## DEPARTMENT OF THE INTERIOR

Frankinn K. Land, Secretary
United States Geological Survey George Otis Smith, Director

Builetin 637

## SPIRIT LEVELING IN TEXAS

1896 T0 1915, INCLUSIVE

R. B. MARSHaLL, Cmief Geographer

Work done in cooperation with the State of Texas in $1902,1903,1909$, and 1910 , and with Barris County in 1915


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Work done in cooperation with the State of Texas
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GEOLOGICAL SURVEY BENCH 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.

## SPIRIT LEVELING IN TEXAS, 1896 T0 1915, INCLUSIVE.

R. B. Marshall, Chief Geographer.

## INTRODUCTION.



Cooperation.-The State of Texas contributed financially to the work of 1902 and 1903 through the University of Texas Mineral Survey, in 1909 and 1910 through the State Reclamation Service, A. A. Stiles, State reclamation engineer, and in 1915 Harris County contributed directly through W. H. Ward, county judge.

Previous publication.-All results of spirit leveling in Texas previously published by the United States Geological Survey and all the results of later work are included in this report, rearranged by quadrangles. Elevations are based on heights of bench marks along preciselevel lines of the United States Coast and Geodetic Survey as adjusted in 1912, and on the precise-level line of the United States Geological Survey from the Texas-New Mexico boundary line to El Paso. The elevations of certain bench marks in Brewster and Presidio counties are based on railroad datum, as noted in the several headings, and are, therefore, only approximate.

Personnel. -The field work from 1896 to 1906, inclusive, was done under E. M. Douglas, geographer, and the later work under E. C. Barnard and S. Tatum, geographers, under the general direction of R. B. Marshall, chief geographer. The names of the various levelmen are given in the introductions to the lists. The office work of computation, adjustment, and preparation of lists was done mainly by S. S. Gannett, geographer, and D. H. Baldwin, topographer, and since 1907 under the general direction of E. M. Douglas, geographer.

Classification.-The elevations are classified as precise or primary, according to the methods employed in their determination. For precise-level lines instruments and rods of the highest grade are used, each line is run both forward and backward, and every precaution is taken to guard against error. The allowable divergence between the forward and the backward lines in feet is represented by the formula $0.017 \sqrt{\mathrm{D}}$, in which D is the distance in miles between bench marks. 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 $0.05 \sqrt{\mathrm{D}}$, in which D is the length of the
circuit in miles, sufficient care being given to the work to maintain this standard. For levels of both classes 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 $E, \mathrm{Pl}$. I), $3 \frac{1}{2}$ inches in diameter and one-quarter 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 $3 \frac{1}{2}$ inches in outer diameter and 4 feet in length, which is set about 3 feet in the ground. The bottom is spread out to a width of 10 inches in order to give a firm bearing on the earth. 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 $D, \mathrm{Pl} . \mathrm{I}$ ), is used for unimportant points. This consists of a special copper nail $1 \frac{1}{2}$ inches in length driven through a copper washer seven-eighths inch in diameter. The tablets, as well as the caps on the iron posts, are appropriately lettered, and cooperation by States is indicated by the addition of the State name ( $G$, PI. 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 elevations determined by the United States Geological Survey and United States Coast and Geodetic Survey are referred to mean sea level, which is the level that the sea would assume if the influence of winds and tides 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 mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels 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 for published results will be made from time to time as the precise-level lines of the United States Geological Survey, the United States Coast and Geodetic Survey, or other Government organizations are extended.

Topographic maps.-Maps of the following quadrangles wholly or partly in Texas have been published by the United States Geological Survey up to May 1, 1916. 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.:

Abilene.
Albany.
Alpine.
Anson.
Atlanta (Tex.-Ark.-La.).
Austin.
Ballinger.
Barnes Bridge.
Bastrop.
Blanco.
Brackett.
Brady.
Breckenridge.
Brownwood.
Buckholts.
Burnet.
Cerro Alto.
Chisos Mountains (double sheet, 20 cents.)
Chispa.
Cleburne.
Coleman.
Cour ney.
Daュngerfield.
Dallas.
Denison (Tex.-Okla.).
Eagle Mountain.
Eastland.
Eden.
El Paso.
Flatonia.
Fort Davis.
Fort Hancock.
Fort McKavett.
Fort Worth.

Fredericksburg. Gainesville (Tex.-Okla.). Gatesville.
Georgetown.
Granbury.
Hamilton.
Hayrick.
Kerrville.
Lampasas.
Howth.
Linden.
Llano.
Marfa.
Mason.
Meridian.
Millican.
Mission.
Montague (Tex.-Okla.).
New Boston.
Nueces.
Palo Pinto.
Panoche.
Polvo.
Rio Grande.
Roby.
Rock Springs.
Rockwall.
Ruidosa.
Salt Basin.
San Angelo.
San Antonio (double sheet, 20 cents).
San Carlos.
San Juan.
San Marcos.

San Saba.
Shafter.
Sherwood.
Sierra Blanca.
Stephenville.
Sweetwater.
Taylor.
Temple.
Terlingua.

Terlingua special.
Texarkana (Tex.-Ark.).
Texas contour map ( 15 cents).
Uvalde.
Valentine.
Van Horn.
Waco.
Weatherford.

## PRECISE LEVELING.

Anapra and El Paso quadrangles.
el paso county.
The following are the results for the Texas portion of a precise-level line run in 1905 by M. S. Bright along the Atchison, Topeka \& Santa Fe Ry., from Albuquerque, N. Mex., to El Paso, Tex. The elevations accord with the 1912 adjustment.
ANAPRA QUADRANGLE.[Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $106^{\circ} 30^{\prime}-107^{\circ}$.]
From La Tuna south along Atchison, Topeka \& Santa Fe Ry. to El Paso.
Vinton, 21 feet east of main line, under Vinton signboard; iron post stamped ..... Feet."3774".3, 786.977
Canutillo, 80 feet east of main track, at southwest corner of J. J. Cumflid's house; iron post stamped " $350-\mathrm{B}-1905$ ". ..... 3, 764.769
Montoya, in front of signboard; top of rail. ..... 3, 753.41
Montoya, 1.5 miles south of, 40 feet west of road crossing, 5 feet east of fence corner; iron post stamped " $354-\mathrm{B}-1905$ ". ..... 3, 751. 081
Whites spur; top of rail ..... 3, 747.4
Whites spur, 2.8 miles south of, 0.25 mile north of milepost 1150, 50 feet eastof track, 16 feet east of public road; iron post stamped " $357-\mathrm{B}-1905$ ". . . 3, 740.150
Whites spur, 5.25 miles south of, 240 feet north of public-road crossing, 100feet east of river, 45 feet east of track, 12 feet east of wagon road; iron poststamped " $359-\mathrm{B}-1905$ ".3, 733. 398
International boundary line monument 1 ; top of masonry at northeast cor- ner (Boundary Commission elevation, 3,713.6) ..... 3, 726. 443
EL PASO QUADRANGLE. ${ }^{1}$
[Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $106^{\circ}-106^{\circ} 30^{\prime}$ ]]From Union Station via City Hall to El Paso County courthouse and return to UnionStation.
El Paso, Atchison, Topeka \& Santa Fe Ry. station, in front of; top of rail. 3, 709.7El Paso, city hall, in west end of lower stone step at north entrance; alumi-num tablet stamped " 3698 " (C. \& G. S. adjusted elevation, 1912) .... 3, 710. 902El Paso, city hall, in east end of steps at south entrance, in cement; alumi-num tablet stamped " $365-\mathrm{B}-1905$ " (C. \& G. S. adjusted elevation, 1912). 3, 709.871
EI Paso County courthouse, in west end of lower step at south entrance;aluminum tablet stamped " $366-\mathrm{B}-1905$ " (C. \& G. S. adjusted eleva-tions, 1912)3, 710. 531
El Paso County courthouse, on top of pyramid stone at west side of northentrance; cross (city bench mark).$3,711.407$
El Paso, in front of Southern Pacific R. R. station; top of rail. ..... 3, 725.3
El Paso, in front of Union station; top of rail. ..... 3, 725.4

## PRIMARY LEVELING.

Atlanta, Jefferson, Linden, New Boston, and Texarkana quadrangles.

bOWIE, CASS, AND MARION COUNTIES.
The elevations in these lists are based on elevations of the Coast and Geodetic Survey precise-level line along Missouri, Kansas \& Texas Railway at Jefferson and Pittsburg.
The leveling was done by Chester Irvine in 1905.

# JEFFERSON QUADRANGLE. <br> [Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $94^{\circ}-94^{\circ} 30^{\prime}$.] 

## From Jefferson via Texas \& Pacific Ry, northeast to Bivins.

Jefferson, opposite Missouri, Kansas \& Texas Ry. station, 16 feet north of track, 7 feet north of telegraph pole, in top of limestone post 6 by 6 inches on top; bottom of square hole (C. \& G. S. b. m. G 3).
Feet.
189.445
Jefferson, 2.7 miles north of, 300 feet east of Rowe's house, 20 feet west of track, in southwest corner of right of way fence at road crossing; iron post stamped "190 Adj 1903".
189.880
Jefferson, 6.5 miles north of, west of track, at corner of right of way fence
at road crossing; iron post stamped ' 295 Adj 1903 "...........................295.267
Lodi, in front of station; top of rail............................................
Lodi, 100 feet south of station, 40 feet east of track, at corner of right of way fence; iron post stamped ' 253 Adj 1903"
Lodi, 3 miles north of, 40 feet west of spur to lumber shed, 500 feet northwest of milepost 39 ; iron post stamped " 23 I Adj 1903"
253.258
Kildare, in front of station; top of rail
231. 277
285. 28

Kildare, 1 mile north of, 600 feet north of milepost 36,40 feet west of track, at road crossing; iron post stamped " 252 Adj 1903".
Wayne water tank, 0.5 mile north of, 350 feet north of Lynch's house, 40 feet east of track at road crossing; iron post stamped ' 268 Adj 1903".....
252.118

## Linden southeast along road to Kildare.

Linden, 3.5 miles southeast of, 10 feet north of road, at forks, south end of
lane at fence corner; iron post stamped " 358 Adj 1903 "..................... 358.728
Kildare, 2.5 miles northwest of, 700 feet north of crossroads, on small summit 10 feet east of road; iron post stamped " 342 Adj 1903".
342. 706

## ATLANTA QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $94^{\circ}-94^{\circ} 15^{\circ}$.]
From Bivins north along Texas \& Pacific Ry, to Alamo Mills.

Bivins, in front of station; top of rail........................................... 314.0
Atlanta, 3 miles south of, 50 feet east of track, 20 feet east of first telegraph
pole north of milepost 27 ; iron post stamped " 279 Adj 1903 "..............279.388
Atlanta, 0.2 mile south of station, 120 feet south of milepost 24,40 feet east of road crossing, in corner of right of way fence; iron post stamped " 256 Adj 1903".
256.241

Feet
Queen City, in front of station; top of rail ..... 346.1
Lanark, 150 feet north of station signboard, 40 feet east of track, at road crossing; iron post stamped " 338 Adj 1903". ..... 338.112
Springdale, 30 feet west of station signboard, 10 feet north of track; iron post stamped " 244 Adj 1903" ..... 244. 428
Alamo, 900 feet north of station signboard, 50 feet west of track at road cross- ing, in corner of right of way fence; iron post stamped 'Prim. Trav. Sta. No. 107, 243 Adj 1903" ..... 243.022
From Atlanta east along Texas, Arkansas \& Louisiana Ry. to Bloomburg, thence south along Kansas City Southern Ry. to State line near Ravana Ark.
Atlanta, 0.2 mile south of, 120 feet south of milepost 24,40 feet east of road crossing, in corner of right of way fence; iron post stamped ' 256 Adj 1903" ..... 256. 241
Atlanta, in front of station; top of rail ..... 260.5
Atlanta, 3.9 miles northeast of, north of track at road crossing; iron post stamped " 349 Adj 1903" ..... 349.183
Bloomburg, 350 feet west of station, 20 feet south of track, at road crossing; iron post stamped " 310 Adj 1903". ..... 309.861
Bloomburg, in front of station; top of rail ..... 307.0
Bloomburg, 2.5 miles south of, 40 feet east of track, on State line; iron post stamped " 261 Adj 1903" ..... 261. 494
From Atlanta northwest along road 3.4 miles.
Atlanta, 3.4 miles northwest of, 400 feet west of cabin, 15 feet north of road, at edge of large basin; iron post stamped " 330 Adj 1903 " ..... 329.739
TEXARKANA QUADRANGLE.
[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $94^{\circ}-94^{\circ} 15^{\prime}$.]
From Alamo Mills north along Texas \& Pacific Ry. to Texarkana.
Sulphur, 1,900 feet south of station, 40 feet west of track at road crossing, in corner of right of way fence; iron post stamped " 232 Adj 1903 ". ..... 232.414
Sulphur, opposite station; top of rail. ..... 237.9
Sulphur, 2.5 miles north of, 40 feet west of track, 30 feet south of milepost 5 , south of gate at road crossing; iron post stamped " 288 Adj 1903 ". ..... 288. 202
Texarkana, 2.9 miles south of, 600 feet north of milepost 3 , south of road, 50 feet east of track; iron post stamped " 274 Adj 1903" ..... 273.946
Texarkæna, in front of Kansas City Southern Ry. station; top of rail. ..... 290.0 ..... 290.0
Texarkana post office, in stone railing south front west of steps, 5 feet above sidewalk; bronze tablet stamped " 332 Adj 1903" ..... 331.836
Texarkana, Miller County (Ark.) courthouse, at northeast corner of yard, United States Geological Survey meridian mark; bronze tablet stamped "'337 Adj 19031905 Texarkana" ..... 337. 387
From Texarkana southwest along tracks of St. Louis \& Southwestern Ry. Co. of Texas to Redwater.
Eylau, 1.5 miles southeast of station, in fence corner northwest of road cross-ing; iron post stamped " 341 Adj 1903",341. 404
Rowans spur, 100 feet east of station signboard, south of track; iron post stamped " 287 Adj 1903" ..... 286.642
Redwater, 2.9 miles east, Beesley road crossing, 30 feet east of track, in fence corner; iron post stamped " 260 Adj 1903". ..... 260.410
From Texarkana west along Texas \& Pacific Ry. to Leary.
Argo, 1,000 feet west of signboard, 200 feet east of west end of siding, south

Feet.
293.797 of track; iron post stamped " 294 Adj 1903'"
352.2
Park, in front of station; top of rail
Park, 200 feet east of station, north of track; iron post stamped " 349 Adj 1903" ..... 349.359
Park, 2 miles west of, 340 feet east of milepost 7, 40 feet north of track; iron post stamped "Prim. Trav. Sta. No. 23, 346 Adj 1903"' ..... 346.447
Leary, 150 feet northeast of signboard post, north of track; iron post stamped " 379 Adj 1903" ..... 379.024
From Texarkana north along Kansas City Southern Ry. to Whatley.
Ghio Park, 25 feet southwest of main entrance of park, at street car crossing; iron post stamped " 348 Adj 1903" ..... 348.011
Whatley, in front of station; top of rail. ..... 306.2
Whatley, north end of siding, 40 feet east of track, near fourth telegraph pole north of milepost 482; iron post stamped " 300 Adj 1903" ..... 300.086
NEW BOSTON QUADRANGLE.
[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime}$.]
From Redwater southwest along track of St. Louis Southwestern Ry. Co. of Texas to point near Bassett.
Redwater, in fence corner 200 feet east of station, 40 feet north of road cross- ing; iron post stamped "294 Adj 1903"' ..... 293.981
Redwater, in front of station; top of rail. ..... 291.4
Clem Sawmill spur, at corner fence 40 feet southeast of road crossing; iron post stamped " 250 Adj 1903"' ..... 249.821
Maud, in front of station; top of rail. ..... 289.04
Maud, 150 feet northwest of station, north of track near large oak tree; iron post stamped " 289 Adj 1903" ..... 288.550
Corley, in front of station; top of rail. ..... 300.3
Corley, 0.5 mile west of, in fence corner 100 feet northeast of road crossing; iron post stamped " 290 Adj 1903"" ..... 289.661
Fowk siding, 0.5 mile east of, west of track at road crossing at Ashburn's house; iron post stamped " 270 Adj 1903". ..... 270.150
From Leary west along Texas \& Pacific Ry. to New Boston, thence southwest along road to Simms.
Hooks, in front of station; top of rail ..... 374.5
Hooks, 75 feet west of station, north of track and east of road crossing; iron post stamped "Prim. Trav. Sta. No. 52, 376 Adj 1903"' ..... 376.454
Whaley, in front of station; top of rail ..... 360.7
Whaley, 10 feet northeast of signboard, 30 feet west of gate; iron post stamped "363 Adj 1903"" ..... 362.790
New Boston, 2 miles east of, 100 feet east of milepost 20 , south of track at: road crossing; iron post stamped " 357 Adj 1903" ..... 357.541
New Boston, in front of station; top of rail ..... 353.6
New Boston, 0.5 mile west of station, north of track and east of road crossing, in fence corner; iron post stamped " 367 Adj 1903"" ..... 366.714
New Boston, 3 miles southwest of, north of Mitchell house, at junction of New Boston and DeKalb roads; iron post stamped " 341 Adj 1903"..... ..... 340.854
New Boston, 6.5 miles southwest of, south of road on north bank of AndersonCreek, 30 feet west of Thompson's mail box; iron post stamped " 286 Adj1903.286.224
LINDEN QUADRANGLE.
Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime}$.]
From point 3.4 miles northwest of Atlanta west along road via Douglassville to Cusseta.
Atlanta, 7.5 miles northwest of, 15 feet south of road at summit, 100 feet Feet.north of cabin; iron post stamped " 420 Adj 1903".419.822
Douglassvilla, 3 miles east of, 12 feet south of road, 200 feet southwest of large white house; iron post stamped " 408 Adj 1903" ..... 408.021
Douglassville, 100 feet northeast of Baptist Church, south of road at fence corner; iron post stamped " 385 Adj 1903" ..... 384.993
Douglassville, 3.5 miles west of, 30 feet south of road forks, at corner of fence at cabin; iron post stamped " 303 Adj 1903" ..... 303.433
From Cusseta southeast along road to Linden.
Cusseta, at forks of road 100 feet southwest of Fulcher store; iron post stamped " 485 Adj 1903", ..... 485.430
Cusseta, 2.8 miles south of, 20 feet west of road, 20 feet west of house; iron post stamped " 385 Adj 1903"' ..... 385.579
Cusseta, 4 miles south of, 3 feet northeast of crossroads; iron post stamped "Prim. Trav. Sta. No. 341400 Adj 1903" ..... 400. 251
Cusseta, 6 miles southeast of, signboard "Linden $6 \frac{1}{2}$ miles" at crossroads; iron post stamped " 402 Adj 1903" ..... 402.631
Linden, 3 miles northwest of, 10 feet west of road, 80 feet south of road forks, 500 feet north of old gin; iron post stamped " 467 Adj 1903"' ..... 467.501
Linden, at northeast corner of Cass County courthouse yard; iron post stamped " 379 Adj 1903, Prim. Trav. Sta.". ..... 379.186
Linden, 0.5 mile southeast of, 20 feet southwest of road forks, at end of lane; iron post stamped " 367 Adj 1903". ..... 367. 160
From Roach southwest along road to Linden.
Linden, 5 miles northeast of, 200 feet south of road, at north front of New Colony Church; iron post stamped " 306 "' ..... 306.019
Linden, 3 miles northeast of, 10 feet north of road at summit, 300 feet east of cabin; iron post stamped " 371 Adj 1903" ..... 371.094
From Atlanta southwest along road to Roach.
Roach, 40 feet southeast of road forks; iron post stamped " 308 Adj 1903. ..... 308.116
From Linden west along road to point near Milne, thence north to point 5 miles south- east of Cusseta on Cusseta-Linden road
Linden, 4.8 miles west of, 10 feet south of road and east of basin; iron post stamped " 320 Adj 1903" ..... 320.051
Jaybart, 1.2 miles east of, 300 feet south of Griffiths farmhouse, at forks of road; iron post stamped " 310 Adj 1903" ..... 310.010
Jaybart, 2 miles north of, 40 feet southeast of road forks; iron post stamped "300 Adj 1903 " ..... 300. 317
Almira, 150 feet west of post office, southwest of forks of road; iron post stamped " 357 Adj 1903" ..... 357.992

Bassett, Boxelder, Daingerfield, Gilmer, Mount Pleasant, Mount Vernon, and Shawneetown quadrangles.

## bowie, cass, red river, and titus counties.

The elevations in the following list are based on the Coast and Geodetic Survey precise level line along the Missouri, Kansas \& Texas Ry.

The leveling was done by W. A. Gelbach, in 1908, with the exception of a line along the St. Louis Southwestern Railway Co. of Texas tracks, run by Chester Irvine in 1905.

## BASSETT QUADRANGLE.

[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $94^{\circ} 30^{\prime}-94^{\circ} 45^{\prime}$.]
From Simms southwest along track of St. Louis Southwestern Ry. of Texas to
Bridge 103 .

Simms, in front of station; top of rail.

Feet.

Simms, 1,000 feet west of signboard, 60 feet south of west end of siding; iron
post stamped " 275 Adj 1903 ". ....................................................... 274.860
Bassett, 60 feet east of station, 20 feet south of track, 20 feet west of pump house; iron post stamped " 249 Adj 1903"
249. 226
Finley, 0.5 mile east of, sixth telegraph pole east of milepost 454, in corner of right of way fence, 40 feet southeast of road crossing; iron post stamped "261 Adj 1903" ..... 261. 339
Finley, in front of station signboard; top of rail. ..... 259.3
Naples, 4.5 miles eașt of, 40 feet south of track, 150 feet west of Bridge 103; iron post stamped " 259 Adj 1903 " ..... 259. 439
From Simms north along highway to Malta.
Simms, 100 feet southeast of Simms's house, north of road near telegraph pole; iron post stamped " 352 Adj 1903 " ..... 352. 479
Simms, 0.5 mile west of, signboard "Bassett 4 M ," T road east, in root on north side of tree; head of spike. ..... 338. 42
Simms, 2.2 miles northwest of, on Malta road, northeast corner of cross- roads; head of spike in root of tree. ..... 360.76
Simms, 2.8 miles north of, on Malta road, in front of T road north, 400 feet west of John Harris's house; iron post stamped "Prim. Trav. Sta. No. 94, $3521908^{\prime \prime}$ ..... 352. 269
Anderson Creek bridge, 0.3 mile north of, northeast corner of $T$ road east; head of spike in root on south side of tree ..... 284.75
Anderson Creek bridge, 1.3 miles north of, 100 feet north of bridge over small stream, east of road at road fork west; iron post stamped "306 1908". ..... 306. 189
De Kalb, 9 miles southeast of, T road east; spike in root of tree with sign- board ..... 350.66
Malta, 2 miles south of, west of Simms road at junction of New Boston- De Kalb road, 50 fest west of small creek, in top of small knoll; iron post stamped " 371 1908" ..... 371. 199
Malta, 1.3 miles south of, at crossroads; head of spike in root of tree. ..... 365.69
Malta, 50 feet north of Texas \& Pacific Ry. track, at crossing in front of Norman's store, corner of right of way fence; iron post stamped "Prim. Trav. Sta. No. 103, 409 1903" ..... 403. 033
From De Kalb southwest along highway to Lydia.
De Kalb, 0.8 mile south of, at road fork west; head of spike in root of tree.De Kalb, 2.1 miles south of, east of road at fork of roads to Dalby Springsand Lydia, in top of hill south of Anderson Creek; iron post stamped"375 1908".
Feet. 370. 55374. 867
De Kalb, 4 miles southwest of, on Lydia road, 700 feet east of $N$. Lawrence'shouse, 55 feet west of mail box 76 , south of road on top of mound; ironpost stamped "416 1908"415. 837
Lydia, 3.5 miles northeast of, on De Kalb road, 60 feet east of signboard "De Kalb 7 miles," 200 feet west of small creek, south of road, in top of knoll; iron post stamped " 392 1908" ..... 391.980
From Lydia southeast along highway to Bassett. thence west to Finley.
Lydia, 3 miles southeast of, on Dalby Springs road, 0.4 mile north of sign-board "Dalby Springs 4 miles," northeast corner of crossroads, signboard"De Kalb 8 miles"; iron post stamped "360 1908"360.079
Dalby Springs, 0.9 mile north of, 60 feet south of $T$ road west leading toLydia, east of road; iron post stamped " 341 1908"341. 334
Dalby Springs, 100 feet south of bridge; head of spike in root on north side of large white-oak tree ..... 308.07
Dalby Springs, 0.5 mile east of, at northeast corner of T road north, in root of tree; head of spike ..... 326.35
Dalby Springs, 3 miles east of, on Bassett road, 1 mile north of Pinkham, 500 feet northeast of Christopher Black's house, at crossroads, near mail- box post; iron post stamped "332 1908" ..... 332.080
Pinkham, 1 mile south of, east of road opposite empty house, 40 feet south of fork in road; iron post stamped " 276 1908". ..... 275. 560
Bassett, 1.8 miles north of, on Dalby Springs road, east of road oppositecorner of field, 700 feet north of empty house; iron post stamped " 2781908"278. 147
Bassett, iron railway water tank, northwest side of, 4 feet west of bottomof iron ladder on tank, 2 inches below bottom of tank; notch cut in slopeof concrete foundation.251.69
Finley, 0.5 mile east of, at railway crossing, southwest corner of, in cornerof right-of-way fence, 6 feet west of byroad, 11 feet north of south line ofright of way, projecting about 1 inch above ground; iron post stamped"261 Adj 1903"261. 339
DAINGERFIELD QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $94^{\circ} 30^{\prime}-94^{\circ} 45^{\prime}$.]
From Bridge 103 southwest along track of St. Louis Southwestern Ry. Co. of Texas toOmaha.

Naples, 1.1 miles east of, 120 feet east of bridge 120, 40 feet southwest of road crossing at west end of cut; iron post stamped " 320 Adj 1903"..... Naples, in front of station; top of rail.
319. 794
403.4
402. 330
409.088

## From Naples southeast along highway to Cusseta.

Naples, 4 miles east of, on Marietta road, 500 feet north of Dr. J. Davis's house, south of road, 40 feet west of "Naples 4 miles" post; iron post stamped "388 1908".
Dalton, road fork by cotton gin and sawmill; head of spike in base of whiteoak tree.
Feet.
300.02
Dalton, 0.3 mile east of, fork of Bryan's mill and Marietta roads; head of spike in root of tree
341. 33
Marietta, 3 miles northwest of, on Naples road, 300 feet east of Hampton's house, southeast corner of crossroads; iron post stamped " 361 1908"
361. 091
Marietta, west edge of, north of road, 200 feet west of blacksmith shop; iron post stamped "356 1908"
356.019
Cusseta, 3.5 miles west of, crossroads top of hill in front of white house; spike in root of tree.
387.89

## From point near Cusseta southwest and south along highway to Jaybart.

Flat Creek Church, 180 fect southeast of, in fork of road; iron post stamped "365 1908"
365.245

Levi Milner's house (formerly Jaybart post office), 0.5 mile south of, at road fork; head of spike in top of stump.
350.90

Sardis, 4.4 miles northeast of, 1 mile south of Levi Milner's house (formerly
Jaybart post office), at fork of road, 0.5 mile northeast of sawmill; iron
post stamped " 3431908 "...............................................................................
From Jaybart southwest along highway to Sardis.
Sardis Church, 180 feet northwest of, in fork of road; iron post stamped "Prim. Trav. Sta. No. 4, 3091908 "
309. 484

From Daingerfield north along highway to Omaha.
Daingerfield, in west side of county courthouse, in center of fourth brick from northwest corner of building, about 4 feet from ground and midway between window and northwest corner; copper bolt (C. \& G. S. b. m. A-3).
Rocky Branch, 2 miles south of, 4 miles north of Daingerfield, top of hill south of cotton gin, at fork of road to west; head of spike in root of tree..
Rocky Branch, 1.7 miles south of, 4.5 miles north of Daingerfield, east of road opposite J. R. Old's house; iron post stamped "430 1908 ".
Omaha, 4 miles south of, 0.3 mile north of signboard "Omaha 4 miles," east of road, in forks of road; iron post stamped "Prim. Trav. Sta. No. 3, 1908, 385 "
'........................................................................... . . . .
Omaha, 2.5 miles south of, in fork of road in front of small schoolhouse; head of spike in root of tree.
385.434

Omaha, 0.5 mile south of, T road north; head of spike in root of tree.
363.83
386.08

## GILMER QUADRANGLE. <br> [Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $94^{\circ} 30^{\prime}-95^{\circ}$. ]

 From Sardis southwest to Hughes Springs.Sardis, 1.9 miles west of, on Hughes Springs road, northeast corner of T road north; iron post stamped "330 1908".
Hughes Springs, 3.8 miles east of, on Sardis road, south of road at $T$ road north to Linden, foot of mail box 98 ; head of spike in root. of tree
357.49

Wilson siding, 1.5 miles southeast of Hughes Springs, on Missouri, Kansas \& Texas Ry.; top of rail in front of signboard
326.0

Hughes Springs, in west face of brick building owned by T. B. Keaster, in new part of building, in double column where old and new buildings join, 11 paces from northwest corner of building, in twenty-first tier of brick above concrete sidewalk; copper bolt (C. \& G.S. b. m. B-3)

## SHAWNEETOWN QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $94^{\circ} 30^{\prime}-95^{\circ}$.]

## From Malta west along Texas \& Pacific Ry. to De Kalb.

De Kalb, 2.8 miles east of, at railway crossing, 60 feet north of track, in corner of right of way fence; iron post stamped "Prim. Trav. Sta. No. 113, 406 "
Feet.
405.982
De Kalb, in front of station; top of rail.
408.4
407.891
fence; iron post stamped "Prim. Trav. Sta. No. 128, 408, 1908"

## BOXELDER QUADRANGLE. <br> [Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $94^{\circ} 45^{\prime}-95^{\circ}$.] <br> Near Lydia.

Lydia, 0.3 mile east of by 0.3 mile northeast of, at fork of road; spike in root of tree.
Lydia, 0.3 mile east of, at junction of roads from Rock Crossing, Dalby Springs, and De Kalb, center of open space at road fork; iron post stamped "389 1908, Prim. Trav. Sta. No. 8"

## From point 5 miles north of Omaha north along highway to Lydia.

John Hagard's house, T road west, at northwest corner of T road; head of spike in root of tree
297.83

Rock Crossing, 5 miles south of, 700 feet north of John Hagard's house, 0.8 mile south of White Oak River bottom, T road east, west of road; iron post stamped " 295 "
295. 289

White Oak River bottom, south edge of, west of road, in root of large elm tree; head of spike
Rock Crossing, on Sulphur River, 0.3 mile south of, at junction of road from west; iron post stamped "Prim. Trav. Sta. No. 7, 2961908 ".
Rock Crossing, 2.3 miles north of, in front of house at fork of road (fork of road leads to Dalby Springs, left hand fork leads to Lydia); iron post stamped "Prim. Trav. Sta., 301, 1908".
300.864

Rock Crossing, 5 miles north of, 6 miles south of Lydia, crossroads at north end of lane near sawmill, southeast corner of; iron post stamped " 306 1908".
303. 596
J. M. Eitel's house (formerly Millie post office), 1.1 miles north of, 3 miles
south of Lydia, west of road, 40 feet north of road fork east, in old field;
iron post stamped "Prim. Trav. Sta., 329, 1908".......................... 329.085

Lydia, 0.3 mile east of, at junction of roads from Rock Crossing, Dalby Springs, and De Kalb, center of open space at road fork; iron post stamped "Prim. Trav. Sta. No. 8; 389 1908".
388. 641

Lydia, in center of open space, in root on north side of tree; head of spike.
377. 19

## From Lydia west along highway to Garvensville (Cuthand post office).

Lydia, 2 miles west of, road fork north to Clarksville; head of spike in root of tree.

Lydia, 2.5 miles west of, T road north by small cemetery, north of road on
high bank; iron post stamped "373 1908".

Shawnee Church, 200 feet south of, at fork of road; iron post stamped " 364 1908"
Shawnee Church, 1.1 miles west of, at road fork north, near guidepost "Annona $10 \frac{3}{3}$ miles;" head of spike in top of stump. ..... 390.86
Boxelder, 1.5 miles east of, southeast corner of $T$ road south, at north end of lane; iron post stamped " 360 1908"

Feet.

360.226
Boxelder, 2.5 miles southwest of, on Cuthand road, east of road, opposite Cole's house; iron post stamped " 315 1908". ..... 315. 132
Cuthand Creek bottom, 1.2 miles west of edge of, on Garvensville road, 100 yards west of empty house west of road, at turn at corner of a field; iron post stamped " 320 1908". ..... 320. 455
Garvensville (Cuthand post office), 4.3 miles east of, at fork of Boxelder and Hartsbluff roads, 0.5 mile north of country church; iron post stamped "376 1908" ..... 375.754
Garvensville, 3.3 miles east of, southeast corner of crossroads; head of spike in root of white-oak tree. ..... 367.02
Garvensville, 3 miles east of, at T road east; head of spike in root on east side of large double tree ..... 364. 23
From Goolesboro east along highway to Rock Crossing.
Goolesboro, 0.5 mile east of; iron post stamped "Prim. Trav. Sta. No. 109". ..... 340. 224
Goolesboro, 2 miles east of, road fork north, 100 feet east of house; spike head in root of tree. ..... 344. 72
Goolesboro, 2.8 miles east of, 150 feet from junction of road from north, in front of house; spike head in root of tree. ..... 383.38
Signpost "Goolesboro 3 miles," 700 feet east of, north of road on top of small knoll; iron post stamped " 390 1908" ..... 389.550
Blalock post office, 0.5 mile south of, 3 miles north of Wilkinson post office, west of road at fork; spike in root of white-oak tree. ..... 366. 18
Wilkinson post office, 2.2 miles north of, 1.2 miles south of Blalock post office, west of road; iron post stamped "341 1908". ..... 340.585
Wilkinson post office, 1.6 miles north of, at road fork at north end of lane, west of road; spike head in root of large oak tree ..... 336. 58
Wilkinson post office, opposite, east of road; iron post stamped " 3001908 ". ..... 299. 714P. Harris's house, 0.3 mile north of, on Mount Pleasant-Hartsbluff road, 200feet north of crossroads, west of road; iron post stamped " 3251908 ".
Mount Pleasant-Hartsbluff road, 2.8 miles east of, on Rock Crossing road, north of road, opposite northeast corner of field by empty house, on top of small knoll; iron post stamped " 339 1908". ..... 339. 684
Jack Wild's ranch, southwest corner of yard, 1 mile east of house of Arthur Miller; iron post stamped " 325 1908" ..... 325. 186
Ellis Bridge, crossing White Oak Creek, 1.5 miles north of, 400 feet north of negro schoolhouse on west side of road; iron post stamped "298 1908".. ..... 297. 101
Ellis Bridge, 0.5 mile north of, at crossroads; head of spike in root of white- oak tree in middle of road. ..... 290.37
Ellis Bridge, on White Oak Creek, 0.8 mile east by 0.5 mile north of, 0.7 mile east of slough; head of spike in root of oak tree. ..... 302. 09
297. 535
MOUNT PLEASANT QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $94^{\circ} 45^{\prime}-95^{\circ}$.]
From Omaha west along track of St. Louis Southwestern Ry. Co. of Texas to Mount Pleasant, thence south to Pittsburg.
Cookville, 2.8 miles east of, 40 feet south of track at road crossing, in cornerof right-of-way fence; iron post stamped " 404 Adj 1903".403. 651
Cookville, 1,150 feet west of, 40 feet north of track in fence corner; iron post stamped " 440 Adj 1903". ..... 440. 204
Mount Pleasant, 4 miles east of, 1,900 feet east of milepost 476,40 feet north- east of road crossing; iron post stamped " 367 Adj 1903"
Feet. ..... 367.461
Mount Pleasant, 0.5 mile north of, 90 feet southeast of road crossing, 80 feet east of tool house; iron post stamped " 401 Adj". ..... 400. 941
Mount Pleasant, in front of station; top of rail. ..... 401. 2
Mount Pleasant, south front of courthouse, 4 feet above ground, in granite railing; bronze tablet stamped " 413 Adj 1903, Prim. Trav. Sta. No. 231". ..... 413. 087
Mount Pleasant, 2.5 miles south of, 40 feet west of track at road crossing, incorner of right-of-way fence; iron post stamped " 397 Adj 1903, Prim. Trav.Sta. No. 12".
396. 906
Big Cypress, 1.2 miles north of, 300 feet north of milepost 485,60 feet west of private road crossing; iron post stamped " 293 Adj 1903". ..... 292. 707
Big Cypress, in front of station; top of rail. ..... 352.0
Pittsburg, 3 miles north of, 80 feet east of road crossing, at milepost 488, south side of gate; iron post stamped "Prim. Trav. Sta. No. 37, 315 Adj 1903" ..... 315.359
Pittsburg, 0.2 mile north of, 30 feet west of track, 80 feet southwest of road crossing; iron post stamped " 386 Adj 1903" ..... 385.834
From Omaha north along highway 5 miles.
Omaha, 2.3 miles north of, southwest corner of crossroads; head of spike, in root of tree. ..... 421.62
Omaha, 4 miles north of, Motley's cotton gin, southeast corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 2, 1908, 325 " ..... 324.594
Motley's cotton gin, 0.5 mile north of, T road east, east of road; head of spike in root of large white-oak tree ..... 335. 66
From Mount Pleasant northwest along highway to Payne's store.

Mount Pleasant, 0.5 mile north of station, 80 feet east of tool house by road crossing, in corner of field; iron post stamped ' 401 Adj 1903"
400.941

Mount Pleasant, 2 miles north of, 700 feet north of bridge over creek north of two-mile post from Mount Pleasant, east of road; iron post stamped "Prim. Trav. Sta. No. 215, 371 1908".
370.738

Mount Pleasant, 4.5 miles north of, east of road, 400 feet north of road fork east; iron post stamped "Prim. Trav. Sta. No. 193, 461 1908".
460.678

Payne's store, 50 feet northwest of, east of road; iron post stamped "Prim. Trav. Sta. No. 178, 398 1908".
397.708

## From Cason northwest along highway to Mount Pleasant.

Cason, 50 feet south of track, in corner of yard at railroad crossing, seven telegraph poles west of station; stone marked "U. S. B. M."
(C. \& G. S. b. m. Z ${ }_{2}$ ).
326.039

Cason, in front of station; top of rail.
Cason, 2.5 miles north of, T road west to Mount Pleasant; head of spike in tree root
Cason, 3 miles northwest of, on Mount Pleasant road, 0.7 mile south of Swanins Creek, in fork of road near mail box 18; iron post stamped ' 354 1908"
370.71
354.023

Mount Pleasant, milepost 8 miles southeast of, northwest corner of T road west, 0.6 mile south of creek; iron post stamped " 358 1908"
357.840

Mount Pleasant, 6.2 miles southeast of, on Cason road, 150 feet north of
schoolhouse in fork of road; spike head in root of large oak tree.................. 408.91
Mount Pleasant, 3.8 miles southeast of, at junction of Cason road and Mount

Feet. 380.060
Mount Pleasant, 3.3 miles southeast of, on Cason road; spike in root of large oak tree in middle of crossroads ..... 361.97
MOUNT VERNON QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]
From Payne's store north along highway via Goolesboro to Cuthand Creek.
John Thumpson's house, 700 feet south of, west of road, at road fork to west, near post holding five mail boxes; iron post stamped " 3771908 " ..... 377. 364
John Thompson's house, 250 feet north of; nail in root on west side of tree at T road east. ..... 373.78
George Baker's house, 400 feet south of, west of road; iron post stamped "Prim. Trav. Sta. No. 154, 3361908 ". ..... 336.037
Mount Pleasant 13-mile post, 200 feet north of, east of road; iron post stamped "Prim. Trav. Sta. No. 130, 308 1908" ..... 307.937
Goolesboro, 0.5 mile east of, 1,200 feet north of crossroads, west of road, top of hill at south edge of Sulphur River bottom; iron post stamped "Prim. Trav. Sta. No. 109, 340 1908" ..... 340.224
Sulphur River bridge, 1.3 miles north of, east of road in lane; iron post stamped "Prim. Trav. Sta. No. 86, 330 1908" ..... 330.113
Sulphur River bridge, 2 miles north of, at road fork east and west; nail in root on north side of tree to east of road. ..... 333.21
Garvensville (Cuthand post office), 1 mile south of, southeast corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 69, 360 1908" ..... 360. 307
Garvensville (Cuthand post office), northeast corner of cemetery, south- west corner of $T$ road west, head of spike in root of tree ..... 373.04
Garvensville (Cuthand post cffice), 0.8 mile north of, east of road; iron poststamped "Prim. Trav. Sta. No. 59, 409 1908"

Bonham, Clarksville, Denison, Denton, Gainesville, Montague, and Paris quadrangles.

## COOKE, FANNIN, GRAFSON, LAMAR, MONTAGUE, AND RED RIVER COUNTIES.

The elevations in the following list are based on bench marks determined by the precise line of the Coast and Geodetic Survey in the western part of the Montague quadrangle.
Most of the leveling was done by E. W. Glafcke in 1899 and 1900, and by M. S. Bright in 1901, 1902, and 1903. One line in the Clarksville quadrangle was run in 1908 by W. A. Gelbach. The leveling in the Denison quadrangle was done by A. F. Hassan in connection with topographic surveys of the former Indian Territory.

$$
\begin{gathered}
\text { MONTAGUE QUADRANGLE. } \\
\text { [Latitude } 33^{\circ} 30^{\prime}-34^{\circ} \text {; longitude } 97^{\circ} 30^{\prime}-98^{\circ} \text {.] } \\
\text { From Terral, Okla., to St. Jo, Tex., via Chicago, Rock Island \& Gulf Ry. and Missourl, } \\
\text { Kansas \& Texas Ry. }
\end{gathered}
$$

[^0]Belcherville, 50 feet north of Missouri, Kansas \& Texas station, and 10 feet north of switch at intersection (f sidewalk on principal street; iron post stamped " 896 Gainv".
Feet.
896.461
Belcherville, 3.5 miles east of, at public road crossing, 6 feet north of track, east side of road; iron post stamped " 853 Gainv".
853. 122
Nocona, southeast corner of principal street, 200 feet north of station; iron post stamped ' 980 Gainv".
980.296

Nocona, 6 miles east of, at public road crossing 40 feet south of track, 6 tele-
graph poles west of milepost 737 ; iron post stamped " 892 Gainv"....... 892.408
Bonita, 200 feet north of Missouri, Kansas \& Texas Ry. station; 30 feet north of main track, at base of telegraph pole; iron post stamped "931 Gainv". (Top of post reported in 1916 to be 1.5 feet under ground)....
Bonita, 3 miles east of, 25 feet north of track, at milepost 731, public road crossing; iron post stamped "1009 Gainv"
931. 052
$1,009.400$
St. Jo, 300 feet east of Missouri, Kansas \& Texas Ry. station, 10 feet south of main track near wagon road; iron post stamped "1142 Gainv". (Reported in 1916 to be 1.3 feet low) $1,140.919$

## From point 4 miles northwest of Bulcher to Nocona.

Bulcher, 7.2 miles northwest of, A. A. Kennedy's ranch, 800 feet east of house, at intersection of public road and Bonita road; iron post stamped " 977 Gainv"
978. 181

Bulcher, 11 miles northwest of, 8 miles northeast of Nocona, at junction of Nocona and Illinois Bend roads; iron post stamped " 1008 Gainv"...... Nocona, 5 miles southeast of, at left side of road, at mouth of lane, east of iron bridge across Farmers Creek; iron post stamped " 907 Gainv"......
907. 630

## From Nocona southwest via Montague to Bowie and Ringgold.

Nocona, 3 miles southwest of, east side of public road to Montague, in sandstone ledge; aluminum tablet stamped "942 Gainv"
942. 599

Nocona, 6.2 miles southwest of, 500 feet due south of Dixie schoolhouse, 10 feet west of public road, 3.5 miles northeast of Montague; iron post stamped "941 Gainv"
941. 616

Montague, in west capstone of county courthouse, south side of main entrance; aluminum tablet stamped "1076 Gainv".
$1,075.682$
Montague, 3.7 miles southwest of, north side of telephone road, 500 feet
northwest of farmhouse; iron post stamped " 1073 Gainv"................. $1,072.926$
Montague, 6.5 miles southwest of, at turn of telephone road to north, 1,000 feet east of east fork of Denton Creek; iron post stamped "1058 Gainv"... 1, 057.651
Montague, 10.5 miles southwest of, on high mesa to right of road, 0.8 mile southwest of suspension bridge, 3.8 miles from Bowie; iron post stamped "1127 Gainv"
$1,127.175$
Bowie, southwest corner of street at Brown Hotel, 100 feet east of Fort Worth \& Denver City Ry. station; iron post stamped "1124 Gainv" .... 1, 123. 869
Bowie, 2 miles northwest of; top of section of rail west of railroad track for marker at milepost 542 .

1, 051.556

Bowie, 4 miles northwest of, 40 feet east of Chicago, Rock Island \& Gulf Ry. track, at public road crossing, 210 feet south of milepost 540 ; iron post stamped " 989 Gainv"
Bowie, 5 miles northwest of; top of section of rail on end in ground at mile-

Feet.

960.57

Stoneburg, 500 feet west of Chicago, Rock Island \& Gulf Ry. station, at northeast corner of post-office building; iron post stamped " 936 Cainv"..
Stoneburg, 1.5 miles west of; top of section of rail on end in ground for marker at milepost 534 .
936. 228

Stoneburg, 2.5 miles northwest of; top of section of rail on end in ground for marker at milepost 533 .
901. 676

Stoneburg, 3.5 miles northwest of; top of section of rail on end in ground for marker at milepost 532 .
868.745
863.43

Stoneburg, 4.5 miles northwest of, 50 feet west of track on right of way, 50
feet south of milepost 531 , opposite Walker's ranch; iron post stamped
" 876 Gainv".............................................................................................. 8768
Stoneburg, 5.5 miles northwest of; top of section of rail on end in ground for marker at milepost 530 .
865. 65

Stoneburg, 6.5 miles northwest of; top of section of rail on end in ground for marker at milepost 529
869. 52

Ringgold, 3 miles south of, 7.5 miles northwest of Stoneburg, intersection of public road and railroad crossing, 1,300 feet north of milepost 528,46 feet east of railroad track; iron post stamped " 897 Gainv"

## From Hardy north to St. Jo.

Hardy, 1 mile east of, 600 feet south of Henry Norman's farmhouse, south side of road, top of ridge, in 18 -inch post oak tree; spike.
$1,051.837$
Hardy, north side of Gainesville and Montague road, 217 feet west of D. P. McCracken's store; iron post stamped " 952 Gainsv". ....................
Hardy, 1.5 miles north of; northwest side of road, top of ridge in south side of 20 -inch broken-top post-oak tree; spike.
952. 688
1, 019.785
Gladys, 25 feet west of post office, east side of St. Jo and Hardy road; iron post stamped " 1027 Gainsv".
1, 028.021
St. Jo, 3.5 miles south of, on west side of St. Jo and Hardy road, 40 feet south of fence corner at angle in road north and west, 0.8 mile south of lane running west; iron post stamped " 1167 Gainsv"
$1,168.493$

## From Nocona north 6 miles over Nocona and Reed River station road, thence east to Pearson, thence south to railroad.

Nocona, 4 miles northwest of, east side of Nocona and Reed River station road, 10 feet south of lane leading east; iron post stamped " 880 Gainsv".
Nocona, 5.25 miles north of, east side of road at intersection of Red River station road with Seag crossing and Nocona road; iron post stamped " 846 Gainsv"
Pearson post office, 80 feet south of, west side of Spanish Fort and Nocona road, 15 feet south of road leading west; iron post stamped " 936 Gainsv".
Pearson, 3.25 miles south of, 500 feet east of Loving's farmhouse, north side of road leading east and head of lane leading south; bronze tablet set in sandstone rock stamped " 909 Gainsv"
909. 774

From point 6 miles east of Nocona south over settlement roads via Blue Mound to Dye Mound, thence southwest via Mallard to Fruitland.
Starkeye graveyard, north side at forks, 17 feet east of southwest fence corner; iron post stamped " 987 Gainsv"
Blue Mound schoolhouse, 120 feet south of, south side of St. Jo and Montague road; iron post stamped "1123 Gainsv"
$1,124.108$
Dye Mound, 0.25 mile northwest of post office, top of ridge at west end of Mound, east side of road by wire fence; iron post stamped " 1235 Gainsv" 1, 236. 156

Mallard, northwest corner C. T. Jester's store and post office; iron post Feet. stamped " 985 Gainsv".
986.247

Dry Valley schoolhouse, 2 feet north of and 200 feet south of crossroads; iron post stamped " 933 Gainsv" 934. 239
H. H. McPherson's farmhouse, 150 feet east of, 4 feet north of northwest corner fence post, at crossroads; iron post stamped "1021 Gainsv".

1,021. 885
Fruitland, in west side of stone chimney on south side of house owned by W. H. Searborough, about 5 feet from ground and 6 inches from edge of chimney; copper bolt (C. \& G. S. b. m. "H")
1, 053. 781
Bowie, 4 miles south of, 150 feet southeast of Rock Hill schoolhouse, in forks of Park Springs and Bowie and Crafton roads; iron post stamped ''972 Gainsv"
973.258
Lee May's ranch house, 2,000 feet south of, east side of road, south end of lane leading north, 4 feet north of fence corner; iron post stamped " 1006 Gainsv".
1,007. 280

Bowie, 7 miles west of, 0.6 mile north of Z. M. Wilson's farmhouse, south edge of drain, on east side Stoneburg and Newport public road, 856 feet south of crossroads; bronze tablet stamped "1004 Gainsv".
$1,005.420$

H. A. Speer's farmhouse, 400 feet north of, 4 feet south of southwest fence corner, at crossroads; iron post stamped "947 Gainsv".
947. 802
Stoneburg, southwest corner of southwest one of four inner stone blocks supporting water tank, 4 inches from either edge; cross in top of a copper bolt leaded vertically in the stone (C. \& G. S. b. m. "E").
935. 130
From Stoneburg east along roads about 3 miles, thence north via Harmony school-
house to Belcherville.
Stoneburg, 3.25 miles east of, 600 feet east of bridge over Victoria Creek, 150 feet west of road forks, south side of road at fence corner; iron post stamped " 893 Gainsv"
892.627
Belcherville, 4.8 miles south of, south side of Montague and Henrietta road, head of lane leading north to Belcherville; iron post stamped " 909 Gainsv"
908.982


GAINESVILLE QUADRANGLE.
Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From St. Jo east to Lindsey.
St. Jo, 3.2 miles east of, 5 telegraph poles east of milepost 723 and 300 feet east of bridge 1453, south side of railroad track, on edge of right of way along public road; iron post stamped " 1166 Gainv"
St. Jo, 6.2 miles east of, on east side of public road, 60 feet south of Missouri, Kansas \& Texas Ry. track, near corner of guard fence; iron post stamped Feet. ..... 1, 036.433
Muenster, 125 feet northeast of station in southwest corner of lumber yard on principal street; iron post stamped "971 Gainv" ..... 971.373
Myra, 300 feet north of railroad track, west side of public road, opposite and
Myra, 300 feet north of railroad track, west side of public road, opposite and 75 feet east of post office; iron post stamped " 917 Gainv." ..... 917. 552
Lindsay, southeast corner of Pete Johnson's store on principal street, 750 feet north of railroad track; iron post stamped " 796 Gainy" ..... 796.152
From Gainesville northwest via Marysville to Bulcher.
Wolf Ridge, 300 feet southeast of schoolhouse 77, at corner of fence forks of Gainesville and farmers roads; iron post stamped " 927 Gainv". ..... 928. 338
Gainesville, 10.5 miles northwest of, 12 feet southeast of southeast cornerpost of cultivated land at forks of road, 2 miles north of Wolf Ridge school-house; iron post stamped " 945 Gainv"945.980
Gainesville, 15 miles northwest of, at lower end of Black Hollow, east side of road near top of divide between Black Hollow and Lander Creek; iron post stamped " 820 Gainv" ..... 820.787
Marysville, 3 feet south of southwest corner of post office, on east side of principal street; iron post stamped " 873 Gainv". ..... 874.454
Marysville, 3 miles northwest of, at junction of St. Jo and Bulcher publicroads, at southeast corner of rail fence around Housinger residence; ironpost stamped "916 Gainv"917. 438
Bulcher, northwest corner of post office, 40 feet south of Camp Creek, on right bank; iron post stamped " 746 Gainv". ..... 747. 482
Bulcher, 4.2 miles northwest of, at intersection of Illinois Bend and St. Jopublic road, southeast corner of fence west side of road, at J. E. Seitz'sfarm; iron post stamped " 900 Gainv".901. 555
From Gainesville via Huneycutt triangulation point, Callisburg, Woodbine, andBurns, northeast, south, and northwest over main county roads to Gainesville.

Gainesville, 3 miles east of, 1,400 feet north of bridge over Wheeler Creek, at right-angle turn of lower Callisburg road, on south side, west side of lane leading south to Whitesboro road; iron post stamped " 757 Gainv"..
Gainesville, 8 miles northeast of, at junction of upper Callisburg road and Walnut Bend road, opposite a large spreading elm tree, 4 feet south of Gainesville 8-mile post; iron post stamped " 840 Gainv"
758.999
841. 193

Gainesville, 12 miles northeast of, at Huneycutt triangulation point; bronze tablet stamped " 953 Gainv".
954. 522

Callisburg, about 5.5 miles northwest of, 1.8 miles due north of Huneyeutt triangulation point, 50 feet south of small drain, on east side of Walnut Bend road and north side of road leading east to Callisburg and Ellis Ferry road; iron post stamped " 845 Gainv".
Callisburg, 3 miles north of, on west side of Callisburg and Dexter road, south side of lane leading west to Elliott Ferry; iron post stamped " 795 Gainv".
796. 699

Callisburg, at northeast corner of George Wright's dry goods and grocery store; iron post stamped "808 Gainsv".
809.181

Callisburg, 3 miles south of, 500 feet south of Spring schoolhouse, 300 feet north of drain on south side of Gainesville and Whitesboro road and west side of Callisburg and Woodbine road; iron post stamped " 774 Gainsv".
Woodbine, 60 feet north of Missouri, Kansas \& Texas Ry. track, at southeast corner of post office and W. R. Crooks's grocery store, on west side of main road; iron post stamped " 763 Gainsv".

Woodbine, 4 miles southwest of, 200 feet south of the Gainesville and Pilot Point upper road, on east side of road leading south to Burns, northwest corner of schoolhouse; iron post stamped " 742 Gainsv"

Feet.
Burns, on south side of road at northeast corner of J. D. West's grocery store; iron post stamped " 680 Gainsv".
743.201

Burns, 2.8 miles west of, 200 feet northeast of Prairie Grove schoolhouse, east side of Gainesville and Pilot Point road, north side of road leading east to Burns; iron post stamped " 756 Gainsv".
757.858

Gainesville, 6 miles southeast of, 55 feet west of M. A. Taylor's residence, 60 feet west of large drain, on east side of Gainesville and Pilot Point road, north side of road leading east to schoolhouse; iron post stamped " 695 Gainsv"
Gainesville, 2.5 miles southeast of, about 0.25 mile southeast of crossing on Wheeler Creek, on east side of Gainesville and Pilot Point upper road and south side of road leading east to Pilot Point lower road; iron post stamped "759 Gainsv"
681.682
696.383

From Wolf Ridge schoolhouse east to Gainesville-Sivells Bend road, thence north to Sivells Bend, thence southwest to Maryville via Nubbin Ridge.

Gainesville, 9 miles northwest of, 0.5 mile west of Red River schoolhouse, 500 feet south of a lane leading west to Wolf Ridge, north side of lane leading east to Jim Beaty's ranch, east side main road at fence corner; iron post stamped " 851 Gainsv".
852. 013

Gainesville, 13 miles northwest of, 1.3 miles northwest of wagon bridge over Fisk Creek, about 400 feet southeast of Lauderdale's house, mouth of lane leading east, at northeast fence corner; iron post stamped "807 Gainsv"
808.836

Gainesville, 18 miles northwest of, in village of Sivells Bend, 0.25 mile west of Dr. Harrison's house, 120 feet east of right-angle turn in main road, at southwest corner of post office, in Greever Bros.' general store, on north side of main road; iron post stamped " 874 Gainsv".
Gainesville, 16 miles northwest of, 0.5 mile south of Bear Head Church, 0.8 mile north of Three Mounds on west side of Gainesville and Burneyville road, at junction of lane leading west to Barlow; iron post stamped "874 Gainsv".
875.657

Gainesville, 17 miles northwest of, west side of Gainesville and Copperas Bluff road, 0.8 mile south of Hickman's house, near head of small drain, at junction of lane leading west to Marysville; iron post stamped "956 Gainsv"
956.954

## From Lindsay south along public roads via Reed to Era.

Gainesville, 5.5 miles southwest of, 2.8 miles east of Reed post office, 0.25 mile west of J. N. Whaley's house, 160 feet west of small drain, south side of Gainesville and Rosston road; iron post stamped " 853 Gainsv". .
Gainesville, 8 miles southwest of, in village of Reed, 600 feet west of lane leading south to Era, north side of Gainesville and Rosston road, at southwest corner of post office, in A. Pulte's store; iron post stamped " 952 Gainsv"
Era, 3.5 miles northeast of, 800 feet northwest of crossing on Spring Creek, in angle of lane on west side of road at the corner of three wire fences, about 0.5 mile south of summit of hill; iron post stamped " 829 Gainsv".
854. 221
953.660
830.044

## From Valley View north to Gainesville.

Gainesville, 7 miles south of, 900 feet south of John Crumley's house and 50 feet north of G. Spearman's house, in angle of road, on west side; iron post stamped " 755 Gainsv"
Feet.
756.331
Gainesville, 4 miles south of, 6 miles north of Valley View, 0.6 mile south of lane running east and west, 0.25 mile north of W . Bedlong's residence, 4 feet east side of road; iron post stamped " 754 Gainsv"
755.621
Gainesville, 2.5 miles southwest of, at fence corner in forks of Gainesville, Rosston, and Era roads; iron post stamped "801 Gainsv"

## From Reed along public roads southwest via Hood to Rosston, thence northwest to Free Mound.

Hood, 58 feet north of J. H. Hewitt's store and north side of Gainesville and Rosston road; iron post stamped " 996 Gainsv"
Rosston, 3 miles northeast of, 680 feet north of Rosston and Era road, north side small drain and west side Gainesville and Rosston road; iron post stamped "914 Gainsv".
Rosston, 20 feet south of Raner Bros.' general store, 250 feet west of J. Dill's store, southwest corner of square; iron post stamped " 857 Gainsv".
St. Jo, 16 miles southeast of, on west side of Free Mound and Rosston road, 100 feet east of Hunter schoolhouse, 300 feet north of bridge over Hunter Creek; iron post stamped " 886 Gainsv"
Free Mound, 62 feet west of post office, in D. P. Wilson's store, on south side of Gainesville and Forestburg road, at corner of wire fence around gin; iron post stamped " 884 Gainsv"

## At Gainesville.

Gainesville, in center of north face of top foundation stone at northeast corner of brick building on California Street, near station building, used by Tyler \& Simpson as grocery store; bronze tablet
Gainesville, 45.3 feet south of south crossing frog, 2 inches out of ground, in line of north and south crossing frogs of Mijsouri, Kansas \& Texas Ry. with the Gulf, Colorado \& Santa Fe Ry., 6.4 feet west of west rail of Missouri, Kansas \& Texas and 6.8 feet east of east rail of Gulf, Colorado \& Santa Fe Ry.; iron post.
734.673
741.702

## From Gainesville along Gulf, Colorado \& Santa Fe Ry. to Marietta, Okla.

> Gainesville, 6 miles north of, about middle of coping stone on east side of north pier of bridge over Red River; copper bolt.................................... 662.055

## DENTON QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\circ}$.]

## From Era east to Valley View.

Era, 255 feet north of public school, 60 feet east of Seagraves' store, southwest corner of hotel block; iron post
Valley View, 3 miles west of, at junction of Valley View-Era and Gaines-ville-Bolivar roads, south side of road, by wire fence; iron post stamped "800 Gainsv"
801. 366

Valley View, northeast corner of public square, 10 feet north from front of A. Gunston's hotel; iron post stamped " 720 Gainsv"
721. 546

# DENISON QUADRANGLE. <br> [Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; Iongitude $96^{\circ} 30^{\prime}-97^{\circ}$.] 

## From Denison south along the Missouri, Kansas \& Texas Ry. to Sherman.

Denison, center of base stone of granite foundation of Ford Building, at cor-
ner of Main Street and Rush Avenue, occupied by the National Bank of Denison and numerous offices, on left of avenue entrance; bronze tablet.
Sherman, fire department building, corner of Travis and Cherry streets, first course of stone foundation, 5.2 feet from south edge of stone, 5.8 feet from north edge of stone on left side of main entrance; bronze tablet....

Feet.
737. 365
729. 828

## From Choctaw west along Texas \& Pacific Ry. to Southmayd.

Choctaw, about 1 mile west of, northeast corner of shoe of angle brace, on north side of bridge 72, over Choctaw Creek; cross on anchor bolt. .....
Southmayd, 5 miles east of, 20 feet 9 inches south of mile post 160,48 feet 3 inches south of center of Texas \& Pacific Ry. track, and 249 feet west of road crossing; iron post.
836. 700

Southmayd, 9 feet south of mile pole 165, fourth pole west of station, 46 feet south of center of Texas \& Pacific Ry. track; iron post
743. 736

## From Southmayd south to Collinsville along joint line of Texas \& Pacific Ry. and Missouri, Kansas \& Texas Ry.

Collinsville, 50 feet south of frog of switch, 5 feet 10 inches east of center of track; iron post
747.038

## From Ethel east along county roads to Howe.

Ethel, northeast corner of intersection of roads, inside fence; iron post....
Ethel, about 6.25 miles east of, northeast corner of intersection of ShermanTioga road with Sherman-Howe road, inside fence; iron post
725. 503
714. 570

Howe, about 6.20 miles west of, inside of fence at northeast corner of intersection of roads at William Chisholm's house; iron post.
Howe, 19 feet 6 inches west of center of Houston \& Texas Central R. R. track and 49 feet 6 inches north of northeast corner of station building; iron post.
Howe, about 0.8 mile south of, underneath triangulation signal ; lead bolt in stone.

## From Sherman south via Houston \& Texas Central R. R.

Sherman, 4 miles south of, lower coping stone west side of south abutment of bridge over Choctaw Creek; copper bolt.
654.053

From Sherman along county road north to Pottsboro, thence west to Dexter, thence south to Whitesboro.
Pottsboro, 4.75 miles south of, in stone underneath "Good" triangulation signal; copper bolt.
882.759

Pottsboro, 6.5 miles west of, southeast corner of Mrs. Carrie Nicholas's front yard, 285 feet north of center of Pottsboro-Gordonville road; iron post. . .
Gordonville, south of Sanderson's drug store, east of post office, 33 feet south of center of road, on Widow Gordon's place, nearly south of old well in roadway; iron post.
715. 779

Dexter, 0.75 mile east of, in front garden of J. F. Evans, 62.5 feet south of southwest corner of Evans house, 63 feet north of center of main road, and about 200 feet west of Cooke-Grayson county line; iron post.
Dexter, southwest corner of J. F. Cochran's store, building owned by Mrs. T. H. Williams; cross mark cut in foundation stone.
Dexter, 0.5 mile north of, in stone underneath "Dexter" triangulation sta- ..... Feet. tion; copper bolt ..... 863. 33
Dexter, 5.5 miles south of, turn of road east around M. A. Goldston's pas-ture, about 1,165 feet south of house owned by the Carlock heirs and occu-pied by Mr. Stuckey, bench mark inside fence; iron post795. 244
Cooke-Grayson county line, 1.7 miles west of, in stone underneath "county line" triangulation signal; copper bolt ..... 883. 879
Whitesboro, 3.6 miles west of, at intersection of Dexter road with Gaines- ville-Whitesboro road, in corner of Dr. Younger's yard and across road from Nance Prairie School; iron post ..... 773. 749
From Southmayd southeast on county road to Mormon Grove, thence northeast toSherman.
Southmayd, 6.25 miles southeast of, about 1.25 miles south of Valley Sum- mit School, in Halliday's field, across road from Mrs. Keene's pasture, about 20 feet east of the center of road' and 2 feet north of division fence, 600 feet south of head of a timbered drain flowing southwest; iron post..
Mormon Grove, 550 feet northeast of, cross mark cut in stone underneath "Mormon Grove" triangulation station; copper bolt in stone about 2 feet under surface ..... 760.144
900.789
Sherman, 3 miles southwest of, inside fence at turn of road to east and di-rectly opposite gate on other side of lane; iron post801.519
From Pottsboro north along county road to meander corner on Red River of T. 8 S ., Rs. 5 and 6 E., of the Chickasaw survey.
Fink, 24 feet north of road to Bounds Ferry, inside of fence, west of the post office; iron post. ..... 710. 249
Fink, 2 miles west of, in stone underneath "Fink" triangulation station; copper bolt ..... 839.45
At Denison.
Denison, corner of Texas Street and Austin Avenue, in front yard, near gate opening on Texas Street, property known as "Stuart place"; iron post. ..... 756.889
From Pottsboro west to Woodbine along Missouri, Kansas \& Texas Ry.
Pottsboro, foundation stone of southwest corner of brick and stone buildingowned and occupied by J. E. Reeves; bronze tablet767. 453
Steedman, 50 feet south of track and 100 feet east of section house, 1 foot above surface of ground (name of railroad station is Deaver); iron post ... ..... 631.657
Whitesboro, 3.5 feet above ground and 15 inches from southeast corner on east side of brick school building; bronze tablet. ..... 821. 298
Woodbine, 2 miles east of, south side of east end bridge over Timber Creek, about 30 feet from milepole 691; cross mark on southwest end of coping stone. ..... 699. 298
BONHAM QUADRANGLE.
[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]
From point 2 miles east of Bonham southeast and northeast along highway and railroad to Honey Grove.
Bonham, 5 miles east of, 600 feet east of Tom Hilton's cotton gin, 100 feetnortheast of house, south of road; iron post stamped " 618 Paris"647. 679
Bonham, 8.7 miles east of, 3.5 miles south of Dodd City, corner of fence, atfork of roads to Dodd City and Shady Grove; iron post stamped "662Paris"691. 784
Bonham, 12 miles east of, 50 feet north of Leonard Huff's house, 12 feet east of Windom road and 5 feet south of Bonham road; iron post stamped

Feet." 636 Paris".
665. 314

Bonham, 15.5 miles east of, 770 feet west of Wood's house, at big gate south of road; iron post stamped " 619 Paris"
Honey Grove, 5 miles southwest of, 100 feet north of C. M. Yeager's house, in solid stone on west side of Honey Grove-Cox Bridge road; aluminum tablet stamped " 618 . Paris"
648.003
646. 3 ä4

## From Savoy to Honey Grove via Ravenna, Ivanhoe, and Lamasco.

Savoy, 4 miles northeast of, 600 feet southeast of Powers's ranch house, 800 feet west of Pottiela Creek, 8 feet south of road, in large sandstone ledge; aluminum tablet stamped " 594 Paris"
595.572
Ravenna, on principal street, southeast corner of frame building used as post office; iron post stamped " 597 Paris"
598.810
Ivanhoe, 3 miles west of, 5.5 miles east of Ravenna, 0.5 mile east of intersection of crossroads, on south side of road; iron post stamped " 593 Paris". .
Ivanhoe, northeast corner of fence around Sam Keene's residence on principal street; iron post stamped " 606 Paris"
607. 877
Ivanhoe, 3 miles east of, 250 feet south of intersection of Bonham road, 40 feet north of gate to Atkin's ranch, east side of road; iron post stamped " 607 Paris"
608. 774
Lamasco, southwest corner of Windle \& Goodman store building; iron post stamped " 587 Paris"
Bois d'Arc Creek, 1.5 miles east of, 8.5 miles north of Honey Grove, at end of lane on north side of road at turn south; iron post stamped " 520 Paris".
G. B. Crumpeeker's farm, southeast corner of fence around house, 300 feet east of intersection of Bonham, Paris, and Honey Grove roads; iron post stamped " 614 Paris"
595. 572
594. 505
588. 100
521.595
615.433

## CLARKSVILLE QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]

## From Paris east along Texas \& Pacific Ry. to Clarksville.

Blossom, 250 feet east of station, 100 feet north of track, east side of sidewalk; iron post stamped " 525 Paris"
526. 563

Detroit, 100 feet southeast of station, 40 feet south of track, on west side of principal street, on right of way; iron post stamped " 481 Paris"
482. 662

Bagwells, 150 feet south of station, northwest corner of Dr. W. C. Stephen's drug store; iron post stamped " 475 Paris"
476. 722

Clarksville, east face of county courthouse, north side of main entrance; aluminum tablet stamped " 431 Paris"
432. 249

## From Clarksville west to Paris via Faught post office.

Clarksville, 3.51 miles north of, at intersection of Clarksville-Albion road, southeast corner of J. A. Jamieson's fence; iron poststamped " 465 Paris".
Clarksville, 8.51 miles northwest of, at intersection of Bagwells and Manchester public roads, 4 miles northeast of Bagwells, 500 feet south of A. L. Cook's house; iron post stamped " 481 Paris".
466. 846
482. 189

Detroit, 10 miles north of, intersection of Clarksville, Pine Bluffs, Detroit, and Manchester public roads, southwest corner of Newell \& Hubbard's farm fence, 1,200 feet west of main crossroads, on north side of road; iron post stamped " 509 Paris"
510.650

Woodland, 5.31 miles west of, 16.51 miles northeast of Paris, 200 feet north of J. P. Haigood's farmhouse, on north side of road alongside rail fence; iron post stamped "468 Paris"
Faught, 100 feet southeast of post-office building, at intersection of Paris Feet. and Blossom public roads; iron post stamped " 492 Paris"

Feet.
493.924
Givens, 150 feet west of buitding used as post office, at junction of Paris and Pine Bluffs road with Slate Shoal road, alongside rail fence; iron post stamped "506 Paris" ..... 507.633
From Cuthand Creek north to Clarksville.
Stanley, 1.5 miles south of, 1,250 feet south of B. C. Wolf's house, east of road; iron post stamped "Prim. Trav. Sta. No. 29 366, 1908 " ..... 365.629
Clarksville, 2.8 miles south of, 100 feet north of bridge over small stream, west of road; iron post stamped "Prim. Trav. Sta. 15 390, 1908" ..... 389.588
PARIS QUADRANGLE.
From Honey Grove south and east along road south of railroad to Paris. ${ }^{1}$
Honey Grove, 3.7 miles south of, 440 feet southeast of Horace Jones's house, on south side of road; iron post stamped " 600 Paris" ..... 601.562
Honey Grove, 6.7 miles east of, corner of Mrs. C. Jones's yard house, 100 feet south of intersection of Union-Petty road, on south side of public road and 20 feet west of Union-Petty road; iron post ..... 569.338
Honey Grove, 10 miles east of, on north and south ridge, north side of road, 125 feet north of Smith Rollin's house; iron post ..... 589. 304
Honey Grove, 13.5 miles east of, south side of road, 20 feet west of bridge over creek; iron post ..... 522.127
Ambia, 45 feet south of Gulf, Colorado \& Santa Fe Ry. station, 27 feet west of main track; iron post ..... 552.042
Honey Grove, 21 miles east of, 4 miles south of Paris, at public road crossing, 10 feet northeast of dirt road, 15 feet northwest of railroad crossing, 800 feet southeast of Ben Price's house; iron post ..... 536.934
From Honey Grove to Paris via Tiger Town and Maxey.
Honey Grove, in bottom step of approach to First National Bank, corner of Fifth and Market streets; copper bolt stamped " 675 Paris" ..... 676. 835
Michigan schoolhouse, northeast corner of fence, 7 miles northeast of Honey Grove (by Monkston road), 50 feet northwest of W. Hutchinson's farm house; iron post stamped " 607 Paris" ..... 608. 698
Tiger Town, Cothron's store, 30 feet northeast of post-office building, at corner of fence; iron post stamped "559 Paris" ..... 560.840
Maxey, northwest corner of post-office building, W. J. Wheeler's store; iron post stamped " 569 Paris" ..... 570.359
Paris, 3 miles west of, 300 feet west of bridge over Pine Creek, south side of road; iron post stamped " 494 Paris" ..... 495. 341
Paris, post-office building, right side of entrance, in first step; aluminum tablet stamped "601 Paris"

> Dallas, Farmersville, Kaufman, and McKinney quadrangles.

collin, dallas, kaufman, and rockwall counties.

The elevations in the following list were determined by primary leveling extended from bench marks of the Coast and Geodetic Survey precise-level line along the Missouri, Kansas \& Texas Ry. at Rockwall and Rowlett. No connection was made with the Coast and Geodetic Survey bench mark at Garland.
${ }_{1}$ The error distributed in this line is excessive.

# The leveling was done by W. A. Gelbach in 1909, in cooperation with the State. 

## KAUFMAN QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]
From Rockwall southwest along Missouri, Kansas \& Texas Ry. to East Fork of
Trinity River, thence along highway north 4.5 miles.
Rockwall, southwest corner of courthouse, in south face, 4 feet above ground
Feet.
595.589

Rockwall, south end of Missouri, Kansas \& Texas Ry. station, opposite
cistern; top of rail........................................................... 553.2
Rockwall, 2.5 miles southwest of, at Missouri, Kansas \& Texas Ry. bridge over East Fork of Trinity River, north end of east pier; aluminum tablet stamped "Prim. Trav. Sta. No. 4, 1909, 417 "..
417.040

Rockwall, 1.5 miles west by 1.9 miles south of, 13 feet from primary traverse
station 343 , corner of brush land; copper nail in root of tree............. 412.25
Rockwall, 1.5 miles west by 1.5 miles south of, 30 feet north of primary traverse station 344; copper nail in leaning bois d'arc tree
412.26

Rockwall, 1.5 miles west by 0.3 mile south of, primary traverse station 350
plus 142.5; copper nail in bois d'arc stump........................... plus 142.5; copper nail in bois d'arc stump.
414.08

Rockwall, 1.5 miles west of, 40 feet south of road, about 40 feet east of slough
bridge, in edge of timberland; iron post stamped "Prim. Trav. Sta. No.
13, 1909, 416 "..................................................................... 415.649
Rockwall, 1.5 miles west by 0.8 mile north of, 150 feet south of RockwallDallas road, at primary traverse station 361; copper nail in root of elm tree.
413. 59

Rockwall, 1.5 miles west by 1.6 miles north of, 26.6 feet west of primary traverse station 365; copper mail in root of bois d'are tree.

From point 4.8 miles north by 1.5 miles west of Rockwall north 2 miles.
$\left.\begin{array}{lll}\text { Rockwall, } 5 \text { miles north by } 1.5 \text { miles west of, } 35 \text { feet northeast of primary } & \\ \text { traverse station } 384, \text { in edge of timber; copper nail in hackberry tree..... } & 427.41 \\ \text { Rockwall, about } 5.5 \text { miles north by } 1.5 \text { miles west of, northeast corner of }\end{array}\right]$

## From point near Rockwall south to point 2 miles north of Earnes Bridge.

Barnes Bridge, 4.5 miles north of, east of road, 20 feet west of river bank; copper nail in root of burr-oak tree.
407.68

Barnes Bridge, 3.9 miles north of, 51.5 feet from primary traverse station 112; nail in root of leaning burr-oak tree.
Barnes Bridge, 3.3 miles north of, 2.5 miles south of Missouri, Kansas \& Texas Ry. bridge, 300 feet east of river; iron post stamped "Prim. Trav. Sta. No. 5, 403, 1909".
403.442

Barnes Bridge, 2.7 miles north of, 29.5 feet from primary traverse station 129; copper nail.
402.62

## From point on Dallas and Forney road 5.8 miles south of Barnes Bridge.

Barnes Bridge, 5.8 miles south of, 800 feet south of bridge over East Fork of Trinity River, at turn of road, near slough, 40 feet south of road corner on Dallas-Forney road; iron post stamped "'Prim. Trav. Sta. No. 9, 1909; No. 29, 1909".

Feet.
383.421

## dallas quadrangle.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]
From point 1.6 miles north by 1.5 miles west of Rockwall north 3.2 miles.
Rockwall, 1.5 miles west by 2.1 miles north of, 4.5 feet southwest of primary traverse station 368 , on bank of river; copper nail in root of 20 -inch leaning oak tree.
421.53

Rockwall, 1.5 miles west by 2.5 miles north of, primary traverse station 369 plus $519.7,100$ feet east of river; copper nail in root of spotted oak..
Rockwall, 2.8 miles north by 1.5 miles west of, about 2 miles north of Rock-wall-Dallas road, 400 feet east of East Fork of Trinity River, in west edge of timber; iron post stamped "Prim. Trav. Sta. No. 14, 1909, 422 "
422. 202

Rockwall, 3.1 miles north by 1.5 miles west of, 63.2 feet east of primary traverse station 375 ; copper nail in root of 16 -inch hackberry tree.
423.98

Rockwall, 4.3 miles north by 1.5 miles west of, 5 feet west of primary traverse station 379 , in edge of timber by Geo. Rogers's field, in 20 -inch oak; copper nail.
426. 46

Rockwall, 4.8 milesnorth by 1.5 miles west of, 100 feet west of slough, at pri-
mary traverse station 382 , in top of bois d'arc stump; copper nail....... 427.40
From point near Barnes Bridge south along highway and west along Texas \& Pacific Ry. to Mesquite, thence north along highway to Rowlett.

Barnes Bridge, 2 miles north of, at primary traverse station 135; near edge of field, in top of stump 2 feet high; copper nail

Barnes Bridge, 1.5 miles north of, primary traverse station 140; copper nail
in notch in base of mulberry tree.

399.423

Barnes Bridge, 1 mile north of; iron post stamped "Prim. Trav. Sta. No. 6, 1909, 399 "
398. 710
$\begin{array}{ll}\text { Barnes Bridge, on east bank of river, above; copper nail in base of red elm. } & 396.830\end{array}$
Barnes Bridge, 130 feet east of, in field south of road; iron post stamped "Prim. Trav. Sta. No. 7, 1909, 408 "
408.097

Barnes Bridge, 1 mile south of, primary traverse station 159; nail in root of old bois d'arc stump in open ground.
395.760

Barnes Bridge, 1.4 miles south of, primary traverse station 163 ; copper nail
in small stump 15 inches high........................................................... 393.840
Barnes Bridge, 1.9 miles south of, primary traverse station 166 ; copper nail
in top off 8 -inch stump ................................................................................. 391.670
Barnes Bridge, 2.4 miles south of, primary traverse station 173,250 feet
south of fence; nail in root of leaning white ash................................ 388.690
Barnes Bridge, 2.9 miles south of, primary traverse station 177; copper nail in top of 8 -inch stump
Barnes Bridge, 3.4 miles south of, about 0.8 mile north of Dallas-Forneyroad, 320 feet south of corner of wire fence at east and west lane, 18 incheswest of wire fence on land of Jeff Caldwell; iron post stamped "Prim.Trav. Sta. No. 8, 1909, No. 17 "
Feet.
389. 286
Barnes Bridge, 4.2 miles south of, primary traverse station 184 plus 898 ; copper nail in root of tree. ..... 387.860
Barnes Bridge, 5 miles south of, primary traverse station 191 plus; copper nail in hackberry tree. ..... 382. 250
Barnes Bridge, 6.9 miles south of, primary traverse station 204, 75 feet southwest of levee; copper nail in leaning elm at corner of field ..... 380.86
Mesquite, 5.4 miles east of, Texas \& Pacific Ry. crossing of East Fork ofTrinity River, 48 feet east of northeast corner of wagon bridge, about 15feet north of center of wagon road, 162 feet south of center of railway watertank; iron post stamped "Prim. Trav. Sta. No. 10, 1909, No. 22".
Mesquite, 3.8 miles east of, 1.8 miles west of Last Fork of Trinity River, 25feet south of track, west side of road, at crossing; iron post stamped"1909"445.842
Mesquite, 350 feet east of station, at crossing; top of rail. ..... 496.6
Mesquite, 500 feet west of station, 100 feet north of tracks; iron post stamped "Prim. Trav. Sta. No. 11, 1909, No. 25 ". ..... 484. 000
Mesquite, 2.5 miles north of, Troad south, in northwest corner of iron bridge over North Mesquite Creek; copper nail ..... 483.79
Newhope, 150 feet north of main crossroads, east side of road; iron post stamped "Prim. Trav. Sta. No. 22, 1909" ..... 533.847
Newhope, 1.5 miles north of, 1.5 miles south of Rose Hill (Housley), 20 feet east of north end of bridge over Duck Creek; iron post stamped "Prim. Trav. Sta. No. 21, 1909 " ..... 444. 545
Rose Hill (Housley), 300 feet east of road fork, 100 feet southeast of black- smith shop, by wire fence; iron post stamped "Prim. Trav. Sta. No. 20, 1909, 505" ..... 504.267
Rowlett, 2.2 miles south of, 20 feet south of southeast corner of bridge over Rowlett Creek; iron post stamped "1909" ..... 421.44
From Barnes Bridge west along highway to Newhope.
Barnes Bridge, 1 mile west of, south side of road, opposite corner of timber-land, in root of bois d'arc stump; copper nail395.93
Newhope, 2.6 miles northeast of, 30 feet south of west end of bridge over Duck Creek; iron post stamped " 1909 " ..... 428. 432
From Rowlett southeast along highway to point near Barnes Bridge.
Rowlett, 1.5 miles east of, 30 feet south of west end of west Missouri, Kansas\& Texas Ry. bridge over Muddy Creek, in corner of right-of-way fence;iron post stamped "423 1909"423. 143
Rowlett, 3.3 miles southeast of, 0.5 mile below junction of Muddy Creekand Rowlett Creek, 0.2 mile north of bridge over Rowlett Creek, 300 feetnortheast of levee; copper nail in east side of dead bois d'arc tree.412. 47
Rowlett, 3.4 miles southeast of, 600 feet northwest of bridge over RowlettCreek; copper nail in northwest corner of small bridge.412.07
Rowlett, 4 miles southeast of, 0.5 mile below bridge over Rowlett Creek, 40 feet east of bank of Rowlett Creek; copper nail in east side of tree... ..... 409.65
Rowlett, 4.2 miles southeast of, east creek bank, 300 feet north of levee, atedge of field; copper nail in leaning bois d'arc tree.......................Barnes Bridge, 3 miles northwest of, iron bridge over Rowlett Creek, 10feet north of east end of bridge; iron post stamped "407 1909"409.82

## From Rose Hill (Housley) northwest to Garland, thence northeast and southeast to Rowlett.

Centerville, 3.4 miles southeast of Garland, 2.9 miles northwest of Rose Hill, 100 feet east of J. M. Davis \& Bros.' store, north side of road at crossroads; iron post stamped " 5381909 ".

Feet.
Garland, 0.3 mile southeast of station, 500 feet south of Missouri, Kansas \& Texas Ry., about 500 feet east of crossing of Missouri, Kansas \& Texas Ry., and Gulf, Colorado \& Santa Fe Ry., top of northeast corner post of concrete bridge; mark X painted in black
527.68

Garland, crossing of Missouri, Kansas \& Texas Ry., and Gulf, Colorado \&
Santa Fe Ry.; top of rail............................................................ 537.5
Garland, in front of Missouri, Kansas \& Texas Ry. station; top of rail..... 540.4
Garland, 1 mile west of, south end of west pier of Missouri, Kansas \& Texas Ry. bridge over Duck Creek; aluminum tablet stamped "Prim. Trav. Sta. No. 2, 1909, 551"
550.253

Garland, 0.2 mile north of, at Gulf, Colorado \& Santa Fe Ry. crossing; top of rail
543.0

Sachse, 2.5 miles southwest of, Gulf, Colorado \& Santa Fe Ry., at crossing; top of rail
527.4

Garland, about 3.5 miles northeast of, 200 feet west of fork of road to southwest, near house in small grove, in northeast corner of bridge; top of bolt.
508.77

Rowlett, 4 miles northwest of, 20 feet from southwest corner of iron bridge over Rowlett Creek; iron post stamped " 453 1909"
452. 535

Rowlett, 1.2 miles north of by road, T road northeast, west end of culvert; copper nail.
517.61

Rowlett, crossing of Missouri, Kansas \& Texas Ry., about 1,000 feet west of station; top of rail
506.7

Rowlett, in angle formed by right-of-way fence and fence at road crossing about 700 feet east of station, 16 paces north of center of railroad track, 4 paces west from crossing, between fourth and fifth telegraph poles east of station; bottom of square hole cut in top of limestone post marked "U. S. $\square$ B. M." (C. \& G. S. b. m. F-2)

## From point 6 miles northwest of Rowlett north to Murphy. 1

Sachse, 1.5 miles southwest of, east end of north pier of Gulf, Colorado \& Santa Fe Ry. bridge 6134 over Rowlett Creek, 3.5 miles north of Garland; aluminum tablet stamped "Prim. Trav. Sta. No. 19, 1909, 480"
478.566

Sachse, Gulf, Colorado \& Santa Fe Ry. crossing, south of station; top of rail.
Murphy, 1 mile south of, southeast corner of cross roads, copper nail in root of elm tree.
565.63

M'KINNEY QUADRANGLE. ${ }^{1}$
[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]
From Murphy east to point 1 mile east of Wylie.
Murphy, 1,200 feet south of St. Louis Southwestern Ry. Co. of Texas station, southwest corner of crossroads near picket fence; iron post stamped "Prim. Trav. Sta. No. 18, 1909, 576 ".
574.853

Murphy, at crossing west of station; top of rail.

[^1]$$
25286^{\circ}-\text { Bull. } 637-16-3
$$
Wylie, about 0.2 mile south of main part of town, front of T road north; Feet.iron post stamped "Prim. Trav. Sta. No. 17, 1909, 547 "545.475
Wylie, 1 mile east of, about 100 feet north of fork of road, copper nail in root of leaning tree ..... 465.35
FARMERSVILLE QUADRANGLE. 1[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]
From point 1 mile east of Wylie east 2 miles.
Wylie, 3 miles east of, 1,350 feet west of bridge over East Fork of TrinityRiver, south side of public road; iron post stamped "Prim. Trav. Sta. No.16, 1909, 450." (Adjusted elevation 1 foot greater.)448. 414

Bobbin, Brenham, Bryan, Giddings, Hearne, Marlin, Sealy, Taylor, Temple, and Waco $30^{\prime}$ quadrangles (including various $7 \frac{y^{\prime}}{\prime}$ quadrangles along Brazos and Little rivers).

AUSTIN, BELL, BRAZOS, BURLESON, FALLS, MCLENNAN, MILAM, ROBERTSON, WALLER, AND WASHINGTON COUNTIES.
The elevations in the following list were determined by primary leveling extended from bench marks of the Coast and Geodetic Survey precise leveling near Sealy, Temple, and Waco.
The State cooperated in the leveling, which was done in the Sealy $30^{\prime}$ quadrangle in 1909 by E. L. McNair, C. H. Semper, and F. H. West; in the Brenham $30^{\prime}$ quadrangle in 1909 by McNair, Semper, and West, and in 1910 by West and F. J. McMaugh, in 1911 by S. E. Taylor, in 1912 by C. A. Ecklund; in the Bryan 30'quadrangle in 1909 by Semper and West, and in 1910 by West and Thomas; in the Hearne $30^{\prime}$ quadrangle in 1909 by McNair and Semper, and in 1910 by West and P. W. McMillen; in the Marlin $30^{\prime}$ quadrangle in 1909 by Semper, and in 1910 by McNair, McMillen, and West; in the Taylor quadrangle in 1909 by McNair, and in 1910 by McNair and McMillen; in the Temple 30' quadrangle in 1910 by McNair and West; in the Waco $30^{\prime}$ quadrangle in 1909 by Semper, and in 1910 by West; in the Bobbin quadrangle in 1911 by Taylor, and in the Giddings quadrangle in 1912 by Ecklund. For connections made in 1916 with bench marks in Harris County, see pages 188-190.

SEALY QUADRANGLE.<br>[Latitude $29^{\circ} 30^{\circ}-30^{\circ}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]

## From McDowell Bridge north along highways to Steel farm.

McDowell, 0.5 mile east of, on the Missouri, Kansas \& Texas Ry., on
bridge 2156 over Brazos River, at south end of first pier west of Austin-
Waller county line, on top surface of southernmost short section of
rail resting on cement pier, 2.5 centimeters (about 1 inch) square,
chiseled in outline between two transverse girders (C. \& G. S. b. m.
"S7") ........................................................................................... 124.520

[^2]McDowell, 0.5 mile east of, on top of iron cylinder pier, west end of bridge, twin cylinder piers, bench mark on pier up river, at joining of west span and trestle (Brazos River Survey, U. S. Army Engineers, elevation 130.62)

Feet.

124. 202
McDowell, 0.5 mile east of, Missouri, Kansas \& Texas Ry. bridge over Brazos River, south side, top of east abutment; aluminum tablet stamped "129 1 Prim. Trav. Sta. 10"
125. 255
McDowell Bridge, 2.1 miles north of, 300 feet east of Orange Creek, 5 feet west of gate at Charles Taylor's farm, south side of road; iron post stamped "126 2 Prim. Trav. Sta. 11"
125.631
McDowell Bridge, 3.1 miles north of, north of road, in root of elm tree; spike, marked U. S. B. M. $125 "$
125.25
Junction of main road with lane down Orange Creek, east margin of road, in root of 48 -inch pecan tree; spike marked "U. S. B. M. 131"
Wendts Ferry, about 1.3 miles southeast of, in front of Lee Penrise farmhouse, south side of road, at front yard fence; iron post stamped " 130 3 Prim. Trav. Sta. 12 ".
130.84
126. 411
Fork of road to Wendts Ferry, southwest corner, in root of hackberry tree;
spike marked "U. S. B. M. 126 " ................................................ 125.66
McDowell Bridge, 6.9 miles north of, 0.3 mile north of Wendts Ferry, in front of house on Frank Meyer's place occupied by Allen McDowell (colored), north side of road, at fence line; iron post stamped " 1244 Prim. Trav. Sta. 13 "
127. 029
Wesley Church (colored), 250 feet northwest of, 10 feet north of road, 15 feet west of hackberry tree; iron post stamped " 1285 Prim. Trav. Sta. 14" McDowell Bridge, 11.2 miles north of, at three corners, Tom Sterling's land, house occupied by Reader Manning (colored); iron post stamped "135 6 Prim. Trav. Sta. 15".
McDowell Bridge, 13.4 miles north of, at corner of Joe Robinson's land, 150 feet northwest of house occupied by Richard Hamilton (colored), at corner of fence, side of road; iron post stamped "136 7 Prim. Trav. Sta. 16 "
135.645
Sunnyside, 0.5 mile west at four corners, southeast corner, east side of road; iron post stamped " 1708 Prim. Trav. Sta. 17 "
Sunnyside, north of, east side of road, in branch bottom, spike in root of post oak; painted " 153 "
Sunnyside, 2.4 miles north of, on J. C. Willis's farm, 350 feet west of house, 50 feet west of road to north, 10 feet east of 5 -foot post oak; iron post stamped "155 9 Prim. Trav. Sta. 18 "
128. 236
134.696
Walter Lofton's farm, 1,000 feet north of house, on east margin of road, in root of hackberry tree; spike painted " 147 ".
Sunnyside, 4.1 miles north of, at west edge of cotton field, 6 feet north of road, 10 feet south of 4 -foot ash; iron post stamped " 14910 Prim. Trav. Sta. 19"
Steel farm, 0.5 mile south of bridge over Clear Creek, at corner of wire fence, pecan tree used as corner post; iron post stamped "144 11 Prim. Trav. Sta. 20"

From McDowell Bridge north along highways to point 1.3 miles south of Cochran.
San Felipe, 0.5 mile east of, at junction of McDowell-San Felipe road and south road to Wendt Ferry; iron post stamped " 124 ".
San Felipe, 600 feet west of Methodist Church, on north side of road midway
between T roads north and south, in root of 5 -inch tree; spike marked
" 153 "................................................................................................................
149.408
144.038
124.078
152.50
155. 330
146. 90
4.
San Felipe, 0.8 mile north of Methodist Church, on west side of road toBurleigh, just north of small bayou, 1,200 feet north of crossroads; ironpost stamped " 127 "front yard of Arthur Washington's place at T road to San Felipe, spikein stump of 12 -inch chinaberry tree; marked " 154.1 "153. 96
Sealy, 4 miles northeast of, on John Mueller's place, 800 feet west of house on north side of lane from main road, about 900 feet east of main road to Bellville; iron post stamped " 158 " ..... 158.210
Mills Creek, 100 feet north of, north end of upper steel bridge over creekon north side of road, 75 feet east of house occupied by Squire Campbellon Lewis Downley's plantation; iron post stamped " 129 "129. 165
Mills Creek Bridge, 0.8 mile northeast of, on north side of road to Burleigh,0.4 mile south of Macedonia negro schoolhouse, where road makes angleto north; spike in root of 24 -inch hackberry tree, marked " 127.4 "......Macedonia schoolhouse, 0.4 mile north of, on east side of road through fieldsto Burleigh, in front of John Matthew's cabin; spike in root of 15 -inchoak, marked " 133.4 ".133.20
Hack's ginhouse, 300 feet northwest of, 75 feet west of road along fence line; spike in root of 24 -inch pecan tree, marked " 137.4 " ..... 137.16Hack's ginhouse, 0.5 mile north of, on west side of road up river, 300 feetnorthwest of cabin to east of road, 500 feet southeast of cabin to west ofroad, 0.5 mile south of Fort's house; iron post stamped " 140 "139. 332
R. C. Fort's house, 0.8 mile north of, on east side of road up river, on edge of river bank, in root of 12 -inch cottonwood tree which stands some- what alone in clearing; spike marked " 136.9 " ..... 136. 66
George Morgan's house, 75 feet southwest of, in root of stump on west side of road; spike marked " 138.3 " ..... 138.08Feorn Keoeurather's place, 300 feet south of Ed. Currey's cabin, 20 feetsouth of ditch across cotton field, 0.5 mile southeast of Miller's gin; ironpost stamped " 144 "143. 401
Miller's gin, 1.3 miles north of, at junction of main road to Bellville androad through Buck's bottom; spike in root of 15 -inch oak at northeastcorner, marked "141.1"140.82
Buck's gin, 0.5 mile south of, at northeast edge of Buck's bottom, 20 feetwest of road at gate, 600 feet north of Williams's negro cabin; iron poststamped " 141 "140.927
Buck's gin, 0.5 mile northeast of, at northeast end of lot for Buck's quarters,1,000 feet north of Abe Wright's negro cabin, in root of smaller of twooaks that stand together, 300 feet south of fence; spike marked " 154.2 "
BRENHAM QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]
From Steel farm northwest along highway along east side of river to Harmon.
Steel farm, 0.5 mile north of, gate of farmhouse, east side of road; iron post stamped "152 12 Prim. Trav. Sta. 21 "151.874
Steel farm, at corner of wire fence front of shanty, in top of guard post; spike painted " 160 ". ..... 160.79
Steel farm, west side of road, 200 feet south of gate, spike in root of post-oak tree; painted " 180 ". ..... 180.04Steel farm, 3 miles north of, on road to Hempstead, 600 feet south of forkin road to Lewisville, 15 feet east of road; iron post stamped " 19013Prim. Trav. Sta. 22 ".189.666
Steel farm, 6 miles north of, on road to Lewisville, 0.5 mile west of Hemp- stead road, north side of road, in edge of woods; iron post stamped ' 202 14 Prim. Trav. Sta. $23^{\prime \prime}$

Feet.

205.174

Lewisville Church, 0.8 mile northwest of, on Crooks's land, 500 feet north of house occupied by John Bush (colored), west side of road; iron post stamped "185 15 Prim. Trav. Sta. 24 "
187.574

Hempstead, 3.2 miles west of, on Houston \& Texas Central R. R., 200 feet east of wooden bridge, 800 feet west of Pointer station sign, 80 feet south of track; iron post stamped "'211 16 Prim. Trav. Sta. 25 "
213. 568

Harmon, 0.8 mile west of, Houston \& Texas Central R. R. bridge over Brazos River, south side, top of east pier; aluminum tablet stamped "169 17 Prim. Trav. Sta. 26 ".
Brazos River Bridge, top of west pier, no mark (U. S. Army Engineers' elevation 196.01)
171.804

From point near Harmon north along west side of Brazos River to Washington.
New Years Creek, county bridge over, east side, top of north abutment; aluminum tablet stamped "165 18 Prim. Trav. Sta. 27 ".
164.913

McGregor farm, south side of road, in root of pecan tree; spike painted " 163 "
163.01

Grand Point, opposite, east side of road, in root of elm tree; spike painted " 158 "
157.81

Riverside plantation, 0.5 mile west of, 200 feet south of gate to lane, oppo
site old house, at west margin of road; iron post stamped '164 19 Prim.
Trav. Sta. 28 "

Henry Hughes's plantation, at edge of river, spike in root of Spanish oak
tree; painted " 168 "

167.73

J. F. Buchanan's land, at southwest line, 30 feet north of old river levee, at road to negro houses; iron post stamped "168 20 Prim. Trav. Sta. 29".
J. F. Buchanan's land, 0.25 mile west of house, on west side of road, spike in root of elm tree; painted " 167 "
167.777
J. F. Buchanan's land, north side of road, spike in root of ash tree; painted " 167 "
166.67

Buchanan's house, 130 feet north of, on Giddings \& Buchanan's land, north end of dam across Jackson Creek, at end of wire fence; iron post stamped "171 21 Prim. Trav. Sta. 30"
171.052

Giddings \& Buchanan's land, near house occupied by Jim Franklin, spike
in root of Spanish oak; painted " 192 "........................................ 192.42
Lott's place, east side of road, spike in root of Spanish oak; painted "192". 191.50
Jackson Creek dam, 1.5 miles north of Jim Lott's land, near house occupied by Martin Avery (colored), at wire gate; iron post stamped "196 22 Prim. Trav. Sta. 31"
196.264

Lott's place, near Brown's schoolhouse, west side of road, spike in root of
post-oak tree; painted " 238 "................................................ 241.32
Four corners, northeast corner of road, 900 feet south of Brown's schoolhouse, spike in root of post-oak tree; painted " 211 ".
213.99

Graball, 1.5 miles south of, in front of Sam Grey's house, at west margin of road; iron post stamped "241 23 Prim. Trav. Sta. 32 ".
243. 992

Three corners, 600 feet south of, east side of road, spike in root of pecan tree; painted " 293 "
295.84

Flat Prairie Church, 0.5 mile southeast of, east side of road, spike in root of
elm tree; painted " 174 "...............................................................
Flat Prairie Church, opposite, 6 feet east of gate, north side of road; iron post stamped "185 24 Prim. Trav. Sta. 33".
Feet. ..... 187.564Graball-Washington road, 600 feet from, west side of road, spike in root ofpost-oak tree; painted " 200 ".
203.99
229.00

## From Washington north along highway along east side of Brazos River to Harrington,

 thence west along Gulf, Colorado \& Santa Fe Ry, to Sand Pit.Washington, bridge over Brazos River, south end east pier at top, marked "U $₫$ S" (U. S. Army Engineers' elevation 201.26) ..... 195.17
Washington, bridge over Brazos River, 0.5 mile northeast of, north margin of road, spike in root of pecan tree; painted "1881" ..... 190.84 ..... 188. 164
Navasota River Bridge, 1.5 miles north of, 100 feet east of road, spike in root of pecan tree; painted "185 5" ..... 187.86
Navasota River Bridge, 1.8 miles north of, 20 feet east from end of bridge over slough; iron post stamped "18729 Prim. Trav. Sta. 48A" ..... 189.630
Navasota River Bridge, 2.2 miles north of, south margin of road, spike in root of elm tree; painted "1866" ..... 188.81
Brazos River, Lock No. 1, at upstream end of; surface of water Oct. 30, 1909. ..... 153.82
Brazos River, Hidalgo Falls, 400 feet east of Lock No. 1, 10 feet northeast ofcorner of office building; iron post stamped " 19030 Prim. Trav. Sta. 49A".
Brazos River, Lock No. 1, northwest corner post of old lock-tender's house,in post marked "U.S.B.M. 201.245"; spike (Corps of Engineers' benchmark)193. 037
193. 96
Brazos River, Lock No. 1, 0.5 mile north of, 30 feet east of road, spike in root of pecan tree; painted "193 7 ". ..... 195. 77
Brazos River, Lock No. 1, 0.9 mile north of, east margin of road, spike in root of Spanish oak; painted "190 8" ..... 192. 63
Harrington switch, 100 feet south of railroad, 100 feet west of highway, spike in root of hackberry tree; painted "191 9 " ..... 193.21
Harrington switch, 0.5 mile west of, 20 feet north of railroad milepost 22 , at fence line; iron post stamped "189 31 Prim. Trav. Sta. 50A". ..... 192.514
Harrington switch, 2.5 miles west of, at milepost 20, north side of track, at fence line; iron post stamped "195 32 Prim. Trav. Sta. 51A". ..... 198. 226
Harrington switch, 3 miles west of, railroad bridge 2042, north side, east end; top of most easterly bolt in guard rail " 19813 " ..... 200.83
Allenfarm, 2,000 feet west of, 45 feet west of milepost 18, at fence line; iron post stamped "201 33 Prim. Trav. Sta. 52A". ..... 204. 217
Allenfarm, 2.5 miles west of, south side of railroad, at fence line; iron post Feet. ..... 201. 553
Allenfarm, 3 miles west of, at railroad bridge 2035눈, east end, south side; top of bolt painted " 204 18" ..... 206. 43
From Sand Pit north along highway along west side of river to point near Koppe farm bridge.
Gulf, Colorado \& Santa Fe Ry. bridge over Brazos River, down-stream side,top of west pier; aluminum tablet stamped " 20335 Prim. Trav. Sta.54A"206. 480
Gulf, Colorado \& Santa Fe Ry. bridge, 0.5 mile west of, on road to stonequarry, 100 feet north of railroad track, spike in root of live oak; painted"20519"208. 55
Lauderdale's rock crusher, 0.25 mile northwest of, east margin of road, spike in root of post oak; painted " 20520 ". ..... 208.32
Houston \& Texas Central R. R. bridge, 1.25 miles south of, in field at southedge of road through field, near old levee, 600 feet west of negro cabin,in root of 18 -inch pecan tree; nail.159. 41
Houston \& Texas Central R. R. bridge over Brazos River, 0.8 mile west ofHarmon, in top of east pier south side; aluminum tablet stamped " 169No. 17 Prim. Trav. Sta. 26 ".171. 794
Harmon, opposite station, spike in telegraph pole; marked "158" (Sem- per's bench mark). ..... 161.39Houston \& Texas Central R. R., 0.7 mile north of, about 400 feet fromtimber to east and west, in root of 36 -inch elm which stands alone incotton field; nail marked " 154.1 ".156. 79
Stone's gin, 1,500 feet southeast of, on Stone plantation, 6 feet north of road from house, on hill to east, 5 feet from gin house, 15 feet southeast of 30 - inch pecan tree which stands alone in cotton field; iron post stamped "162 Prim. Trav. Sta. 38A" ..... 164. 152
Stone's gin, 0.6 mile northeast of, about 400 feet east of main timber linealong river, in thicket, notch in root of western of two large dead trees;marked " 160.9 "163.39
Nash place, 50 feet east of road, 10 feet east of crib, spike in root of pecan tree; painted "208 28 " ..... 211.01
Coulter place, east margin of road, spike in root of hackberry tree; painted "209 29". ..... 211. 90
Smith's gin, 350 feet west of, 5 feet north of gate; iron post stamped " 209 38 Prim. Trav. Sta. 57 A ". ..... 212. 198
Smith's gin, 0.5 mile north of, 60 feet west of river bank, spike in root of willow tree; painted " 21129 ". ..... 214.24
Smith's gin, 1.5 miles north of, 50 feet east of road, spike in root of stump; painted " 21431 ". ..... 216. 86
Smith's gin, 1.7 miles north of, southwest corner of three corners, side of road, spike in root of cottonwood tree; painted " 21432 ". ..... 217. 63
Smith's gin, 2.3 miles north of (Koppe farm), west side of road, 6 feet from culvert; iron post stamped " 21539 Prim. Trav. Sta. 58A". ..... 217. 962
From point 1.3 miles south of Cochran north along highways on west side of Brazos River to Houston \& Texas Central R. R. bridge over river at Harmon switch, thence north along highways on east side of Brazos River to point 1.7 miles south of Courtney.
Cochran, in front of schoolhouse, on east side of road, nail in root of 12 -inchoak; marked "177.4".177.05Cochran, 1.9 miles north of, north of old road, about 0.3 mile north of negrocabin, 600 feet south of branch, at end of lane, on edge of highland, nailin root of 18 -inch oak; marked "184.6"184.17

Cochran, 3 miles north of, on road to Chapel Hill, at northwest corner of Lew Brook's place, on west side of road, at angle from north to east, just after entering bottom, 50 feet south of large bayou; iron post stamped " 151 ".

Feet.
Cochran, 4.6 miles north of, on Chapel Hill road, at southwest corner of three corners, in front of Gus Turner's (negro) cabin; iron post stamped " 157 ".
157. 000

Houston \& Texas Central R. R. bridge over Brazos River, 2.1 miles south of, on Mars Markup plantation, east of Chapel Hill road, in front of cabin occupied by Andrew Jackson (colored); iron post stamped " 163 ".
162. 281

Houston \& Texas Central R. R. bridge, 1.25 miles south of, in field at south edge of road through field, near old levee, 600 feet west of negro cabin, in root of 18 -inch pecan tree; nail.
Houston \& Texas Central R. R. bridge over Brazos River, 0.8 mile west of Harmon, in top of east pier south side; aluminum tablet stamped "169 No. 17 Prim. Trav. Sta. 26 "
171. 794

Harmon, opposite station, spike in telegraph pole; marked " 158 " (Semper's bench mark).
161. 39

Houston \& Texas Central R. R., 0.7 mile north of railway, about 400 feet from timber to east and west, nail in root of 36 -inch elm which stands alone in cotton field; marked " 154.1 ".
Stone's gin, 1,500 feet southeast of, on Stone plantation, 6 feet north of road from house, on hill to east, 5 feet from gin house, 15 feet southeast of 30 inch pecan tree which stands alone in cotton field; iron post stamped "162 Prim. Trav. Sta. 38A"
Stone's gin, 0.6 mile northeast of, about 400 feet east of main timber line along river, in thicket, in root of western of two large dead trees; notch, marked " 160.9 ".
Stone's gin, 1.1 miles north of, on north side of large bayou, at edge of timber along bayou, about 300 feet north of main timber line along river; notch between forks of two forked elms, marked " 163.3 ".
165. 66

John Torrey's house, 200 feet northeast of, 150 feet south of stable, 100 feet southeast of 8 -inch dead pecan tree, about 1.5 miles southwest of Wood's ginhouse; iron post stamped " 175 Prim. Trav. Sta. 39A".
177. 637

John Torrey's house, 0.8 mile north of, 100 feet northeast of mouth of ditch dug on cut-off, 5 feet east of river bank at north edge of timber; nail in root of 12 -inch cottonwood tree, marked " 167.1 ".
169.35

John Torrey's house, 1.1 miles northeast of, 75 feet south of field road through Loch Buchanan's bottom, 50 feet west of edge of cotton and corn fields, 15 feet west of 16 -inch oak, which stands 500 feet east of thicket and is distinguishable as the only oak in field with leaves to top; iron post stamped "178 Prim. Trav. Sta. 40A"
180.613

Negro settlement on Loch Buchanan's plantation, in west side of quarters, just west of tank; nail in root of 26 -inch oak, marked " 208.7 ".
211.07

Wood's gin, 1 mile north of, at southwest corner of road to Clark's bottom and road through negro settlement; nail in root of 24 -inch oak, marked " 200.7 "
203. 93

Wood's gin, 2.3 miles northeast of, at south edge of Clark's bottom, 75 feet east along road to east at foot of lane, 0.2 mile north of John Marshall's house; iron post stamped "168 Prim. Trav. Sta. 41A".
171. 639

Charles Thornton's cotton field, southwest corner of, about 0.8 mile southwest of house, 200 feet from west timber line, 1,000 feet from south timber line; nail in root of 24 -inch pecan tree, marked " 166.2 ".
169.21
Charles Thornton's house, in foot of brick pier under porch at southeast corner; cross cut on brick marked "171.3"
Charles Thornton's house, 0.8 mile northeast of, 400 feet south of cabin, 10 feet south of two large pecan trees which stand alone in field about 75 feet east of road; iron post stamped " 173 Prim. Trav. Sta, 42A" $\qquad$
Charles Thornton's house, $\mathbf{1 . 6}$ miles northeast of, 150 feet back of gate at fence corner, at corner of old field, cotton field and timber, on east side of road to railroad; nail in root of 12 -inch hackberry tree, marked " 173.9 "
Courtney, 2.5 miles south of, 100 feet north of milepost 60,300 feet north of Grimes-Waller county line post, at northwest corner of road crossing with Houston \& Texas Central R. R.; iron post stamped "192 Prim. Trav. Sta. 43A".
Courtney, 1.7 miles south of, bridge " 61 A " on Houston \& Texas Central R. R., west wing wall of south abutment, in stone 30 inches from south end, 8 inches from west edge; chiseled cross in circle, marked " 180.5 ".
Courtney, on Houston \& Texas Central R. R., at foot of principal street, 75 feet east of south end of station, at corner of fence; iron post stamped "185 Prim. Trav. Sta. 44A" (as reset).
From Courtney north along Houston \& Texas Central R. R. and public roads up the east side of Brazos River to Navasota.

Feet. 173.34
175. 210
175. 88
194. 052
182.19
185. 101

Courtney, 2.5 miles north of, 50 feet west of Houston \& Texas Central R. R. track, at road crossing, 0.2 mile north of negro cabin; iron post stamped "181 Prim. Trav. Sta. 45A".
181. 703

Courtney, 4.6 miles north of, on west end of southernmost transverse girder in bridge of Houston \& Texas Central R. R. over Walkers Creek; chiseled cross, marked " 188.2 "
189.01

Walkers Creek, 0.9 mile northwest of Houston \& Texas Central R. R. bridge over, on Wilson's plantation, 1,200 feet north of road leading from railway to plantation house, about 0.5 mile west of railway, 15 feet west of 24 -inch oak which stands alone in small tongue of highland; iron post stamped "197 Prim. Trav. Sta. 46A"
198.092

Barron's plantation, 75 feet south of house, distinguishable by a white stone chimney to south, in root of 36 -inch oak; copper nail, marked ' 189.4 "
Barron's house, 900 feet north of, on east side of road to gin, opposite negro cabin, in root of 12 -inch elm tree; copper nail, marked " 188.4 "
189.90
188.79

Wilson's gin, 0.4 mile northwest of, 600 feet north of road to bottom, 6 feet east of north-south fence between cotton fields at edge of bottom; iron post stamped "189 Prim. Trav. Sta. 47A"
189.056

Navasota, 0.3 mile west of, at west end of wagon bridge over Navasota River;
iron post stamped " 185 Prim. Trav. Sta. 37 "..................................... 188.154
From Old Washington northwest along roads up west side of Brazos River to Gulf Colorado \& Santa Fe Ry. bridge at Sand Pit.
Old Washington, on road bridge over Brazos River; tablet stamped "193 Prim. Trav. Sta. 36 "
196. 304

Old Washington, 0.8 mile northwest of, on east side of road to Clay station, at E. C. Currey's house, 400 feet south of T road west, copper nail in root of 20 -inch oak tree; marked " 236.4 ".
233.39

Old Washington, 1.6 miles northwest of, on east side of road to Clay, 300 feet south of gate across road through Moore's place, nail in root of 30 inch oak tree; marked "U.S.T.B.M. 192.1".
189.11
H. M. Moor's house, 0.7 mile south of, at junction of Y lane east to house, nail in 12-inch oak tree; marked " 262.3 "
H. M. Moor's place, 0.5 mile north of cross lane along lane that leads fromMoor's house north to Washington-Independence road, east of road onsmall summit, at vacant shanty, about 1.3 miles southwest of Moor'shouse; iron post stamped " 286 Prim. Trav. Sta. 96 A".

Feet.
283. 250

Charlie Bruloor's house, 300 feet south of, 15 feet from road, at angles from east to north, in sandstone slab from ledge north of road, 2 -inch square hole chiseled in outline, center of hole; stone marked " 302.44 ".
299.44

St. Matthew's Church (negro), 0.5 mile southeast of, 40 feet south of angle in road from north to west, nail in root of 20 -inch oak tree; marked " 341.2 ".
337.26

St. Matthew's Church, 300 feet west of, west of road; iron post stamped "351 Prim. Trav. Sta. 97A".
St. Matthew's Church, 0.8 mile northwest of, in bottom 175 feet north of first bayou north of church, 300 feet west of thicket along river, in center of field, nail in root of 36 -inch pear tree; marked " 207.3 ".
203.31

St. Matthew's Church, 1.8 miles west of, 300 feet south of river, 100 feet west of second bayou north of church, in cottonfield, where bayou turns northwest, nail in 12 -inch stump cut 1 foot high; marked ' 209.7 ".
205.77

Rockling's place, 0.5 mile northeast of house in cornfield where river makes sharp angle from west to south, 300 feet east of one side of angle and 1,000 feet south of other side, 5 feet north of 26 -inch dead pin-oak tree, 300 feet southwest of large dead limbless tree; iron post stamped ''218 Prim. Trav. Sta. 98A".
346.919

Rockling's place, 1 mile northeast of, at edge of river in woods, nail in root of 12 -inch elm tree; marked ' 205.3 ".
213.695
201.33

North bank of large creek, 400 feet from its mouth, at south end of clearing used for hog pasture; iron post stamped "205 Prim. Trav. Sta. 99A" (as reset).
199.508

Yegua River, 0.25 mile south of mouth of, on east side of river, nail in root of 30 -inch oak tree at edge of river at boat crossing; marked " 205.7 "
201.69

Sand Pit, on downstream end of west pier of Gulf Colorado \& Santa Fe Ry. bridge; aluminum tablet stamped " 210 "
206.470

From Sand Pit north along International \& Great Northern R. R. up east side of Brazos River to Enright.

Clays farm, 0.9 mile south of house, 1,800 feet south of cabin, in field, 400 feet east of levee, at large pecan tree which stands alone in field; iron post stamped "No. 11 Prim. Trav. Sta. 95A" (reset value)
Clays farm, 0.8 mile east of house, 0.6 mile south of section house, 50 feet west of railroad, north of dirt road at crossing; iron post stamped "No. 10 Prim. Trav. Sta. 94A"
206. 700
234.040

From Sand Pit southwest along Gulf, Colorado \& Santa Fe Ry, to point near Somerville.

Sand Pit, 0.5 mile east of, in top of west pier, downstream side of Gulf, Colorado \& Santa Fe Ry. bridge over Brazos River; aluminum tablet stamped "'203 Prim. Trav. Sta. No. 54A"
Sand Pit, 0.5 mile west of Gulf, Colorado \& Santa Fe Ry. bridge, on road to stone quarry, 100 feet north of railroad track; in root of live-oak tree; spike.
208.55

Sand Pit, 1.2 miles west of, east end of trestle on Gulf, Colorado \& Santa Fe Ry.; copper nail, painted " 204 ".
203.74

Clay, 1 mile west of, west end of trestle over road, south of track; copper nail.
203.44

Clay, 2.5 miles west of, south side of trestle 2024, in west concrete abutment;
copper bolt. ..............................................................................
Feet.
209.33

Clay, 3.2 miles west of, 50 feet south of railroad crossing, 50 feet east of road,
in root of tree; copper nail. . ...........................................................................
Clay, 3.2 miles west of, 50 feet south of railroad crossing, east side of road, 5 feet from fence corner; iron post stamped ' 210 ".
207.49

Clay, 4.2 miles west of, west end, south of Gulf, Colorado \& Santa Fe Ry. trestle 2018 over road; copper nail.
209.806

Clay, 6 miles west of, 1 mile east of Scofield, west end, south side of trestle 2014; copper nail, painted " 221 ".
203.87

Scofield, 0.7 mile east of, at road crossing; top of south rail.
220.99

Scofield, 150 feet south of negro schoolhouse, north side of railroad, on road, in root of tree; copper nail.
226.4

Scofield, southwest corner of $T$ fork south crossing track, north of railroad, 150 feet south of negro schoolhouse, at gate in fence; iron post stamped " 229 "
229.506

Scofield, 1 mile west of, 4 miles east of Somerville, north side of road north
of railroad, on west edge of field; in root of small tree; copper nail....... 233.04
Somerville, 3.5 miles east of, in middle of north side of trestle 2005; iron bolt.
208.71

Somerville, 3 niles east of, on road along north side of railroad, near trestle 2003, northwest corner of wagon bridge, in root of tree; copper nail....
Somerville, 3 miles east of, north side of road along north side of railroad, north of trestle 2003, 25 feet east of wagon bridge, east side of gate in fence; iron post stamped " 209 "
209. 14
208.682

Somerville, 2 miles east of, 750 feet west of " 2 mile" post, on road north of
railroad, in root of oak tree; copper nail............................................. 239.33
From Gayhill northeast along highway to Independence, thence north to Clay and east
to Sand Pit.
Gayhill, 200 feet east of post office, north side of road, at railroad crossing, 25 feet east of railroad, 1 foot from fence; iron post stamped " 349 ".
349.333

Gayhill, 1 mile east of, at intersection of Somerville-Brenham and GayhillIndependence roads, northwest corner, 200 feet southwest of church, in fence post; copper nail.
388.02

Gayhill, 2 miles east of, 0.25 mile west of John Boeker's house, south side of Gayhill-Independence road, in root of live-oak tree; copper nail
359.55

Gayhill, 3 miles east of, 0.8 mile east of John Boeker's house, at turn in road almost $40^{\circ}$ to southeast, north side on Gayhill-Independence road, 3 feet from fence corner; iron post stamped " 396 ".
396.014

Gayhill, 3.8 miles east of, center of road fork north; top of stone painted 410.15
Gayhill, 4.7 miles east of, northwest corner of crossroads, on Gayhill-Independence road; top of stone at fence corner
349.39

Gayhill, 5.9 miles east of, northwest corner of crossroads, 100 feet west of house; iron post stamped " 357 "
356.790

Independence, 3.2 miles southwest of, 7 miles east of Gayhill, opposite road fork southeast to house, northwest side of road at fence corner; top of stone.
365.77

Independence, 2.4 miles southwest of, 0.5 mile southwest of old Clay mansion, on Gayhill-Independence road, 10 feet north of road, 50 feet west of gate, in root of tree; copper nail painted " 420 "
419.81

Independence, 1.4 miles west of, 0.2 mile northwest of fork of GayhillIndependence and Independence-Brenham roads, at fork of roads; stone.
Independence, 1 mile southwest of, 500 feet east of T fork east of Gayhill- Independence and Independence-Brenham roads, road leading to house, east end of gate, in root of tree; copper nail.

Feet.
396.84
Independence, 1 mile southwest of, on west side of road, 5 feet east of south end of gate, at fork of Gayhill-Independence and Independence-Brenham roads; iron post stamped " 388 "
388.043

Independence, 50 feet south of old college building, at road forks; stone
in road painted " 379 "

378.78
Independence, 0.9 mile north of, on west side of Clay-Independence road, 100 feet northwest of house, in root of oak tree; copper nail
291.56
Independence, 1.8 miles north of, northeast corner of fork of road leading east to house, 3 feet from fence corner, on Clay-Independence road; iron post stamped " 275 "
275. 106
Clay, 2.3 miles south of, in middle of Clay-Independence road, in front of
house, in root of tree; copper nail. ............................................................................
Clay, 1.3 miles south of, on Clay-Independence road, on top of north pier of downstream side of bridge over Yegua Slough; iron bolt painted " 196 ".
Clay, east side of Clay-Independence road, 250 feet south of station, at fence corner; iron post stamped " 203 "
195.83
203.141

From point 3.3 miles west of Navasota east along highway to Navasota (double line).
Navasota, 3.3 miles west of, at west end of wagon bridge over Navasota River; iron post stamped "Prim. Trav. Sta. No. 37, 185"
188.164

Navasota River bridge, 0.8 mile east of, north side of road, in fence line, in root of 12 -inch oak tree; copper nail
208. 78

Navasota, 2 miles west of, 30 feet northeast of T road north, in root of 30 -inch oak tree; copper nail.
216. 68

Navasota, in north side at northwest corner of concrete foundation of Navasota City Hall; aluminum tablet stamped " 218 ".
217.976

## From Navasota east along highways to Eureka schoolhouse.

Navasota, 1.3 miles southeast of, 150 feet northeast of crossroads, 30 feet north of Navasota-Plantersville road, 5 feet north of wire fence, in root of 6 -inch twin thorn tree; copper nail.
224.50

Navasota, 2 miles southeast of, 50 feet northwest of T road south, in root of 18-inch oak tree; copper nail.
Navasota, 2.8 miles east of, 50 feet northeast of wooden bridge at road forks over Sand Creek, 3 feet south of fence line; iron post stamped " 234 "...
Gordon Chapel, 50 feet southeast of, 10 feet north of center of road, in root on east side of 18 -inch oak tree; copper nail.
Gordon Chapel, 1.2 miles northeast of, 10 feet north of second-class road leading to negro house, 75 feet south of tank, in root east side of 18 -inch oak in fence line; copper nail
358.45

Eureka, 0.5 mile south of schoolhouse, 15 feet northwest of T road north,
in corner of fenced field; iron post stamped " 379 "........................... 378.941
From Eureka schoolhouse north along highway and International \& Great Northern Ry. to Anderson (portion of line).
Eureka schoolhouse, 1.7 miles north of, 80 feet southeast of $T$ road, in root on east side of 24 -inch oak tree; copper nail
331.69

Anderson, 3.4 miles southwest of, 400 feet southwest of ford across Thomas Creek, 35 feet west of center of road, 10 feet east of 28 -inch pin-oak tree, in sandstone ledge; bronze tablet stamped " 256 ".

## PRIMARY LEVELING.

## From Navasota along International \& Great Northern Ry. and highways via Irwin to Anderson.

Navasota, 1 mile north of, in top of north rest for extra rail at milepost

Feet.
230.50
213.96
194.325

Irwin, 1.5 miles south of, at three corners at second-class $T$ road east, in root on west side of 15 -inch oak tree; copper nail
282.38

Irwin, 200 feet west of post office at store, 50 feet west of three corners (T road), in corner of fenced field; iron post stamped " 281 "
280.876

Irwin, 1.4 miles east of, at second-class $T$ road south; in root at south side of 15 -inch oak tree, copper nail.
342.53

Anderson, 1 mile west of, 12 feet south of northeast corner of cemetery, at second-class road forks; in root of 10 -inch oak tree, copper nail.
380.01

GIDDINGS QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]
From point 1 mile east of Somerville along Gulf, Colorado \& Santa Fe Ry, west to Somerville, thence southeast to Gayhill.
Somerville, 1 mile east of, north side of railroad at crossing, 10 feet north of road, in root of oak tree; copper nail
Somerville, 500 feet east of station, north side of railroad, between railroad and street, in root of tree; copper nail
249.47

Somerville, 300 feet east of station, north side of railroad, in front of boarding house at east corner of street; iron post stamped " 249 ".
249. 266

Somerville, 1.2 miles south of, 100 feet east of crossing, southeast road
corner, in root of oak tree; copper nail painted " 245 ".....................244.54
Somerville, 2 miles south of, east side of north abutment of Gulf, Colorado \& Santa Fe Ry. bridge over Yegua Slough; painted " 232 "
231. 81

Somerville, 3 miles south of, 0.5 mile north of quarry, 1.1 miles south of Yegua bridge, 20 feet west of track; large rock painted " 271 "
270.69

Somerville, 3 miles south of, 0.5 mile north of Quarry, 1.1 miles south of Yegua bridge, 0.2 mile south of wagon bridge over small drain, west side of road along railroad, 2 feet from fence; iron post stamped " 267 ".
266. 751

Gayhill, 1.5 miles north of, 0.5 mile south of Quarry, 100 feet west of railroad, 300 feet west of house; in stump of tree in cotton field, copper nail
296. 62

Gayhill, 1 mile north of, west side of railroad, south side of gate, in fence; bolt in post painted " 306 "
305.59

BOBBIN QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]
From Eureka north along highways and International \& Great Northern Ry. to Anderson (portion of line).
Eureka schoolhouse, 0.25 mile northeast of, 25 feet west of four corners; copper nail in root on west side of 15 -inch oak tree.
387.19
Anderson, 0.8 mile south of, in northwest corner of railroad bridge 26 ; top of $\frac{1}{4}$-inch bolt.
Anderson, on concrete pillar supporting stairway at west end of south sideof county courthouse; chiseled square.
Feet. 363. 68
Anderson, in west side of facing of south entrance to county courthouse;aluminum tablet stamped " 368 "368.496
BRYAN QUADRANGLE.
[Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $96^{\circ}-96^{\circ} 30^{\circ}$.]
From Koppe farm bridge northwest along west side of Brazos River to Pittbridgo.
Koppe farm, bridge over Brazos River, west abutment, top, on downstream side; chiseled square marked "221 34 "

Feet.
224.64

Koppe farm, 0.2 mile east of, 160 feet south of road, in root of Spanish oak; spike painted " 21335 "
216.00

Koppe farm, 300 feet north of, 20 feet north of culvert over drainage ditch, 400 feet east of cotton gin; iron post stamped " 21440 Prim. Trav. Sta. 59A"
Koppe farm, 0.5 mile north of, 40 feet west of fork of road, at south margin of roads, in root of stump; spike painted " 21436 "
216. 881
217. 15

Koppe farm, 1 mile north of, north end of downstream side of bridge, in guard rail; spike painted " 21337 "
216. 18

Chance's store, 60 feet south of, west side of road, 8 feet from gatepost; iron post stamped " 21841 Prim. Trav. Sta. 60A"
220.773

Chance's store, 0.2 mile north of, west side of road, in tree root; spike
marked " 39 ".

219. 33

Whites Chapel, 0.5 mile north of, west side of road, spike in root of Spanish oak; painted " 222 41"
225.42

Whites Chapel, 1 mile north of, east side of road, spike in root of Spanish oak;
painted " 22242 "........................................................... 225.40
Robinson's place, 300 feet west of house, southwest corner of road, 80 feet west of barn; iron post stamped " 22142 Prim. Trav. Sta. 61A",
224. 330

Robinson's place, 1 mile north of, 10 feet east of gate, margin of road, spike
in root of ash tree; painted " 22044 ".................................... 223.37
Jones Bridge over Brazos River, west side, downstream, top of pier; alumi-
num tablet stamped " 22843 Prim. Trav. Sta. 62A".................... 230.905
Jones Bridge over Brazos River, east end, upstream side, top of pier (U.S. Army Engineers' bench mark; no mark)
233. 18

Wooden bridge over branch, 15 feet south of, east side of road, spike in root
of pecan tree; painted " 21946 "........................................... 222.01
Butler's cotton gin, 0.2 mile south of, 50 feet southeast of road; spike in root of pecan tree, painted " 22348 "
225.85

Butler's place, southwest corner of yard; iron post stamped " 22544 Prim. Trav. Sta. 63A"
227. 769

Butler's place, 0.5 mile north of, west margin of road; spike in root of elm
tree, painted " 22049 "........................................................ 222.81
Butler's place, 1 mile north of, west margin of road; spike in elm tree, painted " 21950 "
222.07

Butler's place, 1.7 miles north of, west margin of road; spike in root of elm tree, painted " 22651 ".
228.82

Butler's place, 2 miles north of, 100 feet west of culvert, opposite corner of pasture, north margin of road; iron post stamped " 22445 Prim. Trav. Sta. 64A"
Butler's place, 2.5 miles north of, 90 feet north of offset in road, west margin of road; spike in root of pecan tree, painted " 22852 "
231.01


## From Enright northwest along highway near railroad to Pittbridge.

Enright, 0.4 mile north of, east of track, south of road at crossing; iron post stamped "No. 9 Prim. Trav. Sta. 93A"
287. 242

Rayder, 0.8 mile south of, 400 feet north of sign "Enright 1 mile," in west longitudinal girder over bridge 128; top of north bolt, marked "No. 21 ".
Wilkins, 1.1 miles west of, on east side of road to Koppe's bridge, at top of small summit, 3 feet west of wire fence; iron. post stamped "No. 8 Prim. Trav. Sta. 92A"
293. 91

Koppe's Bridge, 1 mile north of, on north side of road through cotton field, 0.4 mile west of cabin, at three large elm trees; iron post stamped "No. 71 Prim. Trav. Sta. 91A"
216. 150

Whites Creek, 1.25 miles south of, 900 feet southeast of brick chimney of burned dwelling on point of high land about 200 feet from river, about 600 feet from river; nail in root of 12 -inch pecan tree which stands between two small sloughs, marked "No. 13 "
286. 254

Whites Creek, 0.4 mile south of, on east edge of small bayou that runs between cotton field and scattered timber, 500 feet from river bank; iron post stamped "No. 6 Prim. Trav. Sta. 90A"
218.870

Whites Creek, 1,200 feet north of, on east edge of bayou, 100 feet from river bank; nail in root of two-pronged pecan tree; temporary bench mark; marked "No. 12 "
218.81

Jones Bridge, 3 miles east of, 150 feet northwest of river, on north edge of small slough, nail in 12-inch pecan tree about 1 foot above ground; temporary bench mark; marked "No. 11 ".
222. 49

Jones Bridge, 2.1 miles east of, on west bank of Bushy Creek, 1,000 feet north of river, 1,000 feet southeast of negro cabin on bare hill; iron post stamped "No. 5 Prim. Trav. Sta. 89 A"
Jones Bridge, 1.6 miles east of, 450 feet east of fence directly across river from Robinson's place; nail in root of 36 -inch elm which stands alone; temporary bench mark; marked "No. 10 "
221.37

Jones Bridge, 1 mile east of, in old cornfield, 600 feet north of small bayou, 50 feet west of timber along hill; nail in root of 28 -inch pecan tree; temporary bench mark; marked "No. 9 ".
223.73

Jones Bridge, in south side of west pier, in top; aluminum tablet stamped " 43228 Prim. Trav. Sta. 62 A"
230.905

Jones Bridge, 1.4 miles west of, about 800 feet east of river, south edge of old field, north edge of small bayou, nail in root of small three-pronged blackjack; temporary bench mark; marked "No. 8"
234.24

Jules Koppe's house, 3.3 miles south of, at north edge of strip of timber between two fields, about 200 feet west of southeast corner of north field, 600 feet east of river, 0.5 mile north of Thompsons Creek, nail in 12-inch elm about 3 feet above ground; temporary bench mark; marked "No. 7 ".
Jules Koppe's house, 2.6 miles south of, south side of lane at gate to wood road which runs along edge of small field; iron post stamped "Prim. Trav. Sta. 88 A"
226. 445

Jules Koppe's house, 0.8 mile south of, on west side of road, just south of bayou crossing, nail in 12 -inch willow; temporary bench mark; marked "No. 5".
Jules Koppe's place, 700 feet southwest of John Zullkowsky's house, infront of negro cabin, at northeast corner of T road; iron post stamped"Prim. Trav. Sta. 87 A"
Feet.
244.841
Jules Koppe's place, 0.5 mile north of, west of road; nail in root of 12 -inch hackberry tree ..... 243. 78
Pittbridge, 2.5 miles southeast of, at T road; nail in root of 36 -inch oak tree. ..... 261.09Pittbridge, 1.8 miles east of, on west side of north-south road to Stone City,at T road to Bryan, in front of church building; iron post stamped "Prim.Trav. Sta. 86 A"
264.560
Pittbridge, in steel plate at top of west steel pier on north side of bridge; chiseled square in outline. ..... 242.81
Little Brazos Bridge, 1.2 miles east of, white church at T roads, at north- west corner; nail in 24 -inch hackberry tree ..... 242.88
HEARNE QUADRANGLE.
[Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]
From point 2 miles east of Pittbridge north along public roads up east side of BrazosRiver to Stone City.Bridge over Little Brazos River, 0.6 mile east of, along road to Bryan, northof road at cabin; nail in root of 24 -inch oak245. 63
Bridge over Little Brazos River, west end of, about 1.5 miles southeast of Stone City, south of road; iron post stamped "Prim. Trav. Sta. 85A"... ..... 232.640Stone City, opposite post office; nail in root of elm tree; marked " 239 "...242. 68
From Marleys Ferry (Stone City) north along roads up west side of Brazos River to point 2 miles south of Sixmile Bridge.
Marleys Ferry, 800 feet west of, near store; iron post stamped " 262 ".265. 577
Marleys Ferry, 1.8 miles north of, 100 feet from river, nail in 12 -inch elm in old slough that runs along river; marked " 2352 2" ..... 233. 79
Marleys Ferry, 2.3 miles north of, at north edge of clearing, 400 feet from river, near fence line; iron post stamped " 251 Prim. Trav. Sta. 84 A "...Cedar Creek, 0.4 mile south of, Hiram Wilson's (colored) place, 600 feetsouth of large bayou about 200 feet from river, nail in 17-inch walnut;marked " 246.6 "245.17
Cedar Creek, 0.4 mile east of, at south edge of thicket, about 400 feet east ofdilapidated cabin in cotton field, nail in 36 -inch pecan tree; marked" 243.55 "242.07
George Washington's (colored) place, about 2,000 feet east of house, in fieldat foot of road to bottom 15 feet west of ditch through field, near two pecantrees which stand close together; iron post stamped " 247 Prim. Trav.Sta. 83A"245. 039
Jackson's plantation, west end of, at east edge of thicket about 300 feet from river, nail in root of 18 -inch wild chinaberry tree; marked " 249.9 ". ..... 248.38
Jackson's plantation, 1,200 feet north of cabin occupied by Dave Washing-ton (colored), at south edge of timber, nail in 9 -inch oak; marked"286.23".284. 72
Jim Moor's plantation, about 0.5 mile southeast of house, 1,200 feet west of cabin in cotton field, nail in 12-inch pecan; marked " 289.4 ". ..... 287.93
Jim Moor's plantation, on east edge of, 300 feet west of strip of timber along Damm Branch, nail in 12-inch oak; marked " 266.9 " ..... 265.34
Three corners, south side of road at, 500 feet west of negro cabin, near large oak; iron post stamped " 271.8 " ..... 270.25
Craig's place, directly east about 70 feet from house occupied by Williams, nail in root of 18 -inch oak which leans toward house; marked " 279.2 ".. ..... 277.67

## PRIMARY LEVELING.

Rita, 1.5 miles northeast of, at east edge of timber, in bottom, 0.4 milesouth of old cabin which stands on smail knoll; iron post stamped " 258 ".$Y_{\text {road, }} 250$ feet north of, near river, on east side of old road, 10-penny nailin 20 -inch oak; marked " 279.6 ".256.051
From Pittbridge north along highway along west side of river to Moseleys Ferry.
Pittbridge, 0.5 mile west of, southwest corner of three corners, 3 feet fromfence corner; iron post stamped "231 46 Prim. Trav. Sta. 65A".234.824
Pittbridge, 1.5 miles west of, south margin of road, spike in root of pecan tree; painted " 233.56 " ..... 235.80
Parker's store, 1,000 feet north of, at gate leading into field, north margin of road; iron post stamped " 24347 Prim. Trav. Sta. 66A" ..... 245.776
Parker's store, 1 mile north of, 100 feet west of road, at turn to east, spike in root of bois d'arc tree; painted " 24358 ". ..... 245.83
Moseleys Ferry, 0.3 mile south of, north margin of road, spike in root of hackberry tree; painted "253 59 " ..... 256.57
Moseleys Ferry, 600 feet south of, 30 feet east of Sam Wilson's store; iron post stamped " 26248 Prim. Trav. Sta. 67A" ..... 265.577
From Moseleys Ferry north along east side of river along Hearne \& Brazos Valley R. R. and International \& Great Northern R. R.
Moseleys Ferry, 600 feet east of, 100 feet east of Stone City post office, spike in root of elm tree; painted "23960". ..... 242. 67
Moseleys Ferry, 0.5 mile north of, 100 feet west of railroad, spike in root of pecan tree; painted " 23961 ". ..... 242. 27
Stone City, 1 mile north of, 50 feet west of railroad, spike in root of pecan tree; painted " 245 62" ..... 248.09
Mills, 930 feet north of, 10 feet west of track, on north side of railroad crossing iron post stamped " 24149 Prim. Trav. Sta. 68A" ..... 244. 450
Mills, 0.7 mile north of, 15 feet east of railroad, spike in root of cottonwood tree; painted " 24163 " ..... 243.95
Mills, 1.1 miles west of, 110 feet west of railroad, spike in root of pecan tree; painted " 24564 " ..... 248.41
Steel's store, 0.2 mile south of, 150 feet south of railroad crossing, spike in root of hackberry tree; painted " 24465 " ..... 247.44
Steel's store, railroad crossing at freight platform, 20 feet east of track, at fence corner; iron post stamped " 24550 Prim. Trav. Sta. 69A". ..... 248. 850
Steel's store, 1 mile north of, 20 feet west of track, spike in root of pecan tree; painted " 24867 " ..... 251.83
Steel's store, 1.5 miles north of, 80 feet west of railroad track, spike in root of cottonwood tree; painted "252 68". ..... 255. 68
Ashton's gin, 200 feet north of, at road crossing, 6 feet west of track; iron post stamped " 25151 Prim. Trav. Sta. 70A" ..... 254.610
Ashton's gin, 0.5 mile north of, 120 feet west of track, spike in root of cotton- wood tree; painted "24969" ..... 252.21
Mumford, 0.7 mile south of, 50 feet west of track, spike in root of elm tree; painted "246 70" ..... 249.71
Mumford, 0.2 mile north of, opposite water tank, between tracks of Hearne \& Brazos Valley and International \& Great Northern railroads; iron post stamped "254 52 Prim. Trav. Sta. 71A". ..... 257. 687
Olinda switch, opposite crossing of Hearne \& Brazos Valley and Inter- national \& Great Northern railroads; iron post stamped " 26053 Prim. Trav. Sta. 72A" ..... 263. 361
$25286^{\circ}$-Bull. 637-16-4

Tatsie switch, on International \& Great Northern R. R., 330 feet south of junction of railroads, 4 feet south of station sign, between tracks; iron post stamped "261 54 Prim. Trav. Sta. 73A"

Feot.
264.545

Valley Junction, 1.5 miles south of, 6 feet west of milepost 99 , on International \& Great Northern R. R.; iron post stamped " 26155 Prim. Trav. Sta. 74A"
264.894

Valley Junction, 0.8 mile south of, 80 feet north of track, opposite crossing, spike in root of elm tree; painted " 26582 ".
268. 10

Valley Junction, 45 feet east of station, 30 feet south of east and west track; iron post stamped " 27456 Prim. Trav. Sta. 75A".
277.372

## From Valley Junction north along International \& Great Northern R. R. (east side of river) to milepost 114.

Valley Junction, 2,200 feet northwest of, 40 feet south of track, spike in base of milepost 101; painted " 27084 ".
273. 46

Valley Junction, 1.5 miles north of, 50 feet south of track, spike in base of milepost 102 ; painted " 26686 ".
269.62

Valley Junction, 2.2 miles north of, 150 feet south of milepost 103,20 feet east of track, at corner of wire fence, opposite road crossing; iron post stamped "Prim. Trav. Sta. No. 76 A 27557 ".
278. 210

Valley Junction, 4.4 miles north of, 10 feet west of track, opposite milepost 105 ; iron post stamped " 27758 Prim. Trav. Sta. No. 100 A".
280.640

Milepost 106, 50 feet south of track, spike in foot of; painted " 27692 ".
279.60

Marriam station, opposite seed house, north side of track, 5 feet south of station sign; iron post stamped "Prim. Trav. Sta. No. 101 A 282 59".
285. 241

Milepost 109, 5 feet north of, 30 feet west of road; iron post stamped "Prim. Trav. Sta. No. 102 A $28360^{\prime \prime}$
286. 168

Milepost 110, in first telegraph pole south of; spike painted " 28698 "..... 289.76
Milepost 111, directly west of post, at fence post; iron post stamped "Prim. Trav. Sta. No. 103 A 29061 ".
293. 678

Milepost 112; spike painted "294 101".
297.38

Milepost 113, 30 feet west of track, 2 feet south of post; iron post stamped "295 62 Prim. Trav. Sta. 104 A".
298. 129

Milepost 114, in first telegraph pole south of; spike painted " 297104 ".
300. 62

From Sixmile Bridge north along west side of river to point near Valley Junction. ${ }^{1}$
Sixmile Bridge, 1.4 miles southeast of, west of road, 300 feet south of clearing where road turns east, in 12 -inch oak tree; 10-penny nail.
304.07

Sixmile Bridge, 0.8 mile southeast of, 600 feet south of negro's cabin, in pasture, 50 feet west of road through woods, in 30 -inch oak; 10-penny nail..
301. 23

Sixmile Bridge, 50 feet from north end of, 10 feet east of road from Stone City to Gause; iron post stamped "Prim. Trav. Sta. No. 80 A 264 ".....
261. 946

Sixmile Bridge, 0.5 mile northwest of, on west side of road, in root of 12 -inch oak tree; 10 -penny nail
283.39

Sixmile Bridge, 1.1 miles northwest of, 0.6 mile north of public road, on east side of creek, 200 feet south of junction with creek to south, in notch in small tree; 10 -penny nail.
284.25

Sixmile Creek, 1.5 miles south of, at southwest corner of clearing, 1,100 feet southeast of dwelling, 50 feet north of county road to river, 200 feet east of small wooden bridge, near gap, in 18-inch white oak; nail marked " 321.9 "
Twomile Creek, 1,000 feet south of, nail in 36 -inch pecan tree which stands alone in bottom; marked " 263.7 "
Brown's farm, 800 feet southeast of house occupied by Williams, at edge of cotton field, in small pasture, at summit of tongue of highland running

Feet.toward river; iron post stamped "Prim. Trav. Sta. 79 A 311 ".
308. 168
Brown's farm, north edge of, 500 feet south of timber, nail in 12-inch pecan tree which stands alone in field; marked " 265.8 "
International \& Great Northern R. R. bridge over Brazos River, 2.1 miles southeast of, nail in root of large pecan slanting toward hill at south edge of clearing, 300 feet north of edge of thicket; marked " 270.7 ".
268.15
International \& Great Northern R. R. bridge over Brazos River, 1.5 miles southeast of, about 800 feet north of large bayou, 300 feet west of cabin on hill, 300 feet south of timber; 28 -inch oak tree; iron post stamped "Prim. Trav. Sta. No. 78-A 299.48".
263. 34
296.870
International \& Great Northern R. R. bridge, 0.9 mile southeast of, on Frank Thomas's place, near fence at north edge of cotton field, about 800 feet southwest of house; nail in root of 36 -inch oak marked " 302.8 ".
International \& Great Northern R. R. bridge, 0.5 mile southeast of, on small ridge, nail in root of 14 -inch pecan tree.
300.14
305.00
From Valley Junction west along International \& Great Northern R. R. 1.7 miles, thence north to Port Sullivan.
Valley Junction, at southeast corner of crossing of International \& Great Northern R. R., iron post stamped "Prim. Trav. Sta. 75 A 274"
277. 372
Valley Junction, 1.7 miles west of, top of south end of western concrete retaining wall for bridge " 95 C " on International \& Great Northern R. R.; aluminum tablet stamped "Prim. Trav. Sta. No. 77 A 288"....
Little River, 0.2 mile south of, 0.3 mile from mouth on bank of timbered slough 300 feet wide, which bears S. 60 degrees W. of open field on south of post and north of slough; iron post stamped "Prim. Trav. Sta. No. 25 Texas 1910273 "
270.278
301.030

From Port Sullivan north along west side of river to Wildeat Bridge and across river to milepost 109.
Port Sullivan, 1,500 feet north of post office, 300 feet south of house, copper nail in large oak tree on river bank
283. 61

Port Sullivan, 0.8 mile north of, copper nail in pecan tree 500 feet from river bank in open field
275.95

Port Sullivan, 1.4 miles north of, in open field, 2 feet north of wire fence, 225 feet from river, on land owned by John Livingston (colored); iron post stamped "Prim. Trav. Sta. No. 26 Texas 1910281 "
280. 407

Port Sullivan, 2 miles north of, in open field and 300 feet west of timber; nail in pecan tree
281.38

Port Sullivan, 2.3 miles north of, on knoll among scattering timber, copper nail in hackberry tree
304.65

Wildcat Bridge, 3 miles south of, 550 feet south of bank of Brazos River, on sloping ground at edge of timber line; iron post stamped "Prim. Trav. Sta. No. 27, Texas 1910, $311 "$
Wildcat Bridge, 2 miles south of, copper nail in large pecan tree in open field.
Wildcat Bridge, 0.9 mile south of, about 0.5 mile west of river bank, at edge of timber, 5 feet south of wire fence, on land owned by Mr. Martin; iron post stamped "Prim. Trav. Sta. No. 28 Texas 1910, 322".
Wildcat Bridge, 0.5 mile south of, in open field, 300 feet west of river, 300feet from wooded rising ground, copper nail in root of pecan tree; painted"U.S.B.M. 293"
Feet. 292.99
Wildcat Bridge, 8 feet from southeast corner of, in top of concrete wing wall; aluminum tablet stamped "Prim. Trav. Sta. No. 29, 288"
287.388
Calvert Junction, about 1 mile south of, 5 feet north of milepost 109, 30 feet west of railroad; iron post stamped "Prim. Trav. Sta. No. 102 A".
286.168

## From Wildcat Bridge north along west side of river to Black Bridge and across river to milepost 113.

Wildcat Bridge, 0.5 mile north of, 800 feet west of river; copper nail in root of small pecan tree in grade in cultivated field; painted "U.S.B.M. 291".
290. 54

## Wildcat Bridge, 1 mile north of, in cultivated field, about 600 feet west of river, copper nail in root of pecan tree; painted "U.S.B.M. 286".

Wildcat Bridge, 1.5 miles northwest of, in open field about 400 feet west of river bank; copper nail in root of brushy cedar tree; painted "U.S.B.M. P.T. Sta. 85 "
296.26
Wildcat Bridge, 2 miles north of, opposite Calvert coal mine on other side
of river, at edge of timber and open field, 2,000 feet west of river; iron
post stamped "Prim. Trav. Sta. No. 30, 308 "............................. 308.058
Wildcat Bridge, 2.5 miles north of, 100 feet southeast of dry ravine, nail in root of hackberry tree on bank of river; painted "No. 19 P.T. 92 ".....
Wildcat Bridge, 3.2 miles north of, 300 feet west of river, at fence line between open fields; copper nail in root of small pecan tree.
290.11
Black Bridge, 1.2 miles south of, copper nail in oak tree on river bank at edge of timber.
297.36
Black Bridge, 0.5 mile west of Calvert, in top, north side of west pier; aluminum tablet stamped "Prim. Trav. Sta. No. 31, 300"

Valley Junction, 2.2 miles north of, 30 feet east of International \& Great Northern R. R. track, 900 feet south of public road crossing, 200 feet south of milepost 103; iron post stamped " 275 ".
278.210

International \& Great Northern R. R., 1 mile west of, north margin of public road, opposite negro house, copper nail in root of bois d'arc tree; painted " 276 ".
275.375

Port Sullivan, 50 feet east of east end of Brazos River bridge, south side of road, copper nail in root of pecan tree; painted " 277 No. 2 "
276.23

Port Sullivan, about 0.6 mile west of Brazos River bridge, on land belonging to Mr. Harlan, at south fence line of private road opposite small shanty, in clump of trees; iron post stamped "Prim. Trav. Sta. No. 1, 302 ".
Port Sullivan, 1.1 miles west of, 150 feet east of farm road, on bench above flood plain, copper nail in root of pecan tree in open field; painted " 289 No. 3".
288.96
284.84

Port Sullivan, 2.1 miles west of, 50 feet south of fence line, 200 feet west of negro house on Mr. Harlan's land, close to edge of flood plain, copper nail in root of oak tree; painted " 288 No. 5 ".
Port Sullivan, 2.6 miles west of, 150 feet northwest of fence line and vacant shanty, copper nail in root of post oak tree in pasture; painted " 287 No. 6"
286.05

Port Sullivan, 2.8 miles west of, on land of Rufus Smith, in wooded pasture, bench above flood plain, 75 feet south of gate, 350 feet south of house, 15 feet northeast of painted post oak tree; iron post stamped "Prim. Trav. Sta. No. 2,291"

Feet.
290.309

Port Sullivan, 3.2 miles west of, on land of Rufus Smith, in wooded pasture, about 200 feet west of negro house, 100 feet east of wire fence, copper nail in root of blackjack oak; painted " 287 No. 7 ".
Port Sullivan, 3.7 miles west of, farm road leading west, in flood plain, 100 feet west of gate, in fence line on north side of road, copper nail in root of pecan tree; painted " 277 No. 8 ".
276.49

Port Sullivan, 4.1 miles west of, dead trees around, copper nail in root of pecan tree in field; painted " 278 No. 9 ".
277.07

Port Sullivan, 4.5 miles west of, 0.5 mile east of public road leading across Little River, copper nail in root of lone large pecan tree in open field; painted " 279 No. 10 ".
278.69

Cliff Tyson's house, 0.5 mile south of, public road crossing Little River, west side of road, 5 feet inside of wire fence and 5 feet from a corner fence post, negro house across road; iron post stamped "Prim. Trav. Sta. No. 3, 281 ".
280.003

Tyson's house, 0.9 mile southwest of, public road crossing Little River, 0.4 mile west of, 75 feet east of deep slough, copper nail in root of pecan tree (one of group); painted " 283 No. 11 ".
282. 55

Tyson's house, 1.4 miles southwest of, 0.5 mile west of deep slough, copper nail in root of lone pecan tree in field; painted " 283 No. 12 ".
282.89

Tyson's house, 2.3 miles southwest of, vacant shanty near bank of Little River, about 100 feet west by 100 feet south of well, at fence line, copper nail in root of pecan tree; painted " 286 No. 13 "
285. 63

Tyson's house, 2.8 miles southwest of, about 200 feet east of Little River, in open field, copper nail in root of large mulberry tree; painted "296 No. 14 ".
295. 73
297. 135

Cameron, 16.3 miles east of, in partly cleared bottom land, brush and woods on south, cleared on north, just south of farm roadway, copper nail in root of elm tree; painted " 288 No. 15 ".
Cameron, $\mathbf{1 6 . 1}$ miles east of, large cotton field on south and west, brush and timber on northeast, at right-angle corner of timber, edge of farm road, copper nail in root of pecan tree; painted " 287 No. 16 ".
286.93

Cameron, 15.3 miles east of, in brush and wooded area partly cleared, 100 feet west of wire fence, copper nail in root of elm tree; painted " 28817 ".
Cameron, 14.8 miles east of, at south edge of drainage ditch, copper nail in root of lone elm tree; painted " 287 No. 18 ".
287.87
286.47

Cameron, 14.4 miles east of, on sandy knoll about 20 feet higher than bottom lands and extending out into bottoms, 10 feet north of walnut tree, 90 feet east of negro house; iron post stamped "Prim. Trav. Sta. No. 5, 307".
Cameron, 13.6 miles east of, in edge of woods, 90 feet west of fence line and 25 feet south of fence line, open fields east and north, copper nail in root of large cottonwood tree; painted " 292 No. 19 "
290.97

Cameron, 13.3 miles east of, 36 feet west of wire fence, in small
grove between open fields, copper nail in root of 15 -inch elm tree; painted
" 293 No. 20 ". .................................................................................................292. 61

Cameron, 12.6 miles east of, in open field, 2,000 feet south of house with windmill on bluff, 400 feet west of fence line, copper nail in root of large lone persimmon tree 30 inches in diameter; painted " 296 No. 21 ".......
Cameron, $\mathbf{1 2 . 2}$ miles east of, at fence line between two pastures, 8 feet east of 20 -inch sycamore tree, about 1,000 feet south of low fringe of hills, about 2,000 feet southwest of house with windmill, 350 feet east of water course; iron post stamped "Prim. Trav. Sta. No. 6, 299"

Feet.
295. 28

Cameron, 11.4 miles east of, copper nail in root of large lone pecan tree in field; painted " 301 No. 22 ".
298.599

Cameron, 10.4 miles east of, at edge of hill and 90 feet north of Little River, copper nail in root of 24 -inch oak tree; painted " 307 No. 23 ".............
300.85

Cameron, 10.1 miles east of, on bench land 30 feet above bottom lands, scattering timber and mesquite bushes, 1,000 feet east of bottom land, copper nail in root of leaning mesquite bush near primary traverse station No. 59; painted " 333 No. 24 ".
332. 25

Cameron, 9.6 miles east of, just above edge of bottom lands, in timbered pasture, copper nail in root of 20 -inch oak tree; painted " 309 No. 25 "....
Cameron, 9.1 miles east of, about 12 feet above bottom land, at fence line, 15 feet east of lone elm tree, 400 feet south of house occupied by a Mr . Henson, at wire gate; iron post stamped "Prim. Trav. Sta. No. 7, 311 "...
Cameron, 8.5 miles east of, about 500 feet west of a house, copper nail in root of lone elm tree at fence line between two pastures; painted " 318 No. 26 "
308.93
310. 085

Cameron, 7.8 miles east of, at edge of woods and bottom lands, 100 feet north of a well and 300 feet from a house, copper nail in root of pecan tree; painted " 319 No. 27 ".
318.44

Cameron, 7.3 miles east of, in strip of timber, 60 feet west of stream from north, copper nail in root of 24 -inch pecan tree; painted " 313 No. 28 "...
Cameron, 6.8 miles east of, on south side of creek, in strip of timber 1,000 feet wide, copper nail in root of 15 -inch elm tree; painted " 30529 "
Cameron, 5.9 miles east of, on south margin of east-west road, 10 feet east of an elm tree 15 inches in diameter, blazed and marked, 50 feet east of boundary fence between pasture and open field; iron post stamped "Prim. Trav. Sta. No. 8, 306 "
305. 555

Cameron, 5.6 miles east of, 8 feet east of north-south wire fence, edge of woods, open land toward river, copper nail in root of double elm tree; painted " 306 No. 30 ".
305. 60

Cameron, 5 miles east of, edge of woods running north-south, at fence line, copper nail in root of elm tree; painted " 309 No. 31 ".
308.01

Cameron, 4.5 miles east of, Cameron-Hearne highway at crossing of Elm Creek, under elm tree, 4 feet west of same, 25 feet west of bank of creek, 225 feet north of northeast corner of bridge; iron post stamped "Prim. Trav. Sta. No. 9, 308 ".
307. 230

Cameron, 3.9 miles east of, west side of edge of timber and cultivated land, 4 feet east of wire fence, 1,200 feet west of house on hill, copper nail in root of elm tree on Elm Creek; painted " 310 No. 32 ".
309. 58

Cameron, 3.2 miles east of, west side of Elm Creek, 50 feet north of fence line and 500 feet south of small creek, copper nail in root of elm tree; painted " 307 No. 33 ",
306.53

Cameron, 2.5 miles east of, on narrow point of land running out into bottom lands, 100 feet west of Little River, 55 feet southeast of W. K. Hawkins's house, copper nail in root of oak tree in barnyard; painted " 328 No. 34 ".

Cameron, 1.9 miles east of, on bench land about 40 feet above river bottom and 150 feet north of, at wire fence line, copper nail in root of hackberry tree; painted " 350 No. 35 "

Feet.
349.02

Cameron, 0.7 mile east of, 1.2 miles northeast of Gulf, Colorado \& Santa Fe Ry. track, at wire fence line between fields, 50 feet southwest of large lone cottonwood tree, 2,000 feet east of sloping ground at edge of bottom land, tree blazed and painted; iron post stamped "Prim. Trav. Sta. No, 10310 "
Cameron, 0.3 mile east of, about 3,000 feet north of Gulf, Colorado \& Santa Fe Ry. track, at fence line, on north margin of east-west road (farm), private telephone line along road, copper nail in root of large cottonwood tree; painted " 311 No. 36 "
309.408

Cameron, 0.4 mile southwest of, about 800 feet east of Gulf, Colorado \& Santa Fe Ry. track, about 6 feet above bottom lands, near wire fence line and row of scattering trees, copper nail in root of hackberry tree; painted " 319 No. 37 "
318. 88

Cameron, 1 mile south of, on road leading across Little River, 80 feet north of cemetery, copper nail in root of oak tree; painted " 336 No. 38 ".
335.96

Cameron, about 1.2 miles southwest of, in center of Cameron-Rockdale road, 250 feet south of highland, 120 feet south of small road culvert; iron post stamped "Prim. Trav. Sta. No. 11, 313 "
312.714

Cameron pumping station, 175 feet north of plant and 100 feet west of road from Cameron to plant, copper nail in root of large cottonwood tree; painted " 315 No. 39 "
314.73

Cameron, 1.2 miles south by 1.2 miles west of, at fence line between two open cultivated fields, about 500 feet north of timbered land, in root of lone elm tree; copper nail painted " 318 No. 40 "
316. 98

Cameron 1.5 miles southwest of, in open field, 100 feet east of wire fence, copper nail in root of lone hackberry tree; painted " 319 No. 41 ".
318. 45

Cameron, 2 miles southwest of, 0.2 mile east of San Antonio \& Aransas Pass Ry., on edge of gully, copper nail in root of elm tree; painted " 314 No. 41 "
Cameron, 2.5 miles southwest of San Antonio \& Aransas Pass Ry. Bridge 232.9 over Little River, 35 feet east of north end of trestle, 245 feet north end of iron bridge, 250 feet north of river, at milepost "Houston 233;" iron post stamped "Prim. Trav. Sta. No. 12, 324".
Cameron, 3.1 miles southwest of, in timbered pasture about 50 feet east of private pasture road and 300 feet west of Little River, copper nail about 25 feet above bottom lands in root of large post oak tree; painted " 341 No. 42 "
313.217

Cameron, 3.6 miles southwest of, on west bank of watercourse, 10 feet east of wire fence, copper nail in root of ash tree in open field; painted " 315 No. 43 "

## TAYLOR QUADRANGLE.

[Latitude $30^{\circ} 30^{\circ}-31^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\circ}$.]
From point 3.6 miles southwest of Cameron northwest along highway up Little Rivor to Little River station.
Cameron, 4.2 miles southwest of, in timbered pasture covered with mesquite bushes, in root of leaning mesquite tree, copper nail; painted " 323 No. $44^{\prime \prime}$
Cameron, 4.8 miles southwest of, at cross of two fences and joining point of two timbered pastures and two open cultivated fields, copper nail in root of tree at fence line; painted " 326 No. 45 "

Cameron, 5.4 miles southwest of, between timbered pasture and large open cultivated field, 8 feet north of wire fence, copper nail in root of elm tree; painted " 323 No. 46 "

Feet.
Tompkins convict farm, at end of long strip of timber about 0.8 mile east of convict quarters, 3 feet west of wire fence between pasture and open field, large cleared field to west and south; iron post stamped "Prim. Trav. Sta. No. 13, 328 "
327.535

Tompkins convict farm, about 1,000 feet southwest of convict quarters, 75 feet south of wire fence, in large open cultivated field, copper nail in root of large lone oak tree; painted " 330 No. 47 "
Tompkins convict farm, 0.4 mile west of quarters, in water course in small pasture, about 300 feet west of house on hill and 20 feet west of wire fence, copper nail in root of ash tree; painted " 325 No. 48 ".
324.10

Tompkins convict farm, $\mathbf{1 . 1}$ miles west of quarters, at fence line between two large cleared cultivated fields, copper nail in root of small elm tree; painted " 334 No. 49 "
Tompkins convict farm, 1.8 miles west of quarters, west margin of CameronThorndale road, beside wire fence, 85 feet north of small wooden road bridge, 80 feet north of lone double elm tree on east side of road; iron post stamped "Prim. Trav. Sta. No. 14 336"
Tompkins convict farm, 2 miles west of quarters, in an open cultivated field about 500 feet north of timbered land, copper nail in root of lone double elm tree about 800 feet west of public road; painted " 338 No. 50 "......
Tompkins convict farm, 2.5 miles west of quarters, on east margin of private field road, in open cultivated field, copper nail in root of large lone forked elm tree; painted " 338 No. 51 ".
337.12

Tompkins convict farm, 3.1 miles west of quarters, in timbered pasture 30 feet south of wire separating pasture from open field, 125 feet east of negro house, copper nail in root of hackberry tree; painted " 353 No. 52 ".
Tompkins convict. farm, 4.5 miles west of quarters, in mesquite pasture on south side of cattle lane, 10 feet from wire fence, copper nail in root of small oak tree; painted " 399 No. 53 "
398.19

Tompkins convict farm, 5 miles west of quarters, on elevated piece of ground in timbered pasture, copper nail in root of large oak tree; painted " 394 No. 54 "
Tompkins convict farm, 5.6 miles west of quarters, between two open fields on a sloping hillside about 70 feet from large spreading live oak tree, copper nail in root of elm tree; painted " 374 No. 55 "
373.62

Tompkins convict farm, 5.9 miles west of quarters, in timbered pasture, copper nail in root of oak tree, 20 -foot rise just west; painted " 352 No. 56 "
351.10

Tompkins convict farm, 6.8 miles west of quarters, in timbered pasture on north bank of dry watercourse (Haw Creek), 'about 300 feet from Little River; copper nail in root of large oak stump, painted " 346 No. 57 "...
Haw Creek, 400 feet north of, 600 feet northwest of river, at fence line between pasture and open cultivated fields, 80 feet south of junction of fence lines, 10 feet south of large hackberry tree, blazed and marked; iron post stamped "Prim. Trav. Sta. No. 16, 350"
345.96

Haw Creek, 0.5 mile northwest of, about 0.3 mile east of Rockdale-Cameron public road, in open cultivated field, 5 feet south of private field road, copper nail in root of large lone elm tree; painted " 349 No. 58 "
348.90

Haw Creek, 0.8 mile northwest of, on west side of Rockdale-Cameron public road, about 0.5 to 0.8 mile from Little River, at fence line, copper nail in root of large lone pecan tree; painted " 355 No. 59 ".
354.70

Haw Creek, 1.8 miles northwest of, between Cameron-Rockdale and Cummings Bridge roads; in timbered pasture about 100 feet south of dry watercourse, copper nail in root of large oak tree; painted " 362 No. 61 "......
Haw Creek, 2.4 miles northwest of, between Rockdale-Cameron and Cummings Bridge public roads, on north bank of watercourse, 8 feet south of wire fence, copper nail in root of elm tree; painted " 362 No. 62 ".

Feet.
361.57
361.62

Haw Creek, 2.8 miles northwest of, about 0.2 mile east of Cummings Bridge road, 200 feet south of a series of low hills, on east bank of slough, in open cultivated field, 8 feet east of wire fence; iron post stamped "Prim. Trav. Sta. No. 17, 362 "
361.085

Haw Creek, 3.3 miles northwest of, about 800 feet north of Cummings Bridge road, in center of large open cultivated field, copper nail in root of lone elm tree; painted " 365 No. 63 "
Haw Creek, 3.7 miles northwest of, about 3,000 feet from Cummings Bridge road, in timbered pasture on west bank of slough and 75 feet east of wire fence, in open cultivated field, copper nail in root of a leaning elm tree; painted " 360 No. 64 ".
359.616

Haw Creek, 4.1 miles northwest of, at fence line between pasture and open field, copper nail in root of hackberry tree; painted " 366 No. 65 "
365.883

Haw Creek, 4.8 miles northwest of, in narrow neck of woods extending out into an open cultivated field, copper nail in root of elm tree; painted " 369 No. 66 ".
368.612

Haw Creek, 5.2 miles northwest of, on land of J. M. Coreley, about 0.5 mile northwest of Coreley's house, at end of narrow neck of woods, large cultivated field to north, 250 feet east of slough; iron post stamped "Prim. Trav. Sta. No. 18, 372 ".
Buckholtz, about 6 miles south of station, in large open cultivated field, about 1,000 feet west of fringe of low hills, 0.2 mile southwest of house on hill, 40 feet northeast of tree blazed and marked, copper nail in stump of a small double willow tree; painted " 378 No. 67 ".
777.600

Bryant Bridge, 0.9 mile southeast of, in timbered pasture, about 500 feet south of low fringe of hills on north bank of slough, 10 feet south of a wire fence, copper nail in root of willow tree; painted " 379 No. 68 ".
378.202

Bryant Bridge, 600 feet north of, 85 feet west of road to station, at east fence line, at edge of wooded land, 0.1 mile northeast of river; iron post stamped "Prim. Trav. Sta. No. 19, 431"
Bryant Bridge, about 2,500 feet west of crossroad to, on property of Mr . Guschback, about 300 feet east of house, in timbered pasture, 15 feet east of wire fence between pastures, copper nail in root of elm tree; painted " 425 No. 69 ".
Bryant Bridge, 1.2 miles northwest of, at fence line between pasture and open cultivated field, about 50 feet east of joining of pasture with another field, copper nail in root of large elm tree; painted " 389 No. 70 "
Bryant Bridge, 1.8 miles northwest of, in open cultivated field in cluster of four large oak trees, copper nail in root of large leaning oak tree; painted " 390 No. 71 ".
Bryant Bridge, 2.6 miles northwest of, at fence line between two timbered pastures, 20 feet north of private pasture road, 25 feet east of cleared fields of Frank A. Cox, near tree blazed and marked; iron post stamped "392 Prim. Trav. Sta. No. $20^{\prime \prime}$
391.811

Bryant Bridge, 3.2 miles northwest of, on property of Mr. Clarey, next to land of Mrs. Nichols, 12 feet south of narrow lane, 90 feet southeast of well, 500 feet east of house on hill; lane runs between open cultivated field and pasture and is used mostly as a cattle lane to river; copper nail in root of large elm tree; painted " 397 No. 72 ".

Bryant Bridge, 3.9 miles northwest of, on left bank of Little River, on west margin of Rogers-Davala public road, 5 to 6 miles from Rogers, 0.1 mile north of road bridge across river, very deep, dry watercourse about 200 feet to north, woods to west, open field to east, copper nail in root of leaning ash tree; painted " 402 No. 73 "

Feet.
401.131

Bryant Bridge, 4.5 miles northwest of, 150 feet north of Little River, at foot of hill, 200 feet southeast of open cultivated fields, in timbered bottom land, copper nail in root of leaning ash tree; painted "401 No. 74 "......
Bryant Bridge, 4.8 miles northwest of, between two open cultivated fields, on east bank of dry watercourse, copper nail in root of large elm tree; painted " 402 No. 75 "
400.90

Bryant Bridge, 6 miles northwest of, at wire fence line between timbered pasture and open cultivated field, in southwest corner of field, about 600 feet east of river, 6 feet northeast of tree marked and blazed; iron post stamped "Prim. Trav. Sta. No. 21, 405 ".
Bryant Bridge, 6.4 miles northwest of, in heavily timbered pasture, about 175 feet west of corner of open field, copper nail in root of large leaning elm tree; painted " 405 No. 76 ".
Bryant Bridge, 7.5 miles northwest of, in small timbered pasture, 20 feet east of bank of Little River, 200 feet west of rising ground, midway between two wire fences about 200 feet apart, open fields to north, copper nail in root of large oak tree; painted " 410 No. 77 ".
409.400

Bryant Bridge, 8.2 miles northwest of, in timbered pasture 100 feet north of Little River, copper nail in root of large elm tree; painted " 413 No. 78 "
Bryant Bridge, 8.7 miles northwest of, at private farm road through bottoms near river running north-south, about 30 feet east of river bank, at a board gate, copper nail in root of hackberry tree; painted " 415 No. 79 "..
Bryant Bridge, 9.4 miles northwest of, where timbered land runs out in small neck into open fields, open cultivated fields to north and south, 30 feet north of wire fence, copper nail in root of double hackberry tree; painted " 413 No. 80 ".
Reid bottom, in large open cultivated field, about 800 feet west of house occupied by W. H. Harris, 1,000 feet south of timber, from 0.5 mile to 1 mile east of river, 8 feet northeast of large lone cottonwood tree, 10 feet south of private field road; iron post stamped "Prim. Trav. Sta. No. 22, 413 ".
412.63
413.98
412.27

Reid bottom, 800 feet west of house occupied by Will Harris, 1,000 feet south of timber, 0.5 mile east of Little River, 1,000 feet west of rising ground, in open cultivated field, 10 feet south of private farm road through fields, copper nail in root of large double cottonwood tree; painted " 412 No. 81 ".
411.432

Burgess, 2 miles south of, in hedge of trees between two open fields, on east margin of field road, 25 feet west of wire fence, old sunken road to east, copper nail in root of hackberry tree; painted " 419 No. 82 ".
418.06

Burgess, 1.5 miles south of, in open field in bottom of dry watercourse, 50 feet north of private farm road through field, copper nail in root of hackberry tree; painted " 419 No. 83 ".
418.86

Burgess, 0.8 mile south of, in large open cultivated field, copper nail in root of pecan tree; painted " 426 No. 84 ".
425.21

Burgess (Reids Lake), 425 feet east of wire river bridge, 450 feet northeast of post office, 200 feet north of Reids Lake, 36 feet east of dry watercourse, 8 feet east of blazed and marked tree; iron post stamped "Prim. Trav. Sta. No. 23, 430"
Nots.-The line here crosses Little River to the southwest side.
Burgess, wagon bridge over Little River; elevation of center (water surface ..... 434.89
Burgess, 3,200 feet west of, on brushy tree line between two large open cul- tivated fields on east margin of private field road running north-south; copper nail in root of hackberry tree, painted " 432 No. 85 " ..... 430.69
Burgess, 1.2 miles west of, in wooded pasture, 50 feet east of wire fence; copper nail in root of hackberry tree, painted " 434 N э. 86 " ..... 432.39
Burgess, 2 miles west of, on property of Hugh Cole, 400 feet west of house, 15 feet north of wire fence, sloping hillside, in narrow strip of timber; copper nail in root of oak tree, painted " 467 No. 87 " ..... 465. 53
Little River, 2.4 miles south of station, Missouri, Kansas \& Texas Ry. bridge over Little River, in southeast pier of bridge 889.8; aluminum tablet stamped " 449 No. 24 Prim. Trav. Sta.". ..... 447. 156
Little River, 0.4 mile south of station, on Missouri, Kansas \& Texas Ry. tracks, at telephone post, 1 post south of milepost No. 888; spike in post about 1 foot above surface of ground, painted " 489 No. 89 " ..... 487.93
Little River, Missouri, Kansas \& Texas Ry. station, 6.8 miles south of Temple, in front of station; top of rail. ..... 502.0
Little River, 855 feet north of station, on Missouri, Kansas \& Texas Ry., east side of track, 4 feet west of wire fence, within right of way, 42 feet north of telegraph pole, 108 feet south of wooded pasture; iron post stamped " 504 No. 25 " ..... 503.512
MARLIN QUADRANGLE.
[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]
From milepost 114 north along International \& Great Northern R. R. and highway on east side of Brazos River to point 10.4 miles southeast of Waco.
Milepost 115, 40 feet west of track, 10 feet west of pole; iron post stamped "29163 Prim. Trav. Sta. 105 A" ..... 294.712
Milepost 116, 330 feet south of, north bent on west side of railroad trestle 204; top of spike painted " 294107 " ..... 297.320
Railroad bridge 206, north end, west side; top of abutment, stone painted "'295 108" ..... 298.818
Milepost 117, 3 feet east of, 25 feet west of track; iron post stamped "Prim. Trav. Sta. 106 A 299, 64" ..... 302.616
Milepost 118; spike painted ' 303110 ". ..... 306. 44
Milepost 119, 10 feet west by 4 feet south of, 40 feet west of track; iron post stamped "Prim. Trav. Sta. 107 A 294, 65 " ..... 297. 189
Milepost 120; spike painted " 305113 " ..... 308. 22
Bufkin, 1 mile north of, 4 feet north of milepost 121, 40 feet west of track; iron post stamped "Prim. Trav. Sta. 108 A 301, 66" ..... 304.829
Milepost 122; spike painted " 302 116". ..... 305. 09
Bufkin, 3 miles north of, 13 feet southwest of Falls-Robertson county-line post, 4 feet north of milepost 123; iron post stamped "Prim. Trav. Sta. 109 A 30367 ". ..... 306. 911
Milepost 124; spike painted " 304 119" ..... 307. 65
Milepost 125, 4 feet north of, 30 feet west of track; iron post stamped "Prim. Trav. Sta. 110 A 309, 68". ..... 312.082
Milepost 126, in base of; spike painted ' 310 122" ..... 313.54
Milepost 127, 3 feet east of, 25 feet north of track; iron post stamped "Prim. Trav. Sta. 111 A 315, 69 " ..... 318.636
Highbank, in front of station; top of rail. ..... 323.59
Trestle 224, north end, east side, 450 feet north of station, in top of bent; spike painted " 319 126". ..... 322.319
Highbank, 1 mile north of, 4 feet north of milepost 129, 30 feet north of

Feet.track; iron post stamped "Prim. Trav. Sta. 112 A 319, 70"
322.778
Highbank, 3 miles north of, 4 feet north of milepost 131,30 feet west of track; iron post stamped "Prim. Trav. Sta. 113 A 320, 71 ". ..... 323.515
Highbank, 5 miles north of, 4 feet north of milepost 133, 30 feet west of track; iron post stamped " 33172 Prim. Trav. Sta. 114 A" ..... 334.887
Highbank, 6 miles north of, in milepost 134; spike painted " 327134 ". ..... 330.25
Highbank, 7 miles north of, 4 feet south of milepost $135 ; 30$ feet west of track; iron post stamped " 32773 Prim. Trav. Sta. No. 115A" ..... 330.631
Highbank, 9 miles north of, 4 feet north of milepost 137, 30 feet north of track; iron post stamped " 36474 Prim. Trav. Sta. 116A". ..... 367. 682
Highbank, 10 miles north of, in milepost 138; spike painted " 373140 ". ..... 376.61
Marlin, Falls County courthouse, east entrance; aluminum tablet stamped "Prim. Trav. Sta. 117A 394, 75" ..... 397.998
Marlin, 0.5 mile west of, 200 feet east of road bridge, 25 feet south of road, spike in root of elm tree; painted " 342142 ". ..... 345. 797
Marlin, 1 mile west of, spike in root of mesquite tree on south side of road; painted " 337143 ". ..... 340.33
Marlin, 1.5 miles west of, spike in root of hackberry tree, north side of road; painted " 339 144". ..... 347.92
Marlin, 2 miles west of, 200 feet north of Elm Grove Church, 15 feet north of pecan tree, south side of road; iron post stamped ' 33976 Prim. Trav. Sta. 118A". ..... 342. 430
Marlin, 2.5 miles west of, northwest corner of road to north, spike in root of hackberry tree; painted " 339145 " ..... 342.47
Marlin, 4 miles west of, at southeast corner of John Tuyman's farm, at gate, iron post stamped "Prim. Trav. Sta. 119A 341, 77 " ..... 344. 392
Marlin, 3.5 miles north by 2 miles west of, at John Slaughter's house, south side of road, 12 feet north of house, 4 feet north of telegraph pole; iron post stamped "Prim. Trav. Sta. 120A 346, 78" ..... 350. 150
Marlin, 3 miles west of, on Rockdam road, spike in root of post-oak tree; painted" 366 154". ..... 369.32
Marlin, 3.5 miles west of, on Rockdam road, opposite African Methodist Episcopal Church, at road to north; iron post stamped "Prim. Trav. Sta. 121A 358, 79 " ..... 361.249
Marlin, 4 miles west of, spike in root of elm tree on north side of road; painted " 365155 " ..... 368.65
Marlin, 4.5 miles west of, on Rockdam road, spike in root of hackberry tree; painted " 345156 ". ..... 348.68
Rockdam Bridge, 720 feet east of, west edge of gully, spike in root of hack- berry tree; painted " 347157 " ..... 350.81
Rockdam Bridge over Brazos River, 1,670 feet north of, east side of river, east margin of road; iron post stamped " 353,80 Prim. Trav. Sta. 122A".. ..... 356. 665
Rockdam Bridge, 2.7 miles north of, 50 feet west of deserted house, 4 feetnorth of telegraph pole; iron poststamped " 357,81 Prim. Trav. Sta.123A"
360.28
Rising Sun Methodist Episcopal Church (negro), in front of, at margin of road; iron post stamped "Prim. Trav. Sta. 124A 388, 82 " ..... 391.858
Opposite ginhouse, west margin of road, in root of elm tree; spike painted " 376,164 ". ..... 380.05
Waco, 12.8 miles southeast of, on west side of road, 0.2 mile north of road toRiesel, at fence line; iron post stamped " 414,83 Prim. Trav. Sta. 125A". .Waco, 10.4 miles southeast of, on west margin of road, at fence line, underoak tree; iron post stamped "427, 84 Prim. Trav. Sta. 126A".417. 674430.83
From Black Bridge north along west side of river to Ellison's place, thence across river to milepost 124.
Calvert, about 3 miles northwest of milepost 113, International \& Great Northern R. R., 30 feet west of track 2 feet south of milepost; iron post stamped "Prim. Trav. Sta. 104A 295".

Feet.

298.119
Calvert, 0.5 mile west of, at Black Bridge, top of north side of west pier;aluminum tablet stamped "Prim. Trav. Sta. No. 31, 300"299.421
Black Bridge, 3,000 feet north of, between 300 and 500 feet west of river bank in timbered pasture, in root of oak tree; copper nail stamped "U.S.B.M. 309". ..... 309.18
Black Bridge, 1 mile north of, 75 feet west of bank of river, at edge of open field and timber; nail in root of small elm ..... 296.86
Black Bridge, 2.5 miles north of, in open field, near fence, about 600 feet west of river; iron post stamped "Prim. Trav. Sta. 32, 299". ..... 298.812
Pond Creek, 500 feet north of, in open field, nail in pecan tree; marked "301.7" ..... 301.55
Black Bridge, 5.2 miles north of, west edge of river bottom, foot of small hill, near fence; iron post stamped "Prim. Trav. Sta. No. 33, 305". ..... 304.393
Black Bridge, 6.9 miles north of, at fence line separating two fields of Molly Bailey, about 500 feet from river, 400 feet south of bayou, in old cornfield; iron post stamped "Prim. Trav. Sta. 34, 320" ..... 320.257
Black Bridge, 6.9 miles north of, Molly Bailey's place, just south of largebayou about 1,000 feet from river, copper nail in root of 12 -inch pecan tree;marked " 315 "
Forks of bayou, about 300 feet from river, 400 feet southeast of desertedcabin, copper nail in 18 -inch chinaberry tree; marked " 320 "314.77
Highbank Bridge, 4 miles south of, on Richard Ellison's place, about 5 miles east of house, 600 feet north of road leading to river from house, on point of high land, at gate in fence; iron post stamped "Prim. Trav. Sta. No. 35,632 " ..... 326.123
From Ellison's place north along west side of river to Highbank Bridge and across bridge to station.
Highbank Bridge, 2 miles south of, 75 feet east of fence corner, south of lanethat leads from high lands to river; iron post stamped "Prim. Trav. Sta.No. 36, 324"323.353
Highbank Bridge, 1 mile south of, at north edge of timber, in fence line, copper nail in 12 -inch tree; marked " 319.4 ". ..... 318.30
Highbank Bridge, 925 feet southwest of, on northwest side of road, 2 feet from wire fence; iron post stamped "Prim. Trav. Sta. No. 37, 316 " ..... 315.447
Highbank, 1.4 miles west of, 0.5 mile east of bridge, in small grove of trees,on south side of Highbank-Rosebud road, copper nail in root of elm;marked with keel " 316.2 ".316.00
Highbank, 0.5 mile west of, 150 feet east of barn, in pasture on north side ofHighbank-Rosebud road, 20 feet from wire fence, copper nail in root oflarge pecan tree; marked " 320.9 "320.65
From point near Highbank Bridge along west side of river north to Marlin Bridge, thence east to point near Marlin.

Highbank, 2.2 miles west of, on north margin of Highbank-Rosebud road, 915 feet west of end of bridge over river; iron post stamped "Prim. Trav. Sta. No. 37, 315"

Highbank Bridge, 0.6 mile northwest of, 100 feet west of river bluff, between two cultivated fields, in lane; wire nail in root of elm tree.
Highbank Bridge, 1 mile northwest of, 200 feet west of river bank, in cleared field; wire nail in root of large ash tree.
Highbank Bridge, 1.7 miles northwest of, 100 feet from river, 600 feet east of rising ground, at edge of timber with cleared fields to south and west; wire nail in root of small leaning ash tree.
Highbank Bridge, 2 miles north of, in field between river and high land; nail in root of pecan tree.
318.567
325.533

Cedar Springs Bridge, 1.1 miles south of, at south end of lumber road; nail in root of 12 -inch hackberry tree which stands on edge of 5 -foot bank, marked " 321.9 "
321.65

## Cedar Springs Bridge, 0.5 mile south of, northeast side of wood road, 1,200 feet southeast of Y road; nail in root of 12 -inch elm, marked " 319.9 ".... <br> 319.64

Cedar Springs Bridge, 1,200 feet west of, on north side of Marlin road at fence line; iron post stamped "Prim. Trav. Sta. No. 39, 326"
325.219

Cedar Springs Bridge, 1.2 miles northwest of, on south edge of clearing about 300 feet north of Pond Creek; nail in root of 10 -inch oak, marked " 323.8 ".
Cedar Springs Bridge, 1.6 miles north of, north edge of clearing near fence line, nail in root of 20 -inch elm tree; marked " 327.8 "
323.57

Cedar Springs Bridge, 2.4 miles north of, 500 feet south of Jones's ranch, in
thicket, about 600 feet from river; iron post stamped "Prim. Trav. Sta.
40,329"

328.315

Ford over Brazos River at Marlin clubhouse, 0.3 mile south of, nail in root of 15 -inch elm which stands between two clusters of trees, about 1,200 feet from river; marked " 332.2 "
331.97

Ford at Marlin clubhouse, 0.2 mile northwest of, east side of road, 300 feet
southwest of angle, 387 feet southwest of river; iron post stamped "Prim.
Trav. Sta. No. 41, 335"

335.052

Ford at Marlin clubhouse, 1.2 miles north of, nail in root of 18 -inch pecan tree which stands alone at edge of highland; marked " 342.8 ".
342.54

Ford at Marlin clubhouse, 1.6 miles north of, nail in root of 24 -inch pecan
tree which stands alone in field about 300 feet west of timber; marked
" 340.4 ".

340.14

Ford at Marlin clubhouse, 2.2 miles north of, at north edge of clearing, 300
feet from deserted cabin; nail in root of elm tree marked " 340.9 "..... 340.60
Marlin Bridge, 1.6 miles south of, north side of wood road; nail in root of leaning ash tree, marked " 339.1 ".
338.77

Marlin Bridge, 1.2 miles south of, north edge of timber, in fence corner; iron
post stamped "Prim. Trav. Sta. No. 42,340 "................................... 340.367
Marlin Bridge, 0.6 mile south of, north bank of creek, nail in root of 30 -inch
pecan tree; marked " 344.4 ".................................................. 344.06
Marlin Bridge, 500 feet southwest of, 300 feet southwest of negro cabin; nail
in tree, marked " 344.1 "..................................................... 343.79
Marlin, 2.5 miles west of, at northwest corner of three corners, copper nail in root of hackberry tree; marked " 342.8 "
From Marlin Bridge north along west side of river to Rockdam Bridge.
Marlin Bridge, 0.4 mile north of, 300 feet north of negro cabin, 125 feet south- west of river, near fence line, between open field and timbered pasture;

Feet.iron post stamped "Prim. Trav. Sta. No. 43, 358"
357.403
Marlin Bridge, 1.1 miles north of, on high land in clearing, 600 feet south of deserted cabin, nail in root of dead pecan tree; marked " 381 " ..... 380.42
Cow Bayou, on south bank of, 900 feet east of wooden bridge over bayou; iron post stamped "Prim. Trav. Sta. No. 44, 347 " ..... 346.469
Cow Bayou, 0.4 mile north of, copper nail in root of 18 -inch elm in field; marked " 34.8 " ..... 346.04
Sawyer plantation, 0.4 mile southwest of house, at south edge of ditch, 400 feet east of road; copper nail in root of 6 -inch two-forked elm, marked " 346 " ..... 345.76
Sawyer plantation, 0.7 mile northeast of house, 100 feet south of fence corner on fence line; copper nail in root of 30 -inch oak ..... 349.88
Samples (J. M.) farm, southwest of Rockdam Bridge, at south edge of old lane, about 0.3 mile northeast of negro cabin, on highland; iron post stamped "Prim. Trav. Sta. No. 45, 348.6 " ..... 347.627
Rockdam Bridge, 2 miles west of, 300 feet north of public road, copper nail in root of 18 -inch elm; marked " 347.136 " ..... 356.17
Rockdam, 2.7 miles west of, at north edge of lane, 300 feet east of cabin, to south of lane, copper nail in root of 30 -inch elm; marked " 360 " ..... 359.93
Rockdam Bridge, 1.8 miles west of, on west side of road, where it angles east; iron post stamped "Prim. Trav. Sta. No. 46, 361" ..... 360.965
TEMPLE QUADRANGLE.
[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$ ].
From point near Rockdam Bridge north along west side of river to point 5 miles south of Waco.
Rockdam Bridge, 3.2 miles west of, 0.5 mile north of lane in field about 800feet east of timber line, copper nail in root of lone pecan; marked " 356 ". .355.65
Gurley's plantation, in field about 500 feet southeast of negro cabin, with red brick chimney; copper nail in root of 30 -inch pecan tree ..... 357.13
Gurley, 3,000 feet northeast of station, on Gurley's plantation, about 0.2 mile southeast of house, at lone cedar tree; iron post stamped "Prim. Trav. Sta. No. 47, 358" ..... 357.610
Gurley's plantation, 0.5 mile north of, copper nail in root of 15 -inch elm; marked " 359 " ..... 358.78
Gurley, on San Antonio \& Aransas Pass Ry., 1 mile north of, at junction of levee around Gurley plantation and railway, at south end of bridge " 275.6 ," spike in telegraph pole; marked " 367 " ..... 366. 93
Milepost 277, in base of, on San Antonio \& Aransas Pass Ry., spike; marked " 380 " ..... 379.97
Milepost 278, 29 feet north of, 5 feet from east right-of-way fence; iron post stamped " Prim. Trav. Sta. No. 49, 394 " ..... 394. 252
Milepost 279 , spike in post; marked " 382 " ..... 381.05
Downs, 0.5 mile south of, 150 feet south of road crossing, 3 feet from right of way, at milepost 280; iron post stamped "Prim. Trav. Sta. 50, 402"... ..... 400.354
Downs, 0.4 mile east of, nail in root of 12 -inch tree at edge of bottom; marked " 380 " ..... 378.44
Downs, 1 mile northeast of, in 15 -inch pecan tree in scattered timber, 300 feet south of road, 900 feet southeast of negro cabin, nail; marked " 376 ". ..... 375. 16
Downs, 1.5 miles northeast of, on south side of old lane, about 400 feet east of negro cabin; iron post stamped "Prim. Trav. Sta. No. 51, 380 " ..... 371.219
Downs, 2.2 miles northeast of, at fence line to north of road, copper nail in Feot.15-inch hackberry; marked " 379 "
Downs, 2.9 miles northeast of, on north bank of Flat Creek, copper nail in small elm tree; marked " 381 ". ..... 380.40
From Gurley north up west side of river to Downs.
Gurley's plantation, 0.5 mile north of; nail in root of 15 -inch elm tree. ..... 358.83
Gurley, about 1.2 miles north of, in large open field on west margin of a low depression, nail in root of lone pecan tree; marked " 368 P. T. 97 " ..... 367.26
Gurley, about 2.2 miles north of, at southeast corner of junction of $Y$ road; iron post stamped "Prim. Trav. Sta. No. 56, 367 " ..... 366.472
Gurley, about 3 miles north of, on property of Clif Torrence, in root of elm tree; copper nail marked "P. T. 99 elev. 366 " ..... 365.11
Gurley, about 3.5 miles north of, in open cultivated field, on property of Dr. Steiner, copper nail in root of lone pecan tree; marked "P. T. 101 elev. 374 " ..... 373.35
Gurley, about 4 miles north of, at wire fence near Bull Creek, about 400 feet northeast of tenant house and about 1,000 feet north of public road; iron post stamped "Prim. Trav. Sta. No. 57, 379 " ..... 378.978
Downs, 1.3 miles southeast of, in open field, about 40 feet south of a ditchwith brushy fringe in root side; copper nail in root of large lone pecantree.375. 19
Downs, 0.8 mile southeast of, in open field, copper nail in root of large lone pecan tree; marked "P. T. 103 Elev. 376 " ..... 375. 19
Downs store, about 0.5 mile east of, at edge of bottom land, copper nail in root of cottonwood tree; marked "P. T. 86 Elev. 380 " ..... 378.49
From point 3.6 miles southwest of Cameron northwest along highway up Little River to Little River station.
Temple, at crossing of Missouri, Kansas \& Texas Ry. and Gulf, Colorado \&Santa Fe Ry., 60 feet west of Missouri, Kansas \& Texas Ry. tracks and40 feet north of Gulf, Colorado \& Santa Fe Ry. track, halfway betweentelephone pole and its guy-wire pole in limestone post; bottom of squareholn (Coast and Geodetic Survey bench mark $\mathrm{L}_{4}$ ).673.404
WACO QUADRANGLE.
[Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From point 10.4 miles southeast of Waco along east side of Brazos River to Waco.
Waco, 8.3 miles southeast of, 1 mile south of Houston \& Texas Central R. R.,on road to Riesel, 200 feet north of gate; iron post stamped "Prim. Trav.Sta. 127A 421, 85 "425. 103
Waco, about 7.5 milessouth of, south bank of Shaw Creek, at fork in road, inroot of Spanish oak; spike painted "387 179"391.26
Waco, 6 miles southeast of, at southeast fence corner, 100 feet west of Hous-ton \& Texas Central R. R. trestle, 130 feet north of steel wagon bridge;iron post stamped " 374,86 Prim. Trav Sta. 128A"378.222
Waco, 4.7 miles southeast of, at fence line, 75 feet west of section house onHouston \& Texas Central R. R., east margin of road; iron post stamped"385, 87 Prim. Trav. Sta. 129A"388.520
Waco, 2.5 miles southeast of, 175 feet east of J. McGanghy's house, at gate,west margin of road; iron post stamped " 393,88 Prim. Trav. Sta. 130A".Waco, Missouri, Kansas \& Texas Ry. bridge over Brazos River, east end,north side, in top of abutment; aluminum tablet stamped "Prim. Trav.Sta. No. 131A 397, 89"396.461
396. 389

Waco, southeast corner of South First and Jackson streets, top of hydrant
Feet.
402.902

Waco, brick building on the southeast corner of South Third and Jackson streets, occupied by McCleary's feed store, 1.5 feet from southernmost window toward Missouri, Kansas \& Texas Ry. (Coast and Geodetic Survey bench mark $\mathrm{F}_{4}$ )
413.087

Waco, northwest corner of South Fifth and Jackson streets, in brick building occupied by bottling works, 10 inches below third window from front of building on side toward Missouri, Kansas \& Texas Ry. (Coast and Geodetic Survey bench mark $G_{4}$ )

From point 5 miles south of Waco along west side of river to Waco.
Waco, 5 miles southeast of, 600 feet southwest of red house, north side of lane, 18 inches from wire fence, in open field; iron post stamped "Prim. Trav. Sta. No. 52,386 "
384.854

Waco, 4.4 miles southeast of, 0.5 mile northeast of red house, 50 feet west of fence corner at north side of old lane, 600 feet south of lane through bottom, nail in root of 15 -inch elm tree; marked " 382 ".
381. 18

Waco, 4 miles southeast of, 400 feet northeast of edge of bottom land, 600 feet east of large barn, at north edge of field, about 0.2 mile east of main Waco road, near wire fence; iron post stamped "Prim. Trav. Sta. No. 53, 387 "
385.857

Waco, 3.5 miles southeast of, 75 feet north of creek; nail in root of small elm in field
390.85

Waco, 2.8 miles southeast of, 47 feet northeast of center of San Antonio \& Aransas Pass Ry., at north corner of main Waco road crossing, in corner of right-of-way fence; iron post stamped "Prim. Trav. Sta. No. 54, 403".
Waco, in north end east retaining wall for Missouri, Kansas \& Texas Ry. bridge; aluminum tablet
403. 214
396.389

Austin, Bandera, Bastrop, Blanco, Boerne, Burnet, Flatonia, Fredericksburg, Georgetown, Giddings, Halstead, Llano, New Braunfels, Sabinal, San Antonio Special, San Marcos, and Uvalde quadrangles and region adjacent to San Antonio special quadrangle.

ATASCOSA, BANDERA, BASTROP, BEXAR, BLANCO, BURNET, CALDWELL, COMAL, FAYETTE, frio, gonzales, guadalupe, hays, kendall, kerr, lavaca, lee, llano, mason, medina, san saba, travis, uvalde, williamson, wilson, and zavalla counties.
The elevations herein given are based on the corrected elevation of the city hall bench mark at San Antonio, now accepted as 653.212 feet above mean sea level, as determined from Coast and Geodetic Survey precise leveling.

The leveling in the several quadrangles was done by J. A. Hinman, Thomas Winsor, and M. S. Bright, between 1896 and 1901. Additional leveling in the San Marcos quadrangle was done by F. A. Nussle in 1906. The leveling by Hinman was done in the Austin, Bandera, Bastrop, Boerne, Flatonia, Halstead, New Braunfels, Sabinal, San Antonio Special, San Marcos, and Uvalde quadrangles in 1896 and 1897; that by Winsor in the Austin, Bastrop, Blanco, Fredericksburg, Georgetown, Giddings, and Llano quadrangles in 1897 and 1898; and that by Bright in the Boerne, Fredericksburg, and San Antonio special quadrangles in 1900 and 1901.

$$
25286^{\circ}-\text { Bull. } 637-16-5
$$

# AUSTIN QUADRANGLE. <br> [Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.] <br> From Kyle to McNeill along International \& Great Northern R. R. 


Bear Creek, International \& Great Northern R. R. bridge, 1 mile southwest of Manchaca, in east end of north rock pier; copper bolt stamped "U.S.G.S. 651 B. M."
Manchaca, in front of station; center of track.
Manchaca, in front of station; center of track..................................
Williamson Creek railroad bridge, 6 miles north of Manchaca and 5 miles south of Austin, top of east end of south rock pier; copper bolt stamped "U.S.G.S. 641 B. M.".
645. 175

Austin, highway bridge over Colorado River, in west end of south rock pier; copper bolt stamped "U. S. G. S. 476 B. M."

469. 956

Austin, second telegraph pole west of the Houston \& Texas Central R. R. freight depot, 5 feet west of; iron post stamped " 471 ".

Austin, in southwest corner of post office, facing Colorado Street; bronze
tablet stamped " 508 ".

502. 109

Duval, 2.75 miles south of, south side of Fiskville public road, 250 feet south of Amboy station, 22 feet west of track; iron post stamped " 758 SA"
749.977

Amboy, in front of station; top of rail..........................................
Duval, 100 feet north of switch head block, 42 feet west of track, 6 feet south of telegraph pole, top of flat limestone rock 15 inches in diameter; bronze tablet stamped " 797 SA ".
750.700

McNeil, 75 feet north of intersection of International \& Great Northern R. R. and Houston \& Texas Central R. R., 22 feet northeast of the latter's track, top of and near acute point of triangular limestone rock; bronze tablet stamped " $836 \mathrm{SA}^{\prime}$ ".
828. 401

From McNeil northwest along Houston \& Texas Central R. R., western division.
McNeil, 3.25 miles northwest of, west side of public road, 22 feet south of track, 500 feet east of section house; iron post stamped " 857 SA ".
849.150

From Elysium via Garfield and Creedmore to Manchaca.
Texas Hill triangulation station, 2.3 miles southwest of Elysium post office; rock marked "U. S. G. S.".
602. 590

Pilot Knob, 1 mile east of, 3.77 miles from Cedar Creek and Austin road, at intersection of Creedmore road with Luling and Austin road, in corner of fence; iron post stamped " 534 "
529. 100

Creedmore, junction of Creedmore-Austin and Creedmore-Manchaca roads,
5.6 miles southwest of the lower Luling and Austin road, in southwest
corner of field fence; iron post stamped " 637 "................................... 631.508
Manchaca, 2 miles southeast of, at intersection of Creedmore-Manchaca and Old San Antonio-Austin roads, north side; iron post stamped " 649 ".
643. 493

From Austin to Cedar Valley via Oak Hill.


## From Cedar Valley to Manchaca.

Cedar Valley, 8. 64 miles southeast of, at crossing of Cedar Valley-Manchaca Feet.and Mountain City-Oakhill roads; iron post stamped " 781 "775. 434
BANDERA QUADRANGLE.
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $99^{\circ}-99^{\circ} 30^{\prime}$.
From Sabinal along public roads to Bandera.
Sabinal, 14.5 miles northeast of, 45 feet west of road, 300 feet north of fords of Main and Little Seco rivers; iron post stamped " 1168 " ..... $1,159.989$
Sabinal, 21 miles northeast of, at forks of road to Anton Ney; iron post stamped " 1338 " ..... 1,329. 885
Sabinal, 28 miles northeast of, 500 feet east of Hondo River, 23 miles north of Hondo, crossing of old Bandera road and north and south road from Hondo to Bandera, at southwest corner of intersection; iron post stamped " 1227 " ..... $1,218.410$
Hondo and Bandera county road.
Hondo and Bandera county road.
Sabinal, 35.25 miles northeast of, junction of Hondo and Utopia roads to Bandera near Commissioners Creek, 150 feet west of milestone 12 from Bandera, and 400 feet north of E. A. Brewer's house, northeast of road junction; iron post stamped " 1490 " ..... 1, 481. 451
Bandera and Utopia county road.
Bandera, 100 feet east of sixth milepost west of, 500 feet east of gate, 25 feet north of road; iron post stamped " 1449 " ..... $1,440.711$
Bandera, county courthouse, in southwest corner of rock wall; bronze tablet stamped " 1265 " ..... $1,257.000$
From Bandera along public roads to Center Point.
Bandera, 5.5 miles north of, forks of Bandera-Kerrville and Bandera-Center Point roads; iron post stamped " 1407 " ..... $1,398.647$
Center Point, 6 miles south of, 12 miles north of Bandera, summit of Elm Pass, 25 feet west of milepost 6 , at fence corner; iron post stamped "1744". 1, 736. 049
BASTROP QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From Bastrop to Elgin along Missourl, Kansas \& Texas Ry.
Bastrop, 100 feet southeast of freight station, 50 feet south of Bastrop and La Grange County road; iron post stamped " 372 " ..... 366. 561
Bastrop, in front of station; top of rail ..... 366. 3
Bastrop, courthouse, northwest side of main entrance, in brick wall; bronze tablet stamped " 377 " ..... 371. 587
Bastrop, 1.66 miles north of, top of coping, northeast end of East Rock pier, Piney Creek; copper bolt stamped " 365 SA " ..... 357. 396
Bastrop, 4.5 miles north of, 3 feet outside of southeast corner of right of way fence at crossing of Bastrop and Elgin public road; iron post stamped " 460 SA" ..... 452. 548
Sayersville, 1.75 miles south of, 5 feet east of northwest corner of right of way fence at public road crossing, half distance between fourth and fifth tele- graph poles south of milepost 945 ; iron post stamped " 449 SA" ..... 441. 000
Sayersville, in front of station; center of main track ..... 407.2
Sayersville, 2 miles north of, 650 feet north of head block of Cary Lacier coal mine spur, 35 feet west of center of track at road crossing; iron post stamped " 468 SA" ..... 460. 050

> Elgin, 2.5 miles south of, 15 feet northeast of the southwest corner of right of way fence, 20 feet west of center of track, at Bastrop and Elgin road crossing; iron post stamped " 530 SA"
> Feet.
> 522. 089
> 571.4
> Elgin, at Union Passenger Station, 7 feet east of southeast corner of small park, 115 feet east of crossing of Missouri, Kansas \& Texas Ry. and the Houston \& Texas Central R. R., 20 feet north of Houston \& Texas Central R. R. main track; iron post stamped " 576 SA".
> 568. 004

## From Elgin to Giddings along Houston \& Texas Central R. R.

Elgin, 2.25 miles southeast of, 15 feet east of northwest corner of right of way fence at crossing of Elgin and McDade public road, 5 feet northwest of 18 -inch post-oak tree at intersection of lane; iron post stamped " 566 SA"
557. 964

Elgin, 5.75 miles southeast of, 100 feet south of railroad at intersection of a settlement road with the Elgin and McDade public road, 650 feet east of section house 13 ; iron post stamped " 517 SA"
McDade, in front of station; center of track.
509. 094
558.1
560.007
580.517

McDade, 6 miles southeast of, halfway between mileposts 71 and 72 , northeast face of brick retaining wall built around double 24-inch drainpipe culvert; bronze tablet stamped " 495 SA ".
487. 148

Paige, 1.75 miles west of, 150 feet southwest of the McDade and Paige public road crossing and 250 feet northwest of milepost 69, vertical side of brick coping on wing wall south end of 24-inch drainpipe culvert 157 ; bronze tablet stamped " 578 SA "
570.221

Paige, 180 feet northeast of passenger station, 7 feet east of northeast corner of small park; iron post stamped " 549 SA"
541. 363

Paige, in front of station; center of main track.................................. 544.0
Paige, 3 miles southeast of, midway between seventh and eighth telegraph poles northwest of milepost 64, 10 feet from southeast corner of right of way fence at the crossing of the Paige and Giddings public road, 38 feet south of center of track; iron post stamped " 528 SA".
520. 157

Paige, 7 miles southeast of, 0.5 mile southeast of milepost 61 , top of rock coping over south end of 18 -inch drain pipe culvert; copper bolt stamped " 520 SA"

## From Winchester to Bastrop via Alum Creek.

Winchester, 50 feet north of station, 45 feet east of middle of main track; iron post stamped " 335 SA "
Winchester, in front of station; center of main track
Winchester, 3 miles west of, east side of Pin Oak Creek, fork of road to Hodgins Ford of Colorado River; iron post stamped " 300 SA "
Winchester, 5.5 miles west of, forks of Lagrange-Bastrop public road and public road leading to Smithville via Hodgins Ford of Colorado River; iron post stamped " 364 SA "
Winchester, 8.75 miles west of, 1 mile east of P. D. Creek, 75 feet east of forks of the Lagrange and Bastrop public road and public road leading to Smithville via Eblin Ford of Colorado River; iron post stamped " 349 SA"
327. 554 329.7
292. 708
356.638
512.024
341. 898
Alum Creek, 4.25 miles southeast of, 2 miles north of Smithville, 9 feet east of 24 -inch pecan used as fence corner post, 15 feet northwest of intersec- tion of Smithville-Bastrop and Lagrange-Bastrop public roads; iron post stamped " 331 SA "
Feet. ..... 323. 791
Alum Creek, 2.25 miles southeast of, at mouth of Jones Lane leading to Colo- rado River, 10 feet south of middle of main road; iron post stamped " 343 SA" ..... 335.717
Alum Creek, 250 feet west of brick store, 7.33 miles southeast of Bastrop, 60 feet north of road, in corner of fence; iron post stamped " 354 " ..... 348. 633
Bastrop, 2.8 miles southeast of, 50 feet west of bridge over Copperas Creek, 15 feet south of Bastrop-Lagrange road; iron post stamped " 404 ". ..... 398. 584
From Bastrop to Giddings along public road.
Bastrop, 4.5 miles east of, 35 feet northeast of forks of road, 100 feet west of small prairie; iron post stamped " 528 SA ". ..... 519.881
Bastrop, 9 miles east of, on Alum Creek-Paige road, 2,225 feet southwest of Bastrop-Giddings road; iron post stamped " 503 " ..... 497. 635
Bastrop, 12 miles east of, east bank of Gravely Creek, 20 feet south of mainroad and 30 feet east of middle of creek; iron post stamped " 466 SA"...Bastrop, 15.5 miles east of, 800 feet northeast of the Pin Oak Creek crossing,12 feet north of road, 15 feet northwest of field fence corner; iron poststamped " 414 SA".457.993
Giddings, 7.5 miles southwest of, 50 feet northeast of intersection of Serbinroad, 50 feet northeast of the Bastrop and Lee county line, at northeastfence corner; iron post stamped " 476 SA".467. 901
Giddings, 5 miles southwest of, 30 feet south of crossroads, 1,000 feet west of Rabbs Creek; iron post stamped " 475 SA". ..... 466.833
From Paige to Bastrop along public road.
Paige, 1.75 miles west of, 1.5 feet east of west fence line and 150 feet north of summit of ridge; iron post stamped " 611 SA" ..... 602.665
Paige, 4.5 miles southwest of, 30 feet south of mouth of lane, 2 feet west of east fence line; iron post stamped " 535 SA" ..... 526.687
Paige, 7.75 miles southwest of, forks of old San Antonio and Giddings public roads; iron post stamped " 455 SA ". ..... 446.787
Bastrop, 6.5 miles northeast of, at forks of settlement road, 4.5 miles north of Bastrop-Giddings road; iron post stamped " 486 " ..... 480.470
From Lexington to Paige along public roads.
Lexington, 0.5 mile east of station, 45 feet south of crossing of Giddings- Lexington public road; iron post stamped " 465 SA " ..... 456. 654
Lexington, 1.5 miles southwest of, 35 feet southwest of the intersection ofroad connecting the Lexington-Fedor and Lexington-McDade publicroads; iron post stamped " 402 SA ".393. 645Lexington, 4.25 miles southwest of, 70 feet south of intersection of Lexing-ton-Fedor road and Giddings upper public road, 1,900 feet south of cross-ing of Middle Yegua Creek; iron post stamped " 368 SA"359.694
Fedor, 1,000 feet north of store, 50 feet south of forks of Lexington-Fedor and Fedor-Austin public roads; iron post stamped " 424 SA " ..... 415.742
Fedor, 2.25 miles west of, at intersection of Fedor-Austin and Giddings- Taylor public roads, 1,550 feet north of West Yegua Creek; iron post stamped " 453 SA " ..... 444. 566
Paige, 3.5 miles north of, 40 feet northeast of intersection of roads, at gate; iron post stamped " 520 SA " ..... 511. 664
Paige, 3 miles north of, 65 feet northeast of intersection of upper Lexington road and Paige-Darden Springs public road; iron post stamped " 531 SA". . ..... 522.826

## From Bastrop to Caldwell along public roads.

| Bastrop, 3 miles west of, at forks of Weberville road and abandoned road to Garfield, 3 feet from fence; iron post stamped " 410 ". | Feet. <br> 404. 680 |
| :---: | :---: |
| Bastrop, 6.56 miles west of, at forks of new county road to Garfield; iron post stamped " 422 " | 416. 780 |
| Caldwell, 100 feet northwest of, 50 feet north of Bastrop and Austin public road, via Garfield; iron post stamped " 576 ". $\qquad$ | 570.560 |

## From Bastrop to Cedar Creek along public road.

Cedar Creek, 3.25 miles east of, forks of Bastrop and Cedar Creek road with road leading to Winson's gin, 20 feet east of 26 -inch post-oak tree; iron post stamped " 446 SA "
437.996

Cedar Creek, 400 feet south of post office, 19 feet south of southeast fence corner at forks of Bastrop-Cedar Creek road with Austin-Port Lavaca
road; iron post stamped " 445 SA"
437. 240

From Cedar Creek southeast to Red Rock and northeast to Bastrop via public roads.
Cedar Creek, 5 miles south of, on north side of Austin and Port Lavaca road at point where road makes a sharp bend, 4 feet west of 20 -inch post-oak tree; iron post stamped " 472 SA "
464. 118

Red Rock, 4.75 miles north of, at forks of Austin and Port Lavaca road with old road to Red Rock, 0.75 mile northwest of Walnut Creek Catholic Church, 6 feet southeast of 24 -inch dead post-oak tree utilized as fence corner post; iron post stamped " 478 SA".
Bastrop, 8.25 miles southwest of, at forks of Bastrop and Red Rock road with a settlement road, 40 feet east of fence line, 200 feet north of house with log chimney; iron post stamped " 477 SA "
Bastrop, 3.25 miles southwest of, at intersection of Bastrop and Red Rock road with settlement roads, 3 feet south of northeast fence, 45 feet southeast of gate; iron post stamped " 384 SA "

From Bastrop via Nashs Ferry and Colorado Chapel to Sayersville.
Nashs Ferry, 300 feet north of, on east side of road, 150 feet east of right bank of Colorado River, 5 feet north of 16 -inch elm tree; iron post stamped "372 SA"
Sayersville, 6 miles west of, 40 feet southeast of forks of Elgin-Coats road with Bastrop road, 800 feet northeast of Coats Bridge, over Wilbarger Creek; iron post stamped " 391 SA"
363. 805
383. 156

## From Sayersville to McDade along public roads.

Sayersville, 3.25 miles northeast of, at forks of McDade and Sayersville road with Elgin road, 250 feet west of small bridge over ravine and on north side of road; iron post stamped " 514 SA "
506.119

McDade, 2 miles west of, east side of McDade and Sayersville road, at bend opposite wire fence corner; iron post stamped " 504 SA"
496.073

## From Paige to Lexington via Darden Springs, Blue, and Center Point Chapel.

Darden Springs, 2 miles south of, just north of Bastrop-I.ee county line, at forks of Darden Springs and Paige road with settlement road leading southwest; iron post stamped " 498 SA"
489. 779

Darden Springs, 8 feet east of Dr. Darden's east gatepost, on south side of road, opposite point where road turns north; iron post stamped " 444 SA ".
Darden Springs, 2 miles north of, at forks with settlement road; iron post stamped " 499 SA "

Blue, 2 miles south of, forks of Taylor-Giddings road with private road leading southeast, 25 feet north of mile board marked "Giddings 18 mi."; iron poststamped " 511 SA".

Feet.
502.693

Center Point Chapel, 0.5 mile west of, southwest corner of forks of AustinLexington road leading sout'; iron post stamped " 487 SA ".
478. 834

Center Point Chapel, 3.3 miles east of, south side of road, 10 feet east of wire fence corner, at forks of settlement road leading south; iron post stamped " 397 SA"
388.895

Lexington, 2 miles west of, forks of Austin-Lexington road with TaylorGeorgetown road, 50 feet west of post-oak tree utilized as milepost "Lexington 2 mi ." ; iron post stamped " $464 \mathrm{SA}^{\prime}$ ".
455.930

## From Lexington to Elgin via Florence and Beaukiss.

Lexington, 5.75 miles northwest of, forks of Taylor-Georgetown road with Rockdale public road, 40 feet northeast of 4 -inch post-oak tree utilized as guidepost; iron post stamped " 471 SA "
462.986

Florence schoolhouse, 0.5 mile east of, forks of Taylor-Georgetown road and Beaukiss "cut-off" road, 500 feet southwest of intersection with Elgin-Lexington road; iron post stamped " 469 SA ".
461.020

Florence schoolhouse, 2.5 miles west of, at forks of Elgin and Lexington road with crossroad to Taylor-Georgetown road, 125 feet east of right angle in road from west to south; iron post stamped " 472 SA".
464.519

Beaukiss, 2.25 miles east of, at west forks of Elgin and Lexington road with Taylor and Giddings road, 5 feet southwest of milepost " 14 mi . to Elgin," alongside fence line; iron post stamped " 551 SA"
542.586

Beaukiss, 2.5 miles east of southeast corner of Oliver's general store and post office, on north side of Elgin and Lexington road; iron post stamped " 502 SA".
493. 821

Beaukiss, 3.25 miles southwest of, 200 feet southeast of Siloam schoolhouse, 8 feet east of southeast corner of forks of road; iron post stamped " 497 SA ".
Elgin, 5.75 miles northeast of, 10 feet southwest of northwest fence corner, at forks of Elgin and Lexington road with road to Taylor; iron post stamped " 589 SA"
488.779
580.936

Elgin, 2.75 miles northeast of, 500 feet east of Redtown schoolhouse, 3 feet south of southeast fence corner at forks of Elgin and Lexington road with a public road leading east; iron post stamped " 573 SA ".
565.026

## From Elgin to Coupland along Houston \& Texas Central R. R.

Coupland, in front of station, 50 feet east of main track of Missouri, Kansas \& Texas Ry., 5 feet east of southwest corner of fence inclosing sectionhouse yard; iron post stamped " 526 "
517.030

## From Coupland to Rices Crossing along public road.

Rices Crossing, southeast corner of Rices Crossing-Byersville road with Taylor-Manor public road, 150 feet southwest of schoolhouse; iron post stamped " 556 SA "
547.027

From Rices Crossing south via Manda to Littig, thence via Houston \& Texas Central R. R. east to Elgin.

Rices Crossing, 4 miles south of, 4 feet north of northeast fence corner post at forks of Taylor-Manor public road with a public road leading eastward; iron post stamped " 528 SA".
Manda post office, 100 feet southwest of, on west side of road at intersection with road to Elgin, 25 feet south of fence corner, 100 feet southwest of Lutheran Church; iron post stamped " 558 SA".
Feet.
Littig, in front of station; top of rail ..... 456.4
Littig, 800 feet east of station, 40 feet south of Houston \& Texas Central R. R. track, 4 feet north of right of way fence; iron post stamped "470 SA" ..... 462. 154
From Smithville to Bastrop along Missouri, Kansas \& Texas Ry.
Smithville, 10 feet east of second telegraph pole south of mile board 969 ; iron post stamped " 329 " ..... 323. 720
Upton, 45 feet east of headblock south end of switch, near right of way fence; iron post stamped " 349 " ..... 343. 528
Hills Prairie, 28 feet east of south headblock, near right of way fence; iron post stamped " 359 " ..... 353.494
Bastrop, 2 miles south of, railway bridge over Colorado River; copper bolt, set in masonry at east end of north bridge seat, stamped " 358 " ..... 352.588
BLANCO QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$.]
From Bee Caves along public roads via Round Mountain to Willow City.Bee Caves, 3.25 miles west of, 13 feet west of fence corner post south sideof road at bend in road from northeast to west; iron post stamped "1193SA"$1,184,918$
Bee Caves, 6.25 miles west of, east side of road, 10 feet north of twin elms, at corner of stone wall; iron post stamped " 1120 SA" ..... $1,111.966$
From Bee Caves northwest along Austin and Round Mountain public road to Round Mountain.
Bee Caves, 9 miles northwest of, at forks with a settlement road south;iron post stamped "1321 SA"$1,312.782$
Cypress Mill, 10.25 miles southeast of, in top of 24 by 48 inch limestoneoutcrop on northeast side of road; bronze tablet stamped " 921 SA "...913. 261
Cypress Mill, 8 miles southeast of, west bank of Pedernales River, north side of road, 21 feet south of picket fence corner, in top of limestone outcrop; bronze tablet stamped " 815 SA"
Cypress Mill, 5.25 miles southeast of, 3 feet north of cedar post at angle of fence on north side of road, 300 feet west of farmhouse; iron post stamped " 928 SA"
Cypress Mill, 2.5 miles southeast of, at forks with settlement road southwest; iron post stamped " 964 SA".
956.008
Cypress Mill, in top of limestone rock 4 feet in diameter, west side of road, 250 feet northeast of post office, 100 feet south of Cypress Creek; bronze tablet stamped " 976 SA ".
Cypress Mill, 3 miles northwest of, 2 feet east of telephone pole on summit of hill, north side of road; iron post stamped " 1172 SA".
$1,163.837$
Round Mountain, 0.25 mile east of post office, 4 feet west of fence corner, 200 feet northwest of Baptist Church, at forks of road; iron post stamped "1292 SA"
$1,283.997$

## From Round Mountain northwest along public roads via Llano to Smith's ranch.

Round Mountain, 2.25 miles northwest of, 4 feet west of gate to pasture on south side of road; iron post stamped " 1413 SA"
$1,404.991$
Round Mountain, 5 miles northwest of, northwest side of road, 18 feet southeast of telephone pole at slight bend of road; iron post stamped " 1374 SA" 1, 365. 777
Round Mountain, 8.25 miles northwest of, at Smith's ranch, 5 feet southeast of gate southwest side of road, at intersection with Fredericksburg and Marble Falls road; iron post stamped " 1171 SA"
Feet.
1,162. 911

## From Smith's ranch southwest along Fredericksburg and Marble Falls public road.

Smith's ranch, 3 miles west of, 7 feet north of gate on division fence line north side of road; iron post stamped " 1149 SA" $1,140.967$

BOERNE QUADRANGLE.
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]
From Ganahl via San Antonio \& Aransas Pass Ry. to San Antonio.
Comfort and Kerrville highway crossing, between mile boards 292 and 291,
southwest corner of intersection; iron post stamped "1437".............1, 428.432
Comfort, opposite side of track from northwest corner of San Antonio and Aransas Pass Ry. station; iron post stamped "1437"
$1,428.630$
Guadalupe River Bridge, 4.5 miles southeast of Comfort, in top of coping at southeast end of east pier; copper bolt stamped "U.S.G.S. 1374 B.M.". 1, 365.445
Waring, in front of station; center of track .............................. 1, 355. 2
Waring, 1.5 miles southeast of, crossing of Boerne and Fredericksburg highway and San Antonio \& Aransas Pass Ry., 50 feet southwest of intersection; iron post stamped " 1377 "

1, 368. 193
Welfare, in front of station sign; center of track
Spanish Pass, 1.25 miles north of, first arch culvert north of milepost 276, also first south of negro's residence 75 feet west of railway, in cap over keystone of arch at west end of culvert; copper bolt stamped "U.S.G.S. 1535 B.M."
Boerne, near passenger station, 10 feet north of first telegraph pole; top of rail
$1,404.054$
Cibolo Creek Bridge, west end of north pier, in coping; copper bolt stamped "U.S.G.S. 1358 B.M."

1, 349.351
Van Raub, opposite store; center of track................................. 1, 371.2
Van Raub, just north of station (store), 120 feet south of fourth telegraph pole south of milepost 263,8 feet east of track, in solid rock; copper bolt stamped "U.S.G.S. 1375 B.M."
$1,366.713$
Aue Station, 75 feet west of track, in northeast corner of Max Aue's resi-
dence; bronze tablet stamped " 1141 "......................................132. 373
Leon Creek, 15 feet south of sill of trestle 572 , on south bank, 11 feet east of east rail, in solid rock; copper bolt stamped "U.S.G.S. 1036 B.M."

1,027. 656
From Gill's Lane southwest over Fredericksburg and Sisterdale road to Sisterdale.
Comfort, 7.5 miles north of, 200 feet east of Block Creek, east side of road, by stone-fence corner; iron post stamped " 1453 SA".
$1,444.960$
Waring, 4 miles northwest of, forks of Fredericksburg-San Antonio and Fredericksburg-Sisterdale roads, 4 feet west of Sisterdale and 40 feet east of San Antonio roads, 1 foot east of north gatepost; iron post stamped " 1563 SA"
$1,555.243$
Sisterdale, 0.2 mile west of, south side of road by wire fence, 1 foot north of
big gate; iron post stamped " 1447 SA".....................................439. 363
From John Kneupp's ranch, west over Comfort and Blanco roads to Sisterdale.
John Kneupp's ranch, 1.75 miles west of, south side of road by wire fence, in mound of stone; iron post stamped " 1451 SA".
$1,443.035$
Davis's ranch, 10 feet west of gate, entrance to pasture, north side of road; iron post stamped " 1411 SA"
Sisterdale, 4.25 miles east of, 2 feet west of big gate; iron post stamped Feet."1389 SA".$1,381.0$
Sisterdale, 0.5 mile southeast of, foot of hill north side of road, by rail fence, 400 feet east of stream; iron post stamped " 1279 SA". ..... $1,271.015$
From point 3.5 miles north of Comfort along highway to Comfort.
Comfort, 3.5 miles north of, 10 feet north of farm gate, 600 feet west of a stone farmhouse, on west side of road; iron post stamped " 1530 SA". ..... $1,523.056$
Comfort, 1.5 miles north of, north of guide post "To Cypress Creek," at northwest corner of junction with road running northwest; iron post stamped " 1521 SA" ..... $1,514.110$
Comfort, opposite San Antonio \& Aransas Pass Ry. station; iron post stamped " 1436 SA" ..... $1,428.630$
BURNET QUADRANGLE.
[Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $98^{\circ}-98^{\circ} 30^{\circ}$.]
From Bertram to Graphite along Houston \& Texas Central R. R., western division.
Bertram, 1.75 miles southeast of, on southeast side of settlement road, 43feet southwest of track; iron post stamped " 1198 SA".$1,190.134$
Bertram, 120 feet southeast of station, 24 feet southwest of track, on north- west side of Bertram and Brooks Mill public road; iron post stamped " 1266 SA". ..... $1,258.472$
Bertram, in front of station; top of rail. ..... 1, 259.6Burnet, 3.25 miles east of, 500 feet west of headblock of switch, at summit,57 feet southwest of milepost 57,19 feet south of main track, top of lime-stone outcrop; iron post stamped " 1494 SA"$1,486.341$
Burnet, 2 miles east of, 47 feet west of track, 17 feet south of gate at private- road crossing; iron post stamped " 1387 SA ". ..... $1,379.08$
Burnet, 0.25 mile south of station, on southeast side of Pecan Street, 30 feet southwest of track; iron post stamped " 1282 SA ". ..... $1,274.185$
Burnet, in front of station; top of rail. ..... $1,285.0$
Burnet, east front of county courthouse, in north end of first window sill south of entrance; bronze tablet stamped " 1300 SA". ..... $1,291.785$
Burnet, 2 miles southwest of, on northwest side of Burnet and Marble Falls public road, 36 feet northeast of track; iron post stampe1 " 1250 SA "... ..... 1. 242.040
Fairland, 3 miles northeast of, on south side of a private-road crossing 0.25mile north of Sudduth section house, 27 feet west of track; iron poststamped " 1142 SA"$1,134.072$
Sudduth, in front of section house; top of rail. ..... $1,135.4$
Fairland, east side of station; top of rail. ..... 964.5
Fairland, 70 feet southwest of Marble Falls branch track, on southeast side of Burnet and Fredericksburg public road; iron post stamped " 953 SA". . ..... 945. 269
Fairland, 3 miles southwest of, on east side of Burnet and Fredericksburgroad crossing, near right of way fence corner, 44 feet south of track; ironpost stamped "992 SA".984.040
Kingsland, 3 miles southeast of, on north side of public road, 52 feet south of track and 110 feet west of trestle 76 C ; iron post stamped " 881 SA " ..... 873. 329
Kingsland, in front of station; top of rail ..... 848.3
Kingsland, near southwest corner of small park opposite station, 21 feet north of main track; iron post stamped " 856 SA" ..... 848. 298
Kingsland, 3 miles northwest of, at forks of old Fort Mason, Kingsland, andLlano roads, 70 feet west of track, 23 feet north of twin elm tree utilizedas milepost "Kingsland 3.5 miles;" iron post stamped " 954 SA ".945.452
Kingsland, 5.5 miles northwest of, on west side of settlement road, 0.25 mile southeast of bridge 85 B over Sandy Creek, 27 feet southwest of track; iron post stamped " 914 SA"

Feet

905. 536
From Smith's ranch to Marble Falls along Fredericksburg and Marble Falls road.
Smith's ranch, 3 miles northeast of, 200 feet southwest of Bridge's farmhouse, 6 feet south of gate on south side of road; iron post stamped " 979 SA"
970.865
Smith's ranch, 6 miles northeast of, 25 feet southwest of road, 35 feet northwest of Slick Rock Creek; iron post stamped " 834 SA"
825.921
Marble Falls, 4.25 miles southwest of, on north side of road by wire fence, 5 feet south of 15 -inch post-oak tree utilized as a gatepost; iron post stamped " 827 SA "
Marble Falls, 0.5 mile southwest of, in top of limestone outcrop 7 feet southeast of road, 250 feet southwest of bridge nver Colorado River, 50 feet northeast of forks of road; aluminum tablet stamped " 790 SA "
781.962
Marble Falls, at southeast corner of park, 60 feet northeast of northeast corner of Houston \& Texas Central Railroad station; iron post stamped " 764 SA "
755.929
From Marble Falls to Fairland along Houston \& Texas Central R. R., western division.
Marble Falls, in front of station; top of rail
906. 6
Granite Mountain, in front of station; top of rail 857.8
Fairland, 2 miles south of, 600 feet north of milepost 73,50 feet east of track, at right of way fence corner on north side of settlement road; iron post stamped " 897 SA "
From milepost 15, on Houston \& Texas Central R. R., 3 miles northwest of Kingsland, east along public road via Mason Crossing to Burnet.
Mason Crossing, west bank of Colorado River, 50 feet southwest of road at
bend; iron post stamped " 834 SA"....................................... 825.847
Mason Crossing, 2.75 miles northeast of, at junction of old Fort Mason, Marble Falls, and Blufiton roads, 200 feet south of Moore's store; iron post stamped " 883 SA"
874.888
Mason Crossing, 5.5 miles northeast of, southeast side of road by a live oak tree, 50 feet northeast of milestone " 8 M ;" iron post stamped " $1261 \mathrm{SA}^{\prime}$ ". 1, 252. 950
Burnet, 5 miles west of, on south side of road by wire fence, 6 feet west of milestone "B 5 ;" iron post stamped " 1390 SA".
1,381. 573
Burnet, 2.25 miles west cf, at junction of old Fort Mason-Burnet road and
Bluffton road; iron post stamped " $1403 \mathrm{SA}^{\prime}$ ".......................... 1, 394. 437

From Burnet along public roads via Pomona post office to Naruna.
Burnet, 3 miles north of, 300 feet north of junction of Burnet-Lampasas and Burnet, Brooks Mill, and Lampasas roads, by wire fence on northeast side of road; iron post stamped " 1449 SA"
$1,440.946$
Burnet, 6.33 miles north of, on west side of road, 9 feet south of gate at Boyd's ranch; iron post stamped " 1480 SA"

1, 472. 294
Burnet, 9 miles north of, on west side of road at intersection with settlement road running northwest and southeast; iron post stamped " $1510 \mathrm{SA}^{\prime}$ " ... 1, 501.654
Naruna, 6.5 miles southeast of, west side of road on summit of hill at junction of Burnet-Lampasas and Austin-San Saba roads 700 feet northeast of Pomona post office; iron post stamped " 1466 SA"

1,457. 905
Naruna, 4.5 miles southeast of, at junction with settlement road running north, 750 feet southeast of old railroad grade, 50 feet northwest of southwest fence corner; iron post stamped " 1468 SA"

# Naruna, 2.5 miles southeast of, 700 feet southeast of Littlepage's residence, 20 feet north of south fence line opposite angle in road, in top of limestone outcrop; bronze tablet stamped " 1500 SA" <br> Feet. <br> Naruna, 170 feet southeast of Baptist Church, at intersection of Austin-San Saba and Llano-Lampasas roads; iron post stamped " 1476 SA". <br> 1, 467.965 <br> From Naruna along public and settlement roads to Bluffton. 

Naruna, 3 miles southwest of, on north side of 18 -inch post-oak tree in middle of lane, west side of road at bend, in top of limestone outcrop; aluminum tablet stamped " $1455 \mathrm{SA}^{\prime}$ "
$1,447.307$
Southward along settlement road.
Naruna, 6 miles southwest of, 80 feet west of small drain, 25 feet northwest of blazed 12 -inch post-oak tree, 15 feet south of road, in top of limestone outcrop; bronze tablet stamped " 1457 SA"
$1,449.240$

## Southwest along Blufiton and Lampasas road.

Bluffton, 4.66 miles northeast of, at high point in open pasture, 15 feet southeast of road, in top of limestone outcrop; aluminum tablet stamped "1399 SA"
$1,390.845$
Bluffton, 1.66 miles northeast of, 100 feet northeast of gate, 30 feet north of 6 -inch blazed live-oak tree, on rocky hill side 35 feet west of road, in red sandstone outcrop; aluminum tablet stamped " 1006 SA"
998.004

Bluffton, 7 feet east of northeast fence corner, at junction of Burnet-Llano and Bluffton-Lampasas roads; iron post stamped "1012 SA".
$1,004.089$
From Bluffton southeast along Burnet and Llano road to Burnet.
Bluffton, 1.25 miles southeast of, northeast side of road at junction with road rumning to McDonald's mill, 200 feet southeast of southeast bank of Colorado River; iron post stamped " 948 SA ".
940. 134

Bluffton, 4.25 miles southeast of, 10 feet east of 18 -inch post-oak tree utilized as fence post at angle on north side of road; iron post stamped "1227 SA".

1,219. 086
Burnet, 6 miles northwest of, at junction with settlement road running west, on southwest side of road, in top of pink granite outcrop; aluminum tablet stamped " 1285 SA"
$1,277.111$
From Burnet northeast along Burnet, Brooks Mill, and Lampasas road to Sage.
Burnet, 5.75 miles northeast of, west side of road at junction with settlement road running northwest, 200 feet south of summit of hill; iron post stamped " 1454 SA".

1, 446.129
Sage, 1.75 miles southwest of, 7 feet south of fence corner at right angle
bend of road, 250 feet east of Bethel schoolhouse; iron post stamped
"1346 SA"..................................................................................................
Sage, 250 feet south of post office, 75 feet south of north fork of San Gabriel River, opposite Murphy \& Jenkin's gin, in top of limestone bowlder; aluminum tablet stamped " 1261 SA".
$1,252.910$

## From Sage along public roads via Sunny Lane to Bachelor Peak.

Sunny Lane, 250 feet southwest of post office, in top of embedded limestone bowlder, by wire fence corner, on north side of road, 150 feet northeast of Methodist Church, at junction of Burnet, Brooks Mill, and and Lampasas road and Austin road; aluminum tablet stamped "1168 SA".
$1,160.517$
Sunny Lane, 2.5 miles north of, south side of gate on west side of road, at junction with settlement road running to Bachelor Peak; iron post stamped "1335 SA".
$1,327.013$

## Northeast along settlement road via Eldridge \& Field's ranch to Georgetown and Lampasas road.

Bachelor Peak, 0.5 mile southeast of, 200 feet southeast of junction with settlement road running southwest to Eldridge \& Field's ranch, in top of limestone rock on southwest fence line of Georgetown and Lampasas road; aluminum tablet stamped " 1260 SA ".

Feet.
1,251. 891

## From Bachelor Peak along public roads to Joppa.

Bachelor Peak, 3.5 miles southeast of, 220 feet northwest of bridge over small drain, on northeast side of road, in top of limestone bowlder, by stone wall; aluminum tablet stamped " 1125 SA". . . . . . $1,117.138$
Bachelor Peak, 6 miles southeast of, 0.5 mile southwest of North Rocky Creek, in top of embedded limestone rock, north of gate on west side of road, at junction with settlement road running southwest; aluminum tablet stamped "1018 SA".
$1,009.502$
Southwest along settlement road through Cook's pasture, thence southwest along Burnet and Belton road.

Neely's ranch, 1.5 miles northeast of, on southeast bank of South Rocky Creek, in top of limestone ledge on northeast side of road; aluminum tablet stamped " 972 SA".
Neely's ranch, 2 miles southwest of, 10 feet east of gate at junction with settlement road running south to Joppa, in top of embedded limestone rock; aluminum tablet stamped "1251 SA". 1,243. 151
Joppa, 110 feet northeast of schoolhouse, in top of limestone rock at junction
of Burnet and Florence road with settlement road; aluminum tablet
stamped " 1106 SA". .......................................................................................

## From Joppa southwest along Burnet and Florence road to Burnet.

Joppa, 2.5 miles southwest of, northwest side of road by wire fence at junction with Burnet and Belton road; iron post stamped " 1230 SA".
Joppa, 5.5 miles southwest of, north side of road opposite fence dividing two cultivated fields at summit of hill; iron post stamped " 1299 SA ".... 1, 290. 930
Burnet, 4.75 miles northeast of, north side of road, 4 feet west of 12 -inch elm tree utilized as fence corner post, on northwest bank of Russell Fork, San Gabriel River; iron post stamped " 1273 SA". $1,264.781$
Burnet, 2.5 miles northeast of, 300 feet northwest of farmhouse, at fence corner on southeast side of road; iron post stamped " 1441 SA ". $1,433.717$

## From Bluffton along public roads to Tow.

Bluffton, 2 miles west of, at junction of Burnet and Llano and Bluffton and San Saba roads; iron post stamped "1027 SA".
Tow, 2 miles southeast of, on northeast side of road at intersection of settlement road; iron post stamped "1034 SA".

1, 026. 126
Tow, northeast corner of post office, at junction with settlement road running west, 400 feet northwest of schoolhouse; iron post stamped "1025 SA".

1,017. 000

## From Tow along Bluffton and San Saba road to Boyt's ranch.

Tow, 3.5 miles northwest of, south bank of Falls Creek, in bench of limestone bluff 3 feet above ground on west side of road; aluminum tablet stamped "1166 SA"

1, 158. 434
Ramsey's ranch, in top of limestone bowlder 5 feet northeast of gate, 70 feet east of Ramsey's residence; bronze tablet stamped "1368 SA".... 1, 360. 199

## Along Burnet and Llano road from point 2 miles west of Bluffton.


#### Abstract

Bluffton, 5 miles west of, by rail fence at northwest corner of cultivated Feet. field, south side of road; iron post stamped "1084 SA" 1, 075.971


## From Burnet along road to Morman Mill.

Burnet, 3.5 miles south of, 300 feet northwest of white farmhouse with green blinds, on east side of road; iron post stamped " 1230 SA "....
Burnet, 6 miles south of, on southeast bank of Hairston Creek, 20 feet southwest of road; iron post stamped "1044 SA".

1, 222. 227

Morman Mill, on east side of road at junction with road running southwest to Morman Mill, about 200 yards distant; iron post stamped " 839 SA"...
831. 356

## From Morman Mill along public roads to Marble Falls.

Hale Spring Church, 100 feet southeast of, by picket fence corner on south-
west side of road near northeast corner of arbor; iron post stamped " 750
SA"..................................................................................................... 415

## Westward along Marble Falls and Smithwick road.

Marble Falls, 3.5 miles east of, by corner of rail fence around cultivated field, 120 feet southeast of Pleasant Valley Schoolhouse, on northwest
side of road, iron post stamped " 795 SA "
787. 237

## East along Marble and Smithwick road to Smithwick.

Marble Falls, 5 miles east of, by rail fence on southwest side of road, at junction of Marble Falls-Smithwick and Burnet-Morman Mill roads, about 0.25 mile northeast of Pangle crossing of Colorado River; iron post stamped " 732 SA"
Smithwick, 2 miles northwest of, at intersection of Marble Falls-Smithwick, Marble Falls-Georgetown, and Burnet-Smithwick roads; iron post stamped " 727 SA"
892. 163

Smithwick, at northeast corner of post office and store at west side of road; iron post stamped " 727 SA"
719.222

## From Smithwick along public roads via Hall's ranch to Spanish Creek.

Smithwick, 3.75 miles northeast of, 60 feet southeast of intersection of Smithwick, Bagdad, Burnet, and Corwin roads; iron post stamped " 842 SA "...

## Southeast along Burnet and Corwin road.

Halls' ranch, 1.5 miles northwest of, in top of ledge northeast side of road on east side of creek, at point where road makes horseshoe bend; aluminum tablet stamped " 797 SA "
789. 496

From Spanish Creek along public road and settlement road to Cow Creek.
Travis Peak, 3.75 miles northwest of, 10 feet south of road on top of hill; iron post stamped "1098 SA"
$1,090.365$
Travis Peak, 1 mile northwest of, at junction of Burnet and Austin road with settlement road running northeast to Cow Creek, 50 feet southeast of forks; iron post stamped " 858 SA"
850. 489

## North along settlement road up Cow Creek.

Travis Peak, 4 miles north of, in top of limestone bowlder on southwest side of road, on west bank of Cow Creek; bronze tablet stamped " 855 SA"
Travis Peak, 7 miles north of, 100 feet southeast of point where road crosses Cow Creek, 20 feet south of road; iron post stamped " 947 SA "

## PRIMARY LEVELING.

From Cow Creek northeast along Smithwick and Bagdad road to Wilk's ranch.Wilk's ranch, 2 miles southwest of, northwest side of road at junction withsettlement road running southwest, 350 feet northeast of milestone 16 ;Feet.iron post stamped " 1142 SA"$1,134.169$
From Wilk's ranch along South Gabriel and McNew road to Bertram.
Bertram, 7.5 miles south of, in forks of roads at junction with settlement road running southeast; iron post stamped " 1358 SA" ..... $1,350.095$
Bertram, 3.5 miles south of, on west side of road and south bank of Oatmeal Creek; iron post stamped " 1137 SA" ..... $1,129.230$
FLATONIA QUADRANGLE.
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From Red Rock via Smithville to West Point along Missourl, Kansas \& Texas Ry.
Red Rock, 1,200 feet south of Missouri, Kansas \& Texas Ry. passengerstation, 125 feet south of track, at intersection of the Waelder and RedRock and Rosanky public roads; iron post stamped " 491 SA"482.768
Red Rock, 6 miles east of, 4 miles west of Rosanky, 1,100 feet east of section house, 45 feet southwest of settlement road crossing and about half way between mileboards 983 and 984 ; iron post stamped " 451 SA" ..... 442.748
Rosanky, 120 yards west of railroad station, 50 feet south of crossing of Rosanky and Jeddo public roads; iron post stamped " 512 SA" ..... 504. 359
Smithville, 4.5 miles southwest of, second telegraph pole east of milepost 974 , corner of fence, 65 feet northeast of road crossing; iron post stamped " 460 SA" ..... 452. 527
Smithville, 2.5 miles southwest of, mileboard $972,0.25$ mile east of, 25 feet northwest of road crossing; iron post stamped " 433 SA ". ..... 425. 386
Primm, back of second telegraph pole east of milepost 974 , near right of way fence; iron post stamped " 316 " ..... 310. 618
West Point, in corner of right of way fence, 90 feet west and 40 feet north of junction at crossing of San Antonio \& Aransas Pass Ry. and Missouri, Kansas \& Texas Ry. ..... 286. 626
From West Point south along Waco branch of San Antonio \& Aransas Pass Ry. to Henkhaus.
Muldoon, 3.5 miles northeast of, in solid rock, 30 feet north of trestle 128 , 35 feet west of west rail; bronze tablet stamped " 316 " ..... 310. 376
Lean spur. opposite signboard; top of tie ..... 314.0
Muldoon, in southwest corner of A. B. Kerr \& Son's store; bronze tablet stamped " 351 " ..... 345. 370
Muldoon, 4.5 miles southwest of, 10 feet north of mileboard 153 ; iron post stamped " 362 " ..... 356. 588
McCammon, opposite signboard; center of track ..... 390.0
Flatonia, crossing of Galveston, Harrisburg \& San Antonio Ry. and San Antonio \& Aransas Pass Ry., tracks on south side of Galveston, Harris- burg \& San Antonio tracks; iron post stamped " 473 " ..... 457. 500
Flatonia, 4.5 miles south of, second telegraph pole south of mile board 143: crossing of Gonzales and Flatonia public road via Old Moulton, in northwest corner of right of way fence, 700 feet east of Lavaca River; iron post stamped " 448 SA ". ..... 439. 990
Moulton, 600 feet north of passenger station; crossing of the Flatonia and Moulton public road, in northwest corner of right of way fence; iron post stamped "391 SA" ..... 383.058
Henkhaus, 800 feet north of store, east side of New Moulton and Shiner road, 12 feet south of corner of fence, at mouth of lane that goes to Witting, 100 feet east of San Antonio \& Aransas Pass Ry., about 0.5 mile south of mile board 135 ; iron post stamped " 403 SA ".
Feet.
395.072
From Engle west along Galveston, Harrisburg \& San Antonio Ry. to Harwood.
Engle, 200 feet northwest of station, 20 feet northwest of road crossing and 15 feet north of center of main track of Galveston, Harrisburg \& San Antonio Ry.; iron post stamped " 374 SA".
366.124
Flatonia, 2.75 miles west of, 0.5 mile west of mile board 123 , southeast corner of right of way fence at crossing of Flatonia and Gonzales public road, at cattle guard 296, Galveston, Harrisburg \& San Antonio Ry.; iron post stamped " 392 SA".
384.088
Pierson, east end of siding, south of head block, 1.5 feet from wire fence (fence may have been moved back); iron post stamped " 337 ".
321.829
Waelder, at west end of small park east of station, 30 feet north of track; iron post stamped " 386 "
370. 493
Dry Branch, 4.25 miles west of Waelder, iron girder span 251 ; in rock pedestal of west concrete pier; bronze tablet stamped " 374 ".
Sandy Fork, in northwest corner of rock under post, north end of west brick pier; copper bolt stamped "U.S.G.S. 370 B.M."
358.259
354.976
From Gonzales to Harwood along Gonzales branch, Galveston, Harrisburg \& San
Antonio Ry.
Gonzales, 3.25 miles north of, 1.5 miles south of section house 206, 25 feet east of track, 6 feet west of southwest corner of iron fence inclosing cemetery, halfway between mile boards 8 and 9 ; iron post stamped " 393 SA ".
Kokernot, 12 feet south of north switch stand, 15 feet east of main track, midway between eighth and ninth telegraph poles north of milepost 6 ; iron post stamped " 406 SA"
Harwood, 2 miles south of, near mile board 2,50 feet east of head block at wood spur, corner of fence at road crossing, 150 feet northeast of settlement; iron post stamped " 441 SA".

## From Red Rock via Delhi to Harwood along public roads.

Red Rock, 4.5 miles south of, forks of Waelder and Austin public road and a settlement road leading to Hoy Spring, just southeast of house; iron post stamped " 565 SA"
556. 890
Delhi, 40 feet northeast of the crossing of Lagrange-Lockhart and WaelderAustin public roads; iron post stamped " 535 SA "
527.013
Delhi, 4.75 miles southwest of, forks of Delhi-Harwood and Delhi-Thomp-
sonville settlement roads; iron post stamped " 500 SA "................... 491.995
Delhi, 8.5 miles southwest of, 100 feet west of forks of public road to Lockhart and a settlement road to Luling; iron post stamped " 515 SA ".
507.105
Harwood, 4.12 miles north of, 25 feet northwest of the crossing of the Waelder and Lockhart public road via Thompsonville; iron post stamped " 460 SA"
452.082

## From Sandy Fork, on Galveston, Harrisburg \& San Antonio Ry., north along public roads to Rosanky.

Sandy Fork, 3.5 miles northeast of, crossing of Gonzales-Lockhart-Harwood and Waelder public roads; iron post stamped " 432 SA ".
424.008

Sandy Fork, 7.5 miles northeast of, forks of road 300 feet south of Henry
Gunn's residence; iron post stamped " 455 SA ".................................477.070

Jeddo, 2 miles south of, intersection of Waelder and Bastrop and settlement roads, 7 miles northwest of Waelder; iron post stamped " 484 SA".
Jeddo, 400 feet southeast of, intersection of settlement road and Lagrange and Lockhart road; iron post stamped " 455 SA".
Jeddo, 1.5 miles west of, 25 feet north of the crossing of the Waelder-Bastrop and Lagrange-Lockhart public roads, 1.25 miles west of Jeddo, 4.5 miles east of Delhi; iron post stamped " 536 SA"
Rosanky, 5.75 miles south of, 45 feet southwest of forks of road, 1 mile north of Peach Creek; iron post stamped " 516 SA"
Rosanky, 1.5 miles southwest of, 20 feet northeast of intersection of WaelderBastrop and Austin-Port Lavaca public roads; iron post stamped " 468 SA"

From Jeddo northeast along public roads to Bohemian Catholic Church and Missouri, Kansas \& Texas Ry.

Jeddo, 2.5 miles northeast of, 175 feet south of I. B. Holland's residence, 6 feet west of road; iron post stamped " 460 SA "
452.254

Jeddo, 8.5 miles northeast of, intersection of settlement road and Austin and Port Lavaca public road, opposite mile board 4 miles northwest oi Cistern; iron post stamped " 474 CSA"
Bohemian Catholic Church, one-sixth mile west of, 40 feet south of intersection of lanes and 5 feet south of leaning post-oak tree; iron post stamped " 472 SA"

Feet.
476.045
447.034
528.157
508. 266
460.215
466. 180
463.861

## From Jeddo to Cistern along public roads.

Jeddo, 3 miles east of, intersection of Lagrange and Lockhart with settlement road leading southwest, 35 feet south of wire fence; iron post stamped " 454 SA".
446. 206

Cistern, fence corner opposite post office; iron post stamped " 481 SA "
473.007

From Cistern to Smithville along public roads.
Cistern, 4.25 miles north of, summit of divide between Live Oak and Buckner creeks, west side of lane, 2 feet east of wire fence; iron post stamped "481 SA"
473.086

Cistern, 9.25 miles north of, forks of Cistern and Smithville public road and settlement road; iron post stamped " 416 SA ".
408.185

Smithville, 3 miles south of, 400 feet southeast of intersection of FlatoniaSmithville and Cistern-Smithville public roads, 10 feet west of Flatonia road and 60 feet east of Cistern road; iron post stamped " 393 SA"......

From Cistern to Primm, on Missouri, Kansas \& Texas Ry.
Cistern, 4 miles northeast of, intersection of roads, 10 feet north of gate entrance to east side of Cockerell's pasture and 30 feet south of mouth of lane; iron post stamped " 422 SA ".
Stellar, 2.5 miles south of, 200 feet north of Buckner Creek, intersection of Smithville-Flatonia and Lagrange-Lockhart public roads; iron post stamped " 349 SA"
413. 820
341.087

Stellar, 3.5 miles northeast of, corner of fenceat intersection of roads 25 feet southeast of Lagrange-Lockhart and Smithville-Muldoon public roads, 16 miles southwest of Lagrange; iron post stamped " 404 SA ".
Primm, 1.5 miles southeast of, forks of Smithville-West Point road with public road to Muldoon and Flatomia, 0.75 mile south of milepost 975 ; iron post stamped " 322 SA ".
313. 906

## From Flatonia to Smithville along public roads.

Flatonia, 5 miles north of, intersection of Smithville, Muldoon, and Flatonia public roads, 5.5 miles southwest of Muldoon, 1,000 feet north of Pin Oak Creek; iron post stamped " 377 SA".

Feet.
369. 288

Dogwood Creek, 1,200 feet north of, 125 feet north of branch 15 feet east of road; iron post stamped " 357 SA ".
349.188

Stellar, 3.25 miles north of, angle of wire fence 35 feet east of road, 12 feet west of post-oak tree used as fence post; iron post stamped " 428 SA ".....
420.018

## From Waelder to Cistern along public roads.

Waelder, 3.75 miles northwest of, forks of Bastrop and Lockhart public roads, 700 feet north of 2 -story house, 10 feet north of gate; iron post stamped " 475 SA "
466. 576

Waelder, 4.5 miles northeast of, 20 feet south of double live-oak trees, intersection of Waelder and Jeddo public roads, southeast corner of wire fence; iron post stamped " 444 SA"
Cistern, 5 miles southwest of, 150 feet south of Elm Grove Church, 50 feet east of schoolhouse, 25 feet northeast of the intersection of a third-class road; iron post stamped " 372 SA "
364. 235

From Flatonia to Elm Grove Church along public roads.
Flatonia, 3.25 miles northwest of, 80 feet west of wooden bridge over Five Mile Creek, 15 feet south of road; iron post stamped " 351 SA "
342.961

Elm Grove Church, 3.5 miles southeast of, forks of road, 150 feet south of
mouth of lane; iron post stamped " 360 SA"

## From Flatonia to Cistern via Colony.

Flatonia, 4.5 miles northwest of, west side of forks of road, 3 feet west of wire fence and 40 feet north of intersection of roads, 200 feet west of Martin McAnally's residence; iron post stamped " 425 SA"
416. 932

Colony post office, 0.5 mile south of, intersection of Flatonia-Cistern road and a public road connecting with Flatonia-Waelder public road, about 400 feet north of John Malony's frame house; iron post stamped " 435 SA ".
352.002
427.084

From Moulton to Gonzales along public roads.
Moulton, 3.5 miles southwest of, intersection of Flatonia and Gonzales road via Old Moulton, about 0.25 mile north of White's cottage gin; iron post stamped " 475 SA ".
Nickel, 600 feet south of post office, at forks of Moulton-Gonzales and NickelDilworth public roads; iron post stamped " 446 SA "
467.022
437.909

Nickel, 3.5 miles southwest of, 20 feet south of road, 3 feet north of wire fence at brow of hill east of Peach Creek, 400 feet southwest of Jeff Hull's residence; iron post stamped " 359 SA ".
350.938

Nickel, 5.5 miles southwest of, 100 feet northwest of Peach Creek, in forks of road; iron post stamped " 269 SA "
260.892

Gonzales, 7 miles northeast of, 0.75 mile west of Denton Creek; iron post stamped " 313 SA ".
304.941

Gonzales, 2.75 miles northeast of, 50 feet northwest of crossing of Lockhart branch of San Antonio \& Aransas Pass Ry. and Moulton-Gonzales public road; iron post stamped " 336 SA "
327.855

Gonzales, 75 feet west of station, 50 feet southwest of crossing of North Avenue, 50 feet south of main track; iron post stamped " 306 SA"

## From Gonzales north along public roads to mile board 137, Galveston, Harrisburg \& San Antonio Ry., near Thompsonville.

$\begin{array}{cc}\text { Gonzales, } 5 \text { feet east of north entrance to courthouse, in rock over basement } & \text { Feet. } \\ \text { window; bronze tablet stamped " } 299 \mathrm{SA} \text { "................................................. } & 291.011\end{array}$
Gonzales, 2.75 miles north of, brow of ridge, east side of road, 1.5 feet west of wire fence, 10 feet north of gate 400 feet south of branch; iron post stamped " 359 SA".
351.168

Gonzales, 6 miles north of, at forks of Gonzales-Thompsonville road and Gonzales-Sandy Fork road; iron post stamped " 419 SA"
411. 105

Mile board 137, 7 miles south of, summit of ridge about 0.5 mile south of branch, 2 feet east of west line of wire fence in lane; iron post stamped "421 SA"
Mile board 137, 2.75 miles south of, intersection of Bastrop-Gonzales and Harwood-Waelder public roads, 6 miles west of Waelder and 12 miles north of Gonzales; iron post stamped " 358 SA"
350.041

Mile board 137, 1.5 miles south of, intersection of roads, 20 feet east of center of public road, 6 feet south of corner of fence, 100 feet northeast of B. A. Eversole's residence; iron post stamped " 359.5 SA"

## From Gonzales to Waelder along public roads.

Gonzales, 3 miles northeast of, intersection of roads, southeast corner of wire fence at private road 0.5 mile northeast of Carr Creek; iron post stamped "338 SA"
Gonzales, 8 miles northeast of, intersection of roads, 125 feet northwest of mouth of lane about 0.75 mile northeast of Denton Creek; iron post stamped " 341 SA "
Possumtrot, intersection of roads, 150 feet southwest of abandoned store, 250 feet southeast of cotton gin, 7 miles southwest of Waelder; iron post stamped " 330 SA "
321.895

Waelder, 3 miles southwest of, intersection of roads, west side of main road, 1 mile northeast of Pecan Creek; iron post stamped " 373 SA "
364.946

## From Possumtrot northeast to mile board 123, Galveston, Harrisburg \& San Antonio Ry., 2.75 miles west of Flatonia.

Possumtrot, 1.75 miles northeast of, 50 feet west of Sandy Fork, 2 feet south of fence, on north side of road, 400 feet east of foot of ridge; iron post stamped " 297 SA "
Winnfield's gin, 2 miles southwest of, 150 feet west of branch, 25 feet north of road, 2 feet south of wire fence; iron post stamped " 348 SA "
340.138

Winnfield's gin, 100 feet southeast of, intersection of Flatonia and Gonzales road via Possumtrot with Moulton-Waelder road, 75 feet west of Moulton road; iron post stamped " 330 SA "
322.038

Winnfield's gin, 1.5 miles southeast of, intersection of Waelder-Moulton and Gonzales-Flatonia (via Possumtrot) roads, 0.75 mile southeast of Peach Creek; iron post stamped " 299 SA".

$$
290.886
$$

Winnfield's gin, 2.5 miles southeast of, intersection of roads, 2 feet east of wire fence, 25 feet north of gate to settlement road west, intersecting the Moulton and Waelder road about 1.5 miles west; iron post stamped "330 SA"

## From Moulton to Winfield's gin.

Old Moulton, intersection of the Waelder and Moulton public road and a road that connects with the Waelder and Moulton road and the Gonzales and Flatonia road, west side of public square; iron post stamped " 436 SA"

## From Nickel south and east to Henkhaus via Bailey triangulation station.

> Nickel, 5 miles south of, Bailey triangulation station; iron post set for triangulation point, stamped " 595 SA".
> Feet. 586.659
From Henkhaus east and north via Witting to Engle on Galveston, Harrisburg \& San Antonio Ry.
Witting post office, 0.5 mile northwest of, intersection of Hallettsville- Moulton and Witting-Flatonia public roads, near signboard marked "Hallettsville 11 miles, Breslau 5 miles, Moulton 7 miles, Flatonia 15 miles"; iron post stamped " 396 SA". ..... 388.051
Witting, 4.75 miles northeast of, forks of Flatonia and Moravia public roads; iron post stamped " 363 SA ". ..... 355.081
Engle, 4 miles south of, near line dividing Lavaca and Fayette counties, at intersection of Hallettsville-Flatonia and Schulenburg-Flatonia public roads with road to Engle; iron post stamped " 411 SA" ..... 403.088
From San Antonio \& Aransas Pass Ry. bridge 81 along track to Gonzales.
Slayden, 5.2 miles southeast of, southeast corner of private road crossing; iron post stamped " 292 ". ..... 292.217
Gonzales, 75 feet west of station, 50 feet southwest of crossing of NorthAvenue, 50 feet south of main track; iron post stamped " 306 SA ".297.738
FREDERICKSBURG QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]
From Oxford to Fredericksburg along public roads.

Oxford, 9 miles south of, east side of road, at junction of road east, 10 feet north of 18 -inch post-oak tree utilized as gatepost; iron post stamped " 1287 SA"
$1,279.787$
Oxford, 12.5 miles south of, east side of road, on west slope of Bell Mountain, at summit of hill; iron post stamped " 1851 SA"
$1,842.851$
Fredericksburg, 14.5 miles northeast of, 12 feet west of southwest fence corner, at junction with Willow City and Llano road; iron post stamped "1749 SA"
$1,741.677$
Fredericksburg, 12.25 miles northeast of, 8 feet north of northwest fence corner, at junction with Burnet and Fredericksburg public road; iron post stamped " 1826 SA".
$1,818.774$
Fredericksburg, 9.5 miles northeast of, on northwest side of road by wire fence, 27 feet northwest of 14 -inch post-oak tree at fence angle; iron post stamped "1953 SA".
$1,945.842$
Fredericksburg, 6.5 miles northeast of, on west side of road, 60 feet east of gate at Grobe's farm, 4 feet west of 15 -inch post-oak tree utilized as fence corner; iron post stamped " 1724 SA".
$1,716.819$
Fredericksburg, 4.5 miles northeast of, 18 feet north of fence corner at angle
in road, 650 feet northeast of Palo Alto Creek; iron post stamped " 1649
SA".....................................................................................71.799
Fredericksburg, 2.75 miles northeast of, at forks with a settlement road running northward, 8 feet northeast of northeast fence corner; iron post stamped "1824 SA".
$1,816.817$
Fredericksburg, southeast of county courthouse, in stone trimming at cor- ner of projection, 7 feet northeast of entrance; bronze tablet stamped Feet. "1708 SA" ..... $1,700.864$
Fredericksburg, northwest side of Fredericksburg and Comfort public road, 55 feet southwest of principal street; iron post stamped " 1695 SA". ..... $1,687.942$
From Fredericksburg to Comfort along Fredericksburg and Comfort road.
Fredericksburg, 4.5 miles south of, on north side of road, 4 feet west of fence post at slight angle, on north bank of Pedernales River; iron post stamped "1609 SA" ..... $1,601.920$
Fredericksburg, 6.5 miles south of, on summit of hill 15 feet south of twin scrub pin-oak tree, 3 feet east of west fence line of road; iron post stamped "1779 SA" ..... $1,771.986$
Fredericksburg, 9 miles south of, 2 feet northeast of fence corner post on west side of road, 105 feet south of 9 -mile post; iron post stamped " 1865 SA" ..... $1,857.841$
Comfort, 11.5 miles north of, 7 feet east of 22 -inch dead post-oak tree utilized as a fence corner post at right-angle bend in road from east to south; iron post stamped " 1976 SA" ..... $1,968.747$
Comfort, 9.5 miles north of, on west side of road, 7 feet north of gate; iron post stamped " 2094 SA" ..... $2,086.955$
From Gobe's ranch, 6.5 miles northeast of Fredericksburg, over Johnson City and Marble Falls road via Grape Creek and Key's ranch to Althouse's ranch.
Gobe's ranch, 3.5 miles southeast of, 15 feet northeast of intersection of roads, 40 feet south of gate; iron post stamped " 1674 SA" ..... $1,666.089$
Gobe's ranch, 7 miles east of, foot of hill, corner of fence north of road, 120 feet west of dry creek; iron post stamped " 1628 SA" ..... $1,620.037$
Gobe's ranch, 10.5 miles east of, north of road at entrance to Nebgen's ranch; iron post stamped "1718 SA" ..... $1,710.327$
Whitman Gap, Brushy Mountain, 14 miles east of Gobe's ranch, at forks of road; iron post stamped " 1742 SA" ..... $1,734.092$
Sultemier's ranch, 0.3 mile southwest of, at fork or Johnson City and Grape Creek road; iron post stamped " 1646 SA" ..... $1,638.101$
Hobart's and Eckart's pastures, on line between, 25 feet east of road; iron post stamped " 1427 SA" ..... $1,418.625$
Blowout, 3.75 miles southwest of, 3 feet south of mailbox post at forks of roads; iron post stamped " 1544 SA " ..... $1,535.742$
From Whitman Gap and Brushy Mountain via Albert to Fredericksburg.
Whitman Gap, 4 miles south of, forks of road; iron post stamped " 1474 SA". 1, 466.065
Albert, 0.3 mile northwest of post office, at forks of road; iron post stamped" 1482 SA"$1,474.024$
Albert, 3 miles west of, 500 feet southwest of Hitchfield house; iron post stamped " 1599 SA" ..... $1,591.142$
Albert, 6 miles west of, at milestone 13, south side of road; iron post stamped "1493 SA" ..... 1, 485. 116
Fredericksburg, 10 miles east of, at intersection of Austin and Fredericks- burg road with Grape Creek and Luckenbach road, north side of road, 200 feet west of milestone 10 ; iron post stamped " 1516 SA" ..... $1,508.305$
Fredericksburg, 7 miles east of, 500 feet north of Millening stone house; iron post stamped " 1577 SA ". ..... $1,568.958$

## From Luckenbach over Blanco road to Albert.

Luckenbach, 600 feet west of post office, forks of Comfort and Fredericks- Feet.burg road; iron post stamped " 1567 SA".$1,559.360$
Luckenbach, 3.7 miles east of, corner of wire fence on north side of road; iron post stamped " 1687 SA " ..... $1,679.187$
Luckenbach, 7.5 miles southeast of, large rock on north edge of road, 1 mile south of county line; aluminum tablet stamped " 1893 SA" ..... $1,884.992$
Blanco, 12 miles west of, south side of road, 175 feet east of milestone 12; iron post stamped " 1657 SA" ..... 1, 649.103
Blanco, 9 miles west of, southeast corner of yard of Weber's house; iron post stamped " 1517 SA ". ..... 1, 509. 373
Albert, 4.2 miles southeast of, summit of divide between Pedernales and Blanco rivers, west side of road; iron post stamped " 1839 SA". ..... 1, 831.438
From Luckenbach over Luckenbach-Comfort road to point 9.5 miles north of Comfort.
Luckenbach, 5 miles west of, intersection of Fredericksburg, San Antonio, and Luckenbach roads; iron post stamped " 1784 SA". ..... $1,776.153$
Luckenbach, 10.7 miles southwest of, at lane to Gill's ranch; iron post stamped " 1611 SA " ..... $1,602.920$
Luckenbach, 14.5 miles southwest of, 800 feet south of Alfred Gill's house; iron post stamped " $1703 \mathrm{~S} \Lambda$ " ..... $1,695.101$
From Sisterdale north to Luckenbach-Blanco road.
Sisterdale, 5 miles north of, west edge of road, by wire fence; iron post stamped " 1472 SA" ..... 1, 464. 211
Sisterdale, 9 miles north of, summit of divide between Blanco River and Sisterdale Creek, 4 feet west of road and 50 feet north of 6 -inch live-oak tree; iron post stamped "1969 SA" ..... 1, 961. 203
From Peter Weber's ranch along Kendalia and Albert road to John Kneupp's ranch.
Weber's ranch, 3 miles south of, northeast side of road, 20 feet north of biggate, at angle in road to east; iron post stamped " 1621 SA".1, 613.233
Weber's ranch, 6.25 miles southeast of, south side of slope, near summitof divide, east edge of road in limestone outcrop; bronze tablet stamped"1879 SA".$1,871.000$
From Ernest Hobort's ranch, 11 miles south of Fredericksburg, west over settlement road to Center Point road, thence north to Junction City road, thence east to Fred- ericksburg.

Hobort's ranch, 3.5 miles west of, at intersection of settlement road with Center Point road and Fredericksburg road, east side of road at gate; iron post stamped " 1810 SA".$1,801.527$
Fredericksburg, 11 miles by road and 7 miles direct southwest of, north slope of hill, east side of road, in limestone outcrop; aluminum tablet stamped " 1746 SA". ..... 1, 738. 158
Tredericksburg, 7.5 miles by road and 4 miles direct southwest of, 600 feet southwest of milestone 4 , at narrow lane running west, west side of road; iron post stamped " 1661 SA". ..... $1,653.030$
Fredericksburg, 3.5 miles west of, 60 feet east of intersection of settlement road with Junction City road, south side of Junction City road, in front of house; iron post stamped " 1816 SA" ..... 1,808. 071

## PRIMARY LEVELING.

From point 2 miles west of Fredericksburg north along Lane and Fort Mason road to Crab Apple road and east to Enchanted Rock.
Fredericksburg, 3.25 miles west of, southwest side of hill, south side of road, Feet. by wire fence; iron post stamped "1899 SA". ..... $1,891.147$
Fredericksburg, 7 miles northwest of, 100 feet southeast of Barrons Creek, 45 feet southeast of milestone 7 , northeast side of road, by fence; iron post stamped " 1954 SA". ..... 1,946. 208
Fredericksburg, 10 miles northwest of, 300 feet north of milestone 10, 4 feet north of 14 -inch post-oak tree, east side of road; iron post stamped "2077 SA". ..... $2,068.627$
Fredericksburg, 13 miles northwest of, 55 feet north of milestone 13, east side of road, in mound of stone; iron post stamped " 2077 SA" ..... $2,069.423$
Fredericksburg, 15.5 miles north of, junction of north-south with east-west road, northeast side; iron post stamped " 1845 SA". ..... $1,837.116$Fredericksburg, 17.75 miles north of, 200 feet east of W. C. Schneider'shouse and 10 feet north of road, in blue limestone outcrop; aluminumtablet stamped " 1857 SA".$1,849.575$
Fredericksburg, 16 miles north of, west side of drain, 100 feet east of stone marked "F B 16 M ," 20 feet northeast of gate, in granite outcrop; alumi- num tablet stamped " 1724 SA" ..... 1, 716. 236
H. Keese's ranch, 3 miles east of, in top of gray granite outcrop on north side of road; aluminum tablet stamped "1691 SA". ..... $1,682.590$
Enchanted Rock, 0.25 miles south of, 500 feet southeast of corrals at Moss's old ranch, 30 feet north of road, in top of pink granite bowlder; alumi- num tablet stamped "1414 SA" ..... $1,410.811$
From P. Scuch's ranch, 9 miles northwest of Fredericksburg, east over settlement road to Gobe's ranch, 6.5 miles northeast of Fredericksburg.
Peter Metzger's house, 400 feet northeast of, 15 feet south of gate, by wire fence; iron post stamped " 2122 SA". ..... $2,114.044$
Fredericksburg, 8.5 miles north of, 100 feet north of dim road running west, on west side of Fredericksburg and Crab Apple road; iron post stamped " 2096 SA" ..... 2, 088.199

## Southwest along Fredericksburg and Burnet public road.

Blowout, 4.75 miles northeast of, 7 feet southwest of gate, 800 feet south- west of White Creek, on northwest side of road; iron post stamped " 1075 SA" ..... $1,066.699$
Blowout, 1.75 miles northeast of, 2 feet southwest of gate, 500 feet south-west of Comanche Creek, on northwest side of road; iron post stamped"1240 SA"1,231.906
Blowout, 1 mile southwest of, 11 feet east of stone wall on west side of road, in top of granite outcrop, 80 feet southwest of gate; bronze tablet stamped "1403 SA" ..... $1,394.555$
Blowout, 3.75 miles southwest of, at forks of road, 3 feet south of mail-box post; iron post stamped " 1544 SA" ..... $1,535.742$
Willow City, 3.75 miles northeast of, 12 feet northeast of dead post-oak tree utilized as fence corner post, north side of road; iron post stamped "1630 SA" ..... $1,621.870$
Willow City, 8 feet west of northeast corner of Rick's cotton-gin yard, on south side of road; iron post stamped " 1680 " ..... 1, 671.661

## GEORGETOWN QUADRANGLE.

## [Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]

## From McNeil to Bertram along Houston \& Texas Central R. R., western division.

> Cedar Park, 0.5 mile east of, west side of Round Rock and Buttercup public road crossing, 26 feet north of track; iron post stamped " 893 SA".

Cedar Park, in front of post office; top of rail.
911.2

Cedar Park, 1.25 miles northwest of, northwest side of Georgetown and Travis county line public road, 46 feet southwest of track, at right of way fence corner; iron post stamped " 968 SA"
960.224

Leander, 1.66 miles southeast of, 45 feet southwest of track; iron post
stamped " 993 SA ".

985.092

Leander, 650 feet south of station, south side of public road, 46 feet west of track; iron post stamped " 983 SA"
975.078

Leander, in front of station; top of rail. 972.4

Liberty Hill, 80 feet northwest of northwest corner of station, 50 feet north-
east of main track on northwest side of Liberty Hill and Round Rock,
public road; iron post stamped " 1040 SA"..................................................
Liberty Hill, 2.25 miles northwest of, south side of settlement road, 28 feet east of track; iron post stamped " 1098 SA".
$1,090.156$

## GIDDINGS QUADRANGLE. <br> [Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $96^{\circ} 30^{\circ}-97^{\circ}$.] <br> From Giddings, west along Houston \& Texas Central R. R.

Giddings, Lee County courthouse, northeast corner of; bronze tablet stamped " 520 SA"
512. 424

Giddings, 2 miles west of, halfway between mileposts 57 and 58 , top of rock coping over southeast end of 18-inch drainpipe culvert 132; copper bolt stamped " 487 SA ".
478.978

Giddings, 3.75 miles west of, 15 feet north of main road, 50 feet west of road crossing small branch, west of Houston \& Texas Central R. R.; iron post stamped " 461 SA ".

## From Giddings to Winchester along San Antonio \& Aransas Pass Ry.

Giddings, 2.75 miles south of, in lane on west side of Giddings and Winchester public road, 35 feet south of south bank of Rabbs Creek and 50 feet west of center of track; iron post stamped " $404 \mathrm{SA}^{\prime}$ "
396.450

Serbin, 50 feet southeast of passenger station, 12 feet east of center of main track, 12 feet north of wagon road; iron post stamped " 482 SA ".
474.512

Serbin, 2.75 miles south of, northwest corner of right of way fence, 70 feet northwest of Giddings-Winchester public road crossing; iron post stamped " 448 SA".
440.548

Winchester, 1.75 miles north of, northwest corner of right of way fence, 42 feet northwest of Giddings-Winchester public-road crossing, 33 feet west of center of track; iron post stamped " 400 SA "
392.534

## From Giddings to Lexington along San Antonio \& Aransas Pass Ry.

Giddings, 1.75 miles north of, southwest corner of right of way fence, 55 feet southwest of crossing of Giddings-Lexington public road, between third an 1 fourth telegraph poles south of milepost 187; iron post stamped " 435 SA"
426.658
Giddings, 3.75 miles north of, 45 feet southwest of crossing of Giddings-

Feet.Caldwell public road, 3 feet north of fence; iron post stamped " 427 SA ".
418.727
Lincoln, 70 feet northeast of passenger station, 22 feet east of main track; iron post stamped " 367 SA " ..... 358.662
Lincoln, in front of station; center of track. ..... 357.4
Lincoln, 1.5 miles north of, 65 feet southeast of Lincoln-Fedor public road crossing, 45 feet east of track, 3 feet northwest of the southeast corner of right of way fence; iron post stamped " 381 SA". ..... 372.643
Lincoln, 5.5 miles north of, 50 feet southeast of Giddings-Lexington public road, 850 feet north of Middle Yegua Creek; iron post stamped " 348 SA". ..... 339.627
SABINAL QUADRANGLE.
[Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $99^{\circ}-99^{\circ} 30^{\prime}$.]
From Hondo to Sabinal along Galveston, Harrisburg \& San Antonio Ry.
Hondo River bridge, north end of east rock pier, in coping; copper bolt stamped "U.S. G. S. 832 B. M." ..... 824.287
Hondo, in front of station; center of track. ..... 889.2
Hondo, Medina County courthouse, southwest corner of portico, in rock pedestal between two iron pillars; bronze tablet stamped " 901 " ..... 893.293
Mile board 264, 10 feet east of; iron post stamped " 904 " ..... 895.893
D'Hanis, in front of station; center of track ..... 880.5
Seco River bridge, 11 telegraph poles east of mile board 269, in top of north end of east rock pier, copper bolt stamped "U. S. G. S. 889 B. M." ..... 881.071
Seco, in front of signboard; top of tie. ..... 1, 065.9
Mile board 274, 75 feet east of; iron post stamped " 1006 " ..... 998.159
Sabinal, 0.25 mile east of station, 35 feet east of milepost 280 , in solid rock; iron post stamped " 957 " ..... 949.180
Sabinal, in front of station; top of tie ..... 955.6
Sabinal and Utopia county road.
Sabinal, 4.5 miles northeast of, in forks of Sabinal-Utopia county road and Bandera-Sabinal county road, 800 feet northeast of two-story stone house owned by Bascom Lyles; iron post stamped " 1022 " ..... 1.014. 286
Sabinal and Bandera (abandoned) county road.
Sabinal, 10 miles northeast of, 45 feet west of lone live oak tree 15 inches in diameter, 30 feet east of road; iron post stamped " 1102" ..... $1,094.223$
From Sabinal south via Sabinal and Friotown road to Woodward's ranch, on FrioRiver.
Sabinal, 3.4 miles south of, intersection of Sabinal-Batesville and Sabinal- Friotown roads; iron post stamped " 894 SA " ..... 886.097
Sabinal, 6 miles south of, 20 feet west of road, and 50 feet north of the northeast corner of old stone house; iron post stamped " 844 SA" ..... 836.174
Sabinal, 10 miles south of, intersection of Sabinal-Friotown road with ranch road, 1 mile north of Sabinal Creek crossing; iron post stamped "799 SA" ..... 791. 190
Sabinal, 12 miles south of, intersection of Sabinal-Friotown and Friotown- Uvalde public roads; iron post stamped " 768 SA ". ..... 760.145Sabinal, $\mathbf{1 5 . 4}$ miles south of, intersection of Friotown public road with roadwhich crosses Blanco Creek and Frio River just above the mouth of SabinalCreek; iron post stamped " 723 SA"715. 233
Woodward's ranch, 6 miles north of, 200 feet south of slough and 15 feet

Feet.
698.190
Woodward's ranch, 2 miles northwest of, at forks of road near gate, right- hand road very dim; iron post stamped " 692 SA " ..... 684.205
Friotown, 3.1 miles north of, east side of road, at a point where road turns left to avoid mudhole; iron post stamped " 653 SA " ..... 645.130
Friotown, in foundation wall, east side of north entrance to abandoned courthouse building now used as store and post office; copper bolt stamped " 632 SA" ..... 624. 566
From Friotown to Moore, on International \& Great Northern R. R., via Henson ranch.
Friotown, 3.8 miles east of, 125 feet north of gate on bank of Frio River,15 feet south of road; iron post stamped " 620 SA "612.208
Friotown, 7.1 miles east of, 25 feet north of four hackberry trees and 15 feet south of road; iron post stamped " 591 SA" ..... 583.185
Friotown, 10.25 miles east of, 2 miles west of Hondo River, 3 feet south of fence at roadside; iron post stamped " 594 SA" ..... 586.199
Friotown, 13.6 miles east of, at forks of Friotown-Moore and Friotown- Pearsall roads, 300 feet southeast of Henson ranch house; iron post stamped " 615 SA" ..... 607.198
Henson ranch, 3.25 miles east of, intersection of Pearsall-Hondo and Frio- town-Moore roads; iron post stamped " 696 SA" ..... 688. 212
From Tehuacana via settlement road to Moore station.
Moore, 4.3 miles west of, intersection of Friotown and Moore raad, viaHenson ranch and Tehuacana road; iron post stamped " 710 SA "702. 259
Moore, in front of station, 25 feet south of main track; iron post stamped " 660 SA" ..... 652.206
From Pearsall to Hondo along public road.
Hondo River iron bridge, 0.75 mile west of, forks of Tehuacana and Mooreroad and Pearsall and Hondo public road; iron post stamped " 626 SA "...Hondo River bridge, 2.3 miles northwest of, intersection of Pearsall-Hondopublic road with road to Friotown, near schoolhouse; iron post stamped" 630 SA ".622. 159
Hondo, iron bridge, 6.25 miles northwest of, 25 feet north of Newton's gate, where old Friotown-Castroville road enters Newton's pasture, 3 feet from fence in lane, west side of road; iron post stamped " 656 SA " ..... 648.009
Hondo, 9.8 miles south of, angle of fence, east side of road, 500 feet south of East Fork of Tehuacana Creek, about 0.75 mile northeast of Buck Hill; iron post stamped " 761 SA ". ..... 752.819
Hondo, 6.75 miles south of, 20 feet south of Live Oak Slough, 40 feet southfrom three large live oak trees, 8 feet from east fence; iron post stamped"782 SA"773.732
Hondo, 3.25 miles south of, corner of fence at intersection of roads; iron post stamped " 840 SA" ..... 831.856
From Dunlay, on Galveston, Harrisburg \& San Antonio Ry., south along old Friotownand Castroville road and third-class road to Briar Branch settlement.

Dunlay, 8.25 miles south of, intersection of Quihe-Devine road with old Friotown-Castroville road; iron post stamped " 816 SA".
Hondo River, west bank of, 10 feet east of road at the Readus crossing and

Feet.20 feet northeast of gate; iron post stamped " 704 SA".
696.149
Seco Creek Crossing, 2.1 miles northeast of, forks of road 75 feet northeast of
an old fence, with gatepost but no gate; iron post stamped " 697 SA ".... 688.836
From point 0.25 mile west of the Seco Creek crossing northwest 3 miles along settlement road branching off the old Friotown and Castroville road.
Seco Creek Crossing, 3 miles west of, at forks of settlement road and Friotown-
Hondo county road; iron post stamped " 678 SA ".................................
669.690
From Hondo City and Friotown public road southwest to Blackaller's ranch road, thence to Blackaller's residence.

Blackaller's residence, 4 miles northeast of, at side of road where present
road leaves old road on account of wash, returning a short distance below;
iron post stamped " 666 SA ".

658. 209
From Blackaller's residence to Charles Woodward's residence, west of Frio River,
via branch road.
Charles Woodward's ranch, 4.9 miles southwest of, 4.75 miles west of Friotown, intersection of ranch road and Friotown and Uvalde public road; iron post stamped " 673 SA"
665.517

## From Friotown and Uvalde public road southeast to Friotown.

Blackaller's ranch, 6 miles north of, 35 feet south of road, 80 feet south of Woodward's windmill, 200 feet east of mesquite pole fence running north and south in Woodward's pasture; iron post stamped " 790 SA".
Blackaller's ranch, 9 miles north of, in front of V. Johnson's residence, on road leading from Friotown and Hondo road near John Allen's place to Sabinal, 2,000 feet south of Squirrel Creek; iron post stamped " 815 SA ". .
V. Johnson's, 3.5 miles north of, 9.75 miles southwest of D'Hanis, in corner of fence 10 feet east of gate; iron post stamped " 925 SA"
D'Hanis, 6.5 miles southwest of, at forks ot road 50 feet south of gate, fence running east and west; iron post stamped " 966 SA ".
782. 189
807.223
917.186
958. 227

From ranch road to John Fohn's ranch southeast to Old D'Hanis.
Mile board 266, 4.5 miles southeast of, near gate 10 feet west of road, 1.5 feet north of fence; iron post stamped " 981 SA"
973.062

Mile board 266, 9.75 miles southeast of, 8.75 miles southwest of Hondo, intersection of roads, east of Fohn's road and south of Major Moore's ranch road to Hondo City (Fohn road crosses the Hondo road and thirdclass Friotown road about 0.25 mile southeast of bench mark); iron post stamped " 848 SA"
840.231

From Hondo and Friotown third-class road southwest to Capt. J. D. Smith's ranch.
Seco Creek Crossing, 2.4 miles east of, at Capt. J. D. Smith's residence, 50 feet north of road, 50 feet from southeast corner of house, 65 feet northwest of 20 -inch mesquite tree; iron post stamped " 777 SA ". $\qquad$
Seco Creek crossing, 2.5 miles west of, 25 feet south of road, 25 feet west of branch, 0.5 mile northwest of High Hill Point; iron post stamped " 789 SA"
769. 703
781.478

# HALSTEAD QUADRANGLE. <br> [Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.] 

## At Moravia.

Moravia, 0.25 mile west of, at intersection of Witting-Moravia and Halletts-ville-Flatonia public roads, 8.25 miles northwest of Witting, near fence line; iron post stamped " 405 SA"

Feet.
397.030

## LLANO QUADRANGLE.

[Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]
From Graphite to Llano along Houston \& Texas Central R. R.

|  | . 6 |
| :---: | :---: |
| Graphite, 1.25 miles northwest of, on north side of Lone Grove public road, 19 feet east of track; iron post stamped " 1015 SA" | 1006. 475 |
| Graphite, 3.75 miles northwest of, on northwest side of a private road, 500 feet sou theast of trestle $91 \mathrm{~A}, 22$ feet southwest of track; iron post stamped " 967 SA" |  |
| Llano, 5.75 miles northeast of, 50 feet northeast of gate at entrance to Bessemer station grounds, 150 feet north of track; iron post stamped " 988 SA". | $621$ |
| Llano, 2.25 miles southeast of, 9 feet east of private road gate, 45 feet north of track; iron post stamped "1027 SA" | ,018. 503 |
| Llano, in front of station; top of | , 020.9 |
| Llano, in front of small park at east end of freight station, 32 feet south of main track; iron post stamped "1029 SA". |  |
| Llano, county courthouse, side of entrance on east front of, in face of pedestal to pillar; bronze tablet stamped " 1050 SA". |  |

## From Llano south via Oxford along public road to Fredericksburg.

Llano, 2.75 miles south of, on west side of road, 125 ,feet south of Oatman Creek, 45 feet south of northeast corner of a cultivated field; iron post stamped "1075 SA"
$1,066.715$
Llano, 6 miles south of, 41 feet west of east fence line of road, 22 feet west of wagon tracks in clump of scrub live oaks on summit of hill; iron post stamped " 1244 SA".
$1,235.864$
Oxford, 1.75 miles north of, 90 feet north of 26 -inch dead oak tree on west side of road near summit of hill; iron post stamped " 1430 SA ".

1, 421. 890
Oxford, 15 feet south of post office, on west side of road; iron post stamped " 1333 SA".
$1,324.765$
Oxford, 2.25 miles south of, 14 feet south of gate on east side of road, at junction with settlement road running east to Click; iron post stamped "1221 SA"

1, 212. 873
Oxford, 4.7 miles south of, 5 feet south of 13 -inch post-oak tree utilized as a
gatepost, on west side of road, at junction with road running west to
Enchanted Rock; iron post stamped " 1261 SA"................................252.869
From point 4 miles west of Smith's ranch to point 2.25 miles south of Oxford via Click.
Click, 4 miles southeast of, 40 feet south of telephone pole, southwest side of road on summit of hill; iron post stamped " 1117 SA".

1, 108. 881
Click, 2 miles southeast of, south side of road by fence corner, at junction with settlement road running northeast, 0.75 mile west of Sandy Creek; iron post stamped "1003 SA"
Click, 0.12 mile east of post office, 75 feet north of northwest corner of Feet.
schoolhouse at forks of roads; iron post stamped "1051 SA".Click Gap, southeast side of road, in top of gray sandstone ledge, 13 feetnorth of twin live oak tree, 40 feet southwest of sammit; bronze tabletstamped " 1393 SA"$1,384.813$
Click Gap, 2.75 miles southwest of, at forks of settlement road running east through Sandy Gap, 500 feet southwest of Moore's farmhouse; iron post stamped "1099 SA". ..... 1,090. 680
From point near Oxford northwest along settlement road.
Oxford, 4 miles southeast of, 0.25 mile east of Hondo Creek, south side of road, 12 feet north of 48 -inch live-oak tree, 35 feet southeast of 45 -inch post-oak tree, on summit of hill; iron post stamped " 1194 SA" ..... $1,185.696$
From Click to point 2.2 miles south of Llano via Round Mountain and Llano upper road.
Click, 3 miles north of, 4 feet north of east gatepost at forks of roads; iron post stamped " 1184 SA" ..... 1, 176. 094
Click, 6.25 miles north of, in top of conglomerate rock, 50 feet southeast of fence angle west of wagon tracks; bronze tablet stamped " 1149 SA". ..... $1,141.084$
Click, 9 miles north of, in top of limestone outcrop, south side of road, 7 feet south of stone wall corner; bronze tablet stamped " 1313 SA". ..... $1,304.644$
Riley Mountain, 8.75 miles southeast of Llano, 30 feet east of 6 -inch scrub oak, 15 feet south of road, on trinagular limestone 50 by 36 by 50 inches; chiseled cross on rock marked "U. S. G. S. B. M." 1568 ..... $1,559.62$
Llano, 7 miles southeast of, on southwest side of road by twin mesquite tree, at junction with a settlement road running south to Middlebrook's ranch; iron post stamped " 1252 SA" ..... 1, 243. 740
Llano, 3.75 miles southeast of, 12 feet north of gate on eastside of wire fence; iron post stamped "1095 SA" ..... $1,087.050$
From Llano north along public road to Cherokee.
Llano, 3 miles north of, 4 feet south of wire-fence corner on east side of road,at junction with settlement road running east; iron post stamped "1112SA".$1,104.031$
Babyhead, 3.25 miles south of, in pink granite outcrop 15 feet west ot eastfence line, opposite to small corral; aluminum tablet stamped " 1253 SA" 1, 244.810
Babyhead, 250 feet southeast of post office, in top of sandstone outcrop,west side of road in front of small corral; aluminum tablet stamped " 1348SA".$1,339.614$
Babyhead, 3 miles north of, in top of flat granite bowlder on east fence line of road, 600 feet southeast of bend; aluminum tablet stamped " 1440 SA ". 1, 431. 760
Cherokee, 2.5 miles south of, 6 feet south of fence corner, at southeast corner of crossroads; iron post stamped " 1515 SA" ..... $1,507.012$
Cherokee, West Texas Normal and Business College, in sandstone trimmingat northwest corner of west wing of building, 6 inches above water table;aluminum tablet stamped " 1530 SA"1, 522.058
From Cherokeo east along Mason and Lampasas road.
Cherokee, 3.5 miles east of, on west bank of Salt Branch, 10 feet south of road, 15 feet northwest of 6 -inch mesquite tree; iron post stamped " 1412 SA" ..... $1,404.041$
Cherokee, 6.75 miles east of, 5 feet southeast of road at bend, in top of lime- stone outcrop; aluminum tablet stamped " 1400 SA". ..... $1,391.787$
Cherokee, 9.33 miles east of, at junction of Mason and Lampasas road with San Saba and Bluffton road; iron post stamped " 1317 SA" ..... $1,308,978$

## South along San Saba and Bluffton road to Boyt's ranch.

## Boyt's ranch, at southwest corner of fence inclosing yard at residence of T. Feet. W. Boyt, on east side of road; iron post stamped " 1461 SA "............ 1, 453. 366 <br> South along settlement road via Tow's and Kuykendall's ranches to Lone Grove and Houston \& Texas Central Ry.

Boyt's ranch, 3 miles south of, on top of embedded limestone bowlder 10 feet west of road at highest point of open prairie; bronze tablet stamped "1501 SA"

1, 493.039
Tow's ranch, 1.5 miles south of, in top of embedded limestone bowlder 15 feet northwest of gate, southwest side of road; bronze tablet stamped "1422 SA".
$1,414.253$
Tow's ranch, 3 miles south of, east side of road, on summit of hill, divide between Falls and Miller creeks; iron post stamped " 1559 SA"........ 1, 550. 810
Lone Grove, 3.25 miles northeast of, 25 feet north of gate, west side of road at junction of Llano and Lampasas road with settlement road to Kuykendall's ranch; iron post stamped " 1141 SA". 1, 132.772
Lone Grove, 150 feet west of post office, 5 feet south of fence in front of cotton gin and on northeast bank of Little Llano Creek; iron post stamped " 999 SA"
990.91

## From Llano via Valleyspring to Field Creek along public roads.

Llano, 3 miles northwest of, northeast side of road near summit of slight incline in front of leaning live-oak tree, 27 feet southeast of telephone pole; iron post stamped " 1131 SA ".
$1,122.892$
Llano, 6 miles northwest of, 3 feet west of northwest fence corner, 250 feet north of milepost "To L 6" at bend in road from south to west; iron post stamped "1161 SA"
Valleyspring, 3.5 miles southeast of, 150 feet southeast of gate, on northeast side of road, 35 feet west of 30 -inch post-oak tree bearing mile board "To L 9 "; iron post stamped " 1207 SA" $1,199.161$
Valleyspring, 0.5 mile southeast of post office, in top of embedded granite bowlder on south side of summit of hill, 200 feet southwest of Methodist Episcopal Church; aluminum tablet stamped " 1335 SA".
$1,326.677$
Valleyspring, 2.66 miles northwest of, north side of road at bend, 15 feet
north of twin post-oak tree; iron post stamped " 1450 SA ".............. 1, 441.657
Valleyspring, 5.66 miles north of, in top of limestone outcrop, northeast side of road, 120 feet northwest of mile board "Llano 17 miles," opposite to R. Baumann's farm residence; aluminum tablet stamped " 1485 SA ". 1, 476.903
Field Creek, 1.75 miles southeast of, at northwest corner of intersection with settlement road running northeast and southwest, at summit of a small hill; iron post stamped " 1407 SA".

1,398. 424
Field Creek, in northwest corner of McLeod, Appleton \& Co.'s general
store, 4 feet above ground; aluminum tablet stamped " 1414 SA"........ 1, 405.985
From Field Creek north along settlement road via Wilson's ranch to Pontotoc and San Saba road.

Northeast along Pontotoc and San Saba road.
Field Creek, 4 miles northeast of, 20 feet east of road, east side of 18 -inch
blackjack tree, 50 feet south of summit of hill, in top of embedded bowlder; aluminum tablet stamped " 1784 SA".

1,775701
Field Creek, 7 miles northeast of, at junction of Mason-Lampasas road; iron post stamped " 1752 ȘA".

1,743. 961

## From point 7 miles northeast of Field Creek east along Mason and Lampasas road to Cherokee.

Cherokee, 9 miles west of, in top of embedded limestone bowlder, south- east side of road, 25 feet east of gate, 12 feet southeast of 14 -inch live-oak Feet. tree; bronze tablet stamped " 1703 SA" ..... $1,694.623$
Cherokee, 5.33 miles west of, on east side of road, 6 feet southeast of gate on division fence line between lands of A. R. Kuykendalls and R. W. Gray; iron post stamped "1616 SA" ..... $1,606.457$
division-fence line between lands of R. W. Gray and George Gray; iron post stamped " 1551 SA" ..... 1,542. 734
From Cherokee to Valleyspring along public road.
Cherokee, 3.5 miles southwest of, north side of road by wire fence, 6 feet from gate; iron post stamped " 1531 SA " ..... $1,522.914$
Valleyspring, 5.75 miles northeast of, in top of sandstone ledge 9 feet south- west of 10 -inch elm tree, 35 feet northeast of Pecan Creek, east side of road; aluminum tablet stamped " 1412 SA" ..... $1,403.930$
Valleyspring, 2.33 miles northeast of, at junction with settlement road southeast; iron post stamped " 1374 SA" ..... $1,365.841$
From Valleyspring southwest along public road to Castell.
Valleyspring, 4.33 miles southwest of, at junction with settlement road running west, 75 feet southwest of small creek; iron post stamped " 1274 SA" ..... $1,265.938$
Valleyspring, 7.25 miles southwest of, south side of road, 5 feet west of gate at end of lane; iron post stamped " 1314 SA" ..... $1,306.018$
Valleyspring, 9.5 miles southwest of, 40 feet north of summit of road at Kings Mountain, in top of pink granite outcrop west of road; alumi- num tablet stamped "1424 SA" ..... $1,416.472$
Castell, 7 miles north of, at southeast corner of intersection of Mason-Burnet and Castell-Pontotoc roads; iron post stamped " 1326 SA" ..... $1,317.968$
From point 7 miles north of Castell south along Castell and Pontotoc road.
Castell, 3.5 miles north of, 3 feet east of gate on east side of road; iron post stamped " 1272 SA" ..... $1,263.85$
Castell, 5 feet north of southwest fence corner at "Traveler's Home," 75 feet east of T. Buchholz's general store and post office; iron post stamped "1207 SA" ..... $1,199.132$
From Castell to Llano eastward along Llano and Mason road.
Castell, 3.33 miles east of, 5 feet west of fence corner at junction with Loyal Valley road opposite 15 -mile board (" 15 miles to L V ."); iron post stamped "1208 SA" ..... $1,200.312$
Castell, 6 miles east of, 12 feet east of 12 -inch elm tree northwest side of road at point where lane runs north to river: iron post stamped " 1154 SA". 1, 146. 167Castell, 8.75 miles east of, 30 feet south of road on west bank of HickoryCreek; iron post stamped "1111 SA".1,103.048
Llano, 6 miles west of, north side of road, east bank of Sixmile Creek, 40 feet northeast of granite post, marked "To Llano 6 miles"; iron post stamped "1085 SA" ..... 1. 077.291
Llano, 3 miles west of, northwest side of road at summit of hill 100 feetnortheast of milestone "To Llano 3 miles"; iron post stamped "1083 SA" 1, 075. 523

From Oxford to House Mountain along settlement roads via. Bennett schoolhouse and
Balcom's ranch.
Oxford, 3.5 miles west of, 10 feet south of road at summit of hill, in top of Feet. sandstone bowlder; bronze tablet stamped " 1497 SA"........................ 1, 489. 222
Oxford, 6 miles west of, 100 feet northwest of Bennett's schoolhouse, at fence corner, south side of road; iron post stamped " 1403 SA".......... 1, 394.957
Oxford, 9.5 miles west of, 60 feet northwest of gate, at junction of old Llano and Fredericksburg road with a settlement road, 0.75 mile northeast of Bull Head Creek, in top of granite outcrop; aluminum tablet stamped "1322 SA".
$1,314.176$
Balcom's rancn, 1.25 miles west of, 450 feet southwest of junction with settlement road running north and south, 2 feet above ground, northwest. side of road, in top of pink granite outcrop; aluminum tablet stamped "1324 SA"
$1,315.937$
Balcom's ranch, 4 miles west of, 800 feet east of a small creek about 1 mile east of House Mountain, 15 feet west of where road passes dim road, southwest side of road, in top of pink granite outcrop; aluminum tablet stamped " 1345 SA ".
$1,336.614$
From House Mountain to Enchanted Rock along settlement road via August Keese's ranch.

Hayne's ranch, 3.5 miles north of, at forks of road 0.33 mile northwest of Marshall Creek; iron post stamped "1369 SA".
$1,360.758$
Hayne's ranch, 300 feet south of Henry Hayne's residemce, west side of road, in top of pink granite bowlder; aluminum tablet stamped " 1425 SA".

1, 416.917
Putman's ranch, 0.5 mile southeast of, northeast bank of Hickory Creek, 75 feet southwest of road, in red sandstone ledge; aluminum tablet stamped " 1525 SA".
$1,517.230$
August Keese's ranch, 0.75 mile east of, 125 feet south of fence dividing lands of August Keese and H. Keese, in small open flat 250 feet east of settlement road running north and south, in top of pink granite outcrop; aluminum tablet stamped " 1749 SA".
$1,741.397$
From Enchanted Rock northeast along settlement road to Watch Mountain.
Watch Mountain, 1.25 miles south of, 25 feet north of road, on south bank of small branch, in top of gray granite outcrop; aluminum tablet stamped "1374 SA".
$1,365.805$

## From Watch Mountain east to Aaron Moss's ranch.

Watch Mountain, 2.2 miles east of, 0.5 mile west of Aaron Moss's ranch, 450 feet southwest of Sand Creek, 20 feet northwest of road, 3 feet southeast of post-oak tree, in top of pink granite bowlder; aluminum tablet stamped " 1270 SA".
$1,262.064$
Moss's ranch, 2.25 miles southeast of, 200 feet southeast of Crab Apple Creek, 10 feet west of 11 -inch hickory tree, south side of road, in top of pink granite bowlder; aluminum tablet stamped " 1188 SA".

1,179. 642
Boyt's ranch, 1.33 miles southeast of, in quartz bowlder between two 20 inch live-oak trees 30 teet south of road; bronze tablet stamped " 1497 SA" 1, 489.055
NEW BRAUNFELS QUADRANGLE.[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$ ]]
From San Marcos to San Antonio along the International \& Great Northern Ry.
Yorks Creek railroad bridge, in top of west end of north rock pier near mile board 219; copper bolt stamped "U.S.G.S. 627 B.M."
Feet. ..... 621.629Goodwin, 40 feet east of main track, 5 feet south of first telegraph pole north
of station; iron post stamped " 695 SA" ..... 690. 143
Goodwin, in front of station; center of track ..... 690.7
New Braunfels, in front of station; center of track. ..... 637.1
Dry Comal Creek, railroad bridge, in top of north end of east rock pier; copper bolt stamped "U.S.G.S. 638 B.M." ..... 633. 293
Mile board 234, 75 feet north of trestle 507, 5 feet south of second telegraph pole south of mile board 234 ; iron post stamped " 692 " ..... 686.98
Corbyn, in front of signboard; center of track ..... 708.7
Mile board 240, southeast corner of right-of-way fence at private road cross- ing near second telegraph pole west of; iron post stamped " 769 " ..... 764.0
Davenport station, in front of; center of track ..... 797.6
Cibolo River railroad bridge, in southeast end of north rock pier; copper bolt stamped "U.S.G.S. 789 B.M." ..... 783. 700
Wetmore siding, 1.75 miles east of, 40 feet north of center of track, 25 feet east of road crossing, 1,000 feet north of church; iron post stamped " 849 ". ..... 844.0
Wetmore, in front of mail hook; center of track ..... 816.4
Adams siding, 2 miles northeast of, 40 feet east of center of wagon road, 40 feet south of center of track, 2 feet from fence; iron post stamped " 786 ". ..... 780.176
Adams siding, in front of signboard; center of track. ..... 718.1
San Antonio, 3 miles north of station, 100 feet north of "city limits" sign- board, in corner of right-of-way fence, near second telegraph pole south of milepost 258 ; iron post stamped " 747 " ..... 742. 19
From San Antonio to Seguin along Galveston, Harrisburg \& San Antonio Ry.
Converse, in front of station; center of track712.5
Cibolo Creek, southwest end of west brick pier; copper bolt stamped "U.S. G.S. 725 B.M." ..... 717.1
Cibolo, northwest corner of Charles Fromer's store, in vertical rock wall; bronze tablet stamped " 712 " ..... 703.6
Marion, in front of station; center of track ..... 643.9
Marion, north side of tracks, 5 feet north of first telegraph pole east of station; iron post stamped " 651 " ..... 642.905
Guadalupe River Bridge, east end of west rock pier, near section house 81; bronze tablet stamped " 552 " ..... 544. 339
SAN ANTONIO SPECIAL QUADRANGLE AND THREE ADJOINING $15^{\prime}$ QUAD- RANGLES ON SOUTH AND WEST.
[Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $98^{\circ}-99^{\circ}$.]
From Dunlay station to Converse along Galveston, Harrisburg \& San Antonio Ry.
Dunlay, 60 feet east and 30 feet south of, southwest corner of station; ironpost stamped " 999 "990.575
Dunlay, 4 miles east of, 40 feet south of track, near corner of right-of-way fence, between mileposts 245 and 246 ; iron post stamped " 858 " ..... 849.872
Noonan, opposite signboard; top of tie ..... 768.4 ..... 768.4
Noonan, 0.25 mile east of, at Chicon Creek Bridge, in top of south end of east rock pier; copper bolt stamped "U.S.G.S. 757 B.M." ..... 748. 196
$25286^{\circ}$-Bull. 637-16-7
Lacoste, 2.25 miles west of, at crossing of Castroville and Devine road, midway between mileposts 237 and 238, 50 feet south of track, in southwest corner of right-of-way fence; iron post stamped " 815 "
Feet.
806.725
Idlewild, in southeast corner of right-of-way fence, 1,200 feet west of water tank, 40 feet south of track; iron post stamped " 692 "
683.854
Idlewild, in front of signboard; center of track............................... 681.4
Medina River Bridge, in north end of west pier (high-water channel); copper bolt stamped "U.S.G.S. 616 B.M.".
608. 279
Medina River, 2 miles east of, midway between mileposts 224 and 225, at crossing of San Antonio-Frio road, in corner of right-of-way fence, 50 feet north of track; iron post stamped " 627 "
618. 858
Mileposts 220 and 221 , midway between, at southwest corner of section house, 40 feet north of track; iron post stamped " 636 "

627.944
Withers, sidetrack, in front of signboard; top of tie.......................... 631.6
San Antonio, 4 miles west of, midway between mileposts 216 and 217, near corner of right-of-way fence at San Antonio and Frio road crossing, 40 feet south of track; iron post stamped " 681 ".
672. 992

## At San Antonio.

San Antonio, in front of Galveston, Harrisburg \& San Antonio Ry. passenger
station; top of rail..................................................................... 675.1
San Antonio, post-office building, corner of Houston Street and Avenue D, in southwest corner; bronze tablet stamped " 669 ".
661. 180
San Antonio, Bexar County courthouse, east side, around first cellar win-
dow south of north entrance, top of flat granite coping; bronze tablet
stamped " 655.7 "....................................................................... 647.794
San Antonio city hall, east entrance, top of large stone north side of steps; bronze tablet stamped " 661.1 ".
653. 212
Kerby, opposite signboard; center of track........................................ 707.0
Mile board 201, sixth telegraph pole east of, 1.5 feet from wire fence; iron post stamped " 735 ".
727.688

## From San Antonio north along International \& Great Northern Ry.

San Antonio, 10 miles north of, trestle 542, 100 feet north and 50 feet east of track, half way between mileposts 244 and 245, in large rock; copper bolt stamped "U.S.G.S. 776 B.M."
767.197

From San Antonio along upper Castroville road to point 2.8 miles west of city limits, thence south partly across country 3.4 miles to Castroville road, thence west and north along Castroville and Canyon roads to Galveston, Harrisburg \& San Antonio R. R. milepost 228.

San Antonio, 1.1 miles directly west of city limits, 1,300 feet south of St. Louis College, north side of upper Castroville road, 10 feet east of avenue; iron post stamped " 722 SA".
713. 964

San Antonio, 2.8 miles west of city limits, 1.8 miles west of avenue to St. Louis College, 0.2 mile east of Salsamora Creek, south side of road, 3 feet east of gate entrance to pasture; iron post stamped " 746 SA ".
737.881

San Antonio, 3.9 miles west of city limits, on lower Castroville road, south side of road, by wire fence, 140 feet west of bridge over Leon Creek; iron post stamped " 689 SA ".
680.424

San Antonio, 6.8 miles west of city limits, on lower Castroville road, at top of hill, south side of road, 0.9 mile east of Medio Creek, 2 feet east of milepost 10 , by wire fence; iron post stamped " 813 SA ".
805.084

San Antonio, 10.5 miles west of city limits, on Castroville road, at forks with Canyon road south, 1.9 miles north of Medina River, at fence corner; iron post stamped " $762 \mathrm{SA}^{\prime}$ "

## From Castroville road north along Canyon road to Culebra Creek, thence southeast along Culebra Creek and upper Castroville roads to Salsamora Creek.

San Antonio, 11 miles west of city limits, on upper Castroville road, at intersection of Canyon road, on west side of Caracal Creek, at southeast fence corner; iron post stamped " 812 SA"

Feet.
San Antonio, 10.4 miles west of city limits, south side of Culebra Creek road, north side of Culebra Creek, 4.5 miles northwest of Leo Creek crossing of upper Castroville road, by wire fence; iron post stamped " 857 SA ".
San Antonio, 7.3 miles west of city limits, west side of Culebra road, 0.3 mile south of Culebra Creek, and 1.5 miles northwest of Leon Creek crossing of upper Castroville road, at angle in road, by wire fence; iron post stamped " 815 SA"
849.117
807. 184

From San Antonio, near milepost 205, Galveston, Harrisburg \& San Antonio Ry., east over Binz-Engleman road, thence southeast over Georgetown road, west on Hedwick road, and south via Sayers to Sulphur Springs road, thence west to San Antonio.

San Antonio, 2 miles east of city limits, south of Binz-Engleman public road and 60 feet south of Galveston, Harrisburg \& San Antonio Ry. track, near crossing; iron post stamped " 682 SA"
674.004

San Antonio, 6 miles east of city limits, 2.2 miles east of Rosillo Creek, summit of ridge at angle of road; iron post stamped " 707 SA ".
699.131

Converse, 4 miles southeast of, west side of Binz-Engleman road, 30 feet south of Greytown road, at intersection; iron post stamped " 670 SA"...
Martinez, 5.5 miles directly east of, on north side of St. Hedwig road by wire fence at intersection with road leading north; iron post stamped " $653 \mathrm{SA}^{\prime}$ ".
662.203

Sayers, 4 miles southwest of, by road and 2.8 miles direct, 8 miles east of city limits of San Antonio, on New Sulphur Springs road at crossing of Arroyo Hondo road, by southeast fence corner; iron post stamped " $593 \mathrm{SA}^{\prime}$....
San Antonio, 3.6 miles southeast of city limits, 700 feet west of farmhouse, on south side of road, at angle in road; iron post stamped " $616 \mathrm{SA}^{\text {" }}$.
645.082
585.204

San Antonio, 0.2 mile east of east city limits, south side of Sulphur Springs road, 6 feet northeast of W. R. Wurzbach's store; iron post stamped " 714 SA"
706. 505

From point southeast of Sayers southeast along Arroyo Hondo road to point 4 miles north of Elmendorf, thence west along various roads via Hillman to Leon.
Elmendorf, 4.2 miles north of, in forks of Arroyo Hondo and Upson roads, at corner of wire fence; iron post stamped " 507 SA "
Hellemans, 5.6 miles direct or 8 miles by road east of, 6 miles southeast of corner of San Antonio city boundary, north side of road, by wire fence, 11 feet east of gate; iron post stamped " $571 \mathrm{SA}^{\prime}$ ".
563. 208

Hellemans, 4 miles southeast of, at intersection of W. W. White's road with Goliad-San Antonio road, 0.5 mile south of mouth of Rosillo Creek joining Salado Creek, southwest side of road by wire fence, 3 feet east of telephone pole; iron post stamped " 570 SA"
562.211

Hellemans (Berg's station), on San Antonio \& Aransas Pass Ry., 600 feet east of, northwest corner of San Juan and Pressa road; iron post stamped " 560 SA"
Hellemans, 4 miles southwest of, at crossing of Mission and San AntonioPleasanton roads, at northeast fence corner; iron post stamped "SA 618 ".
Leon, 2.7 miles southeast of, 4.5 miles south of San Antonio city limits, north side of Mission road, 6 feet east of Apple White-San Antonio roads, at northeast fence corner; iron post stamped " 617 SA "
From intersection of W. W. White road with Goliad-San Antonio road southeast via Calaveras and Fairview to Verdi, thence north via Loire and Losoyo to point 7 miles north of Losoyo. 1
Elmendorf, 2.2 miles northwest of, south side of road, 4 feet north of gate;

Feet. 521. 342 iron post stamped " 529 SA ".521.342
Sampasco switch, at road crossing, 15 feet south of track, 20 feet north of public road; iron post stamped " 488 SA" ..... 480.207
Calaveras, in front of station; center of track ..... 411.7
Calaveras, 0.75 mile south of, summit of small ridge, east side of road, by wire fence; iron post stamped " 428 SA". ..... 420.437
Calaveras, 3.75 miles south of, summit of ridge, east side of road, by wire fence; iron post stamped " $537 \mathrm{SA}^{\text {" }}$ ..... 529.373
Fairview, 1 mile north of, 1,000 feet north of road forks, west side of road, by wire fence; iron post stamped " $569 \mathrm{SA}^{\prime}$ " ..... 561.159
Fairview, 3.5 miles southwest of, north side of road, 4 feet north of gate by wire fence; iron post stamped " 519 SA " ..... 511.648
Verdi, 6 feet northeast of post office, by wire fence; iron post stamped " 455 SA" ..... 447.455
Loire, southeast corner of post office; iron post stamped " 518 SA" ..... 510.618
Loire, 3.5 miles north of, east side of road by wire fence, 2 feet north of gate in front of Washington Williams's house; iron post stamped " 598 SA" ..... 590.714
Losoyo, 4 miles south of, east side of road, by wire fence, at offset in lane; iron post stamped 575 SA" ..... 567.820
Losoyo, 35 feet north of post office, east side of road by fence; iron post stamped " 514 SA" ..... 506. 741
From Earle south to Childress store.
Earle, 0.8 mile north of post office, east side of road by wire fence, 600 feet north of gates; iron post stamped " $522 \mathrm{SA}^{\prime}$ " ..... 514. 250
Earle, 2 miles north of, west side of road by wire fence, opposite milepost "SA 14 " ..... 556.117
Earle, 4.5 miles south of, west side of road at fence corner, midway be- tween mileposts 16 and 17 ; iron post stamped " 593 SA". ..... 585.174
Earle, 7 miles south of, west side of road by wire fence, opposite milepost "SA 19 N ;" iron post stamped " 594 SA" ..... 586.310
Earle, 10.5 miles south of, west side of road by wire fence, 100 feet west of settlement road running northeast through gate; iron post stamped " 526 SA" ..... 518. 196
Childress store, northeast fence corner, 40 feet west of store; iron post stamped " 507 SA " ..... 499.199
From Childress store west along settlement roads via John Cavender ranch north to Gates Valley Church.
Childress store, 4.2 miles west of, 4 feet east of gate, west of entrance to John Cavender's pasture, east side of road; iron post stamped " 501 SA" ..... 493.032
Gates Valley Church, 2,000 feet north of, southeast side of road at forks, 200 feet south of H. Meadow's house, at rail fence; iron post stamped " 525 SA". ..... 517.099
${ }^{1}$ The error distributed in this circuit exceeds the allowable limito
From Gates Valley Church north along Gates Valley and Amphion roads to Mission road.
Gates Valley Church, 2.8 miles north of, at gate, in forks of road by wire Feet.fence; iron post stamped " 585 SA ".577. 254
San Antonio, 21.5 miles south of, west side of road by wire fence, 1,400 feet north of sand ridge east-and west, 900 feet south of gate; iron post stamped " 657 SA " ..... 649. 404
San Antonio, 18.5 miles south of, 900 feet north of settlement road running southeast, west side of road, 4 feet north of 24 -inch blazed blackjack tree; iron post stamped " 751 SA" ..... 743. 221
San Antonio, 15.8 miles south of, summit of ridge, 1,800 feet north of church, east side of road, by wire fence; iron post stamped " 631 SA" ..... 623.479
Divide between Medina River and Leon Creek, west side of road, by wire fence; iron post stamped " 611 SA" ..... 603. 123
From Medina River Bridge, Galveston, Harrisburg \& San Antonio Ry., southeast along highway via Bexar and Rossville to Gates Valley Church.
Medina River Bridge, north end of west pier; copper bolt. ..... 608. 218
Macedonia, 3.8 miles south of, 2.5 miles west of Vonormy, 100 feet north of International \& Great Northern R. R. track at road crossing, north side Bexar and San Antonio road, by wire fence; iron post stamped " 653 SA". ..... 645.072
Bexar, 1 mile north of, northeast of road crossing, by 18 -inch post-oak tree utilized as fence corner post; Iroñ post stamped " 634 SA " ..... 626.239
Bexar, 1 mile south of, 275 feet north of lane running west, 8 feet west of 30 -inch post-oak, east side of road, by wire fence; iron post stamped "682 SA" ..... 674.203
Summerset, 2 miles south of, 6 feet north of 14 -inch hickory, east side of road, by wire fence; iron post stamped " 745 SA " ..... 737. 162
Rossville, 3.2 miles north of, east side of road, at southeast fence corner of cultivated field; iron post stamped " 651 SA" ..... 643. 101
Rossville, southwest corner of post office, east side of road; iron post stamped " 557 SA " ..... 549.211
Rossville, 3 miles east of, fence corners at dim road east and west across Benton-Pleasanton road; iron post stamped " 563 SA " ..... 555.143
SAN MARCOS QUADRANGLE.
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]
From San Marcos along road via Zora and Geronimo to Seguin.
San Marcos, river bridge 0.5 mile east of International \& Great NorthernR. R. passenger station, east end of north rock pier; copper bolt stamped" 585 "577. 732
San Marcos, 2 miles south of, in forks of road, southwest corner, near sign post "Staples 10 miles; Seguin 25 miles;" iron post stamped " 626 " ..... 625. 540
San Marcos, 5 miles south of, 150 feet northeast of W. E. Gray's store, 5 feet south of telephone pole west of road; iron post stamped " 626 ". ..... 625. 769
Zorn, 2 miles north of, west of road, 50 feet north of gate, 200 feet east of house, mail box 25 ; iron post stamped " 628 " ..... 628. 336
Zorn, 50 feet northeast of store, between hitching rail and fence, 100 feetsouthwest of road crossing; iron post stamped " 529 "529. 848
Zorn, 4 miles south of, 300 feet east of schoolhouse, at northwest corner ofroad crossing, mail box 20 ; iron post stamped " 614 "

Geronimo, in front of store between hitching post and gallery; iron post stamped " 584 ".

Geronimo, 2.8 miles south of, at intersection of lane from east, 10 feet south
of mail box 4, marked H. A. Glaeser, 250 feet northwest of house; iron post stamped " 584 ".

Feet.
583.422

Seguin, 1.5 miles north of, Coast and Geodetic Survey triangulation station Mott, 25 feet west of road, in concrete monument; nail marked "U. S. 1903 C. \& G. S. "
581. 144

Seguin, 25 feet north of main track, 1.5 feet east of fence around small park in front of station; iron post stamped " 560 SA ".
552.115

From Seguin along road and San Antonio \& Aransas Pass Ry. via Belmont to Luling.
Seguin, 3.4 miles east of, 250 feet east of Geronimo Creek, 10 feet west of road crossing; iron post stamped " 474 ".
474. 204

Junior, 1.5 miles east of, 50 feet southeast of Aug. Maurer's mail box, 15, in forks of road; iron post stamped " 525 ".
525.45

Junior, 3.8 miles east of, at Hy. Bering's mail box, 28, 50 feet east of, at northwest corner of crossroads; iron post stamped " 512 "
512.081

Junior, 8.1 miles east of, 50 feet east of Henry Denman's store, near gate on wire fence; iron post stamped " 448 "
448. 510

Belmont, 3 miles west of, 150 feet south of L. G. Denman's house (occupied by W. A. Huggins), 20 feet west of gate south of road; iron post stamped "427"
426. 551

Belmont, G. A. Sather's store, southeast corner, in wall 3 feet above ground and 1.5 feet from corner; bronze tablet set vertically, stamped " 393 ".
392.664

Belmont, 2.8 miles north of, at forks of roads, 10 feet north of mail box 10 , east of road, near wire fence; iron post stamped " 439 ".
439. 344

Belmont, 6.6 miles north of, at forks of road, west of road, near wire fence corner; iron post stamped " 434 "
433.849

Luling, 3 miles south of, south of J. B. Wood's house and mail box, 1,000 feet south of, in forks of road (river road and bridge road); iron post stamped " 394 ".
394.008

Luling, in southwest corner of park opposite freight station; iron post stamped " 426 ".
410. 708

## From Luling along road by Tilmon to Lockhart.

Luling, 3.6 miles northeast of, southwest corner of forks of Clear Fork road and Tilmon road; iron post stamped " 413 "
412. 862

Luling, 9.4 miles northeast of, at forks of road 0.5 mile west of gin near
negro's house, northeast corner; iron post stamped " 388 ".................... 387.548
Tilmon, R. Robertson \& Son's store, in front of gallery at northwest corner; iron post stamped " 388 ".
387. 257

Tilmon, 3 miles northwest of, 70 feet east of Plum Creek bridge, north of
road; iron post stamped " 390 ".................................................... 389.776
Seawillow, 0.5 mile northwest of, in front of house, 15 feet south of C. A. Rolsten's mail box, 3 feet north of gate; iron post stamped " 462 "
461. 060

Seawillow, 2.95 miles northwest of, 4 miles southeast of Lockhart, 600 feet southeast of mail box 8 (Mrs. J. T. Martindale), 100 feet north of small bridge, 15 feet east of road, in limestone ledge; bronze tablet stamped " 480 ".
479. 344

Lockhart, in front of San Antonio \& Aransas Pass Ry. station; top of rail.... 513.8
Lockhart, 30 feet south of Missouri, Kansas \& Texas Ry. track, 200 feet west of transfer track of San Antonio \& Aransas Pass Ry., 40 feet west of road crossing; iron post.
504.704

## From Lockhart along road via Fentress to Luling.



## From Fentress along road via Martindale to San Marcos.

Fentress, 4.1 miles northwest of, at intersection of lane and main road, at northeast corner; iron post stamped " 473 "
473. 283

Martindale, 200 feet southwest of Missionary Baptist Church, at corner of
fence, 40 feet east of main road; iron post stamped " 528 ".................... 527.631
Martindale, 1.9 miles northwest of, 250 feet east of Fuller's house, in forks of Rudsville and Fentress-San Marcos roads; iron post stamped " 558 "....
557.865


## From San Marcos via Uhland to Lockhart.

San Marcos, 3.6 miles northeast of, 200 feet southwest of High Prairie schoolhouse, at fence corner; iron post stamped " 598 "
598.077

San Marcos, 8.6 miles northeast of, at northwest corner of crossing roads; iron post stamped " 636 ".
635.896

Uhland, 0.5 mile southwest of, near mail box of E. F. Ranke, in forks of road; iron post stamped " 644 "
644. 227

Uhland, 3.3 miles southeast of, at gate where telephone pole crosses road, west side of road; iron post stamped " 611 "
611. 134

Lockhart, 2.8 miles southwest of, 0.25 mile east of Blank's gin, 80 feet north of crossing of Missouri, Kansas \& Texas Ry., north of road; iron post stamped " 557 "
556.935

Lockhart, in front of Missouri, Kansas \& Texas Ry. station; top of rail.
518.18

From Luling along San Antonio \& Aransas Pass Ry. to point 3.5 miles southeast of Slayden.
Luling, in front of San Antonio \& Aransas Pass Ry. station; top of rail......
400. 1

Luling, 3 miles southeast of, 30 feet north of road crossing at milepost 165; iron post stamped " 347 "
346.653

Andrews, in front of signboard; top of rail
339.6

Luling, 6.4 miles southeast of, in northeast corner of road crossing at milepost 162 ; iron post stamped " 323 "
322.954

Ottine, in front of statoin; top of rail.
338.2
Ottine, 800 feet southeast of station, north corner of cattle-guard fence; iron

Feet.
328.058
Slayden, 500 feet northwest of station, at road crossing at end of switch, at north fence corner of cattle guard; iron post stamped " 327 " ..... 326. 948
Slayden, in front of station; top of rail ..... 327.4
Slayden, 1.8 miles southeast of, at road crossing 1,500 feet southeast of milepost 156, at southeast corner; iron post stamped " 305 " ..... 304.932
From Seguin along Galveston, Harrisburg \& San Antonio Ry. to Harwood.
Seguin, opposite station; center of track ..... 551.2
Elks siding, opposite signboard; center of track ..... 544.3
Elks siding, 200 feet southeast of Neil's house, 1.5 feet from wire fence south of east headblock; iron post stamped " 558 " ..... 550.237
Kingsbury, south of main track, 1.5 feet west of small park west of station; iron post stamped " 614 " ..... 606. 386
Kingsbury, in front of station; center of track ..... 604.6
Sullivan siding, at southeast corner of railroad section 78,40 feet west of headblock south end of switch; iron post stamped " 473 ". ..... 465. 471
San Marccs River, in top of rock bridge seat north end of east pier; copper bclt stamped " 398 " ..... 382. 447
Luling, southwest corner of park opposite freight station; iron post stamped " 426 " ..... 410.708
Ivy siding, southwest corner of right-of-way fence, 200 feet west of west end of siding, east of Luling-Harwood county road; iron post stamped " 455 ". ..... 439. 397Harwood, 100 feet west of station, 25 feet north of track, 2 feet west of west
end of park; iron post stamped " 476 " ..... 460. 528
From Buda to San Marcos along International \& Great Northern R. R.
Kyle, 1 mile north of station, at Kyle and Austin public road crossing, in corner of right-of-way fence, 40 feet east of track, 30 feet north of road; iron post stamped " 713 " ..... 707. 726
Kyle, in front of station; center of track ..... 713.7
Blanco River railroad bridge, in top of northeast end of north rock pier; copper bolt stamped "U. S. G. S. 636 B. M." ..... 631. 000
San Marcos River railroad bridge, in west end or north rock pier; copper bolt stamped "U. S. G. S. 583 B. M." ..... 577. 732
Mile board 215, scuth of road crossing near, west of track; iron post stamped " 662 ". ..... 656. 801
From San Marcos along Missouri, Kansas \& Texas Ry. to Lockhart.
San Marcos River railroad bridge, in west end of north rock pier; copper bolt stamped "U. S. G. S. 583 B. M.". ..... 577. 732
Mile board 1018, 10 feet west of ninth telegraph pole east of, 40 feet south of track, 30 feet east of wagon road; iron post. ..... 580.984
Maxwell, in front of station; top of rail. ..... 604.2
Maxwell, in front of station, 30 feet south of center of track; iron post ..... 603. 916
Clear Fork spur, at headblock; center of track. ..... 566.7
Clear Fork spur, 400 feet east of, 25 feet north of center of track, 50 feet south of San Marcos and Lockhart road crossing: iron post. ..... 569. 726
Lockhart, in front of station; center of track. ..... 517.5
Lockhart, 30 feet south of Missouri, Kansas \& Texas Ry. track, 200 feet west of transfer track of San Antonio \& Aransas Pass Ry., 40 feet west of road; iron post ..... 504. 704

## From Lockhart to Luling along San Antonio \& Aransas Pass Ry.

Cattle guard 40,40 feet south of Hales road crossing, 15 feet west of track; Feet.iron post.487.810
Burdette siding, in front of platform; center of main track. ..... 457.7
Lockhart and Luling public road crossing, 25 feet east of track, 10 feet from fence; iron post ..... 403. 760
UVALDE QUADRANGLE.
[Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $99^{\circ} 30^{\prime}-100^{\circ}$.]
From Uvalde along Dry Frio Canyon road north 20.75 miles.
Uvalde, 4 miles northeast of, 20 feet northwest of gate at fork of Uvalde and Leaky (Frio Canyon) road; iron post stamped " 1009 " ..... $1,000.516$
Chilton ranch, 0.5 mile east of, in corner of fence 10 feet north of road to house; iron post stamped " 1116 " ..... $1,108.250$
Davenport south ranch, 0.25 mile south of, 35 feet east of gate, "Uvalde, 15 miles"; iron post stamped " 1229 " ..... $1,221.122$
Uvalde, 20.75 miles north of, 200 feet south of J. F. Kelley ranch, 10 teet west of gate; iron post stamped " 1356 " ..... 1, 348. 084
From Kelley ranch along Sabinal and Leaky road to Hackberry ranch.
Concan schoolhouse, 465 feet northeast of, 10 feet south of road, inside fence; iron post stamped " 1252 ". ..... 1,243. 860
Florea ranch, 0.25 mile east of, 10 feet southw est of road to ranch, in corner of pasture; iron post stamped " 1183 " ..... $1,174.860$
Hackberry ranch, 600 feet northwest of, 7 feet east of large live-oak tree at tork of Blanco Canyon road up Hackberry Creek; iron post stamped "1122" ..... 1, 113. 980
From Hackberry north along Blanco Canyon road to Enderle ranch.
Hackberry ranch, 4 miles north of, 500 feet south of Enderle ranch, 20 feet south of road; iron post stamped " 1300 " ..... 1, 291. 792
Along Uvalde and Utopia road.
Blanco River, 0.75 mile northeast of, 50 feet north of gate; iron post stamped "1016" ..... $1,007.881$
E. D. Kelley's ranch, 250 feet northwest of, set inside house lot, 20 feet east of gate; iron post stamped " 1103 " ..... $1,094.805$
Sabinal and Utopia road, 1.75 miles southwest of, junction of Uvalde road, 600 feet north of Sabinal River, 50 feet south of road, 2 feet north of small mesquite tree; iron post stamped " 1121 ". ..... 1, 113. 059
On Ranch road via Baldwin tank.
Umlong ranch, 2.25 miles northwest of, 300 feet east of Frio River, 2.25 miles west of Baldwin tank, 50 feet north of gate on road; iron post stamped " 1064 " ..... 1, 055.938
On Nueces Canyon road.
Benson Knob (Round Mountain), summit of; iron post stamped " 1077 "... 1, 069.006
Uvalde, 13 miles northwest of, 100 feet west of gate; iron post stamped"1045"1, 037. 110
Uvalde, 18.8 miles northwest of, 0.33 mile southwest of Nueces River cross- ing, 50 feet north of gate on road to Francis Smith \& Co.'s (Molesworth) ranch; iron post stamped " 1126 " ..... $1,117.430$

## From Laguna northeast 3.5 miles along Sycamore Creek ranch road.


Laguna, 3.5 miles northeast of, opposite yellow bank on creek 2.75 miles northeast of Francis Smith \& Co.'s (Molesworth) ranch house, between road and creek; iron post stamped " 1269 "

1, 261. 181

## On Indian Creek ranch road.

T. J. Lewis's ranch, near the fork of Nueces River and Indian Creek, inside
of lot fence, 25 feet north of house; iron post stamped " 976 "................
William Lewis's ranch, 2.25 miles northeast of, in lot 40 feet south of Van
Ham's lower windmill; iron post stamped " 1164 ".........................1, 156. 255

William Lewis's ranch, 5 miles north of, in lot 60 feet west of Van Ham's windmill; iron post stamped " 1270 "
William Lewis's upper ranch, 6 miles northeast of, 25 feet east of divide between Indian Creek and Dry Frio River, 10 feet south of road; iron post stamped " 1502 "
$1,493.988$
William Lewis's ranch, 8 miles north of, in small elm grove 40 feet east of road fork, 0.75 mile southeast of Francis Smith \& Co.'s (Molesworth) windmill; iron post stamped " 1327 "

1, 318.782
Francis Smith \& Co.'s (Molesworth) windmill, on Indian Creek, 5 miles northeast of, 800 feet west of divide between Indian Creek and Dry Frio River, 50 feet north of gate in west face of Davenport's pasture; iron post stamped " 1609 "
$1,600.886$

## On Uvalde-Fort Clark (Brackettville) road.

Uvalde, 3.75 miles west of, by wire fence south of gate at end of lane; iron post stamped " 935 "
927.662

Uvalde, 8 miles west of, under cat-claw tree on north side of road, 50 feet east of asphalt mine; iron post stamped " 919 "
911.412

Uvalde, 12 miles west of, on saddle between 2 hills, 3.5 miles east of Carbonville (asphalt mine), 20 feet south of road; iron post stamped " 955 "
947. 332

From Uvalde southwest via Uvalde-Smythe and Nunn ranch road to Nunn \& Smythe ranch.
Uvalde, 9 miles southwest of, 1.75 miles southwest of old Tom Nunn ranch, 18 feet west of gate between Tom Nunn and Nunn \& Smythe pastures; iron post stamped " 864 "
Uvalde, 15 miles southwest of, in lot at Nunn \& Smythe ranch house on Turkey Creek, 40 feet west of large gate; iroh post stamped " 848 "
840.418

## From Uvalde southwest via Uvalde and Eagle Pass road 12.5 miles.

Uvalde, 5.75 miles west of, under wire fence 20 feet south of gate at forks of road to Mrs. Bate's ranch on Nueces River; iron post stamped " 977 ".
Uvalde, 12.5 miles southwest of, 3.5 miles west of Nueces River, 30 feet north of road, near cluster of mesquite bushes, on divide between Mustang Creek and Windmill or Elm Creek; iron post stamped " 889 "
969. 655

## From Uvalde southwest to Piper \& West ranch (Hurd windmill) via road.

Uvalde, 10.5 miles southwest of, in corner of lot, 20 feet west of Piper \& West ranch house; iron post stamped " 807 "
799.584

Uvalde, 15.5 miles southwest of, Hurd windmill, Piper \& West ranch, in northeast corner of house lot; iron post stamped " 792 ".
783.971

## Near Turk's ranch.

Turk's ranch, 0.75 mile northeast of, in large rock on east end of Sand Hill;

Feet.
860.182

## From Uvalde southwest 16 miles on Wilderness Lako road.

Uvalde, 13 miles southwest of, in southeast corner of McDaniel's ranch- house lot; iron post stamped " 767 " ..... 759. 152
Uvalde, 16 miles southwest of, 3 miles west of McDaniel's ranch, 2.5 miles southwest of Habbey ranch, 60 feet west of road forks, 10 feet north of road; iron post stamped " 806 " ..... 797.946
From Uvalde south 16 miles on Carrizo Springs road.
Uvalde, 8 miles south of, 1.5 miles north of Pulliam's windmill and water hole, on high ridge, under a small mesquite tree, 10 feet west of road; iron post stamped " 930 " ..... 922.319
Uvalde, 16 miles south of, 1.5 miles south of 7 D ranch house, 20 feet south- west of gate; iron post stamped " 748 " ..... 740.902
From Uvalde toward Batesville along west side of Leona Creek.
Uvalde, 13 miles southwest of, summit of hill in northwest corner of Piper \& Ellis's pasture, 2 miles west of gate on Uvalde and Batesville road; iron post stamped " 964 " ..... 956. 608
Uvalde, 16 miles south of, 1.25 miles south of Piper \& Ellis's ranch house, rear corner of fence, 55 feet east of gate; iron post stamped " 763 " ..... 755. 429
Uvalde, 4 miles south of, 10 feet east of gate; iron post stamped " 890 " ..... 882. 038
Uvalde, 8.75 miles south of, 10 feet east of road, under large mesquite tree; iron post stamped " 864 " ..... 856. 148
Uvalde, 13 miles south of, 1.75 miles north of Piper \& Ellis's ranch house, 10 feet east of gate in fence between Piper \& Ellis's ranch and 7D ranch; iron post stamped " 833 " ..... 825.172
From Ditch road from Uvalde to Batesville, Friotown, and Pearsall along east sido of Leona Creek.
Uvalde, 6 miles southeast of, 50 feet east of gate; iron post stamped " 885 "877.093
Uvalde, 11 miles southeast of, 5 feet east of gate at Baylorsville settlement, on S. C. Bennett ranch; iron post stamped " 826 " ..... 817. 973
Uvalde, 21 miles southeast of, under tree 10 feet north of Leona Creek crossing; iron post stamped " 753 " ..... 745.147
From Lewis ranch south by Friotown and Pearsall road to Bates ranch.
Uvalde, 18.5 miles southeast of, 1.25 miles northwest of Lewis windmill,under a small mesquite tree 100 feet north of road, 225 feet west of Lewisranch road; iron post stamped " 891 "882.500
Uvalde, 25 miles southeast of, 2.5 miles southwest of Burt Hollingsworth'shouse, in northwest corner of house lot at the old Bates ranch (now Piper\& Ellis), on Live Oak Creek; iron post stamped " 784 "739.909
From Lewis ranch north via Sabinal and Batesville road 6 miles.
Lewis ranch, south side of Frio River at crossing, in northwest corner of east house lot; iron post stamped " 793 ". ..... 785. 387
Lewis ranch, 4 miles northeast of, 7 miles east of Englemann's ranch house, 60 feet north of intersection of Uvalde-Friotown-Pearsall road; iron post stamped " 812 " ..... 804. 090
Lewis ranch on Frio River, 6 miles north of, 3.5 miles south of Dr. Wish's ranch on the San Antonio road, 40 feet north of fork of road to Sabinal; iron post stamped " 873 " ..... 865. 42
From Uvalde east along Friotown and Pearsall road to Englemann's.
Uvalde, 11 miles east of, 0.5 mile north of Englemann's house, 25 feet north Feet. of small house on north bank of Frio River; iron post stamped " 864 ".... ..... 856. 092
From Uvalde east along Sabinal and San Antonio road.
Uvalde, 2.75 miles east of, 375 feet east of fork of Utopia road, near a large mesquite tree; iron post stamped " 958 ". ..... 949. 736
Uvalde, 6.5 miles east of, 300 feet east of Frio River at old Moore ranch, 100 feet northeast of house; iron post stamped " 917 " ..... 907. 491
Sabinal, 5 miles west of, 200 feet south of W. A. Kelley's ranch house, under small mesquite tree; iron post stamped " 931 ". ..... 922.953
From Sabinal to Uvalde along Galveston, Harrisburg \& San Antonio Ry
Blanco River, in top of coping, north end of rock pier of iron bridge; cop- per bolt stamped " 942 " ..... 934. 437
Uvalde, 12 miles east of, 20 feet east of the Uvalde and Utopia public road crossing, between tenth and eleventh telegraph poles west of mileboard 290 ; iron post stamped " 987 " ..... 979. 337
Mileboard 296, between eighth and ninth telegraph poles east of, on south side of track; iron post stamped " 965 " ..... 956.996
Leona River bridge, in top of coping, north end of east rock pier; copper bolt stamped " 937 ". ..... 929. 268
Uvalde, in front of station; top of tie. ..... 928.8
Uvalde, 30 feet east of courthouse; iron post stamped " 910 ". ..... 902. 135
Uvalde, in rock east side of north entrance to courthouse; bronze tablet stamped " 913 " ..... 905. 256
Agua Fria, Alpine, Chisos Mountains, Marfa, Saratoga Mountain, Shafter, and Terlingua quadrangles.

## bREWSTER AND PRESIDIO COUNTIES.

The elevations in the following list are approximate, as they are based on an aluminum tablet in the southeast corner stone of the county courthouse at Marfa, stamped "4695 Marfa," the elevation of which is accepted as $4,695.043$ feet above mean sea level. This elevation was determined from Galveston, Harrisburg \& San Antonio Railway levels, the height of the top of the rail in front of the station being accepted as 4,689 feet above mean sea level.

The leveling was done by M. S. Bright in 1901 and 1902, except for the greater portion in the Chisos Mountains quadrangle, which was done by Chester Irvine in 1902 and 1903 in cooperation 'with the University of Texas Mineral Survey.

All permanent bench marks dependent on this datum are stamped with the letters "Marfa" in addition to the figures of elevation. By railroad data a correction of about 10 feet should be added to these elevations to bring them in accord with those at El Paso determined by precise leveling.

## PRIMARY LEVELING.

MARFA QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $104^{\circ}-104^{\circ} 30^{\prime}$.]
From Marfa south 21.5 miles.
Marfa, in southeast corner stone of county courthouse; aluminum tablet Feet.stamped " 4695 Marfa"4, 695. 043
Marfa, at front entrance to Murphy \& Walker's brick storehouse; iron post stamped " 4689 Marfa" ..... 4, 688.963
Marfa, 3 miles south of, summit of ridge, east side of road, by wire fence; iron post stamped " 4628 Marfa" ..... 4, 628.070
Marfa, 6.8 miles south of, in road forks; iron post stamped " 4550 Marfa". . ..... 4,550. 029
Marfa, 10 miles south of, west side of road, at west gate, by wire fence;iron post stamped " 4480 Marfa"$4,480.015$
Marfa, 13 miles south of, summit of ridge, east side of road, at fence corner;iron post stamped " 4324 Marfa"4, 324. 024
Marfa, 16.25 miles south of, west side of road, 5 feet west of gate post; iron post stamped "4261 Marfa" ..... $4,260.947$
Marfa, 19.5 miles south of, west side of road, 200 feet south of road crossing; iron post stamped " 4198 Marfa" ..... $4,198.141$
Marfa, 21.5 miles south of, west side of road, in flat; iron post stamped "4114 Marfa" ..... $4,114.199$
SHAFTER QUADRANGLE.
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $104^{\circ}-104^{\circ} 30^{\prime}$.]
From point 21.5 miles south of Marfa to point 6.25 miles south of Dysart.
Dysart, 7.25 miles north of, west side of road, 900 feet south of forks of same; iron post stamped " 4024 Marfa" ..... 4, 024.148
Dysart, 3.8 miles north of, summit of ridge, west side of road; iron post stamped '" 3975 Marfa" ..... $3,975.120$
Dysart, 2 miles north of, summit of ridge, west side of road and 200 feet north of road forks; iron post stamped " 3853 Marfa" ..... $3,853.003$
Dysart, post office (Alamito town), west side of road, at northeast corner of Carlos Aererav's storehouse; iron post stamped " 3772 Marfa" ..... 3,772. 201
Dysart, 2.5 miles south of, in forks roads; iron post stamped " 3715 Marfa". ..... 3, 715. 246
Dysart, 6.25 miles south of, in small valley, 12 feet west of road, 75 feet east of White Ridge; iron post stamped " 3603 Marfa" ..... 3, 602. 923
AGUA FRIA QUADRANGLE.
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $103^{\circ} 30^{\prime}-104^{\circ}$.]
From point 6.25 miles south of Dysart to point 28 miles southeast of Dysart.
Dysart, 9.8 miles south of, 100 feet north of windmill, south side of road, by wire fence; iron post stamped " 3536 Marfa" ..... $3,536.209$
Dysart, 13 miles south of, south side of road, in mound of stone; iron post stamped "3656 Marfa" ..... $3,656.148$
Dysart, 16.25 miles southeast of, on flat ridge, 4 feet south of road, in mound of stone; iron post stamped "4071 Marfa" ..... $4,071.189$
Dysart, 18.8 miles southeast of, 6 feet east of road, 40 feet west of draw, in limestone outcrop; aluminum tablet stamped "4022 Marfa" ..... $4,022.297$
Dysart, 21.8 miles southeast of, 200 feet southwest of water tank, 8 feet west of road; iron post stamped " 4133 Maria" ..... $4,133.184$
Dysart, 25.25 miles southeast of, east foot of hill, west side of road; iron post stamped " 4204 Marfa" ..... 4, 204.024
Dysart, 28 miles southeast of, summit of ridge, east side of road, in mound of stone; iron post stamped " 4496 Marfa" ..... 4, 496. 258

## From Adobe Walls north to point near Neville ranch.

Adobe Walls, 2.25 miles north of, 25 feet west of the Alpine road at summit Feet. of flat divide; iron post stamped " 3447 Marfa".......................... 3, 447. 290Adobe Walls, 5.5 miles north of, wire fence east and west, west side of road,at west gatepost; iron post stamped " 3360 Marfa"3, 360.407
Adobe Walls, 8.5 miles north of, west side of road, in open flat, at mail box; iron post stamped " 3301 Marfa" ..... 3, 301.368
Adobe Walls, 11.8 miles north of, 10 feet west of road; iron post stamped"3467 Marfa".3, 467. 231
Butcherknife Wells, 11.8 miles south of, west side of road, at foot of hill; iron post stamped " 3684 Marfa" ..... 3, 684.245
Butcherknife Wells, 8.5 miles south of, 4 feet west of road, on flat table-land; iron post stamped " 3849 Marfa". ..... 3, 849.423
Butcherknife Wells, 5.25 miles south of, 0.25 mile south of road forks, on spur of ridge, 8 feet east of road; iron post stamped " 3917 Marfa". ..... 3, 917.443
Butcherknife Wells, 2.5 miles south of, east side of road, south side of clusterof mesquite bushes; iron post stamped " 3760 Marfa".3, 760.645
Butcherknife Wells, 790 feet north of windmill and 150 feet east of ranch house, west side of road by wire fence; iron post stamped " 3798 Marfa". . 3, 798. 449Butcherknife Wells, 3.25 miles north of, 6 feet west of road; iron poststamped " 3836 Marfa".3, 836.474
Butcherknife Wells, 6.25 miles north of, in road forks; iron post stamped " 4009 Marfa" ..... 4, 009.460
The Two Windmills, 0.25 mile west of, 8 feet west of road; iron post stamped " 4102 Marfa" ..... 4, 102.592
The Two Windmills, 3.25 miles north of, 2 feet east of new road and 4 feet west of old road; iron post stamped " 4245 Marfa" ..... $4,245.557$
At Agua Fria Springs.
Agua Fria Springs, 12 feet north of springs, in limestone outcrop; bronze tablet stamped " 3537 Marfa" ..... 3, 537.510
TERLINGUA QUADRANGLE.
[Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $104^{\circ}-104^{\circ} 30^{\prime}$.]
From point 28 miles southeast of Dysart to Terlingua.
Dysart, 31.25 miles southeast of, on spur of ridge, 75 feet east of draw and 14 feet east of road; iron post stamped " 4262 Marfa". ..... 4, 262.449Dysart, 34.5 miles southeast of, 20 feet east of canyon, 2 feet west of road, inlimestone outcrop; bronze tablet stamped " 3808 Marfa".3, 808.174
Terlingua, 20.8 miles northwest of, in Fresno Canyon, about 0.7 mile north of Arroyo Segundo, west side of road, in large limestone bowlder outcrop; bronze tablet stamped " 3402 Marfa". ..... $3,402.185$
Terlingua, 17.25 miles northwest of, on spur of ridge, 500 feet west of canyon, 20 feet west of road; iron post stamped " 3119 Maria" ..... 3, 119. 328
Terlingua, 14 miles northwest of, summit of small sharp ridge, 500 feet east of canyon and 75 feet west of road forks, where main road to Terlingua leaves Fresno Creek; iron post stamped " 2789 Marfa" ..... 2, 789. 104
Terlingua, 11 miles northwest of, summit of sharp ridge, 60 feet west of road forks, south side of road; iron post stamped " 2662 Marfa" ..... 2, 662.136
Terlingua, 7.8 miles west of, in draw 60 feet west of channel, 25 feet south of road, in limestone outcrop; bronze tablet stamped " 2745 Marfa" ..... 2, 745. 168
Terlingua, 5 miles by route south of, 0.65 foot west of canyon, 4 feet east of road, in mound of stone; iron post stamped " 2634 Marfa" ..... 2,634. 219
Terlingua, 2.8 miles southeast of, summit of small ridge, 160 feet northeast Feet.of road forks, northwest side of road; iron post stamped " 2816 Marfa"... 2, 816. 244
Dewee's mine, in south wall of stone warehouse; aluminum tablet stamped"3201 Marfa"$3,201.369$
Terlingua, in north wall of rock building utilized as post office and store of Marfa Maraposa Mining Co.; bronze tablet stamped " 3272 Marfa" ..... $3,272.449$
From Dewee's mine east and north to Colquitt-Tigner mine.
Dewee's mine, 2.8 miles east of, in road forks, in limestone outcrop; bronze tablet stamped "3066 Marfa" ..... $3,066.468$
Colquitt-Tigner mines, 125 feet southeast of rock building, in limestone ledge; bronze tablet stamped " 3274 Marfa" ..... 3, 274.30
From point near Dewee's mine east and north to Adobe Walls Mountain.
McKinney Bros. mines, 1,200 feet southeast of, east side of draw, north side of road, at forks of same; iron post stamped " 2722 Marfa" ..... 2, 722.443
Cigar Springs, 0.8 mile south of, 100 feet east of Alpine road and 15 feet west of Cigar Springs road; iron post stamped " 2716 Marfa" ..... 2, 716.375
Cigar Springs, 3.8 miles north of, 10 feet west of road, 30 feet south of draw; iron post stamped " 2671 Marfa" ..... $2,671.308$
Alvin Reed ranch (Rock Corral), 1.5 miles north of, 400 feet south of road forks, west side of road at foot of hill; iron post stamped " 2795 Marfa".. 2, 795.373Alvin Reed ranch, 5 miles north of, 25 feet south of road, at foot of blackhill; iron post stamped " 3049 Marfa"3, 049.261
Adobe Walls and Spring, 0.25 mile west of, 15 feet west of road, at foot of small knoll; iron post stamped " 3313 Marfa" ..... $3,313.361$
From point near Rock Corral northwest along road to Agua Fria Springs (line run twice).
Agua Fria Springs, 6.25 miles southeast of, 75 feet south of Terlingua Creek, 6 feet south of trail, at northwest corner of rock bluff; iron post stamped " 2885 Marfa" ..... $2,885.388$
Agua Fria Springs, 3.25 miles southeast of, north side of draw, east foot of hill, 2 feet south of trail; iron post stamped " 3175 Marfa". ..... 3, 175. 309
From Cigar Springs east to Joe Black Springs.
Cigar Springs, 2.8 miles east of, north side of road, on sharp rock ridge;iron post stamped " 2577 Marfa"$2,577.265$
Joe Black Springs, 0.25 mile west of, 60 feet north of road, 20 feet west of wire fence, at foot of rock bluff in sandstone rock; aluminum tablet stamped "2661 Marfa" ..... 2, 661. 340
From Pena Springs west and southwest to Rio Grande.
Pena Springs, 2 miles west of, summit of small divide, 40 feet northeast ofroad; iron post stamped " 2415 Marfa"$2,415.611$
Dewee's old smelter, 1.8 miles east of, in open flat, 12 feet south of road forks; iron post stamped " 2344 Marfa" ..... $2,344.621$Mexican settlement, 100 feet west of Terlingua Creek and 12 feet west ofroad, at double cottonwood tree; iron post stamped " 2211 Marfa"2, 211.538
From Rio Grande northwest to point near Terlingua.
Grand Canyon of Santa Helena, mouth of, in forks of Terlingua Creek and the Rio Grande, in rock bench; aluminum tablet stamped " 2146 Marfa". 2, 146. 630
Grand Canyon, 5 miles north of, in road forks in open flat; iron post Feet.stamped " 2316 Marfa"$2,316.624$
Grand Canyon, 8.5 miles north of, 10 feet east of road, on side of knoll; iron post stamped " 2516 Marfa" 2, 516. 771
From Grand Canyon of Santa Helena east along road down Rio Grande to Cipriano Hernandes ranch.
Cipriano Hernandes ranch, 10 feet north of forks of road, 300 yards north of ranch house, in embedded bowlder; probably an aluminum tablet (hole was drilled to receive tablet, but there is no record in the U. S. Geo- logical Survey office that tablet has been set). ..... $2,124.059$
ALPINE QUADRANGLE.
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $103^{\circ} 30^{\prime}-104^{\circ}$.]
From point near Neville ranch north to Alpine.
Neville ranch, 0.5 mile northwest of, 120 feet west of Calamity Creek, 8 feet west of road at foot of hill; iron post stamped " 4362 Marfa" ..... $4,362.557$
Neville ranch, 4.25 miles north of, 60 feet south of creek, 6 feet east of road; iron post stamped "4498 Marfa" ..... 4, 498. 677
Neville, 7.5 miles north of, 40 feet south of red gate, west side of road by wire fence; iron post stamped " 4716 Marfa" ..... 4, 716. 453
Neville ranch, 10.5 miles north of, 100 feet east of road, west side of rocky knoll in sandstone outcrop; bronze tablet stamped " 4977 Marfa". ..... 4, 977.446
Alpine, 12.5 miles south of, at summit in gap, 12 feet west of road in vol- canic outcrop; bronze tablet stamped " 5192 Marfa". ..... 5, 192.373
Alpine, 10 miles southeast of, at summit in gap, 25 feet north of road in vol- canic rock; bronze tablet stamped " 5404 Marfa" ..... $5,404.225$
Alpine, 6.5 miles southeast of, summit in divide, 20 feet northeast of roadin limestone outcrop; bronze tablet stamped " 5255 Marfa".$5,255.545$
Alpine, 3.5 miles southeast of, in forks of road; iron post stamped " 4673Marfa"4, 673.650
Alpine, at east entrance of county courthouse, in north end of third step; bronze tablet stamped " 4476 Marfa" ..... $4,476.715$
From Apline west along Galveston, Harrisburg \& San Antonio Ry, to point near Marfa.
Alpine, 3.8 miles west of, 50 feet north of railroad track, 20 feet south of public road, 5 feet east of gate; iron post stamped " 4665 Marfa". ..... $4,665.663$
Toronto, in front of signboard; top of rail. ..... $4,735.2$
Alpine, 6.8 miles west of, 30 feet southwest of milepost 616,20 feet north of public road, in flint rock outcrop; bronze tablet stamped " 4820 Marfa". ..... 4, 820.517
Alpine, 9.8 miles west of, 300 feet west of milepost 619,50 feet north ofpublic road, by wire fence, in sandstone rock; bronze tablet stamped"4964 Marfa"$4,964.764$
Paisano, 1.5 miles west of, 150 feet south of railroad track, 65 feet north of public road, in limestone outcrop; bronze tablet stamped " 4999 Marfa"... ..... 4, 999.401
Paisano, 4 miles west of, 50 feet south of railroad track; 3 feet south of milepost 626 ; iron post stamped " 4910 Marfa" ..... $4,910.531$
Nopal siding, 100 feet south of track, 10 feet east of gate; iron post stamped"4806 Marfa"$4,806.728$
Marfa, 4 miles east of, 0.25 mile southwest of milepost 632 , in road forks; iron post stamped " 4813 Marfa" ..... $4,813.683$

## CHISOS MOUNTAINS QUADRANGLE.

## [Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $103^{\circ}-103^{\circ} 30^{\prime}$.] <br> From Joe Black Springs east to Pena Springs.

Joe Black Springs, 3.25 miles east of, 100 feet southeast of road and 50 feet Feet.
southwest of creek, at foot of round hill; iron post stamped " 2745 Marfa". ..... $2,745.447$
Joe Black Springs, 6.25 miles east of, 40 feet north of road, in volcanic rock; aluminum tablet stamped " 2901 Marfa" 2, 901.394
Gano Springs, 3.5 miles west of, 40 feet south of road, in sandstone outcrop; aluminum tablet stamped " 3134 Marfa" ..... $3,134.302$
Gano Springs, 100 feet north of springs and 2,000 feet east of road forks, north side of draw; iron post stamped " 3492 Marfa" ..... $3,492.464$
From Gano Springs southwest via the Chimneys to Pass Springs.
Rock Hut, 1.8 miles south of, flat ridge, 25 feet east of road, in sandstone outcrop; aluminum tablet stamped " 3731 Marfa" ..... $3,731.560$
Rock Hut, 5 miles south of, summit of divide, 20 feet east of Smugglers' trail, in flint-rock outcrop; aluminum tablet stamped " 3842 Marfa" ..... $3,842.997$
Burro Springs, 1 mile southwest of, 20 feet west of road, north bank of draw, in bowlder outcrop; aluminum tablet stamped " 2963 Marfa" ..... $2,963.489$
The Chimneys, 1.5 miles west of, 100 feet southwest of road, in sandstone outcrop on flat ridge; aluminum tablet stamped " 2634 Marfa" ..... 2,634. 460
From Gano Springs northeast via Neville Spring and Stroud's mail box to Bone Springs.
Gano Springs, 4.4 miles northeast of, on ridge 5 feet west of road, 300 feet east of creek; iron post stamped "3504 Marfa 1903" ..... $3,504.420$
Gano Springs, 7.4 miles northeast of, 5 feet south of road and about 0.5 mile southwest of red ridge; iron post stamped " 3523 Marfa 1903" ..... 3, 523. 128
Neville Spring, 4.3 miles west of, at Paint Gap crossroads; iron post stamped " 3387 Marfa 1903" ..... 3, 386. 873
Neville Spring, 0.4 mile west of, at forks of road, east side of drain; iron post stamped " 3293 Marfa 1903" ..... 3, 293. 028Neville Spring, 2.6 miles northeast of, on end of ridge, 40 feet south of road,south bank of creek, 600 feet east of where road leaves creek bed; bronzetablet stamped "2968 Marfa 1903"$2,967.733$
Neville Spring, 5.8 miles northeast of, 20 feet west of road, at summit of lowridge bearing east and west, 600 feet south of pasture gate; iron poststamped " 2814 Marfa 1903"2, 813.827
Neville Spring, 8.5 miles northeast of, junction of Neville Spring, Marathon,and Boquillas-Marathon roads; iron post stamped " 2828 Marfa 1903"2,828. 096
From Stroud's mail box southeast along wagon road via Boquillas to Old Boquillas.
Stroud's mail box, 4.5 miles south of, 1.5 miles north of old goat ranch, in group of small hills, 30 feet west of road; bronze tablet stamped " 2744 Marfa 1903" ..... 2, 744. 080
McKinney Spring, 0.25 mile north of, 10 feet north of road; iron post stamped "2947 Marfa 1903" ..... 2, 946. 863
McKinney Spring, 2.5 miles east of, north side of road, in cut for roadway, end of ridge; bronze tablet stamped " 2994 Marfa 1903" ..... $2,993.726$
McKinney Spring, 5.5 miles southeast of, 10 feet south of road in small saddle, 700 feet south of where road crosses and leaves creek; iron post stamped " 2732 Marfa 1903" ..... 2, 731. 889
$25286^{\circ}$-Bull. 637-16-8
Boquillas, 3 miles north of, in ridge where road leaves creek, 8 feet west of Feet. road; bronze tablet stamped " 2469 Marfa 1903 " ..... 2,468. 903
Boquillas, southeast corner of adobe building, 100 feet northeast of Ernst'sstore and post-office building; bronze tablet stamped " 2133 Marfa 1903".2, 133. 204
Boquillas, 1 mile east of, at forks, 6 feet south of road; mark on stone ..... 2, 255. 77
Boquillas, 4.31 miles southeast of, at junction of roads in drain; iron poststamped " 2029 Marfa 1903"2, 028. 770
Old Boquillas, north side of road, on small ridge, 350 feet west of two old adobe houses; iron post stamped "1873 Marfa 1903" ..... 1,873. 103

From Old Boquillas southwest to Mariscal Mountain, thence west to Hernandes ranch.

San Vicente, 1.5 miles northeast of, on southwest slope of small rocky hill, 10 feet east of road, 350 feet north of road forks, east side of Tornillo Creek; iron post stamped "1881 Marfa 1903"
San Vicente, 1.5 miles southwest of, 1,600 feet east of junction of roads on summit of ridge, 10 feet north of road, embedded bowlder; bronze tablet stamped "1965 Marfa 1903"
San Vicente, 3.8 miles southwest of, junction of roads on flat, embedded bowlder 10 feet west of road; bronze tablet stamped "1915 Marfa 1903".. 1, 915. 023
San Vicente, 7.5 miles southwest of, 120 feet north of road, end of small rock ridge, at junction of drains; bronze tablet stamped "1998 Marfa 1903".. 1, 997. 833
San Vicente, 10.5 miles southwest of, 10 feet west of road, 400 yards south of yellow bluff side of drain, embedded bowlder; bronze tablet stamped "2135 Marfa 1903"
$2,134.740$
Mariscal Mountain, north end of, summit of ridge, 15 feet west of road, in saddle; bronze tablet stamped " 2385 Marfa 1903". $2,384.557$

Mariscal Mountain, 1 mile west of, 2,000 feet south of, where road comes
through small gap, east bank of dry wash, 10 feet west of road, between
hills; bronze tablet stamped " 2217 Marfa 1903"'

$2,216.994$

Mariscal Mountain, 4 miles west of, on summit of flat ridge, 10 feet south
of road; bronze tablet stamped " 2325 Marfa 1903 "....................2,325.036
Mariscal Mountain, 7 miles west of, 1,800 feet east of road forks, slope of small hill in valley, 30 feet south of road; bronze tablet stamped ' 2138 Marfa 1903".
$2,137.668$
Mariscal Mountain, 10.5 miles west of, 3 miles east of Alvin Reed's spring, 10 feet north of road, on low ridge, between drains; bronze tablet stamped "2269 Marfa 1903"

2,268. 778
Said Bend of Rio Grande, on end of ridge, west side of mouth of large drain, 30 feet west of road; bronze tablet stamped " 2053 Marfa 1903".

2, 052. 560
Mexican settlement, 4 miles east of, 1 mile south of 4 blackjacks, south side of drain, 20 feet south of road; bronze tablet stamped " 2140 Maria 1903". 2, 139. 434
Mexican settlement, 1 mile east of, 40 feet northwest of forks of road, west bank of large drain, in embedded bowlder; probably a bronze or aluminum tablet $2,086.434^{1}$
Cipriano Hernandes ranch, 6 miles east of, 1 mile north of where road leaves Rio Grande and goes around hills, 10 feet south of road, summit of divide, in embedded bowlder; probably a bronze or aluminum tablet
$2,251.788^{1}$
Cipriano Hernandes ranch, 3 miles east of, 20 feet south of road, summit of divide, in embedded bowlder, 1 by 3 by 2 feet, 2 feet in ground; probably a bronze or aluminum tablet.
$2,134.431^{1}$

[^3]
## SARATOGA MOUNTAIN QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $103^{\circ}-103^{\circ} 30^{\prime}$.]
Near Stroud's ranch.
Note.-The following three elevations are means of direct and reverse lines.
Stroud's mail box, 1.8 miles north of, 20 feet east of road, on slope of small Feet. gravel hill; iron post stamped " 2881 Marfa 1903"..................... 2, 881. 256
Stroud's lower tank, 1,830 feet north of, 10 feet east of road, iron post stamped " 2753 Marfa 1903"

2, 753.011
Bone Springs, about 1 mile south of, 3 miles north of Stroud's lower tank,
20 feet west of road; iron post stamped " 2641 Marfa 1903"..............2, 640.996
Chispa and Van Horn quadrangles.

## EL PASO COUNTY.

The elevations in the following list were determined by primary leveling extended from Fay, and were originally based on the elevation of the top of the rail in front of the station at Fay, accepted as 4,010 feet. Several bench marks near Van Horn were redetermined by the U. S. Coast and Geodetic Survey in 1911, and their elevations, found to be about 8 feet too low, have been corrected to agree with the 1912 adjustment.
The leveling was done by Chester Irvine in 1903, and by Stuart T. Penick in 1905.

## CHISPA QUADRANGLE.

[Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $104^{\circ} 30^{\prime}-105^{\circ}$.]
From Fay, Galveston, Harrisburg \& San Antonio Ry. station, across country to Van Horn, Texas \& Pacific Ry. station.

Feet.
Fay, in front of station signboard; top of rail............................... 4, 018.0
Fay, west side of gate, 150 feet east of station signpost, 800 feet east of section house; iron post stamped "4007 Van Hn 1903"

4, 015.332
Cox ranch, 600 feet east of residence, east side of gate; iron post stamped
" $3948 \operatorname{Van} \operatorname{Hn} 1903$ "..................................................... 3, 955.779
VAN HORN QUADRANGLE.
[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $104^{\circ} 30^{\prime}-105^{\circ}$.]
From Van Horn east along Texas \& Pacific Ry. to Plateau.
Van Horn, in front of Texas \& Pacific Ry. station; top of rail
Van Horn, 240 feet west of station, 100 feet south of main track, 4 feet south of telegraph pole; iron post stamped " 4039 Van Hn 1903" (C. \& G. S. elevation)
Van Horn, 3 miles east of, 0.25 mile north of railway, 15 feet north of wagon road, 10 feet south of dry ditch; iron post stamped " 3922 Van Hn 1903". 3, 929.967
Van Horn, 6 miles east of, 700 feet east of milepost 796,50 feet south of track, 10 feet south of wagon road; iron post stamped "3867 Van Hn 1903 " (C. \& G. S. elevations)

3, 874.927
Wild Horse, in front of section house; top of rail............................ 3, 852
Wild Horse, 1 mile east of, 1,400 feet east of milepost 733, 100 feet south of track, 10 feet north of wagon road; iron post stamped " 3826 Van Hn 1903" (C. \& G. S. elevation).

3, 833.936
Wild Horse, 4 miles east of, 1,300 feet east of milepost 730, 60 feet south oftrack, 10 feet north of wagon road; iron post stamped " 3840 Van Hn 1903 "(C. \& G. S. elevation)
Feet.$3,848.411$
Plateau, 1.5 miles west of, 100 feet south of track, 1,000 feet east of milepost 727, 10 feet north of wagon road; iron post stamped " 3889 Van Hn 1903" (C. \& G. S. elevation) ..... 3, 897.505
Plateau, in front of section house; top of rail. ..... 3, 944.8
From Plateau north along highways via Marley's ranch to Marley's tank.
Plateau, 1.5 miles north of, 200 feet west of forks of roads, 100 feet south of tank, 10 feet south of forks of road; iron post stamped " 3916 Van Hn 1903". ..... $3,924.151$
Plateau, 4.5 miles north of, 5 feet west of road; iron post stamped " 3865Van Hn 1903"$3,873.347$
Marley's ranch, 300 feet north of corral, 300 feet east of residence; iron post stamped " 3759 Van Hn 1903" ..... $3,767.386$
Marley's ranch, 2.25 miles north of, forks of road; iron post stamped "3779 Van Hn 1903" ..... $3,787.344$
Marley's ranch, 5.8 miles north of, 5 feet east of road to Luckett's camp; iron post stamped " 3899 Van Hn 1903" ..... $3,907.137$
Marley's ranch, 8.8 miles north of, junction of Marley's ranch tank road and Old Salt road; iron post stamped " 3969 Van Hn 1903 ". ..... $3,977.251$
Marley's tank, 2,400 feet east of, 15 feet south of Figure 4-Van Horn road; iron post stamped "Van Hn 19034148 ". ..... $4,156.338$
From Marley's tank southwest via Marley's lower ranch to Van Horn.
Marley's tank, 2.5 miles west of, 10 feet east of road on summit of small ridge; iron post stamped " 3899 Van Hn 1903" ..... $3,907.332$
Marley's lower ranch, 1.8 miles northeast of, 10 feet east of road; iron post stamped " 3708 Van Hn 1903" ..... 3, 716. 552
Marley's lower ranch, 1.6 miles south of, at forks of road; iron post stamped "3663 Van Hn 1903" ..... $3,671.316$
Marley's lower ranch, 4.6 miles south of, 10 feet east of road; iron post stamped " 3715 Van Hn 1903 " ..... 3, 723. 121
Marley's lower ranch, 7.6 miles south of, 0.5 mile east of small hill, 5 feet east of road; iron post stamped " 3833 Van Hn 1903". ..... 3, 841. 161
Marley's lower ranch, 11.5 miles south of, 30 feet west of forks of road; iron post stamped " 4115 Van Hn 1903" ..... 4, 123. 371
Van Horn, 4.4 miles north of, 15 feet east of road; iron post stamped " 4081 Van Hn 1903" ..... $4,089.483$
Van Horn, 1.5 miles north of, 200 feet southwest of tank, 5 feet east of road; iron post stamped " 4074 Van Hn 1903" ..... 4, 082.372
From Van Horn west along Texas \& Pacific Ry. to Allamore, thence north along road via Sulphur and Cannon ranches to Figure 2 ranch.
Van Horn, 3.1 miles west of, 400 feet northeast of Texas \& Pacific Ry. mile- post 745, 10 feet north of wagon road; iron post stamped " 4239 Van Hn 1903" (C. \& G. S. elevation) ..... $4,247.105$
Van Horn, 5.5 miles west of, 1,200 feet northwest of railway trestle 375, 10feet south of wagon road; iron post stamped " 4395 Van Hn 1903" (C. \&G. S. elevation)4, 403. 364
Allamore, 20 feet east of section house; iron post stamped " 4603 Van Hn1903" (C. \& G. S. elevation)$4,611.812$
Pump station, southeast corner of fence, 150 feet southwest of well; iron post stamped "4702 Van Hn 1903" ..... $4,710.135$
Millican upper ranch, 0.5 mile north of, forks of road, on flat; iron post Feet.stamped "4865 Van Hn 1903"$4,873.672$
Hazel mine, 60 feet east of road, 30 feet southwest of old wooden building;iron post stamped " 4906 Van Hn 1903"$4,914.452$
Sulphur ranch, 200 feet north of residence, west side of gate; iron post stamped " 4461 Van Hn 1903" ..... 4, 469. 704
Sulphur ranch, 2.5 miles north of, 0.25 mile north of old tank, 600 feet north of road forks, 10 feet west of Salt Flat-Van Horn road; iron post stamped "4290 Van Hn 1903" ..... 4, 297. 142
Sulphur ranch, 5.5 miles north of, 20 feet east of road, east side of drain; iron post stamped "4048 Van Hn 1903 " ..... $4,056.517$
Sulphur ranch, 8.5 miles north of, 10 feet east of road; iron post stamped "3806 Van Hn 1903". ..... $3,814.578$
Sulphur ranch, 11.6 miles north of, 2,400 feet north of road forks, 20 feet east of road, in drain; iron post stamped " 3625 Van Hn 1903". ..... 3, 633.538
Sulphur ranch, 14.5 miles north of, 0.5 mile west of large lake, 0.5 mile south of Cannon windmills, 10 feet west of wagon road; iron post stamped " 3648 Van Hn 1903" ..... 3, 656.267
Figure 2 ranch, 3.8 miles south of, 0.5 mile west of north end of lake, 10 feet west of wagon road; iron post stamped " 3581 Van Hn 1903 " ..... $3,589.611$
Figure 2 ranch, 1,200 feet south of windmills, 20 feet west of road, corner of fence; iron post stamped " 3585 Van Hn 1903" ..... 3, 593. 536
From Salt Lake east to Marley's lower ranch.
Canon's double wells, 1.5 miles northwest of, 10 feet north of road; iron post stamped "3579 Van Hn 1903" ..... 3, 586. 389
Canon's double wells, 2.5 miles east of, summit of small hill on flat, 10 feet west of road; iron post stamped " 3622 Van Hn 1903" ..... $3,630.572$
Canon's double wells, 5.5 miles east of, 10 feet west of road; iron post stamped "3670 Van Hn 1903" ..... 3, 678. 117
Canons double wells, 8.5 miles east of, 10 feet south of road; iron post stamped " 3763 Van Hn 1903" ..... 3, 771. 173
From point 1.25 miles east of Wildhorse section house north along Salt Flat road and Valentine road 4 miles, thence west across country to a point 6 miles east of Van Horn.
Wildhorse, 3 miles northeast of, 2.5 miles east of Medley's ranch, 0.8 mile north of crossroads, 20 feet west of Salt Flat-Valentine road; iron post stamped "Van Hn 1905"3,771. 216
Wildhorse, 4 miles north of, 4 miles west of Salt Flat-Valentine road, 3 miles north of Medley's ranch; iron post stamped " 3793 Van Hn 1905".. 3, 801. 184
From point 3 miles northeast of Wildhorse, north to Medley's lower ranch, thence southeast to Jones's gate, thence southwest to starting point.
Wildhorse, 5.5 miles north of, 2.5 miles south of Medley's lower ranch, 30 feet east of Salt Flat-Valentine road; iron post stamped " 3729 Van Hn 1905" ..... $3,737.489$
Medley's lower ranch, 1,200 feet south of house, 20 feet west of Salt Flat road; iron post stamped " 3700 Van Hn 1905" ..... 3, 708. 787
Medley's lower ranch, 3.25 miles southeast of, 3 miles northwest of Jones's pasture gate; iron post stamped " 3726 Van Hn 1905" ..... 3, 734. 439
Jones's pasture gate, 12 feet north of, 10 feet east of road; iron post stamped " 3782 Van Hn 1905". ..... $3,790.864$
Jones's pasture gate, 3 miles west of, 15 feet north of road; iron post stamped "3782 Van Hn 1905" ..... $3,790.125$
From Medley's lower ranch northeast to Bean's ranch, thence west to point 1.5 miles south of Bean's three wells.
Medley's lower ranch, 3 miles north of, 20 feet west of Salt Flat-Valentine Feet. road; iron post stamped " 3679 Van Hn 1905" ..... 3, 687. 454
Bean's ranch, 600 feet west of, 10 feet south of road; iron post stamped "3665 Van Hn 1905" ..... 3, 672.990
From point 2 miles east of Canon's double wells southeast to tank, thence east to Bean's pasture gate, thence northeast to Taylor-Salt Flat road.
Canon's tank, 600 feet south of, in rock; bronze tablet stamped " 3641 Van Hn 1905 " ..... 3, 648. 498
Bean's pasture gate, 20 feet south of, 10 feet southwest of road; bronze tablet stamped " 3645 Van Hn 1905" ..... 3, 653.695
From point 5.8 miles east of Canon's double wells north via Canon's new well, footof mountains, Freeman well, and John's well to Figure 2 ranch.
Canon's new well, 600 feet north of; iron post stamped " 3669 Van Hn 1905". 3, 676. 989
Canon's new well, 3.25 miles east of, 0.5 mile northwest of small hill; ironpost stamped " 3892 Van Hn 1905 "$3,900.643$
Freeman well, 600 feet south of, 300 feet south of road; iron post stamped "3694 Van Hn 1905" ..... 3, 702. 623
Dritt wells, 1.25 miles north of, in forks of road; iron post stamped " 3664 Van Hn 1905" ..... 3, 672.187
John's well, 2.5 miles southeast of, 0.5 mile east of long, low ridge; iron post stamped " 3939 Van Hn 1905" ..... 3, 946.255
John's well, 600 feet north of; iron post stamped " 3784 Van Hn 1905 ". ..... 3, 791. 819
Threemile well, 30 feet south of tank, 20 feet north of road; iron poststamped " 3644 Van Hn 1905"3, 652.742

## Cerro Alto Quadrangle.

## el paso county.

The elevations in the following list are based upon an elevation at El Paso determined by precise leveling and are derived through checked leveling on El Paso quadrangle by the United States Reclamation Service and the Geological Survey.

The leveling was done by M. S. Bright in 1901. It was originally based on an assumed railroad datum at San Elizario, and the stamped elevations are about 8 feet too low.

## CERRO ALTO QUADRANGLE.

$$
\text { [Latitude } 31^{\circ} 30^{\prime}-32^{\circ} \text {; longitude } 105^{\circ} 30^{\prime}-106^{\circ} \text {.] }
$$


#### Abstract

From point 15 miles east of Clint east 8.5 miles along north Salt Lake road to point near Coyote tanks, thence north 22 miles along dim roads and trails to South Sacramento road, thence east along South Sacramento road and across country 16 miles to saddle at head of draw, thence south 11 miles across country, thence west to Rockhouse draw and southwest down draw to point near Coyote tanks.



Lat. $31^{\circ} 43^{\prime}$; long. $105^{\circ} 51^{\prime}$. West slope of hill, 4 feet east of road, 350 feet Feet.east of draw, in mound of rock; iron post stamped " 4709 ",4, 716. 864
Lat. $31^{\circ} 45^{\prime}$; long. $105^{\circ} 54^{\prime}$. East side of draw at angle to northwest, side of wagon trail, by stone pier; iron post stamped " 4984 ", ..... $4,992.043$
Lat. $31^{\circ} 48^{\prime}$; long. $105^{\circ} 54^{\prime}$. Summit of divide, east side of wagon trail;iron post stamped " 5147 "$5,157.216$
Lat. $31^{\circ} 52^{\prime}$; long. $105^{\circ} 53^{\prime}$. Two hundred feet east of draw, on point of small ridge, $\mathrm{S} .45^{\circ} \mathrm{E}$. of Cerro Alto Mountain; iron post stamped " 5318 '. 5, 326.146Lat. $31^{\circ} 57^{\prime}$; long. $105^{\circ} 53^{\prime}$. Four feet south of South Sacramento road eastand west, 400 feet west of draw; iron post stamped " 5266 "'5, 274.119
Lat. $31^{\circ} 57^{\prime}$; long. $105^{\circ} 47^{\prime}$. In forks of road; iron post stamped " 5020 '" ..... 5, 028.165
Lat. $31^{\circ} 56^{\prime}$; long. $105^{\circ} 43^{\prime}$. At toe of slope, north side of draw; iron post stamped " 4850 " ..... $4,858.335$
Lat. $31^{\circ} 56^{\prime}$; long. $105^{\circ} 40^{\prime}$. Summit of ridge northwest and southeast, south about $10^{\circ}$ west of Cerro Alamo, in forks of wagon trail; iron post stamped " 4788 " ..... $4,796.291$
Lat. $31^{\circ} 54^{\prime}$; long. $105^{\circ} 37^{\prime}$. Head of draw, summit in gap; iron post stamped " 4860 ". ..... $4,868.469$
Lat. $31^{\circ} 51^{\prime}$; long. $105^{\circ} 37^{\prime}$. On ridge, south side of draw, about 100 feet west of east point of ridge; iron post stamped " 4597 ", ..... $4,605.460$
Lat. $31^{\circ} 48^{\prime}$; long. $105^{\circ} 38^{\prime}$. North side of slope near summit of big ridge east and west, 275 feet south of white flag on bush; iron post stamped " 4686 " ..... $4,694.651$
Lat. $31^{\circ} 45^{\prime}$; long. $105^{\circ} 39^{\prime}$. Top of small knoll 50 feet north of small draw east, 100 feet south of white flag; iron post stamped " 4605 "' ..... 4,613.573
Lat. $31^{\circ} 47^{\prime}$; long. $105^{\circ} 43^{\prime}$. Iron post stamped " 4890 S E "' ..... 4, 898. 141
Lat. $31^{\circ} 47^{\prime}$; long. $105^{\circ} 47^{\prime}$. East side of draw north and south at gap leading east; iron post stamped " 5108 "" ..... $5,115.914$
Lat. $31^{\circ} 43^{\prime}$; long. $105^{\circ} 49^{\prime}$. East edge of old road north and south; iron post stamped " 4774 ", ..... $4,781.818$
From bench mark marked " 4605 ," lat. $31^{\circ} 45^{\prime}$, long. $105^{\circ} 39^{\prime}$, south to lat. $31^{\circ} 34^{\prime}$, long. $105^{\circ} 42^{\prime}$, thence northwest to bench mark " 4523 ," about 3 miles southwest of Coyote tanks.
Lat. $31^{\circ} 41^{\prime}$; long. $105^{\circ} 40^{\prime}$. Twenty-five feet south of Salt Lakes road east and west, north of gap in mountain; iron post stamped " 4672 " ..... $4,680.661$
Lat. $31^{\circ} 37^{\prime}$; long. $105^{\circ} 41^{\prime}$. West side of draw north on bench on small spur of ridge, south of Cerro Alamo; iron post stamped " 5061 " ..... $5,069.649$
Lat. $31^{\circ} 34^{\prime}$; long. $105^{\circ} 42^{\prime}$. Summit of flat ridge east and west, white flag; iron post stamped " 5106 " ..... $5,114.749$
Lat. $31^{\circ} 35^{\prime}$; long. $105^{\circ} 45^{\prime}$. Twenty-five feet east of mound of stone on edge of high rock bluff, in limestone outcrop; bronze tablet stamped " 5219 " ..... $5,228.142$
Lat. $31^{\circ} 35^{\prime}$; long. $105^{\circ} 48^{\prime}$. West slope of hill, 4 feet north of mound of stone, in limestone outcrop; bronze tablet stamped " 4587 ". ..... 4, 595.977
Lat. $35^{\circ} 36^{\prime}$; long. $105^{\circ} 51^{\prime}$. Flat draw southwest, east side, on slight ridge, north edge of wagon trail; iron post stamped " 4331 " ..... 4, 340.047
Lat. $31^{\circ} 38^{\prime}$; long. $105^{\circ} 53^{\prime}$. On southeast edge of main draw to southwest; iron post stamped " 4404 ", ..... $4,412.945$

## El Paso Quadrangle.

## EL PASO COUNTY.

The elevations in the following list were determined by primary leveling extended from El Paso, based on an elevation determined by precise leveling. The line from El Paso northeast along the El Paso \& Southwestern Railroad of this list is part of a single line to Alamogordo, N. Mex. The line from San Elizario east along the Salt Lake road is connected with El Paso by leveling of the Reclamation Service, not included in the list. For additional elevations see preciselevel lists (pp. 8, 206-207).

The leveling was done by M. S. Bright in 1901, by Fred McLaughlin in 1907, and by K. W. Trimble in 1909.

# EL PASO QUADRANGLE. <br> [Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $106^{\circ}-106^{\circ} 30^{\prime}$.] 

## From El Paso north along highway to Newman's ranch.

El Paso, west end lower stone steps, north entrance of city hall; aluminum Feet.
tablet stamped " 3698 "...............................................................................
El Paso, 500 feet north of crossing of El Paso \& Southwestern Ry. and
Fort Bliss street car line, at road crossing; top of rail..................... 3, 721.4
Fort Bliss, 0.3 mile northwest of, in northeast corner of Ford's brick saloon; aluminum tablet stamped " 3889 "

3, 901.846

Taylor ranch, 2.2 miles north of, in top step of northeast entrance of twostory ranch house, 400 feet west of road; aluminum tablet stamped " 3946 ".

3, 957.128

From El Paso northeast along El Paso \& Southwestern R. R. to State line (part of single line to point 10 miles southeast of Alamogordo, N. Mex.).

El Paso, intersection of El Paso \& Southwestern R. R. and Mace Avenue; top of rail.

3, 729.6
E1 Paso, Galveston, Houston \& San Antonio Ry. crossing, in north end of
switch block; nail marked " 3703 ".
$3,704.35$
El Paso, 3 miles northeast of, at milepost 3, 50 feet west of railroad; iron post stamped " 3805 ".

3,805.999
Fort Bliss, south side of water tower; top of bolt marked "'3894.9 B.M.". ..... 3, 896.21
Fort Bliss, 1.3 miles northeast of, at milepost 6,50 feet west of railroad; iron post stamped " 3873 ".
$3,874.581$
Tobin, at milepost 9,50 feet west of railroad; iron post stamped " 3899 ', ..... 3, 899.801
Franklin, 0.2 mile southwest of, at milepost 12, 50 feet west of railroad; iron post stamped " 3919 ".
$3,920.682$
Newman, N. Mex., 4 miles southwest of, at milepost 15,50 feet west of El Paso \& Southwestern R. R.; iron post stamped " 3982 ".

3, 983.200
Newman, N. Mex., 1 mile southwest of, at milepost 18,50 feet west of railroad; iron post stamped " 4000 ".

4,001. 207
Texas-New Mexico boundary line, opposite line post; top of rail........... 4, 001.0
From Clint post office (near San Elizario) east along North Salt Lake Road 15 miles to elevation of 4,100 feet.
Clint, northwest corner of post-office building; iron post stamped " 3625 Feet.
SE"$3,632.915$
Clint, in front of station; top of rail. ..... 3,635. 5
Clint, 4.75 miles east of, in road forks; iron post stamped " 3993 SE " ..... $4,001.125$
Clint, 10.5 miles east of, 400 feet west of angle in road to southeast, north side of road; iron post stamped " 4039 SE " ..... $4,046.877$
Brownsville, Harlingen, Isabel, Mission, and San Juan quadrangles.
CAMERON AND HIDALGO COUNTIES.
The elevations in the following list were determined by primary lev-eling and are based upon Coast and Geodetic Survey bench mark 1 atPoint Isabel from which a line, leveled twice, connects with benchmark R. P. 43, of the United States and Mexico Boundary Commis-sion. The Boundary Commission checked levels as published in itsreport entitled "Survey of the Rio Grande, Roma to the Gulf ofMexico" have been corrected by adding 1.423 feet, which is the cor-rection derived from Point Isabel.The leveling was done in 1913 by R. C. Seitz.
MISSION QUADRANGLE.
[Latitude $26^{\circ}-26^{\circ} 15^{\prime}$; longitude $98^{\circ} 15^{\prime}-98^{\circ} 30^{\prime}$.]
From point near McAllen station west along St. Louls, Brownsville \& Mexico R. R. to R. P. 14, 2 miles west of Closner.
McAllen station, 1.90 miles west of, on south right of way line opposite Feet. milepole 36 ; iron post stamped " 1301913 " ..... 130.436
McAllen station, 2.30 miles west of, 2,100 feet west of milepole 36 , in east and west fence line, at road south; top of south rail ..... 131. 70
McAllen station, 2.90 miles west of, 2.90 miles east of Mission, in base of milepole 37; spike ..... 134.06
Milepole 37, 2,040 feet west of, highway crossing; top of south rail. ..... 133.9
Mission, 1.80 miles east of, in base of milepole 38; spike ..... 134.06
Mission, 0.90 mile east of, in southeast angle of crossroads, 50 feet north of railroad, 600 feet east of milepole 39 ; iron post stamped " 1381913 ". ..... 138.435
Mission station, in front of; top of south rail ..... 142.3
Mission station, 1,410 feet west of, at railroad crossing; top of south rail. ..... 143.3
Mission station, 0.40 mile west of, on top of north end of concrete canal siphon; bronze tablet stamped " 1491913 " ..... 149. 119
Mission station, 1.10 miles west of, in base of milepole 41; spike. ..... 140.67
Mamiestation, 700 feet east of, athighway crossing; top of south rail ..... 139.5
Mamie station, opposite signboard; top of north rail. ..... 135.6
Mission station, 2.10 miles west of, in base of section post opposite milepole 42; spike ..... 130. 10
Mission station, 2.50 miles west of, in southwest angle of crossroads, 50 feet north of track and about 2,400 feet east of milepole 43; iron post, stamped "133 1913" ..... 133.302
Mission station, 3.10 miles west of, in base of milepost 43; spike. ..... 136.67
Mission station, 4.10 miles west of, in base of milepole 44; spike ..... 125.78
Milepole 45, 0.40 mile east of, 25 feet west of highway crossing; top of south rail. ..... 132.6
Feet.
Milepole 45, in base of; spike ..... 139.74
Chihuahua, opposite station signboard; top of south rail ..... 130.8
Mission, 6.10 miles west of, on south right of way line opposite milepole 46; iron post stamped "124 1913" ..... 123.597
Closner, in front of station; top of south rail. ..... 125. 6
Mission station, 7.10 miles west of, 0.20 mile west of Closner station, in base of milepole 47; spike. ..... 124.93
Penitas Village, at road crossing north of Cavazos Bros.' general merchan- dise store; top of south rail. ..... 127.6
Closner station, 1.20 miles west of, at west end of small cut, in base of tele- graph pole; spike ..... 129.38
Closner station, 1.60 miles west of, at road crossing; top of south rail, painted " 125.6 " ..... 125.6
Closner station, 2 miles west of, 18 feet south of "Frisco" track, and south of Monterey ranch house, 1,100 feet east of milepole 49; international boundary reference point 14. (See boundary commission's description Monterey ranch, etc., 123.720) ..... 125. 143
From Reference Point 14, west along St. Louis, Brownsville \& Mexico R. R. to Havana Village (leveled twice).
Closner station, 2.2 miles west of, 4.40 miles east of Fordyce station, set on north right of way line opposite milepole 49 ; iron post stamped " 126 1913" ..... 125. 747
Fordyce station, 3.40 miles east of, in base of milepole 50 ; spike. ..... 123. 42
Fordyce station, 2.40 miles east of, in base of milepole 51; spike. ..... 129.98
Havana Village, 50 feet south of track, 30 feet west of public highway and about 100 feet northeast of schoolhouse in edge of village; iron post stamped "130 1913 S" ..... 129. 788
From a point near Hidalgo (part of double line from point near McAllen station).
McAllen station, 0.90 mile west by 3.40 miles south of, telephone pole oneast side of road, about 700 feet north of small white house and windmill;copper nail100.36
96. 54
McAllen station, 0.90 mile west by 4.50 miles south of, property corner on east side of road, about 75 feet north of southeast corner of field, 920 feet south of small bridge over slough; copper nail (signboard near by) ..... 56. 54
Hidalgo, 2.10 miles north of, on east side road at T road west, United States and Mexico Boundary Commission bench-mark reference point 20 (Boundary Commission elevation 103.084) ..... 104. 507
Hidalgo, 0.80 mile north of, on west side road at point where road makes slight bend to east around slough; iron post stamped "107 1913 S ". ..... 106. 705
Hidalgo, in northeast corner of yard of abandoned courthouse, United States and Mexico Boundary Commission bench-mark reference point 21. ..... 106. 147
SAN JUAN QUADRANGLE.
[Latitude $26^{\circ}-26^{\circ} 15^{\prime}$; longitude $98^{\circ}-98^{\circ} 15^{\prime}$.]
From Run post office north along highway to Donna, thence west along St. Louls, Brownsville \& Mexico R. R. to McAllen station.
Run, 1.3 miles west of post office, $T$ road north to Donna, in anchor post in northeast angle of roads; copper nail. ..... 84. 06
Donna, 5.80 miles south of, 1.1 miles north of junction with Military Road, east side of road, north side of small clearing, in small tree; copper nail. ..... 77. 92
Donna, 5.3 miles south of, bridge over canal; floor. ..... 82.2 ..... 82.2
Donna, 4.80 miles south of, on east side of road, in edge of brush, in stump;

Feet.copper nail.
82.02
77.023
Donna, 3.90 miles south of, on west side of public highway, on high ground between two sloughs; iron post stamped " 761913 ".
Donna, 3 miles south of, in property corner in center of highway, about 500 feet south of bend; copper nail.
77. 53
Donna, 2.2 miles south of, about 1,000 feet north of Donna plantation sugar mill, west of public highway, about 100 feet south of place where canal is siphoned under road, in corner of fence post; copper nail
89.06
Donna station, 1.40 miles south of, on east side of road and about 50 feet
south of canal, in base of telephone pole; copper nail...................... 92.81
Donna station, 1.10 miles south of, private roads east and west, at crossing of private railroad; top of east rail. ..... 91.63
Donna station, $\frac{3}{4}$ mile south of, center of cross roads, a white house occupy- ing southeast angle ..... 89.7
Donna, in southeast corner of public park; iron post stamped " 961913 ".. ..... 97. 307
Donna station, in southwest corner of loading platform northeast of sta- tion; copper nail. ..... 98.27
Donna station, in front of; top of south rail. ..... 94.8
Donna station, 1.10 miles west of, highway crossing, in top of small anchor post, at northeast fence corner, 50 feet south of railroad; copper nail ..... 97.41
Donna station, 2.30 miles west of, in base of milepost 25 ; spike. ..... 96. 09 ..... 96. 09
Donna station, 3.30 miles west of, 1.60 miles east of Ebenezer station, in base of milepole 26 ; spike ..... 95. 19
Ebenezer station, 0.60 mile east of, on south right of way line opposite milepole 27; iron post stamped "98 1913" ..... 99.452
Ebenezer station, in front of; top of south rail ..... 102.9
Ebenezer station, 0.40 mile west of, 1.50 miles east of San Juan station, in base of milepole 28; spike ..... 104.05
San Juan station, 0.50 mile east of, in base of milepole 29 ; spike ..... 108.04
San Juan station, in timber at southwest corner of station platform; copper nail, painted " 109.0 " ..... 110.39
San Juan station, 0.50 mile west of, in southwest angle of cross roads; iron post stamped "109 1913" ..... 110. 052
Pharr station, in southwest corner of station platform; copper nail ..... 114.87
Pharr station, at highway crossing just west of station; top of south rail. ..... 113.9
Pharr station, 1 mile west of, 2.10 miles east of McAllen station, in base of milepole 32 ; spike ..... 115. 12
McAllen, 1.30 miles east of, in southeast angle of cross roads 930 feet east of milepole 33 ; iron post stamped " 1151913 " ..... 116. 810
McAllen station, in front of; top of south rail. ..... 122.0
McAllen station, in northeast angle of cross streets just southwest of depot, on curbstone; chiseled square. ..... 121. 07
McAllen station, 0.90 mile west of, in base of milepole 35 ; spike. ..... 129. 264
McAllen station, 0.90 mile west and 1.20 miles south of, a wire fence extends east on east side of road, in telephone pole on west side of road; copper nail. ..... 102.68
McAllen station, 0.80 mile west by 2.10 miles south of, on summit at west side of public highway about 600 feet north of small white house; iron post stamped "110 1913 S." ..... 110. 377
From Hidalgo east along military road to Run post office (a double line adjusted to agree with boundary line values +1.423 ).
Hidalgo, 1.20 miles east of, telephone pole north of road and about 500 feet west of white house, north side of canal; copper nail

Feet.

104. 72
Hidalgo, 2.10 miles east of, north side of military road at southeast corner of cleared field and about 450 feet east of small bridge over canal; iron post stamped "103 1913 S." ..... 103.083
Hidalgo, 3 miles east of property corner, on south fence line of military road, about 300 feet north of brick house; copper nail ..... 102.14
Hidalgo, 3.40 miles east of, 75 feet south of military road between two brick houses on Coapoti ranch; United States and Mexico Boundary Commis- sion bench-mark reference post 22 . ..... 101. 128
Hidalgo, 4.40 miles east of, tree on north side of military road 50 feet east of T road north; copper nail ..... 98. 22
Hidalgo, 5.40 miles east of, 1 mile west of San Juan Plantation Sugar Mill, south side of road at T road north to San Juan Station; iron post stamped "97 1913 S" ..... 96. 557
Hidalgo, 6.60 miles east of, 5 meters from northwest corner brick house that is about 600 feet southeast of San Juan plantation sugar mill; United States and Mexico Boundary Commission bench mark reference point 23. ..... 96. 895
Hidalgo, 7.40 miles east of, 1.20 miles east of San Juan plantation sugar mill,small stump south of military road and 1,750 feet east of T road north;copper nail93. 36
San Juan sugar mill, 2.30 miles east of, south line of military road on east side of ranch; iron post stamped "89 1913 S " ..... 89.846
San Juan sugar mill, 3.50 miles east of, telephone pole south side of mili- tary road, on east line of ranch; copper nail ..... 87.30
San Juan sugar mill, 4.60 miles east of, telephone pole south side of mili- tary road, east side of small depression; copper nail. ..... 83. 49
San Juan sugar mill, 5.80 miles east of, 3.10 miles west of Run post office, southwest angle of crossroads; iron post stamped " 831913 S " ..... 83.037
Run, 2.20 miles west of post office, on south side of military road, 100 feet west of Donna Canal, in root of stump; copper nail ..... 81.69
HARLINGEN QUADRANGLE.
[Latitude $26^{\circ}-26^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]
From Donna east along St. Louis, Brownsfille \& Mexico Ry. to Llano Grande(single spur line; elevations unreliable).
Donna, 0.8 mile east of, in base of milepole 22 ; spike ..... 87. 28
Donna, 1.8 miles east of, in base of milepole 21 ; spike ..... 84.88
Donna, 2.2 miles east of, at private road crossing; top of rail. ..... 84.0
Donna, 2.8 miles east of, in base of milepole 20 ; spike. ..... 83.52
Donna, 3.8 miles east of, 30 feet south of milepole 19, in base of section post; spike. ..... 81. 25
Donna, 4.8 miles east of, in base of milepole 18; spike ..... 75.62
Llano Grande, about 500 feet west of station, in base of milepole 17; spike. ..... 80.82
BROWNSVILLE QUADRANGLE.
[Latitude $25^{\circ} 30^{\prime}-26^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From point 9 miles northeast of Brownsville southwest along Rio Grande Ry. to Brownsville (part of a line from Isabel leveled twice).
Brownsville station, 9 miles east of, 50 feet south of railroad and 25 feet west of milepost $9-13$; iron post stamped " 71913 S ". ..... 7. 162
Brownsville station, 9 miles east of, in base mile pole $9-13$; spike. ..... 8.03 ..... 8.03
Feet.
Brownsville station, 8 miles east of, in base milepost 8-14; spike. ..... 10. 36
Brownsville station, 6 miles east of, on north right of way line opposite mile- post $6-16$; iron post stamped " 171913 S " ..... 17. 331
Brownsville station, 6 miles east of, in base milepost $6-16$; spike ..... 17. 30
Brownsville station, 5 miles east of, in base milepost $5-17$; spike ..... 22. 69
Brownsville station, 4 miles east of, in base milepost 4-18; spike. ..... 18. 84
Brownsville station, 3.1 miles east of, on north right of way line about 200 feet east of milepost 3-19 and north of cattle guard; iron post stamped " 231913 S" ..... 23. 447
Brownsville station, 3.1 miles east of, in top milepost 3-19; copper nail ..... 27.44
Brownsville, Rio Grande Ry. station; top south rail opposite. ..... 33.1
Brownsville, in northwest angle of intersection of Madison and 11th streets, opposite southwest corner of courthouse yard, set on property line; iron post, stamped " 341913 S" ..... 33. 833
Brownsville, in yard of post office; R.P. 43 ..... 36.495
ISABEL QUADRANGLE.
[Latitude $26^{\circ}-26^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From Isabel southwest along Rio Grande Ry. (part of a line to Brownsville leveledtwice).
Point Isabel, in left side of upper step to lighthouse; copper bolt (U.S.G. \& G.S. b. m. 1) ..... 27.91
Point Isabel station, 120 feet west of west end of, set 50 feet north of track; iron post stamped "9 1913 S " ..... 9. 170
Point Isabel station, 0.80 mile west of, in base milepost $21-1$; spike ..... 10.54
Point Isabel station, 1.8 miles west of, in base milepost $20-2$; spike. ..... 8.34
Point Isabel station, 2.3 miles west of, about 310 feet east of west end of trestle across lagoon, in south end of stringer, outside piling line; copper nail. ..... 7.28
Point Isabel station, 3.8 miles west of, set about 40 feet south of railroad, opposite milepost 18-4; iron post, stamped "10-1913-S" ..... 9. 790
Point Isabel station, 4.8 miles west of, in base milepost 17-5; spike. ..... 7.47
Point Isabel station, 5.8 miles west of, in base milepost $16-6$; spike ..... 3. 62
Point Isabel station, 6.8 miles west of, in base milepost $15-7$; spike ..... 2.83
Point Isabel station, 7.8 miles west of, set on south right of way line opposite milepost 14-8; iron post stamped "11 1913 S" ..... 10. 965
Point Isabel station, 8.8 miles west of, in base milepost $13-9$; spike. ..... 8.47
Point Isabel station, 9.8 miles west of, set on south right of way line opposite milepost 12-10; iron bench mark post stamped " 61913 S " ..... 6. 654
Point Isabel station, 9.8 miles west of, in base milepost $12-10$; spike ..... 8. 06
Brownsville station, 11 miles east of, 10.8 miles west of Point Isabel station, in b se milepost 11-11; spike. ..... 9.09
Brownsville station, 10 miles east of, in base milepost $10-12$; spike. ..... 6. 93
Brownsville, Harlingen, Isabel, Mier, Mission, Rosita, Samfordyce, and San Juan quadrangles.

## CAMERON, HIDALGO, AND STARR COUNTIES.

The elevations in the following list were determined from a twiceleveled primary line of the United States and Mexico Boundary Commission and accord with mean sea level. A correction of 1.423 feet has been added to values published in the boundary commission's
report entitled "Survey of the Rio Grande, Roma to the Gulf of Mexico," to accord with an elevation at Brownsville determined in 1913 by the United States Geological Survey by a twice-leveled line from Coast and Geodetic Survey bench mark 1, at Point Isabel.

The positions given west of R. P. 28 were computed in 1914 by the United States Geological Survey and are based upon Coast and Geodetic Survey position for R. P. 28, which is latitude $26^{\circ} 04^{\prime}$ $13.17^{\prime \prime}$, longitude $97^{\circ} 56^{\prime} 43.16^{\prime \prime}$. The correction determined for values given in the boundary commission report after converting the same from latitudes and departures to latitudes and longitudes is +1.71 secords in latitude and -1.82 seconds in longitude.

## BROWNSVILLE QUADRANGLE.

[Latitude $25^{\circ} 30^{\prime}-26^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]

## Reference-point monuments along the Rio Grande from its mouth to Roma.

On top of sand hill 200 meters north of river and 500 meters west of Gulf;
Feet.
14.218

At Port Brownsville, 10 meters from northeast corner of frame house; reference-point monument 53.
Tulsa ranch, 15 meters southeast of house; reference-point monument 52. ..... 29.835
San Martin ranch, 5 meters from chimney of house; reference-point monument 51. ..... 13. 956
El Sauce ranch, 10 meters east of house; reference-point monument 50 ..... 14.317
Sabinito ranch, 6 meters from corner of house; reference-point monu- ment 49 ..... 18. 254
San Joaquin ranch, 5 meters from corner of house; reference-point monu- ment 48. ..... 27. 342
Frank Rabb house, 42 meters west of northwest corner of; reference-point monument 47 ..... 29.540
Indiana pumping plant, 9 meters from northeast corner of frame house; reference-point monument 46 ..... 32. 164
Rancho Nuevo, 1 meter west of southwest corner of frame house; reference- point monument 45 ..... 33.575
Old Fort Brown, at north corner of hospital; reference-point monument 44 ..... 35.511
Brownsville, in post-office yard; reference-point monument 43
Brownsville, in post-office yard; reference-point monument 43 ..... 36. 495 ..... 36. 495
ROSITA QUADRANGLE.
[Latitude $25^{\circ} 30^{\prime}-26^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]
Reference-point monuments along the Rio Grande from its mouth to Roma.
Las Prietas ranch, 3 meters from house near bank of lagoon south of Brownsville road; reference-point monument 42. ..... 39. 054
Lineno ranch, 9 meters from house near military road; reference-point monument 41 ..... 37.906
Carmen ranch, 8 meters from corner of church; reference-point monu- ment 40 ..... 43. 615
San Pedro ranch, 15 meters from northeast corner of store; reference- point monument 39 ..... 47.519
HARLINGEN QUADRANGLE.[Latitude $26^{\circ}-26^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]
Reference-point monuments along the Rio Grande from its mouth to Roma.
El Puente ranch, 15 meters from southwest corner of house; reference- ..... Feet. point monument 38 ..... 46. 436
Calaboze ranch, 5 meters from southeast corner of store; reference-point monument 37 ..... 52. 440
Barranco ranch, 11 meters from northwest corner of bridge; reference- point monument 36 ..... 51. 062
Llanito ranch, 8 meters from frame house; reference-point monument 35. ..... 54. 835
Rucias ranch, 5 meters from northwest corver of brick church; reference- point monument 34 ..... 60.019
Florida ranch, in front of, 2 meters from tomb north of road; reference-point monument 33 ..... 62.315
Santa Maria Church yard, 8 meters west of southeast corner of church; reference-point monument 32 ..... 65. 629
Zacatal ranch house, 20 meters west of north corner of, east of Brownsville road; reference-point monument 31 (latitude $26^{\circ} 05^{\prime} 08.38^{\prime \prime}$; longitude $97^{\circ} 51^{\prime} 56.47^{\prime \prime}$ ) ..... 69.992
Fordyce ranch house, 12 meters northeast of; reference-point monument 30. ..... 68.024
Relampago post office, 13.5 meters northeast of, south of Brownsville road and west of Mercedes Canal; reference-point monument 29 ..... 71.797
Tulca ranch, northeast of northeast corner of brick church; reference- point monument 28 (latitude $26^{\circ} 04^{\prime} 13.17^{\prime \prime}$; longitude $97^{\circ} 56^{\prime} 43.16^{\prime \prime}$ )... ..... 76.849
Auga Negra ranch, 15 meters southwest of corner of frame house; refer- ence-point monument 27 (latitude $26^{\circ} 05^{\prime} 03.96^{\prime \prime}$; longitude $97^{\circ} 59^{\prime}$ 49. $80^{\prime \prime}$ ) ..... 75. 832
SAN JUAN QUADRANGLE.
]Latitude $26^{\circ}-26^{\circ} 15^{\prime}$; longitude $98^{\circ}-98^{\circ} 15^{\prime}$.]
Reference-point monuments along the Rio Grande from its mouth to Roma.
Run (Old Blanco ranch), in yard of post office at; reference-point monu- ment 26 (latitude $26^{\circ} 04^{\prime} 27.37^{\prime \prime}$; longitude $98^{\circ} 02^{\prime} 25.58^{\prime \prime}$ ) ..... 83. 149
Hallaway's house, in front of, south of Brownsville road and west of Donna Canal; reference-point monument 25 (latitude $26^{\circ} 04^{\prime} 39.47^{\prime \prime}$; longi- tude $98^{\circ} 04^{\prime} 34.97^{\prime \prime}$ ) ..... 84.527
Weber ranch, 243 meters east of reference-point monument on San Juan del Rio Banco; reference-point monument 24 (latitude $26^{\circ} 04^{\prime} 07.33^{\prime \prime}$; longitude $98^{\circ} 06^{\prime} 17.01^{\prime \prime}$ ) ..... 91. 318
San Juan plantation, 5 meters from northwest corner of brick house; reference-point monument 23 (latitude $26^{\circ} 04^{\prime} 58.65^{\prime \prime}$; longitude $98^{\circ} 10^{\prime}$ $09.18^{\prime \prime}$ ) ..... 96. 895
Capote ranch, 25 meters west of schoolhouse; reference-point monument 22 (latitude $26^{\circ} 05^{\prime} 11.54^{\prime \prime}$; longitude $98^{\circ} 13^{\prime} 01.98^{\prime \prime}$ ) ..... 101. 128
MISSION QUADRANGLE.
[Latitude $26^{\circ}-26^{\circ} 15^{\prime}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$.]
Reference-point monuments along the Rio Grande from its mouth to Roma.
Hidalgo, yard of abandoned courthouse in; reference-point monument 21 (latitude $26^{\circ} 05^{\prime} 59.20^{\prime \prime}$; longitude $98^{\circ} 15^{\prime} 43.88^{\prime \prime}$ ) ..... 106. 147
Hidalgo, 2 miles north of, at intersection Brownsville and McAllen roads; reference-point monument 20 (latitude $26^{\circ} 07^{\prime} 41.20^{\prime \prime}$; longitude $98^{\circ} 15^{\prime}$ $27.87^{\prime \prime}$ ) ..... 104. 507
Grangeno ranch, 8 meters from northwest corner of store; reference-point

Feet. 108.936
Mission pumping plant, 50 meters northeast of northeast corner of; referencepoint monument 18 (latitude $26^{\circ} 09^{\prime} 56.50^{\prime \prime}$; longitude $98^{\circ} 20^{\prime} 01.94^{\prime \prime}$ ) $\ldots$.
Hedley ranch house, 40 meters east of, west side Brownsville road; referencepoint monument 17 (latitude $26^{\circ} 11^{\prime} 01.58^{\prime \prime}$; longitude $98^{\circ} 22^{\prime} 47.42^{\prime \prime}$ ) ..
Ojo de Agua ranch, southeast corner of store yard, junction main road and lane; reference-point monument 16 (latitude $26^{\circ} 11^{\prime} 52.64^{\prime \prime}$; longitude $98^{\circ}$ $24^{\prime} 38.36^{\prime \prime}$ ).
116. 810
122.059
Penitas ranch, about center of, on north side of road in hollow; referencepoint monument 15 (latitude $26^{\circ} 13^{\prime} 42.34^{\prime \prime}$; longitude $98^{\circ} 26^{\prime} 46.58^{\prime \prime}$ ) $\ldots$.
Monterey ranch, 13 meters southeast of railroad-crossing signpost; referencepoint monument 14 (latitude $26^{\circ} 13^{\prime} 55.63^{\prime \prime}$; longitude $98^{\circ} 27^{\prime} 58.35^{\prime \prime}$ ) $\ldots$.
Havana ranch, near northwest corner of store building; reference-point
monument 13 (latitude $26^{\circ} 14^{\prime} 27.44^{\prime \prime}$; longitude $98^{\circ} 30^{\prime} 26.30^{\prime \prime}$ )
122. 584
121. 370
125. 143
128. 916

## SAMFORDYCE QUADRANGLE.

## [Latitude $26^{\circ}-26^{\circ} 30^{\prime}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]

Reference-point monuments along the Rio Grande from its mouth to Roma.
Los Ebanos, in yard of schoolhouse; reference-point monument 12 (latitude
$26^{\circ} 14^{\prime} 26.18^{\prime \prime} ;$ longitude $98^{\circ} 33^{\prime} 38.76^{\prime \prime}$ )..................................... 137.479
Cuevas and Cuevitas ranches, midway between, near river, 150 meters east of large wash; reference-point monument 11 (latitude $26^{\circ} 15^{\prime} 30.28^{\prime \prime}$; longitude $98^{\circ} 34^{\prime} 38.12^{\prime \prime}$ ).
156. 114

La Grulla, in church yard; reference-point monument 9. 145.780

Garcia and La Grulla, on south side main road midway between, 6 meters east of angle in fence; reference-point monument 8
142.072

Canasta ranch, in center of, on south side of Brownsville road; referencepoint monument 6
156.639


Olmos ranch, 47 meters east of east end of iron bridge across Olmos Creek; reference-point monument 3 .
163.693



Remolino ranch, 33 meters west of house; reference-point monument lettered "B"
181.180


## MIER QUADRANGLE.

## [Latitude $26^{\circ}-26^{\circ} 30^{\prime}$; longitude $99^{\circ}-99^{\circ} 30^{\prime}$.]

Reference-point monuments along the Rio Grande from its mouth to Roma.
Roma, 40 meters back of church, northeast corner of street; reference-point Feet.monument lettered " E "225. 405

Dallas $30^{\prime}$ quadrangle, Ferris district.
dallas, ellis, and kaufman counties.
The elevations in the following list were determined by primary leveling and accord with the 1912 adjustment of precise leveling. They depend upon United States Corps of Engineers' precise leveling of 1912 and 1915 along Trinity River.

The leveling was done in 1915 by C. H. Birdseye, E. L. McNair, and R. R. Monbeck.

This work is in six special quadrangles on the Trinity River.
DALLAS QUADRANGLE.
[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]
From Lock 2 southeast along west side of Trinity River to Crabtree Ferry and 2 miles
southeast of Crabtree Ferry.
Lock 2, on east lock wall, lower end, near gate; sunken chiseled square Feet. marked "U.S.P.B.M. No. 1" (U. S. C. E. elevation)...................... 372. 204

Lock 2, on east lock wall, at upper end near ladder; sunken chiseled square
marked "U.S.P.B.M. No. 2" (U. S. C. E. elevation)........................ 372.179
Lock 2, about 1,500 feet south of, 700 feet west of Wilmer Bridge, at southeast corner of T road corners; iron post stamped "Prim. Trav. Sta., No. 34, 1915, 372 "
371.842

Wilmer Bridge, about 0.6 mile south of, in middle of north and south roadway, in top of low bois d'arc stump; nail, post painted black "U. S. B. M. 46 "
369.83

Trinity River, 50 feet west of, 150 feet from cabin, in notch cut on root of pecan tree in open field; nail, tree blazed, scribed, and painted black "U.S.B. M. 47 "
369.71

Trinity River, about 200 feet west of, 20 feet west of old tram road bed at culvert, in notch cut on root of large oak tree on fence line; nail, tree blazed, scribed, and painted black "U. S. B. M. 48 "
366. 23

Malloy Bridge, about 0.5 mile northwest of, on north side of open field,
25 feet west of telephone line, in notch cut on root of hackberry tree;
nail, tree blazed, scribed, and painted black "U.S.B.M. 49 "........ 363.95
Malloy Bridge, about 0.4 mile S. $60^{\circ} \mathrm{W}$. of, on north side of road near fence, in notch cut on root of elm tree; nail, tree blazed, scribed, and painted "U.S.B.M. 10 "
364.09

Lock and dam 4, 2 miles northwest of, 1,500 feet north of J. E. Perry's house,
at center of road forks; hub.................................................................. 363.19
Patterson ranch; high-water mark of 1908 ..................................... 367.4
Lock and dam 4, 1.5 miles northwest of, opposite small bridge over slough,
on south side of road, in root of tree; nail, tree blazed "U.S.B.M. 11 ".... 359.07
Lock and dam 4, 1.25 miles northwest of, 400 feet east of T road north, at corner of woods, in root of elm tree on south side of road; nail, tree blazed "U.S.B.M. 12 "

Lock and dam 4, 0.6 mile northwest of, 200 feet west of river, on west side of levee and fence, in root of tree; nail, tree blazed "U.S.B.M. 13 ".
Lock and dam 4, 0.25 mile west of, T road north between old cabin and stable, in root of lone elm tree; five nails bent from center of iron washer (old t. b. m.)

Feet.
360.07
357.13

Lock and dam 4, 300 feet west of, 200 feet southwest of lock keeper's house, at angle in reservation, on fence line on east side of road, in concrete block 20 inches by 20 inches by 48 inches; crosscut. A 3 -inch iron pipe projects 4 feet from center of block, to which a fence is fastened (station 89, Trinity River survey, primary traverse of 1912, marked "U.S.P.B.M. No. $3 "$ )
Note.-U. S. Corps of Engineers' elevation for this, 358.584 feet, was not accepted for the reason that the bench mark seems to have been disturbed. A heavy woven wire fence is so fastened to this concrete block that a movement due to pull of fence has probably elevated cross, which is on outside corner from angle in fence.
Lock and dam 4, in downstream end of west lock wall; crosscut, marked "U.S.P.B.M. 4." Bench mark is bottom of square, which is 0.027 foot deep (U. S. Corps of Engineers' elevation used)
Lock and dam 4, on south end of west lock wall, 6 feet north of U.S.P.B.M.4, in top of lock wall; bronze tablet marked "State of Texas Reclamation Department, Austin." (There is a raised star in center. Tablet is not stamped)
Lock and dam 4, at southwest corner of reservation, 570 feet southwest of lock, in west corner of concrete block 20 inches by 20 inches by 48 inches, from center of which a 3 -inch iron pipe projects, to which wire fence is fastened; bottom of chiseled square 0.03 foot deep (station 90 of Trinity River survey, primary traverse of 1912).
Lock and dam 4, 0.44 mile south of, 500 feet south of negro cabin, 125 feet west of river, in root of lone walnut tree; copper nail, tree scribed and painted "U.S.B.M." (station 92 of primary traverse of 1912)
Lock and dam 4, 0.66 mile south of, on river bank, 20 feet east of road, in root of elm tree; tack, tree blazed and painted "U.S.B.M." (station 93 of primary traverse of 1912)
Lock and dam 4, 0.93 mile southeast of, on east side of road, in root of oak tree; tack, tree blazed and painted "U.S.B.M." (station 94 of primary traverse of 1912)
358.617

Lock and dam 4, 1.1 miles southeast of, 210 feet south of $T$ road west, 50 feet west of river bank, 30 feet southeast of old store; iron post marked "State of Texas Reclamation Engineer" (stamped "B.M. 34-S 357.6")..
Lock and dam 4, 1.1 miles southeast of, 190 feet northwest of bench mark 34-S, 50 feet south of well, in root of lone pecan tree; tack, tree blazed and painted "U.S.B.M." (station 95 of primary traverse of 1912).
Lock and dam 4, 1.35 miles southeast of, on river bank, 10 feet east of road, in root of oak tree; tack, tree blazed and painted "U.S.B.M." (station 96 of primary traverse of 1912)
Crabtree Ferry, 0.38 mile west of, 2 miles southeast of lock and dam 4, 350 feet south of John Wilson's ranch house, 30 feet north of road, in root of pecan tree; copper nail and washer (bench mark is 3 feet west of hub, which is primary traverse station 100 of 1912).
357.576
356.68
356. 68
355.051

Crabtree Ferry, on levee on west side of Trinity River, 20 feet west of elm tree to which is attached ferry cable, 40 feet north of road to Ferris, in top of stake; tack (primary traverse station 101 of 1912)

Crabtree Ferry, on levee on west side of Trinity River, 60 feet south of primary traverse station 101, 10 feet south of road to Ferris, projesting 2 inches from center of concrete block 12 inches by 12 inches by 48 inches, top of cap of 3 -inch iron post marked "U.S.E.D.," not stamped (this is U.S.E.D. p.b.m. 53)

Feet.
356.904

Crabtree Ferry, 0.18 mile south of, on top of levee, 250 feet south of cabin, on west side of Trinity River, projecting 2 inches from concrete block 12 inches by 12 inches by 48 inches; top of cap of 3 -inch iron post marked "U.S.E.D.-Elev.-," not stamped (this is U.S.E.D. p.b.m. No. 52). .
Crabtree Ferry, 0.21 mile southeast of, on west side of levee, opposite blazed telephone pole, 90 feet south of U.S.E.D. p.b.m. 52 , in top of hub; tack (primary traverse station 102 of 1912)
356.634
355. 28

Crabtree Ferry, 0.5 mile southeast of, 125 feet south of new house, on west bank of Trinity River, on east side of road, in base of 24 -inch oak tree bearing an old blazed $X$ underlined three times; railroad spike (State of Texas t.b.m. 19)
354.89
352. 89

Crabtree Ferry, 0.9 mile southeast of, on west edge of river road, projecting 2 inches from concrete block 12 inches by 12 inches by 48 inches; top of cap of 3-inch iron post marked "U.S.E.D. b.m.-, Elev.-," not stamped (this is U.S.E.D. p.b.m. 46).
353. 763

Crabtree Ferry, 0.95 mile southeast of, at private road west, 75 feet west of river bank, in root of elm tree; tack (station 106 of primary traverse of 1912; station 5 of primary traverse of 1915)
Crabtree Ferry, 0.95 mile southeast of, at private road west, 20 feet west of river bank and 55 feet east of station 106, in root of hackberry tree; nail (old t.b.m.; U.S.E.D.?)
Crabtree Ferry, 0.95 miles southeast of, in field, 50 feet west of river bank and 130 feet southeast of station 106, projecting 2 inches from concrete block 12 by 12 by 48 inches; top of cap of 3 -inch iron post marked "U.S. E.D. b.m. -, Elev. -," not stamped (this is U.S.E.D. p.b.m. 45)....

Lock 5 , about 0.5 mile west of proposed site of, 40 feet south of river bank, 40 feet east of sharp bend in road where road leaves river, in 12 by 12 inch block of concrete marked "U.S. IX"; top of cap of 3-inch iron pipe, not stamped.
353. 424

Crabtree Ferry, 1.35 miles southeast of, 30 feet north of T road corners, road bearing $\mathrm{N} .60^{\circ}$ E., in notch cut on root of oak tree; tack (primary traverse station 107 of 1912)
350.75

Crabtree Ferry, 1.5 miles southeast of, at south edge of roadway bearing N. $60^{\circ}$ E., in notch cut on root of oak tree; tack (primary traverse station 108 of 1912)
350.38

Lock 5, near site of, near Oxbow bend in river, 80 feet south of river bank, 30 feet east of hedgerow, 500 feet west of cabi土, in 12 by 12 inch block of concrete; top of cap of 3 -inch iron pipe, not stamped.
352. 625

Crabtree Ferry, 1.8 miles southeast of, 600 feet west of Trinity River, at right angle in road and telephone line, in concrete block 12 inches by 12 by 48 inches; top of cap of 3 -inch iron post (U.S.E.D. p.b.m. 40 )...
Crabtree Ferry, 2 miles southeast of, 10 feet west of river bank, just east of roadway, on line of telephone line, S. $30^{\circ}$ E. 889 feet from p.b.m. 40, in concrete block 12 inches by 12 inches by 48 inches; top of cap of 3 -inch iron post (U.S.E.D. p.b.m. 39)
351.402
351. 406
From Wilmer Bridge along highways southwest 1.2 miles, thence southeast to Hurley's store, thence northeast to point near Malloy Bridge.
Wilmer Bridge, southwest of, at T road southeast; floor of small bridge.... ..... 370.4
Feet.
Wilmer Bridge, southwest of, at T road northwest; center of road ..... 371.1
Wilmer Bridge, southwest of; floor of bridge over slough ..... 371.3
Wilmer Bridge, 1.15 miles southwest of, 20 feet south of roadway, near fence line, on root of oak tree; copper nail and washer ..... 374.34
Gravel Slough, 1 mile west of, about 50 feet south of right angle in road, in notch cut on root of large pecan tree in roadway; nail, tree blazed, scribed, and painted black "U.S.B.M. 44". ..... 370.91
Gravel Slough, 0.5 mile west of, in open field, in notch cut on root of large pecan tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 43 " ..... 369.30
Gravel Slough, bridge across, along easterly and westerly road, 10 feet northof east end of, in notch cut on root of hackberry tree; nail, tree blazed,scribed, and painted black "U.S.B.M. 42 "
Gravel Slough, 90 feet west of north end of bridge over, in fence line, in notch cut on root of hackberry tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 41 " ..... 364.80
363.68 ..... 363.68
slough with open field on west, in notch cut on root of large cottonwoodGravel Slough, about 0.5 mile northwest of Hurley's store, at edge of smalltree; nail, tree blazed, scribed, and painted "U.S.B.M. 40 "
Gravel Slough, 15 feet southwest of corner of Hurley's store, 300 feet west of iron bridge; iron post stamped "Prim. Trav. Sta. No. 24, 1915, 364"... ..... 364.280
From point 1.2 miles southwest of Wilmer Bridge southwest 0.6 mile (single spur line).
Wilmer Bridge, 1.75 miles southwest of, 800 feet from edge of foothills, 80feet north of a slough bridge, 12 feet northwest of center of road; ironpost stamped "Prim. Trav. Sta. No. 33, 1915, 374"373. 554
From Hurley's store along highways south 2.5 miles, thence northeast to Lock 4.
Gravel Slough, 0.6 mile south and 0.3 mile west of Hurley's store, in openfield at edge of foothills, in notch cut on root of tree; nail, tree blazed,scribed, and painted black "U.S.B.M. 9 "369.78
Gravel Slough, 1.15 miles south by 0.43 mile west of Hurley's store, 300 feeteast of a house, in open field, at edge of foothills, 1,000 feet northwest of acemetery, in notch cut on root of large cottonwood tree; nail, tree blazed,scribed, and painted black "U.S.B.M. 8"
$\qquad$scribend dam $4,0.5$ mile south and about 2 miles west of, on point of foot-hills, about 500 feet north of Tenmile Creek, about 15 feet east of house ofMr. Nix; iron post stamped "Prim. Trav. Sta. No. 23, 1915, 384 ".......384.061
Lock and dam 4, about 1 mile south and 1.75 miles west of, just on north side of lock 4 road, in open field, in notch cut on root of pecan tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 7" ..... 358.07
Lock and dam 4, 1.2 miles southwest of, about 500 feet east of main channel of Tenmile Creek, in root of tree on south edge of road; nail, tree blazed "U.S.B.M. No. 14 " ..... 353.80northeast to Crabtree Ferry.

Lock and dam 4, 2 miles southwest of, on north side of road leading to lock 4, near west edge of bottom lands, in root of lone tree; nail, tree blazed "U.S.B.M. 7"
Crabtree Ferry, 3 miles due west of, 0.5 mile south of lock 4 road, at north end of levee, 60 feet west of cabin, in root of tree; nail, tree blazed "U.S. B.M. 6 "

## From point 2.5 miles south of Hurley's store along highways southeast 2.4 miles, thence <br> From point 2.5 miles south of Hurley's store along highways southeast 2.4 miles, thence

 northeast to Crabtree Ferry.Crabtree Ferry, 3 miles west of, on west edge of bottom lands, on north side of road which strikes river 1 mile south of lock 4 , on fence line, 50 feet west of blazed tree; iron post stamped "Prim. Trav. Sta. 22 "
Feet.
375.197
Crabtree Ferry, 2.1 miles southwest of, thence 0.7 mile northwest of, in woods, 52 feet north of levee, in root of tree; nail, tree blazed "U.S.

- B.M. 5"
352.31
Crabtree Ferry, 2.1 miles southwest of, top of small bridge; high-water mark of 1908.
362.3
Crabtree Ferry, 2.1 miles southwest of, on first rise at west edge of bottom lands, private road south, near fence corner on south side of road; iron post stamped "Prim. Trav. Sta. 21 "
362.980
Crabtree Ferry, 1.65 miles southwest of, on south edge of road, 300 feet east of bridge over Tenmile Creek, in root of tree; nail, tree blazed "U.S. B.M. 4"
350.97
Crabtree Ferry, 1.15 miles southwest of, 33 feet south of road, in root of tree at corner of woods; nail, tree blazed "U.S.B.M. 3"
350.37
Crabtree Ferry, 0.8 mile southwest of, on north side of road from Crabtree Ferry to Ferris, 4 feet south of bois d'arc tree, in top of hub; copper nail.
From point 1 mile southeast of Crabtree Ferry northwest along highway to point 0.8 mille west of Crabtree Ferry.
Crabtree Ferry, 0.7 mile south of, 0.5 mile south of road, on fence line, in root of tree; nail, tree scribed and painted "U.S.B.M. I"
Crabtree Ferry, 0.9 mile southwest of, 0.25 mile south of road, at angle in woods line, in root of tree on fence line; nail, tree blazed and painted "U.S.B.M. 2"


## At lock and dam 4 east side of river.

Lock and dam 4, on east side of river, 75 feet east of wing wall, at east end of dam, on highest point in field, in 12 -inch by 12 -inch block of concrete; 3-inch iron pipe marked "U.S.E.D.", not stamped but painted "B.M. No. 66 " (line of 1915)

From point 2 miles southeast of Crabtree Ferry along highways east side of Trinity River to point 0.5 mile south by 0.6 mile east of county corner, thence north.
Ellis, Dallas, and Kaufman counties, corner of, 20 feet north and 15 feet east of, on notch cut at base of elm tree; copper nail and washer
County corner, about 0.5 mile south of, 200 feet north of left bank of river, in woods, in notch cut on root of oak tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 19"
County corner, 0.5 mile south and 0.5 mile east of, about 150 feet north of river bank, in thick woods, in notch cut on root of hackberry tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 20 ".
...................
County corner, about 0.5 mile south and 0.6 mile east of, 50 feet northeast of river bank, in thick woods, in concrete block 12 inches by 12 inches by 48 inches; top of 3 -inch iron post (U.S.E.D. p.b.m. station 42 of traverse line of 1915
350.03
349.92
364.772
359.577
348. 72
351.25
347.82
348. 583

From point 0.5 mile south by 0.6 mile east of county corner along highways east 0.7 mile, thence north to point 2.3 miles east of Crabtree Ferry, thence west to Crabtree Ferry.

County corner, 0.55 mile south and 0.9 mile east of, in thick woods, in notch
cut on root of elm tree; nail, tree blazed scribed, and painted black "U.S.B.M. 21 "

Feet.
346.82
344.54
357.150

County corner, 1 mile east and 0.3 mile north of, about 2,000 feet west of Ed Harlan's house, 60 feet north of edge of timber and lowland, 15 feet west of fence, in notch cut on root of oak tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 23 "
County corner, about 1 mile east and 0.85 mile north of, on land of Dr. Glenn and about 400 feet from F. A. Jenkins's house, in notch cut on root of oak tree; nail, tree blazed, scribed, and painted black "U.S. B.M. 24 ".

County corner, 1.2 miles north and 0.4 mile east of, 0.3 mile northeast of bridge over Parsons Slough, south side of road, at edge of foothills, 2 feet from wire fence line; iron post stamped "Prim. Trav. Sta. No. 26, 1915, 354 "
County corner, about 0.8 mile north of and 300 to 400 feet east of, on Crabtree Ferry road, about 500 feet southwest of bridge over Parsons Slough, in notch cut on root of oak tree on south side of road; nail, tree blazed, scribed, and painted black "U.S.B.M. 26 "
Dallas, Ellis, Kaufman county corner, about 0.75 mile north and 0.25 mile west of, near center of Crabtree Ferry east-west road, in notch cut on root of ash tree; nail, tree blazed, scribed, and painted "U.S.B.M.18"...
Crabtree Ferry, about 0.8 mile east of, near right angle in road, in notch cut on root of double elm tree; nail, tree blazed, scribed, and painted "U.S.B.M. 17 "
Crabtree Ferry, about 0.7 mile east of, along roadway, 6 feet north of fence line, in notch on root of ash tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 16 "
Crabtree Ferry, about 1,200 feet east of, 50 feet south of a cabin, about center of roadway, in notch cut on root of oak tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 15 "
Crabtree Ferry, 450 feet southeast of, 85 feet east of angle in road turning away from river, on south side of road, in 12 -inch by 12 -inch block of concrete; 3-inch iron pipe (U.S.E.D. p.b.m. No. 54. New line of 1915)

From point 1.5 miles east of Crabtree Ferry along highways northwest to point 0.5 mile north by 0.7 mile east of Malloy Bridge, thence southwest to Malloy Bridge.

Dallas, Ellis, Kaufman county corner, 1.6 miles northwest of, in open field, in notch cut at base of large pecan tree; nail, tree blazed, scribed, and painted "U.S.B.M. 27 ".
353.98

County corner, 2.1 miles northwest of, thick woods, in notch at base of ash tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 28 "
352.65

County corner, 2.7 miles northwest of, on wire fence line, woods on south and open field on north, in notch cut on root of hackberry tree; nail, tree blazed, scribed, and painted "U.S.B.M. 29"

Lock 4, about 1.5 miles east of, north side of cleared field, at fence corner, fence east and west and north, strip of woods on northeast; iron post stamped "Prim. Trav. Sta. No. 35, 1915, 358 "

Feet.
357.878

Lock 4, 1.5 miles east of; approximate high-water mark on cabin.
363.8

Hamilton Ridge, 0.7 mile southeast of, woods east, west, and north, open field on south, 15 feet northeast of farm roadway, in notch cut on root of large ash tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 30 ".
Hamilton Ridge, 0.3 mile southeast of, scattering strip of woods with open field on north and south, in notch cut on root of persimmon tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 39"
356. 65
359. 19

Hamilton Ridge, said to be highest part of Bois D'Are Island, 15 feet east of corner of tenant house, land of Mr. Much, of Ferris; iron post stamped "Prim. Trav. Sta. No. 36, 1915, 369".
Hamilton Ridge, 0.3 mile northwest of, thick woods, in notch cut at base of large dead ash tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 38"
359. 75
361.61

Malloy Bridge, 0.5 mile north and 0.7 mile east of, on northwest side of road, 5 feet from fence line, 200 feet west of small bridge; iron post stamped "Prim. Trav. Sta. No. 31, 1915".
361.868

Malloy Bridge, about 300 feet east of, 100 feet south of vacant building, 2 feet east of fence line on east side of road, in concrete block 12 inches by 12 inches by 48 inches; top of cap of 3 -inch iron post (U.S.E.D. p. b. m. 15; number not marked. A similar p. b. m. is 529 feet due north)....

Malloy Bridge, 132 feet east of pier, on graded embankment leading to bridge; iron post stamped "Prim. Trav. Sta. No. 32, 1915, 369" (U.S.G.S. equals station 75 in 1915 traverse line of U.S.E.D.; apparently they have not located the two bench marks noted above).
Malloy Bridge; floor at center of.
368. 772

Malloy Bridge, in top of northeast pier; bronze tablet marked "State of Texas Reclamation Department" (not stamped)
From point 2.3 miles east of Crabtree Ferry along highways northwest 4.9 miles, thence west and southwest to point 0.5 mile north by 0.7 mile east of Malloy Bridge.
Dallas, Ellis, and Kaufman county corner, 1.75 miles north and 0.1 mile east of, 70 feet east of edge of timber and at edge of lowland, in notch cut on root of ash tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 25 "
Primary traverse station 26, about 40 feet from, high-water mark of 1908, on south side of chinaberry tree; nail.
359.6

County corner, 2 miles north of, at milepost 28 on Dallas- Kaufman county line, in open field on land owned by C. W. Hanes, in top of hub alongside post; tack.
367.0

Parsons Slough Bridge, 0.9 mile east, thence 3.6 miles south of, C. W. Hanes's land, on north side of lane, 700 feet northeast from edge of woods and lowland, 1.5 feet from wire fence line; iron post stamped "Prim. Trav. Sta. No. 27, 1915, 359"
367. 997

Parsons Slough Bridge, 0.9 mile east, thence 3 miles south of, about 400 feet west of Mr. Tyler's house, in notch cut on leaning oak tree; nail, tree blazed, scribed, and painted "U.S.B.M. 31"

Parsons Slough Bridge, 0.9 mile east, thence 2.5 miles south of, in notch
cut on root of large pecan tree in open field; nail, tree blazed, scribed, and painted black "U.S.B.M. 32 ".

Feet. 358. 06
358. 71 northeast of edge of timber, in open field, in notch cut on root of large pecan tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 33 ".
Parsons Slough Bridge, 0.9 mile east, thence 1.5 miles south of, 50 feet north of corner of Mr. Finley's farmhouse, 20 feet northeast of gate beside wire fence; iron post stamped "Prim. Trav. Sta. No. 28, 1915, 366"...
Parsons Slough Bridge, 0.9 mile east, thence 1 mile south of, about 0.5 mile north of Mr. Finley's farmhouse, 65 feet east of a tenant house, in notch cut on root of hackberry tree; nail, tree blazed, scribed, and painted black "U.S.B.M. 34".

Parsons Slough Bridge, 0.9 mile east, thence 0.5 mile south of, about 1 mile north of Mr. Finley's farmhouse, in laneway bearing northeasterly, at edge of lowland and timber, in notch cut on root of pecan tree; nail, tree blazed, scribed, and painted "U.S.B.M. 35".
365. 936
362.35

Parsons Slough Bridge, about 0.9 mile east of, on Seagoville-Ferris road, 150 feet east of levee and ditch, 7 feet northwest of fence line; iron post stamped "Prim. Trav. Sta. No. 29, 1915, 373 ".
373. 373

Parsons Slough Bridge, about 75 feet northeast of north end of, on Seago-ville-Ferris road, on top of levee, 3 feet from wire fence; iron post stamped "Prim. Trav. Sta. No. 30, 1915, 367 "
367.034

Malloy Bridge, about 1 mile north and 1.2 miles east of, 50 feet northwest of center of road, in notch cut on root of hackberry tree; nail, tree blazed, scribed, and painted "U.S.B.M. 36 ".
361.50

Brushy Slough; floor of bridge over
362.9

Farmersville, Mineola, Sulphur Springs, and Wills Point quadrangles. Mineola District. ITH, AND WOOD COUNTIES.

The elevations in the following list were determined by primary leveling and accord with the 1912 adjustment. The leveling was done in 1915 by R. R. Monbeck.

## FARMERSVILLE QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]

## From Greenville southeast along Missouri, Kansas \& Texas Ry. to Sabine River bridge.

Greenville, in top step to main (Lee Street) entrance to Hunt County courthouse, near base of right-hand columns of two false arches forming part of entrance, 5 inches from adjacent corners of arches; intersection of lines in end of copper bolt (C. \& G. S. b. m. M ${ }_{2}$ ).

Feet.
Greenville, on Central schoolhouse on Weslie Street, on part of building jutting out to form main entrance, in stone in fifth tier above ground, about 4.5 feet from north side of main entrance, 10 inches from edge of stone; intersection of lines in end of copper bolt (C. \& G. S. b. m. K ${ }_{2}$ ) ..
Greenville, 1 mile southeast of courthouse, 600 feet north of Fair Ground entrance, 300 feet southeast of broom factory, in end of tie beside switch; copper nail.
Greenville, 1.4 miles southeast of, intersection of Missouri, Kansas \& Texas Ry. and Texas Midland Ry.; top of rail.
531.14

Greenville, 1.5 miles southeast of, bridge H 714.9; top of rail.................. 511.0
Greenville, 2 miles southeast of, southeast corner of bridge H 715.5, in end Feet.of bridge timber; copper nail511.79
Greenville, 2.7 miles southeast of, bridge H 715.9; top of rail ..... 509.6
Greenville, 3.3 miles southeast of, 300 feet northwest of road crossing, 300feet southeast of house, 120 feet north of track, in top of concrete pier;bronze tablet stamped " 500 "500.307
Greenville, 3.8 miles southeast of, bridge H 718.9; top of rail ..... 499.5
Greenville, 4.3 miles southeast of, 40 feet north of road crossing, in top of stump between road forks; copper nail. ..... 526.20
Greenville, 5 miles southeast of, bridge $H 718.1$; top of rail ..... 525.9
Greenville, 5.5 miles southeast of, 80 feet west of road crossing, 10 feet south of road, in top of stump, 4.5 feet above ground; copper nail ..... 534.61
Dixon, 1.1 miles northwest of, road crossing; top of rail. ..... 508.4
Dixon, 0.8 mile northwest of, 100 feet east of road forks, 400 feet southwest of white house, 20 feet southeast of road crossing, in bridge timber; top of painted bolt ..... 507.38
Dixon, 0.5 mile northwest of, road crossing at crossroads; top of rail. ..... 505.1
Dixon, 100 feet south of station, 150 feet northwest of white house, 20 feet south of road, 2 feet south of fence corner; iron post stamped " 503 " ..... 502.670
Dixon, 0.5 mile southeast of, road crossing; top of rail ..... 495.6
Dixon, 1 mile southeast of, 80 feet southwest of road crossing, 10 feet south of road, in top of stump, 4.5 feet above ground; copper nail. ..... 494. 25
Dixon, 1.5 miles southeast of, bridge H 721.6 ; top of rail ..... 467.1
Haynes siding, 1.8 miles southeast of Dixon, 270 feet northwest of road cross- ing, east end of bridge, in tie beside switch; copper nail. ..... 462.17
Dixon, 2.2 miles southeast of, trestle H 722.4 ; top of rail ..... 460.1
Dixon, 2.6 miles southeast of, east end of steel bridge over Sabine River, south end of concrete abutment; bronze tablet stamped " 460 " ..... 460.259
MINEOLA QUADRANGLE.
[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]
From Mineola northeast along highways to Scroggins.
Mineola, 1,200 feet east of station, 150 feet southeast of Mineola Box Fac-tory, 150 feet southwest of cotton gin, 40 feet north of Texas \& Pacifictrack, 10 feet west of fence corner; iron post stamped " 414 , Prim. Trav.Sta. No. $8^{\prime \prime}$413.838
Mineola, 1 mile north of, at drain crossing, 15 feet west of road, 2 feet above ground, in side of sweet gum tree; copper nail ..... 406. 75
Mineola, 1.9 miles north of, 20 feet east of road, 120 feet east of house, in root of oak tree; copper nail. ..... 440.33
Two Mile Fork of Lake Fork of Sabine River, at point 2.5 miles north of Mineola; creek bottom ..... 408. 4
Mineola, 2.8 miles north of, crest of divide between Two Mile and Four Mile Forks, 20 feet east of road; iron post stamped " 479 " ..... 479. 147
Mineola, 4 miles north of, 200 feet north of culvert over Four Mile Fork, 30 feet west of road, in top of stump; copper nail ..... 395. 42
Mineola, 5.2 miles north of, 120 feet north of road forks, 300 feet south of drain crossing, 20 feet east of road, in root of tree; copper nail. ..... 376. 64Mineola, 5.8 miles north of, 200 feet west of Mount Enterprise Schoolhouse,20 feet east of road, 2 feet southeast of fence corner; iron post stamped"401"400. 524
Mineola, 7 miles north of, 400 feet southwest of house, 250 feet north of drain crossing, 20 feet west of road, in root of oak tree; copper nail ..... 378. 76

> Quitman, 2.6 miles south of, near southwest end of steel bridge over Lake Fork of Sabine River, north concrete pier for steel support, 20 feet west of fence; bronze tablet stamped " 331 "

> Feet. 330.692

> Quitman, 1.2 miles south of, 200 feet east of house 20 feet west of road, 10 feet south of fence corner, in root of oak tree; copper nail
> 381.87

> Quitman, 60 feet northeast of Wood County courthouse, in south side of concrete pier at base of southwest supporting column to water tower; bronze tablet stamped " 413 "
> 412.751

> Quitman, 0.9 mile northeast of, 250 feet south of house, 20 feet east of road,
in base of oak tree; copper nail............................................. 415.34
> Quitman, 2.1 miles north of, northwest corner of steel bridge over Dry Creek, southwest corner of concrete abutment; center of painted circle.
> Quitman, 3 miles northeast of, 60 feet northwest of Mr. Warlick's residence, 30 feet east of road, beside fence corner, 1,200 feet south of road forks; iron post stamped " 446 "
> 445. 700

> Quitman, 4 miles northeast of, 200 feet north of Forest Hill Schoolhouse, 20 feet south of road, in root of hickory tree; copper nail.
> 448. 34

> Quitman, 5 miles northeast of, 250 feet northwest of house, 20 feet south of road, in base of oak tree; eopper nail
> 480.61

> Quitman, 6.2 miles northeast of, bend of road at foot of hill, 100 feet west of house, 30 feet south of road, 2 feet east of gatepost; iron post stamped "463"
> 462. 580

> Quitman, 7 miles northeast of, 10 feet northwest of crossroads, in root of large
stump; copper nail.......................................................... 473.90
> Quitman, 8 miles northeast of, 40 feet east of bridge, 30 feet northeast of drain, 30 feet south of road, in top of stump; copper nail.
> 443. 60

Winnsboro, 6.9 miles southwest of, 1,600 feet west of Sandy Creek bridge, 100 feet northeast of road forks, 140 feet north of house, at southwest corner of orchard, 2 feet north of gatepost; iron post stamped " 434 ".
433. 472

Sandy Creek, steel bridge over, in timber at northwest corner of bridge; copper nail.
398. 02

Winnsboro, 5.7 miles southwest of, 250 feet southwest of white church, 250
feet north of house, 15 feet east of road, in top of oak stump; copper nail. 464.08
Winnsboro, 4.7 miles southwest of, 150 feet east of house, at road forks, in top of oak stump; copper nail.
454. 31

Winnsboro, 3.7 miles southwest of, 500 feet east of white house, 20 feet east
of road, 8 feet south of fence corner; iron post stamped " 432 "............ 432.202
Winnsboro, 2.4 miles southwest of, 30 feet west of road, 300 feet west of house, in top of stump; copper nail.
458.94

Winnsboro, 1.4 miles southwest of, at drain crossing, 30 feet east of road, 20
feet southeast of fence corner, in top of stump; copper nail............. 469.18
Winnsboro, 200 feet northwest of station, 80 feet north of track, center of intersecting streets, concrete water trough supporting column with electric lights, on shelf at east side of column; bronze tablet stamped " 525 "
524. 477

Winnsboro, opposite semaphore at station; top of rail....................... 522.1
Winnsboro, 0.4 mile east of, bridge X 767.2 ; top of rail
504.4

Winnsboro, 0.9 mile east of, bridge X 767.7 ; top of rail..................... 500.9
East Winnsboro, 400 feet west of station, 4 feet north of road, 40 feet southeast of switch, in top of stump; copper nail
507. 40

Winnsboro, 3.5 miles east of, 50 feet south of private road crossing, 20 feet southeast of gate, in top of charred stump; copper nail.
Feet.
Winnsboro, 4.1 miles east of, public road crossing; top of rail. ..... 432.7
Winnsboro, 4.8 miles east of, 400 feet east of private-road crossing, 450 feet southeast of house, 60 feet south of track, in root of tree; copper nail.... ..... 422.55
Scroggins, 1.6 miles west of, bridge X 772; top of rail.407.7
Scroggins, 1 mile west of, 40 feet north of private road crossing, 150 feet southeast of house, in root of oak tree; copper nail. ..... 402.95
Scroggins, 6 telegraph poles east of station, 45 feet east of east end of wooden bridge and 12 paces south, 7 feet within right-of-way fence, in top of lime- stone post; bottom of square (C. \& G. S. bench mark $\mathrm{V}_{2}$ ) ..... 355.846
From Mineola south 2.6 miles along highway to north bank of Sabine River. (Leveled twice; portion of line.)
Mineola, 1.9 miles south of, 30 feet north of culvert, center of road, in top ofstump; iron nail and washer.335.32
Mineola, 2.4 miles south of, at north edge of Sabine River bottom, at north end of embankment approach to bridge, in line with Dump road going south, 70 feet northeast of center of road and 2 feet south of wire fence; iron post stamped " 328 , Prim. Trav. Sta. No. 16 ", ..... 328.377
From point 2.6 miles south of Mineola southeast along highways and International \& Great Northern Ry, to Eads flag station, thence west along highway south side of Sabine River and north across river to starting point.
Mineola, 2.4 miles south by 0.4 mile east of, 0.4 mile below Dump road, near wire fence, in base of post-oak tree with top broken off; nail323.87
Mineola, 2.4 miles south by 0.8 mile east of, in cornfield, 100 feet northeast of edge of thicket, in root of walnut tree; nail. ..... 329.61
Eads (flag station), 2.1 miles northwest of, 2,200 feet southeast of Interna- tional \& Great Northern Ry. milepost No. 42, 37 feet west of center of track, 1.5 feet east of right-of-way fence, about 150 feet north of river bottom land; iron post stamped " 330 , Prim. Trav. Sta. No. 15, 1915" $\ldots$ ..... 329.498
Bridge over slough; top of rail ..... 324.4
Eads (flag station), 1.6 miles northwest of, bridge $107 \frac{1}{2}$ over slough, west end of south abutment, in end of timber; copper nail ..... 321.56
Bridge 107, 700 feet east of sawmill, at center of bridge; top of rail ..... 324.8
Eads (flag station), 0.7 mile northwest of, west end of north abutment of International \& Great Northern Ry. bridge No. 106 $\frac{1}{2}$, in end of timber: copper nail ..... 322.02
North end of trestle 105; top of rail ..... 325.0
Sabine River bridge, south end of; top of rail ..... 327.5
Eads (flag station), 75 feet east of track, opposite signboard, 50 feet south-east of cabin, about 200 feet from south end of Sabine River bridge, 15inches west of wire fence; iron post stamped " 328 , Prim. Trav. Sta. No.14, 1915"'327.874
Eads (flag station), 0.7 mile west of, across river, about 450 feet west ofprimary traverse temporary bench mark 21 , on point of ridge 500 feetwest of small creek ( 40 feet west of transit station No. 216), in top of largestump; copper nail338.190
Mineola, 3.7 miles south, thence 1.5 miles southeast of, 600 feet southwest of primary traverse temporary bench mark 20,100 feet south of fence cor- ner, in lane between fences, in root of oak tree; iron nail. ..... 319.45
Mineola, 3.7 miles south, thence 1.1 miles southeast of, 500 feet east of creek, in open timber at edge of bottom, 150 feet north of knoll 20 feet high; iron post stamped " 323 , Prim. Trav. Sta. No. 13, 1915" ..... 322.604
Mineola, 3.7 miles south, thence 0.7 mile southeast of, 100 feet south of tra- verse line, 200 feet east of drain, 25 feet southeast of charred stump, 6 feet

Feet.north of trail, in top of stump; nail and iron washer.
323.60 porary bench mark 18 (under water Mar. 10), at south end of Dump road, southeast corner of bridge over slough, in top of pile; nail and iron washer.
Mineola, 3.4 miles south of, about 180 feet south of primary traverse temporary bench mark 25 (under water Mar. 10), northeast concrete pier of steel bridge over creek, end of truss, at corner of steel plate; top of painted rivet.
326.00
Mineola, 2.9 miles south of, about 300 feet north of primary traverse temporary bench mark 24 (under water Mar. 10), at south end of 240 -foot bridge over slough, beside east railing, 8 feet from end of bridge; nail and iron washer.
From point 2.6 miles south of Mineola west 1 mile.
Mineola, 2.4 miles south by 0.4 mile west of, 40 feet south of fence at edge of field, in root of leaning post-oak tree 24 inches in diameter; nail.
320.55
Mineola, 2.4 miles south by 1 mile west of, in open field with few scattering trees near by, in root of 30 -inch pin-oak tree; nail.
322.10
From point 4 miles south by 0.7 mile west of Mineola east 0.7 mile to south end of Dump road.
Mineola, 3.7 miles south by 0.7 mile west of, at bend of road, beside wire fence north of cotton field, 15 feet south of fence corner; iron post stamped "331, Prim. Trav. Sta. No. 12, 1915"
331.066
Mineola, 3.7 miles south by 0.2 mile west of, about 0.2 mile west of south end of Dump road, center of road, 15 feet south of fence, in root of 8 -inch elm tree; nail.

## SULPHUR SPRINGS QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]
From bridge over Sabine River southeast along Missouri, Kansas \& Texas Ry. to Lone Oak.
Lone Oak, 3.9 miles northwest of, bridge H 723.5; top of rail
471.8
Lone Oak, 3.1 miles northwest of, 200 feet southwest of Hall schoolhouse, 20 feet east of road crossing, at corner of cattle guard, in top of post; copper nail.
Lone Oak, 2.1 miles northwest of, 1,000 feet west of Hall Church, 100 feet east of road crossing, in angle of fence 4 feet east of corner; iron post stamped " 531 ".
530.603
Lone Oak, 1.1 miles northwest of, south corner of bridge H 726.3, in bridge timber; top of painted bolt.
547 7. 27
Lone Oak, 0.7 mile northwest of station, road crossing at north edge of town; top of rail.
563.6
Lone Oak, 400 feet north of station, 100 feet west of track, southeast corner of J. W. Bass's hardware store; iron post stamped " 561 ".
560.760
Lone Oak, opposite semaphore at station; top of rail.
558.0

## WILLS POINT QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]

## From Lone Oak southeast along Missouri, Kansas \& Texas Ry. to Mineola.

Lone Oak, 1.3 miles southeast of, 300 feet southeast of road forks, 20 feet north of road crossing, 400 feet west of house, at corner of cattle guard, in top of stake; copper nail.
Lone Oak, 2.3 miles southeast of, 30 feet southwest of private-road crossing, ..... Feet. in gatepost; upturned end of $\frac{1}{2}$-inch bolt. ..... 554.08
Lone Oak, 3.5 miles southeast of, 40 feet northeast of private-road crossing, 3 feet north of gatepost; iron post stamped " 532 ". ..... 532.158
Lone Oak, 4 miles southeast of, bridge H 731.4; top of rail ..... 513.7
Lone Oak, 4.3 miles southeast of, bridge $H$ 731.7; top of rail ..... 508.7
Point, 1.4 miles northwest of, south corner of bridge H 720.0 , in bridge tim- ber; top of painted bolt ..... 506. 63
Point, 150 feet south of station, 2 feet east of northeast corner of frame building at north end of Main Street; iron post stamped " 527 ". ..... 526. 544
Point, 0.8 mile southeast of, 500 feet north of white house, 20 feet north of road crossing, at east side of cattle guard, in top of stake; copper nail. ..... 528. 54
Point, 1 mile southeast of, bridge H 734.4 ; top of rail. ..... 528.3
Point, 2 miles southeast of, northwest corner of bridge H 735.3, in bridge timber; top of painted bolt. ..... 513.71
Point, 3.1 miles southeast of, 100 feet west of road crossing, 20 feet north- east of road forks, 2 feet inside right-of-way fence; iron post stamped " 513 ". ..... 513. 215
Point, 3.4 miles southeast of, bridge H 736.9 ; top of rail ..... 502.7
Emory, 3.1 miles northwest of, 70 feet southwest of road crossing, 30 feet north of large oak tree, in top of oak stump; copper nail ..... 502. 63
Rains old switch, 250 feet northwest of, road crossing; top of rail. ..... 491.7
Emory, 2.2 miles northwest of, southeast corner of bridge H 738.8 , in end of bridge timber; top of painted bolt. ..... 496. 79
Emory, 1.6 miles northwest of, bridge $H$ 739.4; top of rail. ..... 491.4
Emory, 1.2 miles northwest of, northwest corner of bridge H 739.7 , in end of bridge timber; top of painted bolt. ..... 495.88
Emory, 0.5 mile northwest of, bridge $H 740.4$; top of rail. ..... 478.9
Emory station, opposite semaphore; top of rail ..... 469. 2
Emory, Rains County courthouse, at right side of concrete steps to north- west entrance, in end of top step; bronze tablet stamped " 483 ". ..... 483.057
Emory, 1.5 miles southeast of, 80 feet south of road crossing, 10 feet south of gate, in top of charred stump; copper nail. ..... 482.08
Emory, 2.2 miles southeast of, bridge H 742.8 ; top of rail. ..... 458.3
Ginger, 0.6 mile northwest of, 2.7 miles southeast of Emory, 20 feet south- east of road crossing, in south side of cattle guard; top of painted bolt. ..... 480.00
Ginger, 30 feet north of station, 50 feet northeast of track, 2 feet south of corner of Ginger drug store (deserted); iron post stamped " 477 ". ..... 476. 714
Ginger, 0.4 mile southeast of, at south corner of bridge H 744.4 ; top of bolt... ..... 457.9
Ginger, 1 mile southeast of, 100 feet northeast of road crossing, 10 feet south of road, in base of oak tree; copper nail ..... 464. 86
Ginger, 1.4 miles southeast of, water tank; top of rail ..... 458.0
Ginger, 2 miles southeast of, 20 feet northwest of road crossing, 200 feet northeast of house, in timber at west side of cattle guard; top of painted bolt. ..... 464.96
Ginger, 2.9 miles southeast of, bridge H 746.7 ; top of rail ..... 467.4 ..... 467.4
Alba, 3.1 miles northwest of, clearing switch, 80 feet east of road crossing, 20 feet north of road; iron post stamped " 456 ". ..... 456. 429
Alba, 2.1 miles northwest of, 100 feet north of road crossing, 20 feet east of road, in top of stump; copper nail. ..... 478. 68
Alba, 1 mile northwest of, 40 feet southwest of private-road crossing; painted end of lower hinge to gate. ..... 476.93
Alba, 0.7 mile northwest of, bridge $H 749.5$; top of rail. ..... 464.4
Alba, northwest edge of town site, road crossing; top of rail. ..... 468.2
Alba, 200 feet north of station, 100 feet northeast of track, 50 feet northwest of road, at southwest corner of red frame building; iron post stamped " 450 ".

Feet.
450.395
450.8
435.0
443.93
435.3
452.97
424.72
428. 082
445. 46
444.1
425. 42
427.977
404.26
382.6

Golden, 1.9 miles southeast of, southwest corner of bridge H 758.3 over Willens Creek, in end of bridge timber; top of painted bolt
358.32

Mineola, 3.5 miles northwest of, 50 feet south of road crossing, 350 feet south
of house, beside right of way fence; iron post stamped " 384 "............ 383. 455
Mineola, 3.2 miles northwest of, bridge $H 760.2$; top of rail.................. 373.6
Mineola, 2.9 miles northwest of, center of bridge H 760.5 , in bridge timber; top of painted bolt
Mineola, 1.9 miles northwest of, 30 feet north of road crossing, 150 feet south of house, beside switch to storage sidetrack, in switch block; copper nail..
Mineola, 0.7 mile northwest of, intersection of Missouri, Kansas \& Texas Ry. and Texas \& Pacific Ry., northeast corner of concrete pier at foot of steps to switch tower; top of $\frac{1}{2}$-inch rod embedded in concrete.

From point 2.6 miles south of Mineola northwest along highway along north side of
Sabine River to Texas \& Pacific Ry., thence along this railroad west across Sabine
River, thence southeast along south side of river to point 4 miles south of Mineola.
Callaway Crossing, 2.8 miles east of, 150 feet north of edge of bottom at south end of lane, 2 feet south of fence line, 3 feet west of fence corner; iron post stamped " 328 Prim. Trav. Sta. No. 17, 1915"
Callaway Crossing, 2.2 miles east of, at edge of woods and overflowed land, in root of gum tree; nail
Callaway Crossing, 1.4 miles east of, 130 feet north of primary traverse temporary bench mark 29 (under water March 5), at edge of cotton field, in top of stump; copper nail
Callaway Crossing, 0.8 mile east of, at edge of timber and lowland, 15 feet
south of wire fence, in root of post-oak tree; nail.......................... 327.61
Callaway Crossing, 0.2 mile east of, 30 feet east of drain, in root of oak tree; nail
373. 82
327. 540
328.02
396. 30
329. 90

## PRIMARY LEVELING.

Callaway Crossing, at north end of, 50 feet northeast of end of bridge over slough, 20 feet north of road, at foot of hill, 2 feet from wire fence; iron post stamped " 332 Prim. Trav. Sta. No. 18, 1915"

Feet.
331. 432

Callaway Crossing, 0.6 mile northwest of, 300 feet east of primary traverse temporary bench mark 32 (under water Mar. 6), 100 feet south of lane, in corn field, in top of stump; copper nail
Callaway Crossing, 300 feet east along fence from primary traverse temporary bench mark 33 (under water Mar. 6), 10 feet south of fence, in top of stump; copper nail
Macks, 100 feet west of signboard, south side of east abutment of Texas \& Pacific Ry. bridge 140 A over slough, in end of timber; copper nail.....
Macks, 0.7 mile west of, south end of west abutment of Texas \& Pacific bridge 141 B over creek, 500 feet east of primary traverse temporary bench mark 35 (under water Mar. 6), in end of timber; copper nail. ...
Butler Lake, 1,500 feet southeast of Texas \& Pacific Ry. bridge over Butler Lake, about 450 feet east along fence from Butler Lake, 3 feet south of wire fence, 5 feet from braced fence post; iron post stamped " 353 , Prim. Trav. Sta. No. 20, 1915 "
351.761

Macks, 1.1 miles west of, east end of Sabine River Bridge; top of rail
Macks, 1.3 miles west of, 105 feet east of milepost 141,870 feet west of Smith-Wood county-line post, 900 feet west of Sabine River Bridge, 40 feet south of Texas \& Pacific Ry. track, 20 feet west of fence corner; iron post stamped "346, Prim. Trav. Sta. No. 10, 1915 "
346. 84

Callaway Crossing, 4 miles northwest of, 900 feet southwest of primary traverse temporary bench mark 1 (under water Mar. 11), 30 feet southeast of point where traverse line crosses east and west wire fence, in top of stump; iron nail and washer.
Callaway Crossing, 3.7 miles northwest of, 75 feet east of creek and old bridge, in root of sweet-gum tree; nail
Callaway Crossing, 3.1 miles northwest of, at south edge of bottom, about 200 feet south of traverse line, 6 feet east of wire fence, in base of tree; iron nail and washer (not found).
lowland, in root of post-oak tree; nail
Callaway Crossing, 1.7 miles northwest of, at north end of lane at foot of hill, 40 feet east of fence, 10 feet east of old road, on side of leaning tree trunk, 2.5 feet above ground; iron nail and washer

Callaway Crossing, 0.8 mile northwest of, on east bank of creek, in stump covered clearing, 200 feet southeast of point of ridge, 20 feet east of fence, 250 feet east of small bridge, 200 feet west of edge of thicket, in top of small stump; iron nail and washer.
332.28

Callaway Crossing, 300 feet south of old bridge over slough, 10 feet east of public road, in root of 18 -inch oak tree; iron nail
327.53

Callaway Crossing, 0.6 mile southeast of, at northeast corner of field, 100 feet from edge of bottom, in top of corner post of wire fence; iron nail and washer
Callaway Crossing, 1.1 miles southeast of, at top of small ridge, 400 feet southwest of edge of bottom, 100 feet east of old well, at north side of old road, beside wire fence, in top of large stump; iron nail and washer....
Callaway Crossing, 1.8 miles southeast of, 850 feet south of Village Creek, along wire fence, 50 feet north of small creek, 500 feet northwest of cane brake, 1 foot east of fence, in top of stump; iron nail.
Callaway Crossing, 2.6 miles southeast of, at northeast corner of plowed field, 300 feet east of drain, in root of blazed tree; nail (not on sheet)...
Callaway Crossing, 3.1 miles southeast of, at foot of timbered ridge, 100 feetsouth of edge of bottom land, 10 feet southeast of fence corner, in root oftree; nail
Feet. 328.39
Burleson Lake, 0.2 mile southeast of outlet of, 30 feet south of outlet stream, 125 feet south of old ford, on bank among scrub timber and brush; iron post stamped "326, Trim. Trav. Sta. No. 11, 1915 "325.569
Burleson I ake, 0.6 mile southeast of, 250 feet west of cotton field, 200 feet south of slough, in root of elm tree on fence line; nail. ..... 321.92
Burleson Lake, 1.2 miles southeast of, 70 feet north of road, 100 feet west of fence and open field, in root of gum tree; nail ..... 329.39
Burleson Lake, 1.6 miles southeast of, 40 feet northwest of road, in root of pin oak tree; nail. ..... 322.08
At Callaway Crossing, a tie line southwest across Sabine River.
Callaway Crossing, northwest corner of Sabine River Bridge, end of timberbeside railing, in center of painted circle; nail.331.63
Callaway Crossing, 1,000 feet west of Sabine River Bridge, 100 feet southof end of small pond, 100 feet north of road; iron post stamped " 331 , Prim.Trav. Sta. No. 19, 1915"331.020
Archer City, Eschite, Henrietta, Montague, and Walter quadrangles. ARCHER, CLAY, AND WICHITA COUNTIES.

The elevations in the following list depend on 1912 adjustment heights of bench marks near Ringgold.

The leveling was done in all quadrangles by Roscoe Reeves in 1914, additional leveling was done in Archer City quadrangle in 1915 by C. R. Fisher and in Eschite quadrangle by C. R. Fisher and D. H. Watson.

## ARCHER CITY QUADRANGLE. <br> [Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]

## Along Missouri, Kansas \& Texas Ry. near northeast corner of triangle.

Bacon, 1 mile south of, at second-class road crossing, north side of road, in Feet. east cap sill of cattle guards; middle bolt, painted "1041". ..... 1,040. 69
Wichita Falls, 4.6 miles north of, 40 feet south of corner fence post of north and south fence line and line of right of way, on east side of railroad; iron post stamped " 1026 " ..... $1,025.578$
Wichita Falls, 3.9 miles north of, east end of south stringer of small wooden bridge; copper nail, painted " 994 " ..... 994.33
From point near Fowlkes station southeast along Fort Worth \& Denver City Ry. to Wichita Falls.
Electra, 5.2 miles east of, 0.5 mile west of Fowlkes station along Fort Worth\& Denver City Ry., 50 feet north of track, 40 feat south of road, in base oftelephone pole; top of head of railway spike painted " 1078.6 "$1,078.58$
Electra, 6.5 miles east of, at crossroads, 2 feet south of North Railway rightof way fence, 100 feet south of main road, 10 feet west of crossroad, 15 feeteast of telpehone pole painted " 1058.7 "; iron post stamped " 1059 "$1,058.748$
Electra, 7.7 miles east of, 40 feet north of track, 120 feet south of main road,200 feet west of small concrete culvert, in base of telephone pole; top ofhead of railway spike painted " 1041.8 "1, 041.87

[^4]Electra, 8.7 miles east of, 40 feet north of track, 140 feet south of main road, 200 feet west of " 1 mile" signal for Burk station, in base of telephone Feet. pole; top of head of railway spike painted " 1030.9 ". 1, 030.91
Electra, 9 miles east of, 40 feet north of track, 50 feet south of road, in fence corner at road crossing, $\frac{3}{4}$ mile west of Burk station, 130 yards south of Burkburnett ranch house; iron post stamped " 1031 " painted " 1030.7 ". $1,030.808$
Electra, 10.3 miles east of, 180 feet east of the east end of switch at Burk station, 40 feet north of track, 300 yards east of Burk station, in base of telephone pole; top of head of railway spike painted " 1026.4 "

1, 026.49

Electra, 11.8 miles east of, on southwest corner of east concrete abutment of bridge number 128-80, on surface of concrete; painted circle painted "1007.6".
$1,007.63$
Electra, 12.6 miles east of, at road crossing in northwest fence corner of railway right of way, 20 feet west of road; iron post stamped " 1013 ", painted "1013.1".

1, 013.195
Iowa Park, 2 miles west of, 250 yards west of railway water tank in side of telegraph pole; top of head of railway spike painted " 1023.4 ".

1, 023.51
Iowa Park, 1.8 miles west of, $\frac{1}{2}$ mile east of railway water tank, at crossroads, 50 feet north of track, in base of telephone pole; top of head of railway spike painted " 1040.0 "

1, 040.09
Iowa Park, 0.5 mile west of, 150 feet north of wagon road in south end of east concrete abutment of small bridge over small creek; bronze tablet stamped " 1015 ", painted " 1014.7 "
$1,014.815$
Iowa Park, 25 feet east of southwest corner of Overbey Troutman store, 10 inches south of south wall, set in concrete sidewalk; bronze tablet stamped " 1036 ".

1, 036.52
Iowa Park, 0.7 mile east of, at crossroads, 50 feet north of railway track, in base of telephone pole; top of head of railway spike painted " 1019.4 "...
Iowa Park, 1.9 miles east of, 320 yards east of small creek 40 feet north of track, in base of telephone pole; top of head of railway spike painted "994.5"
994.63

Iowa Park, 3.2 miles east of, 40 feet north of track, 120 feet south of road, $\frac{1}{4}$ mile west of schoolhouse, 160 feet west of creek; iron post stamped " 978 ".
977.954

Iowa Park, 4.3 miles east of, 40 feet north of track, 130 feet south of road, 400 yards east of road crossing, in base of telephone pole; top of head of railway spike painted " 973.6 "
973.69

Iowa Park, 5.3 miles east of, 500 feet west of road crossing, 40 feet north of track, 130 feet south of road, in base of telephone pole; top of head of railway spike painted " 970.2 "
970.29

Iowa Park, 7.2 miles east of, 120 yards west of square white house, south side of track, 8 feet south of track, on east end of concrete culvert over small creek; bronze tablet stamped " 966 "
Iowa Park, 7.6 miles east of, 600 feet east of road crossing, 40 feet north of track, 130 feet south of road, in base of telephone pole; top of head of railway spike painted " 953.2 "
953.34

Iowa Park, 8.7 miles east of, 140 feet east of road crossing, 120 feet south of main road, 40 feet north of track, in base of telephone pole; top of head of railway spike painted " 950.7 "
950.83

Wichita Falls, 0.50 mile north of, on county bridge over "Big Wichita" River, on west end of north pier; chiseled square within painted circle, painted " 952 ".

## From point 1.2 miles south of Electra along highways south 7 miles, thence east and northeast to Burk station.

Electra, 2.2 miles south of, 75 feet east of road, 30 feet west of small house,
15 feet west of the northwest corner of picket fence, in ground near square
Feet.
telephone pole; top of stake painted " 1170.7 "
$1,170.66$

Electra, 2.8 miles south of, at forks of road to southeast, 30 feet east of road,
2 feet west of fence, 140 yards south of jog in road to west; iron post
stamped " 1173 ", painted " 1172.9 "
$1,172.781$

Electra, 3.8 miles south of, 20 feet east of road, 8 inches west of fence post,
150 yards south of head of large stream running west; top of stake painted
"1172.9"

$1,172.85$
Electra, 4.7 miles south of, 0.25 mile north of short jog in road to east, 40 feet east of road, in projecting knot of fence post; copper nail painted "1161.6" ..... $1,161.48$

Electra, 5.7 miles south of, at angle in turn road to southwest, $\frac{1}{4}$ mile west of ranch house, 6 feet northwest of the southeast fence corner; iron post stamped " 1,135 " painted " 1135.1 ".

1, 134.956
Electra, 6.5 miles south of, at jog in road to west, in base of the southeast
corner fence post; top of railway spike painted " 1095.8 ".............. $1,095.69$
Electra, 7.5 miles south of, 0.75 mile south of ranch house, at jog in road to south, 15 feet west of road, near center of public road highway, in mesquite stump; copper nail painted "1076.9".
$1,076.76$
Electra, 8 miles south of, 0.5 mile north of road leading east, on top of hill where road leaves public highway to the southwest, 100 feet south of turn, at west fence line, 40 feet south of large fence post, in sandstone rock; bronze tablet stamped " 1116 " painted " 1116.0 "
Electra, 8 miles south of, 1.2 miles southwest of John Wagner's ranch house, near bottom of creek, 10 feet north of fence corner; top of sandstone rock painted "1053.4".
Electra, 7 miles south of, $\frac{1}{4}$ mile west of John Wagner's ranch house, 70 feet northeast of gate to private road leading to John Wagner's ranch house, on south side of road, in projecting knot of fence post; copper nail painted "1101.1". ..... $1,100.90$
Electra, $6 \frac{1}{2}$ miles southeast of, $\frac{3}{4}$ mile north of John Wagner's ranch house, at right-angled turn of road to east, 12 feet south of the southeast fence corner; iron post stamped " 1110 ". ..... 1, 109. 801
Electra, 7.5 miles southeast of, 1.5 miles northeast of John Wagner's ranch house, $\frac{1}{2}$ mile northeast of lone oil derrick, on south fence line, in pro- jecting knot of fence post; copper nail painted " 1084.0 ". ..... 1, 083.77
Electra, 8.5 miles southeast of, 0.2 mile north of prominent point, 3 miles south of Fowlkes triangulation station, at fence line south of road, in pro- jecting knot of fence post; copper nail. ..... $1,047.35$
Electra, 9 miles southeast of, at cross roads, 4 miles northwest of Burk station, 30 feet east of cross roads, 3 feet north of the south fence line; iron post stamped " 1055 " painted " 1054.9 ". ..... $1,054.708$
Burk station, 3 miles southwest of, due east of Fowlkes triangulation station, 1 mile north of cross roads, 20 feet west of road, in mesquite stump; cop- per nail painted " 1090.9 ". ..... $1,090.64$
Burk station, 2 miles southwest of, 30 feet southeast of road, in root of mes- quite tree; copper nail painted "1057.0". ..... 1, 056.74

## ESCHITE QUADRANGLE. 1

## [Latitude $34^{\circ}-34^{\circ} 30^{\prime}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]

## Near Burkburnett.

Burkburnett, 3 miles south of, 0.5 mile east of railroad crossing, in northeast corner of $T$ road forks north, 50 feet north of corner fence post; iron Feet. post stamped " 1009 "
Burkburnett, 3 miles south of, 50 feet east of public road crossing, in base of telephone pole; head of spike painted " 1001 " ..... $1,000.83$
Burkburnett, 4.25 miles south of, at point where public road leaves Mis- souri, Kansas \& Texas Ry., and turns east, in base of telegraph pole; head of spike painted " 1029 " ..... 1, 028.52
Burkburnett, 5.25 miles south of, 100 feet south of second-class road cross- ing and fence line, in base of telegraph pole; head of spike painted "1064" ..... 1,064.04
Burkburnett, 6 miles south of, 50 feet east of Missouri, Kansas \& Texas Ry. crossing, on line of right of way and north side of road; iron post stamped "1058" ..... 1, 057.896
Burkburnett, 7.3 miles south of, at Bacon siding, second telegraph pole north of section house; head of railroad spike painted " 1040 " ..... $1,039.85$
From point 3 miles south of Burkburnett north along Wichita Falls \& Northern R. R. to Burkburnett, thence along highways west, south and east to point 7.5 miles south of Burkburnett, thence to point 6 miles south of Burkburnett.

Burkburnett, 3 miles south of, 5 miles east of railroad crossing, in northeast corner of T road forks north, 50 feet north of corner fence post; iron post stamped "1009"1009. 214

Burkburnett, 2 miles south of, at railroad crossing, 20 feet west of track and public-road crossing, in base of crossing sign post; railroad spike painted "1010.9"1, 010.88
Burkburnett, 1 mile south of, 250 feet east of railroad, in northeast corner of T road north, in base of power pole; railroad spike painted "1037.4" ..... $1,037.48$
Burkburnett, 0.5 mile south of, in northeast corner of $T$ road east, 5 feet north of power pole; iron post ..... 1,043. 105
Burkburnett, in southwest concrete pier of city water tower; bronze tablet stamped " 1057 " ..... 1, 057.361
Burkburnett, in front of station; top of rail ..... 1,051. 6
Burkburnett, 1.2 miles west of, in northwest corner fence post at crossroads,in base of fence post; railroad spike painted "1082.1"1, 082. 18
Burkburnett, 2.2 miles west of, in southeast corner of crossroads, 10 feet northwest of corner post, top of rock; painted circle " 1112.9 " ..... $1,112.98$Sullivan triangulation station, on Mr. Sullivan's farm, 2 miles southwest ofBurkburnett and just north of the Burkburnett-Electra wagon road.Station is about 600 feet west of Mr. Sullivan's residence. Station mark:A standard iron post projecting 9 inches above surface.$1,125.606$Burkburnett, 3.3 miles west of, in northeast corner of crossroads at Fairviewschoolhouse, in top of corner fence post; copper nail painted "1107-9".. 1, 107.98Burkburnett, 4.4 miles west of, in southwest corner of crossroads, in base ofcorner fence post; sixtypenny spike painted "1081.4"1, 081.54

[^5]Burkburnett, 5.5 miles west of, on south side of road, 45 feet northeast of farmhouse, 600 feet west of offset in east and west public road; iron post Feet.
stamped " 1085 ". stamped " 1085 ",
Burkburnett, 6.4 miles west of, at $T$ road east, on west side of north and south road, in base of telephone pole; railroad spike painted " 1085.9 "... 1, 086.07
Burkburnett, 7.2 miles west of, Clara 0.5 mile north of, 100 feet south of angle in roads, on east side of road, in base of telephone pole; sixtypenny spike painted "1106.3"
Clara, 600 feet southeast of, at T road west, east side of road, 5 feet south of telephone pole; iron post stamped "1102"
Clara, 1.3 miles west of, north side of road, 135 feet west of private road south to farmhouse, in base of telephone pole; sixtypenny spike painted "1126.9"
$1,127.12$
Clara, 1.7 miles west of, at $T$ road west, in east side of north and south road, in top of short fence post; copper nail painted " 1114.2 ".
$1,114.39$
Clara, 2.2 miles west of, in southeast corner of Troad south; painted circle on rock " 1142.8 "
$1,143.03$
Clara, 2.3 miles west of, in northeast corner of Troad north, east end of galvanized culvert; painted circle

1,137. 79
Clara, 3.3 miles west of, 6 feet east of telephone pole, north and south fence south, in fence line south side of road; iron post stamped " 1099 ".
$1,099.375$
Clara, 4 miles west of, west end of steel bridge over Tenth Cavalry Creek, on top of west anchor, on north side of bridge; bolt marked " 1064.9 ".
$1,065.09$
Sunshine schoolhouse, 1 mile north and $\frac{1}{2}$ mile east of, in southeast fence post at cross roads north and south and east and west, in projecting knot; copper nail with washer marked "1105.4"

1, 105.59
Sunshine schoolhouse, $\frac{3}{4}$ mile northeast of, 30 feet west of road, 8 inches east of telephone pole, driven down $\frac{1}{2}$ inch from surface of ground; wooden stake marked "1113.8"
$1,114.05$
Sunshine schoolhouse, 1 mile east of, in west end of $3^{\prime \prime} \times 12^{\prime \prime}$ timber of new culvert, T road north, 20 feet south of northwest fence corner; copper nail with washer marked "1143.3"
$1,143.57$
Sunshine triangulation station, at southeast corner of Sunshine school yard, on a prominent hill. Station is just north of the Burkburnett-Electra wagon road, about 8 miles northeast of Electra and about 12 miles southwest of Burkburnett, 21 feet east and 18 feet north to corner of schoolhouse. Station mark: A standard iron post projecting 9 inches above surface, under which a brickbat was buried.

1,207.965

Sunshine schoolhouse, 2 miles southeast of, at T road south, southeast fence corner post, $1_{2} \frac{1}{2}$ feet from post, driven in ground; top of wooden stake marked "1114.5"

1, 114.76
Sunshine schoolhouse, 3 miles southeast of, 5 feet northwest of the north-
east fence-corner post, 12 feet northeast of end of small culvert, T road
north; iron post stamped " 1078 " (elevation painted 1078.3)............... 1, 078.606
Sunshine schoolhouse, 4 miles southeast of, northeast fence corner, 3 feet west of, 40 feet northeast of road, driven one inch from surface of ground; top of wooden stake painted "1098.8"

1, 099.04
Sunshine schoolhouse, $4 \frac{1}{2}$ miles southeast of, southeast fence-corner post, 30 feet east of, on top of large rock on fence line; marked point painted 1101.

1, 101.28
Prairie Cottage schoolhouse, 400 feet southeast of, southwest fence corner, 2 feet west of, crossroads east and west and north and south, on top of

    Feet. large rock; marked point painted "1074.5" ..... 1, 074.74Prairie Cottage schoolhouse, 1 mile east of, W. F. Heesermann's mail box 20feet west of, fence 4 feet south of, 20 feet north of road; iron post set \(3 \frac{1}{2}\)feet in ground stamped 1091, painted (1091.1)\(1,091.363\)
    Prairie Cottage schoolhouse, 2.2 miles east of, T road west, at southwest fence corner post, 10 feet west of; top of wooden stake driven in ground painted "1095.6" ..... $1,095.88$
Wiethe schoolhouse, $\frac{1}{4}$ mile west of, at road crossing, at northwest fence corner post, on large rock; painted mark painted 1082.9 ..... 1, 083.20
Wiethe schoolhouse, at T road north, $\frac{3}{4}$ mile east of, 30 feet north of road, northwest fence-corner post 3 feet west of, set in large sandstone rock; bronze tablet stamped "1073" ..... $1,073.378$
Wiethe schoolhouse 1.8 miles east of, at T road north, the northeast corner fence post, 6 feet east on fence line, on rock; marked point painted "1045.1" ..... 1, 045.44
Lindsey triangulation station, $\frac{1}{2}$ mile south of and $\frac{1}{2}$ mile west of, T road east, the northeast corner fence post, 2 feet east of, driven in ground; top of wooden post painted " 1056.8 " ..... 1, 057.17
Lindsey triangulation station, in Mr. Joseph Lindsey's orchard, 7 miles south and 2 miles west of Burkburnett station, is about 2 feet west of the east garden fence and due west of the northwest corner of Mr. Lindsey's resi- dence. Station mark: A standard iron post projecting 9 inches above surface. ..... $1,122.617$
Everett schoolhouse, 1.5 miles west of, at road crossing, the southwest fence corner post; top of railway track spike painted " 1034.9 ". ..... $1,035.25$
Everett schoolhouse, 0.5 mile west of, at crossroads, the northwest fence corner post, 10 feet north of, on fence line, 60 feet west of telephone line, on top of rock; painted point, painted 1031.2 . ..... 1,031. 61
Bacon siding, 2 miles west of Everett schoolhouse, 0.5 mile east of, at cross- roads, the southwest fence corner post 7 feet northeast of; iron post stamped " 1028 ", painted 1028 ..... 1, 028.437
Bacon, 1 mile west of, Everett schoolhouse 1.8 miles east of, jog of road to north, in north end of 3 by 10 timber of small culvert; copper nail with washer painted " 1034.4 ". ..... $1,034.89$
Bacon siding, second telegraph pole north of section house; head of railway spike painted " 1040 ". ..... $1,039.82$
Burkburnett, 6 miles south of, 50 feet east of Missouri, Kansas \& Texas Ry. crossing, on line of right of way and on north side of road; iron post stamped "1058" ..... $1,057.896$
From point 0.8 mile southeast of Sunshine schoolhouse along highways west and south- west to Electra, thence north 6 miles, thence east to point 2.5 miles north of Sunshine schoolhouse.
Sunshine schoolhouse, 0.8 mile southeast of, 2 feet northeast of the southwest fence corner post, 40 feet southeast of road 400 yards west of white house on top of hill; top of 3-inch iron post stamped " 1157.0 " ..... $1,157.222$
Sunshine schoolhouse, 1 mile southwest of, along public-road fence line, 300 yards east of small square hip-roofed house, driven in side of telephone pole; head of railway spike painted " 1151.4 ". ..... $1,151.37$
Sunshine schoolhouse, 2 miles west of, along public-road fence line, south of road, in side of telephone pole; head of railway spike painted " 1149.6 ". 1, 149.56
Sunshine schoolhouse, 2.5 miles west of, at T road west, in base of telephone pole on south side of road; head of railway spike painted " 1158.8 " ..... 1, 158.76
Sunshine schoolhouse, 3.2 miles west of, 1 foot north of fence line on south side of road, $\frac{1}{2}$ mile east of jog in road to the south, 120 yards southeast of oil derrick, 30 feet west of telephone pole painted " 1164.8 "; iron post stamped " 1165 "

## Feet.

1,164. 758
Electra, 5 miles east of, 100 feet north of jog in road to west, on west side of
road, in side of telephone pole; head of railway spike painted "1163.7".. 1, 163. 65
Electra, 3 miles east of, 100 feet south of jog in road to south, 150 yards south of greenhouse at green pumping station, on west side of road, driven in side of telephone pole; head of railway spike painted "1164.1".
$1,164.05$
Electra, 2 miles east of, 150 yards west of red houses at forks of road, on north side of road, in base of telephone pole; head of railway spike painted "1174.8"
$1,174.72$

Electra, 1.5 miles northeast of, at jog in road to south, on west end of wooden
culvert, 40 feet east of fence corner; copper nail with washer painted
"1185.5"

$1,185.43$
Electra, Lone Oil Derrick triangulation station on east edge of; iron post stamped " 1221 " ..... $1,220.624$
Electra, in north concrete pier of the city water tank; bronze tablet stamped " 1222 ". ..... 1, 221. 682
Electra, 1 mile north of, 100 yards north of Electra Cemetery, at forks of road on west side of road, driven in side of telephone pole; head of rail- way spike painted " 1196.7 " ..... 1, 196. 60
Electra, 2 miles north of, at T road south, on north side of road, in side of telephone pole; top of head of railway spike painted "1162.0". ..... 1, 161.94
Electra, 3 miles north of, at T road east, on west side of road, 2 feet east of fence line; iron post stamped " 1154 " ..... 1,153. 939
Electra, 4 miles north of, at crossroads $\frac{1}{2}$ mile west of tank farm, the south-east corner fence post, in base of post; top of head of railway spike painted"1130.2"$1,130.08$Electra, 5 miles north of, 0.6 mile south of Catholic Church, 2 miles west ofEnterprise schoolhouse, at crossroads, 3 feet southwest of the northeastcorner fence post, in base of telephone pole; top of head of railway spike..$1,143.41$
Electra, 6 miles north of, 0.4 mile north of Catholic Church, at crossroads,10 feet south of the southeast corner fence post, painted " 1119.5 "; iron poststamped " 1120 ".1, 119. 370
Electra, 6 miles north of, 0.4 mile north by 1 mile east of Catholic Church,300 feet east of $T$ road south, 250 feet west of T road north, at east end ofbridge over China Creek, in side of large cottonwood tree; top of head ofrailway spike painted " 1086.3 "1, 086.18
Electra, 6 miles north of, 0.4 mile north by 2 miles east of Catholic Church,1 mile north of Enterprise schoolhouse, at crossroads, 10 feet south of thesoutheast corner fence post, in base of telephone pole; top of head of rail-way spike painted "1130.8"$1,130.68$
Electra, 5 miles north of, 0.6 mile south and 2 miles east of Catholic Church,100 yards southeast of Enterprise schoolhouse, at crossroads, 20 feetnorth of the northeast corner fence post on east side of road; iron poststamped " 1136 ", painted "1136.2".1, 136. 059
Enterprise schoolhouse, 1 mile east of, at T road south, 75 yards south-west of bright yellow house, 6 feet east of the southwest corner fencepost, in base of telephone pole; top of head of railway spike painted"1106.2"1, 106.04
Enterprise schoolhouse, 2 miles east of, at crossroads, 1 foot northwest ofthe southeast corner fence post, in base of telephone pole; top of head ofrailway spike painted " 1108.5 ".1, 108. 27

Enterprise schoolhouse, 3 miles east of, 1 mile west and $\frac{1}{3}$ mile south of, at Troad west, 20 feet west of the southwest corner fence post; iron post Feet. stamped " 1088 " painted "1087.8". 1, 087.636
Baptist Church, 1 mile south by 0.8 mile west of, $2 \frac{1}{2}$ miles north of Sunshine schoolhouse, in base of telephone pole on north side of road; top of head of railway spike painted "1099.5"

1,099. 27
Baptist Church, 1 mile south of, $2 \frac{1}{2}$ miles north of Sunshine schoolhouse, at crossroads, 200 feet north of yellow house, 120 feet west of the northwest corner fence post, in base of telephone pole; top of head of railway spike
Sunshine schoolhouse, 2.5 miles northeast of, at crossroads in the southeast corner fence post, in projecting knot; copper nail with washer painted " 1105.4 " (this t. b. m. is on circuit 1).
$1,105.59$

## From Electra southeast along Fort Worth \& Denver City Ry, to point near Fowlkes station.

Electra, 0.8 mile east of, at road crossing, 60 feet east of road, on north side of tracks, in base of telegraph pole; top of head of railway spike painted "1193.3".
Electra, 1.8 miles east of, on north side of track, 400 yards northwest of lone oil derrick, in base of telephone pole; top of head of railway spike painted "1148.5"
$1,149.48$
Electra, 2.2 miles east of, at west end of side track for oil car loading racks, on south side of track, in north end of switch signal beam; copper nail "painted "1127.3" $1,127.26$
Electra, 3 miles east of, at road crossing, 2 feet north of north right of way fence, 15 feet west of road; iron post stamped " 1112 " painted " 1111.9 ". 1, 111.859
Electra, 4.2 miles east of, at road crossing, 40 feet north of track, 60 feet south of road and 30 feet east of road, in base of telephone pole; top of head of railway spike, painted " 1102.6 "

## From Electra south along highway 1.2 miles.

Electra, 1.2 miles south of, on top of first high ridge south of railway track, 30 feet east of road, in fence post painted "1191.1"; top of head of railway spike.

## HENRIETTA QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $98^{\circ}-98^{\circ} 30^{\circ}$.
From point 2.8 miles west of Ringgold, west along Missouri, Kansas \& Texas Ry, to
Henrietta, thence south along Southwestern Ry. and east along highways to point
8 miles southwest of Ringgold.
Ringgold, 2.8 miles west of, 725 feet west of G. T. Jackson's house, in base of warning post; head of railroad spike, painted " 863.6 "
Ringgold, 2.8 miles west of, two telegraph poles west of G. T. Jackson's house, 10 feet north of railroad track, 5 feet west of section post 111-112; iron post stamped " 859 "
Ringgold, 3.8 miles west of, 300 feet west of second-class road crossing, north end of west headblock of small wooded trestle; copper nail, painted " 886.9 "
Ringgold, 5.1 miles west of, 800 feet east of Rosson siding, 40 feet south of railroad crossing, in base of telephone pole; head of spike, painted " 922 "
Ringgold, 6.2 miles west of, 0.8 mile west of Rosson siding, north end of east headblock of wooden trestle 762.3 ; copper nail, painted " 872 ".
Ringgold, 6.2 miies west of, 0.8 mile west of Rosson siding, 25 feet south- west of wooden trestle 762.3, 10 feet west of telephone pole; iron post

Feet.stamped " 870 ".
870.350

Ringgold, 7.1 miles west of, 0.6 mile east of Cotton Gin, 20 feet south of railroad; in base of telegraph pole; head of railroad spike, painted " 872.9 "
872.84

Ringgold, 8.1 miles west of, 7.6 miles east of Henrietta, 0.4 mile west of Cotton Gin, in base of telegraph pole; head of railroad spike, painted "855.3"
855.27
Walton siding, northeast corner of bunk house, opposite section house, in supporting sill; copper nail painted " 866 " ..... 866. 48
Walton siding, 50 feet south of road crossing, 5 feet west of road, 130 feet southeast of section house; iron post stamped " 866 " ..... 866.624
Henrietta, 5.25 miles east of, 1.1 miles west of Walton siding, 25 feet south of railroad track, in base of telephone pole; head of railroad spike, painted "903" ..... 903.84
Henrietta, 4 miles east of, south end of east headblock of wooden trestle No. 7677; copper nail, painted " 850 " ..... 851.03
Henrietta, 3 miles east of, 1,060 feet east of road crossing, south of railroad, in base of telephone pole; head of railroad spike, painted " 848.4 " ..... 849.40
Henrietta, 2 miles east of, 90 feet southeast of road crossing, in base of tele- phone pole; head of railroad spike, painted "855.4". ..... 856.33
Henrietta, .2 miles east of, 95 feet southeast of road crossing, 10 feet east of telegraph pole; iron post stamped " 854 " ..... 854. 461
Henrietta, 0.96 mile east of, 1,100 feet west of second-class road crossing, north bend of west head block of wooden trestle; copper nail painted "873.4" ..... 874. 40
Henrietta, Missouri, Kansas \& Texas Ry. station, 80 feet west of, 10 feet north of railroad siding; iron post stamped " 891 ". ..... 892. 185
Henrietta, 1.15 miles southwest of, 25 feet west of Southwestern Ry., in base of telegraph pole; head of spike, painted " 899 ". ..... 899. 97
Henrietta, 2.3 miles southwest of, 20 feet southeast of road crossing, in base of telegraph pole; head of spike painted " 933 " ..... 933. 61
Henrietta, 2.3 miles southwest of, 20 feet east of railroad, in line of fence north of public road; iron post stamped " 931 " ..... 931. 846
Henrietta, 3.1 miles southwest of, 700 feet southwest of cattle guards, in fence line, southeast of railroad, in base of telegraph pole; spike painted "927" ..... 927. 56
Henrietta, 3.86 miles southwest of, 150 feet north of farm house on publicroad to Halsell, in top of corner fence post; copper nail painted " 931 "....Henrietta, 4.25 miles south of, 2 miles west of, 125 feet south of woodenbridge on Halsell road, 40 feet east of road, in sandstone ledge; bronzetablet stamped " 908 "931. 59
908.723
Henrietta, 4.5 miles south of, northeast corner of Bluegrove road and laneeast, in base of corner fence post; copper nail painted " 940 "940. 99
Henrietta, 4.5 miles south of, 1 mile east of, northeast corner of crossroads,5 feet north of corner fence post; iron post stamped " 926 "927. 395
Henrietta, 4.5 miles south of, 2 miles east of, northwest corner of $T$ road west, on top of rock brace to corner fence post; painted circle ..... 947.04
Henrietta, 4.5 miles south of, 3 miles east of, in front of farm house, north of road, in end of brace to corner fence post; copper nail painted " 971 "...Henrietta, 4.5 miles south of, 4 miles east of, 1,000 feet east of farm house,1,300 feet west of Troad forks, 25 feet north of road west, 170 feet east ofsmall stream crossing, in sandstone ledge; bronze tablet stamped " 911 "..
972.04
Henrietta, 6 miles southeast of, Dick Worsham's siding, opposite center of section house; top of rail (Fort Worth \& Denver City Ry.)

Feet.

891.57

890.827
From Henrietta northwest along Fort Worth \& Denver City and Missouri, Kansas \& Texas railways to Wichita Falls.
Henrietta, Missouri, Kansas \& Texas Ry. station, 80 feet west of, 10 feet north of railroad; iron post stamped " 891 "
892. 185
Henrietta, Missouri, Kansas \& Texas Ry. station, 0.94 miles west of, south end of west head block of wooden bridge on Fort Worth \& Denver City Ry., 4 feet below elevation of rail; copper nail painted " 865.5 "
865.52
Henrietta, 2.28 miles west of, east end of small steel bridge on Fort Worth \& Denver City Ry., in top of south top sill: copper nail painted " 863 "....
Henrietta, 3.13 miles west of, 600 feet west of bridge on public road, south end of east concrete support of steel bridge of Fort Worth \& Denver City Ry. over Little Witchita River; chiseled cross painted " 857 "
863. 26
856.61
Henrietta, 3.1 miles west of, 600 feet west of bridge on public road, south end of east concrete support of steel bridge, Fort Worth \& Denver City Ry.; bronze tablet stamped " 857 "
856. 633

Henrietta, 4.8 miles west of, 0.8 mile west of Edward's siding, in south end of of west concrete support of small steel bridge, Fort Worth \& Denver City Ry.; chiseled cross painted " 868 "
868.30
Henrietta, 6 miles west of, first concrete culvert east of 10 -foot cut on Fort Worth \& Denver City Ry., on south side of railroad, west edge of culvert; chiseled cross painted " 886 "
886. 20
Henrietta, 6.4 miles west of, at road crossing, 12 feet south of Missouri,
Kansas \& Texas Ry., 6 feet west of road, $2 \frac{1}{2}$ feet above elevation of rail,
in sandstone ledge; bronze tablet stamped " 895 "................................ 895.093
Henrietta, 7.6 miles west of, south end of west head block of wooden trestle on Missouri, Kansas \& Texas Ry.; copper nail painted " 921 "
920.62
Henrietta, 8.6 miles west of, south end of west head pillar of wooden trestle
of Missouri, Kansas \& Texas Ry., 3 feet below elevation of rail; copper
nail painted " 934.5 "................................................................. 934.45
Jolly station, 600 feet northeast of, T road north, northeast corner of road
forks, in yard of section house, 5 feet east of corner fence post; iron post
stamped " 971 "..............................................................................................
Jolly station, opposite, at main track of Missouri, Kansas \& Texas Ry.; south rail.
975.55
Jolly, 1.22 miles west of, two telegraph poles west of milepost "One mile to station," between railroads, in base of telegraph pole; railroad spike painted " 951 ".
950.72
Jolly, 2 miles west of, at second-class road crossing, between Missouri, Kansas \& Texas and Fort Worth \& Denver City railways, in base of warning post; head of railroad spike, painted " 939.5 "
939.57
Jolly, 3.3 miles west of, at second-class road crossing, between Fort Worth \& Denver City and Missouri, Kansas \& Texas railways, 10 feet west of road, in base of telegraph pole; head of railroad spike, painted " 987 "
Jolly, 3.3 miles west of, between Fort Worth \& Denver City and Missouri,
Kansas \& Texas railways, 15 feet west of second-class road crossing; iron
post stamped " 987 ".........................................................................................
Jolly, 5 miles west of, south end of east head block of wooden trestle, Mis- souri, Kansas \& Texas Ry., 2.5 feet below elevation of rail; copper nail painted " 998 "

Feet.

998.28
Wichita Falls, 3 miles east of, northeast corner of public road and Missouri, Kansas \& Texas Ry. crossing, in base of warning post; head of spike, painted " 988 ". ..... 988.36
Wichita Falls, 1.9 miles east of, in northeast corner of public road and Mis- souri, Kansas \& Texas Ry. crossing, in base of warning post; head of spike, painted " 975 ". ..... 974.98
Wichita Falls, 0.75 mile east of station, 200 feet west of bridge over Holliday Creek, opposite Wichita Falls Boiler Works, in base of telegraph pole; head of spike, painted " 948 ". ..... 947.93
Wichita Falls, in post-office building, at south corner of Ninth Street and Ohio Avenue, 20 feet southwest of east corner of building, and 2 feet above elevation of walk; bronze tablet stamped " 951 " ..... 951.150
Wichita Falls, 0.50 mile north of, on county bridge over "Big Wichita" River, on west end of north pier; chiseled cross within painted circle, painted " 952 ". ..... 952.24Wichita Falls, 1.75 miles north of, in west end of north supporting block ofbridge over small slough; copper nail painted " 948 ".
947.63
Wichita Falls, 3 miles north of, 100 feet west of railroad crossing, south side of road behind L. Knull's mail box; iron post stamped " 965 " ..... 965.320
Wichita Falls, 3 miles north of, in west cap sill of cattle guards north of road crossing; middle bolt painted " 969 " ..... 968.70
From Jolly along highways to Dean, thence northeast along Wichita Valley Ry. to point 1.9 miles southwest of Petrolia.
Jolly, 1.1 miles north of, in front of farmhouse, on brace to north post of gate to barnyard; copper nail painted " 992 ". ..... 991.99
Jolly, 1.9 miles north of, 200 feet southeast of farmhouse, in northeast corner of $T$ road forks east, in top of corner fence post; copper nail painted " 998.5 " ..... 998.47
Jolly, 3.6 miles north of, 600 feet north of farmhouse, in southwest corner of T road forks west, in corner of field; iron post stamped " 970 ". ..... 970.102
Jolly, 5 miles north of, 450 feet south of schoolhouse, at Troad forks, on north end of corrugated-iron culvert under road east; painted cross, painted " 960 " ..... 959.78
Jolly, 5.75 miles north of, 300 feet east of Dean section house, in northwest corner of railroad and public-road crossing, in base of telegraph pole; spike, painted " 962.5 " ..... 962.52
Dean, 0.75 mile east of, 500 feet west of "One mile" post, in line of fence, in north head sill of cattle guards; middle bolt painted " 966 ". ..... 966.46
Dean, 1.25 miles east of, 150 feet east of public-road crossing and Troad forks east, 100 feet south of railroad bridge A $10-22$, in line of fence north of road east; iron post stamped " 969 ". ..... 968.900
Dean, 2.25 miles northeast of, north of railroad, in base of telegraph pole; head of railroad spike, painted " 1015 " ..... $1,015.27$
Dean, 3.7 miles northeast of, north of railroad, in base of telegraph pole; railroad spike painted " 987 ". ..... 987.45
Dean, 5.25 miles northeast of, 80 feet north of road crossing, northeast side of road, in line of fence; iron post stamped " 994 " ..... 994.019

## PRIMARY LEVELING.

## From Riverland schoolhouse east and south along highways via Stanfeld's ranch to Rosson siding.

Petrolia, 6.5 miles east of, 2.5 miles south of, 1.5 miles west of Riverland schoolhouse, in northeast corner of crossroads, 8 feet north of corner fence post, in line of fence; iron post stamped " 952 ".

Feet.
951.771

Petrolia, 2.5 miles south of, 8 miles east of, 350 feet west of Riverland schoolhouse, in south end of east stringer supporting small wooden bridge; copper nail painted " 920 "
920.31

Petrolia, 2.5 miles south of, 9 miles east of, 1 mile east of Riverland school, at corner of $L$ road west and north, on east side of road, in line with fence on north side of road west and east side of road north; iron post stamped "933"
933.195

Petrolia, 12 miles southeast of, 3.6 miles southeast of Riverland school, 100 feet southwest of small earthen tank or reservoir, fourth fence post south of gate in fence between Stanfield's pastures, in top of post; copper nail painted " 941 "
Petrolia, 12.5 miles east of, 3.5 miles south of, 0.75 mile southwest of Stanfield's ranch house, 420 feet south of gate to second-class road leading from Stanfield's ranch to Riverland school, 45 feet north of corner to fence west, in line of north and south fence; iron post stamped " 879 "
878.968

Stanfield's ranch house, 1.25 miles southwest of, near corner post to fence east, in brace to east gate post to second-class road south; copper nail painted " 931 ".
931.57

Stanfield's ranch, 2.25 miles southwest of, 50 feet east of road, on southeast root of oak tree; copper nail painted " 945 ".
944.79

Stanfield's ranch, 4 miles southwest of, 6.7 miles north of Rosson siding, on Missouri, Kansas \& Texas Ry., 550 feet northeast of "Rock Crossing" of Little Witchita River, 125 feet northeast of crossing of small stream, north side of second-class road leading through Stanfield's pasture, 4 feet above elevation of road bed, in sandstone ledge; bronze tablet stamped " 827 "..
Stanfield's ranch, 5.2 miles southwest of, 5.5 miles north of Rosson siding, 0.87 mile south of Little Witchita River, 350 feet south of small stream, on knot in first fence post east of gate in wire fence; copper nail painted " 809 "
809.33
910.322

Rosson siding, 3.2 miles due north of, 250 feet south of T road forks south, in yard of the Bill Warren place, 15 feet south of yard gate; iron post stamped " 910 ".
827.104

Rosson siding, 2 miles north of, at T road forks east, north side of road and first fence post east of corner, in top of post; copper nail painted " 913 "...
Rosson siding, 1 mile north of, on north gate post to second-class road leading east to G. Elwert's house; head of railroad spike painted " 943 "......
Ringgold, 5.1 miles west of, 800 feet east of Rosson siding, 40 feet south of railroad crossing, head of spike in base of telegraph pole painted " 922 ". .

## MONTAGUE QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]

## Near Ringgold.

Ringgold, 3 miles south of, at intersection of public road and railroad, 50 feet northeast of center of crossing; iron post stamped "Gainv. 897" (B. 468 value - 0.24 foot)
896.461

Ringgold, 1.5 miles south of, at road crossing; west rail.
933.09

Ringgold, 0.6 mile west of, 175 feet south of Missouri, Kansas \& Texas Ry., 100 feet west of Chicago, Rock Island \& Pacific Ry.; top of small rock painted " 864 "
Ringgold, Missouri, Kansas \& Texas Ry. station, 180 feet east of, at end of the platform, between the main tracks and the switch; iron post marked " 894 Gainv." (B. 468 value -0.28 foot)
Ringgold, 1.1 miles west of, west end of bridge 757.2 , north end of head block; copper nail painted " 844 "
843.87
Ringgold, 2.1 miles west of, north end of west head block of small wooden trestle 758.5 ; copper nail painted " 850.5 "
850.51
Henrietta, 7.5 miles southeast of, 1 mile east of Worsham's ranch, 125 feet west of creek, in top of north gate post of gate to farm road; copper nail painted " 876 "
877.29
Ringgold, 6 miles south of, 4 miles west of, 0.5 mile south of schoolhouse, northwest corner $T$ road west, 5 feet west of corner fence post; iron post stamped "1001".
1,001. 624

## WALTER QUADRANGLE.

[Latitude $34^{\circ}-34^{\circ} 30^{\prime}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$.]
Near Petrolia.
Petrolia, 1.9 miles southwest of, 225 feet northeast of cattle guards in fence line, in south end of east supporting block of small wooden bridge; copper nail painted " 983 ".
982.84

Petrolia, 0.9 mile southwest of, in south end of seat supporting block of
small wooden bridge; copper nail painted " 968 "............................... 967.80
Petrolia, on west side of station, 2 feet west of center of building; iron post stamped " 993 ".
993.339

Petrolia, 0.7 mile southeast of, at forks of road, 90 feet south of corner fence post, west side of road, in base of telegraph pole; railroad spike
996.49

Petrolia, 0.9 mile south by 1.1 miles east of, opposite small earthen tank or reservoir, on south side of road, in base of large fence post; railroad spike painted " 964 ".
963.91

Petrolia, 0.9 mile south of, 2.1 miles east of, in northwest corner of T road forks north, 15 feet north of corner lence post, in line of fence; iron post stamped " 986 "
985.920

Petrolia, 0.9 mile south of, 3.3 miles east of, 1,800 feet west of T road south, 400 feet east of second-class road north to farmhouse, in south end of east supporting block of wooden bridge; copper nail painted " 948 ".
947.97

Petrolia, 0.9 mile south of, 4.2 miles east of, 150 feet east of small wooden bridge, north side of road, in line of fence, in sandstone ledge; chiseled cross painted " 905 "
905.14

Petrolia, 0.8 mile south by 5 miles east of, 100 feet east of corner of south and east $L$ road, north side of road in line of fence, 800 feet northeast of J. A. Burrus's house; iron post stamped " 909 ".
908.603

## From Petrolia via Charlie to Burkburnett.

Petrolia, 0.5 mile north of, 0.7 mile west of, on brace to corner fence post, south side of road, in front of farmhouse; copper nail painted " 967.5 "
967.60

Petrolia, 0.5 mile north of, 2 miles west of, at T road forks east, 15 feet east of corner fence post, on south side of road; iron poststamped " 965 "
965.302

Petrolia, 1.5 miles north of, 2 miles west of, in front of farmhouse, on east side of road, on brace to corner fence post; copper nail painted " 955 "
954.86

Petrolia, 2.5 miles north of, 2 miles west of, 120 feet southeast of farmhouse and 300 feet south of right-hand turn in road, in brace to cornerfence post; copper nail painted " 931 ".
930.96
Petrolia, 3.5 miles north of, 2 miles west of, on west concrete pillar support- ing south end of bridge over Big Witchita River; bronze tablet stamped "905"Petrolia, 6 miles northwest of, 0.8 mile north of bridge over Big WitchitaRiver, in southwest corner of crossroads, in knot in gate post 2 feet aboveground; copper nail painted " 901.5 ".901.46
Petrolia, 7 miles northwest of, 1.7 miles north of bridge over "Big Witchita" River, at T road west and lane east, on property corner in middle of cross- roads; on nearby fence post; painted circle, "984". ..... 984.08
Charlie, 250 feet southeast of Baptist Church, in southeast corner of cross- roads, 40 feet east of corner fence post, in line of fence; iron post stamped "937" ..... 937. 346
Charlie, 0.6 mile west of, in front of farm house, on north side of road, in root of cedar tree; copper nail painted " 958 ", ..... 957.73
Charlie, 2 miles west of, at crossroads, in northeast corner, on brace to corner fence post; copper nail painted " 980 ". ..... 979.72
Charlie, 3 miles west of, at T road forks west, opposite Linville schoolhouse, on north side of road west, 40 feet west of corner fence post; iron post stamped " 992 " ..... 991. 819
Charlie, 4.35 miles west of, 1.5 miles west of Linville school, at T forks east, on brace to telephone pole in northeast corner of road forks; copper nail painted " 992 ". ..... 992.05
Thornberry, 1.7 miles north of, in southeast corner of crossroads, on top of corner fence post; copper nail painted " 1030 " ..... $1,029.74$
Thornberry, opposite Baptist Church, on west side of north and south road, in line with fence north side of road east; iron post stamped " 1005 ". ..... $1,004.686$
Thornberry, 1 mile west of, in northeast corner of crossroads, in top of cor- ner fence post; copper nail painted "1049" ..... 1, 048.93
Thornberry, 2.1 miles west of, at T road forks east, in short post at foot of brace to corner fence post in southeast corner of road forks; copper nail painted " 1033 " ..... 1, 033.15
Thornberry, 3 miles west of, in southeast corner of T road forks east, 12feet south of corner fence post; iron post stamped "1001"$1,000.887$
Thornberry, 4.25 miles west of, 0.25 mile north of Cooper School, at cornerof $L$ road south and west, on top of corner fence post on outside of corner;copper nail painted "991".991. 10
Thornberry, 5.8 miles west of, 1.5 miles west of Cooper School, at T road forks south, on north side of road; in knot at base of east post of gate; copper nail painted "991" ..... 990.68
Thornberry, 6.2 miles west of, 2 miles west of Cooper School, at T roadforks north, in line with fence on west side of road north, and on southside of road east; iron post stamped " 983 "983. 545
Thornberry, 7.3 miles west of, 3.1 miles west of Cooper School, 1,300 feet east of T road forks south, in top of post at end of small wooden culvert, on south side of road; copper nail painted "1001" ..... $1,000.71$
Burkburnett, 3 miles south of, 2.5 miles east of, in southeast corner of $T$ road forks east, on brace to corner fence post; copper nail painted "1004". $1,004.08$

Bobbin, Conroe, Houston, and Rosenberg $30^{\prime}$ quadrangles (including Addicks, Aldine, Alief, Almeda, Ashford, Bellaire, Burnett, Clodine, Cypress, Deepwater, Fauna, Hillendahl, Hockley, Holik, Houston Heights, Humble, Katy, La Porte, Louetta, Mykawa, Park Place, Rosehill, Settegast, Spring, Waller, and Weeden $7 \frac{1}{2}{ }^{\prime}$ quadrangles).

## FORT BEND AND HARRIS COUNTIES.

The elevations in the following list were determined by primary leveling and accord with the 1912 adjustment.

The leveling was done in 1915 by R. R. Monbeck in cooperation with Harris County. Leveling in Harris County was completed in 1916 by D. S. Birkett; for his results see Bulletin 644-P, pages 020-077.

BOBBIN QUADRANGLE (Including Hockley, Louetta, Rosehill, and Waller 7 $7_{2}^{\prime}$ quadrangles).

$$
\text { [Latitude } 30^{\circ}-30^{\circ} 30^{\prime} \text {; longitude } 95^{\circ} 30^{\prime}-96^{\circ} \text {.] }
$$

From point near Hockley northwest along Houston \& Texas Central R. R. to Waller, thence along highways northeast and south to point near Hockley.
Hockley, 1.8 miles northwest of, 15 feet south and 30 feet west of crossroads, by telephone pole; copper nail in hub (t. b. m. 180).

Feet.
238.65

Hockley, 2.7 miles northwest of, at concrete culvert, 15 feet south of road, 4 feet from west end of south abutment wall; in horizontal surface; bronze tablet stamped "Prim Trav. Sta. No. 79, 1915, 246 " (p. b. m. 79)
Waller, 1.8 miles southeast of, 100 feet west and 65 feet south of road crossing, 30 feet south of gravel road, in root of sycamore tree; copper nail (t. b. m. 181)
262. 58

Waller, 0.8 mile southeast of, 25 feet south of road, one foot from telephone pole; copper nail in hub (t. b. m. 182)
264.54

Waller, 1,900 feet southeast of depot, 47 feet south of Houston \& Texas Central R. R. track, 23 feet south $40^{\circ}$ east of Harris-Waller county boundary post, $2 \frac{1}{2}$ feet north of fence line; iron post stamped "Prim. Trav. Sta. No. $80,1915,242^{\prime \prime}$ (p. b. m. 80)
241. 632

Waller, 0.6 mile north of, 20 feet east of road, 300 feet northeast of white house, at fence corner where lane turns east, by corner post; copper nail in hub (t. b. m. 192).
$\begin{array}{ll}\text { Troad west, } 200 \text { feet north of; top of east end of small wooden culvert..... } & 265.10\end{array}$
Waller, 1.6 miles north of, at Troad east, 25 feet south and 25 feet east of intersection, by corner fence post; copper nail in hub (t. b. m. 193)
274. 06

Waller, 2.4 miles north of, at right angle turn of road, in line with road north at east end of 300 foot jog, 3 feet north of wire fence, 8 feet west of telephone pole; iron post stamped "Prim. Trav. Sta. No. 85, 1915, 272 " (p. b. m. 85)
271. 605

Waller, 3.4 miles north of, 20 feet east of road at fence corner on fence line east; copper nail in hub (t. b. m. 194).
276.83

Troad north (dim), in base of post, 30 feet northeast of intersection; copper nail.
Waller, 3.9 miles north and 0.5 mile east of, 920 feet north of T road east, 960 feet north of $T$ road west, 20 feet east of road, 1 foot from corner post on fence line east; copper nail in hub (t. b. m. 195)
286. 72

Waller, 4.7 miles north and 0.5 mile east of, about 0.5 mile south of HarrisMontgomery county line, at Troad, in line with road south, 2 feet south of fence; iron post stamped "Prim. Trav. Sta. No. 86, 1915, 273" (p. b. m. 86)
283. 58
Note.-Line was rerun back to temporary bench mark 195 and continued east and south from this point.

Waller, 3.7 miles north and 1.6 miles east of, 100 feet west of point opposite Bentford schoolhouse, 25 feet south of road, by east gatepost; copper nail in hub (t. b. m. 196)

Feet. 271. 04

Waller, 3.7 miles north and 2.5 miles east of, 25 feet north of road, 400 feet north of old two-story house, by fence post, copper nail in hub (t. b. m. 197)
268. 49

Waller, 3.7 miles north and 2.7 miles east of, at T road west, 100 feet north and 300 feet east of yellow house, in line with road west, 3 feet west of fence; iron post stamped "Prim. Trav. Sta. No. 87, 1915, 267 " (p. b. m. 87)

Hockley, 4.7 miles north and 1.7 miles west of, at road west, 60 feet north of bridge, 25 feet west of road, at corner fence post; copper nail in hub (t. b. m. 198)
242. 74
274. 12
274.862
270.25
264.84
249.64

From point 4 miles north by 1.5 miles west of Hockley east along highway to Rosehill, thence south to point near Cypress (line leveled twice).

Hockley, 3.7 miles north and 0.2 mile west of, 30 feet north of road, 150 feet west of T road south, on summit of ridge, by fence post and witness stake; copper nail in hub (t. b. m. 200)
273.49

Hockley, 3.7 miles north and 0.3 mile east of, 170 feet south of T road west, 25 feet west of road, in root of oak tree; copper nail (t. b. m. 201).
Hockley, 2.9 miles north and 0.6 mile east of, 1,800 feet east of $T$ road north, 25 feet north of road, 4 feet south of wire fence; iron post stamped "Prim. Trav. Sta. No. 89, 1915, 264 " (p. b. m. 89).
263.880

Hockley, 2.9 miles north and 1.5 miles east of, 1,550 feet west of T road south, 25 feet north of road, 1 foot east of corner post on fence line north; copper nail in hub (t. b. m. 202).
241. 74

Hockley, 2.9 miles north and 2.5 miles east of, 30 feet south and 60 feet west of T road north, 1 foot from fence post and witness stake; copper nail in hub (t. b. m. 203)
236. 96

Hockley, 2.7 miles north and 2.9 miles east of, 30 feet west of T road east, 4 feet southeast of gatepost, 50 feet northwest of corner post on fence line east; iron post stamped "Prim. Trav. Sta. No. 90, 1915, 228 " (p. b.m. 90).
Hockley, 2.7 miles north and 3.8 miles east of, 0.3 mile northwest of white schoolhouse, 700 feet west of $T$ road west, 20 feet south of road, at corner post on fence line south; copper nail in hub (t. b. m. 204)
224. 47
227. 768
216. 46

Hockley, 3 miles north and 4.2 miles east of, 25 feet south of road, 1 foot from east gatepost and corner post on fence line south; copper nail in hub (t. b. m. 205)
Rosehill, 3 miles west of, on Hockley road, 20 feet north of road where dim north and south road crosses, 750 feet southwest of fence corner; iron post

Feet.stamped "Prim. Trav. Sta. No. 91, 1915, 231 " (p. b. m. 91) 230. 894
Rosehill, 2.1 miles west of, 20 feet south of road, 1 foot from corner post on fence line south; copper nail in hub (t. b. m. 206) ..... 231.09
Rosehill, 1.2 miles west of, 30 feet north of road, 1 foot south of fence post opposite white house; copper nail in hub (t. b. m. 207). ..... 225. 20
Rosehill, 0.7 mile west of crossroads, 500 feet southwest of yellow house, 35 feet north of road, 6 feet from corner fence post; iron post stamped "Prim. Trav. Sta. No. 92, 1915, 220 " (p.b. m. 92) ..... 219.825
Rosehill, 0.7 mile north of church, 25 feet southeast of crossroads, 1 foot from corner fence post; copper nail in hub (t. b. m. 208) ..... 215.72
Rosehill School, 50 feet north of, 25 feet south of road, in root of chinaberry tree; copper nail in hub (t. b. m. 218). ..... 222.95
Rosehill School, 1,200 feet west of, at forks of road, 900 feet northeast of residence of Mr. Hirsch, at northwest corner of small bridge; copper nail in hub. ..... 219. 60
Rosehill Church, 0.5 mile taisi of, 25 feet southwest of T road west, at south- east corner of bridge on road west, 1 foot east of railing post, in bridge timber; copper nail (t. b. m. 209) ..... 197. 60
Note.-A new bridge has been built and the prim. trav. hub destroyed.
This new bench mark is probably within one foot of the original.
Rosehill Church, 0.7 mile south and 0.7 mile east of, 2,350 feet south of $T$road fork south, on summit of low ridge, 20 feet east of road, 2 feet west offence; iron post stamped "Prim. Trav. Sta. No. $93,1915,189$ " (p. b. m.93)188. 444
Cypress, 5.1 miles north of, 20 feet west of road, opposite gate in east fence line, 20 feet north of corner post on fence line west, top of 6 -inch iron casting; copper nail (t. b. m. 210) ..... 169. 24
Cypress, 4.1 miles north of, 25 feet east of road, 1 foot west of corner post onfence line east; copper nail in hub (t. b. m. 211)165. 60
Cypress, 3.2 miles north of, 700 feet north of bridge over creek, 20 feet west of road, in group of oak trees; iron post stamped "Prim. Trav. Sta. No. 94, 1915, 161 " (p. b. m. 94) ..... 161. 270
Cypress, 2.4 miles north of, 520 feet north of culvert, 25 feet west of road, 1 foot east of fence post; copper nail in hub (t. b. m. 212) ..... 162. 63
Cypress, 1.6 miles north of, 900 feet south of T road south, 30 feet west of road, 1 foot east of fence post; copper nail in hub (t. b. m. 213) ..... 153. 36
From Cypress Creek Bridge northwest along Airline road 3.2 miles, thence southwest along road to point near Cypress.
Cypress Creek Bridge, on Airline road, 40 feet southwest of north end of bridge, in root of magnolia tree (t. b. m. 270)
Cypress Creek Bridge, on Airline road, 0.9 mile north of, 100 feet southeast of bend in road, 30 feet east of road, in root of oak tree; copper nail (t. b. m. 269)
Cypress Creek Bridge, on Airline radd, 1.8 miles north of, 25 feet west of road, 5 feet east of large pine tree; irorr post stamped "Prim. Trav. Sta. No. 121, 1915, 124 " (p. b. m. 121).
124. 014
Cypress Creek Bridge, on Airline road, 2.7 miles north of, 0.5 mile south of Cypress-Klein road, 25 feet west of road, 12 feet east of corner post on fence line, in root of large pine tree (t. b. m. 268).

Louetta, 2.2 miles northeast of, on Cypress- 1 lein road, 2,350 feet west of Airline road, at west end of north railing on bridge over creek; copper nail in hub (t. b. m. 267)
Louetta, 1.5 miles northeast of, on Cypress-Klein road, 30 feet south of road, 25 feet east of corner post on fence line south; iron post stamped "Prim.
Trav. Sta. No. 120, 1915, 144" $\ldots$...........................................
Feet.
Louetta, 0.7 mile northeast of, 40 feet north of Cypress-Klein road, in root of pine tree; copper nail (p. b. m. 266)
144.007
141. 30
Louetta, 0.3 mile north of, 90 feet south and 45 feet west of Trinity \& Brazos Valley Ry. crossing, in root of oak tree; copper nail (t. b. m. 259)..
Kohrville, 0.5 mile north of, 300 feet north of old church, 25 feet west of road, 25 feet south of road west; iron post stamped "Prim. Trav. Sta. No. 117, 1915, 142 " (p. b. m. 117)
142. 128
Culvert, 30 feet south of crossroads, on West Montgomery road; top of painted bolt at northeast corner of culvert, marked
144.1
Cypress, 6.9 miles northeast of, 0.5 mile west of West Montgomery road, at north side of road, in root of lone oak tree; copper nail (t. b. m. 258).
144.63
Cypress, 6.2 miles northeast of, 55 feet north of road, 30 feet northwest of corner post on fence line north, in root of pine; copper nail (t. b. m. 257).
Cypress, 5.2 miles northeast of, at bend of road, 700 feet south of cabin, 15 feet southwest of road forks, 30 feet west of culvert; iron post stamped "Prim. Trav. Sta. No. 116, 1915, 145 " (p. b. m. 116)
141. 31
148.01
145. 277
Cypress, 4.6 miles northeast of, 110 feet north, $38^{\circ}$ east of crossroads, in root of large oak; copper nail (t. b. m. 256)
148. 12
Cypress, 3.6 miles northeast of, 300 feet southwest of small bridge, 10 feet north of road, in root of water-oak tree; copper nail (t. b. m. 255)
146. 62

## From Airline road east along Cypress-Klein road 1.5 miles.

Intersection of Airline and Cypress-Klein roads, 0.8 mile east of; 7.7 miles southwest of Spring, 300 feet southeast of white house, 25 feet north of road, 6 feet west of corner fence post; iron post stamped "Prim. Trav. Sta. No. 199, 1915, 139 " (p. b. m. 199)
139.348

Intersection of Airline and Cypress-Klein roads, 1.5 miles east of Spring, 7 miles southwest of, 450 feet south of T road northwest at northeast edge of pine woods, in root of pine; copper nail (t. b. m. 478).
132.94

From Rosehill east along highway to Tom Ball, thence northeast to Hufsmith, thence east along International \& Great Northern Ry. to Rotherwood spur.
Rosehill School, 0.9 mile east of, 30 feet northeast of crossroads, 6 inches from corner fence post; copper nail in hub (t. b. m. 219)
220.51

Rosehill School, 1.4 miles east of, 30 feet southeast of T road south, 76 feet east of T road north, 3 feet west of corner fence post; iron post stamped "Prim. Trav. Sta. No. 97, 1915, 191 " (p. b. m. 97)
191. 215

Rosehill School, 2.2 miles east of, 75 feet north of road, 6 inches from corner post on fence line north; copper nail in hub (t. b. m. 220)
177.83

Tom Ball, 2.2 miles southwest of, on Rosehill road, 25 feet west of road at bend, 2 feet east of corner fence post, 6 inches from telephone pole; copper nail in hub (t. b. m. 221)
174. 52

Tom Ball, 1.7 miles southwest of, on Rosehill road, 25 feet south of southwest corner of schoolhouse, 30 feet north of road, 2 feet south of wire fence; iron post stamped "Prim. Trav. Sta. No. 98, 1915, 180 " (p. b. m. 98)

Tom Ball, 1 mile southwest of, 100 feet east of road forks, 8 feet southwest of corner fence post, 6 inches from telephone pole, pole incorrectly painted 221; copper nail in hub (t. b. m. 222)
187.07

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25286^{\circ}-\text { Bull. 637-16-11 }
$$


From Hufsmith along highways north, east, and south via Stubner to point 3.4 miles east of Hufsmith.
Hufsmith, International \& Great Northern Ry. road crossing in; top of rail.
Hufsmith, 0.8 mile north of, 400 feet south of bridge over Spring Creek, 100 feet west of road, in root of gum tree; copper nail (t. b. m. 260)
Hufsmith, 0.8 mile north and 0.7 mile east of, on road in timber near Spring Creek, 20 feet south of road, 120 feet west of small bridge, in root of oak tree; copper nail (t. b. m. 261)
Hufsmith, 1 mile north and 1.1 miles east of, 0.7 mile northwest of Stubner, 20 feet north of road, 250 feet southwest of cabin, 12 feet west of oak tree, 3 feet from corner fence post; iron post stamped "Prim. Trav. Sta. No. 118, 1915, 178" (p. b. m. 118).
Stubner (formerly a post office) 250 feet east of, 30 feet north of road, between painted pine trees; iron bar $1 \frac{1}{4}$ inch square standing 1 foot above ground; top of bar (t. b. m. 262).
182.35

Stubner, 0.7 mile east of, 20 feet south of road, in root of pine tree (t. b. m. 263)

Stubner, 1 mile east of, about 1.5 miles south of Egypt Crossing, 20 feet east of T road west; iron post stamped "Prim. Trav. Sta. No. 119, 1915, 168" (p.b. m. 119)

Stubner, 1 mile east and 0.8 mile south of, 0.9 mile south of T road west, 40 feet east of road; in root of oak tree; copper nail (t. b. m. 264)
Stubner, 1.2 miles east by 1.7 miles south of, 0.4 mile north of International \& Great Northern Ry., 20 feet east of road, 6 inches west of pine tree; copper nail in hub (t. b. m. 265)

## From Rotherwood spur north along highway to Spring Creek (leveled twice).

Rotherwood spur, 0.9 mile north of, on point of sandy ridge 800 feet south of Willow Creek, 10 feet west of road, in root of sweet-gum tree ( 4 feet north of trunk) (t. b. m. 299)
122. 62

Rotherwood spur, 1.7 miles north of, 0.6 mile north of Willow Creek Ford, 15 feet east of road, in root of red-oak tree; copper nail (t. b. m. 300)....
Rotherwood spur, 2 miles north and 0.5 mile west of, 1,200 feet west of house, on old wood road, 10 feet south of road, in top of stump; copper nail (marked 127.6) ( 37 feet southwest of original position of t. b. m. 301, destroyed by storm).

Feet.
146.37
133.52
124.64
127.71

## CONROE QUADRANGLE (Including Spring $7_{\frac{1}{2}}^{\prime}$ quadrangle).

[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]
From point near Rotherwood spur along International \& Great Northern Ry. southeast to Spring, thence south to point 1.1 miles south of Westfield.

Road crossing; top of rail.
Spring, 3.8 miles west of, 500 feet east of milepost 4, 18 feet south of track, at private-road crossing, 1 foot north of crossing signboard; copper nail in hub (t. b. m. 230)
136.38

Spring, 3.2 miles west of, 1,900 feet west of milepost 3,145 feet south and 15 feet west of road crossing, 3 feet from corner fence post; iron post stamped "Prim. Trav. Sta. No. 103, 1915, 140 " (p. b. m. 103).
140.603

Spring, 2.3 miles west of, 2,300 feet west of milepost 2, 32 feet south of track, 1 foot from telegraph pole; copper nail in hub (t. b. m. 231).
135.08

Spring, 1.4 miles west of, 2,300 feet east of milepost 2, 970 feet west of road crossing, 30 feet south of track, 6 inches from telegraph pole; copper nail in hub (t. b. m. 232)
131.17

Spring, 1 mile west of, 500 feet west of milepost 1, 66 feet north of track at private road crossing, 4 feet from post at west end of gate; iron post stamped "Prim. Trav. Sta. No. 104, 1915, 129 " (p. b. m. 104)
Spring, 100 feet north of International \& Great Northern Ry. depot, 50 feet west of main track, 1 foot west of telegraph pole; copper nail in hub (t. b. m. 233)
120.63

Spring, 0.9 mile south of, 60 feet west of track, 25 feet east of road, 1 foot west of center post under red shanty; copper nail in hub (t. b. m. 234)....
Spring, 2 miles south of, 52 feet west of track at road crossing, 30 feet east of road, 2 feet west of wire fence, 25 feet south of oak tree; iron post stamped "Prim. Trav. Sta. No. 105, 1915, 110 " (p. b. m. 105).
118.40

Spring, 2.9 miles south of, 55 feet west of road crossing, 30 feet east of road, 1 foot from corner fence post; copper nail in hub (t. b. m. 235).
109.802

International \& Great Northern Ry. bridge 275; top of rail directly above Cypress Creek
92.44

Westfield, 1,200 feet north of depot, 30 feet west of road, at corner post on fence line west; copper nail in hub (t. b. m. 236)
Westield, 1,050 feet south of depot, 65 feet south and 60 feet west of shellroad crossing, 4 feet north of corner post on right of way fence; iron post stamped "Prim. Trav. Sta. No. 106, 1915, 108 " (p. b. m. 106).
108.090
Westfield, 1.1 miles south of, 250 feet southeast of International \& Great Northern Ry. bridge 277, 50 feet east of track, 30 feet west of road, by witness stake; copper nail in hub (t. b. m. 237)
From point 1.5 miles east of Airline road northeast along Klein road, near Spring.
Spring, 6 miles southwest of, 0.2 mile west of white church, 25 feet south of road, 6 inches from large corner fence post; copper nail in hub (t. b. m. 477)
128.93
Spring, 5 miles southwest of, 0.7 mile northwest of white church, 10 feet north and 25 feet west of crossroads; iron post stamped "Prim. Trav. Sta. No. 198, 1915, 134 " (p. b. m. 198)
Feet. 100.99
Spring, 4.3 miles southwest of, 40 feet south of road on north bank of small creek, 60 feet east of bridge, in root of gum tree; copper nail (t. b. m. 476)..
Spring, 3.5 miles southwest of, 80 feet south of road, in open prairie, 150 feet east of bend in road, in root of small gum tree; copper nail (t. b. m. 475).
Spring, 2.6 miles southwest of, 25 feet south of road, 1,000 feet east of grove of trees on south side of road, 30 feet southwest of road forks (dim road southwest); iron post stamped "Prim. Trav. Sta. No. 197, 1915, 130" (p. b. m. 197).
130.216
Spring, 1.6 miles southwest of, 25 feet north of road, 1 foot south of west gate post and corner post on fence line north; copper nail in hub (t. b. m. 474).
122.88
Spring, 0.7 mile west of, 300 feet north of shell road, 150 feet east of white house, in base of large leaning oak tree; copper nail (t. b. m. 473).
124.70

## At and near Pemble's store.

Pemble's store, at intersection of west fork of East Montgomery road and Ehrhardt Settlement road, 10 feet east and 20 feet north of crossroads, 6 inches from corner fence post; copper nail in hub (t. b. m. 274)
Pemble's store, 0.7 mile southwest of, 20 feet southeast of Ehrhardt Settlement road, at east end of pond, in root of gum tree; copper nail (t. b. m. 273).
117.84
118.22
HOUSTON QUADRANGLE (including Aldine, Burnet, Fauna, Humble, and Settegast $7_{\frac{7}{2}}^{\prime}$ quadrangles.)
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]
From point 1.1 miles south of Westfield south along International \& Great Northern Ry. to Houston (leveled twice).
Westfield, 2 miles south of, 1,000 feet south of International \& Great Northern Ry. bridge 278, 30 feet west of road, 1 foot east of right-of-way fence, by witness stake; copper nail in hub
101.18
Westfield, 2.7 miles south of, 650 feet south of milepost 134, 108 feet east of track, 25 feet east of road, 4 feet west from corner post on fence line east; iron post stamped "Prim. Trav. Sta. No. 107, 1915, 102" (p. b. m. 107)....
Road crossing; top of rail.
102. 747
Aldine, 2.6 miles north of midway be.............................................................
Aldine, 2.6 mot west of road, 4 feet east of right-of-way fence, 15 feet east of telegraph pole; copper nail in hub (t. b. m. 239)
Road crossing, 500 feet southeast of two-story white house; top of rail. ..... 96.1
Aldine, 1.7 miles north of, 40 feet east of track, 45 feet west of road, 1 foot east of telegraph pole; copper nail in hub ..... 87.92
International \& Great Northern Ry. bridge 280, over Greens Bayou, top of rail. ..... 87.4
Aldine, 1.1 miles north of, 240 feet south of south end of highway bridge over Greens Bayou, 60 feet east of track, 25 feet west of road, 8 feet east of telegraph pole; iron post stamped "Prim. Trav. Sta. No. 108, 1915,

Feet.82 " (p. b. m. 108)
82.465

Aldine, 1,400 feet north of depot, 25 feet west of road, 60 feet southeast of road crossing, 120 feet southwest of store, 1 foot from telegraph pole; copper nail in hub (t. b. m. 241)
81. 59

Aldine, 100 feet southeast of depot, shell road crossing, top of rail.
85.7

Aldine, 0.7 mile south of, 30 feet west of road, 50 feet east of track, 50 feet north of steps over right-of-way fence, 2 feet east of telegraph pole; copper nail in hub (t. b. m. 242)
81.56

Aldine, 1.2 miles south of, 55 feet east of track, 30 feet west of road, 300 feet south of small wooden bridge, 200 feet northwest of wood-colored house, 3 feet east of right-of-way fence; iron post stamped "Prim. Trav. Sta. No. 109, 1915, 81 " (p. b. m. 109)
81.122

Aldine, 2.1 miles south of, 50 feet east and 5 feet south of road crossing, 1
foot east of corner fence post; copper nail in hub (t. b. m. 243).......... 76.77
International \& Great Northern Ry. bridge 284; top of rail 79.0

Aldine, 3.1 miles south of, 1,500 feet south of bridge over creek, 30 feet west of road, 1 foot east of right-of-way fence, 15 feet east of painted telephone pole; copper nail in hub (t. b. m. 244).
74.77

Aldine, 3.7 miles south of, 55 feet east of track, 25 feet west of road, at gate in right-of-way fence, 4 feet east of north gate post; iron post stamped "Prim. Trav. Sta. No. 110, 1915, 78" (p. b. m. 110)
Road crossing, 100 feet west of crossroads; top of rail
Aldine, 4.6 miles south of, 100 feet east of track, 25 feet east of road, 2 feet southwest of corner post on fence line east; copper nail in hub (t. b. m. 245).

Aldine, 5.5 miles south of, 30 feet east of International \& Great Northern Ry. track, 40 feet west of road, 350 feet north of International \& Great Northern Ry. trestle, $2 \frac{1}{2}$ feet east of telegraph pole; copper nail in hub, (t. b. m. 246)

Houston, 3.8 miles north of city limit, 60 feet east and 20 feet south of road crossing International \& Great Northern Ry. track, $2 \frac{1}{2}$ feet east of corner post on right-of-way fence; iron post stamped "Prim. Trav. Sta. No. 111, 1915, 75 " (p. b. m. 111)
74. 796

Road crossing, International \& Great Northern Ry. main track, 80 feet west of crossroads; top of rail
77.5

Houston, 2.8 miles north of city limit, 125 feet east of International \& Great Northern Ry. track, 80 feet east and 140 feet north of road crossing, 30 feet east of road, in root of pine tree; copper nail (t. b. m. 247)
Houston, 2.1 miles north of city limit, 100 feet west of intersection of International \& Great Northern Ry. and Houston Belt \& Terminal Ry. tracks, 25 feet north of Houston Belt \& Terminal Ry. track, 15 feet west of road, 1 foot from crossing sign post; copper nail in hub (t. b. m. 248).
Houston, 1.6 miles north of city limit, on International \& Great Northern Ry. right of way 60 feet east of road crossing, 20 feet south of road, 3 feet east of corner fence post; iron post stamped "Prim. Trav. Sta. No 112, 1915, 60 " (p. b. m. 112)
Houston, 0.6 mile north of city limit, 25 feet west of International \& Great Northern Ry. track, 40 feet north of corner post on right-of-way fence, $2 \frac{1}{2}$ feet north of telegraph pole, in top of sawed-off telegraph pole; copper nail (t. b. m. 249).
Houston city limit monument, 250 feet west of Clark Street, in Taylor Park; bronze tablet set in top of concrete monument, stamped "Prim. Trav. Sta. No. 96, 1915, 53 " (p. b. m. 96)
Houston, 30 feet east of Clark Street at point 200 feet north of end of carline, 6 inches west of telephone pole; copper nail in hub (t. b. m. 217)...52.01
Houston, intersection of San Antonio \& Aransas Pass Ry. transfer and Texas\& New Orleans R. R. tracks, 50 feet south of Texas \& New Orleans R. R.main track, 15 feet east of line of tangent south on San Antonio \& AransasPass Ry. track, 8 feet east of pine tree; iron post stamped "Prim. Trav.Sta. No. 95, 1915, 51 " (p. b. m. 95)50.999
Houston, concrete post on old city limit boundary, 300 feet south of Lyons Avenue, 700 feet east of San Antonio \& Aransas Pass Ry. track; paint mark on top surface ..... 50.58
Intersection of San Antonio \& Aransas Pass Ry. transfer and Lyons Avenue car line; top of rail. ..... 51.6
Houston, 600 feet north of intersection of San Antonio \& Aransas Pass Ry.transfer and Southern Pacific Co. tracks, 40 feet east of San Antonio \&Aransas Pass Ry. tracks, 40 feet north of road, in root of oak; copper nail(t. b. m. 216)47.07
Intersection of San Antonio \& Aransas Pass Ry. transfer and Southern Pacific Co. tracks; top of rail ..... 46.0
Center of San Antonio \& Aransas Pass Ry. transfer drawbridge over Buffalo Bayou; top of rail. ..... 41.2
Houston, 1,000 feet northwest of Houston packing plant, 30 feet northwest of track, 10 feet southeast of road, 100 feet southwest of road crossing, in root of oak tree; copper nail (t. b. m. 215) ..... 39.66
Intersection of Englke Street car line and San Antonio \& Aransas Pass Ry. transfer tracks; top of rail ..... 46.9
In Houston from permanent bench mark 96 to permanent bench mark 113.
Houston, 250 feet east of intersection of Hayes Street and East Montgomery road at city limit, 50 feet south of Hayes Street, in root of pine; copper nail (t. b. m. 250) ..... 51. 92
From point 4.6 miles south of Aldine, west along highways to point 1.2 miles north by 2.7 miles east of Fairbanks.
Durkee School, 3,600 feet east of, 0.4 mile east of East Montgomery road, 40feet north of road, in root of small oak tree (t. b. m. 278)83.15
Durkee School, 500 feet west of, 30 feet north and 40 feet east of crossroads, in root of poplar tree; copper nail (t. b. m. 279) ..... 83. 20
Durkee School, 1.2 miles west of, 30 feet west of Airline road, 15 feet south of T road east; iron post stamped "Prim. Trav. Sta. No. 126, 1915, 89" (p. b. m. 126) ..... 88.413Durkee School, about 1.7 miles west of, between Airline and West Mont-gomery roads, in open prairie, in root of lone persimmon tree; coppernail (t. b. m. 280)85.42
West Montgomery road, 0.4 mile west of, at point 1.5 miles north of junction of West Montgomery and Airline roads, 30 feet south of road, 4 feet north of fence line; iron post stamped "Prim. Trav. Sta. No. 127, 1915, 92 " (p. b. m. 127) ..... 91.885
West Montgomery road, 1.2 miles west of, on Fairbanks-Montgomery link road, 1.8 miles east of Trinity \& Brazos Valley Ry., 40 feet south of road, in root of pine tree; copper nail (t. b. m. 281) ..... 89.18

## PRIMARY LEVELING.

West Montgomery road, 2 miles west of Fairbanks-Montgomery link road, 1 mile east of Trinity \& Brazos Valley Ry. track, 25 feet south of road at bend, in root of tree; copper nail (t. b. m. 282)
Feet. ..... 82.02
Fairbanks, 1.2 miles north and 2.7 miles east of, 120 feet east of Trinity \& Brazos Valley Ry. track, northeast side of road at right angle turn, 2 feet from fence corner; iron post stamped "Prim. Trav. Sta. No. 128, 1915, 87" (p. b. m. 128) ..... 87.049
From point 2.6 miles north of Aldine west along highways to point 2.4 miles southwest of Pemble's store.
Aldine, 2.2 miles north and 1 mile west of, 135 feet north of road, in root of gum tree; copper nail (t. b. m. 277) ..... 101.38
Forks of East Montgomery road, 45 feet southeast of, 25 feet east of shell road and 55 feet north of T road east ; iron post stamped "Prim. Trav. Sta. No. $125,1915,100^{\prime \prime}$ (p. b. m. 125) ..... 100. 508
Forks of East Montgomery road, 1.2 miles northwest of, 20 feet east of road, 150 feet south of small house, 6 inches from corner fence post; copper nail in hub (t. b. m. 276) ..... 102.82
Pemble's store, 1.8 miles southeast of, 2.2 miles northwest of East Mont-gomery road forks, 25 feet west of road, 110 feet south of gateway to smallhouse, 6 inches from fence corner; copper nail in hub by witness stake(t. b. m. 275)105. 48
Pemble's store, 0.9 mile southeast of, 3 miles northwest of East Mont-gomery road forks, 25 feet west of road at bend; iron post stamped "Prim.Trav. Sta. No. 124, 1915, 113" (p. b. m. 124)112. 919Pemble's store, 1.4 miles southwest of, 75 feet northeast of house, 20 feetsoutheast of road, 20 feet northwest of fence line; iron post stamped"Prim. Trav. Sta. No. 123, 1915, 122 " (p. b. m. 123)122. 366
Pemble's store, 1.9 miles southwest of, 4,600 feet northeast of Airline road,25 feet southeast of road, in root of oak; copper nail (t. b. m. 272).120.16
Pemble's store, 2.4 miles southwest of, in group of trees 1,900 feet northeastof Airline road, 60 feet northwest of Ehrhardt Settlement road, in root ofgum tree; copper nail.118. 28

From Houston southeast along Clinton road to Fidelity Addition (leveled twice), thence south to permanent bench mark 3 .
Houston, on Clinton road, 1.1 miles west of Galveston, Harrisburg \& San Antonio Ry., and Houston, Belt \& Terminal Ry. crossing, 30 feet south of road, 150 feet west of corner post, on fence south, on fence line in root of pine tree; copper nail (t. b. m. 402)
Houston, on Clinton road, 2,800 feet west of Galveston, Harrisburg \& San Antonio Ry., and Houston Belt \& Terminal Ry. crossing, 60 feet north of Galveston, Houston \& Henderson R. R. track, in line with shell road along north side of track; iron post stamped "Prim. Trav. Sta. No. 173, 1915, 45 ".
Houston, on Clinton road, 1,800 feet east of Galveston, Harrisburg \& San Antonio Ry., and Houston, Belt \& Terminal Ry. crossing, 110 feet north of track, 35 feet north and 40 feet east of road forks at sign "Houston Harbor Add," in root of oak tree; copper nail (t. b. m. 401)
Houston Harbor, north side of Turning basin, 80 feet south of Galveston, Harrisburg \& San Antonio Ry. track, 230 feet southeast of dim road crossing, opposite forks of shell road; metal tablet set in top of concrete monument (painted $134+418.5$ ) (U. S. E. D. b. m.)42. 005
Houston Harbor, 555 feet S. $47^{\circ} \mathrm{W}$. of city limit post, at bend of Clin-ton road, 900 feet southeast of road crossing at Galveston, Harrisburg \&San Antonio Ry. track; metal tablet set in top of concrete monument(painted $132+291.9$ )

Houston, on Clinton road, 1.9 miles southeast of Galveston, Harrisburg \& San Antonio Ry., and Houston Belt \& Terminal Ry. crossing, 25 feet northeast of road, 10 feet north of crossroads; iron post stamped "Prim. Trav. Sta. No. 172, 1915, $38^{\prime \prime}$ (p. b. m. 172)
Fidelity Addition, 0.8 mile northwest of, 30 feet southwest of Clinton road, 500 feet southwest of road crossing, root of pine tree; copper nail (t. b. m. 400).

Fidelity Addition, 435 feet east of road crossing, 30 feet north of Clinton road, 15 feet east of graded street north, southwest corner of base of concrete monument (3 feet square); chiseled and painted mark (t. b. m. 399).

From Fidelity Addition along highways north and east to Carpenter's Bayou (leveled twice).
Fidelity Addition, 1.1 miles north of Clinton road, 20 feet east of main north and south street, 20 feet north of graded street east, 800 feet southwest of white cabin; iron post stamped "Prim. Trav. Sta. No. 171, 1915, $36^{\prime \prime}$ (p. b. m. 171)
35. 614

Fidelity Addition, 1.6 miles north of Clinton road, 0.3 mile east of graded road north, in group of oak trees, open prairie west and north; copper nail in root of oak.
Greens Bayou, Lower Ferry, 3.5 miles west of, 30 feet west and 20 feet south of T road north, 18 inches west of corner post on old picket fence; copper nail in hub (t. b. m. 397).
Greens Bayou, Lower Ferry, 2.7 miles west of, 25 feet north of road, 6 feet east of corner post on fence line north; iron post stamped "Prim. Trav. Sta. 170, 1915, 37 " (p. b. m. 170).
Greens Bayou, Lower Ferry, 2.3 miles west of, 45 feet south of road, at edge
of timber, in root of small oak tree; copper nail (t. b. m. 396)................ 33.
Greens Bayou, Lower Ferry, 1.9 miles west of, 400 feet east of bridge over creek, 35 feet south of road at bend, in root of pine; copper nail ( $t . b . m$. 395).

Greens Bayou, Lower Ferry, 1 mile west of, near west edge of clearing due to intermittent lake, 15 feet north of road, in root of pine tree; copper nail (t. b. m. 394).
Greens Bayou, Lower Ferry, 600 feet west of, 20 feet south of road, 40 feet west of fence corner; iron post stamped "Prim. Trav. Sta. No. 169, 1915, $27^{\prime \prime}$ (p. b. m. 169).
26. 888

Greens Bayou, Lower Ferry, 0.7 mile east of, 25 feet north of road, oppo-
site cabin, in root of oak; copper nail (t. b. m. 393)......................... 32.58
Greens Bayou, Lower Ferry, 1.5 miles east of, 4,100 feet west of T road south, 20 feet south of road, in root of oak; copper hail (t. b. m. 392)
34.03

Carpenters Bayou Bridge, 0.7 mile west of, 650 feet east of T road south, 25 feet north of road; iron post stamped "Prim. Trav. Sta. No. 168, 1915, $26 "$ (p. b. m. 168)

## From Deepwater north along highways to Carpenters Bayou.

Deepwater, 0.9 mile north of, 45 feet west of road, in pasture, in root of cottonwood tree, (t. b. m. 414)
34.64

Deepwater, 1.8 miles north of, 40 feet west of road, north end of gateway to old pump house, 500 feet north of $T$ road east; copper nail in hub (t. b. m. 415)
Penn City Ferry, 1,200 feet south of, 500 feet south of bridge, 20 feet east of road at bend, 400 feet northeast of white house; in root of oak (t. b. m. 416)
Feet.
Penn City Ferry, 575 feet west of, 75 feet north of north bank of Ship Channel; metal tablet set in top of concrete monument (U. S. E. D. b. m.) ..... 16. 950
Penn City Ferry, 0.7 mile north of, at northwest corner of fence enclosing brick schoolhouse, in top of concrete monument; chiseled square (t. b. m. 417) ..... 35.49
Penn City Ferry, 1.7 miles north of, 0.5 mile south along $T$ road south, 30 feet west of road, in root of oak; copper nail (t. b. m. 418) ..... 35.92
From Carpenters Bayou along highways east to San Jacinto battle field, thence south- west to Deer Park.
Carpenters Bayou Bridge; floor of ..... 20.3
Carpenters Bayou Bridge, 1,000 feet east of, 20 feet, north of road, in root of oak; copper nail (t. b. m. 391) ..... 28. 00
Bridge over small creek; center of floor. ..... 20.6
Carpenters Bayou Bridge, 1.1 miles east of, 280 feet west of $T$ road north, 25 feet north of road, in root of oak; copper nail (t. b. m. 390) ..... 33. 02
Carpenters Bayou Bridge, 1.8 miles east of, 480 feet west of bridge over ravine, 20 feet south of road, at edge of pine woods; iron post stamped "Prim. Trav. Sta. No. 167, 1915, 33 " (p. b. m. 167) ..... 32. 804
Bridge over drain; floor of. ..... 7.2
San Jacinto battle ground, 0.6 mile northwest of ferry (Ship Channel) 25 feet northeast of road, on bluff at west side of old river channel, in root of elm; copper nail (t. b. m. 389) ..... 26.72
San Jacinto battle ground, about 1,500 feet north of, 200 feet north of school- house, 70 feet north of road to ferry, 140 feet west of shell road, in root of cottonwood tree; copper nail ..... 5. 90
San Jacinto battle ground, 2,000 feet south of, 22 feet east of shell road, in root of hackberry tree; copper nail. ..... 25. 13
San Jacinto battle ground, 1.4 miles south of, 25 feet east and 10 feet south of T road west, 6 feet north of telephone pole; iron post stamped "Prim. Trav. Sta. No. 174, 1915, 34" (p. b. m. 174) ..... 33.833
Deer Park, 2.2 miles northeast of, 60 feet southeast of road, 1,100 feet northeast of fence corner, in root of one of seven oak trees; copper nail (t. b. m. 404) ..... 32.31
Deer Park, 1.5 miles northeast of, 650 feet southwest of bridge over large drain, 25 feet southeast of shell road, in root of oak tree; copper nail (t. b. m. 405) ..... 30.68
HOUSTON QUADRANGLE (including Almeda, Bellaire, Deepwater, La Porte, Park Place, and Mykawa $7 \frac{1}{2}$ quadrangles).
|Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $95^{\circ}-95^{\circ} 30^{\circ}$.]
From Houston southeast along Galveston, Houston \& Henderson R. R. to Harrisburg.
Houston, Gabel Street, on west wing of south abutment of steel highwaybridge over Buffalo Bayou; red-metal disk (C. \& G. S. b. m. "L")43.599
Houston, International \& Great Northern Ry. drawbridge over Buffalo Bayou; top of rail. ..... 44.2
Houston, Commerce Street crossing; top of rail between car tracks ..... 52.9
Houston, International \& Great Northern Ry. station; top of rail on south- west side of building. ..... 51.7
Houston, about 0.75 mile east of International \& Great Northern Ry. station, in line with long tangent east on Galveston, Houston \& Henderson R. R., 48 feet S. $17^{\circ} 20^{\prime}$ E. of intersection of Galveston, Houston \& Henderson R. R. and San Antonio \& Aransas Pass Ry. freight spur to packing house; iron post stamped "Prim. Trav. Sta. No. 5, 1915"...... Houston, Milby Street crossing, 300 feet northeast of Houston Belt \& $\therefore$ Terminal Ry. round house; top of rail.

## Feet.

48. 631
Houston, 250 feet east of city limit signboard, 80 feet southwest of Dumble Street road crossing, 20 feet south of Galveston, Houston \& Henderson R. R. track, 40 feet west of road, in hub by telegraph pole; copper nail (t. b. m. 8)

Houston, road crossing, 80 feet northeast of entrance to Evergreen Ceme
tery; top of rail
Houston, intersection of Houston Belt \& Terminal Ry. and Galveston, Houston \& Henderson R. R. tracks; top of rail.
Houston, Second Street crossing, in line with Fifteenth Street through Magnolia Park, 50 feet west of road, 30 feet south of track, in hub by telegraph pole; copper nail (t. b. m. 7).
Harrisburg, 1.2 miles northwest of station, 270 feet east of point where Forest Hill Boulevard passes through Galveston, Houston \& Henderson R. R. track, 50 feet north of track, 4 feet south of fence line; iron post stamped "Prim. Trav. Sta. No. 4, 1915, 39 ".
Harrisburg, 0.6 mile north of Galveston, Houston \& Henderson R. R. station, $5 \frac{1}{2}$ telegraph poles south of milepost 5,25 feet east of track, center of top surface of concrete culvert, in lead; copper bolt, Coast and Geodetic survey bench mark (C. \& G. S. value used) 23. 359
Brays Bayou, Galveston, Houston \& Henderson R. R. bridge over; top of
rail................................................................................................ 27.
Harrisburg, on Galveston, Houston \& Henderson R. R. right of way, 80 feet south of intersection of Galveston, Harrisburg \& San Antonio Ry. and Galveston, Houston \& Henderson R. R. tracks, 40 feet west of track, at fence corner, on end of section of rail; cross, Coast and Geodetic Survey bench mark "R M" (C. \& G. S. value discarded equals 38.271 feet)......

From Houston south-southwest along International \& Great Northern Ry. to Pierce
Junction, thence east-northeast along Southern Pacific "Cut-off" R. R. to Harris
burg.
Houston, intersection of International \& Great Northern and San Antonio \& Aransas Pass Ry. transfer tracks; top of rail.
Houston, 30 feet east of intersection of Pierce Avenue and International \& Great Northern Ry. tracks, 1 foot from telephone pole, in hub; copper nail (t. b. m. 9)
Houston, intersection of San Antonio \& Aransas Pass and GalvestonHouston Interurban Ry. tracks; top of rail.
51.1
Houston, 40 feet south of intersection of San Antonio \& Aransas Pass Ry. and McGowan Avenue, 10 feet east of fence corner, in hub beside telephone pole; copper nail (t. b. m. 10)
Blodgett, 320 feet southeast of intersection of Southern Pacific and San Antonio \& Aransas Pass tracks, 30 feet south of Fannin Street, 50 feet southeast of intersection of Fannin car line and San Antonio \& Aransas Pass Ry. tracks; iron post stamped "Prim. Trav. Sta. No. 6, 1915, 54"...
Blodgett, intersection of Southern Pacific and San Antonio \& Aransas Pass Ry. tracks near; top of rail
Blodgett, 1 mile south of, 500 feet south of road crossing, 50 feet west of road, southeast corner of Southern Pacific bridge 5 C , in end of timber;copper nail (t. b. m. 66)
Brays Bayou, Southern Pacific Bridge 6 A over; top of east rail directly over stream ..... 51.4
Blodgett, 2 miles south of, 50 feet north of T road west, 30 feet west of Almeda road, 1 foot from fence line, in hub by telegraph pole; copper nail (t. b. m. 67) ..... 48.37
Blodgett, 2.6 miles south of, 450 feet west of house, 35 feet northeast of T road east to house; iron post stamped "Prim. Trav. Sta. No. 33, 1915, 51 ". ..... 50.934Stella, 1.7 miles northeast of, 100 feet southeast of block signal, 40 feet eastof track, 30 feet west of Almeda road, in hub by telephone pole; coppernail (t. b. m. 68)50.59
nail (t. b. m. 68).
Pierce Junction, intersection of International \& Great Northern and Gal- veston, Harrisburg \& San Antonio Ry. tracks; top of rail ..... 55.2
Pierce Junction, 1,200 feet northeast of Stella, 330 feet south of insection of International \& Great Northern and Galveston, Harrisburg \& San Antonio Ry. tracks, 35 feet east of International \& Great Northern Ry. track, 30 feet west of Almeda road, in hub beside telephone pole; cop- per nail (t. b. m. 38) ..... 52.45
Pierce Junction, 1 mile northeast of, 80 feet south of signboard "R. R. Crossing 1 M .," 2 feet inside right of way fence; iron post stamped "Prim. Trav. Sta. No. 34, 1915, 52 " ..... 52.612
Pierce Junction, 1.9 miles north east of, 60 feet west of crossroads, 25 feet south of milepost 2; at corner of fence, in hub; copper nail (t. b. m. 69)... ..... 48.72
Pierce Junction, 2.8 miles northeast of, 800 feet northeast of road crossing, 50 feet south of track, in hub by fence post; copper nail (t. b. m. 10)..... ..... 46.06
Pierce Junction, 3.3 miles northeast of, 50 feet south of track 1.3 miles southwest of Santa Fe crossing; iron post stamped "Prim. Trav. Sta. No. 35, 1915, 45 " ..... 45.412
Harrisburg, 3.4 miles southwest of, 0.3 mile southwest of Santa Fe cross- ing, 40 feet southwest of double gate, 50 feet southeast of track, in hub by fence post; copper nail (t. b. m. 71). ..... 42.08
Harrisburg, 3.1 miles southwest of, intersection of Santa Fe and Southern Pacific cut-off tracks; top of rail. ..... 44.3
Harrisburg, 2.4 miles southwest of station, 0.7 mile northeast of switch tower (Santa Fe crossing), 10 feet west of track, on corner of concrete foun- dation to block signal; chiseled square (t. b. m. 72). ..... 44.13
Harrisburg, 1.7 miles southwest of station, 0.25 mile southwest of Galves- ton-Houston Interurban Ry. crossing at Brookline, 40 feet southeast of road crossing, at corner of G. C. Street's yard fence; iron post stamped "Prim. Trav. Sta. No. 36, 1915, 42 ". ..... 42.193
Brookline, intersection of Galveston-Houston Interurban and Southern Pacific Ry, tracks; top of rail ..... 43.1
Harrisburg, 0.8 mile southwest of station, 0.6 mile northeast of Brookline, 30 feet northwest of road, in hub at fence corner; copper nail (t. b. m. 73).. ..... 40.14
From Brookline along highways south to point near Mykawa, thence east to Genoa.Brookline, 0.9 mile south of, 280 feet south of wooden bridge, 100 feet eastof house, 4 feet south of mail box 117, 12 feet west of road, in hub; coppernail (t. b. m. 75)37. 64
Brookline, 1.9 miles south of, 40 feet southeast of road forks, in hub at fence corner; copper nail (t, b, m, 76) ..... 40. 20
Brookline, 2.8 miles south of, 420 feet south of bridge over Simms Bayou, 15 feet west of road, opposite private road east; iron post stamped "Prim. Trav. Sta. No. 37, 1915, 34 "

Feet.
34.270
Brookline, 3.8 miles south of, 5,800 feet south of Simms Bayou, 25 feet east of road, at corner post on fence line east, in hub; copper nail (t. b. m. 77)43.82
Brookline, 4.6 miles south of, 1.8 miles south of Simms Bayou, 25 feet west of road, in hub by fence post; copper nail (t. b. m. 78) ..... 47.21
Mykawa, 1 mile east by 1 mile north of, 40 feet east of road, 15 feet east of corner on fence line east, 600 feet north of T road east to house; iron post stamped "Prim. Trav. Sta. No. 38, 1915, 49 " ..... 49. 121
Mykawa, 1 mile east of, 300 feet north of old barn, 500 feet south of T road east, 20 feet northeast of culvert, on Alvin road, in hub beside fence post; copper nail (t. b. m. 51).53.20
Mykawa, 1.4 miles east of, at right angle turn in road; center of wooden culvert over drainage ditch. ..... 53.6
Mykawa, 1.7 miles east by 0.2 mile north of, 1,000 feet east of right-angle turn of road, 20 feet south of road, in hub by fence post, copper nail (t. b. m. 52). ..... 50.65
Mykawa, 2.6 miles east by 0.2 mile north of, southeast corner of small ceme- tery, 35 feet north of road, by fence corner; iron post stamped "Prim. Trav. Sta. No. 26, 1915, 52). ..... 51.727
Genoa, 0.4 mile north by 1.7 miles west of station on Galveston-Houston Interurban Ry., 80 feet west of house, 30 feet north of road, in hub beside gatepost; copper nail (t. b. m. 53) ..... 47.82
Genoa, 0.4 mile north by 0.8 mile west of Galveston-Houston Interurban Ry. station, 2,900 feet west of track, 20 feet-north of road, 120 feet south- east of house, at southeast corner of yard fence, in hub; copper nail ( t . b. m. 54) ..... 42. 77
Genoa, 0.5 mile northwest of station, road crossing, Galveston-Houston Interurban Ry. track; top of rail ..... 50.0
Genoa, 150 feet southeast of Galveston-Houston Interurban Ry. station,100 feet southeast of road crossing, 40 feet south of road, at corner offence; iron post stamped "Prim. Trav. Sta. No. 27, 1915, 49 "49. 112
Genoa, 200 feet north of Galveston, Houston \& Henderson R. R. station, 35 feet west of track, south side of water tank, in concrete foundation; red-metal disk (C. \& G. S. b. m. R8). ..... 49.846
From Genoa along highways east and north to Deer Park, thence west along Galveston, Harrisburg \& San Antonio Ry. to Harrisburg.
Genoa, 0.8 mile east of, 25 feet south of road, 1,200 feet west of right-angleturn of road, in hub beside witness stake; copper nail (t. b. m. 56)46. 03
Genoa, 1.4 miles east by 0.3 mile north of, 0.25 mile southeast of house, 80 feet north of road on fence line north; iron post stamped "Prim. Trav. Sta. No. 28, 1915, 44 " ..... 43. 479
Genoa, 2.3 miles east by 0.3 mile north of, 25 feet north of road on knoll, inhub beside witness stake; copper nail (t. b. m. 57)41. 60
Genoa, 3.2 miles east by 0.3 mile north of, 900 feet west of right-angle turnof road, 25 feet north of old road, in hub beside witness stake; coppernail (t. b, m, 58)38.80
Genoa, 4 miles east by 0.4 mile north of, 1 mile west of Middle Bayou, 3,600 feet east of fence corner, 25 feet north of road (not used); iron post stamped "Prim. Trav. Sta. No. 29, 1915, 30 " ..... 30. 419

## PRIMARY LEVELING.

## 173

Genoa, 5 miles east by 0.4 mile north of, at corner post on fence line north, 600 feet west of Middle Bayou, 600 feet south of house, 40 feet north of road (not used), in hub; copper nail (t. b. m. 59).

## Feet.

23.18
Genoa, 5.5 miles east by 0.4 mile north of, 2,000 feet east of point where old road crosses Middle Bayou, 30 feet east of Red Bluff road, 4 feet east of fence line, in hub beside witness stake; copper nail (t.b. m. 60).....
25.05
Deer Park, 4.5 miles south of, 100 feet north of fence corner and lane southwest, 30 feet west of Red Bluff road, in hub by fence post; copper nail (t. b. m. 61)
25. 93
Deer Park, 4 miles south of, 20 feet west of Red Bluff road, at T road east, 150 feet north of Mr. English's residence; iron post stamped "Prim. Trav. Sta. No. 30, 1915, 31 ".
31.411
Deer Park, 3 miles south by 0.3 mile west of, 40 feet northwest of intersection of Pasadena-Red Bluff and Main Street-La Porte roads, at corner post of fence, in hub; copper nail (t. b. m. 62).
33.73
Deer Park, 3 miles south by 0.3 mile east of, 0.9 mile east of crossroads, 25 feet south of road, on fence line, in hub beside witness stake; copper nail (t. b. m. 63)
Deer Park, 2.3 miles south of, 1,400 feet south of drainage ditch, 10 feet east of old trail in open prairie; iron post beside witness stake stamped "Prim. Trav. Sta. No. 31, 1915, 41 "
41. 162
Deer Park, 1.5 miles south of, 10 feet west of dim roadway, in hub beside witness stake; copper nail (t. b. m. 64)
39. 70
Deer Park, 0.7 mile south of, 10 feet west of old road, at edge of embankment, in hub beside witness stake; copper nail (t. b. m. 65).
37.47
Deer Park, 0.4 mile south of, southeast corner of culvert over drainage ditch, in timber; copper nail.
Deer Park, 180 feet north of station, 40 feet northwest of crossroads, 150 feet southwest of house, by railing to culvert; iron post stamped "Prim. Trav. Sta., No. 32, 1915, 36 "
Deer Park, 0.9 mile west of, 200 feet southeast of bungalow 30 feet north of road, in hub by fence post; copper nail (t. b. m. B).
Deepwater, 0.9 mile east of, 400 feet east of two story house, 30 feet north of road, in hub by fence post; copper nail (t. b. m. C)
37. 49
Deepwater, 350 feet west of station, 50 feet north of track, 25 feet southwest of crossroads; iron post stamped "Prim. Trav. Sta. No. 1, 1915, 39 ".....
Deepwater, 0.7 mile west of, 150 feet west of T road north, 30 feet south of shell road, in hub by telephone pole; copper nail (t. b. m. 1)
38. 967
Pasadena, 0.7 mile east of, 70 feet northwest of road crossing, 30 feet south of shell road, 4 feet northwest of fence corner, in hub; copper nail (t. b. m. 2)
Pasadena, 300 feet west of station, 30 feet south of road, 60 feet west of fence corner; iron post stamped "Prim. Trav. Sta. No. 2, 1915, 31 "
31. 489
Pasadena, 1.1 miles west of, 30 feet southeast of crossroads, 60 feet northeast of road crossing, in hub by telephone pole; copper nail (t. b. m. 3) .....
Pasadena, 2.2 miles west of, 60 feet northeast of El Buey flag station, 350 feet east of road crossing, 30 feet south of road, in hub by telephone pole; copper nail (t. b. m. 4).
Pasadena, 3 miles west of, 125 feet west of highway bridge over Simms Bayou, 20 feet north of road, 100 feet south of Galveston, Harrisburg \& San Antonio Ry. track; iron post stamped "Prim. Trav. Sta. No. 3, 1915, 20 ".
Pasadena, 3.7 miles west of, 10 feet east of T road south, 20 feet south of main road, 150 feet south of track, in hub by telephone pole, copper nail (t. b. m. 5)

From Pierce Junction south-southwest along International \& Great Northern Ry. to Almeda, thence east along highways to Mykawa.
Pierce Junction, 0.9 mile south of, 150 feet south of signboard "R. R. Cross-
ing 1 M .," 40 feet east of track, 280 feet north of fence corner, in hub Feet. beside telephone pole; copper nail ( $\mathrm{t} . \mathrm{b} . \mathrm{m} .39$ ).
59.28

Pierce Junction, 1.8 miles south of, 900 feet south of switch, 30 feet east of track, in hub beside telegraph pole; copper nail (t. b. m. 40)
56.92

Almeda, 2.7 miles north of, opposite milepost 9,40 feet east of track; iron post stamped "Prim. Trav. Sta. No. 20, 1915, 56 "
56. 100

Almeda, 2.1 miles north of, International \& Great Northern Ry. bridge 17; top of rail.
55.9

Almeda, 1.8 miles north of, 35 feet east of track, 450 feet north of T road west
to white house, in hub beside telegraph pole; copper nail (t. b. m. 41 )... 55.46
Almeda, 0.8 mile north of, International \& Great Northern Ry. bridge 18,
top of rail above d ainage ditch............................................................ 56.4
Almeda, 0.9 mile north of, 900 feet south of bridge over drainage ditch, 40 feet east of track, in hub beside telegraph pole; copper nail (t. b. m. 42).
Almeda, 150 feet southeast of station, 100 feet east of track, 30 feet north of public road, 2 feet east of fence corner; iron post stamped "Prim. Trav. Sta. No. 21, 1915, 62 ".
61.962

Almeda, 0.6 mile east by 0.3 mile south of, 40 feet northeast of crossroads, 100 feet southeast of bungalow, at corner of yard fence, in hub beside corner post; copper nail (t. b. m. 43).
63. 29

Almeda, 1.5 miles east by 0.3 mile south of, 30 feet north of road, 100 feet northwest of fence corner on fence line south, in hub beside telephone pole; copper nail (t. b. m. 44).
Almeda, 2.4 miles east by 0.3 mile south of, 40 feet southwest of culvert over drainage ditch, 30 feet south of road, 10 feet west of ditch, 1,300 feet east of fence line south; iron post stamped "Prim. Trav. Sta. No. 22, 1915, 61 "
Almeda, 2.9 miles east by 0.6 mile south of, 900 feet east of right angle turn in road, 20 feet south of road, in hub beside telephone pole; copper nail (t. b. m. 45)

Almeda, 3.7 miles east by 0.7 mile south of, southwest corner of T road south, 1,500 feet east of right angle turn in road, in hub at fence corner; copper nail (t. b. m. 46).
58.18
56.59

Minnetax schoolhouse, 1 mile south by 0.2 mile east of, on Chocolate road, 500 feet north of east-west road, 25 feet east of road, 30 feet south of small drain; iron post stamped "Prim. Trav. Sta. No. 23, 1915, 56".
55. 560

Minnetax School, 0.6 mile south by 0.2 mile east of, at right angle turn of road, 30 feet east of culvert over drainage ditch, 10 feet north of road, on south bank of ditch, in hub; copper nail (t. b. m. 47)
Minnetax School, 0.9 mile east of, 2,100 feet east of primary traverse bench mark 48 (not painted), 900 feet west of Minnetax farmhouse, 40 feet north of culvert over drainage ditch, by fence post with two braces, in hub at foot of east brace; spike (t. b. m. 48 A).
Mykawa, 2 miles west of, 40 feet north of culvert over drainage ditch, at northeast corner of Minnetax fig orchard, in line with Troad south, 20 feet north of road; iron post stamped "Prim. Trav. Sta. No. 24, 1915, 51 ".
Mykawa, 1.2 miles west of, 400 feet southeast of house, 20 feet north of road, in hub by telephone pole; copper nail (t. b. m. 49).
53. 44

Mykawa, 0.2 mile west of, 400 feet southwest of brick schoolhouse, 20 feet north of road, in hub by telephone pole; copper nail (t. b. m. 50).
56.04

Mykawa, road crossing, Santa Fe track, 150 feet northwest of station; top of rail.
Mykawa, 1,250 feet east of station, 200 feet southeast of white house, 30 feet south of road, 15 feet east of fence corner; iron post stamped "Prim. Trav. Sta. No. 25, 1915, 57 "

Feet.

56. 672

## From Blodgett west along Westheimer road to point near Jeanetta.

Montrose, northeast corner of intersection of Mount Vernon Avenue and Richmond road, in hub beside telephone pole; copper nail (t. b. m. 11)..
Houston city limit on Richmond road, 30 feet north of road at bend, in hub at fence corner; copper nail (t. b. m. 12)
Houston, 1,800 feet west of city limit on Westheimer road, 250 feet west of John Smith School, 30 feet south of road, 5 feet northwest of blacksmith shop; iron post stamped "Prim. Trav. Sta. No. 7, 1915, 60 " 60.211
Houston, 1.3 miles west of city limit, at bend in road, 250 feet south of cabin, southwest pier of culvert; chiseled square (t. b. m. 13). ..... 64.49
Stella cut-off, railroad crossing; top of rail ..... 67.4
Houston, 2.1 miles west of city limit, 80 feet west of railroad crossing, 20 feet north of road, in hub beside telephone pole; copper nail ( $t$. b. m. 14)... ..... 64.75
Houston, 3 miles west of city limit, 200 feet west of Post Oak School, 30feet south of road, opposite Fairview store, 1 foot from fence; iron poststamped "Prim. Trav. Sta. No. 8, 1915, 66"65.862
Houston, 4.1 miles west of city limit, 30 feet south of road, 100 feet north- east of house, in hub beside telephone pole; copper nail (t. b. m. 15)... ..... 65.10
Houston, 5.2 miles west of city limit, wooden culvert over drainage ditch, south side of road, east end of railing, in hub; copper nail (t. b. m. 16) .. ..... 70.43Jeanetta, 1.5 miles qast of, 2,100 feet north of San Antonio \& Aransas PassRy. track, 50 feet west of drainage ditch, by witness stake, in hub; coppernail (t. b. m. 84).69.95
From point 2.6 miles northeast of Missouri City east-northeast along Southern Pacific R. R. to Pierce Junction.
Missouri City, 3.4 miles northeast of, 200 feet northeast of gate in right-of-way fence, 100 feet south of block signals, between road and Southern Pacific R. R. track, in hub beside telephone pole; copper nail (t. b. m. 33).... ..... 70.30
Missouri City, 4.3 miles northeast of, 400 feet west of house, 300 feet north-east of block signals, between road and Southern Pacific R. R. track, inhub beside telepone pole; copper nail (t. b. m. 34)69.60
Missouri City, 5.1 miles northeast of, 350 feet northeast of signboard "Sta- tion 1 Mi .," 0.6 mile southwest of point where shell road crosses Southern Pacific R. R. track, between road and track on fence line; iron post stamped "Prim. Trav. Sta. No. 18, 1915, 69 " ..... 69.056
Missouri City, 5.7 miles northeast of, 70 feet east of road crossing, at road forks, 3 feet south of telephone pole, in hub; copper nail (t. b. m. 35)... ..... 66. 49Stella, 2.4 miles southwest of, 2,000 feet southwest of section house, 350 feetsouthwest of whistle post, 50 feet south of track, in hub beside telephonepole; copper nai! (t. b. m. 36)Stella, 1.5 miles southwest of, opposite signboard "Station 1 Mile," 40 feetsouth of track, in line with telegraph poles; iron post stamped "Prim.Trav. Sta. No. 19, 1915, 60 "60. 251
Stella, 0.4 mile southwest of, 275 feet southwest of whistle post, 50 feet south of main track, 1 foot north of right-of-way fence, in hub; copper nail ( $\mathrm{t} . \mathrm{b} . \mathrm{m} .37$ ) ..... 54.04
Stella station, opposite semaphore; top of rail ..... 56.7

## ROSENBERG QUADRANGLE(Addicks, Alief, Ashford, Clodine, Cypress, Hillendahl, Holik, Katy, Swanson, and Waller $7 \frac{1^{\prime}}{\prime}$ quadrangles).

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]

## From Westheimer road north along highways to Hillendahl, thence northeast 2 miles.

Hillendahl, 1 mile east and 3.2 miles south of; 1,700 feet north of West-
heimer road, 25 feet north and 25 feet east of right-angied turn of road (road north and east), at corner fence post; copper nail in hub (t. b. m. 149)........

Feet.
72.22
64.8

Buffalo Bayou, bridge over; center of floor...................................
Hillendahl, 1 mile east and 2.2 miles south of, at right-angled turn of road, 60 feet east of road, in root of oak tree; copper nail (t. b. m. 150)
Hillendahl, 1 mile east and 1.2 miles south of, 30 feet east of road, at corner
fence post; iron post stamped "Prim. Trav. Sta. No. 70, 915,81 "..... 80.655
Hillendahl, 1 mile east and 0.9 mile north of, by corner fence post; copper nail in hub (t. b. m. 160).
Hillendahl, 1.6 miles east and 1.3 miles north of, 950 feet east of wooden highway bridge, 100 feet northeast of pasture gate, 30 feet north of road, in root of oak tree; copper nail (t. b. m. 161)
From Alief west along San Antonio \& Aransas Pass Ry. to Clodine, thence north along highway to Barker, thence along Missouri, Kansas \& Texas Ry.
Alief, 120 feet southeast of station, 180 feet southwest of road crossing, 40
feet south of track, 150 feet northeast of post office by telephone pole;
copper nail in hub (t. b. m. 21) $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots .$.
San Antonio \& Aransas Pass Ry. bridge 15.9, top of rail.
85.2

Alief, 1.1 miles west of, 35 feet northeast of culvert, on right of way fence, between track and road, by telephone pole; copper nail in hub (t. b. m. 85).
81.97

San Antonio \& Aransas Pass Ry. bridge 16.5, top of rail...................... 86.2
Alief, 2 miles west of, on right-of-way fence between track and road, at milepost 17, by telephone pole; copper nail in hub (t. b. m. 86).
Clodine, 2.7 miles east of, 45 feet northeast of T road north, 55 feet southeast of road crossing, 200 feet west of milepost 18, at corner of fence; iron post stamped "Prim. Trav. Sta. No. 40, 1915, 85)"
85. 498

San Antonio \& Aransas Pass Ry. bridge 18.5; top of rail.
89.1

Clodine, 1.7 miles east of, 50 feet northeast of T road north, 40 feet southeast of road crossing, 250 feet northeast of house, at fence corner; copper nail in hub (t. b. m. 87)
89.850

Clodine, 1.1 miles east of, 200 feet south of yellow house, on fence line 50 feet north of track, 20 feet south of road, by telephone pole; copper nail in hub (t. b. m. 88)
93.53

Clodine, 240 feet south of road crossing, 140 feet west of station, 3 feet north of fence corner; iron post stamped "Prim. Trav. Sta. No. 41, 1915, 95 "....
Clodine, 1 mile north of, 25 feet west of road, at corner of fence on line west (t. b. m. 89)

Clodine, 2 miles north of, 50 feet north of $T$ road south, by fence post; copper nail in hub (t. b. m. 90).
93. 24

Barker, 2.6 miles south of, 0.7 mile south of bridge over Buffalo Bayou, east side of road, opposite wooden culvert; iron post stamped "Prim. Trav. Sta. No. 42, 1915, 88 " 87.716

Barker, 2 miles south of, 220 feet south of bridge over Buffalo Bayou, 60
feet west of road, in root of oak tree; copper nail (t. b. m. 91)

Barker, 1 mile south of, 250 feet southwest of old barn, 25 feet east of road,
at corner post on fence line east; copper nail in hub (t. b. m. 92 )............ 90.11

## PRIMARY LEVELING.

Barker, 115 feet south of Missouri, Kansas \& Texas Ry. track, 35 feet west and 25 feet south of $T$ road south, at corner post of fence, 3-inch metal cap on iron pipe (C. \& G. S. b. m. "B8")
Feet.
Barker, 0.85 mile east of, 25 feet south of public road, 6 inches from telephone pole; copper nail in hub (t. b. m. 151) ..... 99.04
Barker, 1.7 miles east of, 30 feet north of road, 50 feet south of track, 6 inches from telephone pole; copper nail in hub (t. b. m. 152). ..... 97.33
Addicks, 200 feet east of station, 100 feet south and 25 feet east of public- road crossing, by post on right-of-way fence; iron post (C. \& G. S. b. m. "C8"; Prim. Trav. Sta. No. 72) ..... 96. 332
Private-road crossing; top of rail. ..... 90.4
Addicks, 0.8 mile east of, 35 feet north of road, in root of lone tree; copper nail (t. b. m. 153) ..... 82.19
Addicks, 1 mile east of, in northwest corner of 200 -foot wooden bridge over creek; floor of bridge. ..... 88. 62
Addicks, 1.5 miles east of, 150 feet east of T road north, 350 feet west of house, 20 feet south of road, 100 feet north of Missouri, Kansas \& Texas Ry. track; iron post stamped "Prim. Trav. Sta. No. 73, 1915, 92 " ..... 91.600
Addicks, 2 miles east of, 20 feet north of road, 60 feet east of corner post on fence line north, in root of oak tree near fence line; copper nail ( $t$. b. m. 154). ..... 86.39
Addicks, 2.8 miles east of, 25 feet south of road, by telephone pole; copper nail in hub (t. b. m. 155) ..... 93.11
Addicks, 3.7 miles east of, 25 feet south of road, by telephone pole; copper nail in hub (t. b. m. 156) ..... 93.24
Hillendahl, 2.2 miles west of, 820 feet east of mile board 1071, 75 feet west of small bridge, 2.5 feet south of telephone pole; copper nail in hub (t. b. m. 157) ..... 81.92
Hillendahl, 1.3 miles west of, 25 feet south of road, 400 feet east of mile board 1072, by telephone pole; copper nail in hub (t. b. m. 158) ..... 88.11
Hillendahl, 0.7 mile west of, at T road north, center of north end of Mis- souri, Kansas \& Texas Ry. concrete culvert, 2 inches from edge; chiseled square (C. \& G. S. b. m. "E8") ..... 87.073
Hillendahl, 0.3 mile east of, 30 feet south of road, 60 feet north of track, 320 feet west of private-road crossing, by telephone pole; copper nail in hub (t. b. m. 159) ..... 83.02
Road crossing, at Troad south; top of rail ..... 82.7
Hillendahl, 1 mile east of, 65 feet northeast of shell-road crossing, on right- of-way fence line, by corner post; iron post (C. \& G. S. b. m. "F8"; Prim. Trav. Sta. No. 71) ..... 78.628
From Addicks along highways north and east to point 2.1 miles southeast of Satsuma.
Addicks, 0.8 mile north of, 120 feet south of bridge over creek, 480 feet north of bridge over south fork of creek, 10 feet east of road, in root of oak tree; copper nail (t. b. m. 164) ..... 90.23
Addicks, 1.7 miles north of, 1,200 feet south of church, 30 feet east of road, at corner post on fence line east; copper nail in hub (t. b. m. 165). ..... 98.13
Addicks, 2.3 miles north of, 2,000 feet north of white church, 40 feet west of road, 3 feet from corner post on fence line west; iron post stamped "Prim. Trav. Sta. No. 74, 1915, 105 " ..... 104.707
Addicks, 3.2 miles north of, 30 feet south and 25 feet east of T road west, 4 feet from corner post on fence line east, by telephone pole; copper nail (t. b. m. 166) ..... 106.96
$25286^{\circ}-$ Bull. $637-16-12$
Addicks, 4 miles north of, 25 feet east of road, 950 feet north of corner post on fence line east, by telephone pole; copper nail in hub (t. b. m. 167)

Feet.

Addicks, 4.4 miles north and 0.4 mile east of, 150 feet south and 200 feet east of Griggsby schoolhouse, 4 feet west of corner fence post, 30 feet southeast of bend in road; iron post stamped "Prim. Trav. Sta. No. 75, 1915, 119 "
Griggsby schoolhouse, 0.5 mile north and 0.5 mile east of, 800 feet north of small wooden bridge at bend of road, 200 feet north of corner post on fence line west, 20 feet west of road, in root of oak tree; copper nail (t. b. m. 168)

Griggsby schoolhouse, 0.5 mile east and 1.4 miles north of, 25 feet east of road, at corner post on fence line east (a lane runs east), by telephone pole; copper nail in hub (t. b. m. 169).
Troad south, 200 feet east of, 1 foot from west gate post, south side of road, opposite yellow house; $\frac{1}{4}$-inch iron rod in ground
Brink schoolhouse, 2.6 miles east of, 2,300 feet west of T road south, 20 feet south of road, by telephone pole; copper nail in hub (t. b. m. 174)
Brink schoolhouse, 3.2 miles east of, 180 feet west of wooden bridge over creek, 25 feet south of road, 9 feet north of fence line; iron post stamped "Prim. Trav. Sta. No. 76, 1915, 119 ".
119.162

Brink schoolhouse, 4.3 miles east of, 2.5 miles west of Houston \& Texas Central Ry. crossing, 15 feet south of road in open prairie, by witness stake; copper nail in hub (t. b. m. 175)
123.94

Brink schoolhouse, 5.3 miles east of, 1.4 miles west of Houston \& Texas Central Ry. crossing, 15 feet south of rod, in open prairie, by witness stake; copper nail in hub (t. b. m. 176).
120.24

From Barker west along Missouri, Kansas \& Texas Ry. to Katy, thence north along highway to point near Hockley.

Barker, 0.8 mile west of, 250 feet southeast of "Yard Limit" signboard, 125 feet south of track, 30 feet south of gravel road, by telephone pole; copper nail in hub (t. b. m. 93).
111.15

Barker, 1.7 miles west of, 900 feet east of road crossing, 20 feet north of road, 60 feet south of track, by telephone pole; copper nail in hub (t. b. m. 94)..
Road crossing; top of rail
115.88
119.0

Barker, 2.5 miles west of, 980 feet east of switch stand, 60 feet south of track, 4 feet east of telephone pole; iron post stamped "Prim. Trav. Sta. No. 44, 1915, 124"
Katy, 4.7 miles east of, at Delhi Siding, 155 feet south of track at point 50 feet west of signboard, 30 feet south of public road, 2 feet north of corner post on fence line south; stone post, bottom of square hole (C. \& G. S. b. m. A8; Prim Trav. Sta. 45)
Katy, 3.7 miles east of, 50 feet south of Missouri, Kansas \& Texas Ry. track, 30 feet north of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 95)
124.051

Katy, 2.7 miles east of, 50 feet south of track, 15 telegraph poles east of mile board 1058, beside right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. Z7; Prim. Trav. Sta. No. 46)
Concrete culvert, northeast corner of, 70 feet southwest of private-road crossing.
134.488

Katy, 1.9 miles east of, 900 feet northwest of house, on fence line between track and road, by telephone pole; copper nail in hub (t. b. m. 96)
137.53

Katy, 1 mile east of, 60 feet south of track, 20 feet north of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 97)
135.46
137.73

Katy, 520 feet west of station, 40 feet south of track, 4 feet east and 2 feet south of telephone pole; iron post stamped "Prim. Trav. Sta. No. 47, 1915, 141 "

Feet.
Katy, 550 feet west and 310 feet south of station, in soathwest foundation of water tank of Katy Rice Milling Co.; copper bolt set in lead (C. \& G. S. b. $\mathrm{m} . \mathrm{X} 7$ )

Katy, 0.8 mile northwest of, 100 feet north of road forks, 140 feet south of corner post on fence line west, 20 feet south of road, by telephone pole; copper nail in hub (t. b. m. 98).
Katy, 1.7 miles north of, 20 feet west of road, opposite small house on west side of road, by telephone pole; copper nail in hub (t. b. m. 99)........
Katy, 2.8 miles north of, 20 feet east of road, opposite wood-colored house, 900 feet north of red barn, by wire fence; iron post stamped "Prim. Trav. Sta. No. 48, 1915, 157"
156.620

Katy, 3.7 miles north of, 3,160 feet north of crossroads, 20 feet west of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 100)
156.47

Katy, 4.6 miles north of, 100 feet southwest of yellow and green house, 25 feet east of road, 6 inches from gate post; copper nail in hub (t. b. m. 101).
Katy, 5.6 miles north of, 2,500 feet south of white schoolhouse, opposite private lane west, 30 feet east of road; iron post stamped "Prim. Trav. Sta. No. 49, 1915, 160 "
160.140
$\begin{array}{lll}\text { Schoolhouse, } 300 \text { feet north of, at crossroads; center of wooden culvert..... } & 160.18\end{array}$
Katy, 6.6 miles north of, 0.5 mile north of white schoolhouse, at corner post on fence line east, 10 feet east of road; copper nail in hub (t. b. m. 102).
Katy, 7.5 miles north of, 20 feet east of road, at gate post, and corner post on fence line east; copper nail in hub (t. b. m. 103).
171.64

Katy, 8.1 miles north and 0.2 mile east of, 20 feet south of road, in line with private road north, near corner post on fence line south; iron post stamped "Prim. Trav. Sta. No. 50, 1915, 165 "
165.046

Katy, 8.1 miles north and 1 mile east of, 30 feet southwest of post at intersection of roads, by corner post; copper nail in hub (t. b. m. 104)
159.42

Katy, 9 miles north and 1 mile east of, on west side of dim road, 6 inches
from fence post; copper nail in hub (t. b. m. 105).......................... 162.21
Katy, 9.9 miles north and 1 mile east of, 815 feet north of fence corner, 3 feet west of fence, 20 feet east of dim road; iron post stamped "Prim. Trav. Sta. No. 51, 1915, 164"
164. 283

Katy, 10.9 miles north and 1 mile east of, 1,900 feet south of Cypress Creek, 1,400 feet north of summit of ridge, 30 feet west of road, 6 inches from fence post; copper nail in hub (t. b. m. 106)
160.93

Katy, 11.3 miles north and 1 mile east of, 100 feet north of Cypress Creek, 25 feet north of end of bridge, 20 feet west of road, in root of water oak; copper nail (t. b. m. 107)
157.24

Katy, 12.4 miles north and 1 mile east of, 1.1 miles north of Cypress Creek bridge, 30 feet east of road, 2 feet from tall fence post; iron post stamped "Prim. Trav. Sta. No. 52, 1915, 168 "
168.080

Katy, 13.4 miles north and 1 mile east of, 2.1 miles north of Cypress Creek bridge, 30 feet east of road, at gate post and corner post on fence line east; copper nail in hub (t. b.m. 108).
From point near Swanson southeast along Houston \& Texas Central R. R. to point 1.6 miles southeast of Fairbanks.

Hockley, 4.5 miles southeast of, 1,200 feet northwest of road crossing, opposite milepost 31,55 feet north of track, 25 feet south of shell road, 2.5 feet north of telephone pole; iron post stamped "Prim. Trav. Sta. No. 54, 1915, 194 "

Swanson, 150 feet east of signboard, 600 feet west of milepost 30,50 feet north of track, 25 feet south of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 113)

Feet.
187.62

Cypress, 3.3 miles northwest of, 800 feet east of signboard " 1 M . Swanson," 50 feet north of track, 25 feet south of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 114)
157.83

Cypress, 2.4 miles northwest of, about halfway between mileposts 28 and 29, 60 feet north of track, 30 feet south of road, 2 feet north of telephone pole; iron post stamped "Prim. Trav. Sta. No. 55, 1915, 156 "
155. 826

Cypress, 1.2 miles northwest of, 60 feet north of track, 50 feet south of road, 1 foot from telephone pole; copper nail in hab (t. b. m. 115)
154. 13

Cypress, 0.5 mile northwest of, at curve in Houston \& Texas Central R. R., 25 feet south of road, 60 feet north of track, by telephone pole; copper nail in hub (t. b. m. 116)
Cypress, 150 feet east of station, 50 feet north of track, 20 feet south of road, 60 feet southwest of Jurgen's saloon, 3 feet north of fence line, 3 feet west of telephone pole; iron post stamped "Prim. Trav. Sta. No. 56, 1915, 150"
Cypress, 0.9 mile southeast of, 30 feet south of road, 40 feet north of track, 6 inches from telephone pole; copper nail in hub (t. b. m. 129).
150.275

6 inches from telephone pole; copper nail in hub (t. b. m. 129)............
Cypress, 1.8 miles southeast of, 600 feet northwest of road crossing, 1,000 feet north of Cypress Creek, 35 feet south of road, 60 feet north of track, 1.5 feet from telephone pole; copper nail in hub (t. b. m. 130)

Cypress, 2.8 miles southeast of, 35 feet north of road, 130 feet north of track, 4 feet east of corner post on fence line north; iron post stamped "Prim. Trav. Sta. No. 62, 1915, 143 "
Road crossing; top of rail.
143. 018

Cypress, 3.7 miles southeast of, 30 feet south of road, 70 feet north of track, 10 feet south of Troad north, 1 foot from telephone pole; copper nail in hub (t. b. m. 131).
140.35

Cypress, 4.4 miles southeast of, 100 feet east of road crossing, 25 feet south of road, 60 feet north of track, 1 foot from telephone pole; copper nail in hub (t.b.m. 132)
136.37

Satsuma, 2.6 miles northwest of, 400 feet east of milepost 21,30 feet north of road, 5 feet west of corner post on fence line north; iron post stamped "Prim. Trav. Sta. No. 63, 1915, 134 "
134.619

Satsuma, 1.7 miles northwest of, 50 feet north of road crossing, 30 feet south of road, 1.5 feet south of fence corner; copper nail in hub (t.b.m. 133)....
Satsuma, 0.8 mile northwest of, 800 feet northwest of milepost 19,30 feet south of road, 50 feet north of track, 1 foot from telephone pole; copper nail in hub (t.b.m. 134).
124.81

Satsuma, 75 feet south of store and post office, 150 feet northwest of station signboard, 30 feet north of road, 80 feet north of track, 6 feet west of telephone pole; iron post stamped "Prim. Trav. Sta. No. 64, 1915, 120 "
120. 704

Wood-colored house, 600 feet northeast of, at private-road crossing; top of rail.
121.6

Satsuma, 1 mile southeast of, 50 feet west of T road north, 30 feet south of road, 60 feet north of track, 1 foot from telephone pole; copper nail in hub (t.b.m. 135).
117.22

Satsuma, 2.1 miles southeast of, 35 feet south of T road southwest, 60 feet northwest of road crossing, 1 foot from fence corner; copper nail in hub (t.b.m. 136).
112.95

Satsuma, 2.7 miles southeast of, 35 feet north of road, 4 feet east of telephone pole; iron post stamped "Prim. Trav. Sta. No. 65, 1915, 112"
112.020

Fairbanks, 2.1 miles northwest of, 25 feet south of road, 65 feet east of road crossing, 2 feet from corner fence post; copper nail in hub (t.b.m. 137)....
Fairbanks, 1.2 miles northwest of, 100 feet southeast of concrete culvert, 230 feet east of milepost 14, 20 feet south of road, 60 feet north of track, Feet. ..... 99.511 foot from telephone pole; copper nail in hub (t.b.m. 138)
Old two-story house, 150 feet west of, road crossing; top of rail ..... 99.8
Fairbanks, 350 feet northwest of station, 35 feet north of public road, 50 feet south of store and post office, 2 feet northwest of telephone pole; iron post stamped "Prim. Trav. Sta. No. 66, 1915, 96 " ..... 96.113
Fairbanks, 0.8 mile southeast of, 500 feet east of milepost 12,25 feet south of road, 6 inches from telephone pole; copper nail in hub (t.b.m. 139).... ..... 92.86
Fairbanks, 1.6 miles southeast of, 150 feet northwest of milepost 11,65 feet east of road crossing, 25 feet south of road, 6 inches from telephone pole; copper nail in hub (t.b.m. 140). ..... 87.00
From point 6.5 miles south by 2.2 miles east of Hockley, thence northwest along high- way to county line, thence north to point 2.3 miles south by 2.5 miles west of county line.
Hockley, 6.5 miles south and 1.3 miles east of, 4,500 feet west of Katy-Hockley road, in open prairie, by witness stake; copper nail in hub (t.b.m.193).163. 30
Hockley, 6.5 miles south and 0.7 mile east of, at gateway on private road across prairie, at north end of land, near head of timber, on Cypress Creek, 6 feet west of gate post; copper nail in hub (t.b.m. 184) ..... 166.02
Hockley, 6 miles south of, about 0.7 mile northwest of head of timber on Cypress Creek, at double gateway, 2 feet south of fence line; iron post stamped "Prim. Trav. Sta. No. 81, 1915, 170 " ..... 169.512
Hockley, 6 miles south and 1 mile west of, at corner post on fence line north ( 50 -foot jog to south on east-and-west fence line), 5 feet east of corner post; copper nail in hub (t.b.m. 185) ..... 171. 78
Hockley, 6 miles south and 2 miles west of, 200 feet east of corner post on fence line along Harris-Waller county line, by west gate post; copper nail in hub (t.b.m. 186) ..... 173.69
Hockley, 4.8 miles south and 2.7 miles west of, on Harris-Waller county line, 2 feet east of wire fence; iron post stamped "Prim. Trav. Sta. No. 82, 1915, 182 " ..... 181.951
Hockley, 4.5 miles south and 3 miles west of, on county-line fence, 500 feet east of house, at south gate post; copper nail in hub (t.b.m. 187) ..... 191.53
Hockley, 4 miles south and 2.4 miles west of, 800 feet southwest of white house in trees, 1 foot from fifteenth fence post northwest of bend in fence line; copper nail in hub (t.b.m. 188) ..... 203. 85
From point 1.6 miles east of Brink schoolhouse west along highway to point 3.7 miles north of Katy.
Brink schoolhouse, 1.6 miles east of, 15 feet south of road, by witness stake; copper nail in hub (t.b.m. 173). ..... 127.26
Brink schoolhouse, 2,250 feet east of, 20 feet north of road, by witness stake(incorrectly painted 171); copper nail in hub (t.b.m. 172)130.58
Brink schoolhouse, 0.2 mile south and 750 feet west of, 30 feet northeast of corner of bridge over Langham Creek, 40 feet west of pine tree 3 feet in diameter; iron post stamped "Prim. Trav. Sta. No. 17, 1915, 128 " ..... 128.303
Brink schoolhouse, 0.2 mile south by 0.9 mile west of, 20 feet north of road, by witness stake (incorrectly painted 170); copper nail in hub (t.b.m. 171). ..... 135.08
Brink schoolhouse, 0.2 mile south by 1.8 miles west of, 15 feet south of road,by witness stake (incorrectly painted 169); copper nail in hub (t.b.m.170).137. 21

Brink schoolhouse, 0.5 mile south of and 2.8 miles west of, 6 feet south of northwest corner of fence around house; wire nail in hub (t. b. m. 123)....
Katy, 5.4 miles north by 4.6 miles east of, 35 feet north of road, 10 feet north of corner post on fence line north; iron post stamped "Prim. Trav. Sta. No. 59, 1915, 144 "

Feet.
140.82
143.839

Katy, 5.4 miles north by 3.9 miles east of, 30 feet northeast of $T$ road east, by corner post of fence; wire nail in hub (t. b. m. 124).
145.76

Katy, 4.4 miles north by 3.9 miles east of, 3,600 feet south of cross roads, 20 feet west of road, 6 inches from fence post; wire nail in hub (t. b. m. 125)..
Katy, 4.1 miles north by 3.5 miles east of, 0.5 mile east of Stockdick schoolhouse, 25 feet south of road, 3 feet from corner post on fence line south; iron post stamped "Prim. Trav. Sta. No. 60, 1915, 143 "
144.61

Katy, 4.1 miles north by 2.6 miles east of, 1,950 feet west of cross roads, 30 feet north of road, I foot from telephone pole; copper nail in hub (t. b. m. 126).

Katy, 4.1 miles north by 1.7 miles east of, 30 feet north of road, 600 feet northwest of wood-colored house, 1 foot from telephone pole, by witness stake; copper nail in hub (t. b. m. 127).
149.86

Katy, 4.1 miles north by 1 mile east of, 25 feet south by 25 feet east of center of cross roads, 2.5 feet from corner fence post; iron post stamped "Prim. Trav. Sta. No. 61, 1915, 154"
154.086

Katy, 4.1 miles north of, 630 feet east of cross roads, 30 feet north of road, 1 foot from corner post on fence line north, by witness stake; copper nail in hub (t. b. m. 128)
157.45

From Cypress southwest along highway to point 0.5 mile south by 2.8 miles west of Brink schoolhouse.
Cypress, 1.1 miles southwest of, on road to Baine's Ranch, by north gate post; copper nail in hub (old t. b. m. not found)
145.89

Cypress, 1.4 miles southwest of, 400 feet south of Cypress Creek, at Baine's ranch, 400 feet south of corner of barbed and woven wire fence, in root of water-oak tree; wire nail (t. b. m. 118)
Cypress, 2.4 miles southwest of, 0.8 mile south of Baine's ranch house, 20 feet south of wooden gate in east and west fence line; iron post stamped "Prim. Trav. Sta. No. 57, 1915, 153 "
153.279

Baine's ranch, 1.7 miles south of house, in open pasture, 60 feet west of dim roadway, on slight knoll, by witness stake; wire nail in hub (t. b. m. 119).
Baine's ranch, 2.4 miles south of, wire gate on east and west fence, 2 feet east of east gate post; wire nail in hub, (t. b. m. 120)
149.82

Baine's ranch house, 4.1 miles south of, 3 feet south of wire fence, 25 feet west of wooden gate in east and west fence; iron post stamped "Prim. Trav. Sta. No. 58, 1915, 145 " (traverse t. b. m. 121 not found)
144.653

Baine's ranch house, 5.1 miles south of, in open prairie, 3,500 feet north $40^{\circ}$ west of house, by witness stake; wire nail in hub (t. b. m. 122).
140.16

BOBBIN QUADRANGLE (Hockley and Waller $7^{7 \prime}{ }^{\prime}$ quadrangles).
[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]
From point 2.1 miles north of Cypress Creek Bridge north along highway to point 1.9 miles southeast of Hockley, thence southeast 2 miles along Houston \& Texas Central R. R.
Katy, 14.4 miles north and 1 mile east of, 30 feet south and 25 feet east of T road south, 1 foot from corner fence post; copper nail in hub (t. b. m. 109).

Hockley, 1.9 miles south of station, thence 1 mile south of, 2,400 feet north of right angle turn of road, 30 feet east of road, 2 feet from fence post; iron post stamped "Prim. Trav. Sta. No. 53, 1915, 204 ".

Hockley, 1.9 miles southeast of, 120 feet north and 20 feet west of road .crossing Houston \& Texas Central R. R., 25 feet north of shell road, 1 foot from telephone pole; copper nail in hub (t. b. m .110).
Hockley, 2.6 miles southeast of, on right of way fence between track and shell road, 600 feet northwest of private-road crossing, 1 foot from telephone pole; copper nail in hub (t. b. m. 111)

Feet.
207.91
202.94
203.05
 section house, in root of chinaberry tree; copper nail in hub (t. b. m. 112).

From point 1.9 miles southeast of Hockley, along Houston \& Texas Central R. R. to point 1.8 miles northwest of Hockley, thence south 3.6 miles along highway.
Hockley, 1 mile southeast of, 900 feet southeast of road crossing, 25 feet south of road, opposite sign board " 1 M . to Hockley" by telephone pole; copper nail in hub (t. b. m. 178)
213.99

> Hockley, at Houston \& Texas Central R. R. station, opposite semaphore; top of rail.
> 223.0

Hockley, 600 feet west of station, opposite milepost 36, 105 feet south of main track, 30 feet south of shell road; iron post stamped "Prim. Trav. Sta. No. 78, 1915, 221 "
Hockley, 1 mile northwest of, 120 feet south of Houston \& Texas Central R. R. track, 25 feet south of road, at corner post on fence line south; copper nail in hub (t. b. m. 179)
Hockley, 1.8 miles southwest of, 15 feet south and 30 feet west of crossroads, by telephone pole; copper nail in hub (t. b. m. 180)
Hockley, 2 miles west and 0.2 mile south of, 1.1 miles south of Houston \& Texas Central R. R. crossing, 150 feet southwest of white house, 20 feet north and 25 feet west of T road north, 8 inches from corner fence post; copper nail in hub (t. b. m. 191)
238.65

Hockley, 2.5 miles west and 0.2 mile south of, at T road south, 20 feet north of road, in line with road south, 2 feet south of fence line; iron post stamped "Prim. Trav. Sta. No. 84, 1915, 235 "
235.066

Hockley, 1.3 miles south and 2.5 miles west of, 1 mile south of T-road corner, at post on fence line east; copper nail in hub (t. b. m. 190).
Hockley, 2.3 miles south and 2.5 miles west of, at south end of lane where road turns east, 2 feet north and 1 foot west of gate post in east and west fence; copper nail in hub (t. b. m. 189)
230.83
231.66

Hockley, 2.6 miles south and 2.7 miles west of, on summit of "The Mound;" 35 feet N. $32^{\circ}$ E. of most easterly of two lone chinaberry trees; iron post stamped "Prim. Trav. Sta. No. 83, 1914, 245 "
244.869

HOUSTON QUADRANGLE (Houston Heights and Settegast $7 \frac{7}{\prime}{ }^{\prime}$ quadrangles).
[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; Iongitude $95^{\circ}-95^{\circ} 30^{\prime}$.]
From point 1.6 miles south of Fairbanks southeast along Houston \& Texas Central Ry. to Houston.

Fairbanks, 2.4 miles southeast of, 1,000 feet northwest of milepost 10,40 feet north of road; 5 feet south of fence corner, 2 feet from telephone pole; iron post stamped "Prim. Trav. Sta. No. 67, 1915, 81 "
81.077

Fairbanks, 3.3 miles southeast of, 850 feet northwest of road crossing, 20 feet south of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 141)
82.54


Eureka, 1.7 miles northwest of, halfway between mileposts 7 and 8,60 feet north and 30 feet west of road forks, 300 feet northwest of private road crossing, 5 feet from fence corner; iron post stamped "Prim. Trav. Sta. No. 68, 1915, 76 "

Feet.
Eureka, 0.8 mile northwest of, 125 feet east of Houston \& Texas Central Ry. culvert " 6 C, " 20 feet south of road, 1 foot from telephone pole; copper nail in hub (t. b. m. 143)
Eureka, 85 feet east of intersection of Missouri, Kansas \& Texas and Houston \& Texas Central railroad tracks, 15 feet north of Missouri, Kansas \& Texas Ry. track, 6 feet east of cattle guard at road crossing, in top of 3 by 4 inch post; copper nail (t. b. m. 144)
Eureka, 480 feet east of intersection of Missouri, Kansas \& Texas and Houston \& Texas Central railroad tracks, block signal on north side of Missouri, Kansas \& Texas Ry. track; bottom of square hole in concrete foundation (C. \& G. S. b. m. " $\mathrm{H}_{8}$ ")
Eureka, 0.9 mile southeast of, on Washington Avenue, 25 feet south of road, 6 inches from telephone pole; copper nail in hub (t. b. m. 145)
Houston, 0.5 mile west of city limit, on Washington Avenue, 530 feet west of Birdsall Avenue, 30 feet north of road, 5 feet east of corner fence post, 8 feet from telephone pole; iron post stamped "Prim. Trav. Sta. No. 69, 1915, 60 "
Houston, corner Washington Avenue and Roy Street, on concrete culvert; painted circle.
Houston, intersection of Bruner Avenue and Houston \& Texas Central R. R. track; top of rail

Houston, 0.2 mile north of city limit, on Bruner Avenue, 140 feet south and 50 feet west of intersection with Missouri, Kansas \& Texas Ry. track, in root of oak tree; copper nail (t. b. m. 252)
Houston Heights, on boulevard, 85 feet south of Missouri, Kansas \& Texas Ry. track, in parking midway between two electric car lines; iron post 1 inch above ground (C. \& G. S. b. m. " $\mathrm{I}_{8}$ "; Prim. Trav. Sta. No. 114)..
Houston, on Spring Street, 600 feet west of car line on Taylor Street, 32 feet north of Missouri, Kansas \& Texas Ry. track, in root of pecan tree; copper nail (t. b. m. 251).
White Oak Bayou, Missouri, Kansas \& Texas Ry. trestle over; top of rail...
Houston, at west end of Hogan Street, 280 feet northeast of south end of Missouri, Kansas \& Texas Ry. trestle over White Oak Bayou; iron post stamped "Prim. Trav. Sta. No. 113, 1915, 44"
44.341

Houston, at northeast corner of Willow and Baker streets, in center of supporting pillar at southwest corner of building of Peden Iron \& Steel Co.; red metal disk (C. \& G. S. b. m. J 8 )

From Houston, near Roy Street and Washington Avenue, south to point on West-
heimer road 1,800 feet west of city limit. heimer road 1,800 feet west of city limit.
Houston, 270 feet east of city limit, 20 feet west of Roy Street, 0.4 mile south of Washington Avenue, in root of oak tree; copper nail (t. b. m. 146)..
Buffalo Bayou, 150 feet south of south end of bridge over, in east end of concrete spillway; chiseled square
Houston, on Shepherds Dam road, 0.8 mile north of Westheimer road, at right-angle turn of road, 120 feet west of yellow house, 20 feet south of fence corner, in hub of fence post; copper nail (t. b. m. 147)
Houston, intersection of Westheimer and Shepherds Dam roads, 30 feet north and 35 feet west of, 6 inches from corner fence post; copper nail (t. b. m. 148)

## From point 1.6 miles east by 1.3 miles north of east along highway to point 1.7 miles northwest of Eureka.

> Hillendahl, 1.6 miles north and 2.3 miles east of, 30 feet north of road, 151 feet south of house, 30 feet east of lane north, in root of oak tree; copper nail (t. b. m. 162).
> Feet.
> Hillendahl, 1.6 miles north and 3 miles east of, 25 feet south of road, opposite white house, in root of mulberry tree; copper nail (t. b. m. 163)....

## ROSENBERG QUADRANGLE (including Ashford, Cypress, and Hillendahl 7(z' quadrangles).

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]
Near Cypress.
Cypress, 2.7 miles northeast of, 35 feet south and 10 feet west of crossroads, in open prairie, 1,000 feet southwest of house; iron post stamped "Prim. Trav. Sta. No. 115, 1915, 148 " (p. b. m. 115)
148. 215

Cypress, 2.1 miles northeast of, near center of public road, in rost of oak; copper nail (t. b. m. 254).
148. 72

Cypress, 1 mile northeast of, 1,200 feet northeast of crossroads, 45 feet north of road, in root of lone oak tree; copper nail (t. b. m. 253).
148.82

Cypress, 0.7 mile north of, 30 feet west of shell road, 6 inches south of corner post on fence line west; copper nail in hub (t. b. m. 214)

## Near Cypress Bridge.

Cypress Creek Bridge on Airline road, 0.7 mile south of, 20 feet west of road, 3 feet east of corner post on fence line west; iron post stamped "Prim. Trav. Sta. No. 122, 1915, 120)"

From point near Pemble's store along highways southwest and south to Fairbanks.
Pemble's store, 3.4 miles southwest of, on Ehrhardt Settlement road, 0.6 mile southwest of Airline road, 35 feet northwest of road, on small knoll; iron post stamped "Prim. Trav. Sta. No. 132, 1915, 118 "(p. b. m. 132)..
Pemble's store, 4.3 miles southwest of, 1.5 miles southwest of Airline road, 100 feet southeast of Mr. Haygraves's house, in root of mulberry tree; copper nail (t. b. m. 293)
117. 915
118.36

Pemble's store, 5.3 miles southwest of, 2.5 miles southwest of Airline road, 0.8 mile northeast of crossing of West Montgomery road and Trinity \& Brazos Valley Ry. track, 15 feet northwest of fence line, in root of oak; copper nail (t. b. m. 292)
North Houston, 1.3 miles north of, 215 feet southeast of Trinity \& Brazos Valley Ry. and West Montgomery road crossing, 55 feet east of track, 30 feet west of road, 6 feet from corner post on right-of-way fence; iron post stamped "Prim. Trav. Sta. No. 131, 1915, 122" (p. b. m. 131)
121. 672

North Houston, 0.8 mile north of, 30 feet northeast of West Montgomery road, 6 inches from corner post at junction of wire and board fences; copper nail in hub (t. b. m. 294)
117.90

North Houston, 0.5 mile N. $60^{\circ}$ E. from, 950 feet northwest of road forks, 25 feet southwest of gravel road, 6 inches from corner post on fence line west; copper nail in hub (t. b. m. 295)
111.51

North Houston, 1 mile east of, 25 feet southwest of West Montgomery road at bend, 25 feet west of dim roadway south, 3 feet east of corner fence post; iron post stamped "Prim. Trav. Sta. No. 133, 1915, 110" (p. b. m. 133)
110. 001

North Houston, 1.5 miles S. $60^{\circ}$ E. of, 30 feet east of dim road, at corner fence post, by witness stake; copper nail in hub (t. b. m. 296).
106. 47
North Houston, 1.5 miles south and 1 mile east of, 30 feet east of road, 1 foot west of corner post on fence line east, at north end of wooden gate; copper nail in hub (t. b. m. 297).

Feet.
105.93

North Houston, 2.1 miles south and 1 mile east of, 60 feet northeast of Trinity \& Brazos Valley Ry. track, 170 feet north and 25 feet east of road crossing, $2 \frac{1}{2}$ feet east of corner post on right-of-way fence; iron post stamped "Prim. Trav. Sta. No. 134, 1915, 98 " (p. b. m. 134)
97.873

North Houston, 3 miles south and 1 mile east of, 520 feet south of bridge, 30 feet east of road, in root of ash tree; copper nail (t. b. m 298)..........
Fairbanks, 1.2 miles north and 1.9 miles east of, 0.6 mile west of Trinity \& Brazos Valley Ry track, 25 feet south of road, opposite small house at corner post on fence line south; copper nail in hub (t. b. m. 283).
Fairbanks, 1.2 miles north and 1 mile east of, 20 feet north of east and west road, 25 feet east of T road north, 6 inches from corner fence post; copper nail in hub (t. b. m. 284)
Fairbanks, 4,500 feet north, $30^{\circ}$ east (magnetic) from Houston \& Texas Central R. R. water tank, 1.25 feet southwest of creek, in open prairie by witness stake; copper nail in hub (t. b. m. 285).

From point 1.7 miles northwest of Satsuma north and east along highways to Trinity \& Brazos Valley Ry., 1.3 miles north of North Houston.

Satsuma, 1.7 miles north of, 50 feet south of road, 80 feet southeast of small bridge over creek, in root of ash tree; copper nail (t. b. m. 287).
Satsuma, 2.7 miles northeast of, 35 feet north and 20 feet east of crossroads, in open prairie; iron post stamped "Prim. Trav. Sta. No. 129, 1915, 128 " (p. b. m. 129)
127. 880

Satsuma, 3.2 miles northeast of, 0.5 mile northeast of crossroads, in line with road, in root of oak; copper nail (t. b. m. 288)
Satsuma, 4 miles northeast of, 20 feet north of road, on fence line, in root of large oak; copper nail (t. b. m. 289)
Satsuma, 5.1 miles northeast of, 2 miles west of Trinity \& Brazos Valley track, 25 feet north and 25 feet east of crossroads; in open prairie; iron post stamped "Prim. Trav. Sta. No. 130, 1915, 129" (p. b. m. 130) 128.763

North Houston, 1.8 miles north and 0.5 mile west of, 25 feet north of Rosehill road, by witness stake; copper nail in hub (t. b. m. 290)
North Houston, 1.5 miles north and 0.3 mile west of, 20 feet north and 5 feet east of crossroads, 1 foot from northeast corner of small bridge; copper nail in hub (t. b. m. 291).

## From point north of Jeanetta west along Westheimer road and San Antonio \& Aransas Pass Ry. to Alief, thence along highways south 2.6 miles, thence east and north to point near Jeanetta.

Houston, 6.3 miles west of city limit, on Westheimer road, 250 feet southwest of white house, 25 feet south by 20 feet east of T road corner, beside corner fence post; iron post stamped "Prim. Trav. Sta. No. 9, 1915, 73 ".
Houston, 7.4 miles west of city limit, 2,100 feet west of drain, 30 feet north of road, on fence line north, in hub beside corner post; copper nail (t. b. m. 17)
74.53

Houston, 8.3 miles west of city limit, 25 feet north of road, on fence line north, in hub beside corner post; copper nail (t. b. m. 18)
Alief, 2 miles east by 1.3 miles north of, 350 feet north of large house, fence corner at T road south; iron post stamped "Prim. Trav. Sta. No. 10, 1915, $81 "$
Feet.81.030
Alief, 2 miles east by 0.5 mile north of, 1,240 feet south of culvert over drain- age ditch, 20 feet west of road, corner post on fence line west, in hub; cop- per nail (t. b. m. 19) ..... 80.48
Alief, 1.6 miles east of, 30 feet west of wire gate, 150 feet north of house, 30 feet north of road, in hub beside telegraph pole; copper nail (t. b. m. 20). ..... 79.80
Akief, 1.1 miles east of, 150 feet north of house, 30 feet south of road, 125 feet south of San Antonio \& Aransas Pass Ry. track and station post; iron post stamped "Prim. Trav. Sta. No. 11, 1915, 81 " ..... 80.667
Brays Bayou, San Antonio \& Aransas Pass Ry. bridge over; top of rail....Alief, 120 feet southeast of station, 180 feet southwest of road crossing, 40feet south of track, 150 feet northeast of post office, in hub beside tele-phone pole; copper nail (t. b. m. 21)79.53
Alief, 1 mile south by 0.2 mile west of, opposite Mr. Holland's residence, 25 feet east of road, beside gatepost to barnyard, in hub; copper nail (t. b. m. 22) ..... 82.09
Alief, 1.7 miles south by 0.2 mile west of, at wire gate to old road west, south- west corner of wooden culvert over ditch, 20 feet west of road; iron post stamped "Prim. Trav. Sta. No. 12, 1915, 82 " ..... 82.533
Alief, 2.6 miles south by 0.2 mile west of, at Richmond road crossing, 20 feet south of crossroads, at west gatepost, in hub; copper nail (t. b. m. 23)... ..... 87.09
Alief, 2.6 miles south by 0.8 mile east of; floor of wooden culvert.86.4
Alief, 2.6 miles south by 1.1 miles east of, 25 feet north of Richmond road, 1,200 feet S. $26^{\circ} \mathrm{W}$. of white house, corner post on fence line, in hub; copper nail (t. b. m. 24). ..... 83.95
Alief, 2.6 miles south by 1.7 miles east of, 1,250 feet east of small angle inroad about 0.5 mile S. $67^{\circ} \mathrm{E}$. of white house, 35 feet north of road; ironpost stamped "Prim. Trav. Sta. No 13, 1915, 82 "81.593
Alief, 2.6 miles south by 2.4 miles east of, 50 feet north of road, in base of lone wesatch tree; copper nail (t. b. m. 25) ..... 75.05
Alief, 2.6 miles south by 3.5 miles east of, 30 feet south of road, 50 feet north of house, 400 feet west of $T$ road south and private road north, in hub beside fence post; copper nail (t. b. m. 26). ..... 72.48Missouri City, about 4.2 miles north of, 60 feet east of Richmond road atforks, 250 feet southwest of wooden bridge over Brays Bayou; iron poststamped "Prim. Trav. Sta. No. 14, 1915, 67 "66.899
Bellaire, about 3 miles west of, on Richmond road, 10 feet north of road, 20 feet south of fence, in base of wesatch tree; copper nail (t. b. m. 79). ..... 67.89
Bellaire, about 2.2 miles west of, 45 feet south of Richmond road, 10 feet east of gatepost, at corner post on fence line south; iron post stamped "Prim. Trav. Sta. No. 39, 1915, 67 " ..... 66. 650
Bellaire, about 2.2 miles west of, 0.4 mile north of Richmond road, at fence corner on open prairie, in hub; copper nail (t. b. m. 80) ..... 68. 37
Jeanetta, 1 mile S. $70^{\circ}$ E. of, 150 feet southwest of old ditching machine, in open prairie by witness stake, in hub; copper nail (t. b. m. 81) ..... 72.18
Jeanetta, 1 mile southeast of, 1,200 feet north of old ditching machine, 300 feet west of ditch, in base of lone elm tree; copper nail (t. b. m. 82) ..... 72.14
Jeanetta, 1 mile east of, on San Antonio \& Aransas Pass Ry. track, between signboards "Tank 1 Mi." and "Jeanetta 1 Mi.," 50 feet north of track, by telephone pole, in hub; copper nail ..... 70.43
From point 4.2 miles north of Missouri City south along highways to Missouri City, thence east-northeast along Southern Pacific R. R. to Pierce Junction.
Missouri City, about 3.4 miles north of, 40 feet east of road, at corner post on fence line east, in hub; copper nail (t. b. m. 27)

Feet.

Missouri City, 2.6 miles north of, 50 feet northwest of right angle turn in
road, 150 feet southwest of large barn, in hub at fence corner; copper
nail (t. b. m. 28)
Missouri City, 1.7 miles north of, at angle of road, 30 feet south of bridge over drainage ditch; iron post stamped "Prim. Trav. Sta. No. 15, 1915, 73". ..... 72.764
Missouri City, 1.2 miles N. $20^{\circ} \mathrm{W}$. of, 30 feet southeast of road, at corner post on fence line southeast, in hub; copper nail (t. b. m. 29) ..... 74.66
Missouri City, 0.9 mile northwest of, 60 feet south of road forks, 600 feet north of house, in hub at corner post; copper nail (t. b. m. 30). ..... 78.38
Missouri City, 70 feet south of station, 90 feet southeast of road crossing, 8 feet east of stile over fence, 20 feet north of Houston road; iron post stamped "Prim. Trav. Sta. No. 16, 1915, 80" ..... 80. 250
Missouri City, 0.8 mile northeast of, 300 feet east of private-road crossing, 40 feet northwest of Houston road, in hub beside telephone pole; copper nail (t. b. m. 31). ..... 71.98
Missouri City, 1.7 miles northeast of, on Houston road, 150 feet southwest of whistle post for road crossing, between road and Southern Pacific R. R. track, in hub beside telephone pole; copper nail (t. b. m. 32). ..... 70.27
Missouri City, 2 miles northeast of, road crossing, 60 feet north of Houston road; top of rail. ..... 74.2Missouri City, 2.6 miles northeast of, on Houston road, 50 feet southeast ofSouthern Pacific R. R. track, 30 feet north of road, 2 feet outside right ofway fence; iron post stamped "Prim. Trav. Sta. No. 17, 1915, 70".70.391

## Bobbin, Brenham, and Rosenberg $30^{\prime}$ quadrangles.

## WALLER COUNTY.

The elevations in the following list were determined by primary leveling by D. S. Birkett in 1916. The lines were run in order to connect Harris County leveling of 1915 with elevations along Brazos River, established in 1909-10.
Additional elevations in the vicinity will be found on pages 158-183, also in Bulletin 644-P.

## BOBBIN QUADRANGLE. <br> [Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.] <br> From Waller west along Houston \& Texas Central R. R. to Prairie View.

Waller station, about 1,900 feet east of, 47 feet south of Houston \& Texas Central R. R., 23 feet southeast of county-line post, 2.5 feet north of
fence line; iron post stamped "Prim. Trav. Sta. No. 80, 1915, 242"

Feet.
241.632 (Monbeck's line, 1915)
Waller, 0.4 mile west of, Houston \& Texas Central R. R. bridge 41 A, on top of south end of east abutment; chiseled square.
239.88

Waller, 1.5 miles west of, Houston \& Texas Central R. R. bridge 42 C, southeast corner of east abutment; chiseled square.
245.58

Prairie View, 2 miles east of, 800 feet east of Pennington's store, on south side of public road, at top of hill, in telephone pole; railroad spike painted "U. S. 278 B. M.".
278.40
Prairie View, 0.6 mile east of, Houston \& Texas Central R. R. bridge 45 C,

Feet. 241.49 in top of southeast corner of east abutment; chiseled square 253.1

Prairie View station, opposite semaphore; top of nearest rail.

# BRENHAM QUADRANGLE. <br> [Latitude $30^{\circ}-30^{\circ} 30^{\prime}$ : longitude $96^{\circ}-96^{\circ} 30^{\prime}$.] 

## From Prairie View west along Houston \& Texas Central R. R. to Brazos River.

Prairie View, 0.7 mile west of, 7 telegraph poles east of milepost 47,20 feet south of Houston \& Texas Central R. R. track, in top of west concrete emergency rail stand; chiseled square
245.14
Prairie View, 2.4 miles west of, Houston \& Texas Central R. R. bridge over Clear Creek, south end of east abutment; bronze tablet stamped "Prim. Trav. Sta. No. 4, 1916, 208'
207.463
Hempstead, 0.25 mile east of road crossing at cattle guard 49 B ; top of rail..
Hempstead, Waller County courthouse, top of limestone balustrade, east side of steps, at south entrance; bronze tablet stamped "Prim. Trav. Sta. No. 5, 1916, 249''
240.2
Hempstead, 1 mile west of, on Brenham branch of, Houston \& Texas Central R. R., opposite milepost 1, top of vertical iron section rail 18 inches above ground; chiseled cross.
Hempstead, 1.9 miles northwest of, 330 feet east of milepost 2, on Brenham branch of Houston \& Texas Central R. R., top of east end of south head wall of concrete culvert 1 D ; chiseled square.
Pointer, 0.5 mile east of, 60 feet south of Houston \& Texas Central R. R., 30 feet north of public road, 5 feet north of wire fence, opposite milepost 3, on top of section rail; chiseled cross.
Pointer, opposite signpost; top of nearest rail.
Pointer, 0.2 mile west of, on Brenham branch of Houston \& Texas Central R. R., 150 feet south of track, 25 feet south of public road; iron post stamped "Prim. Trav. Sta. No. 25, 1909, Texas, No. 16 " ( +0.428 closure).
Pointer, 0.5 mile west of, 800 feet west of road crossing Houston \& Texas Central R. R., 50 feet south of track, opposite milepost 4, on top of section rail; chiseled cross
202.11
Harmon, 0.5 mile east of, 50 feet south of Houston \& Texas Central R. R. track, 5 feet north of wire fence, on top of section rail; chiseled cross....
Harmon, 175 feet west of, 2 feet south of milepost 6,50 feet south of Houston \& Texas Central R. R. track, on top of section rail; chiseled cross.
158.69
Harmon 0.8 mile west of H oustop \& Texas Cetral R R brid....... Brazos River, in top of south end of east pier; aluminum tablet stamped "Prim. Trav. Sta. No. 26, 1909, Texas"1
171.804
Harnson, 0.8 mile west of, Brazos River bridge, top of west pier, no mark (U. S. Army Engineers elevation 196.01).
171.54

## ROSENBERG QUADRANGLE.

$$
\text { [Latitude } 29^{\circ} 30^{\prime}-30^{\circ} \text {; longitude } 95^{\circ} 30^{\prime}-96^{\circ} \text {.] }
$$

From McDowell east along Missouri, Kansas \& Texas Ry. to Katy. (Along U. S. C. \& G. S. precise level route.)

McDowell, 0.5 mile east of, Missouri, Kansas \& Texas Ry. bridge over Brazos River, south side, top of east abutment; aluminum tablet stamped "129.1 Prim. Trav. Sta. 10" ${ }^{2}$
Rogersville, 0.15 mile east of, opposite railroad trestle 1043.6 , in southwest corner of small wooden wagon bridge; wire nail, painted "U. S. Feet. 116 B. M."
McDowell, 2.5 miles east of, 2 miles east of Missouri, Kansas \& Texas Ry. bridge over Brazos River, 6 telegraph poles west of milepost 1045, 50 feet north of track; iron post (C. \& G. S. b. m. T $\mathrm{T}_{7}$ )
Brookshire, 1.75 miles west of, 170 feet south of railroad trestle 1045.6, on east side of wagon road, in root of pecan "tree; spike, painted "U. S. 125 B. M."
115.92
120.095
Brookshire, 0.8 mile west of, small wooden bridge on wagon road to river, in southwest corner; wire nail "U. S. 146 B. M."
Brookshire High School, north entrance of building, in top of west side of concrete steps; chiseled square
124. 98
146. 28
164.78
Brookshire, opposite station; top of rail.
Brookshire, 0.9 mile east of, opposite Missouri, Kansas \& Texas Ry. trestle 10481, southwest corner of wooden bridge on wagon road; wire nail in post painted "U. S. 155 B. M."
154.64
Brookshire, 3 miles east of, 45 feet north of Missouri, Kansas \& Texas Ry. track at milepost 1051; iron post (C. \& G. S. b. m. V ${ }_{7}$ )
157. 158
Dorson, opposite signpost; top of nearest rail
Katy, 3 miles west of, 2 telegraph poles east of milepost 1053,150 feet east of road crossing; in telephone pole; railroad spike, painted "U. S. 152 B. M."
151.82
Katy, 1 mile west of, 12 feet north of Missouri, Kansas \& Texas Ry. track, opposite 2 -story white house, on north end of concrete culvert; chiseled square.
143.15
Katy, 520 feet west of station, on Missouri, Kansas \& Texas Ry., 42 feet south of center of track, 4 feet east by 2 feet south of telephone pole; iron post stamped "Prim. Trav. Sta. No. 47, 1915, 141".
140.984
Katy, about 574 feet west by 328 feet south of station, water tank of Katy Rice Milling Co., in southwest corner of foundation; copper bolt (U. S. C. \& G. S. b. m. $\mathrm{X}_{7}$ )
141.355

## APPENDIX A.

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

\author{


#### Abstract

AUSTIN, BASTROP, BELL, CALDWELL, CALLAHAN, CAMP, CASS, COMAL, CORYELL, DALLAS, EASTLAND, ECTOR, EL PASO, FAYETTE, GALVESTON, HARRIS, HARRISON, HAYS, HILL, HOPKINS, HOWARD, HUNT, JOHNSON, LAMPASAS, MCLENNAN, MARION, MARTIN, MIDLAND, MITCHELL, MONTAGUE, MORRIS, NOLAN, PALO PINTO, PARKER, REEVES, ROCKWALL, STEPHENS, TARRANT, TAYLOR, TRAVIS, WALLER, WARD, WILLIAMSON, AND WISE COUNTIES.


}

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

## ABILENE QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $99^{\circ} 30^{\prime}-100^{\circ}$.]

## From Clyde west along Texas \& Pacific Ry. to Merkel.

[^6]Abilene, about 5 miles west of, on the north side of the railway track and west of the county road that crosses the railroad at this point; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. B ${ }_{13}$ )

Feet.
$1,722.825$

Tye, in the northeast corner of the yard of the section foreman's house belonging to the railway, 8 meters south of the center of the main-line track; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{C}_{13}$ )

1, 799.380
Tye, 225 meters west of the railway depot, 14 meters north of the track and just west of a road which crosses the track; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{D}_{13}$ )

1, 794. 501
Merkel, about 4.2 miles east of, in the county road, 2 meters from the railway right-of-way fence, on the north side of the railway at milepost 419 (3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{E}_{13}$ )

1, 776.397

## AGUA NEGRA QUADRANGLE.

[Latitude $34^{\circ}-34^{\circ} 30^{\prime}$; longitude $102^{\circ} 30^{\prime}-103^{\circ}$.]

## From Bovina to Wilsey.

Bovina, about 1.5 miles west of, on the Atchison, Topeka \& Santa Fe Ry. bridge 635B, which is a 48 -inch cast-iron pipe culvert, on top of the north concrete head wall 10 inches from the west end; red metal disk (C.\& G.S. b. m. $\mathrm{C}_{21}$ )

4, 050.812
Bovina, about 4 miles west of, on the railway right of way, 15 meters north of the center of the track and 4 poles west of the pole marked 638; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. D ${ }_{21}$ )
$4,085.126$
Wilsey, on the railway right of way, 14 meters south of the center of the main-line track, 20 meters east of the station sign, and 2 meters west of the pole marked 641; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{E}_{21}$ ). 4, 168. 597
Wilsey, about 2 miles west of, 18 meters south of the center of the railway track, at pole marked 743, 9 meters west of a rail marking the exact mile, 1 meter off the right of way, and 20 meters north of a wagon road; bottom of hole in top of stone post (C. \& G. S. b. m. F $\mathrm{F}_{21}$ )
$4,132.423$

## AMARILLO QUADRANGLE. <br> [Latitude $35^{\circ}-35^{\circ} 30^{\prime}$; longitude $101^{\circ} 30^{\prime}-102^{\circ}$.]

From Yarnall west along Chicago, Rock Island \& Gulf Ry. to Amarillo, thence southwest along Atchison, Topeka \& Santa Fe Ry. to Canyon.
Yarnall, across the track from the section house, near the corner of the fence, 50 meters south of the center of the track; bottom of hole in top of stone post (C. \& G. S. b. m. R $\mathrm{R}_{19}$ )
Yarnall, about 4 miles west of, on the railway right of way, at the west end of a long fill and near the east end of a cut, just east of a wagon trail crossing, 29 meters north of the center of the track, and 1.5 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{S}_{19}$ ) ........
Royal, on the railway right of way, 27 meters south of the center of the Royal, on the railway right of way, 27 meters south of the center of the track, in front of and across the track from the section house and in range with the west end, 5 meters from the fence on the bank of a ditch

- bordered with locust bushes; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{T}_{19}$ )

Amarillo, about 6.5 kilometers east of, on the railway right of way, 28.7 meters north of the center of the track at the point of tangent of the first curve out of Amarillo, at the point where the Chicago, Rock Island \& Gulf Ry., and the Atchison, Topeka \& Santa Fe Ry. tracks begin to diverge, 35.2 meters from the center of the latter track, on the curve $1 \frac{1}{2}$ poles east of pole $756 / 30$, and 96 meters east of bridge 7569 ; 3 -inch red metai cap on iron pipe (C. \& G. S. b. m. U U $_{19}$ ).

[^7]Amarillo, about 2 kilometers east of the Atchison, Topeka \& Santa Fe Ry. depot, on the Chicago, Rock Island \& Gulf Ry. right of way, 3 meters west of the center of the track on the concrete foundation of the east semaphore for crossing the tracks of the other railway; red metal disk (C. \& G. S. b. m. V ${ }_{19}$ )

Feet.
Amarillo, about 1.3 kilometers east of the Atchison, Topeka \& Santa Fe Ry. depot, directly south of the west end of the signal tower at the crossing of this railway, the Chicago, Rock Island \& Gulf Ry., and the Fort Worth \& Denver City Ry., 18 paces from the tracks of the first, 63 paces from the tracks of the second, and 18 paces from the tracks of the last mentioned railway; 3 -inch red metal cap on iron pipe (C.\& G.S.b. m. W $\mathrm{W}_{19}$ ).
Amarillo, on the front face of the north pillar supporting the center arch of the porch of the Atchison, Topeka \& Santa Fe Ry. depot, 20 meters west of the center of the main-line track, and 1.44 meters above the brick paving; red metal disk (C. \& G. S. b. m. X $_{19}$ ) ..

3, 667.447
Amarillo, on the south face of the foundation of Amarillo City Hall, near the southwest corner, at the elevation of the corner stone, and 0.4 meter distant; red metal disk (C. \& G. S. b. m. Y 19 ).

3, 663.713
Zita, just west of the south end of the Atchison, Topeka \& Santa Fe Ry. station, 29.8 meters west of the center of the main-line track, near the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{Z}_{19}$ )

Zita, south of, opposite the iron rail marking mile 560 , in line with the telegraph poles, 15 meters south of pole $560,21.8$ meters west of the center of the track, and 9 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. A ${ }_{20}$ )
Haney, on the right of way of the railway, 34 meters west of the center of the main-line track at the station sign, 1.2 meters from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. B ${ }_{20}$ )

3, 641. 203

Canyon, about 4.7 miles east of, at the east end of Haney Pit, on top of the west end of the south abutment of the railway bridge 565 A ; red metal disk (C. \& G. S. b. m. $\mathrm{C}_{20}$ )

3, 592.686

## ANGLETON QUADRANGLE.

[Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]

## Near Dickinson.

League City, 2 miles southeast of, on the public highway, $11 \frac{1}{2}$ telegraph poles southeast of mile board 26 , in the east corner of a grade crossing, two-thirds meter from the corner of the right of way fence; 3 -inch red metal cap set in clay (C. \& G. S. b. m. W ${ }_{8}$ )
Dickinson, one-third mile northwest of, on the right of way of the Galveston, Houston \& Henderson R. R., $9 \frac{1}{2}$ telegraph poles southeast of mile board 28 , in the center of the top surface of a concrete culvert, $6 \frac{1}{2}$ meters southwest of the tracks; red metal disk (C. \& G. S. b. m. X ${ }_{8}$ )
21. 303

Dickinson, in the park owned by the Galveston, Houston \& Henderson R. R. Co., 5 telegraph poles southeast of the station, 35 meters northeast of the Galveston, Houston \& Henderson R. R. tracks, in the corner of a fence; bottom of hole in top of stone post (C. \& G. S. b. m. Y $\mathrm{Y}_{8}$ ).
Dickinson, one-half mile southeast of, 11 telegraph poles southeast of mile board 29, in the southwest corner of a grade crossing, 13 meters southwest of the Galveston, Houston \& Henderson tracks, on land owned by C. Nolan; 3-inch red metal cap set in clay (C. \& G. S. b. m. Z $\mathrm{Z}_{8}$ )

# AUSTIN QUADRANGLE. <br> [Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.] <br> <br> From Manor west along Houston \& Texas Central R. R. to Austin. 

 <br> <br> From Manor west along Houston \& Texas Central R. R. to Austin.}

Manor, in the front wall of the brick building facing on the main street of the town, owned by Mr. Harris and occupied by W. H. Richardson, hardware and general merchandise, in the street facing of the west wall of the building, about 1.4 meters above the sidewalk and about 0.6 meter west of the show window; the center of a cross cut in the face of a copper bolt (C. \& G. S. b. m. L ${ }_{5}$ )

Daffan, about 445 meters west of the railroad depot, about 56 meters west of the first cattle guard west of the station, about 1 meter south of the line of telegraph poles and about 7 meters north of the main track; bottom of hole in top of stone post (C. \& G. S. b. m. M $\mathrm{M}_{5}$ )
Austin, about $5 \frac{1}{2}$ miles east of the railroad passenger depot, on the west stone abutment of the railway bridge over Walnut Creek, in the top layer of the backing, 1.35 meters north of the main track, in the top of the stone, 0.18 meter west of the east edge and roughly lettered "U. S. B. M."; top of copper bolt (C. \& G. S. b. m. N 5 )
Austin, in the Driskill Hotel building, corner of Brazos and Sixth streets, in the top of the limestone step to the first door west of the entrance to the American National Bank; about 1.2 meters from the door and 0.5 meter from the wall; the top of a copper bolt (C. \& G. S. b. m. $\mathrm{O}_{5}$ ) ......
Austin, in the passenger depot of the Houston \& Texas Central R. R., corner of Congress Avenue and East Third Street, in the south wall, bay projection, just west of the large door of the general truck or baggage room, in the face of the wall about 1.75 meters from the ground and 0.2 meter from the inside corner; copper bolt (C. \& G. S. b. m. P ${ }_{5}$ ) $\qquad$ Austin, in the freight yard of the railroad, 60 meters west of the office door of the freight depot, close to a telegraph pole and 5 meters north of the northernmost track; iron post (Geol. Austin) (U. S. G. S. b. m.).
479. 304
490.314

Austin, on Capitol Hill; in the center of the top of the square stone pillar marking the north end of the meridian line established in 1872; a cross on the copper bolt (north meridian mark)
Austin, on the southwest corner of the post office, facing Colorado Street; 3-inch metal disk (508 Austin) (U. S. G. S. b. m.)
Austin, on the highway bridge over Colorado River, in the west end of the south rock pier; a copper bolt, marked " 476 feet" ( 476 Austin) (U. S. G. S. b. m.)

Austin, about 6 miles west $19^{\circ} \mathrm{N}$. of, on the north side of the Austin and Bee Caves road, on very rough ground, upon a prominent wooded hill, abreast and north of the 8 -mile post from Austin; the station mark is 2inch iron pipe embedded in and filled with concrete, with a nail projecting from the concrete; the bench mark is a chisel mark on the rim of the iron pipe (Barton Triangulation Station).

## BAIRD QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $99^{\circ}-99^{\circ} 30^{\prime}$.]

## From Cisco west along Texas \& Pacific Ry. to Clyde.

Cisco, about 4.4 miles west of, on the south side of the track, 10 meters west of bridge 366A over by-road, 14 meters from the center of the track and in line with the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G, S, b, m. $I_{12}$ )
$1,656.079$

Dothan, about 2 miles east of, 2 miles south and 5 miles west of Cisco, 1 mile south of the old base line public road, on one of the highest points of an extensive plateau, on the property of J. J. Livingston in a grove of low oak trees, just to the east of a north and south road; the south gable of J. F. Lamb's house is distant about 120 meters in azimuth $158^{\circ} 12^{\prime}$, and the east chimney of Livingston's house 78 meters in azimuth $356^{\circ} 28^{\prime}$; the bench mark is the surface mark of a Coast and Geodetic Survey triangulation station and is marked by the point of a fortypenny nail projecting $\frac{1}{4}$ inch above the concrete that fills an iron pipe $1 \frac{1}{2}$ inches in diameter, which in turn is embedded in a cylinder of concrete 20 inches in diameter (Lamb Triangulation Station).

Feet.
Dothan, about 2 miles east of, 21.1 meters in azimuth $105^{\circ} 24^{\prime}$ from Lamb Triangulation Station, described above, and 0.40 meter east of the fence line on the east side of the road; the point of a fortypenny nail projecting $\frac{1}{4}$ inch above the concrete that fills an iron pipe $1 \frac{1}{2}$ inches in diameter, which in turn is embedded in a cylinder of concrete 12 inches in diameter (Lamb Ref. Mark)

1,753. 862
Dothan, 180 meters west of the depot on the north side of the railway track and 1 meter from the fence between the railroad right of way and the county road; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{J}_{12}$ ) . . 1, 618.451
Putnam, about 3.3 miles east of, on the railway right of way, 15 meters north of the center of the track on the east side of the county road that crosses the track at this point; 3 -inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{K}_{12}$ ).
$1,570.623$
Putnam, 3 meters from the southwest corner of the square containing the mineral wells of the Putnam Mineral Water Co., 46 meters from the main line of the railway, 26.95 meters from southwest corner of the Farmers' State Bank Building; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{L}_{12}$ ).

1, 603. 117
Putnam, on the Farmers' State Bank, 1.70 meters west of the southeast corner, and 0.55 meter above the sidewalk; copper bolt (C.\& G. S. b. m. M M 12 ).
Putnam, about 2.5 miles west of, on the railway right of way, 15 meters south from the center of the track, and west of the county road that crosses the track at this point; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. N $\mathrm{N}_{12}$ ). 1, 506. 129
Chautauqua, on the railway right of way, 19 meters south of the center of the main-line track at the station, and 1 meter from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{O}_{12}$ ).
$1,525.624$
Chautauqua, about 2.9 miles west of, on the railway bridge 384A, over Mexia Creek, 0.25 meter from north end and 0.20 meter from east side of east abutment; bottom of hole in horizontal surface (C. \& G. S.b. m. P $\mathrm{P}_{12}$ ). 1, 591.910
Baird, about 1.8 miles east of, on the railway bridge 385A, over Mexia Creek, on top of the north end of the east abutment; copper bolt (C. \& G. S. b. $\mathrm{m} . \mathrm{Q}_{12}$ )

1,632. 008
Baird, near the southwest corner of the station park east of the depot; bottom of hole in top of stone post (C. \& G. S. b. m. R $\mathrm{R}_{12}$ )
$1,718.573$
Baird, on the south face of the southeast corner stone of the Callahan County courthouse, 3 feet from the ground; red metal disk (C. \& G. S. b. m. S S $_{12}$ ). 1, 724. 852
Baird, about 3 miles west of, on the railway right of way, 9 meters north of the track, 2 meters east of the line fence running north and 18 meters from a double oak tree in the county road; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. T ${ }_{12}$ )
$1,903.625$
Clyde, on the railway right of way, 15 meters north of the center of the track and 97 meters east of the depot; bottom of hole in top of stone post (C. \& G. S. b. m. U 12 )

1,987. 050

# BARSTOW QUADRANGLE. <br> [Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $103^{\circ}-103^{\circ} 30^{\prime}$.] <br> <br> From Pyote southwest along Texas \& Pacific Ry. to Pecos. 

 <br> <br> From Pyote southwest along Texas \& Pacific Ry. to Pecos.}

Pyote, about 6.6 kilometers west of, on the right of way, opposite a bungalow distant 175 meters to the south, 13.4 meters south of the center of the track, and 1.8 meters from the right-of-way fence; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. X ${ }_{15}$ ).

Feet.
Quito, on the railway right of way, 13.5 meters south of the track, and 0.25 mile west of the section foreman's dwelling house, stone post; bottom of hole in top of (C. \& G. S. b. m. Y $\mathrm{Y}_{15}$ ).
$2,686.507$
Quito, about 1.7 miles west of, on railway bridge 635 A , on the main line 50 meters east of the quarry spur, on top of the south end of the coping stone of the east abutment, 0.15 meter from the west side of the stone and 0.55 meter from the south end, 2.20 meters from the center of the track, and 1 meter below the rail; bottom of hole in horizontal surface (C. \& G. S. b. m. Z ${ }_{15}$ ).

Quito, about 2 miles west of, on railway bridge 635 D , on top of the north end of the coping stone of the west abutment, 0.66 meter from the east side and 0.80 meter from the north end of the stone, 0.90 meter below the rail, and 2.10 meters north of the center of the track; copper bolt (C. \& G. S. b. m. A ${ }_{16}$ )
$2,659.355$
Quito, about 2.3 miles west of, on railway bridge 636A, just west of a rock quarry, on top of the north end of the west abutment, 1.15 meters from the north end and 0.14 meter from east edge of the coping stone, 1.5 meters from the center of the track and 0.9 meter below the rail; bottom of hole in horizontal surface (C. \& G. S. b. m. B ${ }_{16}$ )

2, 655.461
Barstow, about 5 kilometers east of, on the south end of the east abutment of a railway culvert, 0.30 meter from the west side and 0.55 meter from the south end of the coping stone, 2.23 meters south of the center of the track, and 0.9 meter below the rail; bottom of hole in horizontal surface (C. \& G. S. b. m. C 16 ).
$2,651.343$
Barstow, about $4 \frac{1}{2}$ miles northeasterly from, on the northwest corner and highest point of the first very prominent hill northeast of Barstow, $1^{\frac{3}{4}}$ miles north $28^{\circ}$ W. from Rogers's rock quarry, and in the pasture of N. L. Hays, whose ranch house is 1 mile S. $55^{\circ} \mathrm{E}$. from station; the surface mark of a Coast and Geodetic Survey triangulation station, a standard cap station mark screwed to the top of a 3 -inch iron pipe which is embedded in concrete (C. \& G. S. b. m. Hays Triangulation Station).
Barstow, about 1 kilometer east of, 3.35 feet east of the house near the track on the north side, 12.6 meters north of the center of the track, 2.7 meters south of the right-of-way fence, and 25.4 meters north of section post 176-177; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. D $\mathrm{D}_{16}$ ).
$2,564.647$
Barstow, in the Ward County courthouse yard, 31.2 meters south and 4.7 meters west of the center of the main entrance to the building, 4.7 meters west of the front gateway, and 2.3 meters north of the south yard fence; bottom of hole in top of stone post (C. \& G. S. b. m. E $\mathrm{E}_{16}$ )
$2,567.029$
Barstow, about 1.6 miles west of, on the railway right of way, 4.3 meters west of bridge 641 A , which is an inverted siphon for an irrigation ditch, 12.50 meters south of the center of the track, and 1.88 meters from the right-of-way fence; 3-inchred metal cap on iron pipe (C. \& G. S. b. m. F ${ }_{18}$ ). 2, 565. 913
Pecos, about 4.9 kilometers east of, on the railway right of way, 20.9 meters west of bridge 643 A over an irrigation ditch, 13.5 meters south of the center of the track, and 1.75 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. G ${ }_{16}$ ).
$2,567.439$

Pecos, about 2.1 miles east of, on railway bridge 644 B over the Pecos River, on top of the north end of the west abutment, 0.33 meter from the east side of the coping stone, 0.54 meter south of the center of the north truss, 1.75 meters from the north end of the abutment, 2 meters north of the center of the track, and 0.8 meter below the rail; copper bolt (C. \& G. S. b. $\mathrm{m} . \mathrm{H}_{16}$ ).

Feet.
Pecos, across the street from the Texas \& Pacific Ry. passenger station, on the north wall of the annex to the Orient Hotel, 0.8 meter from the northeast corner, 0.3 meter from the east side of a window, and 1.10 meters above the sidewalk; red metal disk (C. \& G. S. b. m. $\mathrm{I}_{16}$ ).
$2,586.947$
Pecos, in the northeast corner of the yard of the section foreman's dwelling house, 9 meters south of the center of the main line of the railway; bottom of hole in top of stone post (C. \& G. S. b .m. J J 16 ).
Pecos, about 6.5 kilometers west of, on the railway right of way, 2.4 meters from the south fence, 13.1 meters south of the center of the track, and 10.4 meters south by west of section post 178-179; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. K $\mathrm{K}_{16}$ )

2, 644. 224

## BIG SPRING QUADRANGLE. <br> [Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $101^{\circ}-101^{\circ} 30^{\prime}$.] <br> From Westbrook west along Texas \& Pacific Ry. to Big Spring.

Westbrook, about 4.6 miles west of, on the railway right of way at milepost 490, 13 meters north of the center of the track and 1 meter from the fence between the right of way and the county road; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. E 14 ).
$2,220.239$
Iatan, 9 meters east of the depot, on the railway right of way, 7 meters south of the center of the main-line track, and 4.3 meters N. $15^{\circ} \mathrm{E}$. of a large cottonwood tree; bottom of hole in top of stone post (C. \& G. S. b. m. F ${ }_{14}$ ) . .
$2,211.154$
Iatan, about 4.4 kilometers west of, on the railway right of way, and $7 \frac{1}{2}$ telegraph poles west of milepost 497, and 12 meters north of the center of the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. G14) .........
Coahoma, about 5.8 kilometers east of, on the railway right of way at milepost 500,12 meters south of the center of the main-line track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. H ${ }_{14}$ )
$2,314.320$
 of the railway depot, and 31 meters south of the center of the main-line track; bottom of hole in top of stone post (C. \& G. S. b. m. I $\mathrm{I}_{14}$ )

2, 406.997
Coahoma, about 3 kilometers west of, on the railway right of way, 10 meters west of the fourteenth telegraph pole west of milepost 504 , and 14 meters north of the center of the track; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. J ${ }_{14}$ ).
$2,424.709$
Big Spring, about 1.3 kilometers east of, on the railway right of way, at the tenth telegraph pole east of milepost 512 , just east of a road crossing which is at the west end of a short cut, and 10 meters north of the center of the track; bottom of hole in top of stone post (C. \& G. S. b. m. K
Big Spring, at grade line on the north face of the new brick depot of the railway, 16.35 meters from the northeast corner of the building, 4.15 meters west of the center of the main entrance and 13.35 meters from the center of the main-line track; red metal disk (C. \& G. S. b. m. $\mathrm{L}_{14}$ ).. 2, 401. 809
Big Spring, 22 meters from the center of the main-line track of the railway, on the west sidewalk in the front yard of the railway Y. M. C. A. Building, 10.95 meters from the northwest corner of the building, 8.15 meters north of the west column of the porch, and 13.90 meters from the northeast corner of the porch; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{M}_{14}$ ).

Big Spring, in the southwest corner of the courthouse yard, on top of the hard limestone monument 7 inches square, projecting 6 inches above the surface, which marks the south end of the meridian line established in 1901 (the north end of the meridian line is probably destroyed by recent
improvements); the center of the " G " of the inscription "U.S.C. \& G.S." (South End meridian line)

Feet. $2,433.529$

## BASTROP QUADRANGLE.

[Latitude $30^{\circ}-30^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]

## From Coupland south to Elgin, thence west to Lettig.

Coupland, a United States Geological Survey bench mark, opposite the station, 50 feet east of main track of Missouri, Kansas \& Texas Ry. and 5 feet east of the southwest corner of the fence inclosing the section-house yard; an iron post marked " 526 " ( 526 Coupland)
517. 030

Coupland, about onesfourth mile south from, on the line of the Missouri, Kansas \& Texas Ry., $9 \frac{1}{2}$ rails north from milepost 927, opposite the south end of the first switch west of the main track, about 35 feet west of the main track and 4 feet east of the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. G 5 ) .
526.111

Elgin, at Union passenger station, 7 feet east of the southeast corner of a small park, 115 feet east of the crossing of the Missouri, Kansas \& Texas Ry. and the Houston \& Texas Central R. R., 20 feet north of Houston \& Texas Central R. R. main track; an iron post marked " 576 S. A." (576 S. A.) (U. S. G. S. bench mark)

Littig, in the southwest corner of the yard of section house 115, almost opposite the east end of the switch and about 8 meters north of the main track of the Houston \& Texas Central R. R., about 1.2 meters north and east, respectively, of the south and west fences bounding the yard; bottom of hole in top of stone post (C. \& G. S. b. m. K

## From Elgin south along Missouri, Kansas \& Texas Ry. to Smithville.

Elgin, on the east side of the station of the Missouri, Kansas \& Texas Ry., and the Houston \& Texas Central R. R., in the brick wall of the bay projection, 4 feet above the ground, 4 inches above the base of the bay window toward the Missouri, Kansas \& Texas Ry. track, and 2 feet south of the window along the wall; copper bolt (C. \& G. S. b. m. H ${ }_{5}$ ).
574.973

Elgin, about $1 \frac{1}{2}$ miles south of the station, on the line of the railway, about 15 feet south from milepole 936, and 3 feet inside of the west right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. I ).
Sayers, about one-half mile north of the freight shed or station on the line of the Missouri Kansas \& Texas Ry., about 130 feet north of milepost 943, 5 feet inside the east right of way fence; bottom of hole in top ot stone post (C. \& G. S. b. m. J 5 )
Sayers, about $1 \frac{3}{8}$ miles south of, on a large concrete culvert about 140 meters north of a public road crossing, in the concrete of the culvert in the south corner of the east end, about 0.1 meter from each of the two edges of the corner of the culvert; copper bolt (C. \& G. S. b. m. Q ${ }_{5}$ ).
Sayers, about $1 \frac{1}{2}$ miles south of, and $8 \frac{3}{4}$ miles north of Bastrop, $4 \frac{1}{2}$ telegraph poles south of milepole 945,5 feet east of the northwest corner of the right of way fence at the public-road crossing; iron post, marked " 449 S. A." (449 S. A.) (U. S. G. S. b. m.)
544.841
396. 879
429. 166

Bastrop, about 4 miles north of, about 70 meters south of milepole 950 , a stone post in the line of telegraph poles 8.5 meters east of the track and about 6.5 meters west of barbed-wire fence bounding the right of way; bottom of hole in top of stone post (C. \& G. S. b. m. R $\mathrm{R}_{5}$ )
568. 004
461. 101
441.000
433. 936

Bastrop, $4 \frac{1}{2}$ miles north of, at the crossing of the Bastrop and Elgin public road, 3 feet outside of the southeast corner of the right of way fence; iron post marked " 460 S. A." (U. S. G. S. b. m.)

Feet. 452.555

Bastrop, 1.66 miles north of, at the northeast end of the east rock pier of the bridge over Piney Creek; a copper bolt, marked " 365 S. A." in the top of the coping (U. S. G. S. b. m.)
357.404

Bastrop, 100 feet southwest of the freight depot and 50 feet south of the Bas-trop-Lagrange county road; an iron post, marked " 372 " (U. S. G. S. b. m.)
366.561

Bastrop, in the northeast part of the courthouse grounds, close to the iron fence on the north side of the grounds, and about 15 meters east of the pathway leading to the main entrance to the courthouse; in the top of a square stone post, which had been pulled up and reset since it was established; a bronze tablet (Geol. Bastrop) (U. S. G. S. b. m.)
Bastrop, at the northwest side of the main entrance to the courthouse, in the brick wall; a bronze tablet marked " 377 " ( 377 Bastrop) (U. S. G. S. b. m.)
Bastrop, on the east side of the county jail, about 1.6 meters south of the northeast corner and 1.2 meters above the ground, in the plaster-covered brick wall, 0.85 meter north of the window on the east side of the building nearest the northeast corner, about 0.1 meter below the level of the window sill; copper bolt (C. \& G. S. b. m. S ${ }_{5}$ ).
371.545
372.024

Bastrop, about 2 miles south of, on the north stone abutment of the Missouri, Kansas \& Texas Ry. bridge over Colorado River, 1.2 meters west of main track and 0.3 meter below the top of the rails, in the top of the rough plaster-covered stone wall which forms the backing for the abutment; copper bolt (C. \& G. S. b. m. T s )
358. 142

Hills Prairie, 28 feet east of the south head block, near the right of way fence; iron post, marked " 359 " ( 359 Hills Prairie) (U. S. G. S. b. m.).
353. 507

Upton, about 2 miles north of, on the south stone abutment of the Missouri, Kansas \& Texas Ry. bridge over Cedar Creek, on the southwest corner; the bottom of a square hole, $1 \frac{1}{4}$ inches square and $\frac{1}{4}$ inch deep, cut in the top stone, about 0.11 meter from the north and east edges, lettered " $U$. S. B. M." (C. \& G. S. b. m. U ${ }_{5}$ )
334.061

Upton, about 45 feet east of the head block at the south end of the switch, near the right of way fence; an iron post, marked " 349 " (349 Upton) (U. S. G. S. b. m.)
343.543

Upton, about $1 \frac{1}{3}$ miles south of, on the line of the Missouri, Kansas \& Texas Ry., about 420 meters north of milepole 964, a stone post in the line of telegraph poles on the east side of the track, about midway between the track and the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. V ${ }_{5}$ )
360.767

Smithville, 10 feet east of the second telegraph pole south of milepole 969, also the second telegraph pole north of the station; iron post marked " 329 " (329 Smithville) (U. S. G. S. b. m.)
323.720

Smith, in the brick building on Main Street, owned by Ed. Eagleston and occupied by the American Express Co., in the partition wall between the express office and a barber shop, in a slight recess, 0.22 meter from either edge of the protruding wall and 1.13 meters above the pavement; copper bolt (C. \& G. S. b. m. W ${ }_{5}$ )
330.124

Smithville, in the brick building of the Bank of Smithville, corner of Main and Second streets, in the wall, 1.2 meters above pavement and 0.3 meter from the edge of the wall at the window on Second Street; copper bolt (C. \& G. S. b. m. X

Smith̀ville, in the Masonic Building (of brick), corner of Main and Third streets; in the concrete ledge to the window on Third Street, 0.15 meter from the edge of the corner brick pillar and 0.12 meter from the window; bottom of a square hole (C. \& G. S. b. m. Y $\mathrm{F}_{5}$ )

Feet. 326.525

## BRECKINRIDGE QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]

## From Strawn west along Texas \& Pacific Ry. to Tiffin.

Strawn, about 2.3 miles west of, on the northeast corner of the southeast concrete footing of the railway water tank; bottom of hole in horizontal surface (C. \& G. S. b. m. Q 11 )
Strawn, about 4.1 miles west of, on the railway bridge 331A, on top of the east abutment in the center of the track and 1 meter below the rail; copper bolt (C. \& G. S. b. m. R R 11 )

1,076. 284
Wiles, about 0.9 mile east of, on the railway bridge 333D, on top of the south end of the east abutment; copper bolt (C. \& G. S. b. m. S $\mathrm{S}_{11}$ ) ..... 1, 130. 349
Wiles, north of the track at the railway station, on the railway right of way, 1 meter from the north fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. T 11 )

Wiles, about 0.7 mile west of, on the railway bridge 335 A over north fork of Palo Pinto Creek, on the north end of the west abutment, 0.1 meter from the west end of the abutment, 0.65 meter from the north side of the abutment, and 1.6 meters below the rail; copper bolt (C. \& G. S. b. m. $\mathrm{U}_{11}$ )
Tiffin, about 2 miles east of, on the railway bridge 337D over the canyon of north fork of Palo Pinto Creek, on top of the coping of the fourth stone pier from the west end, 0.20 meter from the south end and 0.57 meter from the west side of the pier, 2 meters from the center of the track, and 2.1 meters below the rail; bottom of hole in horizontal surface (C. \& G. S. b. $\mathrm{m} . \mathrm{V}_{11}$ ).
$1,314.522$

## CLAUDE QUADRANGLE.

## [Latitude $35^{\circ}-35^{\circ} 30^{\prime}$; longitude $101^{\circ}-101^{\circ} 30^{\prime}$.]

## From Groom west along Chicago, Rock Island \& Gulf Ry. to Yarnall.

Groom, on the right of way, across the track from and in range with the east end of the depot, 1 meter from the fence, 48 meters south of center of main-line track; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{K}_{19}$ )
$3,264.010$
Groom, about 1.9 miles $\pi$ est of, on top of the south end wall of the ballasted concrete culvert of the railway, at a pole marked "721-05"; copper bolt (C. \& G. S. b. m. L $\mathrm{L}_{19}$ ).
Groom, about 4.1 miles west of, on the railway right of way, in line with the telegraph poles, 14 meters north of the center of the track, and just east of the second pole west of the pole marked " 723 "; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{M}_{19}$ ).
Lark, on the railway right of way, 30 meters north of the center of the track at the station sign, and 0.2 mile east of the section house; bottom of hole in top of stone post (C. \& G. S. b. m. N $\mathrm{N}_{19}$ )
Conway, about 4.3 miles east of, at a pee marked " $730-20$," on the railway opposite the east whistling post for a road crossing, 12 meters north of the center of the track, and 4 meters from the fence between the railroad and the wagon road paralleling the right of way; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{O}_{19}$ ).

Conway, on the railway right of way, at the southwest corner of the crossing of two roads, 48 meters north of the center of the track, and 48 meters north $30^{\circ}$ east of the northeast concrete foundation of the depot; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. P 19 ) .......................... 3, 456. 739
Conway, about 4 miles west of, on the railway right of way, 165 meters east of a point of curve, and 11 meters north of the center of the track at milepost 739 ; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. Q19 ) .... 3, 470. 124

## CLEBURNE QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]

## From Egan south along Missouri, Kansas \& Texas Ry. to Hillsboro.

Egan, siding at, in the Missouri, Kansas \& Texas Ry. right of way at the left and 7 feet below the track, 50 feet northeast of the south switch and 3 feet from the telegraph pole, the second one south of the station sign; bottom of square cut in top of limestone post. The railway company reported in May, 1903, that on account of grading necessary for the construction of new tracks the bench mark was covered 6 feet. The following bench mark, "R. R.," was then established (C. \& G. S. b. m. V ${ }_{3}$ )
Egan, in the ground in front of the ticket window, established by the Missouri, Kansas \& Texas Ry. engineers, the end of the ball of the top of the rail is 10 feet above bench mark $V_{3}$; piece of rail (C. \& G. S. b. m. R. R.).

Alvarado, $\frac{1}{4}$ mile south of the station, in north stone abutment of the railway iron bridge, on the lowest step west of the track and $3 \frac{1}{2}$ feet below its level, 8 inches from the south and 10 inches from the west edge of the stone; square cut on stone (C. \& G. S. b. m. W3) ...
Conley, 25 feet east of the railway track, in the right of way near the first telegraph post north of the south switch; bottom of square hole cut in top of limestone post (C. \& G. S. b. m. X ${ }_{3}$ ).
Grand View, in the west wall near the northwest corner of the brick building occupied by the post office, on the south side of Main Street and across from the Missouri, Kansas \& Texas Ry. tracks, about 300 yards south of the depot, 4 feet above the sidewalk, and 10 inches from the corner of the building; copper bolt leaded into stone or brick (C. \& G. S. b. $\mathrm{m} . \mathrm{Y}_{3}$ ).

Itasca, in the brick building leased by the Itasca National Bank, in the west front, north of large window, 4 feet from the walk, the building is the second one from Main Street and on the east side of the street; copper bolt leaded into brick (C. \& G. S. b. m. Z ${ }_{3}$ ).
Schofield, 3 feet east of the fourth telephone pole south of the station sign, in the right of way, 50 feet west of the railway track, and 1 foot from the right of way fence; bottom of square cut in top of limestone post (C. \& G. S. b. $\mathrm{m} . \mathrm{A}_{4}$ )

Hillsboro, in white stone in the northwest corner of the Hill County courthouse, in the cornice, about 5 feet from the ground and $1 \frac{1}{2}$ feet north of the water spout; it faces west, being set in a recess of the corner; intersection of two lines cut in the end of a copper bolt leaded horizontally "into stone (C. \& G. S. b. m. B4).
827.308
837.308
678. 240
699.175
656. 435

## Feet.

$\square$
837.308
745.602
708. 548


## COLORADO QUADRANGLE. <br> [Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $100^{\circ} 30^{\prime}-101^{\circ}$.]

## From Roscoe west along Texas \& Pacific Ry. to Westbrook.

Roscoe, 125 meters northwest of the railway depot, 1 block east of the RoscoeSnyder road, 1 meter east of the east line of a street running north and south, and 0.4 meter from the north end of the street; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{S}_{13}$ ).

Feet.
Roscoè, at the northeast corner of First and Cypress streets, 2 blocks west and 1 block south of the railway depot, on the west side of Lipscomb \& Davis's store, 1.78 meters from the southwest corner and 0.40 meter above the sidewalk; copper bolt (C. \& G. S. b. m. T ${ }_{13}$ )
Roscoe, about 4 miles north of, on the farm of A. A. Patterson, who lives $\frac{8}{4}$ mile north of the bench mark, 9.8 meters to the north edge of the main east and west road, 700 meters east of the southwest corner of Patterson's property and between two of his tenant houses; the surface mark of a Coast and Geodetic Survey triangulation station and is marked by the point of a fortypenny nail projecting $\frac{1}{4}$ inch above the concrete that fills an iron pipe $1 \frac{1}{2}$ inches in diameter, which in turn is embedded in a cylinder of concrete 20 inches in diameter (C. \& G. S. b. m. Patterson Triangulation Station)
Roscoe, about 3 miles west of, on the railway right of way, 12 meters south of the track at milepost 459 , and 1 meter from the fence of the county road paralleling the railroad; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. U $\mathrm{U}_{13}$ )
$2,383.154$
Loraine, 1 mile east of, on the railway right of way, 75 meters west of the first culvert out of Loraine, 13 meters north of the center of the track, and 1 meter from the fence; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. V ${ }_{13}$ )
$2,309.815$
Loraine, on the railway right of way, 144 meters west of the depot, 14 meters north of the center of the track, and 2 meters from the corner of the fence for the cattle guard; bottom of hole in top of stone post. (C. \& G. S. b. m. $\mathrm{W}_{13}$ )
$2,264.142$
Loraine, on the railway right of way, at the third telegraph pole west of milepost $467,0.8$ kilometer west of the depot, 10 meters south of the track and just west of a road crossing; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{X}_{13}$ )
$2,257.791$
Colorado, about 3.5 miles east of, on the railway right of way, 11 meters east of the sixth telegraph pole west of milepost 472 , just east of a road crossing, and 10 meters north of the center of the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. Y ${ }_{13}$ ).
$2,216.836$
Colorado, 135 meters east of the dwelling house of the railway section foreman, on top of the south retaining wall of a reinforced concrete culvert over a dry ravine, 1 meter from the west end of the wall, 6 meters from the center of the track, and 0.4 meter below the rail; surface within an outlined square (C. \& G. S. b. m. Z $\mathrm{Z}_{13}$ )
$2,067.663$
Colorado, in the northeast corner of the yard of the Mitchell County courthouse, 5.2 meters from the northeast corner of the courthouse, 1.26 meters west and 1.80 meters south of the inside of a cement walk, and 1.7 meters from a poplar tree in the yard; bottom of hole in top of stone post (C. \& G. S. b. $\mathrm{m} . \mathrm{A}_{14}$ )

2, 071.561
Colorado, on the railway bridge, 476-D over the Colorado River, on top of the concrete pier at the east end of the truss, 0.4 meter from the west end of the pier, in the center of the track, and 0.43 meter below the rail; surface within an outlined square (C. \& G. S. b. m. B ${ }_{14}$ )

Westbrook, about 4.5 miles east of, on the railway right of way, near the fifth telegraph pole east of milepost 481, 14 meters north of the center of the track and 1 meter from the fence; 3 -inch red metal cap on iron pipe Feet. (C. \& G. S. b. m. C ${ }_{14}$ ) 2, 088.043
Westbrook, at the center of the east end of the railway depot, 0.75 meter from the building; bottom of hole in top of stonepost (C.\& G.S. b.m. $\mathrm{D}_{14}$ ). 2, 134. 212

DAINGERFIELD QUADRANGLE. [Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $94^{\circ} 30^{\prime}-94^{\circ} 45^{\prime}$. ]

At Daingerfield.
Daingerfield, in the west side of the county courthouse, in the center of the fourth brick from the northwest corner of the building, about 4 feet from the ground and midway between the window and the northwest corner; intersection of lines in end of copper bolt (C. \& G. S. b. m $A_{3}$ )...

## DALLAS QUADRANGLE. <br> [Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]

## From Grand Prairie east to Dallas thence northeast to Rowlett.

Grand Prairie, in line with the telegraph poles, 15 feet west of the first pole west of milepole 234, about 200 feet west of and across the tracks from the station; bottom of square hole in top of limestone post (C. \& G.S. b. m. Y).
Eagle Ford, in an angle formed by a wagon road and the railroad right of way fence, 32 paces south of the tracks and opposite the station; bottom of square hole in top of limestone post (C. \& G. S. b. m. Z)
524.733

Dallas, in the west corner of the buttress to the county courthouse, in the second tier of stone, about $2 \frac{1}{2}$ feet from the ground, the bolt points almost to the intersection of Houston and Main streets; intersection of lines on top of copper bolt (C. \& G. S. b. m. A A
433. 969

Dallas, at the east side of the doorstep to the north entrance, on Main street of the United States customhouse and posi-office building, 8 inches from the eastern column of the doorway, 8 inches from the wooden doorframe, 13 inches from the outer edge of the stone doorstep; intersection of lines on top of copper bolt (C. \& G. S. b. m. B ${ }_{2}$ )
Dallas, at the southeast corner of the city hall, corner of Commerce and Akard streets, on the side facing the Oriental Hotel, 4 feet above the sidewalk, in the third tier, near the center of a stone; intersection of lines on top of copper bolt (C. \& G. S. b. m. C C $_{2}$ ).
Fisher, just within the right-of-way fence, 14 paces south of the tracks and about 350 feet west of the station sign; bottom of square hole in top of limestone post (C. \& G. S. b. m. D ${ }_{2}$ )
528. 529

Garland, in the stone sill of the western window on the north side of the Citizens' Bank, about 2 inches from the edge of the sill and 4 inches from the west frame of the window, about 4 feet from the ground; square cut on stone (C. \& G. S. b. m. E ${ }_{2}$ )
550.927

Rowlett, in the angle formed by the right-of-way fence and the fence at a road crossing about 700 feet east of the station, 16 paces north of the center of the railroad track, 4 paces west from the crossing, between the fourth and fifth telegraph poles east of the station; bottom of square hole in top of limestone post (C. \& G. S. b. m. F 2 ).
504. 828

## DENTON QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 30^{\prime \prime}$ longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]

## At Rhome.

Rhome, in the north corner of the railroad lot (used by pumping houses and water tank), 2 feet from west fence and 3 feet from east fence, near the fourth telegraph pole north of railroad station; bottom of square hole in top of limestone post (C. \& G. S. b. m. N).

Feet. 938. 089

## DIMMITT QUADRANGLE.

[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $102^{\circ}-102^{\circ} 30^{\prime}$.]
From Canyon southwest along Atchison, Topeka \& Santa Fe Ry. to Summerfeld.
Canyon, in the northwest corner of Randall County courthouse yard, at the center of the arc of the curbstone; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{D}_{20}$ )
$3,551.306$
Canyon, 91 meters west of the railway depot, 18 meters north of the mainline track, on the south face of the reinforced concrete pump station, 0.65 meter from the east side, and 1.3 meters above the foundation; red metal disk (C. \& G. S. b. m. $\mathrm{E}_{20}$ )
$3,577.060$
Canyon, on the southeast corner of the southwest footing of the Canyon waterworks tank, $\frac{1}{4}$ mile west of the railway depot, and 150 meters north of the main-line track; copper bolt (C. \& G. S. b. m. F $\mathrm{F}_{20}$ )

3, 577. 434
Canyon, about 1.8 miles west of, on the top of the east end of the north retaining wall of the railway concrete-arch bridge 572A; copper bolt (C. \& G. S. b. m. $\mathrm{G}_{20}$ )

3, 586. 302
Lester, on the railway right of way, 25 meters north of the center of the track, at the station sign, 1.5 meters from the fence and 7 meters east of a road crossing; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. H ${ }_{20}$ ). . 3, 667. 358
Umbarger, on the right of way at the railway station, 27 meters north of the center of the track and 4 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{I}_{20}$ ).

3, 765. 881
Umbarger, about 1.7 miles west of, on top of the west end of the north head wall of cast-iron culvert 582A of the railway; red metal disk (C. \& G. S. b. $\mathrm{m} . \mathrm{J}_{20}$ )

3, 754. 500
Dawn, 440 meters west of the railway station, 33 meters north of the concrete foundation of the water crane, 31 meters north of the center of the track, and 1.2 meters from the right of way fence and wagon road; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. K 20 )
$3,793.043$
Dawn, about 2.6 miles west of, on the railway right of way, on the south side of a road crossing at the ninth pole west of milepost 589 , in line with a fence running south, 33 meters south of the center of the track, and 1 meter from the right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. L $\mathrm{L}_{20}$ )

3, 775. 196
Joel, on the railway right of way, 30 meters north of the center of the track at the station sign and 1.5 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. M $\mathrm{M}_{20}$ )

3, 767. 118
Joel, about 2 miles west of, on the top of the west end of the north retaining wall of the railway double-arch bridge $595 \mathrm{~A}, 12$ inches from the north side and 18 inches from the west end of the wall, and 2.5 meters below the rail; copper bolt (C. \& G. S. b. m. $\mathrm{N}_{20}$ ).

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3,765.931
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Hereford, on the top of the southeast corner of the southeast footing of the Hereford waterworks tank, $\frac{1}{8}$ mile east of the railway depot, and 95 meters south of main-line track; copper bolt (C. \& G. S. b. m. $\mathrm{O}_{20}$ ).

3, 812. 479

Hereford, on the south face of the concrete basement entrance to Deaf Smith County courthouse, 1.3 meters above sidewalk, and 0.3 meter from the Feet. east side of the door; red metal disk (C. \& G. S. b. m. $\mathrm{P}_{20}$ ) ............... 3, 822.866
Hereford, at the southwest corner of the depot, in the south face of the limestone water table, in the brick corner pier, 1.3 meters above the brick flagging; copper bolt (C. \& G. S. b. m. Q ${ }_{20}$ )
$3,819.746$
Hereford, about 3.8 miles west of, at the eighth pole west of milepost 603 of the railway, 51 meters west of road crossing, 1 meter from the fence between the right of way and a parallel road, and 32 meters from the center of the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. R ${ }_{20}$ )
Summerfield, on the railway right of way, 1 meter from the north right-ofway fence, at the station sign; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{S}_{20}$ )

3,935. 225

## EASTLAND QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $98^{\circ} 30^{\prime}-99^{\circ}$.]

## From Tiffin west along Texas \& Pacific Ry. to Cisco.

Tiffin, on the west side of the main line of the railway, 2 meters east of the right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{W}_{11}$ )
$1,399.105$
Ranger, 5.58 meters northeast of the railway depot, on the west side of the main-line track, 2 meters from the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. X ${ }_{11}$ )
$1,449.443$
Ranger, on the railway depot, about 3 meters north of the southeast corner of the building, and 1.3 meters above the ground; red metal disk (C. \& G. S. b. $\mathrm{m} . \mathrm{Y}_{11}$ )

1,443. 970
Ranger, about 1 mile west of, on the west side of the track, 15 meters from the center of the main line of the railway, and 2 meters from the countyroad fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. Z ${ }_{11}$ ) ....
Ranger, about 4.2 miles west of, 90 meters west of the railway culvert 346 A , 12 meters west of the center of the main track and on line with the right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. A $A_{12}$ ) ... 1, 466.359
Olden, on the railway right of way, west of the road crossing at the west end of the switch on the north side of the main line, 6 meters from the center of the track and 3 meters west of the cattle guard; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. B $\mathrm{B}_{12}$ ).
$1,561.962$
Eastland, about 2 miles east of, on the west side of a public highway, 7 meters south of the main line of the railway and 1 meter east of the western cattle guard; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{C}_{12}$ ).. 1, 493.599
Eastland, at the west end of the old depot in the city park north of the railway, 33 meters from the main road at the east side of the park, 46 meters from the main line of the railway, and 1 meter from the south fence of the park; bottom of hole in top of stone post (C. \& G. S. b. m. D ${ }_{12}$ ) ..... Eastland, about 2.6 miles west of, on the north side of the main-line track of the railway, on the railway right of way, 16 meters east of bridge 354D, and 1 meter from the fence; 3 -inch red metal cap (C. \& G. S. b. m. $\mathrm{E}_{12}$ ).. 1, 464. 285
Lem, 16 meters north of the main line of the railway at the station; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. F $\mathrm{F}_{12}$ ).
Cisco, on the masonry between the doors of the Cisco Banking Co.'s bank building, 20 inches above the sidewalk, and 12 inches south of the north door; copper bolt (C. \& G. S. b. m. G $\mathrm{H}_{12}$ )
$1,627.096$

[^8]
# EL PASO QUADRANGLE. <br> [Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $106^{\circ}-106^{\circ} 30^{\prime}$.] 

## From Fabens northwest along Galveston, Harrisburg \& San Antonio Ry. to El Paso.

Fabens, 65 meters east of the railway depot, 20.6 meters north of the center of the track, and 1.8 meters northeast of the right-of-way post; bottom of hole in top of stone post (C. \& G. S. b. m. U ${ }_{18}$ )

Feet.
Fabens, on the northwest corner of the northwest footing of the water tank of the railway, 9.5 meters south of the center of the track; copper bolt (C. \& G. S. b. m. V ${ }_{18}$ ).

3, 619.271
Fabens, about 3 kilometers west of, 9 meters west of the railway bridge $801 G, 14.05$ meters south of the center of the track, and 2 meters from the fence; iron pipe stamped "U. S. Reclamation Service" (U. S. R. S. 3572.14)

3, 614. 691
Clint, about 3.6 kilometers east of, at the tenth pole west of milepost 805 , 400 feet west of a road crossing, 12.9 meters south of the center of the track, and 2 meters from the fence; 3-inch cap on iron pipe (U. S. R. S. (3616), later stamped 3586.94)
$3,629.432$
Clint, in the southwest corner of the section-house yard, 7.7 meters north of the center of the main-line track of the railway; iron pipe stamped "U. S. Reclamation Service" (U. S. R. S. 3592.95)
$3,635.432$
Clint, 400 meters west of the railway depot, on the north side of a wagon road, 11.7 meters south of the main line of the railway, and 2.5 meters west of bridge 807 B over an irrigation ditch; bottom of hole in top of stone post (C. \& G. S. b. m. W ${ }_{18}$ ).
$3,635.577$
Clint, about 2.5 kilometers west of, 14 meters north of the center of the railway track at milepost 809, 1.1 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. X ${ }_{18}$ ).
$3,638.884$
Clint, about 4.1 kilometers west of, 2.8 meters west of milepost 800 of the railway, 14.4 meters south of the center of the track, and 0.6 meter from the fence; iron pipe stamped "U. S. Reclamation Service" (U. S. R. S. 3600.09)

3, 642. 568
Belen, 45 meters west of the railway depot, at the east end of a passing track, 16.3 meters south of the center of the track, on the south concrete face of the siphon wall of an irrigation ditch under the tracks, 0.15 meter from the west edge and 0.19 meter from the top of the concrete; red metal disk (C. \& G. S. b. m. $\mathrm{Y}_{18}$ )

3, 658. 296
Belen, 10 poles east of milepost $813,14.5$ meters north of the center of the track, and 11.0 meters east of an adobe hut, in the line of the right of way fence and some cottonwood trees; 3-inch cap on iron pipe (C. \& G. S. b. m. U. S. G. S. (3644) later stamp 3614.68).
$3,657.004$
Belen, 130 meters west of the west end of a passing track of the railway at milepost $813,14.1$ meters south of the center of the track, and 0.8 meter from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. $Z_{17}$ ) .. 3, 656. 472
Ysleta, about 200 meters west of the railway depot, 1.85 meters from the southwest corner of the section-house yard, and 8.75 meters north of the center of the track; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{A}_{19}$ ).

3, 669.782
Ysleta, about 5.2 kilometers west of, 0.9 meter east of milepost 820 of the railway, 14.3 meters south of the center of the track and 0.5 meter from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. B 19 )

3, 682.958
Alfalfa, 8 meters south of the station sign, 13.9 meters south of the center of the railway track, and 1.2 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{C}_{19}$ )

Alfalfa, about 1.2 kilometers west of, on the reinforced concrete highway bridge of the macadamized county road, on top of the north wing wall, 32 meters from the center of the railway track; red metal disk (C. \& G. S. b. m. $\mathrm{D}_{19}$ ).

El Paso, on top of the masonry pier at the northwest corner of the El Paso brewery, 1.1 meters north of the corner of the main building, and 28 meters south of the center of the railway tracks; copper bolt (C. \& G. S. b. m. $\mathrm{E}_{19}$ )

El Paso, at the crossing of the Galveston, Harrisburg \& San Antonio and the El Paso \& Southwestern railroad tracks, in the northeast corner of a grassy plot 5.6 meters south of the former railroad, 14 meters east of the latter railroad, and 5.7 meters east of tower 47; bottom of hole in top of stone post (C. \& G. S. b. m. F ${ }_{19}$ )

3, 704. 523
El Paso, on the west face of the south concrete pier of the viaduct over the Galveston, Harrisburg \& San Antonio Ry. and El Paso \& Southwestern R. R. tracks, on Austin Street, 8.5 meters south of the main line of the former railroad, and 1.4 meters above the ground; red metal disk (C. \& G. S. b. m. $\mathrm{G}_{19}$ ).

3, 709. 454
El Paso, at the corner of Texas and Ochoa streets, in a concrete post 10 inches below the level of the paving and covered by an iron plate set in the paving; the cross on the top of a copper bolt, stamped "U. S. B. M." (El Paso city monument) (C. \& G. S. b. m. H ${ }_{19}$ ). 3, 707. 027
El Paso, at the west end of the lower step of the north entrance to El Paso City Hall, (the bench mark disk is broken and half gone, but the part remaining contains the bench mark and appears stable); 3 -inch metal disk (C. \& G. S. b. m. U. S. G. S. 3698).

3, 710.902
El Paso, at the east end of the lower step of the south entrance to the El Paso City Hall, on the sidewalk between the curb-and the cement steps; 3 -inch metal tablet stamped " $365-\mathrm{B}-1905$ " (U. S. G. S. 365). 3, 709.871
El Paso, on top of the west end of the lower stone step of the south entrance to the El Paso County courthouse; 3 -inch metal disk stamped " 366 -B$1905 "$ (U. S. G. S. 366)

3,710. 531
El Paso, on top of the pyramid stone at the west side of the north entrance to the El Paso County courthouse; cross (city bench mark).

3, 711. 407
FARMERSVILLE QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]
From Caddo Mills east to Greenville.
Caddo Mills railroad station, 8 feet west of the second telegraph pole east of, about 20 feet north of the track, in line with the telegraph poles; bottom of square cut in limestone post (C. \& G. S. b. m. J J )
530. 458

Greenville, on the Central schoolhouse on Weslie Street, on the part of the building jutting out to form the main entrance, in a stone in the fifth tier above the ground, the course of stone which runs entirely around the building, about $4 \frac{1}{2}$ feet from the north side of the main entrance, and 10 inches from the edge of the stone; intersection of lines in end of copper bolt (C. \& G. S. b. m. K ${ }_{2}$ )
540.931

Greenville, in the column to the right of the corner entrance to the building known as Beckham Hotel Annex, on the side facing Lee Street, in the center of the fourth tier of stone, and about 4 feet from the ground; intersection of linesin end of copper bolt (C. \& G.S.b.m. L ${ }_{2}$ ).
Greenville, in the top step to the main (Lee Street) entrance to the county courthouse, near the base of the right-hand columns of two false arches forming part of the entrance, 5 inches from adjacent corners of the columns; intersection of lines in end of copper bolt (C. \& G. S. b. m. M $\mathrm{M}_{2}$ ). .


#### Abstract

Greenville, 5 miles east of, 6 feet west of the telegraph pole south of and directly opposite the switch stand at the east end of the new siding (to be called Husband), near milepole 719, on a T-shaped section of iron rail, 42 inches long, projecting about 10 inches above the ground; and is marked by a large cross made with chisel where the base and stem of the T join, and stamped "U. X. S. B. M. "


Feet.
568. 477

## FLATONIA QUADRANGLE. <br> [Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]

## From Smithville west along Missouri, Kansas \& Texas Ry. to Bateman.

Smithville, about $3 \frac{1}{3}$ miles west of, about $\frac{1}{4}$ mile east of milepost 972,25 feet northwest of a road crossing; iron post marked " $433 \mathrm{~S} . \mathrm{A}$." (reported in very poor condition in 1904) (U. S. G. S. b. m.).
425. 406

Smithville, about $4 \frac{1}{2}$ miles west of, near the second telegraph pole east of milepole 974,65 feet northeast of the road crossing, in a corner of the fence, marked " 460 S. A." (U. S. G. S. b. m.)
452. 545

Rosanky, near, in the right of way of the railway, 103 meters east of milepost 977 and 48 meters west of a road crossing, in the line of telegraph poles on the south side of the track; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{Z}_{5}$ ).
493.792

Rosanky, 120 yards west of the railroad station, 50 feet south of the crossing of the Rosanky and Jeddo public road; iron post, marked " 512 S . A." (U. S. G. S. b. m.)
504. 359

Hemkens, $\frac{1}{4}$ mile east of the section house, 4 miles west of Rosanky and 6 miles east of Red Rock, 45 feet southwest of the settlement road crossing and about halfway between mileposts 983 and 984 ; iron post, marked "451 S. A." (U. S. G. S. b. m.)
442.748

Hemkens, just west of, on the red-rock base to the column at the northwest corner of the old water tank; bottom of square hole (C. \& G. S. b. m. T. b. m. 117).

Hemkens, about mile west of, on the railway right of way, 282 meters west of a water tank near milepost 984 , in a red sandstone culvert, in the northwest corner of the side north of the track, 0.37 meter from the north and west edges; copper bolt (C. \& G. S. b. m. A ${ }_{6}$ ).
Red Rock, 1,200 feet southeast of the passenger station, on the Lockhart branch of the railway, 125 feet south of the track, at the intersection of the Waelder and Red Rock and the Red Rock and Rosanky public roads; an iron post marked "491 S. A." (reported unstable in 1904) (U. S. G. S. b. m.)
).......................................................................
Bateman, on San Antonio branch of Missouri, Kansas \& Texas Ry., 18.6 meters northeast of signboard "Bateman," and about 19 meters south of Red Rock-Taylorville road and railroad crossing, 4.87 meters from middle of south rail, 3.3 meters from line of telegraph poles, in an outcrop of red sandstone 1.5 meters long by 0.4 meter wide, by 0.2 meter high, with letters "U. S." cut in the stone below the bolt; top of copper bolt (C. \& G. S. b. m. B6 ).
472. 529

## From Primms Spur east along Missouri, Kansas \& Texas Ry. to West Point.

Kirtley, an iron post set near the right-of-way fence and back of the second telegraph pole east of mile board 974 ; 3-inch cap on iron pipe, marked "316" (316 Primms Spur).
310. 649

Kirtley, 2 miles southeast of, on the right of way of the railway, near mile board 976 ; on the east concrete abutment of bridge 2064 , in the top surface, 1 meter from the north edge; horizontal mark on $\frac{3}{8}$-inch copper bolt (C. \& G. S. b. m. U ${ }_{6}$ ).

West Point, 90 feet west and 40 feet north of the junction, at the crossing of the San Antonio \& Aransas Pass and Missouri, Kansas \& Texas railways, in a corner of the right-of-way fence; an iron post marked " 295 " (292 West Point)

## Feet.

286.598

West Point, 60 meters east of the Missouri, Kansas \& Texas Ry. station, in the northeast corner of a grade crossing, $\frac{1}{3}$ meter from the right-of-way fence, on land owned by J. L. House; bottom of hole in top of stone post (C. \& G. S. b. m. V ${ }^{\text {) }}$ )
296.315

## FORT HANCOCK QUADRANGLE.

[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $105^{\circ} 30^{\prime}-106^{\circ}$.]
From Lasca west along Galveston, Harrisburg \& San Antonio Ry. to Polvo.
Lasca, 7.6 meters north of the station sign, and 14.4 meters north of the center of the track, on the right of way, 0.9 meter from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{C}_{18}$ ).

4, 479. 200
Torcer, about 2.7 kilometers east of, 13.15 meters south of the center of the track, on the right of way, 1.85 meters from the fence, and 1.64 meters north of milepost 748; 3-inch red metal cap on iron pipe (C. \& G. S. b. $m . \mathrm{D}_{18}$ ).
$4,351.756$
Torcer, 1.59 meters south of the southeast corner of the railway depot, 29 meters south of the center of the track, and 1.5 meters from the right-ofway fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{E}_{18}$ ) ....
Torcer, about 0.9 kilometer west of, just west of the Horseshoe Bend on the railway, at transit station $39679+39,293$ feet east of milepost 751,12 meters west of the center of the track, and 2.2 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. F $\mathrm{F}_{18}$ )
$4,322.744$
Torcer, about 4.3 kilometers west of, opposite transit station $39880+47.7$, on the railway, at the sixth telegraph pole east of the point of the mountain, 13.5 meters east of the center of the track, and 1.8 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. G 18 ) . $4,053.354$
Finlay, about 2.8 kilometers east of, 4 meters east of the second telegraph pole east of milepost 757,24 meters west of bridge $756-\mathrm{I}, 13.8$ meters south of the center of the track, and 1.8 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{H}_{18}$ )

3, 985.399
Finlay, 9.5 meters west of the center of the railway depot, 8.4 meters north of the center of the track; bottom of hole in top of stone post (C. \& G. S. b. $\mathrm{m} . \mathrm{I}_{18}$ ) $3,956.629$
Tinaja, at the east end of a passing track, 12.3 meters southeast of the center of the track, 2.1 meters from the fence, and 120 feet west of bridge 672 C of the railway; bottom of hole in top of stone post (C. \& G. S. b. m. J ${ }_{18}$ ). $3,864.425$
Madden, 4.6 meters from the station sign, 14.8 meters south of the center of the railway track, and 15.8 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. K ${ }_{18}$ ).
$3,672.128$
Nulo, 4.1 meters north of the station sign, 14.1 meters north of the center of the railway track, and 1.8 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. L ${ }_{18}$ ).

3, 568.772
Fort Hancock, 200 meters west of the depot, 27.4 meters north of bridge $776 \mathrm{~B}, 2.9$ meters from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. M is $_{18}$ ) $3,594.343$
Fort Hancock, about 6 kilometers west of, 3 meters west of milepost 780, 13.3 meters south of the center of the track, and 1.8 meters from the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. N $\mathrm{N}_{18}$ ) . . 3, 598. 586

$$
25286^{\circ}-\text { Bull. } 637-16-14
$$

Iser, 400 feet west of the east end of a passing track of the railway, 1,000 feet east of the station sign, 25 meters west of bridge 783A, 13.7 meters south of the center of the track, and 1.8 meters from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{O}_{18}$ )

Feet.
Polvo, about 4 miles east of, 60 meters west of milepost 786, 11.5 meters south of the center of the track, and 13.7 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. P ${ }_{18}$ ).

3, 691.535
Polvo, about 2 miles east of, 3.1 meters west of milepost 788, 11.8 meters south of the center of the track, and 3.9 meters from the fence; 3 -inch red metal cap on iron pipe (C. G. S. b. m. Q $\mathrm{Q}_{18}$ ).

3, 684. 484
Polvo, in front of and across the track from the section house, 11 meters west of the west end of a passing track of the railway, 15.9 meters south of the center of the main track, and 1.4 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{R}_{18}$ )

3, 651. 892
FORT WORTH QUADRANGLE.
[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\circ}$.]
From Avondale south to Fort Worth, thence east to Arlington.
Avondale, 6 feet south of the third telegraph pole south of and across the tracks from railroad station, and 30 feet from the tracks; bottom of square hole in top of limestone post (C. \& G. S. b. m. O)
Saginaw, $1 \frac{1}{4}$ miles north of, on an arched concrete abutment of the Chicago, Rock Island \& Pacific Ry., 4 telegraph poles north of milepole 10 of Fort Worth \& Denver City Ry., on the east side of the abutment, in the northeast corner, 9 inches from either edge; intersection of lines on top of copper bolt (C. \& G. S. b. m. P)
751.311

Fort Worth, about 1.5 miles north of Trinity River crossing, in the northwest corner of the west side of an arched concrete culvert at milepole 608 (Chicago, Rock Island \& Pacific Ry. track) 8 inches from the north and 4 inches from the west edge; intersection of lines on top of copper bolt (C. \& G. S. b. m. Q)

Fort Worth, about 3 miles north of Union Station, on a large stone pier (the first from the north bank of Trinity River) of the Chicago, Rock Island \& Pacific Ry. bridge 3306, on the northwest corner of the west side, 8 inches from either edge; square cut on stone (C. \& G. S. b. m. R)
Fort Worth, about 2 miles north of Union Station, on the south end of the west pier supporting the Missouri, Kansas \& Texas Ry. track (over the Chicago, Rock Island \& Pacific Ry. track) at the north end of the freight yards of the Chicago, Rock Island \& Pacific Ry., on the lower step at the southeast corner, 6 inches from either edge; square cut on stone (C. \& G. S. b. m. S)

Fort Worth, a mile north of Union Station, on the northwest corner of the large block forming the lowest step to the west side of the south abutment supporting the Fort Worth \& Denver City Ry. track (over the Chicago, Rock Island \& Pacific Ry. track), 4 inches from the adjacent edges of the stone and $3 \frac{1}{2}$ feet from the ground; square cut on stone (C. \& G. S. b. m. T)
569.467

Fort Worth, at the west side of the south abutment where the railroad tracks pass over the Fort Worth \& Dallas Electric Line tracks, on the second step from the top, 6 inches from the adjacent edges of stone; square cut on stone (C. \& G. S. b. m. U).

Fort Worth, at the northeast corner of the city fire department building (central station), on Throckmorton Street between Eighth and Ninth, near the center of the east face of a block of stone in the fourth tier and about 4 feet from the ground, 15 inches from the corner of the building, 13 inches from a window; intersection of lines on top of copper bolt (C. \& G. S. b. m. V).

Feet.
619. 254

Handley, in the center of the middle pilaster on the northeast side of the power house of the Northern Texas Traction Co., about 4 feet from the ground; intersection of lines on top of copper bolt (C. \& G. S. b. m. W).
Arlington, at the east side of the north face of the Citizens' National Bank Building, in the middle brick of the eastern brick column, about $4 \frac{1}{2}$ feet above the ground; intersection of lines on top of copper bolt (C. \& G. S. b. m. X).
578. 391
617.935

Fort Worth, on top of the stone base to one of the iron supports to the viaduct over tracks, one-fourth mile west of Texas \& Pacific Ry. station, on the base under the second support east in second row north of main track, at southeast corner, $3 \frac{1}{2}$ inches from south and east edges; square cut on stone (C. \& G. S. b. m. M $\mathrm{M}_{3}$ ).
Belt Junction, a mile east of, 15 paces from the eighth telegraph pole west of milepost 3 on Fort Worth \& Rio Grande Ry., on the southwest corner of west abutment of a culvert; square cut on stone (C. \& G. S. b. m. $\mathrm{N}_{3}$ ).
Primrose, 5 poles west of the station sign, 6 telegraph poles east of mile pole 12, in an angle of the right of way fence on the Fort Worth \& Rio Grande Ry., 16 paces north of the track; bottom of square hole in top of limestone post (C. \& G. S. b. m. $\mathrm{O}_{3}$ ).
Virgile, 10 feet north of the third pole west of the station sign, in an angle of the right-of-way fence on the Fort Worth \& Rio Grande Ry., 15 paces north of the track; bottom of square hole in top of limestone post (C. \& G. S. b. m. P3).
18. 749
654.884
770.773

From Fort Worth south along Missouri, Kansas \& Texas Ry. to Burleson.
Bethel, one-half mile north of the siding at, 50 feet west of the railroad track, in the right of way of the railway, main line, 3 feet east of telegraph pole opposite mile pole 764; bottom of square cut in top of limestone post (C. \& G. S. b. m. T ${ }_{3}$ )
682. 328

Burleson, in the brick building used as the post office, in the east front, $4 \frac{1}{2}$ feet above the sidewalk, in a panel north of the northernmost window; top of copper bolt (C. \& G. S. B. m. U $\mathrm{U}_{3}$ )
715.064

## From Fort Worth west along Texas \& Pacific Ry. to Benbrook.

Fort Worth, on the Hill Street concrete viaduct over the Texas \& Pacific and Frisco Iine railway tracks, 1.1 miles west of the Union passenger station, on the east face of the north side of the arch over the main line track of the Texas \& Pacific Ry., 1.45 meters above the ground and 0.36 meter from the south edge of the face of the arch; red metal disk (C. \& G. S. b. m. $\mathrm{C}_{10}$ ).

Fort Worth, 2.1 miles west of, on the highway bridge carrying the Fort Worth and Weatherford road over Clear Fork of the Trinity River, on the top of the south wing wall of the east concrete abutment, about 0.20 meter from the footplate of the truss; this bridge is about 35 meters north of the Texas \& Pacific Ry. bridge 249-A over the same stream; red metal disk (C. \& G. S. b. m. D ${ }_{10}$ ).

Fort Worth, about 4.5 miles west of, and midway between the Texas \& Pacific Ry. track and the center of the Fort Worth and Weatherford highway, 0.5 meter inside and south of the railroad's right-of-way fence and 1.5 meters inside and east of the fence of the first byroad that
crosses the track west of the siding for the Fort Worth waterworks pumping station; 3 -inch red metal cap on iron pipe (C. \&. G. S. b. m. $\mathrm{E}_{10}$ ) ...
Benbrook, about 1.4 miles east of, on the middle pier of the Texas \& Pacific Ry. plate-girder bridge $254-\mathrm{C}$ over Marys Creek, on the top of the coping of the north end of the pier, and approximately in the center of the stone; bottom of hole in horizontal surface (C. \& G. S. b. m. F 10 )

Feet.

Benbrook, on land belonging to Mr. C. W. Carpenter, at the turn of the Fort Worth and Weatherford highway, just across the road and south of the Texas \& Pacific Ry. stock pens, about 50 meters south of the main-line track, and 0.75 meter south and 0.75 meter west of the highway fence; bottom of hole in top of stone post (C. \& G. S. b. m. G $\mathrm{G}_{10}$ ) .................. Benbrook, about 2.8 miles west of, on the Texas \& Pacific Ry. plate-girder bridge 258 -B over Walnut Creek, on top of the north end of the east masonry abutment; red metal disk (C. \& G. S. b. m. Hit $)$.
576.160
623. 290
662. 669
787. 285

## FRIONA QUADRANGLE. <br> [Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $102^{\circ} 30^{\prime}-103^{\circ}$.]

From Summerfield southwest along Atchison, Topeka \& Santa Fe Ry. to Bovina.
Summerfield, about 1.9 miles west of, on top of the east end of the south head wall of the railway cast-iron culvert 609A; red metal disk (C. \& G. S. b. $\mathrm{m} . \mathrm{T}_{20}$ )

3, 928.850
Summerfield, about 2.3 miles west of, 14 meters north of the center of the railway track, at milepost 610 ; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{U}_{20}$ )

Black, just outside the railway right of way, on the north side of a wagon road, 19 meters south of the track, at a semaphore 200 meters west of the station sign; bottom of hole in top of stone post (C. \& G. S. b. m. V ${ }_{20}$ ). . 3, 994. 155
Friona, about 3.8 miles east of, just outside the right of way, at milepost 618 , on the north side of a wagon road paralleling the railroad; 3 -ipch red metal cap on iron pipe (C. \& G. S. b. m. W ${ }_{20}$ )

4, 004. 093
Friona, on the railway right of way, 50 meters north of the track at the station, 300 meters east of the east stone gatepost, and 0.4 meter from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. X ${ }_{20}$ )
Friona, about 2.9 miles west of, $9 \frac{1}{2}$ poles east of milepost 626 of the railway, at the west end of a long fill, in the wagon road 25 meters south of the center of the track, and just west of the point where the right of way narrows; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. Y ${ }_{20}$ ).
Parmerton, at the station sign, at milepost 628,18 meters south of the center of the railway, on the north side of a wagon road just off the right of way; bottoin of hole in top of stone post (C. \& G. S. b. m. $\mathrm{Z}_{20}$ ) $\ldots$....
Parmerton, about 2 miles west of, 18 meters south of the center of the railway at pole marked 630 , just off the right of way, on the north side of a wagon road; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{A}_{21}$ ).. 4, 128.098
Bovina, in range with the east end of the railway depot, just off the right of way, about 40 meters north of the main-line track, in the edge of a locust plantation belonging to XIT ranch; bottom of hole in top of stone post (C. \& G. S. b. m. B $\mathrm{B}_{21}$ ).

4, 069.267

## GALVESTON QUADRANGLE.

[Latitude $29^{\circ}-29^{\circ} 30^{\prime}$; longitude $94^{\circ} 30^{\prime}-95^{\circ}$.]
From Lamarque southeast along Galveston, Houston \& Henderson R. R. to Galveston.
Lamarque, 4 miles northwest of, on the right of way of the Galveston, Houston \& Henderson R. R.; about 10 meters from mile board 32, 15
meters southwest of the tracks; cross on top of section rail (C. \& G. S. b. m. M. M. 32).

Feet.
20.853
'Lamarque, 2 miles northwest of, on the right of way of the Galveston, Houston \& Henderson R. R., 25 meters southeast of mile board 34 and 15 meters southwest of the tracks; cross on top of section rail (C. \& G. S. b. m. M. M. 34)
17.995

Lamarque, on the right of way of the Galveston, Houston \& Henderson R. R., 40 meters northwest of the station and $7 \frac{1}{2}$ meters southwest of the tracks, in the concrete foundation of the water tank, in the center of the east face, about 1 meter above ground; red metal disk (C. \& G. S. b. m. $\mathrm{A}_{\mathrm{g}}$ )

Lamarque, one-third mile southeast of, $12 \frac{1}{2}$ telegraph poles southeast of mile board 36,35 meters northeast of the Galveston, Houston and Henderson tracks, in the north corner of a highway crossing, on land belonging to the Tarpey estate; 3 -inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{B}_{9}$ )

Texas City Junction, $2 \frac{3}{4}$ miles southeast of Lamarque, 10 telegraph poles northwest of mile board 39,35 meters southwest of the Galveston, Houston \& Henderson R. R. tracks, in the corner of a fence; 3-inch red metal cap on iron pipe set in clay (C. \& G. S. b. m. C 9 ).
Texas City Junction, on the right of way of the Galveston, Houston \& Henderson R. R., 25 meters southeast of mile board 41, 15 meters southwest of the tracks; cross on top of section rail (C. \& G. S. b. m. M. M. 41).
Virginia Point, on the right of way of the Atchison, Topeka \& Santa Fe Ry., 30 meters northwest of the trestle, 8 meters southwest of the tracks, on range with the telegraph poles; 3 -inch red metal cap on iron pipe set in sand (C. \& G. S. b. m. D9)
Galveston, $2 \frac{1}{2}$ miles west of, 100 meters south of the Galveston, Houston \& Henderson R. R. tracks, at the southwest corner of the first grade crossing to the eastward of the stock pens; bottom of hole in top of stone post (C. \& G. S. b. m. E $\mathrm{E}_{9}$ )
Galveston, $I_{\frac{1}{4}}$ miles west of the Union Depot, in the concrete foundation of the Galveston, Houston \& Henderson R. R. shops, on the north side, back of a telegraph pole; 9 meters from the east end, in a beveled surface; red metal disk (C. \& G. S. b. m. F ${ }_{9}$ )
Galveston, at the northeast corner of B and Twenty-fifth streets, in a steel window sill on the west side of the Scaly Building, $1 \frac{1}{2}$ meters from the south side of the building, $2 \frac{1}{2}$ decimeters from the south edge of the sill, surface within an outlined square; on Atchison, Topeka \& Santa Fe Ry. bench mark (C. \& G. S. b. m. G ${ }_{9}$ ).
Galveston, on Eighth Street, between Mechanic and Strand streets, at the southeast corner of an alley and the street; the top of an arrowhead on a hydrant (C. \& G. S. b. m. City)
Galveston, at the southwest corner of the United States coal wharf at Fort Point; the 10 -foot mark of the fixed tide staff, nailed to a pile (C. \& G. S. b. m. Tidal 1).
not given
Galveston, in the pile alongside of the fixed tide staff; a horizontal mark made through the center of the head of the one of two spikes nearer the tide staff (C. \& G. S. b. m. Tidal 2)
Feet.
Galveston, in the western face of the concrete foundation wall of the cable tank, near the top steps leading into the shed house; the top of a brass bolt, the projecting portion of which has been filed flat for the foot of the leveling rod (C. \& G. S. b. m. Tidal $3=$ U. S. E. b. m. A.)

Galveston, a horizontal line cut in the head of a brass bolt set with its
head flush with the concrete wall of the cable tank, about 6 inches above
Tidal 3 (C. \& G. S. b. m. Tidal 4)

8.041
Galveston, established by the Corps of Engineers, U. S. Army, in 1890; the top of the northeast bolt of the northwest bearing pile of the Fort Point lighthouse (C. \& G. S. b. m. Tidal 5)
Galveston, about 6 feet east of the trestle bent marked 100; top of long section of iron rail which reaches nearly to the surface of the tracks (C. \& G. S. b. m. Tidal 6)

Galveston, about 14 feet north from trestle bent marked 90; top of long
section of iron rail (C. \& G. S. b. m. Tidal 7)

8. 451

Galveston, about 28 feet north from trestle bent marked 80; top of long section of iron rail (C. \& G. S. b. m. Tidal 8).
8. 537

Galveston, between 400 and 500 feet southward from the office building at Fort Point, in the center of the south jetty, immediately below the railroad trestle; the top of a brass bolt set in a box of concrete, the head of the bolt projecting about an inch. A stringer of the railroad track was directly above the bolt in 1906 (C. \& G. S. b. m. Tidal $9=$ U. S. E. b. m. Fence Line)

Galveston, near trestle bent marked " 60 "; top of long section of iron rail (C. \& G. S. b. m. Tidal 10)

Galveston, about 14 feet south from the trestle bent marked " 50 "; top of long section of iron rail (C. \& G. S. b. m. Tidal 11) 8. 169
Galveston, about 29 feet north from trestle bent marked " 40 "; top of long section of iron rail (C. \& G. S. b. m. Tidal 12) ..... 8. 550
Galveston, near the trestle bent marked " 30 "; top of long section of iron rail (C. \& G. S. b. m. Tidal 13) ..... 7.805
Galveston, about 12 feet south from trestle bent marked " 20 "; top of long section of iron rail (C. \& G. S. b. m. Tidal 14) ..... 6. 312

Galveston, about 10 feet south from trestle bent marked " 10 "; top of long section of iron rail (C. \& G. S. b. m. Tidal 15)
6. 407

Galveston, in the concrete walk at the northwest corner of the hospital grounds on Ninth Street, about 28 inches from a telegraph pole and about 4 inches from the northwest corner of the walk; the top of a wire nail (C. \& G. S. b. m. Tidal 16)
Galveston, the highest point of the diagonal line forming the intersection of the south and west concrete walls about the hospital grounds, corner of Ninth and Strand streets (C. \& G. S. b. m. Tidal 17)
Galveston, at the northeast corner of the Hendley Building, corner of Twentieth and Strand streets; on the top of the stone water table, at the edge where the corner has been chipped off. This bench mark is the city datum (C. \& G. S. b. m. Tidal 18).
Galveston, on the north side of the Hendley Building, corner of Twentieth and Strand streets, about a foot from the northeast corner of the building and 4 feet above Tidal 18; a small hole in the center of the head of a copper bolt set flush with the wall (C. \& G. S. b. m. Tidal 19)

## GATESVILLE QUADRANGLE. <br> [Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]

## From Nolanville west along Gulf, Colorado \& Santa Fe Ry. to Kempner.

Nolanville, 3 feet south of the first telegraph pole west of milepole 233, in the right of way of the Gulf, Colorado \& Santa Fe Ry., 30 feet south of the track; bottom of a square cut in top of a limestone post (C. \& G. S. b. $\mathrm{m} . \mathrm{P}_{4}$ )

Feet.
Killeen, in the right of way of the railway, 2 feet south of milepole 241 , and 60 feet south of the track; bottom of square cut in top of limestone post (C. \& G. S. b. m. Q 4 ).

Copperas Cove, near, in the right of way of the railway, 10 feet south of the first telegraph pole east of milepole 250, 40 feet south of the railroad; bottom of square cutin top of limestone post (C. \& G. S. b. m. R R $_{4}$ )
Copperas Cove, near, in the north top stone of the stone arch one-fourth mile east of Copperas Cove, on the railway, 2 inches from the north and east edges of the stone, and 4 feet below the track level; bottom of square cut in stone (C. \& G. S. b. m. S ${ }_{4}$ ).

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1,072.363
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Copperas Cove, about 2 miles southwest of, upon the highest point of a wooded starfish-shaped mountain, upon the land of J. N. Gilmore, 150 yards north of the telephone line where it crosses the ridge, about $1 \frac{1}{2}$ miles a little southwest of the house of H. B. Scott, about $\frac{3}{4}$ mile south of the house of C. H. Casper, in galvanized-iron pipe 2 inches in diameter and 18 inches long, filled with concrete level with surface of ground; top of sixtypenny wire nail in upper end of pipe (C. \& G. S. b. m. Gilmore $\triangle$ ). 1, 286. 513
Copperas Cove, about 2 miles southwest of, 91.106 meters northeast of the station mark, in terra cotta pipe 2 feet long, covered with cement $\frac{1}{2}$ inch thick, in the cement; top of a sixtypenny wire nail (Gilmore reference mark).
Kempner, in the right of way of the Gulf, Colorado \& Santa Fe Ry., 60 feet south of the track, halfway between milepole 262 and the right-of-way fence; bottom of square cut in top of limestone post (C. \& G. S. b. m. T $\mathrm{T}_{4}$ ).

Hughes, also called Hughes Spring, in the west face of a brick building owned by Mr. T. B. Keaster, in the new part of building, in the double column where the old and the new buildings join, 11 paces from the northwest corner of the building and the twenty-first tier of brick above the concrete sidewalk; intersection of lines in end of copper bolt (C. \& G. S. b. m. $\mathrm{B}_{3}$ ).

Avinger, 26 paces north of the old track, 19 paces west of the old railroad station, 2 telegraph poles east of milepole 817, 12 paces north of the public road paralleling the railroad; bottom of square cut in top of limestone post (C. \& G. S. b. m. C3).

Avinger, about 1 mile east of, and $2 \frac{1}{2}$ telegraph poles west of milepole 818, on south side of an arched concrete culvert under the new grade, in center of the top of the coping, about 13 inches from the west end; intersection of lines in end of copper bolt (C. \& G. S. b. m. D $\mathrm{D}_{3}$ ).

## GRANBURY QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]

## Near Granbury.

Granbury, on the east side of the Hood County courthouse, 10 feet north of the east door, in the stone water table, $4 \frac{1}{2}$ feet from the ground; intersection of lines in end of copper bolt (C. \& G. S. b. m. S ${ }_{3}$ )

Feet. 725. 028

Granbury, southwest of, at triangulation station Comanche, on what is known as Comanche Peak, in the part which is open ground and near the southern edge; the triangulation station was placed over the same point used by the Geological Survey in 1888. The station mark of the Geological Survey, a stone about 15 inches in diameter and 3 inches thick, was removed and in its place was put a galvanized pipe 2 inches in diameter and 18 inches long. The pipe was filled with concrete, level with the surface of the ground and the top of the pipe being covered $\frac{1}{2}$ inch with cement. A sixtypenny wire nail was set in the upper end of the pipe (C. \& G. S. b. m. Comanche Triangulation station).

1,229. 190
Granbury, about $4 \frac{1}{2}$ miles southwest of, on Comanche Peak, at the edge of the timber to the southwest of the open ground, 49.306 meters from the triangulation station, in a terra-cotta pipe, 2 feet long, covered with cement $\frac{1}{2}$ inch thick; top of sixtypenny wire nail set in the cement (C. \& G. S. b. m. Comanche reference mark).

1,226. 914

## HALSTEAD QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $96^{\circ} 30^{\prime}-97^{\circ}$.]

## From Plum east along Missouri, Kansas \& Texas Ry. to Boggy Tank.

Plum, 4 telegraph poles west of the station, in the northwest corner of a grade crossing, one-third meter from the right-of-way fence, on the land owned by J. C. Brown of La Grange, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. W ${ }_{6}$ )
299. 596

Plum, 175 meters southeast of the station and 45 meters southwest of the railway tracks, in the corner of a fence, about 15 meters northwest of the store and on the.land owned by Anton Legler; bottom of hole in top of stone post (C. \& G. S. b. m. X ${ }_{6}$ )
La Grange, 2 miles northwest of, 14 telegraph poles west of mile board 987, 70 meters west of a grade crossing and one-third meter north of the right of way of the railway, in the corner of a fence, on land owned by Christian Diers, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. Y ${ }_{6}$ ).
La Grange, in the county courthouse, on the stone step of the Washington Street entrance, in the horizontal surface of the first step from the top, two-thirds of a foot from south end; bottom of hole (C. \& G. S. b. m. Z Z $_{6}$ ) ..
La Grange, on Colorado Street, in the northeast corner of the First National Bank Building, in the vertical surface of the water table, 0.2 meter from the east face; red metal disk (C. \& G. S. b. m. A A $)$.
282. 562

La Grange, 275 meters northeast of the Missouri, Kansas \& Texas Ry. station and one-third meter northwest of the right of way, in the northeast corner of a grade street crossing, on the property of John Speckels; bottom of hole in top of stone post (C. \& G. S. b. m. B B $_{7}$ )
Halstead, $1 \frac{1}{4}$ miles west of, 30 meters west of mile board 993 , two-thirds meter south of the right of way of the railway, in the southeast corner of a private grade crossing, on land owned by Ernest Nitschke, set in clay, 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. C ${ }_{7}$ )
Halstead, 450 meters west of, on the right of way, two-thirds meter from the south fence in the southeast corner of a grade crossing; bottom of hole in top of stone post (C. \& G. S. b. m. D D ).

Fayetteville, in the brick store owned by H. Zapp's Sons, in the concrete water table on the south side of the east entrance; red metal disk (C. \& G. S. b. m. $\mathrm{E}_{7}$ )

Feet.
417. 483

Fayetteville, 18 meters east of the station, on the right of way 6 meters north of the tracks, in range with a row of trees in the parking; bottom of hole in top of stone post (C. \& G. S. b. m. F $\mathrm{F}_{7}$ )
393. 992

Boggy Tank, 9 telegraph poles west of mile board 1,006, near the south end of the west abutment of bridge 2,104 , in the horizontal surface, 0.2 meter from the south edge of the capstone; copper bolt (C. \& G. S. b. m. G ) ..... $^{\text {. }}$

## HOUSTON QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]
From Hillendahl east along Missouri, Kansas \& Texas Ry. to Houston, thence southeast along Galveston, Houston \& Henderson R. R. to League City.
Hillendahl, three-fourths mile west of, on the right of way of the Missouri, Kansas \& Texas Ry., 11 telegraph poles west of mile board 1,073, on a concrete culvert, in the center of the horizontal surface, 0.15 meter from the north edge; horizontal mark on three-eighths inch copper bolt (C. \& G. S. b. m. E $\mathrm{E}_{8}$ )

Hillendahl, 1 mile east of, $7 \frac{1}{2}$ telegraph poles east of mile board 1074, at the northeast corner of a grade crossing, on the public highway, 15 meters north of the Missouri, Kansas \& Texas Ry. tracks on range with the right of way fence, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{F}_{8}$ ).
Hillendahl, 3 miles east of, $10 \frac{1}{2}$ telegraph poles east of mile board 1076, 35 meters south of the Missouri, Kansas \& Texas Ry. tracks, in the southeast corner of a highway junction, on land owned by Gustav Peachman; bottom of hole in top of 5 by 8 inch stone post (C. \& G. S. b. m. G G $_{8}$ ) ......
Eureka, on the right of way of the Missouri, Kansas \& Texas Ry., 150 meters east of the Houston \& Texas Central R. R. crossing, in the concrete foundation of a block signal; bottom of hole in horizontal surface (C. \& G. S. b. $\mathrm{m} . \mathrm{H}_{8}$ )
71.831

Houston Heights, $7 \frac{1}{2}$ telegraph poles east of mile board 1081 and 25 meters south of the Missouri, Kansas \& Texas Ry. tracks, in the parking and midway between two electric-car lines, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. I ${ }_{8}$ )
61.017

Houston, at the northeast corner of Willow and Baker streets, in the center of the west face of the supporting pillar at the southwest corner of the building of the Peden Iron \& Steel Co., in the concrete water table, about 1 meter above the cement walk; red metal disk (C. \& G. S. b. m. J ${ }_{8}$ )

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45.006
$$

Houston, at the southeast corner of Franklin and Fannin streets, in the stone step of the north entrance to the post office, on the horizontal surface, 0.1 meter from the east end of the lower step; surface within an outlined square (C. \& G. S. b. m. K
Houston, on Gable Street, 90 meters north of the Galveston, Houston \& Henderson R. R. tracks, on the south abutment of the steel highway bridge over Buffalo Bayou; in the horizontal surface, 25 centimeters from west edge; red metal disk (C. \& G. S. b. m. L $\mathrm{L}_{8}$ ).
Houston, at the southeast corner of Milby Street and Harrisburg Road, 10 inches north of a telegraph pole; a bolt driven into the ground, the top level with the curb (C. \& G. S. b. m. City)
Houston, 3 miles east of, on the right of way of the Galveston, Houston \& Henderson R. R., $8 \frac{1}{2}$ telegraph holes east of mile board 3, and 3 meters north of the track, in the center of the top surface of a concrete culvert; bottom of hole in horizontal surface (C. \& G. S. b. m. M $\mathrm{M}_{\mathrm{s}}$ )

Harrisburg, three-fourths mile north of, on right of way of the Galveston, Houston \& Henderson R. R., $5 \frac{1}{2}$ telegraph poles south of mile board 5, 8 meters east of the tracks, and about 2 meters below the level of the rail, in the center of the top surface of a concrete culvert; copper bolt set in lead and lettered "U. S. B. M."; (C. \& G. S. b. m. N 8 ) .

Feet. 23. 359

Harrisburg, on the right of way of the Galveston, Houston \& Henderson R.R., 25 meters south of the Galveston, Harrisburg \& San Antonio Ry. crossing, 13 meters west of the tracks; cross on top of section rail (C. \& G. S. b. m. R. M.)

Harrisburg, 1 mile south of, $13 \frac{3}{4}$ telegraph poles north of mile board 7 , in the southeast corner of a grade crossing, 18 meters south of the Galveston, Houston \& Henderson R. R. tracks, and 5 meters south of the corner of the right of way fence, on range with telegraph poles ouside the right of way; 3 -inch red metal cap on iron pipe set in clay (C. \& G. S. b. m. $\mathrm{O}_{8}$ ).
Harrisburg, $3 \frac{1}{4}$ miles southeast of, on the right of way of the Galveston, Houston \& Henderson R. R., 15 meters southeast of mile board 9, and 15 meters southwest of the track; cross on top of section rail (C. \& G. S. b. m. M. M. 9)

Harrisburg, $4 \frac{1}{4}$ miles southeast of, on the right of way of the Galveston, Houston \& Henderson R. R., 35 meters northwest of mile board 10, on a steel and concrete bridge, 2 meters northeast of the tracks, in the center of the horizontal surface of the north abutment; copper bolt (C. \&. G. S. b. m. $\mathrm{P}_{8}$ )

Genoa, $3 \frac{1}{4}$ miles northwest of, 8 meters southwest of mile board 11 , on range with the telegraph poles, outside of the right of way fence; bottom of hole in top of stone post, (C. \& G. S. b. m. Q ${ }_{8}$ )
Genoa, $2 \neq$ miles northwest of, on the right of way of the Galveston, Houston \& Henderson R. R., 20 meters southeast of mile board 12 and 15 meters southwest of the tracks; cross on top of section rail (C. \& G. 'S. b. m. M. M. 12)

Genoa, about 55 meters northwest of the station, on the right of way of the Galveston, Houston \& Henderson R. R., 8 meters southwest of the tracks, in the foundation of the water tank, on the southeast side of the horizontal surface; red metal disk (C. \& G. S. b. m. R 8 )
Genoa, about 75 meters southeast of the Galveston, Houston \& Henderson R. R. station and about 55 meters northeast of the tracks, in the corner of a fence; bottom of hole in top of stone post (C. \& G. S. b. m. S 8 )
47.040

Genoa, $1 \frac{3}{4}$ miles southeast of, on the right of way of the Galveston, Houston \& Henderson R. R., 20 meters northwest of mile board 16, and 15 meters southwest of the tracks; cross on top of section rail (C. \& G. S. b. m. M. M. 16)
43. 573

Genoa, $3 \frac{3}{4}$ miles southeast of, on the right of way of the Galveston, Houston \& Henderson R. R., 20 meters southeast of mile board 18 and 15 meters southwest of the tracks; cross on top of section rail (C. \& G. S. b. m. M. M. 18)

Webster, 1 mile northwest of, $12 \frac{3}{3}$ telegraph poles northwest of mile board 21, 35 meters northeast of the Galveston, Houston \& Henderson tracks, 15 meters southwest of an artesian well, on land owned by Harvey T. D. Wilson; 3-inch red metal cap on iron pipe set in clay (C. \& G. S. b. m. T ${ }_{8}$ ).
Webster, 100 meters southwest of the Galveston, Houston \& Henderson R. R. station, in the corner of a fence at the east corner of a street crossing, on land owned by Harvey T. D. Wilson; bottom of hole in top of stone post (C. \& G. S. b. m. U $\mathrm{U}_{8}$ ).

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\text { 31. } 506
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Webster, one-third mile southeast of, on the right of way of the Galveston, Houston \& Henderson R. R., 12 meters southeast of mile board 22, 15 meters southwest of the tracks; cross on top of section rail (C. \& G. S. b. m. M. M. 22)

Feet.
26. 943

League City, on the right of way of the Galveston, Houston \& Henderson R. R., 7 meters southeast of the station and 10 meters northeast of the tracks, on the top surface of a 7 by 8 inch stone post set in the parking; red metal disk (C. \& G. S. b. m. V8).

## JEFEERSON QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $94^{\circ}-94^{\circ} 30^{\prime}$.]

## From Lassater southeast along Missouri, Kansas \& Texas Ry. to Waskom.

Lassater, 9 paces north of the old abandoned grade, 35 paces north of the new track, 10 feet east of second telegraph pole (old line), west of platform used as station, 44 paces west of railroad-crossing sign at road crossing; bottom of square hole in limestone post (C. \& G. S. b. m. E $\mathrm{E}_{3}$.
Kellyville, 30 feet west of and across the track from the switch stand at the west end of the siding, between the third and fourth telegraph poles east of mile pole 83014 paces north of the track in an angle formed by the right of way fence and the fence crossing the railway; bottom of square hole in limestone post (C. \& G. S. b. m. F $\mathrm{F}_{3}$ )
Jefferson, 7 feet north of the telegraph pole just opposite the station, almost in line with the east end of the building and 16 paces north of the track; bottom of square hole in limestone post (C. \& G. S. b. m. G ${ }_{3}$ ).
Norwood, directly across the track from the second telegraph pole east of mile pole $843,2 \frac{1}{2}$ poles west of the mail-catch stand, 30 paces north of the track, about 5 feet inside of the right of way fence; bottom of square hole in limestone post (C. \& G. S. b. m. $\mathrm{I}_{3}$ )
207. 010

Karnack, 600 feet east of and across the tracks from the station, 12 paces east of and 18 paces south of the fourth telegraph pole west of mile pole 848,24 paces south of the track and 10 paces north of the right of way fence; bottom of square hole in limestone post (C. \& G. S. b. m. J J )
Blocker, about 230 feet east of the station at, 4 paces south of the second telegraph pole east of the station and 12 paces south of the track, top of a corner of the post is broken off; bottom of square hole in limestone post (C. \& G. S. b. m. $\mathrm{K}_{3}$ )
Waskom, about 250 feet n est of the station (Missouri, Kansas \& Texas Ry.) and 8 paces south of the track, 6 feet southwest of third telegraph pole west of station; bottom of square hole in limestone post (C. \& G. S. b. $\mathrm{m} . \mathrm{L}_{3}$ ).
299.248

## KAUFMANN QUADRANGLE.

## [Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]

From Rockwall northeast to Royse.
Rockwall, at the southwest corner of the county courthouse, in the south face, 4 feet above the ground, in the fourth tier from the foundation and about midway between the corner of the building and a window; intersection of lines on top of copper bolt (C. \& G. S. b. m. G $\mathrm{G}_{2}$ ) . . ..........
Fate, in the middle brick column of the double building owned by Low \& Sawyer, in the front facing south and about 4 feet from ground; intersection of lines on top of copper bolt (C. \& G. S. b. m. H2)
Royse, in the center of a large stone block at the left of the entrance to the Royse City Bank, on the west side, about 16 inches above sidewalk; intersection of lines on top of copper bolt (C. \& G. S. b. m. $\mathrm{I}_{2}$ ).

## KENT QUADRANGLE.

## [Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $104^{\circ}-104^{\circ} 30^{\prime}$.]

From San Martine west along Texas \& Pacific Ry. to Plateau.
San Martine, 0.74 meter west of the southwest corner of the section house, and 9.3 meters north of the center of the Texas \& Pacific Ry. track; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{X}_{16}$ ).

Feet. $3,715.488$
San Martine, on the southeast corner of the southeast masonry footing of the railway water tank, 49 meters north of the center of the main track; bottom of hole in horizontal surface (C. \& G. S. b. m. Y ${ }_{16}$ ). $3,718.296$
San Martine, about 4.1 kilometers west of, on the railway bridge 688B, on top of the north wing wall of the west abutment, 3.6 meters from the west end of a bridge girder, and 2.4 meters north of the center of the track; copper bolt (C. \& G. S. b. m. Z $\mathrm{Z}_{16}$ ).

3, 829.412
Kent, about 9 kilometers east of, at the foot of the south point of the hill forming the west side wall of Levison pond, at the thirteenth telegraph pole west of milepost 691, 14.2 meters north of the center of the track, 1.05 meters from the right-of-way fence, and 14 meters northeast of the small water tank alongside the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. A ${ }_{17}$ )

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                            3,987.902
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Kent, about 5.5 kilometers east of, 84 meters west of milepost 694, at the east end of a cut, 1.93 meters north of the gauge of the north rail, 0.2 meter from the south edge of a flat stone in the cut, and 0.3 meter below the rail; copper bolt (C. \& G. S. b. m. B $\mathbf{B}_{17}$ ).
$4,136.885$
Kent, 9.7 meters south of the main line of the railway, in the northeast corner of the section-house yard, 6.6 meters from the northeast corner of the section house, in range with two china trees, 3.80 meters east of the east tree; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{C}_{17}$ )
$4,212.544$
Kent, about 3.9 kilometers west of, 1.65 meters west of milepost 700 of the railway, 12.80 meters south of the track, and 2.6 meters from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. D 17 ) .. 4, 303. 131
Kent, about 4.6 kilometers west of, 700 meters west of milepost 700,70 meters east of the section-line fence running north, on the highest roundtopped smooth rock in a cut, 2.60 meters north of the north rail, and 0.75 meter above the rail; copper bolt (C. \& G. S. b. m. E $\mathrm{E}_{17}$ )

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4,327.481
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4,327.481
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4,327.481
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Boracho, on the railway right of way, in front of the section foreman's house, 5 meters from section post 190, 14.5 meters south of the center of the track, and 0.7 meter from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. F 17 )
$4,458.525$
Boracho, about 2.3 kilometers west of, on the railway right of way, 125 feet east of bridge 356, 13.1 meters south of the center of the track, and 2.2 meters from the fence; 3-inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{G}_{17}$ ).
$4,400.638$
Plateau, about 5.6 kilometers east of, on the railway right of way, opposite the center of a small artificial pond 75 meters to the north, 14.10 meters north of the center of the track, and 1 meter from the fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{H}_{17}$ ).

4, 086. 802

## LAMPASAS QUADRANGLE. <br> [Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$. <br> Near Lampasas.

Lampasas, 3 miles east of, in the right of way of the Gulf, Colorado \& Santa Fe Ry., 20 feet south of the track and 20 feet from the fence; 50 feet west of mile pole 271 ; bottom of square cut in top of limestone post (C. \& G. S. b. $\mathrm{m} . \mathrm{U}_{4}$ ).

Lampasas, about $2 \frac{1}{2}$ miles south $80^{\circ}$ east of, 250 meters north of the "Lam-pasas-Belton" road, on the highest and most northerly wooded point, and about 300 meters south of Sulphur Creek, on the land of J. W. Mosely; bronze station mark upon a limestone block, embedded in concrete (C. \& G. S. b. m. Lampasas, northeast base)

Feet.
Lampasas, about 2 miles southeast of, on the land of J. H. Berry; bronze station mark upon a limestone block, embedded in concrete.
$1,251.881$
LEFORS QUADRANGLE.
[Latitude $35^{\circ}-35^{\circ} 30^{\prime}$; longitude $100^{\circ} 30^{\prime}-101^{\circ}$.]
From McLean west along Chicago, Rock Island \& Pacific Ry. to Boydstown.
McLean, on the east wall of the concrete foundation of the railway station, 0.3 meter below the top and 0.2 meter from the northeast corner; red metal disk (C. \& G. S. b. m. S ${ }_{3}$ )

2, 858.734
Mr:Lean, at the northeast corner of Main and First streets, on the building occupied by the Citizens' State Bank of McLean, to the left of the entrance on the southwest corner, 1.4 meters above the sidewalk; red metal disk (C. \& G. S. b. m. T 9 )
$2,864.985$
McLean, about 3.9 miles southwest of, inside the right of way at the southwest end of a cut on a curve on the railway, $2 \frac{1}{2}$ poles southwest of milepole 691, 14.3 meters northwest of the center line of the main track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. U ${ }_{9}$ )
Alanreed, about 1.5 miles northeast of, just outside the right of way at the south end of a cut on the railway, 2 poles north of pole 694-15, 16 meters east of the center line of the main track and to the west of the highway; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. V $\mathrm{V}_{9}$ ).

3, 008. 363
Alanreed, 21.2 meters south of a point on the center line of the main track of the railway, which is 10.7 meters east of the railroad station, 1.2 meters above the main tracks, and just north of the highway; bottom of hole in top of stone post (C. \& G. S. b. m. W ${ }_{9}$ )
Alanreed, at the northwest corner of Main Street and Second Avenue, on the brick building occupied by the Bank of Alanreed, on the southwest corner of the building, to the left of the entrance, and 0.3 meter above the sidewalk; red metal disk (C. \& G. S. b. m. $\mathrm{X}_{9}$ )
$3,027.44$ ŏ
A nreed, about 3 miles southwest of, at the north end of the curve in the cut on the track, and just east of the public highway, which follows the divide; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. Yg )
Rockledge, 60 meters south of the center line of the main track of the railway, even with and across the tracks from the signboard "Rockledge," at the north fence line of the highway which follows the divide; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{Z}_{9}$ ).
$3,167.579$
Jericho, about 3.5 miles east of, just outside the right of way, near the west end of the curve at the top of the grade on the railway, 1 pole east of pole 704-15, 15 meters south of the center line of the main track, and about 40 meters north of the highway which follows the divide; 3-inch red metal cap on iron pipe (O. \& G. S. b. m. A $A_{10}$ )

3, 173.203
Jericho, on the right-of-way property line of the railway, 60 meters west of the railroad station, 29.7 meters south of the center line of the main track; bottom of hole in top of stone post (C. \& G. S. b. m. B 10 ).
Jericho, about 3 miles west of, on the Chicago, Rock Island \& Gulf Ry. right of way, 2 meters from the north fence, in line with the telegraph poles, 14 meters north of the center of the track and about midway between 2 concrete culverts, just west of milepost 711; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{I}_{10}$ ).

Boydston, 7 meters northeast of a county-line post between Gray and Donley counties, on the Chicago, Rock Island \& Gulf Ry. right of way, 15 meters north of the center of the track, and 10 meters east of the first pole east of the pole marked " $713 / 30$ "; 3-inch red metal cap on iron pipe Feet. (C. \& G. S. b. m. J ${ }_{10}$ ).
$3,231.693$

## MIDLAND QUADRANGLE. <br> [Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $102^{\circ}-102^{\circ} 30^{\prime}$.] <br> At Midland.

Midland, 0.79 meter east of the southwest corner of the Texas \& Pacific Ry. depot, in the water table, 1.20 meters above the ground; copper bolt (C. \& G. S. b. m. $\mathrm{Z}_{14}$ ).

2, 781. 212
Midland, in the southeast corner of the Midland County courthouse yard, 47.5 meters from the southeast steps of the courthouse, 5.59 meters from a water plug in the street, 4.87 meters west and 1.02 meters north of inner edge of walk; bottom of hole in top of stone post (C. \& G. S. b. m. A A $) .2,774.177$

## MINEOLA QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]

## From Winnsboro east to Leesburg.

Winnsboro, in the north face of the First National Bank Building, in the second brick from the corner just to left of entrance and about 4 feet above the ground; intersection of lines in end of copp $\because$ bolt (C. \&
G. S. b. m. $\mathrm{U}_{2}$ )
533.382

Scroggins, about 7 feet within the right-of-way fence, 12 paces south of and at right angles to the track from a point 45 feet east of the east end of wooden bridge, 6 telegraph poles east of station sign; bottom of square cut in top of limestone post (C. \& G. S. b. m. V ${ }_{2}$ ).
355.846

Leesburg, about 250 feet from the station, 9 feet south of the second telegraph pole east of and across the tracks from the station; bottom of square cut in top of limestone post (C. \& G. S. b. m. W ${ }_{2}$ ).

MONAHANS QUADRANGLE.
[Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $102^{\circ} 30^{\prime}-103^{\circ}$.]

## From Douro southwest along Texas \& Pacific Ry. to Aroya.

Douro, on the range of the west side of the section foreman's house, 21 meters south of the center of the main line of the railway, and 28 meters S. $50^{\circ} \mathrm{E}$. of a large cottonwood tree north of the track; bottom of hole in top of stone post (C. \& G. S. b. m. I $\mathrm{I}_{15}$ ).
Douro, about 3.6 kilometers west of, on the railway right of way, at the highest point of the railway between Big Spring and Toyah, 180 meters east of the entrance to Dead Mans Cut, 13 meters south of the center of the track at the point of curve of the first curve between Stanton and Metz; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. J J
Metz, in range with the west side of the section foreman's house, 20 meters north of the center of the railway track, and 1 meter from the right-ofway fence, in the top of a $5 \frac{1}{2}$-foot section of rail which is set to project about 1 foot above the ground; center of a 15 -millimeter square cut (C. \& G. S. b. m. K ${ }_{15}$ )
$2,862.757$
Metz, about 4.4 kilometers west of, on the railway right of way, 1,683 feet east of the summit of the highest hill between Metz and Monahans, 12 meters south of the center of the track, and 2 meters from the right-ofway fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{L}_{15}$ ).
$2,899.902$

Metz, about 8.8 kilometers west of, on the railway right of way, 264 feet east of milepost 606, 125 feet west of a fence running north from the railway, 12.5 meters south of the center of the track, 2 meters from the right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{M}_{15}$ ) .. 2, 809.539
Sand Hills, about 3.1 kilometers east of, on the railway right of way, 1.8 meters east of milepost 609,13 meters south of the center of the track, and 2 meters from the south right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. N $\mathrm{N}_{15}$ )
Sand Hills, on the railway right of way, 28.95 meters northeast from the northeast corner of the section foreman's house (main upright), 26.75 meters from the northwest corner of the tool house, 36.1 meters north of the center of the track, and 30 meters south of the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. Ors)

2,707. 935
Sand Hills, about 3.4 kilometers west of, 11.80 meters west of milepost 613 of the railway, 13.5 meters south of the center of the track, and 1.85 meters north of the right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. P ${ }_{15}$ )

Monahans, 20 meters east of the depot at the southwest corner of the yard of the railway agent's dwelling house, in line with two China trees in the yard, the nearest of which is 4 meters west; bottom of hole in top of stone post (C. \& G. S. b. m. Q ${ }_{10}$ )
Monahans, about 0.9 kilometer west of, on the railway right of way, 14 meters south of the center of the track at the whistling post; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. R ${ }_{15}$ )
Monahans, about 4 kilometers west of, on the railway right of way, 14 meters north of the centre of the track and 15 meters west of the sectionline fence running north; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{S}_{15}$ )

Aroya, on the railway right of way, 87 paces west of the section foreman's dwelling house, 7.50 meters west of the southwest corner of the red sandstone quarters for the section hands, and in line with the south side or front of same, 20.95 meters north of the center of the main-line track, and 5.5 meters north of the line of the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. Tis)

2, 665.914

## MONTAGUE QUADRANGLE.

[Latitude $33^{\circ} 30^{\circ}-34^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]

## From Bowie north along Chicago, Rock Island \& Pacific Ry. to Ringgold.

Bowie, at Brown Hotel, known in 1902 as Bowie Hotel, 100 feet east of the Fort Worth \& Denver City Ry. station, at the southwest corner of the street, iron post marked "1124 Gainv." (A bench mark of the U. S. Geological Survey.)
Bowie, about 300 meters north of the railway station, about 25 feet west of the main track of the railway, and 10 feet below the same, on the west side of a stone culvert, $3 \frac{1}{2}$ feet from the southwest corner, 3 inches from the edge of the stone; square cut on stone (C. \& G. S. b. m. A).........
Bowie, on the north side of the City National Bank building, in the fourth brick west of the third double window and 4 feet from the ground; intersection of lines on top of copper bolt (C. \& G. S. b. m. B).
J., 145.175

Bowie, 6 miles west of, about 30 feet south of the railroad track, in a rock in situ, on a line between the third and fourth telegraph poles west of mile pole 75 on the Fort Worth \& Denver City Ry., 20 inches from the north and 16 inches from the west edge of the stone; top of copper bolt (C. \& G. S. b. m. C).

Bellevue, about a mile southeast of, on a prominent knoll on the farm belonging to the Orton brothers; bronze station mark in center of limestone block (C. \& G. S. b.m. Bowie N. W. Base Triangulation)........ .

Feet.
Bellevue, near, at the triangulation station Bowie Southeast Base, on the highest part of a prominent ridge on the farm of C. H. Bodeker; bronze station mark in center of limestone block (C. \& G. S. b. m. Bowie S. E. Base Triangulation).
$1,093.551$
Bowie, 5 miles northwest of, just south of mile pole 539 , on the west side of the track of the railway, in the northwest corner of the south concrete abutment of a bridge; top of copper bolt (C. \& G. S. b. m. D).
Bowie, 4 miles northwest of, 40 feet east of the railway track, at a publicroad crossing, 210 feet south of mile pole 540 , a bench mark of the U.S. Geological Survey; iron post marked " 989 Gainv."
Stoneburg, on the southwest corner of the southwest one of the four inner stone blocks supporting the railway water tank, 4 inches from either edge; top of copper bolt (C. \& G. S. b. m. E)
Stoneburg, 500 feet west of the railway station, at the northeast corner of the post-office building, a bench mark of the U. S. Geological Survey; iron post marked " 936 Gainv."
936. 228

Stoneburg, $4 \frac{1}{2}$ miles northwest of, 50 feet west of the railroad track, on the right of way, 50 feet south of mile pole 531, opposite Walker's ranch, a bench mark of the U. S. Geological Survey; iron post marked " 876 Gainv."
876. 028

Ringgold, 3 miles south of, $7 \frac{1}{2}$ miles northwest of Stoneburg, at the intersection of a public road and railroad crossing, 300 feet north of milepost 528, 46 feet east of the railroad track, a bench mark of the U. S. Geological Survey; iron post marked " 897 Gainv."
Ringgold, south of, $2 \frac{1}{2}$ telegraph poles north of mile pole 528.5 , on the west side of railway, 30 feet from the track and nearly in line with the poles, about in the center of the larger of two rocks in situ; top of copper bolt (C. \& G. S. b. m. F)

Ringgold, 180 feet east of the railway station, at the end of the platform, between the main tracks and the switch, a bench mark of the $U$. S. Geological Survey; iron post marked " 894 Gainv."

Terral, Okla., about a mile south of, north of Ringgold, in Texas, on the railway bridge 3219 over Red River, in the top of the west side of the south concrete abutment, 8 inches from the north edge and 5 feet from the west edge; top of copper bolt (C. \& G. S b. m. G).

## At Fruitland.

Fruitland, in the west side of the stone chimney on the south side of the house owned by W. H. Scarborough, about 5 feet from the ground and 6 inches from edge of the chimney; intersection of two lines in end of a $\frac{1}{2}$-inch copper bolt (C. \& G. S. b. m. H)
$1,053.800$

## MOUNT PLEASANT QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $94^{\circ} 45^{\prime}-95^{\circ}$.]

## From Pittsburg east along Missouri, Kansas \& Texas Ry, to Cason.

Pittsburg, $\frac{1}{4}$ mile west of the station, on a concrete arched culvert on Missouri, Kansas \& Texas Ry., one telegraph pole east of mile pole 786 and about 60 feet east of water tank, in the top of the coping to the north side, 6 inches from the north and 8 inches from the east edge; intersection of lines in end of copper bolt (C. \& G. S. b. m. X ${ }_{2}$ ).

Pittsburg, in the west face of the Carnegie library building, about 4 feet from the ground, in the middle brick of the second course of brick above the concrete forming the base of the pilaster at the right of the small entrance on the west side of the building; intersection of lines in end of copper bolt (C. \& G. S. b. m. Y )

Feet.
397.897

Cason, 15 paces south of the track, in an angle of the fence on the west side of the road crossing, 7 telegraph poles west of station and 5 feet from the south and east fences; bottom of square cut in top of limestone post (C. \& G. S. b. m. Z ${ }_{2}$ ).
326.039

MOUNT VERNON QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $95^{\circ}-95^{\circ} 30^{\prime}$.]

## From Como to Pickton.

Como, 10 paces north of the track, in a triangle formed by a telegraph pole and two guys thereto, about 100 feet east of and across tracks from the station; bottom of square hole cut in top of limestone post (C. \& G. S. b. m. $\mathrm{S}_{2}$ )
532. 263

Pickton, about 150 feet west of the station, 4 paces west of the first telegraph pole west of the station, 9 paces north of the track, in line with the telegraph poles; bottom of square cut in top of limestone post (C. \& G. S. b. m. T $\mathrm{T}_{2}$ ).

## NEW BRAUNFELS QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$.]
From Hunter west along International \& Great Northern Ry. to New Braunfels.
Hunter, 1 mile west of, 210 meters east of mile pole 218, opposite post with sign "Hunter, 1 mile," 4.5 meters east of a crossing on the right of way of the railroad; bottom of hole in top of stone post (C. \& G. S. b. m. $M_{6}$ ) $\ldots$
Goodwin, 200 meters east of, opposite the switch block at the east end of the siding on the right of way of the railroad, 16 meters north of the track; bottom of hole in top of stone post (C. \& G. S. b. m. N ${ }_{6}$ ).
Goodwin, opposite the station, in the railroad right of way, 50 meters north of the mile pole 223 and 12 meters east of the track; an iron post marked " 92 S. A. 695 feet" (U. S. G. S. b. m. 695 S. A.).
New Braunfels, about 4 miles southeast of, on the New Braunfels-Seguin highway, about 10 meters east from the center of the road, in the northwest corner of the front yard of Gottfried Janer, 1 meter from both the north and west yard fences; bottom of hole in top of stone post (C. \& G. S. b. $\mathrm{m} . \mathrm{T}_{6}$ )

New Braunfels, $6 \frac{1}{2}$ miles from, 1,100 meters west of the Seguin-New Braunfels road and about 400 meters east of Guadalupe River, on a small hill covered with scattering mesquite brush, on the land of Henry Steinman; the base of the monument is a limestone block set in concrete and carrying on its top surface a bronze station mark, 80 millimeters in diameter, with an inner circle, countersunk, 37 millimeters in diameter; center of inner circle, letters "U. S. C. \& G. S." cast on the space between the inner and outer circles (Seguin West Base Triangulation Station)
Seguin, near, about 2 miles northwest of Von Beckman's store and gin, 1,050 meters east of the main road between Von Beckman's and New Braunfels, on the land of Henry Soefje, at the western edge of the live-oak timber; monument and mark are similar to those at Seguin West Base Triangulation Station (Seguin East Base Triangulation Station).

New Braunfels, 1.35 miles east of, in the top of the northeast limestone pier of the bridge of the railroad over Guadalupe River, 0.2 meter from the east edge and 0.6 meter from the north edge of the pier; bottom of a square hole, unlettered (C. \& G. S. b. m. $\mathrm{O}_{6}$ ).

Feet. 624. 303
633. 293
638. 709

New Braunfels, in the Comal County prison, at the left of the entrance to the building (of limestone), in the face of the square corner limestone pillar, about 1.5 meters above the sidewalk; copper bolt (C. \& G. S. b. m. $Q_{6}$ )
635. 242

New Braunfels, in the square park at the intersection of San Antonio and Seguin streets, in the northwest part, about 8 meters west of the center line of San Antonio Street and 20 meters north of the center line of Seguin Street; bottom of hole in top of stone post (C. \& G. S. b. m. R $\mathrm{R}_{6}$ )..
New Braunfels, in the courthouse (of limestone), in the top of the low limestone wall, top dressed, at the right of the steps leading to the side entrance on San Antonio Street; the bottom of a square hole, 3 centimeters square and 0.6 centimeter deep, lettered "U. S. C. \& G. S." (C. \& G. S. b. m. $\mathrm{S}_{6}$ )

ODESSA QUADRANGLE.
[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $102^{\circ}-102^{\circ} 30^{\prime}$.]

## From Midland southwest along Texas \& Pacific Ry. to Odessa.

Midland, about 7.6 kilometers west of, on the railway right of way, at the west end of a spur track, 18 meters east of a byroad crossing, 13 meters south of the center of the main-line track and 0.5 meter from the fence between the right of way and the road paralleling the railroad; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. B ${ }_{15}$ ).
$2,842.229$
Midland, 7 miles west of, and 3 miles east of Warfield, $\frac{1}{2}$ mile south of the railroad, on a round knoll in a cultivated field, the property of the Scarborough Cattle Co., of Midland; a standard brass cap station mark screwed to the top of a 3-inch pipe (C. \& G. S. b. m. Scar triangulation station).. 2, 889. 253
Warfield, 20 meters east of the section foreman's house and 18 meters north of the center of the main track of the railway; bottom of hole in top of stone post (C. \& G. S. b. m. C C 15 ).

2, 869. 453
Warfield, about 2.3 kilometers west of, on the railway right of way, 13 meters south of the center of the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. D 15 )
$2,860.316$
Odessa, about 8.5 kilometers east of, on the railway right of way, near the third telegraph pole east of milepost 575 and 12 meters south of the center of the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{E}_{15}$ ) 2, 882. 731
Odessa, about 2 miles east of, and 1 mile north of the railway, on the highest point of a low bare knoll in the pasture of C. P. Turner and $\frac{1}{2}$ mile north of his hozse; the surface mark of a Coast and Geodetic Survey triangulation station and is marked by a standard cap station mark screwed to the top of a 3 -inch iron pipe which is embedded in concrete (C. \& G. S. b. m. Odessa triangulation station).

2,948. 039
Odessa, on the southwest corner of the southwest stone footing of the railway water tank; surface within an outlined square (C. \& G. S. b. m. F $\mathrm{F}_{15}$ ). 2, 898. 193

Odessa, in the southwest corner of the Ector County courthouse yard, 42.1 meters from the southwest corner of the courthouse and 0.72 meter from the concrete corner post of the yard; bottom of hole in top of stone post (C. \& G. S. b. m. G $\mathrm{G}_{15}$ )

## Feet.

Odessa, about 8.2 kilometers west of, on the railway right of way, 58 meters east of milepost 585 (old numbering), 13 meters south of the center of the track, and 2 meters from the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{H}_{15}$ )

2, 943. 793

## PALO PINTO QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $98^{\circ}-98^{\circ} 30^{\prime}$.]

## From Millsap west along Texas \& Pacific Ry. to Strawn.

Millsap, about 2.5 miles west of, on the railway bridge 294B over Rock Creek, on the west concrete abutment, 0.3 meter below the rail and 1.5 meter north of the center of the track; copper bolt (C. \& G. S. b. m. Z Z 10 ).
753.952

Bennetts, 13 meters south of the main-line track at the station; bottom of hole in top of stone post (C. \& G. S. b. m. A ${ }_{11}$ ).
753.473

Brazos, about 1.5 miles east of, on the railway right of way, 1 meter north of the south fence and 1 meter west of the west side of the road that crosses the track at this point and 19 meters west of bridge 300A; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. B $\mathrm{B}_{11}$ )
813. 870

Brazos, about 0.7 mile east of, on the railway bridge 301 A , on the south end of the east abutment wall, 0.2 meter below the rail; copper bolt (C. \& G. S. b. m. $\mathrm{C}_{11}$ )
783. 667

Brazos, in front of the depot, 1 meter south of the north fence, on the railway right of way; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. D ${ }_{11}$ ).
Santo, about 3 miles east of, on the railway bridge 305B over Palo Pinto Creek, on the north end of the west abutment, 0.2 meter north of the northwest corner of the footplate of the truss; copper bolt (C. \& G. S. b. m. $\mathrm{E}_{11}$ )

Santo, about 0.7 mile east of, on the railway bridge 308A over Sunday Creek, on the top of the north end of the east abutment, 1.6 meters below the rail at the end of the truss; copper bolt (C. \& G. S. b. m. F $\mathrm{F}_{11}$ )
Santo, on the north side of the main-line track, 90 meters west of the depot and 1 meter from the corner of the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. G 11 )
808. 155

Santo, about 3.9 miles east of, on the railway right of way, 465 feet west of

- a siding and 1 meter south of the fence between the railway and the county road; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{H}_{11}$ )
880.993

Judd, on the railway right of way, 1 meter south of the fence between the right of way and the county road, about 15 meters east of the station; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $I_{11}$ )
Gordon, about 1.9 miles east of, on the railway bridge 317 E over Bartons Creek, on top of the coping stone on the south end of the west abutment, 4.3 meters from the center of the track and 0.8 meter below the rail; copper bolt (C. \& G. S. b. m. J ${ }_{11}$ )
934.476

Gordon, 38 meters east of the center of the depot, on the east line of Locust Street; bottom of hole in top of stone post (C. \& G. S. b. m. K 11 ).
Mingus, about 1 mile east of, north of the main-line track of the railway and 1 meter south of the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. L ${ }_{11}$ )
955.996

Mingus, on the east face of the concrete water table of the center pillar supporting the porch roof of the railway depot and 3 feet from the ground; red metal disk (C. \& G. S. b. m. M $\mathrm{M}_{11}$ )

Mingus, about 1.4 miles west of, on railway bridge 324 A over the South Fork of Palo Pinto Creek, on the north end of the east abutment 3.5 meters
from the center of the track and 1 meter below the rail; copper bolt (C. \& G. S. b. m. $\mathrm{N}_{\mathrm{t1}}$ ).

Feet.
953.466

Strawn, on the north side of the track in line with the telegraph poles, 530 meters east of the depot and 1 meter east of the fence to the cattle guard; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{O}_{11}$ )
995.930

Strawn, on the north side of the railway track, 394 meters west of the depot, 7 meters west of a pile culvert and 1 meter from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. P ${ }_{11}$ )

PYOTE QUADRANGLE.
[Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $103^{\circ}-103^{\circ} 30^{\prime}$.]

## At Pyote.

Aroya, about 4 kilometers west of, on the Texas \& Pacific Ry. right of way, at east end of a mound of earth and rock used as a rail rest, 13.02 meters south of the center of the track, and 2.21 meters from the right of way fence; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{U}_{15}$ ) 2, 653.269
Pyote, on the railway right of way, 53.0 meters west of the dcpot, 13.40 meters south of the center of the track, 1.95 meters north of the right of way fence, and 1.05 meters west of the cattle-guard feace; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $V_{15}$ )
$2,619.798$
Pyote, 11.21 meters west of the railway depot, 18.4 meters west of the southwest corner of the stone house used as quarters for the section hands. and 17.7 meters north of the center of the main track; bottom of hole in top of stone post (C. \& G. S. b. m. W ${ }_{15}$ )

2, 625.484

## RIO GRANDE QUADRANGLE.

[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $106^{\circ}-106^{\circ} 30^{\prime}$.]

## Near Polvo.

Polvo, about 2 milrs west of, 0.9 meter northwest of milepost 792 of the Galveston, Harrisburg \& San Antonio Ry., 14.3 meters south of the center of the track, and 1.2 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{S}_{18}$ )
$3,576.850$
Polvo, about 2.2 miles west of, 8 poles west of milepost 792 of the railway, 13.9 meters south of the center of the track, and 1.3 meters from the fence; 3-inch cap on iron pipe (U. S. G. S. 3560)
$3,573.674$
Fabens, about 3 kilometers east of, 2.2 meters east of milepost 798 of the Galveston, Harrisburg \& San Antonio Ry., 14.3 meters south of the center of the track, and 0.4 meter from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. T $\mathrm{T}_{18}$ )

3, 596.719

## ROBY QUANDRANGLE.

[Latitude $32^{\circ} 30^{\circ}-33^{\circ}$; longitude $100^{\circ}-100^{\circ} 30^{\prime}$.]

## From Trent west along Texas and Pacific Ry. to Eskota.

Trent, on the railway right of way, 33 meters west of the center of the depot, 14 meters north of the main line of the railway, and on the west line of the main street of the town; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{J}_{13}$ )

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1,914. 861
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Trent, 62 meters west of the railway depot, beside the track of the county road, and 1 meter outside the railway right of way fence at milepost 430; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{K}_{13}$ ) .

1, 917.810

Eskota, about 4 miles east of, on the railway right of way, south of the track at milepost 434 and 1 meter from the county-road fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{L}_{13}$ )

Feet.
Eskota, on the railway right of way, 349 meters west of the depot, 12 meters north of the track, and just inside the county-road fence; bottom of hole in top of stone post (C. \& G. S. b. m. $M_{13}$ )
$1,938.264$
Sweetwater, about 4.9 miles east of, on the railway bridge 443 C over Sweetwater Creek, on the south end of the east abutment at the level of the bridge seat, 1.45 meters below the rail, and 3.3 meters from the center of the track; copper bolt (C. \& G. S. b. m. N ${ }_{13}$ )

1, 992.824

## ROSENBERG QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]
From Brookshire east along Missouri, Kansas \& Texas Ry. to Hillendahl.
Brookshire, 300 meters west of the station, on the right of way of the railway, in the southwest corner of grade crossing, $1 / 3$ meter from right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. U $\mathrm{U}_{7}$ )..
Brookshire, 3 miles east of, 4 rails west of mile board 1051, on the right of way of the railway, in the northwest corner of a grade crossing, $1 / 3$ meter from the right-of-way fence, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $V_{7}$ ).
Katy, $1 \frac{1}{4}$ miles west of, $121 / 3$ telegraph poles east of mile board 1054 , on the right of way of the railway, in the northwest corner of a grade crossing, 15 paces north of the tracks; bottom of hole in top of stone post (C. \& G. S. b. m. W ${ }_{7}$ )

Katy, 175 meters west and 100 meters south of the railway station, in the water tank owned by the Katy Rice Milling Co., in the horizontal surface of the southwest foundation; copper bolt (C. \& G. S. b. m. X ${ }_{7}$ ) .....
Katy, on the right of way of the railway, 65 meters east of the station, on the water tank, at the east end of the fourth concrete mudsill from the tracks, in the vertical surface; red metal disk (C. \& G. S. b. m. Y 7 )........
Katy, $2 \frac{3}{4}$ miles east of, on the right of way of the railway, 15 telegraph poles east of mile board 1058, in the southeast corner of a grade crossing, 15 meters south of the tracks; bottom of hole in top of stone post (C. \& G. S. b. m. Z $\mathrm{Z}_{7}$ )
141. 355
142.487

Burnap, 20 meters west of the signboard, 35 meters south of the railway tracks, on the south side of a public highway, $1 / 3$ meter from the property line; bottom of hole in top of stone post (C. \& G. S. b. m. A $A_{8}$ )
157. 158

Barker, 20 meters west of the signboard, 35 meters south of the railway tracks, in the corner of a fence, on land owned by G. T. Miller, set in cement; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. B8).
134. 488
124.816

Letitia, on the right of way of the railway, 65 meters east of the station and 30 meters south of the tracks, in the corner of a fence, set in clay; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{C}_{8}$ )
96. 332

Hillendahl, $2 \frac{1}{2}$ miles west of, $8 \frac{1}{2}$ telegraph poles west of mile board 1071, in the southeast corner of a grade crossing, 15 meters south of the railway tracks, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{D}_{8}$ ).

## SAN MARCOS QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]
From Dale west along Missouri, Kansas \& Texas and International \& Great Northern railroads to Hunter.
Dale, $\frac{3}{4}$ mile east of, on the right of way of the Missouri, Kansas \& Texas Ry., on a red sandstone culvert, 2.3 meters east of mile pole 997 , in the center of the top of the upper southwest corner stone, 0.25 meter from the south and west edges of the culvert; top of copper bolt roughly lettered "U. S. B. M." (C. \& G. S. b. m. C 6 ).

Feet.
Lockhart, $2 \frac{1}{2}$ miles east of, on the right of way of the Missouri, Kansas \& Texas Ry., in the west limestone pier of the bridge over Plum Creek, in the northwest corner of the top of the southernmost topstone, 0.2 meter from the joint, 0.1 meter from the west edge, and 0.9 meter south of the south rail of the track; the bottom of a square hole (C. \& G. S. b. $\dot{\mathrm{m} .} \mathrm{D}_{6}$ )
Lockhart, 20 feet south of the track of the Missouri, Kansas \& Texas Ry., 200 feet west of the transfer track of the San Antonio \& Aransas Pass Ry., and 40 feet west of the road; iron post (reported slightly loose in 1904) (U. S. G. S. b. m. Geol. Lockhart)

Lockhart, on the county courthouse; in the east wall, about 1.2 meters from the northeast corner and about 1.2 meters above the ground, about 0.52 meter south of the granite corner stone, and 0.14 meter above the layer of red sandstone, in a block of limestone dressed ready for lettering but not lettered, in the face of a copper bolt; a cross cut (C. \& G. S. b. m. $\mathrm{E}_{6}$ ).
500.088

Lockhart, in the Eugene Clark Library building, about 0.42 meter north of the southeast corner of the front wall of the building and about 1.2 meters from the ground, in the limestone window ledge; a cross in the face of a copper bolt, lettered "U. S. C." (C. \& G. S. b. m. F F )
Lockhart, about $\frac{1}{2}$ mile west of the Missouri, Kansas \& Texas Ry. depot, about 100 meters west of the westernmost switch in the yards, in the line of telegraph poles on the railway right of way, south of the track; bottom of hole in top of stone post (C. \& G. S. b. m. G ${ }_{6}$ ).
Clear Fork, 400 feet east of the spur at, 25 feet north of the center of the track and 50 feet south of the San Marcos and Lockhart road crossing; an iron post (reported very slightly loose in 1914) (U. S. G. S. b. m. Geol. Clear Fork)
569.747

Maxwell, 30 feet south of the center of the main track, directly in front of the station; an iron post (U. S. G. S. b. m. Geol. Maxwell).
603.916

Maxwell, about $1 \frac{1}{2}$ miles west of, 38 meters west of mile pole 1014 on the right of way of the Missouri Kansas \& Texas Ry., 10 meters south of the track; bottom of hole in top of stone post (C. \& G. S. b. m. H $\mathrm{H}_{6}$ ).
Reedville, about $\frac{5}{8}$ mile west of, 10 feet west of ninth telegraph pole east of mile pole 1018, 40 feet south of the track and 30 feet east of the wagon road; an iron post marked " 100 S. A." (U. S. G. S. b. m. 100 S. A.)....
San Marcos, opposite the freight depot of the International \& Great Northern Ry. and just south of the track, in the middle of the southeast face of the octagonal limestone base ( 3 meters high) of the steel water tank, 1 meter above the ground; copper bolt (C. \& G. S. b. m. $\mathrm{I}_{6}$ ).
582.938
581.006

San Marcos, at the east entrance of the courthouse, in the face of the corner pillar of dressed limestone, about 1.5 meters north from the entrance and 1.5 meters above the ground; copper bolt (C. \& G. S. b. m. J ${ }_{6}$ ) ......
San Marcos, in the building of the Glover National Bank, in the top of the limestone ledge step below the window at the left of the entrance, in the center of the step; copper bolt (C. \& G. S. b. m. K ${ }_{6}$ ).
San Marcos, near, on the International \& Great Northern Ry. bridge over San Marcos River, in the west end of the north rock pier; a copper bolt marked " 585 feet" (U. S. G. S. b. m. 585 San Marcos).
Hunter, 2.8 miles east of, 25 meters east of mile pole 214, on the right of way of the railroad, 6 meters south from the track; bottom of hole in top of stone post (C. \& G. S. b. m. L 6 ) .
Hunter, on the railroad bridge over Yorks Creek, near mile pole 219, in the top of the west end of the north rock pier; copper bolt marked " 627 feet" (U. S. G. S. b. m. 627 Yorks)

## SEALY QUADRANGLE.

[Latitude $29^{\circ} 30^{\prime}-30^{\circ}$; longitude $96^{\circ}-96^{\circ} 30^{\prime}$.]

## From New Ulm east along Missouri, Kansas \& Texas Ry. to Brookshire.

Feet.
577.755
672. 823
621.656

New Ulm, $3 \frac{1}{2}$ miles west of, 6 meters east of mile board 1010, in the corner of the right-of-way and cattle-guard fences; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{H}_{7}$ )
359.032

New Ulm, 100 meters northeast of the railway station, in the brick store owned by L. R. Fink, on the east side of the building, 1 meter from the north side, $1 \frac{1}{2}$ meters above ground; copper bolt (C. \& G. S. b. m. $\mathrm{I}_{7}$ ) ...
New Ulm, 225 meters west of mile board 1014, on the north right of way, in the corner of the right-of-way and cattle-guard fences; bottom of hole in top of stone post (C. \& G. S. b. m. J )
402.089
393.391
361.499
303. 733
226.532

Sealy, $3 \frac{3}{4}$ miles west of, 13 telegraph poles east of mile board 1031, in the northeast corner of a grade crossing, 0.2 meter north of the right of way of the railway; bottom of hole in top of stone post (C. \& G. S. b. m. N $\mathrm{N}_{7}$ ) ...
Sealy, on the right of way of the railway, 35 meters east of the station, on the water tank on the top of the second concrete mudsill from the tracks, 0.1 meter from the west end of the sill; bottom of hole in horizontal surface (C. \& G. S. b. m. $\mathrm{O}_{7}$ )
218. 516

Sealy, on Foulken Street, in the center of the east face of the brick store owned by A. Preibisch, about 1.3 meters above the walk; copper bolt (C. \& G. S. b. m. P ${ }_{7}$ )

Sealy, on Foulken Street, in the cement walk in front of the brick store owned by Mistroit Bros. \& Co., 0.15 meter from the northwest corner of the building; surface within an outlined square (C. \& G. S. b. m. Q $_{7}$ )....
San Felipe, $1 \frac{1}{2}$ miles east of, $4 \frac{1}{2}$ telegraph poles west of mile board 1040, in the northwest corner of a grade crossing, $\frac{1}{2}$ meter from the right of way of the railway, on land owned by John Hluchan, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. R $\mathrm{R}_{7}$ )
McDowell, $\frac{1}{2}$ mile east of, on the railway, on bridge 2156 over the Brazos River, at the south end of the first pier west of the Austin-Waller county line, on the top surface of the southernmost short section of rail, resting on the cement pier; a 2.5 centimeter square, chiseled in outline between two transverse girders (C. \& G. S. b. m. S 7 ).

Brookshire, 3 miles west of, 5 telegraph poles west of mile board 1045, on the right-of-way of the railway, in the northeast corner of a grade crossing, $\frac{\pi}{3}$ meter from the right-of-way fence, set in clay; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{T}_{7}$ ) ...................................................

Feet.
120.095

## SIERRA BLANCA QUADRANGLE.

[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $105^{\circ}-105^{\circ} 30^{\prime}$.]
From Allamore west along Texas \& Pacific Ry. to Sierra Blanca, thence west along Galveston, Harrisburg \& San Antonio Ry. to Etholen.
Allamore, about 4 miles west of, at milepost 749 of the Texas \& Pacific Ry., 12.7 meters north of the center of the track, and 2 meters from the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $R_{17}$ )...
Eagle Flat, about 3 kilometers east of, 9.9 meters east of milepost 751 of the Texas \& Pacific Ry., 11.60 meters south of the center of the track, and 3.4 meters from the right of way fence; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{S}_{17}$ ).
Eagle Flat, in front of and across the tracks from the section foreman's house, in the range of the west end of the house, 24.9 meters south of the main line of the railway, and 1.65 meters from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. T $\mathrm{T}_{17}$ ).

4, 459. 581
Eagle Flat, about 3.6 kilometers west of, 1.60 meters east of milepost 755 of the Texas \& Pacific Ry., 12.20 meters south of the center of the track, and 2.8 meters from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. U $\mathrm{U}_{17}$ )
$4,419.650$
Sierra Blanca, about 9.3 kilometers east of, 4.1 meters west of milepost 759 of the Texas \& Pacific Ry., 11.9 meters south of the center of the track, and 3.3 meters north of the fence between the right of way and wagon road; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. V ${ }_{17}$ ).
La Valley, 8.6 kilometers east of Sierra Blanca, on the Texas \& Pacific Ry. right of way, 12.8 meters south of the center of the track, 3.7 meters from the fence, and in front of the west wing of the La Valley Hotel, about 40 meters distant; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{W}_{17}$ ).

Sierra Blanca, about 5.6 kilometers east of, 11.5 meters south of the center of the Texas \& Pacific Ry. track, 3.9 meters from the right of way fence and 2 meters west of milepost 764 ; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. X ${ }_{17}$ ).
$4,396.165$
Sierra Blanca, in range with the north side of the Galveston, Harrisburg \& San Antonio Ry. and the Texas \& Pacific Ry. depot, 16 meters west of the northwest corner, 9.20 meters south of the center of the main line of the latter railway, and 15.55 meters north of the center of the main line of the former railway; bottom of hole in top of stone post(C. \& G. S. b. m. Y ${ }_{17}$ ) 4, 519. 902
Sierra Blanca, about 2.7 kilometers west of, 28.9 meters north of the center of the Galveston, Harrisburg \& San Antonio Ry. track, 1.66 meters from the right of way fence, 1,075 feet east of bridge $738-\mathrm{B}$, and $13 \frac{1}{2}$ telegraph poles east of milepost 739 ; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{Z}_{17}$ ).
$4,557.590$
Etholen, 13.20 meters north of the station sign, 13 meters west of the engine house (pump station), 24.5 meters north of the center of the track, and 5.8 meters from the right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. A $\mathrm{A}_{18}$ ).

Etholen, about 2.8 kilometers west of, 3.37 meters west of milepost 743 of the Galveston, Harrisburg \& San Antonio Ry., on the right of way, 12.80 meters south of the center of the track, 2.4 meters from the fence and 35 meters west of bridge $742-\mathrm{B}$; 3-inch red metal cap on iron pipe

Feet. (C. \& G. S. b. m. B ${ }_{18}$ )
$4,589.790$

## SLAUGHTER QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $101^{\circ} 30^{\prime}-102^{\circ}$.]

## From Big Spring west along Texas \& Pacific Ry. to Midland.

Big Spring, about 6.2 kilometers west of, on the railway right of way, at milepost 524 (old numbering), about 160 meters west of the fill over the arm of Hughes Lake, and 12 meters north of the main-line track; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. N 1 $_{14}$ ).
Big Spring, about 10.3 kilometers west of, on the railway right of way, 11 meters south of the center of the track, 4 meters west of the fence at a road crossing, and 2 meters from the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. O ${ }_{14}$ )
$2,423.112$
Morita, on the railway right of way, 73 meters west of the section house, 14 meters north of the center of the track, in line with the right of way fence, just west of a byroad crossing; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{P}_{14}$ )
$2,475.592$
Morita, about 5.2 kilometers west of, 9 meters north of the center of the railway track, 2.5 meters from the right-of-way fence, on the east side of a byroad or trail that crosses the track to a house on the south side of the railroad; 3-inch rel metal cap on iron pipe (C. \& G. S. b. m. Q 14 ) . . 2, 472.977
Stanton, about 5.8 kilometers east of, on the railway right of way, 25 meters north of the center of the track, and 2 meters from the fence of the county road paralleling the railroad; 3-inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{R}_{14}$ ).
$2,573.436$
Stanton, 1 mile southeast of, on the highest point of a narrow ridge running north and south, about $\frac{1}{2}$ mile south of the railway, and $\mathrm{S} .54^{\circ} \mathrm{E}$. from the Stanton city water tower; the surface mark of a C. \& G. S. triangulation station, a standard cap triangulation station mark, screwed to the top of a 3-inch iron pipe which is embedded in concrete (Stanton Triangulation Station)

2, 708. 157
Stanton, in the northwest corner of the Martin County courthouse yard, 45.05 meters from the corner stone of the courthouse, 0.4 meter from the north fence of the yard, and 1.5 meters from the east fence; bottom of hole in top of stone post (C. \& G. S. b. m. S ${ }_{14}$ ).

2, 673. 512
Stanton, on the side south of the circular concrete foundation of the railway water-purifying tower, 0.28 meter from the steel wall, and 3.93 meters from the center of the track; copper bolt (C. \& G. S. b. m. T T 14 ).
$2,663.197$
Stanton, about 4.5 kilometers west of, in the west side of a road crossing, 12 meters north of the center of the track, and 2 meters south of the line of the north right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. $\mathrm{m} . \mathrm{U}_{14}$.

2, 713. 492
Stanton, about $7 \frac{1}{8}$ miles west-southwest of, two-thirds of a mile north of the railway, on clear level prairie land; the surface mark of a C. \& G. S. triangulation station, a standard cap station mark, screwed to the top of a 3 -inch iron pipe which is embedded in concrete (C. \& G. S. b. m. Stanton south base).
$2,693.755^{\circ}$

Germania, on the railway right of way, 44 meters west of the section foreman's house, 26.5 meters north of the center of the track, and 1 meter from the north right of way fence; bottom of hole in top of stone post (C. \& G. S. b. m. $V_{14}$ )

Feet.
Germania, about 1.3 kilometers west of, on the railway right of way, 13 meters north of the center of the track, and 1.5 meters from the fence between the right of way and the county road that parallels the railway; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. W ${ }_{14}$ )
$2,769.565$
Midland, about 7.8 kilometers east of, on the railway right of way, 11 meters west of the tenth telegraph pole west of milepost 555 , and 3 meters east of the fence of the road that crosses the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. X ${ }_{14}$ )
Midland, about 5.1 kilometers east of, on the railway right of way, about 60 meters from the rain gage of the United States Weather Bureau, in range with the east side of a barn about 75 meters south of the track, 13 meters south of the center of the track and 1 meter from the fence between the right of way and the road paralleling it; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. Y ${ }_{14}$ ).
$2,756.340$

## SULPHUR SPRINGS QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $95^{\circ} 30^{\prime}-96^{\circ}$.]
From Campbell east along Missouri, Kansas \& Texas Ry. to Sulphur Springs.
Campbell, 9 paces south of the main track, 10 feet east of the railroad-crossing sign about 175 feet east of the station, the side of the top of the post has a piece broken off; bottom of square cut in top of limestone post (C. \& G. S. b. m. $\mathrm{O}_{2}$ ).
585. 730

Cumby, in the First National Bank building, on the west side, near the southwest corner, about 4 feet from the ground, 5 bricks from the corner, and about midway between the corner and the window; intersection of lines in end of copper bolt (C. \& G.S.b.m. P $\mathbf{P}_{2}$ ).
Brashear, directly opposite the station, 23 paces south of the main track, 5 feet from the right of way fence, and 38 paces west from the corner of this fence near the road crossing; bottom of square cut in top of a limestone post (C. \& G. S. b. m. Q ${ }_{2}$ )

2, 785. 152
2, 751. 609
$\square$

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ㄴ
649. 110

Sulphur Springs, to the right of entrance, at Church and Jefferson streets, of the county courthouse, in the red sandstone cap to a small basement window facing Church Street, 6 inches from the top and left side of window cap; intersection of lines in end of copper bolt (C. \& G. S. b. m. R $\mathrm{R}_{2}$ ).....
503.614

SUNSET QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.]

## From Sunset south to Herman.

Sunset, in the middle column of store owned by Dr. H. F. Schoolfeld, in the center of the fourth stone above the sidewalk; intersection of lines on top of copper bolt (C. \& G. S. b. m. I).
Alvord, in the stone column at the east side of the Masonic Building (occupied by bank), in the center of the third block above the sidewalk; intersection of lines on top of copper bolt (C. \& G. S. b. m. J)
885. 772

Cowen, 40 feet from the track, on the east side and in line with the station sign, and 3 feet from the right of way fence; bottom of square hole in top of limestone post (C. \& G. S. b. m. K)
872.842

Decatur, at the northwest corner of the public school building (1883), about 4 feet above the ground, in the center of the north side of the second sandstone block; intersection of lines on top of copper bolt (C. \& G. S. b. m. L). 1, 096. 526

Herman, about 3 feet inside of the right of way fence, 50 feet east of the railroad track and in line with the station sign, bottom of square hole in top

Feet. of limestone post (C. \& G. S. b. m. M)

## SWEETWATER QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 30^{\prime}$; longitude $100^{\circ}-100^{\circ} 30^{\prime}$.]
Near Merkel.
Merkel, on top of the southwest side of the circular concrete foundation of the railway water-filtering tower, and about 6 inches above the ground; copper bolt (C. \& G. S. b. m. F 13 )
$1,870.469$
Merkel, at the northeast corner of Front and Kent streets, on the south face of the corner stone at the southwest corner of a stone building belonging to Dr. Adkissen, and 1.3 meters above the sidewalk; copper bolt (C. \& G. S. b. m. $\mathrm{G}_{13}$ ).

1, 875.259
Merkel, in front of the section foreman's house, 10 meters north of the main line of the railway and just west of a road that crosses the track; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{H}_{13}$ )
$1,871.735$
Merkel, about 2.5 miles west of, on the railway right of way, 14 meters north of the center of the track, 85 meters east of milepost 426 , just west of a byroad crossing, and 2 meters from the fence of a county road paralleling the railway; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $I_{13}$ ). $1,860.039$

## Near Sweetwater.

Sweetwater, about 4 miles east of, on the east face of the west abutment of the Santa Fe Ry. bridge over Sweetwater Creek near the overhead crossing of the Texas \& Pacific Ry., 1.3 meters above the ground and 0.5 meter from the south end of the abutment; red metal disk (C. \& G. S. b. m. $\mathrm{O}_{13}$ )

Sweetwater, in the southwest corner of the yard of the Nolan County courthouse, 32.6 meters from the southwest corner of the courthouse, and 4 paces from each of two trees in the southwest corner of the yard; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{P}_{13}$ )
Sweetwater, on the west abutment of the overhead crossing of the Texas \& Pacific Ry. over the Kansas City, Mexico \& Orient Ry., 0.80 meter from the south end of the abutment, 3.4 meters from the center of the Texas \& Pacific Ry. track, and 1.04 meters below the rail; copper bolt (C. \& G. S. b. m. Q ${ }_{13}$ )

Sweetwater, about 3.6 miles west of, on the Texas \& Pacific Ry. right of way, at the top of the first long, steep grade west of Sweetwater, and 12 meters south of the center of the track; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. R $\mathrm{R}_{13}$ ).
$2,361.947$

## TAYLOR QUADRANGLE. <br> [Latitude $30^{\circ} 30^{\prime}-31^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.] <br> From Little River south along Missouri, Kansas \& Texas Ry. to Holland.

Little River, one-fourth mile south of, in the right of way of the railway, 70 feet west of the main track and 7 feet south of the telephone pole opposite milepost 888 ; bottom of a square cut in top of limestone post (C. \& G. S. b. m. V ${ }_{4}$ )

Holland, one-fourth mile south of, in the northeast concrete abutment of the iron bridge, 1 inch from the south and east edges of the stone (artificial) shelf on which the iron work rests; bottom of a square cut in stone (C. \& G. S. b. m. W4).
507. 493

Holland, in the brick building occupied by the Bank of Holland, the building is on the north side of the main street and is the easternmost building of the row, b. m. is 3 feet from the corner and 4 feet from the ground, in the wall facing the railway track; bottom of a square hole in top of an Indiana Bedford limestone post (building partially burned and rebuilt previous to November, 1903, but without apparently changing the bench mark (C. \& G. S. b. m. X ${ }_{4}$ ).
Holland, in a brick culvert 300 yards north of the Missouri, Kansas \& Texas Ry. station; cut is east of the track and 2 inches from the north and east edges of the cement top of the culvert; bottom of a square cut in brick (C. \& G. S. b. m. $\mathrm{Z}_{4}$ ). (Reported settled, November, 1903).

## From Holland south along Missouri, Kansas \& Texas Ry, to Taylor.

Bartlett, about three-fourths mile north of, on the line of the railway, about 20 feet south of milepole 902 , on the west side of the track, 6 feet east of a telegraph pole and 3 feet east of the barbed wire fence; bottom of hole in top of stone post (C. \& G. S. b. m. A ${ }_{5}$ )
Granger, in the southwest corner of the yard of the house of Charles Shoemaker, corner of Commerce and Ash streets, $2 \frac{1}{2}$ feet northeast of the picket fences surrounding the yard and about 140 feet east of the track; bottom of hole in top of stone post (C. \& G. S. b. m. B5 ).
591. 193

Granger, at the northeast corner of the main entrance to the building of the First National Bank of Granger, in the top of the triangular limestone step about 6 millimeters below the wearing surface; a copper bolt, unlettered (C. \& G. S. b. m. C 5 )
Circleville, about two-fifths mile north of, on the line of the railway, about 60 meters south of the south abutment of the railway bridge over the San Gabriel Creek; at the railroad water tank, about 2 meters west of the track, in the top of the sandstone base of the southeast column, which is 3 feet square and $2 \frac{1}{2}$ feet high above ground; bottom of a square hole (C. \& G. S. b. m. D 5 )
Taylor, in the grass plot or gore park east of the station of the International \& Great Northern Ry., 25.5 meters east of the east wall of the station and 17.8 meters north from the center of the track nearest the station; bottom of hole in top of stone post (C. \& G. S. b. m. E $\mathrm{E}_{5}$ )
Taylor, in the south wall of the Taylor National Bank, corner of Main and Second streets, a brick building, with first story granite; 20 feet west of the east entrance, in the wall, $2 \frac{1}{2}$ feet above the sidewalk; copper bolt (C. \& G. S. b. m. F 5 ).

TEMPLE QUADRANGLE.
[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]
From Hewitt south along Missouri, Kansas \& Texas Ry. to Temple, thence west to Belton.
Hewitt, between two telegraph poles, 100 yards north of the station, 4 feet from either pole, and about 70 feet west of the Missouri, Kansas \& Texas Ry. track, in the right of way; bottom of a square cut in top of linestone post (C. \& G. S. b. m. $\mathrm{H}_{4}$ ).
Lorena, 100 feet east of the railway track, in very rocky ground about two telegraph poles south of the water tank, and near the highway, across the track from a cotton gin; bottom of a square cut in top of limestone post (C. \& G. S. b. m. I ${ }_{4}$ )

Eddy, in the railway right of way, 45 feet west of the track and 300 yards north ot the depot; the stone is in rocky ground, and could be sunken only a part of its length, the stones and dirt being mounded about it to a height of 1 foot; bottom of a square cut in top of limestone post (C. \& G. S. b. M. J 4 )

Feet.
670.973

Troy, 5 feet south of the second telegraph pole south of the depot, 50 feet east of the railway main track, 30 feet west of the side track; bottom of square cut in top of limestone post (C. \& G. S. b. m. K ${ }_{4}$ ).
678. 102

Temple, at the crossing of the Missouri, Kansas \& Texas and the Santa Fe railways, 60 feet west from the Missouri, Kansas \& Texas Ry. track and 40 feet north of the Gulf, Colorado \& Santa Fe Ry. track, halfway between a telephone pole and its guy-wire pole; bottom of a square cut in top of a limestone post (C. \& G. S. b. m. L ${ }_{4}$ )
Temple, on the south side of the stone building on the corner of Depot and Main streets, occupied by the Palace Saloon, in the alley corner of the building, 3 feet above the sidewalk, and 8 inches from the corner of the building; intersection of two lines cut in end of copper bolt (C. \& G. S. b. $\mathrm{m} . \mathrm{M}_{4}$ ).

Temple, in the right of way of the Missouri, Kansas \& Texas Ry., across the track from a large cotton-oil mill, 35 feet east of the main track and 1 foot from the fence, 6 feet south of a telephone pole and diagonally opposite the railroad crossing sign; bottom of a square cut in top of limestone post (C. \& G. S. b. m. $\mathrm{N}_{4}$ ).
687. 476

Belton, in the northwest stone abutment of the iron bridge, Gulf, Colorado \& Santa Fe Ry., across the Leon River, 2 inches from the north and east edges of the top stone; bottom of square cut in stone (C. \& G. S. b. m. G ${ }_{4}$ ).
508. 539

## TOYAH QUADRANGLE. <br> [Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $103^{\circ} 30^{\prime}-104^{\circ}$.] <br> From Hermosa southwest along Tezas \& Pacific Ry. to San Martine.

Hermosa, about 3.9 kilometers east of, on the railway right of way, 2.3 meters from the south fence and 13.3 meters south of the center of the track at the west end of a mound of earth used as a rail rest; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. L ${ }_{16}$ ).

2, 688. 505
Hermosa, in the line of the south side (front) of the section foreman's dwelling house, 3.19 meters from the southwest corner and 13.4 meters north of the center of the track; bottom of hole in top of stone post (C. \& G. S. b. $\mathrm{m} . \mathrm{M}_{16}$ )

2, 730. 431
Hermosa, about 5.9 kilometers west of, 5.5 meters southwest of milepost 666 , 13.4 meters south of the center of the track, and 2 meters from the right of way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{N}_{16}$ ) .... 2, 788.886
Toyah, about 3.9 kilometers east of, 14.7 meters north of the center of the railway track, 1.5 meters from the north right of way fence, and 40 meters from point of curvature of the only curve between Hermosa and Toyah; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{O}_{16}$ ).
$2,848.905$
Toyah, a stone post on the railway right of way, 395 meters west of the depot, 7.10 meters east of the southeast corner of the section house in range with the front of the house, 2.05 meters east of a large cotttonwood tree, and 10.3 meters north of the center of the main track; bottom of hole in top of stone post (C. \& G. S. b. m. P ${ }_{16}$ ).
$2,907.832$
Toyah, 559 meters west of the depot, on the southeast corner of the southeast stone footing of the more westerly one of two water tanks opposite the roundhouse, and 3 meters from the center of the main track; bottom of hole in horizontal surface (C. \& G. S. b. m. Q ${ }_{16}$ )

2, 922. 005

Toyah, 759 meters west of the depot on the circular concrete foundation of the railway water-softening tower, 0.48 meter east of the manhole near the bottom of the tank, and 7.6 meters south of the center of the main-line Feet. track; copper bolt (C. \& G. S. b. m. R ${ }_{16}$ ).
$2,924.584$
Toyah, about 6.3 kilometers west of, at the point of curve of the first curve of the railway west of Toyah, 27.95 meters north of milepost $669,14.4$ meters north of the center of the track, and 1 meter from the north fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{S}_{16}$ ).
$3,018.692$
Toyah, about 11.2 kilometers west of, on the railway right of way, 3.8 meters southwest of milepost $672,13.8$ meters south of the center of the track, and 1.6 meters from the fence; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. T ${ }_{16}$ ). $3,135.647$
Gomex, 1.95 meters west of the southwest corner of the section house, 13.55 meters north of the center of the track and 26 meters north by west from milepost 676 ; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{U}_{16}$ ).. $3,275.613$
Gomex, about 4.1 kilometers west of, 2.58 meters west of milepost 679, 12.90 meters south of the center of the track, and 2.5 meters from the fence; 3 inch red metal cap on iron pipe (C. \& G. S. b. m. V ${ }_{16}$ ). $3,378.068$
San Martine, about 1.6 kilometers east of, at the point of tangency of the first curve on the railway, east of San Martine, 1,920 feet east of milepost 686, 13.2 meters south of the center of the track, and 2.3 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. W ${ }_{16}$ ).

3, 725. 377

## VAN HORN QUADRANGLE.

[Latitude $31^{\circ}-31^{\circ} 30^{\prime}$; longitude $104^{\circ} 30^{\prime}-105^{\circ}$.]

## From Plateau west along Texas \& Pacific Ry. to Allamore.

Plateau, about 3 kilometers east of, on top of a rock in the first cut of the railway east of Plateau, about 1 meter north of the north rail and on a level with the top of the rail; copper bolt (C. \& G. S. b. na. I 17 ). 4, 019. 352
Plateau, about 2.4 kilometers west of, 100 feet south of the track of the railway and 10 feet north of a wagon road; 3 -inch cap on iron pipe (C. \& G. S. b. m. U. S. G. S. 3889 Vn Hn)
$3,897.505$
Plateau, in front of and across the track from the section-foreman's house, 2 meters from the south right of way fence of the railway; bottom of hole in top of stone post (C. \& G. S. b. m. J ${ }_{17}$ ).

3, 942.137
Plateau, about 4.5 kilometers west of, on the railway right of way, 6.05 meters west of milepost $721,13.70$ meters south of the center of the track, and 1.45 meters from the fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. K ${ }_{17}$ ).
$3,864.307$
Wild Horse, about 6.4 kilometers east of, 15 feet southeast of the thirteenth telegraph pole east of milepost 723 of the railway, 16. 45 meters south of the center of the track, 1.6 meters south of the right of way fence, and on the north side of a wagon road; 3-inch cap on iron pipe (C. \& G. S. b. m. U. S. G. S. 3840 Vn Hn )

3, 848. 411
Wild Horse, about 1.5 kilometers east of, 1,900 feet east of milepost 726 of the railway, 23.6 meter south of the track, 8.6 meters south of the right-of-way fence, and on the north side of a wagon road; 3-inch cap on iron pipe (U. S. G. S. b. m. 3826 Vn Hn)

3, 833.936
Wild Horse, in front of and across the track from the section foreman's house, 21.8 meters south of the main line of the railway, 1.8 meters from the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{I}_{17}$ ).
$3,849.953$
Wild Horse, about 3.5 kilometers west of, 1,000 feet east of the railway bridge 329,50 feet south of the railroad track, and 10 feet south of a wagon road; 3-inch cap on iron pipe (U. S. G. S. 3867 Vn Hn ).
$3,874.927$

Wild Horse, about 5.3 kilometers west of, 13.1 meters south of the center of the railway track, 7.3 meters from right-of-way fence, 38 meters east of milepost 730; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{M}_{17}$ ) .. Feet. $3,863.047$
Van Horn, about 4.4 kilometers east of, 12.85 meters south of the center of the railway track, 2 meters from the fence, and 3.70 meters west of milepost 732; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. N ${ }_{17}$ ) ......
Van Horn, 60 meters west of the railway depot, 10.8 meters south of the center of the track, and 0.47 meter east of the fence of the section foreman's yard; bottom of hole in top of stone post (C. \& G. S. b. m. O $\mathrm{O}_{17}$ ) ... 4, 048. 253
Van Horn, 240 feet west of the railway station, 100 feet south of the main track, and 4 feet south of a telegraph pole; 3 -inch cap on iron pipe (U. S. G. S. b. m. 4039 Vn Hn ) 4, 047. 462
Van Horn, about 5.1 kilometers west of, 378 meters west of milepost 737, and 25 meters north of the center of the track; 3-inch cap on iron pipe (U. S. G. S. 4239 Vn Hn)

4, 247. 105
Van Horn, about 9.1 kilometers west of, 1,200 feet northwest of trestle 375 of the railway, and 10 feet south of a wagon road; 3 -inch cap oniron pipe U. S. G. S.b. m. 4395 Vn Hn)
$4,403.364$
Allamore, about 2 miles east of, 7 meters east of the east row of Spanish dagger trees, and 8.55 meters north of the center of the track (the station and section house to which the earlier description referred have been moved 2 miles west); 3 -inch cap on iron pipe (U. S. G. S. 4603 Vn Hn )..
Allamore, 1 mile east of, at milepost 744, 13.75 meters north of the center of the track, and 1.45 meters from the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. P ${ }_{17}$ )
$4,543.659$
Allamore, about 9 meters N. $20^{\circ}$ W. from the center of the water tank, 12.5 meters north of the north rail of the railway, and 1.6 meters south of the railway fence line (the present water tank probably differs a foot or two in position from the one referred to above); top of a cap of the usual type for marking a C. \& G. S. triangulation station, the cap being screwed to the top of a 3-inch iron pipe (C. \& G. S. b. m. Allamore Triangulation Station)
Allamore, 1 mile west of, at milepost $746,-240$ feet west of bridge 747-A, 14.2 meters north of the center of the track, 3.2 meters from the right-of-way fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. Q $Q_{17}$ ) . . 4, 521. 500

## WACO QUADRANGLE.

[Latitude $31^{\circ} 30^{\prime}-32^{\circ}$; longitude $97^{\circ}-97^{\circ} 30^{\prime}$.]

## From Abbott south along Missouri, Kansas \& Texas Ry. to Waco.

Abbott, near, $1 \frac{1}{2}$ miles north of the station, 35 feet west of the railway track and 10 feet from the right-of-way fence, 6 feet northwest of telegraph pole, fifth south of bridge No. 672, near the opening of the first railway cut north of Abbott; bottom of square cut in top of limestone post (C. \& G. S. b. m. C 4 )
694. 339

West, in the brick building on Main Street, on the east side of the street and faces the railway track, south of the south window of the third store north of Boone Street, huilding is occupied by a grocery, and is two doors north of the West National Bank; copper bolt leaded into brick (C. \& G. S. b. m. D ${ }_{4}$ )

Elmmott, in the right of way 40 feet east of the Missouri, Kansas \& Texas Ry. track, in angle of the right-of-way fence, and 2 feet west of the telegraph pole, the second south of the depot, directly across the track from the cattle-loading pen, opposite a small brown house on the road leading south from the station; bottom of square cut in top of limestone post (C. \& G. S. b. m. E ${ }_{4}$ ).

Waco, in the brick building on the southeast corner of South Fifth and Jackson streets, occupied by McCleary's feed store, the bolt is $4 \frac{1}{2}$ feet above the ground and $1 \frac{1}{2}$ feet from the southernmost window toward
the Missouri, Kansas \& Texas Ry, tracks; intersection of lines in end of copper bolt (C. \& G. S. B. m. F 4 )
Waco, on the southeast corner of South First and Jackson streets; top of hydrant (Hydrant 1)

Feet.
413.087
402. 902

Waco, on the northwest corner of Thirteenth and Jackson streets, near large cotton factory; top of hydrant (Hydrant 2)
426. 603

Waco, at the northwest corner of Fifth and Jackson streets, in a brick building occupied by bottling works, 10 inches below the third window front of the building on the side toward the Missouri, Kansas \& Texas Ry. main track; intersection of two lines cut in end of copper bolt (C. \& G. S. b. m. $\mathrm{G}_{4}$ ).
414. 382

## WEATHERFORD QUADRANGLE. <br> [Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $97^{\circ} 30^{\prime}-98^{\circ}$.] <br> From Cresson southwest to Waples.

Cresson, just across the county line from, in Parker County 50 paces east of the station, 5 paces east of mile pole 25 , and 20 paces north of the track of the Fort Worth \& Rio Grande Ry.; bottom of square cut in top of limestone post (C. \& G. S. b. m. Q ${ }_{3}$ )
$1,045.109$
Waples, 3 paces north of the first telegraph pole east of mile pole 34, and 15 paces north of the tracks on the Fort Worth \& Rio Grande Ry.; bottom of square cut in top of limestone post (C. \& G. S. b. m. R $\mathrm{R}_{3}$ )
841.389

## From Iona west along Texas \& Pacific Ry. to Millsap.

Iona, about 130 meters west of the section house, 15 meters south of the west end of the siding, and 1 meter north of the fence between the railroad right of way and the county road; 3-inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{I}_{10}$ )
980.303

Aledo, on land belonging to Mr. J. J. Sears and in use as a public park, about midway of the south side of the park, and 1 meter north of the boundary fence; bottom of hole in top of stone post (C. \& G S. b. m. J $\mathrm{J}_{10}$ ).
Aledo, on the west side of the entrance of the stone building owned by Mr. J. J. Sears and occupied by his general merchandise store, and 2 meters above the sidewalk; red metal disk (C. \& G. S. b. m. K ${ }_{10}$ )
888.049
892.032

Aledo, about 1.7 miles west of, on the railway bridge 266 C over Clear Creek, on top of the highest course of the east masonry abutment, and in line with the west girder; copper bolt (C. \& G. S. b. m. $\mathrm{L}_{10}$ ) . ....... Aledo, about 2.8 miles west of, on the railway bridge 267 C over the Clear Fork of the Trinity River, on the top of the eastern abutment, and in line with the south girder; bottom of hole in horizontal surface (C. \& G. S. b. $\mathrm{m} . \mathrm{M}_{10}$ ).

Anneta, about 0.4 mile west of, on the railway bridge 270 B over Burgess Creek, on the stone coping, at the northern end of the eastern abutment, and on a level with the bottom of the girder; bottom of hole in horizontal surface (C. \& G. S. b. m. $\mathrm{N}_{10}$ )
805.894
818.059
856.927

Earls, about 0.5 mile east of, on railway bridge 273A over the Clear Fork of the Trinity River on top of the northern end of the western abutment; bottom of hole in horizontal surface (C. \& G. S. b. m. $\mathrm{O}_{10}$ )
901.392

Earls, on the railway right of way, midway of a switch, and 1 meter north of the south fence; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{P}_{10}$ ).
906.140

Weatherford, about 2.5 miles east of, on the railway bridge 275 B over the Clear Fork of the Trinity River, on the south end of the east abutment, 0.2 meter from the corner of the stone, and 6 meters from the center of the track; copper bolt (C. \& G. S. b. m. Q Q ${ }_{10}$ ) ............................
Weatherford, 0.6 mile east of the railway depot, on the railway bridge 277 C over the Clear Fork of the Trinity River, 0.2 meter north of the south end of the east masonry pier, 1 meter below the rail, and 3 meters from the center of the track; copper bolt (C. \& G. S. b. m. R $\mathrm{R}_{10}$ ) ........
Weatherford, on Parker County courthouse, 1.1 meters south of the northeast corner stone, 1 meter from the ground; red metal disk; probably destroyed in rebuilding the courthouse (C. \& G. S. b. m. $\mathrm{S}_{10}$ )

Feet.
938.240
989.716

Weatherford, in the northwest corner of the railway park, 11 meters from the center of the main line of the railway, and 16 meters east of the northeast corner of the railway depot; bottom of hole in top of stone post (C. \& G. S. b. m. T 10 )

1, 010.917
Weatherford, about 1.4 miles west of, on the bridge 279 A over the Clear Fork of the Trinity River, on top of the north end of the east masonry pier, 0.85 meter from the center of the north girder, and 1 meter below the rail; copper bolt (C. \& G. S. b. m. $\mathrm{U}_{10}$ ).

1, 049.131
Weatherford, about 3 miles west of, at the crossing of the Texas \& Pacific Ry. and the Weatherford-Mineral Wells county road, on the west side of the road, and on the north line of the railway right of way; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. V ${ }_{10}$ ).

1,139. 571
L.ambert, in the southwest corner of the section-house yard, on the railway property, on the north side of the track, and east of the main road crossing of the railway; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. W ${ }_{10}$ ) 1, 158. 393
Millsap, about 4 miles east of, on the railway right of way, 12 meters north of the track, 2 meters west of the west fence of a road that crosses the track; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. X $_{10}$ ) $\ldots \ldots \ldots \ldots$. Millsap, on the railway right of way, south of the track, west of the main road that crosses the track west of the depot, and 1 meter from the railway fence; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{Y}_{10}$ ) ...

## WHEELER QUADRANGLE.

## [Latitude $35^{\circ}-35^{\circ} 30^{\prime}$; longitude $100^{\circ}-100^{\circ} 30^{\prime}$.]

## From Benonine west along Chicago, Rock Island \& Pacific Ry. to Ramsdell.

Benonine, on the right of way fence line of the railway, 12 meters north of the center line of the main track, just even with the signboard "Benonine," opposite the gates of the stock pens ; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. H ${ }_{9}$ )
Fuller, on the right of way of the railway, 24 meters north of the center line of the main track, just even with the signboard "Fuller," just east of the section house, and about 0.7 meter above the track; bottom of hole in top of stone post (C. \& G. S. b. m. I ${ }_{9}$ ).
Shamrock, about 3.8 miles east of, just inside the right of way of the railway 14.2 meters north of the center line of the main track, at the northwest property corner of the highway crossing near the signboard; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. J. ${ }_{9}$ ).
Shamrock, nearly opposite the west end of the railway station, 26 meters south of the center line of the main track, 0.3 meter above the rails; bottom of hole in top of stone post (C. \& G. S. B. m. K $\mathrm{K}_{9}$ ). 2, 332.784

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25286^{\circ}-\text { Bull. 637-16-16 }
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Shamrock, at the northwest corner of Main and Second streets, 1 decimeter above the sidewalk, in the base stone on the east side of the First National Feet. Bank building; red metal disk (C. \& G. S. b. m. L $\mathrm{L}_{9}$ )................... 2, 242. 068
Shamrock, about 3.5 miles west of, at the top of the grade between Shamrock and Lela, $1 \frac{1}{2}$ poles west of milepole 668, 14.3 meters south of the center line of the main track near the line fence between the railroad right of way and an east and west highway; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. M ${ }_{9}$ ) 2, 395. 074
Lela, (formerly Story), 72 meters west of the railway station, 12.2 meters north of the center line of the main track, and just west of the crossing signboard; bottom of hole in top of stone post (C. \& G. S. b. m. N $\mathrm{N}_{9}$ ) .... 2, 413. 436
Ramsdell, about 3.1 miles northeast of, just inside the right of way of the railway, on a small ridge near an abandoned road crossing, 2 poles northeast of pole 673-20, and 14 meters northwest of the center line of the main track; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{O}_{9}$ ). 2, 492. 364
Ramsdell, inside the right of way of the railway, in the line with the east highway fence at the road crossing, 440 feet east of the ticket office in the railroad station, and 30 meters north of the center line of the main track; bottom of hole in top of stone post (C. \& G. S. b. m. P ${ }_{9}$ ) 2, 559. 099
Ramsdell, on the west end of the concrete foundation of the railway station, 0.3 meter below the top and 0.6 meter from the northwest corner; red metal disk (C. \& G. S. b. m. Q ${ }_{9}$ )

2, 564. 943
Ramsdell, about 6 miles west of, 2 poles east of pole 682-25, 13.3 meters south of the center line of the main track, and about 0.25 meter east of the Wheeler-Gray county fence line; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. R R $_{8}$ ).

2, 733.777

## 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.



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[^0]:    Ringgold. 180 feet east of Missouri, Kansas \& Texas Ry. station, at end of
    platform between main tracks and switch; iron post stamped ' 894 Gainv "

    Feet.
    S94. 368
    Ringgold, 3.2 miles east of, 50 feet north of the Missouri, Kansas \& Texas Ry. track, and 150 feet east of milepost 752 , near railroad fence; iron post stamped "824 Gainv"
    824.396

[^1]:    ${ }^{1}$ On account of a gross error of nearly 1 foot in the line from Rowlett via Murphy to point 3 miles east of Wylie, of which this line forms a part, the fraction only has been adjusted, leaving a discrepancy of 1 foot to be found.

[^2]:    1 On account of a gross error of nearly 1 foot in the line from Rowlett via Murphy to point 3 miles east of Wylie, of which this line forms a part, the fraction only has been adjusted, leaving a discrepancy of 1 foot to be found.

[^3]:    1 Holes were drilled to receive the tablets for the last three bench marks, but the Survey has no record that the tablets were set.

[^4]:    ${ }^{1}$ Includes Beaver Creek quadrangle, latitude $33^{\circ} 52^{\prime} 30^{\prime \prime}-34^{\circ}$, longitude $98^{\circ} 52^{\prime} 30^{\prime \prime}-99^{\circ}$; Fowlkes quadrangle, latitude $33^{\circ} 52^{\prime} 30^{\prime \prime}-34^{\circ}$, longitude $98^{\circ} 45^{\prime}-98^{\circ} 52^{\prime} 30^{\prime \prime}$; Iowa Park quadrangle, latitude $33^{\circ} 52^{\prime} 30^{\prime \prime}-34^{\circ}$, longitude $98^{\circ} 37^{\prime} 30^{\prime \prime}-98^{\circ} 45^{\prime}$; Wichita Falls quadrangle, latitude $33^{\circ} 58^{\prime} 30^{\prime \prime}-34^{\circ}$, longitude $98^{\circ} 30^{\prime}-98^{\circ} 37^{\prime} 30^{\prime}$.

[^5]:    ${ }^{1}$ Includes Burkburnett quadrangle, latitude $34^{\circ}-34^{\circ} 07^{\prime \prime} 30^{\prime \prime}$, longitude $98^{\circ} 30^{\prime}-98^{\circ} 37^{\prime} 30^{\prime \prime}$; Clara quad rangle, latitude $34^{\circ}-34^{\prime} 07^{\prime} 30^{\prime \prime}$, longitude $98^{\circ} 37^{\prime} 30^{\prime \prime}-98^{\circ} 45^{\prime}$ : Barwise School quadrangle, latitude $34^{\circ}-$ $34^{\circ} 07^{\prime} 30^{\prime \prime}$, longitude $98^{\circ} 45^{\prime}-98^{\circ} 52^{\prime} 30^{\prime \prime}$; Electra quadrangle, latitude $34^{\circ}-34^{\circ} 07^{\prime} 30^{\prime \prime}$, longitude $98^{\circ} 52^{\prime} 30^{\prime \prime}-99^{\circ}$.

[^6]:    Clyde, about 3 miles west of, 11 meters south of the center of the railway track, and just west of the county road that crosses the track at this point; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. $\mathrm{V}_{12}$ ) $\ldots$.................. 2, 008.852
    Elmdale, 15 meters north of the center of the railway track, on the west line of the county road running north, and 1 meter from the right-of-way fence; bottom of hole in top of stone post (C. \& G. S. b. m. W ${ }_{12}$ )
    $1,782.815$
    Abilene, on the south end of the east abutment of the overhead crossing of the railway over the Wichita Valley R. R., 36 meters from the center of the track, and 1 meter below the rail; copper bolt (C. \& G. S. b. m. $\mathrm{X}_{12}$ ). 1, 712.598
    Abilene, near the southwest corner of the south steps of the United States Weather Bureau building; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{Y}_{12}$ )
    $1,725.617$
    Abilene, on the main building of Christian College, on the top course of stone of the masonry of the porch, east of the steps, and 0.87 meter above the ground; copper bolt (C. \& G. S. b. m. Z Z $_{12}$ ).

    1, 724.702
    Abilene, 1.1 miles west of the railway depot, 12 meters south of the track; 3 -inch red metal cap on iron pipe (C. \& G. S. b. m. A $\mathrm{A}_{13}$ ).

    1, 719. 508

[^7]:    3, 609.593

[^8]:    Cisco, at the north end of the park east of the station, west of the Texas Central R. R., and south of the Texas \& Pacific Ry.; bottom of hole in top of stone post (C. \& G. S. b. m. $\mathrm{H}_{12}$ )
    $1,619.829$

