5 miles north by 1.0 mile east of Choctaw north along Indian meridian and east along section line to point 5.0 miles north of Luther.

T. 13 N., R. 1 E., near northwest corner of sec. 31, in meridian right of way, in base of large tree; nail marked "U. S. B. M. 1139"-----	1, 138. 07
T. 13 N., R. 1 E., at southwest corner of sec. 19, in meridian right of way, about 50 feet north of fence post, in stone; tablet stamped "1216 No. 13"-----	1, 214. 682
Luther, 4.0 miles south by 3.0 miles west of, 1,115 feet south of saw-mill on Indian meridian, on west side of wagon track, in base of large tree; nail marked "U. S. B. M. 1043"-----	1, 042. 15
T. 13 N., R. 1 W., about 100 feet northeast of fence post at southeast corner of sec. 12, on Indian meridian, on east side of wagon track, in top of stone; cut cross marked "U. S. B. M. 1031"-----	1, 030. 26
T. 13 N., R. 1 E., northwest corner of sec. 7, about 30 feet south of corner fence post, in meridian right of way, close to fence line, in stone; tablet stamped "1058 No. 14"-----	1, 057. 118
Luther, 3.0 miles west of, on meridian 370 feet south of Missouri, Kansas & Texas Ry. crossing, 700 feet north of bridge over Deep Fork, in right of way close to east fence; iron post stamped "935 No. 15"-----	934. 213
Luther, 2.0 miles north by 3.0 miles west of, in meridian right of way, about 30 feet northwest of fence post on northwest corner of sec. 18, in T. 14 N., R. 1 W., in rock in place; tablet stamped "967 No. 16"-----	965. 635
Luther, 5.0 miles north by 3.0 miles west of, on meridian right of way, about 30 feet south of fence post at northeast corner of sec. 36, T. 15 N., R. 1 W., in stone; tablet stamped "1080 No. 17"-----	1, 078. 569
Luther, 5.0 miles north by 1.0 mile west of, at corner of secs. 28, 29, 32, and 33, T. 15 N., R. 1 E., in top of corner stone; cross marked "U. S. B. M. 926"-----	924. 95
Luther, 5.0 miles north of, at corner of secs. 27, 28, 33, and 34, T. 15 N., R. 1 E.; iron post stamped "914"-----	915. 381

## McCOMB QUADRANGLE.

[Latitude 35°-35° 15'; longitude 97°-97° 15']

From T. 6 N., R. 1 W., southeast corner of sec. 1, east 6 miles, thence north along range line with 1 mile spur lines east and west to certain section corners.

T. 6 N., R. 1 E., southeast corner of sec. 5; iron post stamped "1126 Okla"-----	1, 128. 163
T. 6 N., R. 1 E., southeast corner of sec. 2; iron post stamped "1034 Okla"-----	1, 036. 366

	Feet.
T. 7 N., R. 2 E., southeast corner of sec. 30; iron post stamped "1099 Okla"-----	1, 100. 523
T. 7 N., R. 1 E., near southeast corner of sec. 26; iron post stamped "1035 Okla"-----	1, 037. 096
T. 7 N., R. 2 E., near southeast corner of sec. 7; iron post stamped "1097 Okla"-----	1, 098. 454
T. 7 N., R. 1 E., near southeast corner of sec. 11; iron post stamped "1126 Okla"-----	1, 127. 407
T. 8 N., R. 2 E., southeast corner of sec. 30; iron post stamped "1093 Okla"-----	1, 095. 238
T. 8 N., R. 1 E., southeast corner of sec. 26; iron post stamped "1050 Okla"-----	1, 052. 126
T. 8 N., R. 2 E., southeast corner of sec. 7, near Pleasant Valley schoolhouse; iron post stamped "992 Okla"-----	993. 322
T. 8 N., R. 1 E., near southeast corner of sec. 11; iron post stamped "1022 Okla"-----	1, 024. 173
T. 9 N., R. 2 E., southeast corner of sec. 19; iron post stamped "1090 Okla"-----	1, 091. 332
T. 9 N., R. 1 E., southeast corner of sec. 23; iron post stamped "1123 Okla"-----	1, 124. 800

From McComb south along Atchison, Topeka & Santa Fe Ry. to Canadian River.

T. 8 N., R. 2 E., sec. 25, in stone milepost 149; aluminum tablet stamped "968 Adj 1903"-----	966. 668
T. 7 N., R. 2 E., sec. 11, in stone milepost 152; aluminum tablet stamped "1038 Adj 1903"-----	1, 037. 548
T. 7 N., R. 2 E., sec. 26, in stone milepost 155; aluminum tablet stamped "977 Adj 1903"-----	976. 404
Trousdale, in front of station; top of rail-----	957. 4
Wanette, 4.5 miles north of, Tps. 6 and 7 N., Rs. 2 and 3 E., near southeast fence corner, in public right of way; iron post stamped "997 Adj 1903"-----	996. 253

From T. 9 N., R. 3 E., sec. 16, south to McComb.

T. 9 N., R. 3 E., 45 feet northeast of the southwest corner of sec. 16, in sand rock; chiseled square marked "U. S. B. M. 1064"-----	1, 062. 73
T. 9 N., R. 3 E., 50 feet northwest of southeast corner of sec. 29; iron post stamped "1020 No. 4"-----	1, 018. 988
T. 8 N., R. 3 E., 125 feet northeast of southwest corner of sec. 9; iron post stamped "960 No. 5"-----	958. 553
McComb, opposite station; top of south rail, marked "949"-----	947. 5
McComb, 1.0 mile northeast of, T. 8 N., R. 3 E., north side of the Atchison, Topeka & Santa Fe Ry., in right of way, in milepost 146; bronze tablet stamped "931 Adj 1903"-----	928. 968

From point 7 miles east of Lexington west 2 miles, thence north along Indian meridian to center of T. 9 N.

T. 6 N., R. 1 E., southeast corner of sec. 5; iron post stamped "1126 Okla"-----	1, 128. 163
T. 6 N., R. 1 E., 45 feet southeast of northwest corner of sec. 7; iron post stamped "1053 No. 6"-----	1, 053. 604

	Feet.
T. 7 N., R. 1 E., 60 feet northeast of southwest corner of sec. 19; iron post stamped "1089 No. 7"-----	1, 089. 348
T. 7 N., R. 1 W., 50 feet northwest of southeast corner of sec. 1; iron post stamped "1157 No. 8"-----	1, 157. 471
T. 7 N., R. 1 W., 45 feet southwest of northeast corner of sec. 1, east side of 10-inch black jack tree, in root; nail marked "U. S. B. M. 1261"-----	1, 261. 23
T. 8 N., R. 1 E., 55 feet northeast of southwest corner of sec. 19; iron post stamped "1133 No. 9"-----	1, 133. 422
T. 8 N., R. 1 E., 65 feet northeast of southwest corner of sec. 6; iron post stamped "No. 10 1093"-----	1,093. 589
T. 9 N., R. 1 W., 55 feet northwest of southeast corner of sec. 13; iron post stamped "1041 No. 12"-----	1,041. 301

From T. 8 N., R. 1 E., sec. 26, west to Indian meridian.

T. 8 N., R. 1 E., southeast corner of sec. 26; iron post stamped "1050 Okla"-----	1, 052. 128
-----------------------------------------------------------------------------------	-------------

From T. 9 N., R. 1 E., sec. 23, west to Indian meridian.

T. 9 N., R. 1 E., southeast corner of sec. 23; iron post stamped "1123 Okla"-----	1, 124. 801
T. 9 N., R. 1 W., 60 feet northeast of southwest corner of sec. 25; iron post stamped "1010 No. 11"-----	1, 009. 978

#### McLOUD QUADRANGLE.

[Latitude 35° 15'–35° 30'; longitude 97°–97° 15'.]

North along section line 1 mile east of the line between ranges 1 and 2 E., to northeast corner of sec. 18, T. 10 N., R. 2 E., thence west 2 miles, thence north along section line 1 mile west of same range line, with 2-mile spur lines west and east across range line.

T. 9 N., R. 1 E., southeast corner of sec. 11; iron post stamped "1113 Okla"-----	1, 114. 840
T. 9 N., R. 2 E., southeast corner of sec. 7; iron post stamped "1076 Okla"-----	1, 077. 657
T. 10 N., R. 2 E., southeast corner of sec. 30; iron post stamped "1190 Okla"-----	1, 191. 054
T. 10 N., R. 1 E., southeast corner of sec. 26; iron post stamped "1096 Okla"-----	1, 097. 651
T. 10 N., R. 2 E., southeast corner of sec. 7; iron post stamped "1132 Okla"-----	1, 133. 304
T. 10 N., R. 1 E., southeast corner of sec. 11, sandstone ledge in old road; aluminum tablet stamped "1168 Okla"-----	1, 169. 352
T. 11 N., R. 1 E., southeast corner of sec. 26; iron post stamped "1116 Okla"-----	1, 117. 206
T. 11 N., R. 2 E., southeast corner of sec. 30; iron post stamped "1132 Okla"-----	1, 133. 256
T. 11 N., R. 1 E., southeast corner of sec. 11; iron post stamped "1173 Okla"-----	1, 174. 294
T. 11 N., R. 2 E., southeast corner of sec. 7; iron post stamped "1147 Okla"-----	1, 148. 002
T. 12 N., R. 1 E., southeast corner of sec. 26; iron post stamped "1085 Okla"-----	1, 086. 382

From point 6 miles north of McLoud, south 3 miles, thence west to Harrah.

	Feet.
T. 12 N., R. 2 E., about 40 feet north of corner of secs. 21, 22, 27, and 28, in center of north-south right of way, in base of large tree trunk; nail marked "U. S. B. M. 1131"-----	1, 131. 23
T. 12 N., R. 2 E., of secs. 27, 28, 33, and 34, in corner stone; aluminum tablet stamped "No. 61090"-----	1, 090. 013
T. 12 N., R. 2 E., about 50 feet northwest of corner of secs. 28, 29, 32, and 33, in base of tree trunk; nail marked "U. S. B. M. 1079"-----	1, 078. 76
Harrah, 1.5 miles south by 1.8 miles east of, about 180 feet east of point where Chicago, Rock Island & Pacific Ry. crosses Lincoln-Pottawatomie county line, about 50 feet north of track; iron post stamped "1052 No. 7"-----	1, 052. 055
T. 12 N., R. 1 E., corner of secs. 25, 26, 35, and 36; iron post stamped "1085"-----	1, 086. 382

From Harrah west to Choctaw.

Harrah, about 25 feet northwest of north corner of Chicago, Rock Island & Pacific Ry. station, at northwest end of fish plate, on top of south rail; point marked "1072"-----	1, 071. 431
Harrah, 2.0 miles west of, in north-south right of way, about 50 feet south of Rock Island track, about 10 feet west of wagon track, in sandstone ledge; 500 feet west of milepost 468; tablet stamped "1084 No. 8"-----	1, 083. 058
Choctaw, 1.0 mile east of, in Chicago, Rock Island & Pacific Ry. right of way, close to fence, about 65 feet southeast of point where railroad crosses Indian Meridian; iron post stamped "1096 No. 9"-----	1, 095. 409

From point near McLoud east and south to T. 9 N., R. 3 E., sec. 16.

T. 11 N., R. 2 E., sec. 17, 45 feet southeast of northwest corner of, east side of oak tree, in root; nail marked "U. S. B. M. 1106"-----	1, 105. 67
McLoud, T. 11 N., R. 2 E., 50 feet northeast of southwest corner of sec. 10; iron post stamped "1083 No. 18"-----	1, 081. 850
T. 11 N., R. 3 E., 50 feet from northwest corner of sec. 18, 3.0 miles east of McLoud; iron post stamped "1078 No. 19"-----	1, 077. 687
T. 11 N., R. 3 E., 60 feet southwest of northeast corner of sec. 30, in sandstone; aluminum tablet stamped "1063 No. 20"-----	1, 063. 362
T. 11 N., R. 3 E., 30 feet southwest of northeast corner of sec. 31, east side of leaning oak tree 2 feet thick, in root; nail marked "U. S. B. M. 1056"-----	1, 055. 86
T. 10 N., R. 3 E., sec. 5, at point where Chicago, Rock Island & Pacific Ry. crosses line between secs. 5 and 6, on east side of railroad and in right of way; iron post stamped "No. 21 1015"-----	1, 014. 963
T. 10 N., R. 3 E., 0.25 mile east of crossing of Chicago, Rock Island & Pacific Ry. and line between secs. 3 and 4, 32 feet south of track, 1,850 feet east of road crossing, 360 feet east of right of way; iron post stamped "1018"-----	1, 018. 418
T. 10 N., R. 3 E., 60 feet south and 20 feet west of crossing of Missouri, Kansas & Texas Ry. and line between secs. 16 and 17; iron post stamped "1008 No. 1"-----	1, 006. 864

Feet.

T. 10 N., R. 3 E., 55 feet southeast of northwest corner of sec. 33; iron post stamped "1058 No. 2"-----	1,057.508
T. 9 N., R. 3 E., 60 feet south of northwest corner of sec. 9, north side of 2-foot post-oak tree, in root; nail marked "U. S. B. M. 1071"-----	1,070.55
T. 9 N., R. 3 E., 60 feet northwest of southeast corner of sec. 8; iron post stamped "1180 No. 3"-----	1,129.345
T. 9 N., R. 3 E., 65 feet southeast of northwest corner of sec. 16; iron post stamped "Prim. Trav. Sta. No. 24, 1129 Okla."-----	1,127.061

## Along Indian meridian.

T. 10 N., R. 1 W., 50 feet northwest of southeast corner of sec. 25; iron post stamped "1039 No. 14"-----	1,039.399
T. 10 N., R. 1 W., northeast corner of sec. 24, east side of 12-inch black-jack tree, in root; nail marked "U. S. B. M. 1131.4"-----	1,132.01
T. 10 N., R. 1 E., 70 feet northeast of southwest corner of sec. 7; iron post stamped "1167 No. 15"-----	1,157.843
T. 11 N., R. 1 W., 55 feet northwest of southeast corner of sec. 25; iron post stamped "1189 No. 16"-----	1,189.517
T. 11 N., crossing of Indian meridian and Missouri, Kansas & Texas Ry., 100 feet northeast of; iron post stamped "1244 No. 17"-----	1,244.262
T. 11 N., R. 1 W., 45 feet north of southeast corner of sec. 1, east side of 10-inch black-jack tree, in root; nail marked "U. S. B. M. 1228.7"-----	1,229.35
T. 12 N., R. 1 W., 60 feet northwest of southeast corner of sec. 25; iron post stamped "1180 No. 18"-----	1,180.240
T. 12 N., crossing of Indian meridian and Chicago, Rock Island & Pacific Ry., 50 feet southwest of; iron post stamped "Prim. Trav. Sta. No. 13, No. 9, 1096"-----	1,095.409

## From T. 10 N., R. 1 E., sec. 26, west to Indian meridian.

T. 10 N., R. 1 E., southeast corner of sec. 26; iron post stamped "1096 Okla."-----	1,097.651
T. 10 N., R. 1 E., southwest corner of sec. 27, south side of 18-inch post-oak tree, in root; nail marked "U. S. B. M. 1226.4"-----	1,225.98
T. 10 N., R. 1 W., 50 feet northwest of southeast corner of sec. 25; iron post stamped "No. 1039"-----	1,039.399

## From T. 11 N., R. 1 E., sec 7, east to point 4 miles west of McLoud.

T. 11 N., R. 1 E., 40 feet north of southwest corner of sec. 7, west side of 10-inch black-jack tree, in root; nail-----	1,244.96
T. 11 N., R. 1 E., 40 feet southeast of the northwest corner of sec. 17, north side of 24-inch post-oak tree, in root; nail marked "U. S. B. M. 1187.4"-----	1,188.00

## From T. 11 N., R. 2 E., southwest to T. 11 N., R. 1 E., sec. 12.

T. 11 N., R. 1 E., 45 feet southeast of northwest corner of sec. 12, north side of corner post, 18 inches above ground; nail marked "U. S. B. M. 1154.3"-----	1,153.74
---------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------



## MOORE QUADRANGLE.

[Latitude 35° 15'-35° 30'; longitude 97° 15'-97° 30']

From point 3 miles north of Norman northwest along Atchison, Topeka &amp; Santa Fe Ry. to point near Flynn.

	Feet.
T. 9 N., R. 3 W., crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 12 and 13, 100 feet east and 30 feet north of; iron post stamped "1156 Okla., No. 31"-----	1, 154. 782
T. 10 N., R. 3 W., crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 26 and 35, 70 feet west and 30 feet south of; iron post stamped "1193 Okla., No. 30"-----	1, 192. 233
T. 10 N., R. 3 W., crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 14 and 23, 120 feet east and 30 feet south of; iron post stamped "1237 Okla., No. 29"-----	1, 235. 600
Moore, in front of north end of station; top of rail-----	1, 244. 0
T. 10 N., R. 3 W., crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 2 and 35, 60 feet southeast of; iron post stamped "1296 Okla., No. 28"-----	1, 295. 436
Flynn, in front of station; top of rail-----	1, 280. 0
T. 11 N., R. 3 W., crossing of Atchison, Topeka & Santa Fe Ry. and line between secs. 23 and 26, 70 feet west and 30 feet south of; iron post stamped "1276 Okla., No. 27"-----	1, 275. 190

From Choctaw west along Chicago, Rock Island &amp; Pacific Ry. to Oklahoma.

Choctaw; opposite station; top of north rail-----	1, 105. 0
T. 12 N., R. 1 W., crossing of line between secs. 27 and 28, 100 feet south and 30 feet west of; iron post stamped "1141 No. 19"-----	1, 140. 115
T. 12 N., R. 2 W., crossing of east line of sec. 25, 60 feet southwest of; iron post stamped "1228 No. 20"-----	1, 227. 199
Dickson, in front of station; top of rail-----	1, 216. 0
Dickson, T. 12 N., R. 2 W., crossing of half-section line in sec. 26; iron post stamped "1215 No. 21"-----	1, 214. 339
T. 12 N., R. 2 W., crossing of line between secs. 26 and 27, 60 feet southeast of; iron post stamped "Prim. Trav. Sta. No. 11, 1202 Okla."-----	1, 201. 910
T. 12 N., R. 2 W., crossing of line between secs. 27 and 28, 90 feet southeast of; iron post stamped "No. 22, 1181"-----	1, 180. 572
T. 12 N., R. 2 W., crossing of north-south half-section line in sec. 32, 80 feet southeast of; iron post stamped "1160 No. 23"-----	1, 159. 542
T. 11 N., R. 3 W., crossing of Chicago, Rock Island & Pacific Ry. and line between secs. 1 and 2, 65 feet northwest of; iron post stamped "1169 No. 24"-----	1, 168. 079

## Near Indian meridian.

T. 9 N., R. 1 W., 60 feet northeast of southwest corner of sec. 1; iron post stamped "1128 No. 13"-----	1, 128. 365
T. 10 N., R. 1 W., 45 feet southwest of northeast corner of sec. 35, east side of corner post, 6 inches above ground; nail marked "U. S. B. M. 1059.7"-----	1, 060. 28

From center of T. 9 N. north along line between ranges 1 and 2 west to Chicago, Rock Island &amp; Pacific Ry. in T. 12 N.

T. 9 N., R. 2 W., 50 feet northwest of southeast corner of sec. 1; iron post stamped "1060 Okla. No. 39"-----	1, 060. 157
T. 10 N., R. 1 W., 60 feet northeast of southwest corner of sec. 19; iron post stamped "1127 Okla. No. 40"-----	1, 127. 076

	Feet.
T. 10 N., R. 2 W., 50 feet northwest of southeast corner of sec. 12; iron post stamped "1143 Okla. No. 41"-----	1, 143. 139
T. 11 N., R. 1 W., 55 feet northeast of southwest corner of sec. 31; iron post stamped "No. 42 1242 Okla."-----	1, 241. 895
T. 11 N., R. 2 W., 50 feet southwest of northeast corner of sec. 25; iron post stamped "1303 Okla. No. 43"-----	1, 302. 638
T. 11 N., R. 1 W., crossing of Missouri, Kansas & Texas Ry. and line between secs. 7 and 12, 80 feet northeast of; iron post stamped "1267 Okla. No. 44"-----	1, 267. 478
T. 11 N., R. 1 W., 60 feet northeast of southwest corner of sec. 6, north side of black-jack tree, in root; nail marked "U. S. B. M. 1258.5"-----	1, 254. 56
T. 12 N., R. 2 W., 55 feet northwest of southeast corner of sec. 36; iron post stamped "1267 No. 45 Okla."-----	1, 267. 236

## NORMAN QUADRANGLE.

[Latitude 35°-35° 15'; longitude 97° 15'-97° 30'.]

From Purcell northwest along Atchison, Topeka & Santa Fe Ry. to point 3  
miles north of Norman.

Purcell, in front of new railroad station; top of rail-----	1, 028. 8
Purcell, U. S. Courthouse, in first course of stone above basement, second stone from southwest corner, middle of south face; bronze tablet stamped "1092 Okla."-----	1, 093. 615
Canadian River, railroad bridge over, east side of south pier; north- east rivet on bridge plate-----	1, 059. 4
Noble, in front of station; top of rail-----	1, 174. 5
Norman, in front of station; top of rail-----	1, 166. 4
Norman, State Bank, left side of entrance, northeast corner, second stone above sidewalk; bronze tablet stamped "1170 Okla."-----	1, 172. 124
Norman, T. 9 N., R. 2 W., sec. 30, crossing of Atchison, Topeka & Santa Fe Ry. and half-section line, 50 feet northwest of; iron post stamped "No. 32 1173 Okla."-----	1, 173. 488

From Purcell east to Indian meridian.

Lexington, southwest corner of school yard; iron post stamped "1083 Okla."-----	1, 084. 948
T. 6 N., R. 1 W., southeast corner of sec. 3; iron post stamped "1111 Okla."-----	1, 112. 844

From Norman east to Indian meridian and north near Indian meridian.

T. 9 N., R. 2 W., crossing of Atchison, Topeka & Santa Fe Ry. and south line of sec. 32, 50 feet northwest of; iron post stamped "1152 Okla. No. 33"-----	1, 152. 092
T. 8 N., R. 2 W., 50 feet southwest of northeast corner of sec. 3; iron post stamped "1188 Okla. No. 34"-----	1, 188. 254
T. 8 N., R. 1 W., 45 feet southeast of northwest corner of sec. 6; iron post stamped "1076 Okla. No. 35"-----	1, 077. 622
T. 8 N., R. 1 W., 50 feet southwest of northeast corner of sec. 5; iron post stamped "1043 Okla. No. 36"-----	1, 043. 241
T. 9 N., R. 1 W., 60 feet northwest of southeast corner of sec. 33; iron post stamped "1037 Okla. No. 37"-----	1, 036. 846
T. 9 N., R. 1 W., 300 feet north of southwest corner of sec. 36, west side of 10-inch black-jack tree, in root; nail marked "U. S. B. M. 1106.1"-----	1, 106. 36

	Feet.
T. 9 N., R. 1 W., 60 feet northwest of southwest corner of sec. 25; iron post stamped "1010 No. 11"-----	1,009.978
T. 9 N., R. 1 W., quarter corner east side of sec. 23, west of road, 150 yards south of hill top, in east side of tree; nail-----	1,114.58
T. 9 N., R. 1 W., 75 feet south of northeast corner of sec. 23, on east side of 12-inch post-oak tree, in stump; nail marked "U. S. B. M. 1144"-----	1,144.41

From T. 8 N., Rs. 1 and 2 W., north along range line to center of T. 9 N.

T. 8 N., R. 1 W., 45 feet southeast of northwest corner of sec. 6; iron post stamped "1078 Okla No. 35"-----	1,077.622
T. 8 N., R. 2 W., 100 feet west and 30 feet south of northeast corner of sec. 24; iron post stamped "1148 Okla No. 38"-----	1,148.263

Along township and section lines.

Tps. 7 and 8 N., Rs. 2 and 3 W., corner of; iron post-----	1,138.607
Canadian River, meander corner on, between T. 7 N., R. 2 W., sec. 4, and T. 8 N., R. 2 W., sec. 33; iron post-----	1,065.947
Canadian River, meander corner on, between T. 6 N., R. 2 W., sec. 1, and T. 7 N., R. 2 W., sec. 36; iron post-----	1,031.067
Tps. 6 and 7 N., Rs. 2 and 3 W., corner of; iron post-----	1,125.977

Platte National Park.

[Latitude 34° 29'—34° 31'; longitude 96° 56'—96° 59'.]

MURRAY COUNTY.

These elevations are based upon the 1912 adjustment of precise leveling through old Indian Territory levels. The initial point is an iron post at the standard corner T. 1 N., Rs. 3 and 4 E., and the elevation accepted is taken from Bulletin No. 175, page 111, plus a correction of 2.0 feet.

Leveling in 1908 by B. A. Jenkins.

From corner of T. 1 N., Rs. 3 and 4 E., west through Buffalo and Antelope Springs to Bromide Springs and return.

	Feet.
T. 1 N., Rs. 3 and 4 E., standard corner; iron post-----	1,200.234
Platte National Park, 400 feet south of entrance, in sandstone ledge; aluminum tablet stamped "976-1908"-----	975.977
Pavilion Springs, southern spring, in top of hood over; aluminum tablet stamped "1908-2-940"-----	940.151
Platte National Park, 200 feet north of office, in granite slab in ground; aluminum tablet stamped "1908-6-963," slab marked "U. S. B. M. 962.3"-----	963.788
Platte National Park, 400 feet southeast of superintendent's office on summit of hill, in ledge; aluminum tablet stamped "1011-1908"-----	1,011.515
Bromide Springs, at south end of footbridge over Rock Creek, in cement seat; aluminum tablet stamped "1908-5-929"-----	929.318
Antelope Springs, 20 feet south of, in sandstone ledge; aluminum tablet stamped "1080-1908"-----	1,080.250

## APPENDIX A.

### ELEVATIONS ADJUSTED BY THE COAST AND GEODETIC SURVEY FROM PRECISE LEVELING.

Addington, Arapaho, Chickasha, Enid, Erick, Hobart, Ingersoll, Kingfisher, Montague, Pond Creek, Rush Springs, and Watonga quadrangles.

CANADIAN, GARFIELD, GRADY, GRANT, JEFFERSON, KINGFISHER, AND STEPHENS COUNTIES.

The following descriptions and elevations are taken from reports of the Coast and Geodetic Survey and are republished by permission of the superintendent of that bureau. The bench marks were established by the Coast and Geodetic Survey from precise leveling and were included in the 1912 adjustment by that bureau. The elevations are likely to be changed only slightly by any future adjustment.

#### ADDINGTON QUADRANGLE.

[Latitude 34°-34° 30'; longitude 97° 30'-98°.]

From point near Ryan along Chicago, Rock Island & Pacific Ry. to point near Durcan.

	Feet.
Ryan, 1 mile north of, on bridge 3212 over Beaver Creek, in east side of south abutment, 6 inches from east and north edges of stone; copper bolt (C. & G. S. b. m. C)-----	827.000
Sugden, 500 feet north of railroad station, east side of track, in angle of right-of-way fence and fence crossing the track, 4 feet from each fence and 45 feet from nearest rail of main track, in top of marble post; bottom of square hole, lettered "U. S. $\square$ B. M." (C. & G. S. b. m. D)-----	847.803
Addington, near, in angle formed by east right-of-way fence of railroad and first fence crossing railroad track south of station, 200 feet east of track, in top of marble post; bottom of square hole, marked "U. S. $\square$ B. M." (C. & G. S. b. m. E)-----	909.969
Addington, 3.5 miles north of, on east side of north abutment of culvert just south of mile pole 490, in first step below coping stone, 6 inches from either edge; copper bolt (C. & G. S. b. m. F)-----	930.500
Comanche, 1.5 miles south of mile pole 486, on east side of north abutment of bridge 3187, 12 inches from east and south edges of stone; bottom of square hole (C. & G. S. b. m. G)-----	967.852
Comanche, in stone building owned by J. S. Minton, in second stone column west of entrance to part of building occupied by the owner, 4 feet above sidewalk; copper bolt (C. & G. S. b. m. H)-----	986.777
Comanche, 4 miles north of, in coping of railway culvert, 7 telegraph poles north of mile pole 481, on west side of track, in northwest corner of coping, 6 inches from either edge; copper bolt (C. & G. S. b. m. I)-----	1,018.573

Feet.

Duncan, in northeast corner of pier supporting the railway water tower on south and east side, 4 inches from either edge, in lower tier; copper bolt (C. & G. S. b. m. J)----- 1, 126. 455

## ARAPAHO QUADRANGLE.

[Latitude 35° 30'-36°; longitude 98° 30'-99°.]

From point near Hydro west along Chicago, Rock Island & Pacific Ry. to point near Parkersburg.

Hydro, on south end of west concrete pier of plate-girder bridge No. 5526 over Deer Creek; copper bolt (C. & G. S. b. m. M<sub>1</sub>)----- 1, 469. 105

Hydro, on southwest corner of red sandstone building at northeast corner of Main and Caddo streets, occupied in 1909 by the post office, set horizontally facing Main Street, 0.3 meter above concrete sidewalk; red metal disk (C. & G. S. b. m. N<sub>2</sub>)----- 1, 557. 480

Hydro, 55 meters west of west end of station, 4 meters north of center line of main track, near west end of gravel platform of station; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. O<sub>2</sub>)----- 1, 489. 026

Hydro, 2.2 miles west of, on north end of west concrete abutment of plate girder bridge No. 5568 over Deer Creek; copper bolt (C. & G. S. b. m. P<sub>2</sub>)----- 1, 497. 631

Weatherford, 2.8 miles east of, 14.3 meters south of center line of main track, directly opposite milepost 560, 400 feet west of west end of pile trestle bridge No. 5599; red metal disk on top of iron post (C. & G. S. b. m. Q<sub>2</sub>)----- 1, 566. 608

Weatherford, 44.9 meters west of west end of station, 6.9 meters north of center line of main track, near Broadway crossing; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. R<sub>2</sub>)----- 1, 645. 909

Weatherford, at southwest corner of Broadway and Main streets, in stone foundation of brick building occupied in 1909 by the First National Bank of Weatherford, 0.4 meter above sidewalk; red metal disk (C. & G. S. b. m. S<sub>2</sub>)----- 1, 659. 596

Weatherford, 2.6 miles west of, near middle of fourth curve west of Weatherford station, 3.5 meters below top of rail, in center of north spandrel wall of a reinforced concrete culvert; copper bolt (C. & G. S. b. m. T<sub>2</sub>)----- 1, 694. 029

Weatherford, 3.4 miles west of, on south end of east concrete abutment of plate girder bridge No. 5662; copper bolt (C. & G. S. b. m. U<sub>2</sub>)-- 1, 723. 663

Weatherford, 4.8 miles west of, on top of cut on divide between South Canadian and Washita rivers, 10½ poles east of milepole 568, 14 meters southwest of center line of main track, just inside of right of way; top of red metal cap on iron post (C. & G. S. b. m. V<sub>2</sub>)----- 1, 799. 294

Indianapolis, 2 miles east of, 13.4 meters south of center line of main track, on west line of north-south highway at crossing on curve, 4 poles west of milepole 571; top of red metal cap on iron post (C. & G. S. b. m. W<sub>2</sub>)----- 1, 678. 015

Indianapolis, nearly opposite large grain elevator, just inside of right of way, 44 meters southeast of a point on center line of main track, 33 meters northeast of center of temporary railroad station; top of red metal cap on iron post (C. & G. S. b. m. X<sub>2</sub>)----- 1, 666. 172

Feet.

Indianapolis, 3.8 miles west of, 650 feet southwest of pile trestle No. 5768 over Turtle Creek, 32 meters northwest of center line of main track, on north line of east-west highway at crossing near milepole 577; top of red metal cap on iron post (C. & G. S. b. m. Y <sub>2</sub> )-----	1, 530. 049
Clinton, 1.4 miles northeast of, 0.5 mile east of crossing of St. Louis & San Francisco R. R. and Chicago, Rock Island & Pacific Ry., on south end of bridge seat of east concrete abutment of one-span steel bridge of latter railway over Washita River; red metal disk (C. & G. S. b. m. Z <sub>2</sub> )-----	1, 490. 374
Clinton, directly opposite north end of passenger station, 8.4 meters east of center line of main track; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. A <sub>2</sub> )-----	1, 517. 175
Clinton, at southwest corner of Frisco Avenue and Fifth Street, in first stone above the Frisco Avenue sidewalk, on west end of brick and stone building of C. G. Welch; red metal disk (C. & G. S. b. m. B <sub>2</sub> )-----	1, 565. 492
Clinton, near corner of Choctaw Avenue and Sixth Street, on west corner of southwest concrete pier supporting one of the four steel columns of city water tower; copper bolt (C. & G. S. b. m. C <sub>2</sub> )-----	1, 566. 283
Clinton, 1 mile north of, on face of north concrete abutment of plate girder bridge on which the Kansas City, Mexico & Orient Ry. crosses the Chicago, Rock Island & Pacific Ry., 1 meter above tracks and 2 meters from east face of abutment; copper bolt (C. & G. S. b. m. D <sub>2</sub> )-----	1, 496. 417

## CHICKASHA QUADRANGLE.

[Latitude 35°-35° 30'; longitude 97° 30'-98°.]

From point near Ninnekah along Chicago, Rock Island & Pacific Ry. to point near El Reno.

Chickasha, in top step of eastern entrance to First National Bank building, 12 inches from north end of step and 5 inches from iron grating; copper bolt (C. & G. S. b. m. Q)-----	1, 092. 728
Chickasha, 0.8 mile north of, on southwest corner of north abutment of bridge 3164, 4 inches from west and 12 inches from south edge of stone; bottom of square hole (C. & G. S. b. m. R)-----	1, 090. 034
Chickasha, 2.5 miles north of, on northeast corner of south abutment of bridge over Washita River, 6 inches from north and east edges of stone; bottom of square hole (C. & G. S. b. m. S)-----	1, 089. 093
Chickasha, 4 miles north of; iron rail on end, used as a marker for mile pole 432 (C. & G. S. t. b. m. 114)-----	1, 101. 379
Minco, 3 miles south of, in sec. 8, T. 9 N., R. 7 W., on property of Kit Carson, of Minco, on old trail or road from Minco to Chickasha, on highest point of bold ridge, 0.8 mile west of Chicago, Rock Island & Pacific Ry.; bench mark is 1 decimeter west of triangulation, between the U and the S; triangulation station marked by point of spike projecting from pipe filled with concrete covered with one-half inch of cement; bench mark is bottom of square hole cut in cement near station mark (C. & G. S. Carson $\Delta$ )-----	1, 429. 455
Minco, on southeast corner of northeast pier supporting central part of railway water tank, 3 inches from either edge; bottom of square hole (C. & G. S. b. m. T)-----	1, 297. 009
Minco, north side of Bank of Minco, on water table to double window, 4 inches from west end; bottom of square hole (C. & G. S. b. m. U)-----	1, 300. 857

	Feet.
Union, in angle of fence, about 1,000 feet north of station, 70 feet east of track, in top of limestone post; bottom of square hole marked "U. S. $\square$ B. M." (C. & G. S. b. m. A)-----	1,334.879
El Reno, 5 miles south of, on land of G. L. Newman, 1.2 kilometers east of track of Chicago, Rock Island & Pacific Ry., at triangulation station El Reno East Base; center of bronze tablet (C. & G. S. El Reno E. B. $\triangle$ )-----	1,443.721
El Reno, 7 miles southwest of, on land of J. T. Seawell, at triangulation station El Reno West Base; center of bronze tablet (C. & G. S. El Reno W. B. $\triangle$ )-----	1,531.441

## KINGFISHER QUADRANGLE.

[Latitude 35° 30'-36°; longitude 97° 30'-98°.]

From point near El Reno along Chicago, Rock Island &amp; Pacific Ry. to Dover.

El Reno, across tracks from and in line with south end of railroad station; top of section of iron rail in ground (C. & G. S. t. b. m. 142)-----	1,365.404
El Reno, on north side of Minneapolis Threshing Machine Co.'s building, which is close to railroad track and 0.25 mile north of Chicago, Rock Island & Pacific Ry. station, on west side of doorstep to office entrance; bottom of square hole (C. & G. S. b. m. B)-----	1,360.188
El Reno, on Bickford Avenue between Hays and Woodson Streets, on a building with a galvanized iron front painted and sanded to represent white stone, facing east with a drug store occupying the north room (1902); center of iron step in stairway (C. & G. S. b. m. City El Reno)-----	1,357.589

## At Fort Reno.

Fort Reno, 0.5 mile southwest of station, at northwest corner of Fort Reno settlement, on southwest corner of southwest stone base supporting one of the steel columns of high steel water tank; bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. A <sub>2</sub> )-----	1,395.502
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------

From El Reno north along Chicago, Rock Island &amp; Pacific Ry. to point near Hennessey.

El Reno, across tracks from and in line with south end of railroad station; top of section of iron rail in ground (C. & G. S. t. b. m. 142)-----	1,365.404
El Reno, on north side of Minneapolis Threshing Machine Co.'s building, which is close to railroad track and 0.25 mile north of railway station, on west doorstep to office entrance; bottom of square hole (C. & G. S. b. m. B)-----	1,360.188
El Reno, Bickford Avenue between Hays and Woodson streets, on a building with a galvanized-iron front, painted and sanded to represent white stone, facing east, with a drug store occupying the north room (1902); center of iron step in stairway (C. & G. S. b. m. "City El Reno")-----	1,357.589
Darlington, in southeast corner of northeast pier supporting central part of railway water tank; bottom of square hole (C. & G. S. b. m. C)-----	1,336.434

	Feet.
Caddo, 0.5 mile north of, on top of section of iron rail in ground used as a marker for mile pole 396 (C. & G. S. t. b. m. 148)-----	1, 366. 158
Okarche, 6 telegraph poles north of station and 3½ poles south of mile pole 388, in an angle of fence, 30 feet west from and 6 feet above tracks; bottom of square cut in top of stone post, marked "U. S. □ B. M." (C. & G. S. b. m. D)-----	1, 239. 289
Kingfisher, on northeast corner of southeast pier supporting central part of water tank; bottom of square hole (C. & G. S. b. m. E)----	1, 053. 026
Kingfisher, on south corner of iron shoe plate upon concrete on which rests south iron column supporting standpipe to city water plant; square bounded by edges of plate and two chisel marks (C. & G. S. b. m. F)-----	1, 057. 370
Kingfisher, on east side of Kingfisher National Bank, on sill of third window from corner, 8 inches from south edge of sill; bottom of square hole (C. & G. S. b. m. G)-----	1, 056. 389
Dover, on southwest corner of base stone to northwest pier supporting the outer part of the railway water tank; bottom of square hole (C. & G. S. b. m. H)-----	1, 033. 909

## MONTAGUE QUADRANGLE.

[Latitude 33° 30'-34°; longitude 97° 30'-98°.]

From Terral along Chicago, Rock Island &amp; Pacific Ry. to point near Ryan.

Terral, in northwest corner of southeast pier supporting the railway water tank, 5 inches from either edge; copper bolt (C. & G. S. b. m. A)-----	846. 822
Terral, 5 miles north of, in west side of stone culvert of Chicago, Rock Island & Pacific Ry., south of mile pole 514, 25 feet west by 20 feet below railroad track; copper bolt (C. & G. S. b. m. B)----	831. 035

## ENID QUADRANGLE.

[Latitude 36° 30'-37°; longitude 97° 30'-98°.]

From point near Hennessey north along Chicago, Rock Island &amp; Pacific Ry. to point near Kremlin.

Hennessey, on northeast corner of southeast pier supporting central part of railway water tank; bottom of square hole (C. & G. S. b. m. I)-----	1, 162. 196
Hennessey, on S. N. Bree's (1901) brick building near corner of Main Street and Oklahoma Avenue, near base of iron column at left of entrance; center of square formed by edges of base plate and two chisel marks (C. & G. S. b. m. J)-----	1, 162. 600
Bison, between sixth and seventh telegraph poles north of station, 10 feet from seventh pole and one pole south of switch stand; bottom of square hole in top of stone post marked "U. S. □ B. M." (C. & G. S. b. m. K)-----	1, 240. 164
Waukomis, in large brick public-school building on west side, in northwest corner pilaster, 9 inches from corner and 4 feet above ground, in center of brick; copper bolt (C. & G. S. b. m. L)-----	1, 264. 180
Waukomis, 0.5 mile northwest of, in sec. 23, T. 21 N., R. 7 W., on property of J. Crick, 100 meters northwest of his dwelling; bottom of square hole in top of cement-filled pipe (C. & G. S. triangulation station "Waukomis")-----	1, 275. 335



Feet.

Waukomis, 0.5 mile northwest of, 210.050 meters east of Waukomis triangulation station, in northeast corner of J. Crick's garden near public road; flat part of concrete near projecting point of spike used as a reference mark for Waukomis triangulation station (C. & G. S. "Waukomis E")-----	1, 261. 828
Enid, 1,600 feet north of station, in northeast corner of south concrete abutment to bridge (1902), 9 inches from the east and north edges of concrete; copper bolt (C. & G. S. b. m. M)-----	1, 237. 436
Enid, at eastern entrance to First National Bank on Broadway Street, on north end of lowest step, 4 inches from north column to arch of doorway and 5 inches above sidewalk; bottom of square hole (C. & G. S. b. m. N)-----	1, 247. 179
North Enid, on southeast corner of foundation stone of east one of outer supports on south side of railway water tank; bottom of square hole (C. & G. S. b. m. O)-----	1, 249. 926
North Enid, 2 miles north by 2.5 miles east of, in sec. 22, T. 23 N., R. 6 W., on a prominent ridge, in line of fence on south side of road (the northern boundary of property of Mr. Smith), 76 meters from corner of secs. 14, 15, 22, and 23; the bench mark is 5 inches north of triangulation station mark and is marked by the head of a nail driven flush with bottom of square in top of cement-filled pipe (C. & G. S. "Enid Δ")-----	1, 263. 360

## ERICK QUADRANGLE.

[Latitude 35°-35° 30'; longitude 99° 30'-100°.]

From point near Merritt southwesterly along Chicago, Rock Island & Pacific Ry.  
to Texola.

Merritt, directly opposite temporary station, 42 meters north of center line of main track, just east of gate to private road; bottom of square hole in top of limestone post, marked "U. S. B. M." (C. & G. S. b. m. Ts)-----	2, 051. 242
Doxey, on south side of one of the stone piers supporting columns of the railway water tank (this pier is west one of second row from track); bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. Us)-----	1, 837. 995
Doxey, 18.1 meters east of east end of railway station, 10.7 meters north of center line of main track; top of red metal cap on iron post (C. & G. S. b. m. Vs)-----	1, 837. 513
Sayre, 1.2 miles east of station, on east line of north-south road at crossing, 0.5 meter south of center line of main track; top of red metal cap on iron post (C. & G. S. b. m. Ws)-----	1, 839. 606
Sayre, 0.7 mile east of station, in center of top of south spandrel wall of small concrete culvert; copper bolt (C. & G. S. b. m. Xs)-----	1, 818. 963
Sayre, at southwest corner of Main and Fourth streets, 1 decimeter above Main Street sidewalk, on base stone near center of north face of Thurmond Block, the corner room of which is occupied by the First State Bank; red metal disk set horizontally facing Main Street (C. & G. S. b. m. Ys)-----	1, 807. 106
Sayre, just west of railway dining house, directly across from coal chutes at station, 45 meters south of center line of main track, on south fence line of east-west road; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. Zs)-----	1, 810. 577

Feet.

Sayre, 4.1 miles west of station, 4 poles west of milepole 631, near private road crossing, the west end of first considerable sandy cut west of Cane Mill spur, 15 meters north of center line of track; top of red metal cap on iron post (C. & G. S. b. m. A <sub>4</sub> )-----	1, 844. 845
Hext Ranch, 45 meters north of center line of main track, 115 meters west of northwest property corner at road crossing near cotton gin; top of red metal cap on iron post (C. & G. S. b. m. B <sub>4</sub> )-----	1, 930. 534
Erick, 2 miles east of, just inside right of way at east end of a sandy cut, 1 pole west of milepole 639, 14 meters north of center line of main track; top of red metal cap on iron post (C. & G. S. b. m. C <sub>4</sub> )--	2, 024. 521
Erick, at corner of Main and Broadway streets, on east face of First State Bank Building, in base stone to left of corner entrance, 1 decimeter above sidewalk; red metal disk (C. & G. S. b. m. D <sub>4</sub> )--	2, 061. 400
Erick, 130 meters west of ticket office in station, 75 meters west of Main Street crossing, 12.8 meters north of center line of main track, in line with telegraph poles; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. E <sub>4</sub> )-----	2, 061. 453
Erick, 2.6 miles west of, 14 meters north of center line of main track, at northwest intersection at highway crossing, just inside of right of way; red metal cap on iron post (C. & G. S. b. m. F <sub>4</sub> )-----	2, 022. 086
Texola, 650 feet east of ticket office in railway station, 315 feet east of road crossing, 10.9 meters north of center line of main track, in line with telegraph poles, and just west of section house; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. G <sub>4</sub> )-----	2, 147. 342
Texola, on east end of concrete foundation of railway station, 1.15 meters from southeast corner of building, 0.25 meter above ground and 1.2 meters below top of window sill; red metal disk (C. & G. S. b. m. H <sub>4</sub> )-----	2, 151. 423

## HOBART QUADRANGLE.

[Latitude 35°-35° 30'; longitude 99°-99° 30'.]

From point near Parkersburg southwest along Chicago, Rock Island & Pacific Ry. to point near Merritt.

Clinton, 3 miles west of, just inside right of way, 12 meters north of center line of main track, 110 meters west of private road crossing at top of grade; red metal cap on iron post (C. & G. S. b. m. E <sub>3</sub> )--	1, 547. 382
Parkersburg, 2 miles northeast of, on southeast one of stone supports for the columns of railroad water tank; bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. F <sub>3</sub> )-----	1, 544. 872
Parkersburg, 135 meters west of temporary railroad station, 17 meters south of center line of main track, at west end of a cut, on edge of a swamp; top of red metal cap on iron post (C. & G. S. b. m. G <sub>3</sub> )--	1, 524. 725
Parkersburg, 5.7 miles west of, one pole east of milepole 591, at Alfalfa spur of Chicago, Rock Island & Pacific Ry., just inside road line near railroad property corner, near north-south road crossing, 14 meters south of center line of main track at east-west road crossing; top of red metal cap on iron post (C. & G. S. b. m. H <sub>3</sub> )-----	1, 578. 208
Foss, 100 meters east of station, 8 meters south of center line of main track, 45 meters east of Adams Street crossing, in front of Foss Mill & Elevator Co.'s buildings; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. I <sub>3</sub> )-----	1, 625. 669

Feet.

Foss, at northwest corner of Adams and Main streets, slightly above sidewalk, on projecting basement stone at southwest corner of brick building of Foss Mercantile Co.; bottom of square hole marked "U. S. B. M." (C. & G. S. b. m. J <sub>2</sub> )-----	1, 640. 896
Foss, on northeast corner of east one of two stone piers nearest track which support the columns of railroad water tank, near west end of passenger station; bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. K <sub>2</sub> )-----	1, 628. 559
Foss, 3.7 miles west of, just inside right of way, 2 poles west of mile-pole 598, west end of cut on third curve west of Foss, 14 meters south of center line of main track; top of red metal cap on iron post (C. & G. S. b. m. L <sub>2</sub> )-----	1, 758. 152
Canute, just inside right of way east of section house, nearly opposite east end of railroad station, 45 meters north of center line of main track; top of red metal cap on iron post (C. & G. S. b. m. M <sub>2</sub> )-----	1, 903. 244
Canute, 3.4 miles west of, on base of southeast one of four central stone piers supporting wooden columns of water tank; bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. N <sub>2</sub> )-----	1, 944. 484
Elk City, 1.6 miles east of, near fence line on east side of road, at crossing 1 mile west of Washita-Beckham county-line road, 15 meters south of center line of main track; top of red metal cap on iron post (C. & G. S. b. m. O <sub>2</sub> )-----	1, 942. 864
Elk City, on right of way, 43.6 meters east of east corner of railroad station and 17 meters southeast of center line of main track; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. P <sub>2</sub> )-----	1, 914. 265
Elk City, at southeast corner of Broadway and Main streets, on left side of corner entrance to Thurmond Building, occupied by First State Bank, 0.7 meter above sidewalk; red metal disk (C. & G. S. b. m. Q <sub>2</sub> )-----	1, 926. 295
Elk City, at northwest corner of Jefferson and Broadway streets, on stone window sill near sidewalk level, on south side of building occupied by German State Bank; bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. R <sub>2</sub> )-----	1, 931. 098
Elk City, 5 miles southwest of, just inside right of way, at northwest corner of road crossing, at highest point of railroad between El Reno and Sayre, 14 meters north of center line of main track; top of red metal cap on top of iron post (C. & G. S. b. m. S <sub>2</sub> )-----	2, 092. 246

## INGERSOLL QUADRANGLE.

[Latitude 36° 30'-37°; longitude 98°-98° 30'.]

## At Manchester.

Manchester, in north face of Odd Fellows Hall, in center of brick column at northeast corner, in fifteenth tier above stone foundation; copper bolt (C. & G. S. b. m. Y)-----	1, 288. 521
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------

## POND CREEK QUADRANGLE.

[Latitude 36° 30'-37°; longitude 97° 30'-98°.]

From point near Kremlin north along Chicago, Rock Island & Pacific Ry. and northwest along Atchison, Topeka & Santa Fe Ry. to point near Manchester.	
Kremlin, 12 feet south of sixth telegraph pole north of station; bottom of square hole in top of stone post, marked "U. S. $\square$ B. M." (C. & G. S. b. m. P)-----	1, 120. 949

Feet.

Pond Creek, on stone doorstep of schoolhouse (1895), 4 inches from eastern side of arch to south doorway and 2 inches from edge of stone; bottom of square hole (C. & G. S. b. m. Q)-----	1,050.382
Jefferson, 0.5 mile south of, on northwest corner of southwest foundation stone supporting the column to central part of railway water tank; bottom of square hole (C. & G. S. b. m. R)-----	1,047.898
Medford, in southeast angle formed by the Chicago, Rock Island & Pacific Ry. and the Atchison, Topeka & Santa Fe Ry., 60 feet from each track; bottom of square hole in top of stone post, marked "U. S. $\square$ B. M." (C. & G. S. b. m. S)-----	1,087.265
Medford, in east face of brick school building, 4 feet above ground, near center of third brick from northeast corner; copper bolt (C. & G. S. b. m. T)-----	1,099.312
Medford, on southwest corner of east one of outer supports on north side of Atchison, Topeka & Santa Fe Ry. water tank; bottom of square hole (C. & G. S. b. m. U)-----	1,099.164
Clyde, 10 feet west of third telegraph pole east of and across tracks from Atchison, Topeka & Santa Fe Ry. station; bottom of square hole in top of stone post, marked "U. S. $\square$ B. M." (C. & G. S. b. m. V)-----	1,113.249
Wakita, on south face of east column of Masonic Hall, on Main Street, in middle brick in seventeenth tier from sidewalk; copper bolt (C. & G. S. b. m. W)-----	1,181.963
Gibbon, 2 poles east of and across tracks from station sign, 10 feet west of second telegraph pole west of milepole 305; bottom of square hole in top of stone post, marked "U. S. $\square$ B. M." (C. & G. S. b. m. X)-----	1,183.056

## RUSH SPRINGS QUADRANGLE.

[Latitude 34° 30'-35°; longitude 97° 30'-98°.]

From point near Duncan along Chicago, Rock Island & Pacific Ry. to point near Ninnekah.

Duncan, 1.5 miles south by 5 miles west of, in sec. 16, T. 1 S., R. 8 W., on top of high flat hill with woods on east and north; spike projecting from pipe filled with concrete covered with one-half inch of cement; bench mark is bottom of square hole cut in cement near station mark (C. & G. S. triangulation station Duncan)-----	1,224.384
Check bench mark is iron spike 10 inches long driven flush with ground 6 decimeters from east leg of inner tripod and in line with leg and station mark, 0.0271 meter below bench mark (Duncan $\triangle$ )-----	1,224.295
Marlow, 2.5 miles south of, 1.5 telegraph poles north of mile pole 468, on 2½-foot iron pipe culvert, 10 feet below tracks, 20 feet from rail on east end of pipe; cross on highest point. (C. & G. S. b. m. K)-----	1,298.049
Marlow, on east side of First National Bank building, 6 inches from south end of water table to double window; square 1 inch on a side (C. & G. S. b. m. L)-----	1,313.849
Marlow, southwest corner of Fifth Street and Brummett Avenue, in northeast corner of public school lot, on concrete pier (red sandstone and Portland cement), used by E. Smith in 1899 for longitude observations; the longitude station is marked by bronze station mark; bench mark is cross marking station (C. & G. S. Marlow Longitude Station)-----	1,312.432

	Feet.
Marlow, 4.5 miles north of, in coping stone to east side of an arched stone culvert, 6 inches from south and east edges of stone; copper bolt (C. & G. S. b. m. M)-----	1, 268. 973
Rush Springs, in northwest pier of center set of supports to railway water tank; bottom of square hole (C. & G. S. b. m. N)-----	1, 292. 107
Ninnekah, 6 miles south of, at siding No. 2, on top of section of iron rail used as a marker for mile pole 449 (C. & G. S. t. b. m. 95)-----	1, 258. 258
Ninnekah, 4 miles south of, on coping stone to culvert, 4½ telegraph poles north of mile pole 447½, on west side of track, 4 inches from west edge and 28 inches from south edge of stone; bottom of square hole (C. & G. S. b. m. O)-----	1, 225. 030
Ninnekah, 0.5 mile north of, bridge over Little Washita River, on west side of south abutment, in bridge seat, 6 inches from north edge and 30 inches from west edge of stone; copper bolt (C. & G. S. b. m. P)-----	1, 076. 422

## WATONGA QUADRANGLE.

[Latitude 35° 30'-36°; longitude 98°-98° 30'.]

From point near Fort Reno west along Chicago, Rock Island & Pacific Ry. to point near Hydro.

Calumet, 100 meters west of station, 19 meters north of center line of main track, on top of north retaining wall of concrete which supports the roadway leading into the elevator of the Farmer's Grain Co.; copper bolt (C. & G. S. b. m. B <sub>2</sub> )-----	1, 376. 503
Calumet, 7.5 miles west of, 180 feet west of small timber bridge No. 5305, 1¼ poles west of pole 530-15, on west line of highway at crossing, 13.5 meters south of center line of main track; red metal cap on iron pipe (C. & G. S. b. m. C <sub>2</sub> )-----	1, 444. 341
Geary, 70 meters west of west end of station, near west end of triangular plat on which the railroad water tank stands, 4.9 meters north of center line of main track; bottom of square hole in top of stone post, marked "U. S. B. M." (C. & G. S. b. m. D <sub>2</sub> )-----	1, 540. 115
Geary, on low stone window sill on west side of north or main face of Geary Opera House; bottom of square hole, marked "U. S. B. M." (C. & G. S. b. m. E <sub>2</sub> )-----	1, 549. 901
Geary, on projecting foundation stone at northwest corner of north or main entrance to Geary public-school building; bottom of square hole marked "U. S. B. M." (C. & G. S. b. m. F <sub>2</sub> )-----	1, 583. 409
Geary, on east corner of northeast concrete foundation supporting one of the steel columns of city water tank; copper bolt (C. & G. S. b. m. G <sub>2</sub> )-----	1, 590. 391
Geary, 3.5 miles south of, 75 meters south of south end of railway pile trestle 5385, at entrance to cut, 15 meters west of center line of main track; red metal cap on top of iron post (C. & G. S. b. m. H <sub>2</sub> )-----	1, 430. 315
Geary, 7.25 miles southwest of, on west end of north concrete retaining wall supporting embankment at end of steel bridge over South Canadian River; red metal disk (C. & G. S. b. m. I <sub>2</sub> )-----	1, 407. 452
Bridgeport, 240 meters east of station, 41.5 meters south of center line of main track, on east property line of the extension of Main Street; red metal disk on top of iron post (C. & G. S. b. m. J <sub>2</sub> )-----	1, 425. 840

Feet.

Bridgeport, 2.5 miles west of, 400 feet west of west end of railway pile  
 trestle 5459, 550 feet west of highway crossing, directly opposite  
 milepost 546, 18 meters south of center line of main track; red  
 metal disk on top of iron post (C. & G. S. b. m. K<sub>2</sub>)----- 1, 428. 904

McCool, 15.9 meters south of center line of main track, 180 meters  
 east of temporary station, just outside right of way at southwest  
 property corner at highway crossing; red metal disk on top of iron  
 post (C. & G. S. b. m. L<sub>2</sub>)----- 1, 444. 423

13599°—Bull. 564—14—8

## APPENDIX B.

### SECONDARY ELEVATIONS.

Secondary elevations from records and topographic maps of the United States Geological Survey, including altitudes of well-known summits and other useful elevations, are given below. These elevations are approximate only and should not be used for accurate work.

Locality.	Quadrangle.	County.	Elevation.
Antlers.....	Antlers.....	Pushmataha.....	500
Bluejacket.....	Vinita.....	Craig.....	774
Catoosa.....	Claremore.....	Rogers.....	617
Chelsea.....	Vinita.....	Rogers.....	715
Choteau.....	Pryor.....	Mayes.....	625
Claremore, junction of St. Louis & San Francisco R. R. and St. Louis, Iron Mountain & Southern Ry.....	Claremore.....	Rogers.....	611
Coyle.....	Perkins.....	Logan.....	871
Fort Gibson.....	Muskogee.....	Muskogee.....	515
Inola.....	Claremore.....	Rogers.....	600
Kosoma.....	Antlers.....	Pushmataha.....	493
Langston.....	Perkins.....	Logan.....	962
Marietta.....	Gainesville.....	Lore.....	846
Maud.....	Maud.....	Pottawatomie.....	968
Muskogee.....	Muskogee.....	Muskogee.....	609
Nowata.....	Nowata.....	Nowata.....	694
Perkins.....	Perkins.....	Payne.....	891
Pryor.....	Pryor.....	Mayes.....	625
Stillwell.....	Tahlequah.....	Adair.....	1,106
Talala.....	Nowata.....	Rogers.....	683
Tulsa.....	Claremore.....	Tulsa.....	695
Vinita.....	Vinita.....	Craig.....	695

# INDEX.

A.	Page.
Adair.....	15
Adair County.....	17
Addington.....	42, 103
quadrangle.....	42-43, 54-55, 103-104
Afton.....	8
Agra.....	81, 82
quadrangle.....	41, 81-82
Albion.....	29
Alderson.....	31
Alikchi quadrangle.....	48
Antlers.....	47
quadrangle.....	46-48
Appalachia.....	68
Arapaho quadrangle.....	104-105
Ardmore.....	43
quadrangle.....	43-44
Arlington.....	85
Armstrong.....	45
Arthur, Tex.....	50
Ashor.....	35
Atchison, Topeka & Santa Fe Ry.....	40,
70, 71, 73, 74, 76, 79, 81, 82, 83, 84, 85,	
87, 88, 90, 91, 93, 96, 100, 101, 110, 111	
Atoka.....	45
County.....	45, 46
quadrangle.....	45-46
Avoca.....	85
Aydelotte.....	87

B.	
Baker, H. L., work of.....	37, 42, 43, 51
Barnett.....	31
Barren.....	17
Bartlesville.....	57
Bartlett, G. H., work of.....	27, 29, 48, 49
Bellemon.....	87
Bench marks, description of.....	5-6
plate showing.....	5
Bengal.....	29
Berwyn.....	44
Big Cabin.....	9, 15
Bigheart.....	58
Bison.....	107
Blackland.....	62
<i>See also Foster.</i>	
Blackstone.....	18
Bluejacket.....	9
Bonham quadrangle.....	51-52
Braggs.....	19
Bridgeport.....	112, 113
Bryan County.....	45, 51
Buffalo.....	102
Bunch.....	17
Burbank.....	80
Butler.....	31, 47

C.	Page.
Caddo.....	45, 107
Caldwell, H. L., work of.....	56, 63
Calumet.....	112
Calvin.....	33
Cameron.....	25
Canadian County.....	38, 54, 88, 92, 103
Canadian quadrangle.....	22
Caney.....	45
Canute.....	110
Carlock, J. H., work of.....	16,
17, 24, 26, 35, 43, 44, 50, 51, 52	
Carnall, R. T., work of.....	42, 43, 46, 52
Carney.....	82, 92
Carter County.....	43
Casey.....	72
Cashion.....	90, 91
Caston.....	27
Catchings, T. C., work of.....	31, 32
Catoosa.....	13
Cavanal.....	27
Chandler.....	82, 83
quadrangle.....	41, 82-84
Chelsea.....	9
Cherokee.....	25
County.....	17, 18
Chicago, Rock Island & Pacific Ry.....	37,
38, 42, 53, 73, 82, 87, 89, 90, 91, 92, 98, 99, 100,	
103, 104, 105, 106, 107, 108, 109, 110, 111, 112,	
Chickasaw Nation.....	37, 38, 39, 42, 43
Chickasha.....	38, 105
quadrangle.....	38-40, 56, 105-106
Chili.....	33
Choctaw.....	93, 95, 98, 100
County.....	46, 48, 50, 51
Choctaw, Oklahoma & Gulf R. R.....	21,
27, 29, 31, 40, 81, 88, 90	
Choteau.....	14
Chuckaho.....	83
Claremore.....	12, 13
quadrangle.....	12-14, 63
Clarksville quadrangle.....	50
Clayton.....	29
Cleveland.....	66
County.....	92
Clinton.....	105, 109
Clyde.....	111
Coal County.....	32
Coalgate.....	33
quadrangle.....	32-34
Coast and Geodetic Survey, elevations ad-	
justed by.....	103-113
Cody.....	72
Coe, Robert, work of.....	9, 14, 15, 17, 18, 24, 27,
29, 32, 35, 37, 38, 42, 43, 45, 46, 52, 53, 88, 92, 93	
Colbert.....	51, 52



	Page.		Page.
Comanche.....	42, 103	Gainesville quadrangle.....	52-53
Compton.....	29	Gans.....	24
Copeland, R. M., work of.....	56, 63	Garfield County.....	103
Correll, W. A., work of.....	29, 31	Garvin County.....	35, 37
Correta.....	19	Geary.....	112
Coyle.....	89, 91	Gibbon.....	111
Craig County.....	9	Gibson.....	18
Creek County.....	42, 62	Given, G., work of.....	35
Cushing.....	81, 84	Goodland.....	47
D.		Goodnight.....	91, 92
Dale.....	40, 88	Grady County.....	37, 38, 54, 103
Darlington.....	106	Grant.....	51
Datum, determination of.....	6-7	County.....	62, 103
Davenport.....	47, 82, 83, 86	Greenup.....	72
Davis.....	35	Gulf, Colorado & Santa Fe Ry.....	35, 43
Deer Creek.....	74	Guthrie.....	88, 89
Delaware County.....	7, 15	quadrangle.....	88-89
Denison quadrangle.....	52	II.	
De Queen quadrangle.....	49	Hallett.....	71, 73
Dickson.....	100	Halliday, W. P., work of.....	26, 27, 29, 46, 48, 49, 50
Doster, Chase, work of.....	29, 31	Hamden.....	47
Dougherty.....	44	Hannegan, D., work of.....	17
Dover.....	106, 107	Hanson.....	25
Doxey.....	108	Harrah.....	94, 98
Dudley.....	92	Hartshorne.....	31
Duncan.....	37, 103, 104, 111	Haskell County.....	23, 24
Durant.....	51	Hassan, A. F., work of.....	7, 9,
Dutcher.....	88, 91	10, 12, 14, 18, 20, 21, 35, 43, 52	
E.		Heavener.....	28
Earle, W. E., work of.....	7, 9, 14, 15	Hellen, H. H., work of.....	17, 18
Earlsboro.....	40, 88	Hennessey.....	106, 107
Eastern Oklahoma R. R.....	82	Hext Ranch.....	109
Edmond.....	93	Hickman, C. H., work of.....	24
quadrangle.....	93	Hill, E. W., work of.....	9, 14, 15
Elgin.....	61	Hobart quadrangle.....	109-110
Elk City.....	110	Holdenville.....	21
El Reno.....	90, 105, 106	Hominy.....	62, 67
El Reno Junction.....	90	quadrangle.....	42, 64-70
Elzey.....	29	Horatio quadrangle.....	50
Enid.....	108	Houston.....	28
quadrangle.....	107-108	Hughes County.....	21
Erick.....	109	Hutchinson, F. M., work of.....	38, 92, 93
quadrangle.....	108-109	Hutchinson.....	73, 74
Esau Junction.....	72	Hydro.....	104, 112
Eufaula.....	22	I.	
F.		Iconium.....	92
Fairfax.....	80, 81	Illinois.....	19
Faison, E. L., work of.....	17, 18,	Indian.....	67
20, 21, 22, 24, 29, 31, 32, 40, 41, 81		Indianapolis.....	104, 105
Fallis.....	92, 94	Ingersoll quadrangle.....	110
Fanshawe.....	27	Inola.....	12
Fellows, F. E., work of.....	27, 29, 31, 32, 46, 48, 49	J.	
Fisher.....	64	Jefferson.....	111
Flynn.....	40, 100	County.....	42, 53, 54, 103
Folsom.....	28	Jenkins, B. A., work of.....	102
Foraker.....	62, 78, 79	Jennings.....	70, 71
Fort Gibson.....	19	Jobs siding.....	71
Fort Reno.....	90, 106, 112	Johnston County.....	44
Fort Smith & Western R. R.....	83, 86, 89, 94	Jones, Oscar, work of.....	48, 49, 50
Fort Smith quadrangle.....	26	K.	
Foss.....	109, 110	Kansas City, Mexico & Orient Ry.....	105
Foster.....	59, 60, 62	Kansas City Southern Ry.....	15, 17, 24, 27, 28
Frink.....	31	Kaw.....	79, 80
Fry, E. M., work of.....	18, 20,	Kay County.....	62
21, 24, 26, 27, 29, 34, 35, 37, 38, 42, 43			

	Page.		Page.
Kelso.....	9	Midlothian.....	84
Kendrick.....	82	Minco.....	38, 105
Keystone.....	64, 67	Missouri, Kansas & Texas Ry.....	9,
Kiamichi.....	29	10, 18, 19, 22, 31, 33, 45, 51, 57, 58, 62, 66,	
King, E. T., work of.....	34, 63, 81, 88, 93	67, 68, 70, 71, 73, 81, 92, 94, 95, 98, 99, 101	
King, J. W., work of.....	88, 92	Montague quadrangle.....	53-54, 107
Kingfisher.....	89, 107	Moore, W. S. D., work of.....	10, 12, 14, 15,
County.....	88, 103	17, 18, 20, 21, 22, 23, 29, 31, 32, 34, 35, 37, 40	
quadrangle.....	89-91, 106-107	Moore.....	100
Kiowa.....	31	quadrangle.....	100-101
Kosoma.....	47	Muldrow, H. L., jr., work of.....	7,
Krebs.....	31	14, 15, 17, 18, 31, 32, 34, 44, 45	
Kremlin.....	107, 110	Muldrow.....	25
L.		Murray County.....	43, 102
Latimer County.....	29	Muskogee.....	18
Le Flore.....	28	County.....	18, 20
County.....	24, 26, 27	quadrangle.....	18-20
Lehigh.....	45	N.	
Leliaetta.....	14	Nardin.....	74, 75
Lenoir.....	51	Navina.....	89, 90, 91
Lexington.....	96, 101	Nelagoney.....	57, 58, 59
Limestone Gap.....	31	Newkirk.....	76, 79
Lincoln County.....	41, 81, 88, 92	quadrangle.....	74-76
Lindsay, W. A., work of.....	54	New Tanaha.....	65
Lockridge.....	89	Nichols siding.....	58
Logan County.....	88, 92	Nick, George, work of.....	7, 10, 15, 18, 22, 23
Lonsdale, E. H., work of.....	20, 21	Ninnekah.....	37, 105, 112
Lost City.....	64	Noble.....	101
Love County.....	43, 52	Norfolk.....	70
Lowe.....	82, 92	Norman.....	100, 101
Lukfata quadrangle.....	48-49	quadrangle.....	101-102
Luther.....	94, 95	North Creek.....	86
quadrangle.....	94, 95	North Enid.....	108
M.		Nowata.....	11
McAlester.....	22, 31	County.....	10
quadrangle.....	31-32	quadrangle.....	10
McCain County.....	35, 92	Numa.....	73, 74
McCluer, H. C., work of.....	27, 29, 31, 46, 50, 51, 52	Nuyaka quadrangle.....	21
McComb.....	85, 96	O.	
quadrangle.....	95-97	Oak Lodge.....	25
McCool.....	113	Odell, C. B., work of.....	9, 10, 12, 14, 18, 20, 21, 42
McCurtain County.....	48, 49, 50	Okarche.....	107
McIntosh County.....	22	Okesa.....	57
McLoud.....	94, 98	Okfuskee County.....	21
quadrangle.....	97-99	Oklahoma.....	90
McKey.....	25	County.....	88, 92
McKinley.....	83, 94	Okmulgee quadrangle.....	20
Mallon quadrangle.....	41, 84	Oktaha.....	18
Manchester.....	110	Oologah.....	13
Mannford.....	64, 66	Osage.....	66, 67
Manning, W. R., work of.....	21,	County.....	42, 56, 62
22, 32, 34, 35, 37, 40, 41, 44, 45, 51, 52		Ottawa County.....	7
Maps of quadrangles, list of.....	7	Overbrook.....	43
Marble.....	17	P.	
Marietta.....	53	Page.....	27, 28
Marlow.....	37, 111, 112	Panola.....	29
Marshall County.....	44, 52	Paoli.....	38
Maud quadrangle.....	40, 85	Paris quadrangle.....	51
Mayes County.....	14	Parry, H. G., work of.....	56
Medford.....	73, 111	Parkersburg.....	104, 109
Meeker.....	83, 84, 87	Pauls Valley.....	36
Merrick.....	92	quadrangle.....	35-36
Merritt.....	108, 109	Pawhuska.....	59, 60
Mervine siding.....	79	quadrangle.....	56-62
Midland Valley R. R.....	57, 58, 59, 63, 69		



IV.	Page.		Page.
Wadena.....	47	Wewoka.....	21, 40
Wagoner.....	19	quadrangle.....	21-22
County.....	12, 18, 20	Wilburton.....	30
Wakita.....	111	Wilzetia.....	86
Walker, J. P., work of.....	17,	Winding Stair quadrangle.....	27-29
18, 22, 23, 24, 32, 34, 37, 42, 53		Winslow quadrangle.....	16
Wanette.....	35, 96	Wister.....	27
Warwick.....	83, 94	Wyandotte.....	8
Washington County.....	10	quadrangle.....	7-8
Washunga quadrangle.....	76-81	Wybark.....	18
Waterloo.....	93	Wynnewood.....	35
Watonga quadrangle.....	112-113	Wynona.....	58, 59, 62
Waukomis.....	107, 108		
Weatherford.....	104	Y.	
Wellston.....	94	Yale.....	70
West Tulsa.....	63, 64	Yukon.....	90
Westville.....	17		

