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 <br> <br> UNITED STATES GEOLOGICAL SURVEY}

GEORGE OTIS SMITH, DIRECTOR

## BULLETIN 458

# RESULTS OF SPIRIT LEVELING 

IN

# arkansas, LOUISIANA, AND MISSISSIPPI 

1896 T0 1909, INCLUSIVE

R. B. MARSHALL, Chief Geographer

WORK IN LOUISIANA FROM 1903 TO 1909, INCLUSIVE, AND IN MISSISSIPPI FROM 1901 TO 1909, INCLUSIVE, DONE IN COOPERATION WITH RESPECTIVE STATES


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# RESULTS OF SPIRIT LEVELING IN ARKANSAS, LOUISIANA, AND MISSISSIPPI, 1896 T0 1909, INCLƯSIVE. 

R. B. Marshall, Chief Geographer.

## INTRODUCTION.

Scope of the work.-All results of spirit leveling in these States previously published by the United States Geological Survey and all later work are included in this report, rearranged by quadrangles. All elevations are based on the precise-level net as adjusted in 1907 by the Coast and Geodetic Survey to a common mean sea-level datum. The net of precise-level lines, beside the lines of the United States Geological Survey described in this bulletin, which lie within or along the borders of these States, comprises the line of the Coast and Geodetic Survey from Arkansas City via Van Buren to Garfield, Ark., and from Greenville, Miss., to Vicksburg, Miss.; also lines of the Corps of Engineers, U. S. Army, along Mississippi River and in southern Arkansas and northern Louisiana.
Personnel.-The field work previous to 1903 was done under the general direction of J. H. Renshawe, geographer; that for 1903 to 1906, inclusive, under H. M. Wilson, geographer; and the later work in Arkansas under W. H. Herron, geographer, and in Louisiana and Mississippi under Frank Sutton, geographer, both under the general direction of R. B. Marshall, chief geographer. The names of the various levelmen are given in the introduction to each list. 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 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 $0.017 \sqrt{\mathrm{D}}$, in which D is the distance between bench marks in miles. 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 of $0.05 \sqrt{\bar{D}}$, in which D is the length of the circuit in miles, sufficient care being given 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 $E, \mathrm{Pl} . \mathrm{I}$ ), $3 \frac{1}{2}$ 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, bridge abutment, or other substantial masonry structure. The second form ( $F, \mathrm{Pl}$. I), to be set in the ground where no masonry or rock is available, consists of a hollow wrought-iron post $3 \frac{1}{2}$ inches in outside diameter and 4 feet long. 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 over 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 for cooperating States the fact of such cooperation is indicated by the addition of the State name (at $G, \mathrm{Pl} . \mathrm{I}$ ). The numbers stamped on the bench marks described in the following pages are 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 their adjusted values, using the markings as identification numbers only.

Datum.-All Geological Survey elevations 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 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 great accuracy is desired they must extend over several years. At ocean stations the halftide level and mean sea level usually differ but little. It is assumed that there is no difference between the mean sea level as determined from observations in the Atlantic Ocean, the Gulf of Mexico, or 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 a 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 or other Government organizations are extended.

Topographic maps.-Maps of the following quadrangles wholly or partly in Arkansas, Louisiana, and Mississippi have been published by the United States Geological Survey up to May 1, 1911. They may be obtained for 5 cents each or $\$ 3$ a hundred on application to the Director of the Survey at Washington, D. C.

ARKANSAS.
Atlanta (Tex.-Ark.-La.).
Batesville.
Benton.
Caddo Gap.
Camden.
Dardanelle.
Eureka Springs (Ark.-Mo.).
Fayetteville (Ark.-Mo.).
Fort Smith (Ark.-Okla.).
Gurdon.
Harrison (Ark.-Mo.).
Hot Springs.
Hot Springs special.

Atlanta (Tex.-Ark.-La.).
Barataria.
Baton Rouge.
Bayou de Large.
Bayou Sara.
Bodreau.
Bonnet Carre.
Cat Island (La.-Miss.).
Chandeleur.
Chef Menteur.
Cheniere Caminada.
Creole.
Cut Off.
Dime.
Donaldsonville.
Dulac.
East Delta.
Fort Livingston.
Forts.
Little Rock.
Magazine Mountain.
Marshall.
Morrillton.
Mountain Home (Ark.-Mo.).
Mountain View.
Mount Ida.
Poteau Mountain (Ark.-Okla.).
Siloam Springs (Okla.-Ark.)
Tahlequah (Okla.-Ark.).
Texarkana (Tex.-Ark.).
Winslow (Ark.-Okla.).
Yellville (Ark.-Mo.).
louisiana.
Gibson.
Hahnville.
Houma.
Lac des Allemands.
La Fortuna.
Lake Felicity.
Mound.
Mount Airy.
New Orleans.
Pointe a la Hache.
Quarantine.
Rigolets (La.-Miss.).
St. Bernard.
Shell Beach.
Spanish Fort
Thibodaux.
Timbalier.
Toulme (La.-Miss.).
West Delta.

MISSISSIPPI.
Cat Island (La.-Miss.).
Coahoma.
Dundee.
Florence.
Jackson.
Jonestown.
Rigolets (La.-Miss.).
Toulme (La.-Miss.).
Walnut Lake.

# ARKANSAS. <br> PRIMARY LEVELING. 

## Eureka Springs, Fayetteville, Harrison, Siloam Springs, and Winslow quadrangles. benton, boone, carroll, crawford, madison, newton, and washington counties.

The elevations in the following list were determined by primary leveling extended from the precise-level line of the Coast and Geodetic Survey along the St. Louis \& San Francisco Railroad, which crosses the Fayetteville, Eureka Springs, and Winslow quadrangles.
The leveling was done in the Eureka Springs quadrangle in 1900 by J. A. Boyd, G. E. Diehl, J. E. Smith, and C. C. Curry, and in 1902 by Boyd and D. V. Vandiver; in the Fayetteville and Siloam Springs quadrangles in 1899 by Clifford Older; in the Harrison quadrangle in 1902 by Vandiver; and in the Winslow quadrangle in 1898 by Robert Coe.

## FAYETTEVILLE QUADRANGLE.

fayetteville southeast along highway to baldwin (single spur line).

FAYETTEVILLE EAST TO HABERTON.

fayetteville west and north via farmington to robinson schoolhouse, thence EAST TO SPRINGDALE.

Farmington, sec. 26, T. 16 N., R. $31 \mathrm{~W} .$, opposite church; iron post stamped
" 1202 FTVL" . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
1, 203. 386
T. 17 N., R. 32 N. NE. $\frac{1}{4}$ sec. 11, at Robinson schoolhouse; iron post stamped
$" 1082$ FTVL"................................................................................. 083.530

El:n Springs, near center of sec. 25, T. 18 N., R. 31 W.; iron post stamped "1167 FTVL"
$1,168.718$
SPRINGDALE EASt along highway 5 mites (SINGLE spUR LINE).
T. 18 N., R. 29 W., northwest corner of sec. 27,250 feet west of church; iron post stamped "1399 FTVL".

1, 400. 729
rgbinson schoolhouse southeast along highway to wheeler (single spur line).

robinson schoolhouse southwest along highway to cincinnati, thence north via siloam springs along highway and railroad to gravette, thence east to rogers (portion of line).

T. 20 N., R. 32 W., SW. $\frac{1}{4}$ sec. 2, Banks schoolhouse; iron post stamped ..... Feet.
"1287 FTVL" ..... 1, 288.021
Seba, in front of J. A. Corley's store; iron post stamped " 1320 FTVL". ..... 1, 321. 138
Bentonville, northwest corner of new office building of courthouse; alum- inum tablet stamped "1303 FTVI" ..... 1, 304. 909
gentry (orchard) east along highway to springtown (single spur hane).
Orchard, near center of sec. 3 , T. 18 N., R. 33 W., 1 block west of public well; iron post stamped "1.237 FTVL". ..... $1,238.649$
Springtown, northwest corner of sec. 8, T. 18 N., R. 32 W.; iron post stamped "1259 FTVL" ..... $1,260.201$
decatur east along highway to eagle schoolhouse (single spur line).
Decatur, near northwest corner of sec. 13, T. 19 N., R. 33 W .; iron post stamped "1248 FTVL" ..... 1,249. 446
I. 19 N., R. 32 W., northwest corner of sec. 26, Eagle schoolhouse; iron post stamped "1.415 FTVL" ..... $1,416.520$
gravette north along highway to sulphur springs (single spur line).
Sulphur Springs, sec. 23, T. 21 N., R. 33 W., in east wall of Joplin's store, 4 feet above ground; aluminum tablet stamped " 929 FTVL" ..... 930.383
hiwassee north along highway to gordon hollow (single spur line).
Gordon Hollow, SE. $\frac{1}{4} \mathrm{sec} .25$, T. 21 N., R. 32 W., at crossroads; iron post stamped "1.083 FTVL" ..... 1, 084.704
bentonville soutil along hahway to osage mills (single spur line).
Osage Mills, sec. 34, T. 19 N., R. 31 W., southwest corner of Rous's store; iron post stamped "1334 FTVL" ..... 1, 335.852
bentonville nortif along highway to pinon hollow (single spur line).
Pinon Hollow, NE. $\frac{1}{4}$ sec. 26, T. 21 N., R. 31 W., forks of road near mouth of; iron post stamped "995 FTVL" ..... 996. 499
BENTONVILLE NORTHEAST ALONG HIGHWAY TO BRIGHTWATER.
T. 21 N., R. 30 W., northwest corner of sec. 26; iron post stamped " 1315 FTVL". ..... $1,316.824$
T. 21 N., R. 29 W., northwest corner of sec. 33 ; iron post stamped " 1348 FTVL" ..... 1, 349.843rogers east along mghway to wimte river (single spur line).
T. 19 N., R. 29 W., east side of sec. 1, on bank of White River; iron post stamped "1064 FTVL" ..... 1,065. 427
rogers soutirwest along highway 4.5 miles (single spur hine).
T. 19 N., R. 30 W., northwest corner of sec. 22; iron post stamped "1301 FTVL" ..... 1, 302. 137
SILOAM SPRINGS QUADRANGLE.
robinson schoolhouse southwest along highway to cincinnati, thence north viasiloam springs along highway and railroad to gravette, thence east to rogers(PORTION OF LINE).
Cincinnati, northwest end of town, sec. 29, T. 16 N., R. 33 W., west side of main road; iron post stamped "1039 FTVL" ..... $1,040.839$
Siloam Springs, at railroad station, southwest corner of platform; iron post stamped "1148.6" (Indian Territory levels) ..... 1, 154. 512

## EUREKA SPRINGS QUADRANGLE.

seligman, mo., south along missouri \& north arkansas rallroad to eureka springs.
Missouri and Arkansas State line, 1.2 miles south of, 25 feet north of Berry
switch on Missouri \& North Arkansas Railroad, in side of rock, 1 foot above ground; bronze tablet stamped " 998 FTVL".

Feet.
999. 223

Beaver, sec. 20, T. 21 N., R. 26 W., 33 feet from east pier of bridge over White River, in south wall of the Narrows, 2.4 feet above ground; aluminum tablet stamped " 929 FTVL"
930.648

Eureka Springs, on east side of Crescent Hotel, 9 feet from northeast corner of dining hall, 3.8 feet above ground; aluminum tablet stamped " 1461 FTVL" 1, 462.491

HABERTON EAST ALONG RAILWAY VIA HINDSVILLE TO HUNTSVILLE.
Goshen, sec. 32 , T. 17 N., R. 28 W., 700 feet northeast of flour mill, in south face of ledge of natural rock on northwest side of Goshen-Hindsville public road; aluminum tablet stamped " 1181 FTVL".

1, 182.843
Hindsville, center of N. $\frac{1}{2}$ sec. 16, T. 17 N., R. 27 W.; iron post stamped "1366 FTVL".

1, 367. 407
HINDSVILLE ALONG HIGHWAY NORTH TO CANUCK, THENCE WEST TO WAR EAGLE, THENCE SOUTH VIA SPRING Valley to hindsville.

Clifty, NW. 1 sec. 26, T. 18 N., R. 27 W., 1,300 feet north of Parker's ford over War Eagle Creek, in east face of natural ledge of granite on west side of Hindsville-Clifty road; bronze tablet stamped " 1218 FTVL".

1,219. 571
Canuck, sec. 33, T. 19 N., R. 27 W., 10 feet east of building owned by Sam Cook, in south face of ledge of natural rock and southeast corner of post office; aluminum tablet stamped "1497 FTVL"

1, 499.115
War Eagle, near southeast corner of sec. 34, T. 19 N., R. 27 W., 180 feet north of post office, 40 feet east of old building, in west face of ledge of natural rock; bronze tablet stamped "1156 FTVL". 1, 157. 240
Spring Valley, sec. 2, T. 17 N., R. $28 \mathrm{~W} ., 70$ feet west of post office, 5 feet north of spring owned by A. Sanders, in south face of ledge of natural limestone rock; copper bolt stamped " 1301 FTVL" 1, 302. 284
goshen sottheast along hagway via wesley to drake's creek (single spor line).
Wesley, sec. 26, T. 16 N., R. 28 W. , school district 56 , second brick from
bottom in southeast corner of brick schoolhouse; bronze tablet stamped
" 1273 FTVL"........................................................................
Drake's Creek, sec. 32, T. 16 N., R. 27 W., 500 feet east of post office, in south face of natural ledge of rock on Aurora road, 300 feet east of junction with Huntsville road; aluminum tablet stamped " 1284 FTVL".
"1,286. 141
huntsvile southeast along hagway to wharton creek (single spur line).
T. 16 N., R. 26 W. , center of $\mathrm{N} . \frac{1}{2} \mathrm{sec} .23$, in top of projecting rock, on west side of and 150 yards from War Eagle Creek, on main Huntsville and Aurora road; bronze tablet stamped " 1321 FTVL".

1, 322.820
T. 16 N., R. 25 W., south side of sec. 20 , about 200 yards south of Wharton Creek schoolhouse, near elm tree, in side of rock abou£ 0.5 foot above ground; bronze tablet stamped " 1352 FTVL".

1, 353. 689
HUNTSVILLE NORTH ALONG Highway to Eureka springs.
Huntsville, sec. 34, T. 17 N., R. 26 W. , in east side of southeast corner of foundation of courthouse; bronze tablet stamped " 1451 FTVL".

1, 452.740
T. 17 N., R. 26 W., sec. 10, north bank of War Eagle Creek, at ford, on Hunts- ville and Eureka Springs road, in top of rock; bronze tablet stamped "1222 FTVL" ..... Feet. ..... 1, 223.765
T. 18 N., R. 26 W., east side of sec. 22, near old storehouse, at junction of road from Clifty with Huntsville and Eureka Springs road; iron post stamped "1602 FTVL" ..... 1, 603. 699
T. 19 N., R. 26 W., southwest corner of sec. 33, on Huntsville and Eureka Springs road; iron post stamped "'1568 FTVL" ..... 1, 569.629
eureka springs west along highway to white river (single spur line).
White River, sec. 29, T. 20 N., R. 27 W., about 300 yards east of Knox Ferry and 11 feet west of large oak tree, in side of sandstone rock; bronze tablet stamped "1016 FTVL" ..... 1,017.932
eureka springs east along hghway to berryville (mean of two lines).
Eureka Springs, 1.5 miles east of, on Berryville road, on ledge of rock in Mill Hollow; chiseled cross. ..... 1, 260. 98
T. 20 N., R. 25 W., sec. $20,6.8$ miles east of Eureka Springs, 6.8 miles west of Berryville, 100 feet west of west end of Kings River Bridge, 5 feet north of tollgate; iron post stamped "1066 FTVL". ..... $1,067.968$
Berryville, 2.2 miles west of, in front of E. H. Smith's residence, on north side of road, on top of first stone step to spring ..... 1, 217. 52
Berryville, in public square, 10 feet south of west stile of park, 66 feet west of pump, under music stand; iron post stamped " 1256 FTVL".... 1, 256: 124
berryville south along highway to crossroads 2.5 miles east of marble, thence West via marble to huntsville.
T. 19 N., R. 24 W., east side of sec. 28, on Kingston road, southwest corner of Wright's store, 5 feet southwest of; iron post stamped "1286 FTVL".. 1, 288. 540T. 18 N., R. 24 W., sec. 15, 14 feet northeast of Cedar Valley schoolhouse,on Kingston road, near mouth of Cedar Creek; iron post stamped "1365FTVL"1,367. 512
T. 17 N., R. 24 W., sec. 16, junction of Berryville-Kingston and Marble- Carrollton roads, 35 feet east of road, east of and near blacksmith shop; iron post stamped "1394 FTVL" ..... 1, 396. 083
Marble, sec. 13, T. 17 N., R. 25 W., in northwest corner of yard to City Hotel; iron post stamped " 1345 FTVL" ..... 1, 347. 104
pont 2.5 miles east of marble along highway south to kingston (Single spur ..... LINE).
Kingston, sec. 15, T. 16 N., R. 24 W., in southwest corner of public square; iron post stamped " 1365 FTVL" ..... 1, 367.026
berryville south along highway to pension mountain (single spur line).
Pension Mountain, sec. 24, T. 19 N., R. 25 W., 5.8 miles southwest ofBerryville, 200 yards from summit of mountain, on New Huntsvillewagon road, in side of projecting rock; bronze tablet stamped " 1565FTVL"1,566. 720
berryville north along highway to sec. 29 , t. 21 N.; R. 24 W., thence west to sec.25, T. 21 N., R. 25 w .
T. 21 N., R. 24 W., S. $\frac{1}{2}$ sec. 29, junction of Eureka Springs and Viola roads; iron post stamped " 1226 FTVL". ..... 1, 228. 286
Stony Point Church, 300 yards south of Summers Ford on Berryville- Cassville road, 11 feet south of southwest corner of church; iron post stamped '"962.FTVL" ..... 964. 577

## HARRISON QUADRANGLE.

BERRYVILLE EAST ALONG HIGHWAY TO GREEN FOREST, THENCE ALONG RAILROAD to alpena
PASS, THENCE NORTH ALONG HIGHWAY TO DENVER. 1
Green Forest, sec. 4, T. 19 N., R. 23 W., at southwest corner of Bank of Feet.
Green Forest, in stone doorsill; aluminum tablet stamped " 1349 FTVL". 1, 349. 239
Green Forest, 5 miles east of, in milepost 45; spike....................... 1, 112.24
Alpena Pass, sec. 23, T. 19 N., R. 22 W., 27 feet west of station platform,
20 feet south of railroad track; iron post stamped "1139 FTVL"........ 1, 139. 390
Denver, T. 20 N., R. 22 W., in Joe A. Young's yard, 6 feet east of east fence, 10 feet south of north fence, in top of stone post 6 by 12 by 30 inches, set in ground; bronze tablet stamped "1028 FTVL"...................... 1, 028. 285

GREEN FOREST NORTH ALONG HIGHWAY TO OAK GROVE, THENCE TO RAUM, THENCE SOUTH to Denver.
Yocum, sec. 2, T. 20 N., R. $23 \mathrm{~W} ., 300$ yards east of creek crossing, on east
side of mill, in stone foundation; bronze tablet stamped "1084 FTVL". 1, 084.275
Oak Grove, sec. 28, T. 21 N., R. 23 W ., in southeast corner of fence in yard of J. H. Evans, in top of stone post 6 by 22 by 36 inches; bronze tablet stamped "1347 FTVL"

1, 347. 529
Raum, sec. 20, T. 21 N., R. 22 W., at base of chimney of A. Winkle's resi-
dence, in coping; bronze tablet stamped " 965 FTVL"....................
965.321 alpena pass soụtheast along railroad to harrison (run twice).
Batavia, sec. 33, T. 19 N., R. 21 W., 200 feet north of spring, 33 feet east of northeast corner of station platform; iron post stamped " 1489 FTVL". 1, 489. 055
Harrison, in northwest corner of square; iron post stamped " 1052 FTVL". 1, 052.480
harrison northeast along highway to oregon, thence northwest via self to lowry, - thence west-southwest va omaba to denver.

Oregon, sè. 17, T. 19 N., R. $19 \mathrm{~W} ., 250$ feet north of crossroads; iron post
stamped " 1324 FTVL"............................................................. 324.3
T. 20 N., R. 19 W., sec. 18, on "Rushing Farm," 600 feet south of house, 16.3 miles northeast of Harrison, at fork of road, road west to Cheatmen, road east to Self; iron post stamped " 1356 FTVL".Self, sec. 3, T. 20 N., R. 20 W., 50 feet east of blacksmith shop; iron poststamped " 811 FTVL".......................................................811.083
T. 21 N., R. 20 W. , sec. 23,1 mile north of Old Lowry, 100 feet southeast of Bluff Springs schoolhouse, district 36; iron post stamped " 728 FTVL" (By short single spur line). ..... 727. 838
Omaha, sec. 27, T. 21 N., R. $21 \mathrm{~W} ., 45$ feet east of post office, 45 feet west of road; iron post stamped " 1354 FTVL". ..... $1,354.314$
Pruitt post office, sec. 20, T. 20 N., R. 21 W., in Mr. Moor's yard; 4 feet east of picket fence; iron post stamped "1483 FTVL" ..... 1, 482.918
HARRISON NORTH ALONG HIGHWAY TO SELF.
T. 19 N., R. 20 W., sec. $9,6.5$ miles north of Harrison, fork of roads, run- ning west to Burlington and north to Self post office, 2,000 feet south of blacksmith shop; iron post stamped."1386 FTVL" ..... $1,386.421$

GREEN FOREST SOUTH ALONG HIGHWAY VLA RULE AND OSAGE TO BOXLEY, THENCE NORTHeast to cecil's fork (buffalo creek), 12 miles, thence via carrolton to alpena PASS.
T. 19 N., R. 23 W., SW. $\frac{1}{4} \mathrm{sec} .29,200$ yards south of J. W. McCalib's house, 50 feet east of blazed elm tree, in limestone outcrop; bronze tablet stamped "1245 FTVL".
Osage (Fairview), sec. 26, T. 18 N., R. 23 W., in stone front of W. S. HittFeet. son's store; bronze tablet stamped "1331. FTVL" , 331. 779
T. 17 N., R. 23 W. , sec. $27,0.25$ mile north of J. S. Alfred's place, 25 yards west of road forks, north side of road, in large sandstone bowlder; bronze tablet stamped "1487 FTVL" ..... 1, 486. 929
T. 16 N., R. 23 W., on NE. $\frac{1}{4}$ sec. 22 , northeast corner of crossroads, 100 yards north of cabin of J. C. Patty, 5 feet south of black oak tree, in stone 2.5 by 1 by 4 feet; bronze tablet stamped " 2230 FTVL" ..... $2,230.385$
T. 16 N., R. 22, sec. 16, 100 yards west of Center Point schoolhouse, 10 yards south of road, in limestone outcrop; bronze tablet stamped " 959 FTVL" ..... 959.038
T. 17 N., R. 21 W., sec. 33, 75 yards northeast of road crossing, 5 yards south of .2 -foot white oak tree, near W. J. Young's house, in limestone bowlder; aluminum tablet stamped " 896 FTVL" ..... 895. 577
T. 17 N., R. 22 W., NE. $\frac{1}{4}$ sec. 13, 15 feet from township line, at road forks, on Harrison and Huntsville road, in front of H. S. Mallett's house, in stone; aluminum tablet stamped " 2129 FTVL" ..... 2,128. 992
T. 18 N., R. 22 W., S.W. $\frac{1}{4}$ sec. 25,300 yards east of W. A. Hobgood's resi- dence, 20 yards west of road forks at foot of white oak, in rock; aluminum tablet stamped " 2153 FTVL" ..... 2,153. 025
youngs' crossronds south along highway to jasper.
Jasper, sec. 27, T. 16 N., R. 21. W., at left of north front entrance of court- house, 2.5 feet above ground, in stone facing; aluminum tablet stamped " 857 FTVL" ..... 857. 339
jasper north along hagway via elmwood to harrison.
T. 16 N., R. 21 W., SE. $\frac{1}{4}$ NE. $\frac{1}{4} \mathrm{sec} .24,20$ feet north of creek, in limestone ledge; aluminum tablet stamped " 787 FTVL". ..... 787. 254
T. 16 N., R. 20 W., sec. 8, 600 feet north of Buffalo, 600 feet west of Shad- ock's, at corner of fence 7 feet east of road, in sandstone 6 by 8 by 4 feet; aluminum tablet stamped " 796 FTVL". ..... 795. 992
T. 17 N., R. 20 W., NE. $\frac{1}{4}$ sec. 33, 900 feet south of Mr. Erwin's house, at foot of Flat Rock Mountain, where road first strikes Flat Rock Creek, in sandstone; aluminum tablet stamped "968 FTVL" ..... 968. 248
T. 17 N., R. 20 W., near northwest corner sec. 22, 3 feet from Boone-Newton county line, 100 feet north of L. L. Monday's house, in stone; aluminum tablet stamped " 1348 FTVL" ..... $1,348.637$
T. 17 N., R. 20, NW. $\frac{1}{4}$ NW. $\frac{1}{4} \mathrm{sec} .10,125$ feet east of forks in road, 100 feet east of A. H. Bryant's house, 4 feet south of red oak, in limestone post; aluminum tablet stamped "1218 FTVL" ..... 1, 218. 351
T. 18 N., R. 20, near southwest corner of sec. 21, 100 feet south of J. B. Wilson's house, 10 feet east of road, 50 feet west of Crooked Creek, in limestone; aluminum tablet stamped "1086 FTVL" ..... $1,086.880$
WINSLOW QUADRANGLE.
RUDY WEST ALONG HIGHWAY TO CEDARVILLE, THENCE NORTHWEST TO DUTCH MLLLS, THENCE NORTHEAST TO STAUNTON.
Natural Dam post office, sec. 15, T. 11 N., R. 32 W.; iron post stamped " 672 FS" ..... 673.528
Dutch Mills, sec. 21, T. 14 N., R. 33 W., on main street, in front of White, Reed \& Co.'s store; iron post stamped " 1027 F S" ..... 1, 028.935
Clyde, sec. 17, T. 14 N., R. 32 W., in front of schoolhouse; iron post stamped " 1325 F.S" ..... 1, 326. 408
T. 15 N., R. 32 W. , sec. 27 , top of hill south side of wagon road between
Prairie Grove and Boonsboro; iron post stamped "1414 F S". ..... 1, 415. 660
Prairie Grove, sec. 18, T. 15 N., R. 31 W., brick store southwest corner Feet.Mack and Bucbanan streets; aluminum tablet stamped "1168 F S". ... 1, 169.644T. 15 N., R. 31 W. , on line between secs. 15 and 16 , Illinois Chapel; ironpost stamped " 1146 F S".$1,147.766$
dutch mills north along hahway to summers (SPUR line).
T. 15 N., R. 33 W., southeast corner of sec. $16,0.5$ mile southeast of Sum- mers; iron post stamped "1192 F S" ..... $\cdot 1,194.123$
cedarville south along hghway to stattler (Spur line). 
Stattler post office, sec. 22, T. 10 N., R. $32 \mathrm{~W} . ;$ iron post stamped " 903 F S". ..... 904.844
natural dam northeast along highway to westrork.
Lee's Creek post office, quarter corner on south side of sec. 25, T. 12 N.. R. 32 W.; iron post stamped " 755 F S" ..... 756.899
T. 13 N., R. 32 W., southeast corner of sec. 35; iron post stamped " 1727 F S' ..... $1,728.884$
Strickler, sec. 7, T. 13 N., R. 31 W., northwest corner of John Neal's fence; iron post stamped " 1568 F S" ..... $1,569.848$
T. 14 N., R. 31 W., sec. 23, near Longview schoolhouse; iron post stamped "1900 F S" ..... 1, 902.020lee's creek east along highway to chester.
T. 12 N., R. 31 W., quarter corner on east side of sec. 23 ; iron post stamped "1734 F S" ..... $1,735.739$
SEC. 32, t. 14 N., R. 30 W., SOUTHWEST ALONG heghay to SEC. 2, t. 14 N., R. 31 W.(SPUR LINE).
T. 11 N., R. 31 W., near southeast corner of sec. 2; iron post stamped " 1565 FS" ..... $1,566.814$
sec. 4, t. 11 N., r. 29 w., north along highway to sec 28 , t. 12 n., r. 29 w . (Spur line).
T. 12 N., R. 29 W., southeast corner of sec. 28, near abandoned Sandpoint post office; iron post stamped "1606 F S" ..... 1, 608.376
winslow northeast along highways to hazel valley, thence northwest to sec. 21, t. 15 N. , r. 29 W , thence west to westrork.
Winslow, southeast corner of Dunlap's drug store, on ledge of rock; alumi- num tablet stamped "1742 F S" ..... 1, 743:858
T. 13 N., R. 29 W., sec. 1, Low Gap, crossroads in gap of Boston Moun- tains; iron post stamped " 2042 F S " ..... 2, 043.968
T. 14 N., R. 29 W., sec. 10, 0.8 mile northwest of Arnett post office near main gate of cemetery; iron post stamped "1401 F S" ..... 1, 403. 172
SEC. 21, T. 15 N., R. 29 W., NORTH ALONG HIGHWAY TO SULPHUR CITY.
Sulphur City, sec. 22, T. 15 N., R. 29 W. , foundation southwest corner of post office; aluminum tablet stamped "1364 F S" ..... 1, 366.306
SEC. 15, t. 10 N., R. 31 W., NORTHEASt ALONG HIGHWAY TO BELMONT.
Belmont, abandoned post office, quarter corner on east side of sec. 9., T. 10N., R. 30 W .; iron post stamped " 873 F S "874.768
mUlberry north along highway 11 miles, thence southwest to mountainburg.
T. 11 N., R. 29 W., east side of sec. 34, abandoned Plymouth post office; iron post stamped "794 FS". ..... 795.928

CALHOUN, CLARK, DALLAS, GARLAND, HEMPSTEAD, HOT. SPRINGS, HOWARD, MONTGOMERY, NEVADA, OUACHITA, PIKE, POLK, PULASKI, AND SALINE COUNTIES.

The elevations in the following list were determined by primary leveling extended from Little Rock. A double-rodded line of levels was run in 1896 from Little Rock along the St. Louis, Iron Mountain \& Southern Railway to Hot Springs and continued in 1899 along the Chicago, Rock Island \& Pacific Railway and the St. Louis, Iron Mountain \& Southern Railway to Gurdon, connecting in 1900 with Camden by primary circuits. At Little Rock and Camden the work is adjusted to elevations for bench marks of the United States Army engineers' precise-level line. No intermediate connections were made.

The leveling from Little Rock to Hot Springs and in the Hot Springs special quadrangle was done in 1896 by H. L. Muldrow, and that along the railroads to Gurdon, Hope, and Buena Vista by Robert Coe in 1899-1900. The remaining work in the Gurdon quadrangle was done in 1899-1900 by D. C. Wray, and in the Camden quadrangle in 1900 by Guy E. Diehl. The leveling in the Caddo Gap quadrangle was partly done in 1901 by E. L. Shepard and J. A. Boyd, and was completed in $1902-03$ by C. H. Birdseye. The leveling for the Hot Springs special and the Gurdon quadrangles has been copied with corrections from the Eighteenth and Twenty-first Annual Reports of the United States Geological Survey, respectively.

## LITTLE ROCK QUADRANGLE.

at httie rock.
 hot springs spectal quadrangle.
hot springs along chicago, rock island \& pacific rallway to lawrence.
Hot Springs, in stone window sill of Chicago, Rock Island \& Pacific Rail- •
way passenger station; copper bolt stamped " 598 "................................ 598.692
Spring Lake, sec. 12, T. 3 S., R. 19 W., in front of Chicago, Rock Island \& Pacific Railway station; top of rail.
335.7

Potash Sulphur Springs, sec. 17, T. 3 S., R. 18 W.; iron post stamped " 388 " (the above bench mark is on a single spur line)
388.634
bench marks established along highways in south part of quadrangle.
T. 4 S., R. $18 \mathrm{~W} ., 0.3$ mile northeast of center of sec. 5 ; copper bolt stamped Feet. " 409 " ..... 409. 822
T. 4 S., R. 19 W., 0.3 mile south-southwest of center of sec. 8 ; iron post stamped " 482 " ..... 482.674
T. 4 S: R. $20 \mathrm{~W} ., 0.2$ mile northeast of center of sec. 3 ; iron post stamped " 510 " ..... 510.065
T. 3 S., R. 20 W., sec. 2, at Bull Bayou bridge; iron post stamped " 392 '". ..... 393.085
T. 2 S., R. 20 W ., west of center of sec. 21, at Clear Creek; iron post stamped " 480 " ..... 480.979
bench marks on single spur unés from main circuit in north part of quadrangle.
T 1 S., R. 20 W., 0.3 mile northwest of center of sec. 32; copper bolt stamped" 630 ".631. 326
Mountain Valley, wést side sec. 20, T. 1 S., R. 19 W.; iron post stamped " 783 ". ..... 784.384
T. 1 S., R. $18 \mathrm{~W} ., 0.2$ mile southeast of center of sec. 32, north side of Saline River and road, between two nearby road forks; iron post stamped " 523 " ..... 524.034
T. 2 S., R. 18 W., near northwest corner sec. 30, at Dipping Springs, south of road; iron post stamped " 532 " ..... 533. 004
MALVERN QUADRANGLE.
Hot springs southeast along chicago, rock island \& pacific kallway to malvern,thence southwest along st. louts, iron mountain \& southern rallway to hope(DOUBLE-RODDED LINE) (PORTION OF LINE).
Malvern, near front entrance to Hot Springs County courthouse; iron post stamped "H. S. 310". ..... 311. 123
Malvern, in monuments for meridian marks in courthouse yard; bronze tablets:
North monument. ..... 311. 386
South monument. ..... 307. 151
ARKADELPHIA QUADRANGLE.
hot springs southeast along chicago, rock island \& pacific railway to malvern,thence southwest along St. louis, iron mountain a southern railway to hope(DOUBLE-RODDED LINE; PORTION OF LINE).
Arkadelphia, at northwest corner of Clark County courthouse, under corner- stone, in north face of second stone above ground; bronze tablet stamped "H. S. 246" ..... 246.801
GURDON QUADRANGLE.
HOT SPRINGS SOUTHEAST ALONG CHICAGO, ROCK ISLAND \& PACTFIC RALWAY TO MALVERN,THENCE SOUTHWEST ALONG ST. LOUIS, LRON MOUNTAIN \& SOUTHERN RAILWAY TO HOPE(DOUBLE-RODDED LINE; PORTION OF LINE).
Curtis, 0.25 mile south of station, on east right of way line of St. Louis,Iron Mountain \& Southern Railway and on line between secs. 1 and36, 0.8 mile west of township line; jron post stamped "H. S. 170 "171.112
Gurdon, northwest corner of Main and West FrontStreets. in south face, near southeast corner, of brick building owned by A. W. Newton and used as a general store; aluminum tablet stamped "H. S. 209" ..... 210. 127
Bierne, 880 feet northwest of railroad crossing north of, at quarter corner of secs. 1 and 12, on Dr. Kerston's property, 250 feet west of Methodist Church; iron post stamped "H. S. 237 ". ..... 238.457
Boughton, ' 130 feet north of railroad, inside fence at southwest corner of front yard of E. de Laughter's residence; iron post stamped "H. S. 234". ..... 234.646
Prescott, bronze tablets set in stone monuments in courthouse yard as meridian marks:
Feet.
319. 289
316. 700
Emmet, 130 feet west of center of station, 25 feet north of main line of St. Louis, Iron Mountain \& Southern Railway, 5 feet west of milepost 449, 260 feet east of county line post between Nevada and Hempstead Counties; iron post stamped "H: S. 293"
293.927

## HOPE QUADRANGLE.

hot springs southeast along chicago, rock island a pacific rallway to malvern, teence southwest along st. louls, iron mountain \& southern rallway to hope (double-rodded line) (portion of line).
Hope, at southwest corner of Main and East Second streets, in north face of large foundation stone at northeast corner of Hempstead County Bank; aluminum tablet stamped "H. S. 356 "
357.042

## CAMDEN QUADRANGLE.

CAMDEN SOUTHWEST ALONG ST. LOUIS SOUTHWESTERN RAILWAY TO BUENA VISTA.
Camden, Ouachita County courthouse, in west face of second stone above ground and from northwest corner; iron post stamped "H. S. 199"
199.859
Buena Vista, in front of station, 75 feet south of main track of St. Louis Southwestern Railway, in front of residence of Mrs. Martha E. Sifford; iron post stamped "H. S. 287 ". 288.016

## GURDON QUADRANGLE.

gurdon southeast along st. louls, iron mountain \& southern railway to camden.
Whelen, 450 feet west of station and 30 feet south of corner to secs. 26, 27, 34 , and 35, T. 10 S., R. 20 W.; iron post stamped "H. S. 247 ".
247.499

Chidester, about 180 feet northeast of station, 50 feet east of track; iron post stamped "H. S. 230"
231.070
prescott south along highways to bodcaw, thence west to buena vista.
Laneburg, 0.5 mile north of, in sec. 9, T. 12 S., R. 22 W., southeast corner of; iron post stamped "H. S. 284"
284.639

Bodcaw, 3 miles southeast of, 600 feet south of northeast corner sec. 16, north side of road; iron post stamped "H. S. 371 "
372.002
T. 14 S., R. 21 W., southeast corner sec. 16, 2 miles east of Willisville, junction of Rosston and College Hill road with Camden and Texarkana road; iron post stamped "E. S. 361 "
362.300
T. 14 S., R. 20 W., on line between secs. 14 and 23,500 feet west of southeast corner of sec. 14, 1 mile southwest of Woodlawn, north side of road and east side of creek; iron post stamped "H. S. 254"
255.407
T. $14 \mathrm{~S} .$, R. $19 \mathrm{~W} ., 0.6$ mile east oì quarter corner of sec. 10 , west side of, on property of H. L. Lusby, 30 feet north of Camden and Texarkana road; iron post stamped "H.S. 263 "
263. 708
prescott west along highway 5 mides (single spur line).
T. 11 S., R. 23 W., near southeast corner of sec. 9, on line between Nevada and Hempstead counties and 50 feet north of Washington road; iron post stamped "H. S. 327 "
327. 700
$83979^{\circ}$-Bull. 458 - $11-2$

> bennett's crossroads west along highway to centerville (single spur line).
T. $13 \mathrm{~S} .$, R. $22 \mathrm{~W} ., 0.25$ mile west of Bennett's, in southeast corner of sec. 16, 350 feet south of crossroads; iron post stamped "H. S. 372 ".

Feet.

372. 9.25
373. 795

bodcaw west along highway 5.25 miles (single spur line).
T. $13 \mathrm{~S} .$, R. $23 \mathrm{~W} .$, southeast corner of sec. 33 , on line between Nevada and

- Hempstead counties, east side of road, opposite road to west, 5.25 miles west of Bodcaw; iron post stamped "H. S. 331 "

332. 388
bennett's crossroads east along highway to caney, thence northeast to sayre.
T. $13 \mathrm{~S} .$, R. 21 W. , at quarter corner on south side of sec. 21 , southwest of crossroads to Rosston; iron post stamped "H.S. 378 "
378.939

Caney post office, 0.1 mile west of, quarter corner on east side of sec. 21, T. $13 \mathrm{~S} .$, R. $20 \mathrm{~W} ., 80$ feet north of road; iron post stamped "H. S. 324 "..
T. $13 \mathrm{~S} .$, R. $19 \mathrm{~W} .$, sec. 7, 4 miles northeast of Caney, on north side of Camden Road and 300 feet east of White Oak Creek; iron post stamped "H.S. 218 " (on single spur line)
218. 914

Bluff City, 1.8 miles southwest of, quarter corner on south side of sec. 10 , T. $12 \mathrm{~S} .$, R. $20 \mathrm{~W} ., 75$ feet west of road and 60 feet north of Spring Branch; iron post stamped "H. S. 283".
284.513
zama west along highway to morris (Single spur line).
T. 12 S., R. 21 W., in NW. $\frac{1}{4}$ sec. $26,0.25$ mile north of Morris, at southwest corner of cemetery at Caney Church and schoolhouse, northeast of crossroads; iron post stamped "H. S. 264"
265. 180

BLUFF CITY WEST-NORTHWEST ALONG HIGHWAY TO PRESCOTT.
T. 11 S., R. 20 W. , on line between secs. 21 and $22,0.25$ mile south of corner, north side of Prescott and Bluff City road; iron post stamped "H. S. 173".
T. 11 S., R. 21 W., near east corner of sec. 17, 6 miles east of Prescott, on south side of road and on west side of road to south; iron post stamped "H. S. $333 "$
174.518
334.046
prescott north along highway to okolona.
T. 10 S., R. 22 W. , northeast corner sec. 20 , at southwest corner of crossroads; iron post stamped "H. S. 376 "
377.002
T. 10 S., R. 23 W. , on line between secs. 15 and 16 , and on line between Nevada and Hempstead counties, south side of Washington road; iron post stamped "H. S. 346" (on single spur line west from preceding bench mark).
346. 527

Elkins Ford, on Little Missouri River, 1 mile north of, quarter corner on east side of sec. 21, T. 9 S., R. 22 W., 30 feet. west of road; iron post stamped "H. S. 216"
217.412
smithton west along railroad to antoine, thence south 3 miles.
T. 9 S., R. 21 W., southeast corner sec. 15, 100 feet north of track and 30 feet west of road; iron post stamped "H. S. 319".
319.541

Okolona, in southwest corner of high school yard, sec. 34, T. 8 S., R. 22 W.; iron post stamped "H. S. 423"
423.672

Antoine, 3 miles south of, in sec. 33 , T. $8 \mathrm{~S} .$, R. 23 W ., at west side of military road; iron post stamped "H. S. 324 " (on single spur line from Okolona).
smithton east along highway 4 miles (single spur line).
T. 9 S., R. 19 W., sec. 20,4 miles east of Smithton, 60 feet south of old grade at $\log$ road and 60 feet west of end of lane to south, between two buildings on property of W. A. Young; iron post stamped "H.S. 176"..

Feet.
177. 176
SINGLE SPUR LINE NORTH FROM BARHam.
T. 11 S., R. 19 W., quarter corner on south side of sec. 26,2 miles northeast of Barham post office, 150 feet east of road and 300 feet northeast of J. B. Benton's house; iron post stamped "H. S. 267 "
267.623
single spur line northeast from whelen springs.
T. 11 S., R. 19 W., on line between secs. 19 and 20 , on north side of GurdonCamden road; iron post stamped "H. S. 198"
199. 200

## ARKADELPHIA QUADRANGLE.

arkadebphia south along memphis, dallas \& gulf kallroad to dalark (portion of LiNE).
Arkadelphia, 0.5 mile east of, on top of coping stone at north end of west
abutment of steel bridge over Ouachita River......................................... 193.41

## MALVERN QUADRANGLE.

arkadelphia south along memphis, dailas \& gulf railroad to dalark (portion of LINE).
Dalark, northwest corner of sec. 13, T. 8 S., R. 18 W., on line between Dallas and Clark Counties; iron post stamped " 272 H. S.".
272.731

## CAMDEN QUADRANGLE.

dalark east along highway to princeton, thence south to bearden, thence along ramroad southwest to camden.
Nix, in E. $\frac{1}{2}$ SE. $\frac{1}{4}$ sec. 33, T. 8 S., R. $16 \mathrm{~W} ., 230$ feet east of post office; iron post stamped " $227 \mathrm{H} . \mathrm{S}$."
228. 160
T. $9 \mathrm{~S} ., \mathrm{R} .16$ W., 450 feet west of southeast corner of sec. 5 , on section line,
east side of Tulip and Tate's road, at southeast corner of W. F. Dick-
enson's field; iron post stamped " $296 \mathrm{H} . \mathrm{S}$. "...................................297. 255
Princeton, on west side of entrance of Dallas County jail, between two bricks in eleventh row from bottom of steps; aluminum tablet stamped "287 H. S.".
287.769
T. $9 \mathrm{~S} ., \mathrm{R} .15 \mathrm{~W}$. , on line between secs. 14 and 15 , at intersection of Prince-
ton, Bearden, and Holly Springs roads; iron post stamped " 300 H. S.". . 301.030 The following bench marks are on single spur lines from main circuit:
T. 9 S., R. 14 W., at intersection of dirt roads, 120 feet south of Zion Church; iron post stamped " 351 H. S."
352.341
T. $10 \mathrm{~S} ., \mathrm{R} .14 \mathrm{~W}$. , at intersection of Fordyce and Princeton dirt road and
Harlow Lumber Co.'s tram road, 420 feet east of old water tank; iron post
stamped " 222 H. S."............................................................................... 222.644
T. $10 \mathrm{~S} ., \mathrm{R} .15 \mathrm{~W}$. , at northwest corner sec. 25 , in mill creek bottom of
William Marshall, sr.; iron post stamped " $213 \mathrm{H} . \mathrm{S}$. "............................ 213.482
T. 11 S., R. 15 W., at northwest corner sec. 35 ; iron post stamped "' 229
H. S."............................................................................................. 230.149
Harlow, 450 feet southwest of station, 10 feet southwest of milepost 318, T. 11 S., R. 14 W.; iron post stamped " 270 H. S."
271. 369
T. 12 S., R. 14 W., northwest corner sec. 9,380 feet north of Chambersville-
Camden dirt road; iron post stamped "' 285 H. S."................................ 285.493285. 493
T. 12 S., R. $15 \mathrm{~W} ., 19.7$ feet east of northwest corner of sec. 23 , on section Feet. line; iron post stamped " 214 H. S." ..... 215. 299
Onalaska, 600 feet southwest of station, 8 feet southwest of milepost 329 , T. 12 S., R. 16 W.; iron post stamped " 129 H. S." ..... 130. 117
Van Duzer, 2.5 miles southwest of; railroad spike in milepost 334. ..... 110.64
CAMDEN NORTH along public road to dalark. ${ }^{1}$
T. $12 \mathrm{~S} ., \mathrm{R} .17 \mathrm{~W}$. , in southwest part of sec. 13 , one-eighth mile north of section line, 12 feet southeast of old store building of James Dụnn; iron post stamped "118 H. S." ..... 119.045
T. 11 S., R. 16 W., at northwest corner sec. 28 , 1 mile east of corner of pas- ture, beside wire fence; iron post stamped " 143 H. S." ..... 144. 255
T. 11 S., R. $17 \mathrm{~W} ., 35$ feet west of quarter corner between secs. 22 and 23, 40 feet west of Mrs. Jestice's barn lot; iron post stamped " 143 H. S." ..... 143. 599
T. 10 S., R. $17 \mathrm{~W} ., 800$ feet southwest of northeast corner of sec. 22, at southeast corner of Ouachita Church property; iron post stamped " 156 H. S." ..... 156.865
T. 10 S., R. 16 W., quarter corner on east side of sec. 16, 250 feet southeast of bridge over Whiteoak Creek, on south side of road; iron post stamped "155 H. S.". ..... 156.272
T: 9 S., R. 17 W., on line between secs. 16 and 21 , about 200 feet south of corner known as "Gray Rock," at fork of road; iron post stamped "191 H. S." ..... 191. 568
sparkman's mills west along hagway 8 miles (single spur line).
T. 9 S., R. 18 W., at sixteenth corner between secs. 33 and 34,10 feet north of P. Bennett's new well; iron post stamped " 204 H. S." ..... 205. 257
T. 10 S., R. 18 W., 500 feet east of center of sec. 10, on west side of Ouachita River; iron post stamped " 207 H. S." ..... 208.005
Camden east along hampton public road to smead (single spur line).
T. $13 \mathrm{~S} ., \mathrm{R} .16 \mathrm{~W}$. , in center of sec. 33 , at corner of field where road forks; iron post stamped "107 H. S." ..... 107. 564
T. 13 S., R. $15 \mathrm{~W} .$, at north quarter corner of sec. 26 ; iron post stamped "157 H. S." ..... 158. 224
T. 13 S., R. 14 W., at northwest corner sec. 9 ; iron post stamped " 215 H. S.". ..... 216.002T. 13 S., R. 18 W., sec. 25, at fork of Camden-Texarkana dirt road; ironpost stamped "137 H. S."137.515
chidester northeast along highway (single spur line).
T. 11 S., R. 18 W., Mrs. Allen's house, 800 feet south of, 800 feet south of intersection of Chidester-Wyloe dirt road with Arkansas Mill Co.'s tram road; iron post stamped '' 223 H. S." ..... 224.090
lester and finn on short single spur lines from main line along railroad.
Lester, sec. 36, T. 12 S., R. 18 W., 10 feet east of Lester Lumber Co.'s officeand post office, 55 feet west of track of Gurdon branch, St. Louis, IronMountain \& Southern Railway; iron post stamped " 120 H. S.":120. 440
Finn, T. 14 S., R. 17 W., 45 feet west of track, 140 feet north of railroad crossing; iron post stamped "143 H. S." ..... 144. 286
ARKADELPHIA QUADRANGLE.
hot springs west along dallas road to black springs (double-rodded line,PORTION OF LINE.
Bull Bayou, at forks of road near bridge; iron post stamped " 392 "Feet.
Myers, in blue granite rock front of J. A. Helm's mill and Wheatley Bros.'s store, T. 3 S., R. 22 W.; aluminum tablet stamped "H. S. 566 ". ..... 565.889
Alamo, 700 feet east of old post office, sec. 22, T. 3 S., R. 23 W ., in large bowlder north side of road; near middle of Narrows on Mazarn Creek; aluminum tablet stamped "E. S. 677 " ..... 677.279
CADDO GAP QUADRANGLE.
hot springs west along dallas road to black springs (double-rodded line; PORTION OF LINE).
Plata, at southeast corner of post office, set in sandstone, T. 3 S., R. 24 W.;bronze tablet stamped "H. S. 793".792.626
Black Springs, at northeast corner of post office, in sandstone, T. 3 S., R. 25 W.; bronze tablet stamped "H. S. 777". ..... 777.019black springs along dallas road to big forks (single-spur line after 5 miles).Black Springs, 7.1 miles west of, 0.25 mile west of J. A. Irby's house, southside of road, in sandstone and flint bowlder; bronze tablet stamped"H. S. 907"907. 278
Black Springs, 12 miles west of, 150 feet northwest of sign reading "Black Springs," between houses of Crawford and.G. R. Cox, in ledge of black granite shale; bronze tablet stamped "․ S. 1086" ..... 1, 085.499
Big Fork, midway between post office and Shed schoolhouse, south side of road, in black granite bowlder; bronze tablet stamped "H. S. 1098". . ..... 1, 098.537
point 6.5 miles east of black springs south along highway via caddo gap to rock Creek, thence west to langley, thence north via fancy hill to point 5 miles west OF BLACK SPRINGS.
Caddo Gap, 1.5 miles north of, opposite Exall's store, in front yard of S. H. Hanna; iron post stamped "H. S. 640 " ..... 639. 618
Rock Creek, 1,000 feet west of post office, edge of Rock Creek, in huge brown sandstone bowlder; bronze tablet stamped "H. S. 536" ..... 535. 650
Wilson, front yard of post office, in blue-gray siliceous sandstone; aluminum tablet stamped "H. S. 804" ..... 804. 10
Lodi, 0.5 mile west of, in corner of field 750 feet northwest of temporary bench mark, on main road where sign reads "Free Will Church, $1 \frac{1}{2}$ miles," on section line, 0.25 mile south of section corner; iron post stamped "H. S. 870". ..... 869. 652
Langley, 0.5 mile east of, at southwest corner of crossroads running through Fancy Hill and Star of the West; iron post stamped "H. S. 787". ..... 787. 333
Fancy Hill, 300 feet south of post office, at foot of lane; iron post stamped "H. S. 822 " ..... 821. 525
caddo gap west along highway 5 miles (single-spur hine).
Caddo Gap, 5 miles west of, 150 feet south of Park schoolhouse, district 30, in brown sandstone bowlder; bronze tablet stamped "FI. S. 703". ..... 702. 872
WILSON SOUTH ALONG HIGHWAY TO KIRBY.
Kirby, opposite post office, center of town, northeast corner of cross streets,in brown sandstona rock; aluminum tablet stamped "H. S. 666".665. 925
gurdon northwest along st. louis, iron mountain \& southern railway via okolona то кirby.
Pike City, northwest corner of platform of Frank Pennington's store; iron Feet.
post stamped "H. S. 660" ..... 659.047
bobos switch along highway west via murfreesboro, thence north along narrowgage road to point 5 miles northwest of pike.
Wolf Creek post office; iron post set at fence corner 20 feet north of post- office building, stamped " $516 \mathrm{H} . \mathrm{S}$ ". ..... 515. 271
Murfreesboro, in east wall of courthouse; aluminum tablet stamped "H. S. 367' ..... 366.608
Lissie, 2 miles southeast of, crossroads by log house, 0.25 mile south of $\log$ railway, northwest corner; iron post stamped "H. S. 542 " ..... 541. 202
MURFREESBORO WEST ALONG HIGHWAY TO CENTER POINT.
T. 8 S., R. 26 W., on quarter section line 0.25 mile south of north boundary of sec. 21, 90 feet north of fence on north side of old military road; iron post stamped "H. S. 655" ..... 654.429
T. 8 S., R. 27 W., southeast corner of SW. $\frac{1}{4} \mathrm{sec} .22,62$ feet east, in south- west corner of graveyard, just inside of fence; iron post stamped " 671 H. S." ..... 670.965
Center Point, southwest corner of sec. 25, T. 8 S., R. 28 W., 24 feet south of, along picket fence, 35 feet north of cotton gin; iron post stamped "H. S. $591 "$. ..... 590. 469
CENTER POINT NORTHEAST ALONG Highway to muddy fork, thence west along private ROAD TO BAKER SPRLNGS, THENCE SOUTH TO CENTER POINT.
Muddy Fork post office, 300 feet south of cotton gin, directly in front of
Muddy Fork post office, 300 feet south of cotton gin, directly in front of new store, at corner of rail fence; iron post stamped "H. S. 564". new store, at corner of rail fence; iron post stamped "H. S. 564". ..... 563. 171 ..... 563. 171
On Baker Springs road, 9 miles north of Center Point, at southwest corner of picket fence in front of E. H. Zollett's house; iron post stamped "H. S. 670", ..... 669. 372
muddy fori east along hegway to nathan (direct and reverse spur line).
Nathan, 1.5 miles northwest of, 300 feet south of John Cornish's house, 10 feet north of rail fence; iron post stamped "H. S. 503 ". ..... 502. 698
BAKER CITY NORTH ALONG HIGHWAY 4 MILES, THENCE EAST VIA NEW HOPE TO KIRBY.
New Hope, 5 miles southwest of, at junction of Hot Springs and Lockes- burg road with Center Point and Dallas road, 20 feet east of crossing; iron post stamped "HI. S. 771 ". ..... 770. 17.
Daisy, 30 feet southeast of Dr. Phillip's store; bronze tablet set in large bowlder, stamped " 629 H. S." ..... 628. 776NEW HOPE NORTHWEST ALONG HIGHWAY TO ATHENS, THENCE EAST TO LANGLEY.
Athens, quarter corner, middle of sec. 15, T. 5 S., R. 28 W., 300 feet east of schoolhouse; iron post stamped "H. S. 959" ..... 958.429
De Queen and Lockesburg quadrangles. howard, polk, and sevier counties.
These elevations are based upon the 1907 adjustment of precise leveling and are connected with the precise level line of the United States Army engineers from Little Rock to Camden through intervening work in the Caddo Gap and adjacent quadrangles. Checks obtained upon the Oklahoma levels were unsatisfactory, and one line could not be adjusted.
The leveling was done in 1908 by W. A. Gelbach.

## DE QUEEN QUADRANGLE.

Center point west to provo, thence soutif along de queen \& eastern rallroad to point about 3 miles north of lockesburg.
Center point, 2.5 miles west of, at corner of yard of negro house; iron post

Feet.
582. 180454. 922345. 71353. 15

350.883390.2374.7 .57
425. 573

PROVO NORTH TO ROCK SPRINGS, THENCE NORTH TO MNEOLA, THENCE EAST TO ATIIENS.
Dierks, 3 miles southwest of, east side of railroad at crossing, 100 feet north of milepost 24,12 feet north of fence corner; iron post stamped " 384 1908'"
384. 661

Dierks, in front of station; top of rail....................................... 420.99
Dierks, 1.8 miles north of, along old tramway now used as wagon road, at northwest corner of road crossing; iron post stamped "Prim. Trav. Sta. No. 51907560 1908"
560.498

Euclid post office, 4 miles northwest of Dierks, at north side of Hester's store; iron post stamped " 5951908 ".
Burg post office, 3.3 miles south of Rock Springs, on Center Point road, 0.9 mile southeast of ford of Saline River, at southeast corner of T road south, in corner of field of Mrs. Wimms; iron post stamped " 7551908 "..
Rock Springs (Burg post office), 150 feet east of cotton gin, on east side of road, on slope of hill; iron post stamped " 748 1908".
755. 283
748.012

Umpire, 100 feet east of post office, 50 feet west of blacksmith shop, 40 feet northwest of small bridge, in stone 5 by 12 by 22 inches, 20 inches in ground; aluminum tablet stamped " 839 1908".
839. 161

Mineola, south side of road, 50 feet east of spring, north of sawmill, in top of
large granite bowlder; aluminum tablet stamped " 973 1908".......... 973.119
Saline River ford, 1 mile west of Athens; surface of water, June, 1908..... 847
geneva along de queen \& Eastern railroad to de queen, thence north along kansas City southern rallway to gllleam, thence east to rock springs.

Geneva, at southeast corner of church; iron post stamped "Prim. Trav. Sta. No. 21907360 1908"'
359. 969

De Queen, 2 miles east of, 150 feet east of railroad crossing, 50 feet south of track, 1 foot west of wire fence, in stone 6 by 8 by 30 inches, 28 inches in ground; aluminum tablet stamped " 377 1908".
376. 821

De Queen, in front of De Queen \& Eastern Railroad station; top of rail... 370.1
De Queen, in front of Kansas City Southern Railway station; top of rail.. 379.8
De Queen, at southwest corner of courtyard, 3 feet west of fence and 7 feetnorth of corner fence post; concrete stone set level with ground and

marked | USC |  |
| :---: | :---: |
| 1905 | on center of stone | Feet.

$\& \mathrm{GS}$De Queen courthouse, in top of concrete railing to steps at east side of northdoorway; aluminum tablet stamped "429 1908"428.621
Pullman, 50 feet west of signboard at station; iron post stamped " 544 1908" ..... 543.785
King's spur, 30 feet north of Stewart's store; iron post stamped " 6331908 ". ..... 632.653
Gillham, 150 feet east of railway station, 10 feet north of public well; iron post stamped " 751 1908" ..... 751.414
Cossatot River ford, 0.8 mile west of, where Gillham-Antimony road reaches summit of ridge west of river, 20 feet north of road, 10 feet north of black oak 24 inches in diameter, blazed, with letters "U. S." cut in; in top of bowlder; aluminum tablet stamped " 597 1908" ..... 597.673
Antimony, 0.25 mile southeast of, 6 feet south of road, 50 feet east of road fork, in top of rock; aluminum tablet stamped " 754 1908" ..... 754. 309
Antimony, 3.8 miles northeast of where country road from Rock Springs joins "wire" road, at northwest corner of crossroads; iron post stamped "783 1908" ..... 783.558
gillham north via grannis to wicks, thence east to mineola.
Moore's spur, 1.5 miles north of, 100 feet north of crossing, 50 feet west of track, 150 feet northeast of house of J. L. Beidelman; iron post stamped "768 1908" ..... 768.143
Granniss, in front of station; top of rail ..... 920
Granniss, 50 feet east by 50 feet south of railway station, at northwest cornerof porch of Elberta Hotel, 1 foot inside of fence; iron post stamped"921 1908"921.566
Wicks, 100 feet west of station, at board fence; iron post stamped "1028 1908" ..... 1, 027.961
Wicks, in front of station, top of rail. ..... 1, 025.9
Wicks, 2.8 miles east of, on Baker Springs road, south side of road at dim road fork at corner of field; iron póst stamped" 984 1908". ..... 982.618
Wicks, 7.1 miles east of, at fork of roads to Baker Springs and to Center Point, about 600 feet west of schoolhouse, north side of road at small bridge; iron post stamped " 8711.908 " ..... 871.582
Baker Springs, 1.25 miles southeast of, on Center Point road, east side of road at fork of trail to west; iron post stamped " 679 1908" ..... 678.673
Mineola, 4.25 miles west of, on Baker Springs road, 600 feet north of fork of road just east of Harris Creek ford, on east side of and 3 feet above road in top of rock ledge; aluminum tablet stamped "669 1908" ..... 669.648
Mineola, 0.4 mile west of, at forks of road; on root of tree ..... 942.30
de queen west via ultima thule to state line.
Chapel Hill, 0.5 mile southeast of, in fork of road, in top of sandstone; alumi- num tablet stamped "Prim. Trav. Sta. No. 1. 1907433 1908" ..... 433.649
Ultima Thule, 15 feet west of southwest corner of Scott's cotton gin, Arkan- sas-Oklahoma boundary post 92 ; stamped " 353 " ..... 353.339
Tps. 5 and 6 S., Rs. 26 and 27 E., 3.5 miles west of Ultima Thule; iron post stamped " 487 " ..... 487.457
bOUNDARY POST ON STATE LINE ABOUT 1 mile SOUTHWEST of blanchard east to gillham.
Blanchard, 1 mile southwest of, 200 feet west of house at Newcomb place, south side of road, Arkansas-Oklahoma boundary post 85 ; top of post ..... 734.867
Blanchard, 1-mile southeast of, 15 feet south of road on top of hill, 400 feet ..... Feet.east of farmhouse; iron post stamped " 769 1908"767.373
Gillham, 4.5 miles west of, on Blanchard road, 40 feet south of road in front of old cabin; iron post stamped " 562 1908" ..... 559.874
GRANNIS WEST TO POST 79 ON THE ARKANSAS-OKLAHOMA BOUNDARY
Grannis, 4.8 miles west of, on Hochetown road, 1 mile east of Cross Creek, north side of road, 150 feet east of road fork; iron post stamped " 952 1908" ..... 951.781
Arkansas-Oklahoma boundary line post 79, about 700 feet south of, about 150 feet south of small stream, closing corner of T. 3 S., R. 27 E. (on border line) of Oklahoma land survey; iron post stamped " 831 1908".... ..... 830.586
Tps. 3 and 4 S., Rs. 26 and 27 E., in Oklahoma; iron post ..... 1, 086.419
WICKS to JANSSEN viA hatton.
Hatton, 0.7 mile south of, 250 feet south of railway water tank, at southeast corner of crossing 30 feet east of track; iron post stamped "1135 1.908".. 1, 135.665
Janssen, in front of station; top of rail ..... 1, 074
Janssen, 40 feet south of station, 50 feet east of tracks; iron post stamped "1.077 1908" ..... 1,076.938
danssen vla hatfield along ralload, thence east and southeast along highwaysto bench mark post 0.25 mile west of little brushy creek, thence southwest todanssen.
Cove, 30 feet north of station, 70 feet east of tracks; iron post stamped "1046 1908" ..... 1, 047.075
Hatfield, in front of station, top of rail ..... 969.6Hatfield, 1 mile east of, in front of T road west; iron post stamped "10431908"1, 043.371Hatfield, 4.4 miles east of, on Camp Wilder road, 300 feet north of sawmill,40 feet northeast of road, in sag of ground; iron post stamped " 11851.908 ". 1, 185.702T. 3 S., R. 31 W., 0.25 mile south of corner of secs. $25,26,35$, and 36 , at north-east corner of $T$ road north at south end of lane; iron post stamped "11791908"1, 179. 510
Little Brushy creek, 0.25 mile west of house of Jack Hicks, at fork of roadwhere road leaves stream above fork of Big and Little Brushy creeks onsouth side of road at south end of field; iron post stamped " 952 1908"....953.004Janssen, 3.1 miles northeast of, 20 feet east of small stream, 5 feet north ofroad, 5 feet south of 8 -inch white oak with notch and blaze, lettered"U. S. P.B. M." in top of rock; aluminum tablet stamped "1067 1908".. 1, 067. 514
lititle brushy east to shady post office, thence east and soutif to mineola. ${ }^{1}$
Big Brushy. Creek, 3 miles northeast of fork of Big and Little Brushy, old Sutton place, 30 feet south of house near old fence; iron post stamped "1071 1908" ..... 1, 071.425
Eberson City (Shady post office), 2.6 miles north of, in fork of road, 70 feet west of crossing of small stream, west side of mountain where Mena- Lockesburg road crosses from Cossatot to Board Camp Valley; iron post stamped "1228 1908". ..... 1, 227. 954
Eberson City (Shady post office), 100 feet south of store of Capt. Hazlett, west side of road; iron post stamped "1068 1908" ..... 1, 068.258Eberson City (Shady post office), 3.3 miles east of, on Sugar Creek road, atnortheast corner of yard of William Walston; iron post stamped "11931908"1, 194. 135

| Eberson City (Shady post office), 6.8 miles east of, on Sugar Creek rod north side of road, 100 feet south of house of Mr . Aleshire; iron po stamped "1374 1908" | $\begin{aligned} & \text { Feet. } \\ & 1,374.718 \end{aligned}$ |
| :---: | :---: |
| Blaylock Mountain, at top of, where old mail trail crosses, 20 feet north of black oak tree with letters "U. S. G. S." cut in west face, 10 feet east of trail, in top of stone; aluminum tablet stamped "1643 1908" | 1,644.451 |
| Mineola, 4 miles north of, at southwest corner of yard of J. H. Hardy; ir post stamped "Prim. Trav. Sta. No. 819071141 1908" |  |
| hatrield west to northwest corner of t. 1 S., r. 27 e. fron post on state line. ${ }^{1}$ |  |
| Hatfield, 0.7 mile west of, in fork of road at west end of lane; iron post stamped "Prim. Trav. Sta. No. 121907966 1908". | 965.379 |
| Mountain Fork bridge, on top of east concrete pillar on south side of approach to east end of bridge; painted square. | 832.30 |
| T. 1 S., R. 27 E., at northwest corner of township, on State line; iron post stamped " 940 " | 933.509 |

## LOCKESBURG QUADRANGLE.

point about 3 miles north of lockesburg south along rallroad to lockesburg, thence northwest along rallroad to geneva.

Lockesburg, in west face of brick pillar on west side of door of bank build-
ing; aluminum tablet stamped " 4371908 "................................................ 437.555
Lockesburg, in front of station; top of rail......................................... 406.6
Atlanta and Texarkana quadrangles. MILLER COUNTY.
The initial bench marks are on the Coast and Geodetic Survey precise-level line along Missouri, Kansas \& Texas Railway at Jefferson and Pittsburg, Tex.

The leveling was done by Chester Irvine in 1905.

## ATLANTA QUADRANGLE.

state line near ravenna, south 3.5 miles along kansas city southern railway.


TEXARKANA QUADRANGLE. at texarkana.

Texarkana post office, in stone railing south front west of steps, 5 feet above sidewalk; bronze tablet stamped " 332 ADJ 1903"
Texarkana, Miller County courthouse, at northeast corner of yard, United States Geological Survey meridian mark; bronze tablet stamped " 337 ADJ 19031905 TEXARKANA"
337.447

[^0]
## LOUISIANA.

## PRECISE LEVELING.

Crowley, Derouen, Jeanerette, Lafayette, Lake Arthur, and St. Martinville quadrangles.

acadia, calcasieu, iberia, lafayette, and st. mary parishes.

The following are the unadjusted results of a spur line of precise levels from Weeks Island east along the Cypremort branch of the Southern Pacific Railroad to Baldwin, thence along the main line of the Southern Pacific Railroad northwest to Lafayette, thence west to Jennings, a total distance of about 100 miles. The work was done in cooperation with the Louisiana Geological Survey, Prof. G. D. Harris, State geologist, in charge. Prof. Harris established an automatic tide gage and several bench marks, descriptions of which are included, on Weeks Island in February, 1905. The line starts from bench mark No. 1 (upper), one of those established by Prof. Harris. This bench mark is the rounded top of a brass plug protruding through the cap on an iron post set about 250 yards west of the terminus of the railroad at the Weeks Island salt mine, and about 0.8 mile east from the tide gage. The elevation as determined by the Coast and Geodetic Survey in 1905 and 1906 is 19.42 feet above mean sea level.

The leveling was done in 1906 by E. L. McNair.
DEROUEN QUADRANGLE.


[^1]Bench mark No. 3, southeastern part of Weeks Island, in brick wall of Footesugarhouse, about 4 feet above ground and 8 feet to right of central door;center of a half-inch drill hole 4 inches deep
Feet.
44. 50
Bench mark No. 4, inside Myles Salt Co. unclosure, about 30 feet east of gate to main road, in sleeve coupling screwed to top of 2.5 -inch ron pipe 4 feet long, which has an 8 -inch flange screwed to bottom; top of 1.5 -inch square bolt.
127. 898
Bench mark No. 5, southwest side of deep cut in road from Foote sugarhouse to Sandy Bottom Lake, about 15 feet west of edge of cut on high ground, well hidden in underbrush; United States Geological Survey standard iron post.
81.414
Bench mark No. 6 , northeastern point of ridge, about 0.1 mile west of outlet stream of Sandy Bottom Lake; United States Geological Survey standard iron post.
72.910
Weeks island east along cypremort branch southern pacific railroad to florence.
Cypremort, in front of station; top of rail.
$7.9 \%$

Ivanhoe station, at road crossing; top of rail...................................... 7.6
Florence; ; in front of station; top of rail.
7.7
olivier northwest along southern pacific rallroad to new iberiá.
Olivier, in front of station; top of rail
21.7
Olivier, 54 feet west of station, 25 feet north of north track; iron post stamped "Prim. Trav. Sta. No. 29 " and (erroneously) " 21 LA".
19. 502
New Iberia, 2.8 miles east of, 225 feet west of highway crossing, 57 feet south
of track; iron post stamped " 17 LA "....................................................... 16.999

JEANERETTE QUADRANGLE.
cote blancee east along cypremort branch of southern pacific railroad to baldwin.
Cote Blanche, in front of station; top of rail. . . ............................... 7.8
Cote Blanche station, 100 feet east of highway crossing, 20 feet north of
center of track; iron post stamped " 7 '".......................................................... 7.255
Glencoe, in front of station; top of rail. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11.4
Glencoe, southeast corner of station, 5 feet north of platform steps, 30 feet
north of main track; iron post stamped " 10 "...................................................... 9.51
Vacherie, 0.2 mile west of station, 240 feet west of highway crossing, 45 feet
south of railroad and 15 feet southwest of corner of section tool house;
iron post stamped " 6 LA ". .............................................................. 131
Franklin and Abbeville Junction, 20 feet west of end of station, 18 feet
north of track (Weeks Island Branch); iron post stamped " 5 LA"...... 5.103
Baldwin, in front of station; top of rail............................................... 13.0
Baldwin, 100 feet northwest of station, 25 feet west of center of highway, 15
feet south of switch; iron post stamped " 11 LA ". . ; . ....................... 11.090
BALDWIN NORTHWEST ALONG SOUTHERN PACIFIC RAILROAD TO OLIVIER.
Adeline, in front of station; top of rail.
14.7

Adeline, 220 feet west of, about 30 feet north of track; iron post stamped
" 14 LA". . . .............................................................................. 13. 887
Jeanerette, 0.8 mile east of, 30 feet east of highway, on St. Mary-Iberia Parish
line, 45 feet north of north track; iron post stamped " 17 LA ". . . . . . . 17.41
Jeanerette, in front of station; top of rail...................................... 18. 8
Jeanerette, 1.1 miles west of, 57 feet south of railroad track, 45 feet west of
center of highway, near fence; iron post stamped " 17 LA ". ..............

## ST. MARTINVILLE QUADRANGLE.

new iberia northwest along southern pacific rallroad to point 1.2 miles east of Lafayette.
New Iberia, post-office building, in face of foundation at right of main en- Feet. trance; aluminum tablet stamped " 23 LA ." ..... 23.296
New Iberia, in front of station; top of rail. ..... 20.1
New Iberia, water tank opposite station, 55 feet east and 100 feet south of track; iron post ..... 19.119
Segura, 600 feet west of station, in southwest corner of yard, 70 feet north of railroad; iron post stamped " 28 LA " ..... 28.422
Burke, 28 feet north of track, 20 feet east of public highway; iron post stamped (erroneously) " 27 LA " ..... 28.059
Burke, in front of station; top of rail ..... 30.3 .
Duchamp, 20 feet east of public highway, 25 feet north of track; iron post stamped "Prim. Trav. Sta. No. 32, 33 LA" ..... 33.227
Duchamp, in front of station; top of rail ..... 35.8
Billeaud sugar mill, 500 feet west of, 30 feet north of track; iron post stamped " 35 " ..... 35.385
Broussard, 30 feet east of station, 25 feet south of track, in corner of yard; iron post stamped " 37 LA" ..... 36.938
Broussard, in front of station; top of rail ..... 37.3
Landry, in front of station; top of rail ..... 34.1
Landry, 0.6 mile west of station, 18 feet north of track, 20 feet west of public highway; iron post stamped " 36 LA" ..... 36.705
LAFAYETTE QUADRANGLE.
POINT 1.2 MILES EAST OF LAFAYETtE WEST ALONG SOUTHERN PACIFIC RAILROAD TO RAYNE.
Lafayette, 1.2 miles east of, 20 feet east of public highway, 30 feet south of track; iron post stamped " 36 LA". ..... 35.857
Lafayette, in front of station; top of rail ..... 39.5
Lafayette, freight house yard, southeast corner of, on Lincoln avenue; iron post stamped "Prim. Trạv. Sta. No. 34, 39 LA". ..... - 39.174
Lafayette, 1.6 miles west of, 125 feet west of cattle guard $147 \mathrm{~B}, 48$ feet north of track, in angle of road; iron post stamped " 37 LA ". ..... 37: 393
Scott station, section yard northwest of, in southeast corner; iron post stamped " 36 LA " ..... 36. 470
Scott, in front of station; top of rail. ..... 36.3
Duson, 1 mile east of, 12.5 feet south of track, opposite "mile to station" post; iron post stamped " 33 LA ". ..... 32.932
Duson, in front of station; top of rail. ..... 37.2
Duson, 25 feet west of, northwest corner of station, 50 feet north of track; iron post stamped "No. 36, 35 feet LA". ..... 35. 277
Duson, 1.6 miles west of, 20 feet west of public highway, 15 feet south of track; iron post stamped " 32 LA" ..... 32.239
CROWLEY QUADRANGLE.rayne west along southern pactfic railroad to midland.
Rayne, in front of station; top of rail ..... $35.7^{\circ}$
Rayne, southeast corner of section yard northwest of station; iron post stamped "No. 37, 32 LA" ..... 31. 733
Rayne, 3.7 miles west of, 12 feet east of public highway crossing, 12 feet south of track, 90 feet west of milepost 164 ; iron post stamped " 25 LA ". ..... 25. 249
Crowley, in front of station; top of rail. ..... 23.9
Crowley, 40 feet west of railroad crossing at Parkinson Avenue, 24.5 feet Feet.south of track; iron post stamped "No. 38, 24 LA".23. 820
Crowley, 2.2 miles west of, north right of way line opposite milepost 169 ; iron poststamped "19 LA" ..... 18. 670
Estherwood, in front of station, 33 feet north of track; iron post stamped "17. LA". ..... 16. 544
Estherwood, in front of station; top of rail. ..... 19.5
Midland, 400 feet east of station, 35 feet south of main line of Southern Pacific Railroad; iron post stamped " 14 LA" ${ }^{1}$. ..... 14. 411
LAKE ARTHUR QUADRANGLE.
MIDLAND WEST ALONG SOUTHERN PACIFIC RALLROAD TO JENNINGS.
Mermenton, 1.3 miles east of, 135 feet east of milepost 179, 60 feet north of track; iron post stamped " 10 LA ". ..... 10. 457
Mermenton, in front of station; top of rail. ..... 16. 9
Mermenton, 190 feet west of, 35 feet south of south rail; iron post stamped "No. 41, 13 LA". ..... 12. 833
Jennings, 2.25 miles east of, 25 feet east of public highway crossing, 65 feet north of track; iron post stamped " 18 LA". ..... 18. 344
Jennings, 300 feet west of old station, 55 feet south of track, 14 feet west of sidewalk; iron post stamped "No. 42, 29 LA". ..... 29.070
Jennings, 0.4 mile west of, 115 feet west of signal tower 1858, 25 feet north of track; iron post stamped " 25 LA". ..... 25. 445
Colfax, Derry, and Winnfield quadrangles.
Grant and Winn parishes.The elevations in the following list were determined by a spur lineof precise levels extended from bench mark No. 69 of the UnitedStates Army engineers at Colfax, La. This bench mark is a copperbolt in a buried stone surmounted by an iron pipe, the elevation ofthe cap of which is accepted as 100.349 feet above mean tide. Aprism level and yard rods were used.The leveling was done in October, 1906, by E. L. McNair.
Colfax quadrangle.
colfax along track of louisiana ratlway \& navigation co. to phillips.
Colfax, in sandstone water table in courthouse foundation, 3 feet north of Feet. main entrance; aluminum tablet stamped " 103 ". ..... 102. 517
Colfax, 12 feet west of track, 1 foot northeast of northeast corner of ticket office; iron post stamped " 97 ". ..... 97.446
Colfax, in front of station; top of rail. ..... 96.8Phillips station, west of track, 50 feet southwest of road crossing, 15 feetsouth of road, 18 feet southeast of sweet gum tree; iron post stamped " 95 "95. 407
DERRY QUADRANGLE.
phillips along track of loutsiana railway \& navigation co. to lofton.
Aloha, 1 foot northeast of southeast corner of station; iron post stamped "Prim. Trav. Sta. No. 1, 1906, 101" ..... 101. 284
Aloha, in front of station; top of rail ..... 101. 1

[^2]Verda, 1.1 miles southwest of, east of track on right of way; iron post Feet.stamped " 150 "149.542
Verda, at northeast corner of ticket office at station; iron post stamped "Prim. Trav. Sta. No. 2, 1906, $157 "$ ..... 156. 522
Verda, in front of station; top of rail ..... 156.0
Lofton, 180 feet north of station, 55 feet east of track, on right of way; iron post stamped " 193 " ..... 192. 963
Lofton, in front of station; top of rail. ..... 194.5
WINNFIELD QUADRANGLE.
lofton along track of louisiana railway \& navigation co., to winnfield.
Emden, 350 feet south of station, 55 feet east of track, on right of way, 30 feet south of switch stand; iron post stamped " 214 ". ..... 213.783
Emden, in front of station; top of rail. ..... 219.5
Oakes, 120 feet south of road crossing, 50 feet east of track on right of way; iron post stamped " 194 ". ..... 194. 420
Atlanta, at northwest corner of station ticket office, 12 feet east of track; iron post stamped "Prim. Trav. Sta. N0. 3, 1906, 189". ..... 188.642
Atlanta, 45 feet east of track, 10 feet south of road crossing, 40 feet west of northwest corner of Germain \& Boyd's commissary; iron post stamped "188". ..... 187.763
Atlanta, in front of station; top of rail ..... 188.1
Germain \& Boyd's mill, at road crossing; top of rail. ..... 190.5
Whitford, in front of station; top of rail ..... 218. 5
Whitford station, 15 feet west of track, 2 feet south of Louisiana Lumber Co.'s commissary freight platform; iron post stamped " 220 " ..... 220. 299
Alonzo station, 12 feet west of track, on south side of freight platform; iron post stamped "Prim. Trav. Sta. No. 4, 183, 1906". ..... 182.552
Alonzo, opposite water tank; top of.rail. ..... 182.3
Winnfield, 2 miles south of, 15 feet west of track, 10 feet south of private road crossing; iron post stamped " 168 " ..... 167. 200
Winnfield, in front of station; top of rail. ..... 117.5
Louisiana Railway \& Navigation Co. and Chicago, Rock Island \& Pacific Railway crossing; top of rail. ..... 117.5
Winnfield, southwest corner of station; iron post stamped " 117 ". ..... 117. 325
Louisiana \& Arkansas Railway and Chicago, Rock Island \& Pacific Railway crossing; top of rail ..... 118.6
Winnfield, northwest corner of courthouse yard, 1.5 feet inside fence; iron post stamped "Prim. Trav. Sta. No. 5, 1906, 141" ..... 141. 181
PRIMARY LEVELING.
Winnfield quadrangle.
WINN PARISH.

The elevations in the following list were determined by a spur line of primary levels from the courthouse at Winnfield from a bench mark of the line of precise levels run from Colfax, and checked by connection with secondary bench marks previously established by Prof. G. D. Harris.

The leveling was done in 1906 by E. L. McNair.

## WINNFIELD QUADRANGLE.

WINNFIELD NORTHEAST ALONG ROAD TO FORKS OF ROAD in sEc. 17, t. 11 N., R. 2 w.
Winnfield, northwest corner of courthouse yard, 1 foot inside fence; iron ..... Feet. post stamped "Prim. Trav. Sta. No. 5, 1906, 141" " ..... 141. 181
Winnfield courthouse, 2.8 miles northeast of, 0.25 mile east of Dugdermonn Creek, sec. 17, T. 11 N., R. 2 W.; iron post stamped "Prim. Trav. Sta, No: 13, 1906, 128 " ..... 127: 560
winnfield southeast along louisiana \& arkansas railway to moore station. (sin- GLE SPUR IINE).
Winnfield, at southwest corner of Louisiana Railway \& Navigation Co. sta- tion; iron post stamped " 117 " ..... 117. 325
Moore flag station, 20 feet east of center of track and 15 feet north of wagon road; iron post stamped "Prim. Trav. Sta. No. 9, 1906, 207" ..... 207. 099
moore ncrth along chicago, rock island \& pacific rallway to tannehll.
Winnfield, in front of Chicago, Rock Island \& Pacific Railway station; top of rail ..... 123.4
Tannehill station, south side of freight platform, 15 feet east of track; iron post stamped "Prim. Trav. Sta. No. 8, 1906, 136 ft ." ..... 136. 053
WINNFIELD NORTHWEST ALONG LOUISIANA \& ARKANSAS RAILWAY TO FAY SIDING. (SINGLE SPUR LINE.)
Winnfield, in front of Louisiana \& Arkansas Railway station; top of rail .. ..... 126.0
Fay siding, southwest corner of lumber shed, 20 feet north of Louisiana \& Arkansas Railway track, 1 foot from corner of shed; iron post stamped "Prim. Trav. Sta. No. 7, 1906, 124" ..... 123.646
Baton Rouge, Bayou Sara (30'), Grosse Tete, Port Vincent, and White Castle ( $\mathbf{1 5}^{\prime}$ ) quadrangles.
ascension, east baton rouge, west baton rouge, east feliciana, west feli- CIANA, IbERVILLE, AND POINTE COUPEE PARISHES.
The elevations in the following list were determined by primary leveling extended from the Mississippi River Commission precise level line along Mississippi River. The leveling east of the Mississippi River in Bayou Sara quadrangle is based only upon "P. B. M. XXXL" at the State capitol, Baton Rouge, the elevation of which is accepted as 62.148 feet above mean sea level.
The leveling was done in the Bayou Sara quadrangle in 1903 by C. H. Birdseye, W. E. Earle, D. C. Fugitt, C. McRae, and D. V. Vandiver, and in the Baton Rouge, Grosse Tete, Port Vincent, and White Castle quadrangles in 1905 by Fox Wood.

## BAYOU SARA QUADRANGLE.

BATON ROUGE NORTH ALONG YAZOO \& MISSISSIPPI VALLEY RAILROAD TO STATE LINE.

| Baker, 0.8 mile north of, at road crossing, north side of road, at east edge of railroad right of way; iron post stamped " 85 BR ". | Feet. $84.9$ |
| :---: | :---: |
| 'Zachary, in east wall of bank 1.5 feet from front of building; aluminum tablet stamped " 100 BR ". | 99. 45 |
| Zachary, at road crossing; top of ra | 100.9 |
| Ethel, 250 feet west of station, in brick chimney on south end of Price Hotel; bronze tablet stamped " 174 BR". | 173.73 |

Gurley, 200 feet north of road crossing, at west edge of railroad right of way; ..... Feet. iron poststamped " 211 BR". ........................................... ..... 210. 585
Norwood, at northeast corner of D. C. Norwood's warehouse and store, in north wall; bronze tablet stamped " 312 BR " ..... 312.626
slaughter along yazoo \& mississifpi valley rallroad (woodvile'branch) west tobayou sara, thence north to laurel hill, thence east along highay to norwood.
Slaughter, 600 feet west of street running east-west, 100 feet north of station, in brick foundation pillar of northwest corner of Baptist Church; alumi- num tablet stamped " 134 BR" ..... 134. 028
Jackson Road station, on Woodville branch of Yazoo \& Mississippi Valley Railroad, 10 feet west of road, north edge of right of way; iron post stamped " 117 BR ". ..... 11.6. 942
Riddle, 200 feet west of station, 5 feet south of trestle; iron post stamped " 66 BR" ..... 65.726
St. Francisville, top step to northeast entrance to courthouse; aluminum tablet stamped " 115 BR" ..... 115. 026
Bayou Sara, 100 feet south of station, in brick building facing west, known as Meyer Hotel; bronze tablet stamped " 48 BR " ..... 48. 527
Converse, 0.8 mile south of station, 10 feet south of road crossing, west edge of right of way; iron post stamped " 240 BR " ..... $230.970^{\circ}$
Laurel Hill, 30 feet nörthwest of Mark Cowen's storehouse, 10 feet east of large magnolia tree; iron post stamped " 304 BR" ..... 304.059
ethel northeast along yazoo a mississippi valley ralrboad (clinton branci) to clinton, thence northwest along hehways to norwood.
Clinton, in west side of courthouse; aluminum tablet stamped " 213 BR".. ..... 213.615
m'MANUS WEST ALONG JACKSON RAILROAD TO JACKSON, THENCE SOUTHWEST ALONG HIGHWAY TO BAYOU SARA.
Jackson, northeast corner of Presbyterian Church at southeast corner of Church and Erie streets; bronze tablet stamped " 159 BR" ..... 159.471
SLAUGHTER AND CLINTON TO OLIVE BRANCH, THENCE SOUTII-SOUTHWEST ALONG Highway toBATON ROUGE.
Olive, Branch post office, 2.0 miles siouth of, 10 feet west of plank road, on boundary line between East Feliciana and East Baton Rouge parishes, in top of stone post; aluminum tablet stamped " 134 BR" ..... 134. 115
Fred, 3.5 miles south of, on plank road, 650 feet southwest of Shady Grove Church, 10 feet east of road; iron poststamped " 75 BR " ..... 75. 075Howell, 1.5 miles north of, on plank road, 300 feet south of south bridgeover Cypress Bayou; iron post stamped " 61 BR".61. 514
ARBROTH NORTHWEST ALONG TEXAS \& PACIFIC RAILWAY TO NEW ROADS, THENCE NORTILto bench mark 160-3 opposite bayou sara. ${ }^{1}$
New Rioads, west side of front door of courthouse; aluminum tablet stamped "39 BR" ..... 39. 697( $:$ BATON ROUGE QUADRANGLE.
baton rouge northeast to poor hill church.
Baton Rouge, north end of lowest granite step of west entrance to the State Capitol, 4 feet from front of the step and 4 feet from the baluster; bottom of square in granite step

[^3]Baton Rouge, post office building on northwest corner of North Boulevard and Church street, southeast of colonade in front of building, in corner of water table; top ot copper bolt leaded vertically
Feet. ..... 59. 055
Baton Rouge, 3 miles from, 250 yards north of turn in road at milepost 3, on Comite road; iron post stamped " 54 ADJ 1903" ..... 53.773
Baton Rouge, 300 feet east of milepost 6 , on Comite road, in front of J. E. Pratt's residence, corner of lot near road; iron post stamped " 55 ADJ 1903" ..... 55. 127
Poor Hill Church, on Comite-Baton Rouge road, in northwest corner of churchyard; iron post stamped " 52 ADJ 1903" ..... 52.057
baton rouge southeast to st. gabriel.
Arlington, 150 feet north of cotton gin, 40 feet west of station, southeast corner of yard; iron post stamped " 22 ADJ 1903" ..... 22.308
Gardere, 1,000 feet north of station, 40 feet west of railroad, 15 feet north of dirt road, 250 feet east of sugar refinery on Chadsworth plantation; iron post stamped " 24 ADJ 1903" ..... 24. 455
Bayou Paul, in front of Jos. Byrne's store, 100 feet northeast of road cross- ing, 150 feet southeast of station; iron post stamped " 17 ADJ 1903 ".... ..... 17. 333
St. Gabriel, 100 feet southwest of station, 2 feet east of Mississippi River Commission post; iron post stamped " 22 ADJ 1903" ..... 21. 899
West baton rouge south to baton rouge junction.
Cinclare, 50 feet north of station, 30 feet west of track, 15 feet north of dirt road leading west, 0.5 mile from sugat refinery; iron post stamped " 20 ADJ 1903". ..... 19.620
plaquemine southeast and east to st. gabriel.
Plaquemine, in northwest corner of courthouse; tablet stamped "Prim. Trav. Sta. No. 9, 30 ADJ 1903". ..... 29.686
Plaquemine, corner Main and Church streets, in southwest corner of court- yard; iron post stamped " 27 ADJ 1903". ..... 26. 773
Plaquemine, 3 miles south of, 1 mile west of levee, 0.25 mile east of railroad, on east side of old Tennessee sugar house (brick), E. J. Gay's plantation; iron post stamped " 18 ADJ 1903" ..... 17. 787
Plaquemine, 4 miles east of, on George Rice's plantation "Allemania," northwest" corner of, corner of yard of negro cabin, 1 mile northwest of Allemania sugar house, 40 feet back of levee of Mississippi River, 10 feet west of road along levee; iron post stamped " 27 ADJ 1903" ..... 27. 577
POOR HILL CHURCH SOUTH TO FOREMAN.
Harelson's store, just across road west of store, north of east-west road, 8 miles east of Baton Rouge on Benton Ferry road; iron post stamped " 51 ADJ 1903" ..... 50. 555
Nesser, 40 feet north of post office building, 100 feet west of residence of W. S. Martin, on clay cut road, 10 feet west of road; iron post stamped " 34 ADJ 1903" ..... 34. 569
Foreman, 1,000 feet south of post office, corner of negro church; iron post stamped " 24 ADJ 1903" ..... 23. 829
harelson's store east to live oak schoolhouse (SPUR line).
Live Oak schoolhouse, on Perkins road, east side of schoolhouse; iron post stamped " 45 ADJ 1903". ..... 44. 437
Gardere northeast to mddle highland road, thence southeast to kleinpeters's
Store, thence northeast to nesser.

## white castle quadrangle.

dutchtown southwest to geismar.
Geismar, 2 miles east of, on Geismar \& Picard's plantation, west side of road, inside field near fence, 10 feet north of road; iron post stamped " 19 ADJ 1903"
Geismar, 100 feet south of station, 40 feet west of track, near Mississippi River Commission post; iron post stamped "Prim. Trav. Sta. No. 3, 24 A.DJ 1903".
23. 865

Harrisonburg, Lake Providence, St. Joseph, Tallulah, and Vicksburg 30 quadrangles and several $7 \frac{1}{2}$ ' subdivisions (Tensas drainage district).
east carroll, west carroll, concordia, madison, and tensas parishes.
The elevations in the following list were determined by primary leveling extended from various bench marks of the Coast and Geodetic Survey and the Mississippi River Commission precise-level lines.

The leveling was done in 1909, in the Lake Providence quadrangle by H. W. Peabody and T. A. Green; in the Tallulah and Vicksburg quadrangles by W. H. Gray and Green; in the Harrisonburg quadrangle by Green; and in the St. Joseph quadrangle by Gray, Green, and Peabody.

This list is not arranged according to $7 \frac{1}{2}$ ' quadrangles. Gray's leveling was in the area of the $7 \frac{1}{2}$ ' sheets numbered $15,23,24$, and 36 ; Peabody's in 1, 2, 4, 5, 6, 8, 9, and 36; and Green's in $2,3,4,8$, $13,15,16,22,23,24,26,27,33,34,36,37,38,42,46,51$, and 52 .

## LAKE PROVIDENCE QUADRANGLE.

POINT NEAR WILSON'S POINT SOUTHEAST AND SOUTH ALONG LEVEE TO COTTONWOOD.
Wilson's Point, in northeast corner of front yard of plantation dwelling; Feet.

Feet.ron post stamped "109 LA". 109. 148

Cottonwood store, 1.5 miles north of, west side of road, north end of loop in
levee, in east root of 36 -inch pinoak tree; nail.
levee, in east root of 36 -inch pinoak tree; nail. ..... 1.08. 67
Cottonwood, at southeast corner of store; iron post stamped "Prim. Trav. Sta. No. 31 108" ..... 108. 047
Point near wilson's point south, west, and north along levee road around oldRIVER LAKE TO T. 23 N., R. 12 e., SEC. 9.
St. John's Church, northeast corner of, in west root of 36 -inch cottonwoodtree; nail.109. 56
Old Keys residence, 1,200 feet north of, 300 feet east of levee, 200 feet northwest of negro cabin, on south side of road, at gate to second-class T road south through fields to Cottonwood Landing; iron post stamped "Prim. Trav. Sta. No. 301909 LA 112" ..... 111. 332
Foster's gin, 1,800 feet west of, north side of road, in south root of 36 -inch pecan tree; nail ..... 110.30
Brunett, 1. mile east of, north of road opposite road fork to Tyron, in front of Jacob Marcus's store; iron post stamped "Prim. Trav. Sta. No. 29 1909 LA 112" ..... 111. 750
Brunett P. O., north side of road by blacksmith shop, in south root of 20-inch cottonwood tree; nail ..... 111. 28
Brunett, 1.4 miles west of, in southeast corner of forks of Shelburn and levee roads; iron post stamped "Prim. Trav. Sta. No. 281909 LA 107 ".. ..... 107. 182
Millikin's, 2.2 miles south of, 1,500 feet north of sawmill, 60 feet west of road crossing at bridge 111, in southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 34 LA 1909107 ". ..... 106. 414
Millikin's, 160 feet west of station, 40 feet north of east-west road, south- east corner of store of J. S. Millikin; iron post stamped "Prim. Trav. Sta. No. 35 LA 1909109 " ..... 108. 680
Millikin's, 1.7 miles north of, 1.2 miles south of Arkansas-Louisiana State line, on south edge of road leading west from Kilbourne, 50 feet west of crossing of St. Louis, Iron Mountain \& Southern Railway; iron post stamped "Prim. Trav. Sta. No. 36 LA 1909111 ". ..... 110. 766
Levee southwest to shelburn.Shelburn, at southeast corner of store building, 250 feet southwest of sta-tion; iron post stamped "Prim. Trav. Sta. No. 33 105".104.743
SEC. 9 , т. 23 N., R. 12 E., WEST AND SOUTHWEST To SEC. 22 , T. 22 N., R. 11 E.

Bayou Mason, 160 feet east of east end of Ashton's bridge, 50 feet east of second-class T road north, on north edge of road; iron post stamped "105 LAA 1909 Prim. Trav. Sta. No. 37 ",105. 259

Five points, in southwest corner of intersection of north-south and eastwest roads, in root on north side of 20 -inch red oak tree; nail marked "128.35".
Kilbourne, 1.5 miles south of, 900 feet south of $Y$ road junction, on east edge of Kilbourne-Oak Grove road, just south of lane to east, at Mr . Connell's; iron post stamped "Prim. Trav. Sta. No. 38 LA 1909114 "...
Kilbourne, 2.3 miles south of, west side of road, 700 feet south of secondclass road to west, in root on east side of 24 -inch oak tree; nail marked. "113.9".
Kilbourne, 4.2 miles south of, at north end of grass triangle, 100 feet north of four corners; iron post stamped "Prim. Trav. Sta. No. 391909 LA Feet. 118". 118. 098
Kilbourne, 5.4 miles south of, on east side of road, 400 feet north of forks, in root on east side of 30 -inch oak stump; nail marked " 117.24 "
117.05
Kilbourne, 7 miles south of, west of road, 12 feet south of northeast corner of fence, 125 feet west of unoccupied house; iron post stamped "Prim. Trav. Sta. No. 401909 LA 119"
Kilbourne, 8.1 miles south of, west side of road, 20 feet south of junction with road running northwest, in root on west side of 20 -inch oak tree; nail marked " 114.64 "

SEC. 22, т. 22 N., r. 11 e., Southwest to SEC. 20, т. 21 N., r. 11 e.
Lane's Ferry, about 200 feet west of, iron bridge over Bayou Mason, at northwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 411909 LA $95 "$
94.755

Bridge over Bayou Mason at Lane's Ferry, 1.25 miles south of, east of road,
near small bridge, in west root of 48 -inch red oak; spike................... 95.76
Bridge over Bayou Mason at Lane's Ferry, 2 miles south of, west side of
road, 600 feet north of house on east side of road, in west root of 20 -inch
hickory tree; spike..................................................................... 106.70
Oak Grove, 4 miles southeast of, 3.5 miles south of Lane's Ferry bridge, at northwest corner of forks of Floyd and Oak Grove roads; iron post stamped "Prim. Trav. Sta. No. 49 104"
103.873

Lane's Ferry bridge, 5 miles south of, 1 mile north of Corbin road, east side
of road, in west root of 48 -inch hickory tree; spike............................ 103.36
point 2 miles west of Corbin ferry east to fisher's sawmill and southwest toward tensas bridge.

Corbin Ferry, on north side of road about 150 feet west of Mason Bayou;
iron post stamped "Prim. Trav. Sta. No. 5092 ".................................... 92. 167:
Corbin Ferry, 1 mile east of, south side of road, in north root of 24-inch thorn tree; nail.
89.91

Fisher's sawmill, 3 miles west of, 2.5 miles east of Corbin Ferry, at north-
west corner of road forks near store; iron post stamped "Prim. Trav. Sta.
No. 5895 "..................................................................................... 9400
Fisher's sawmill, 2.5 miles west of, north side of road, 100 feet west of house, in south root of 12 -inch hickory tree; nail.
92.24
baxter bayou west to lane's ferry.
Lake Providence, 7 miles northwest of, at south side of forks of Oak Grove and Shelburn roads, near head of Baxter Bayou; iron post stamped "Prim. Trav. Sta. No. 4296 "
96. 172

Oak Grove, 6 miles east of, south side of road, 700 feet east of 40 -foot bridge,
in north side of 12 -inch sweet gum tree; spike................................... 93.83
Oak Grove, 3 miles east of, in north root of 20 -inch cottonwood tree at bend of road; spike.
96.38

SECS. 30 and 31, T. 21 N., R. 11 E., about 2 miles WEST of CORBIN. FERRY.
Bayou Mason (at Corbin Ferry), 2 miles west of, 4.5 miles west of Pioneer, at southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 5192 ".
Lake Providence, 0.35 mile above principal street and 350 feet back of inner base of berm of levee, 98.5 feet west from northeast corner of garden of Josephine Fitzgerald (colored); iron post, "Harmon 06" permanent bench mark 1

Feet.

102.720

104. 88

Lake Providence, 5 miles northwest of, 90 feet north of north end of iron
bridge, 640 feet east of St. Louis, Iron Mountain \& Southern Railway
crossing Baxter Bayou road, near wire fence; iron post stamped "Prim.
Trav. Sta. No. 271909 LA 106 "

LAKE PROVIDENCE NORTHEAST ALONG LEVEE TO POINT NEAR BENHAM POST OFFICE.

Benham P. O., 1.5 miles south of, in southwest corner of fork of Tyrone and
Levee roads; iron post stamped "Prim. Trav. Sta. No. 32105 "

104.528

Lake providence south to point near mount zion, thence west 2 miles.

Lake Providence, in southeast corner of courthouse yard; iron post
stamped "Prim. Trav. Sta. No. 26 105"

104.891

99.864

95.405

FISHER'S SAWMILL NORTHEAST TO LAKE PROVIDENCE.
Lake Providence, southwest of, northeast of Fisher's sawmill, on east edge of road running along east bank of Bayou Mason at junction with secondclass T road east; iron post stamped "Prim. Trav. Sta. No. 4397 "
Sawmill, 2.2 miles north of, at west side of road, in east root of 20 -inch thorn tree; spike

LINNWOOD PLANTATION SOUTH AND WEST TO TENSAS BRIDGE.
Bear Wallow, 0.5 mile east of, at edge of woods, on north side of trail, in south base of 60 -inch cypress snag; spike.
88.54

Greenîeld, 1 mile west of, about 300 feet east of fork, at north side of road, in south root of 30 -inch oak; nail.
95.13

AT TENSAS BRIDGE 7 MILES SOUTHWEST OF LAKE PROVIDENCE.
Lake Providence, 7 miles southwest of, 300 feet east of Tensas bridge, in northeast corner of road forks; iron post stamped "Prim. Trav. Sta. No. 4792 "
desona south along st. louns, iron mountain \& southern railway to talla bena.
Desona, 2.8 miles south of, 200 feet southeast of milepost 515 , on north edge of east-west road, 40 feet east of railroad crossing at Eastland; iron post stamped " 97 LA 1909 Prim. Trav. Sta. No. 24"
Transylvania, 1,100 feet south of station, at T road north, 2 feet west of crossing sign at road crossing, on north edge of east-west road, 20 feet east of main track; iron post stamped "Prim. Trav. Sta. No. 23 LA 102 1909".
Alsatia, 900 feet south of station, 70 feet east of center of tracks, 80 feet southeast of road crossing, at northwest corner of Outpost Planting Co.'s store; iron post stamped "Prim. Trav. Sta. No. 2290 LA 1909".
102.090
90.049
Roosevelt, 90 feet east of track, 60 feet south of public road, in angle of porch and front steps to McKenzie Mercantile Co.'s store; iron post stamped " 89 LA 1909 Prim. Trav. Sta. No. 21 "
Enoka, 550 feet southeast of station, at southwest corner of Baptist church; iron post stamped " 87 LA 1909 Prim. Trav. Sta. No. 20 ".
Enoka, 1.6 miles south of, 300 feet south of milepost 530 , top of first bolt from south end on west side of railroad bridge No. 1.72; marked " 87.08 ". .

## vicksburg quadrangle (including nos. 24 and $257 \frac{1^{\prime}}{\prime}$ quadrangles).

delta northwest along vicksburg, shreveport \& pacific railway to point near mound.
Delta, top of cap on iron post at northeast corner of section house 7 (Missis. sippi River Commission bench mark).
Delta, at southwest corner of porch of small dwelling, facing Vicksburg, Shreveport \& Pacific Railway, situated on railroad lot on the east corner of its junction with $T$ street, 100 feet north of main line; iron post stamped "Prim. Trav. Sta. No. 190 LA 1909"
Delta, 0.8 mile northwest of, 60 feet south of road crossing, 40 feet east of wagon road, in top of limestone post dressed to 14 by 14 inches at top and bearing the characters "U. S. C. S. 1878;" copper bolt (bench mark "Southwest Base").
Delta, 2.9 miles northwest of, 80 feet south of road crossing, west of milepost 3, on east side of wagon road, 10 feet west of ditch; iron post stamped " 87 LA 1909"

> tallulah quadrangle (including nos. 15 тo $\cdot 18,20$ тo 23,26 тo 29 , and 32 to $35 \frac{1}{2}^{\prime}$ QUADrangles).

Feet.
88.935
86.684
90.541
89.638
87.793

point near mounds northwest along vichsburg, shreveport \& pacific railway to
tallulah.

Mounds, 150 feet south of railroad crossing, at northwest corner of Maxwell Yerger Co.'s store; iron post stamped "Prim. Trav. Sta. No. 290 LA 1909".
89.960

Thomastown, at southeast corner of F. P. Moore's store, 125 feet northwest
of road crossing; iron post stamped "Prim. Trav. Sta. No. 392 LA 1909". 91.477
Barnes, at southeast corner of store of Gassaway \& Warren, 80 feet north of road crossing of Vicksburg, Shreveport \& Pacific Railway (main track), 40 feet northeast of northwest corner of cotton platform; iron post stamped "Prim. Trav. Sta. No. 485 LA 1909".
85.366

Lums, 75 feet north of railroad crossing at milepost 15,10 feet west of county
road, 75 feet east of bayou, at southeast corner of fence; iron post stamped
"Prim. Trav. Sta. No. 585 LA 1909 "...................................................... 84.709
Tallulah, in southwest corner of iron fence around Madison Parish court-
house; iron post stamped "Prim. Trav. Sta. No. 685 LA 1909 "......... $\quad 8.104$
pont near talla bena south along st. louls, iron mountan a southern ralway to tallulah.
Talla Bena, 100 feet east of railroad, 80 feet south of Caltharp's store, in corner of fence; iron post stamped "Prim. Trav. Sta. No. 1387 LA 1909".
Mansford, 1 mile northwest of, 350 feet north of milepost 532; top of third bolt from south end of east guard rail on bridge 179 ; marked "U. S. B. M. 86.1".
86.03

Mansford, at northwest corner of W. H. Ward's store, 150 feet east of railroad;
iron post stamped "Prim. Trav. Sta. No. 1285 LA 1909 "..................... 84.550
Mansford, in front of station; top of rail...........................................
Mansford, in front of station; top of rail........................................ 87.6
Tallulah, 3.2 miles north of, 40 feet west of railroad, at northwest corner ofintersection of old tram road and railroad; iron post stamped " 82 LA1909 Prim. Trav. Sta. No. 11 "
Feet. 81.800
tallulaf south along st. louis, iron mountain a southern railway to lake bruin.
Tallulah, in southwest corner of courthouse yard; iron post stamped "Prim: Trav. Sta. No. 685 LA 1909 "
85. 104
Laclede, 1,000 feet south of station, 60 feet southwest of public road crossing, in northwest corner of fence; iron post stamped "Prim. Trav. Sta. No. 1085 LA 1909 "
84.445
Laclede, 3.6 miles south of, opposite Kinderhook's sawmill, at northwest corner of section foreman's house, 100 feet southeast of old road crossing; iron post stamped "Prim. Trav. Sta. No. 980 LA 1909"
79.644
Alligator Bayou, 700 feet north of water tank, 25 feet east of center of railroad, at southwest corner of section foreman's house; iron post stamped "Prim. Trav. Sta. No. 6680 LA 1909"
79.931
Quimby station, 95 feet due east of, center of east wall of, 40 feet north along fence line from center of public road leading to station, in corner of wire fence; iron post stamped "Prim. Trav. Sta. No. 6784 LA 1909". .
Somerset, 465 feet northeast of station, on west edge of public road, on south side of road leading to station, at corner of fence; iron post stamped "Prim. Trav. Sta. No. 7286 LA 1909 "
85. 746
Somerest, in front of station; top of rail......................................... 85.25
Balmoral spur, 528 feet southwest of, 28 feet due east of trestle 233, southeast of railroad crossing, on south edge of public road, 5 feet east of crossing sign; iron post stamped "Prim. Trav. Sta. No. 73 "
80.599
Franklin spur, 60 feet southwest of railroad crossing, 20 feet south of public road, in northeast corner of fence; iron post stamped "Prim. Trav. Sta. No. 7480 LA 1909"
80.322
Newellton, 147 feat northeast of the northeast corner of railroad station, at northwest corner of old store, on north side; iron post stamped "Prim. Trav. Sta. No. 7577 LA 1907 "
76.832
Cohn's spur, 30 feet east of railroad crossing, 40 feet south of signboard, on south edge of east-west second-class road, 1 foot south of crossing sign; iron post stamped "Prim. Trav. Sta. No. 7674 LA 1909"
73.729
ST. JOSEPH NORTH AND WEST TO LAKE BRUIN (PORTION OF LINE.)
Raritan plantation, 200 feet east of plantation house, 250 feet south of Lake St. Joe, on south edge of main east-west road; iron post stamped "Prim. Trav. Sta. No. 8179 LA 1909" 78.839

HONEYSUCKLE HOUSE EAST TO BRIDGE OVER BOILING SPRING BAYOU.
Saranac store, northwest corner, 1 mile southeast of Saddletree Lake, near T road south to Deltabridge; iron post stamped " 71 LA 1909 Prim. Trav. Sta. No. $85 "$
70. 774

Saranac store, 1 mile southeast of, 265 feet southeast of center of wagon bridge over Boiling Springs Bayou, at southwest corner of wire fence, in hub on 12 -inch live oak tree; nail marked " 68.24 ".

Talla Bena, 110 feet east of railroad, 120 feet south of Coltharp \& Co.'s store, in fence corner; iron post stamped " 87 LA 1909 Prim. Trav. Sta. No. 13 ".
Talla Bena, 1.4 miles southwest of, on east side of road, 40 feet east of northeast corner of old church, in root of 8 -inch locust tree; nail marked "85.2"
Fect.
Inverness plantation, 1.1 miles southeast of, 5 feet east of levee, in root of 10 -inch poplar tree standing in ditch; nail marked " 81.4 ".
Talla Bena, 1.1 miles east of, 20 feet north of road, on north side of ditch, in root on north side of 36 -inch elm tree; nail marked "U. S. B. M. 86.5".
Buckhorn, 240 feet west of $T$ road junction, 10 feet north of east-west road, 30 feet south of poplar tree; iron post stamped "Mississippi River Commission U. S.םB. M. 1908"
Ashley, 1 mile south of, 1,800 feet northwest of Hew's store, 50 feet northeast of T road junction, 5 feet south of fence; iron post stamped "Prim. Trav. Sta. No. 1689 LA 1909"
Lums, 80 feet north of railroad at milepost 15,20 feet west of county road, south of fence corner; iron post stamped " 85 LA 1909 Prim. Trav. Sta. No. 5 "
84. 709
thomastown north alona hiahways to huon, thence enst to duckport, thence south то mound.
Huon Store, 300 feet northeast of, in center of triangle formed by Tallulah, Duckport, and Thomastown roads, in ground 1 foot above surface; iron post
mlluken's bend southeast along levee road to duckport.
Milliken's Bend, 2 feet northeast of C. A. Chan's store porch, 0.2 mile northeast of levee; iron post stamped "Prim. Trav. Sta. No. 1694 LA 1909"
93.627

Milliken's Bend, 2 feet northeast of northeast corner of C. E. Chan's drug store, set in ground 2 feet above surface, iron post not stamped; top of cap marked "Mississippi River Commission U. S."
94. 930
lums south to bluefront store, thence east to mound.
Lums, 75 feet north of railroad crossing at milepost 15 ; iron post stamped "Prim. Trav. Sta. No. 585 LA 1909".
84.709

Lums, 2.5 miles south of, 15 feet west of north-south road, 150 feet southeast of wagon bridge across Walnut Bayou, 25 feet south of fence corner; iron post stamped " 86 LA 1909"
86. 398

Fortune Fork, 2 miles southeast of, 15 feet north of road, at southwest corner of fence, 200 feet west of footbridge over Walnut Bayou; iron post stamped " 85 LA 1909"
85. 240

Bluefront store, 745 feet southeast of, south side of road, in root of china-
berry tree; nail marked "U. S. B. M. 90.6 ".............................. 90.517
Bluefront store, 0.9 mile southeast of, 35 feet south of main road, 40 feet west of road running south, at negro cabin; iron post stamped "Prim. Trav. Sta. No. 6191 LA 1909"
90.485

Coleman, 1.6 miles east of, 8 feet south of highway, 20 feet south of center of wagon bridge over Cross Bayou, 2 feet north of fence around F. L. Maxwell's residence; iron post stamped " 88 LA 1909 "
87.525

Mound, south of, at forks of road, in root of pecan tree; nail marked "88.5". 88.47
Mound, at northwest corner of Maxwell Yerger Co.'s store; iron post
stamped "Prim. Trav. Sta. No. 290 LA 1909 "........................... 89.860

## POINT 1.6 miles east of Coleman south to crystal springs plantation.

Coleman, 1.6 miles east of, 8 feet south of highway, 20 feet south of center
of bridge over -Cross Bayou, 2 feet north of fence around F. L. Feet.
Maxwell's residence; iron post stamped " 88 LA 1909".
Cross Bayou bridge, 3.8 miles south of, in swamp on north side of lake, on -
north side of 48 -inch cypress tree, in hub; nail marked " 76.48 "
76.46
Crystal Springs plantation, east chimney of dwelling house of 0 . Christmas,
second brick from southeast edge of chimney in twelfth course above
ground; center of head of copper bolt leaded horizontally; Mississippi
River Commission permanent bench mark " 232 ".
87.862

Laclede east to bluefront store.
Laclede, 2.8 miles southeast of, 60 feet west of road, 15 feet south of road running west at schoolhouse; iron post stamped "Prim. Trav. Sta. No. $6387 \mathrm{LA} 1909{ }^{\circ}$ "
87.056

St. James Church, at east end of front entrance, on north side; iron post stamped "Prim. Trav. Sta. No. 621909 LA 87".
St. James Church, 1.8 miles northeast of, west side of road, north end of woods, in east side of small locust tree; nail marked " 85.13 "

ST. James church south and east to chelula.
Cape plantation house, 400 feet east of, 0.7 mile north of Solomon's Temple Church, 30 feet east of center of Roundaway Bayou road, about center of large grass triangle at junction of second-class road leading east over plank bridge, about 200 feet west of center of bridge; iron post stamped "Prim. Trav. Sta. No. 64, 83 LA 1909 "
82.833

Solomon's Temple Church, 0.4 mile south of, at forks of road, on east side of 12 -inch live-oak tree 40 feet south of four corners, in hub; nail marked "81.9"
81.71

Chelula ( 3 miles southeast of Solomon's Temple Church), 150 feet north of levee, 20 feet east of road to north which crosses levee on a large ramp, about 2.5 miles above King post office; iron post (Mississippi River Commission bench mark "Chelula," in bad shape, loose and battered)......
78. 997

ST. JOSEPH QUADRANGLE.
(including nos. 36 то 38 , 41 тo 45 , and $527 \frac{1}{2}$ quadrangles.)
Lake bruin station south along st. louis, iron mountain \& southern railway and HIGHWAY TO ST. JOSEPH.

Lake Bruin, 800 feet southeast of station, at southwest corner of secondclass road to station; iron post stamped "Prim. Trav. Sta. No. 82, 76"..
Osceola, 0.1 mile south of, 2 miles south of Lake Bruin station, on north edge of second-class road, 30 feet north of railway crossing, 40 feet southeast of trestle over irrigating canal, 2 miles north of St. Joseph station; iron post stamped "Prim. Trav. Sta. No. 77, 74 LA 1909"

ST. JOSEPH SOUTHWEST ALONG ST. LOUIS, IRON MOUNTAIN \& SOUTHERN RAILWAY TO LOCUST RIDGE.
St. Joseph, near east projection of courthouse, 21 feet from northeast corner and 22 feet from southeast corner, 3 inches below ground, in box; marble post (Coast and Geodetic Survey bench mark)
St. Joseph, 600 feet east of Tensas Parish courthouse, 225 feet west of levee,42 feet west of southwest corner of old Masonic Hall, 25 feet south ofMississippi River Commission iron post, 25 feet southeast of 36 -inch gumtree; iron post stamped "Prim. Trav. Sta. No. 78, 74 LA 1909"

Feet.
St. Joseph, 0.7 mile west of junction of plank and levee roads, 0.3 mile east of railroad station, on south edge of plank road, in hub on 20 -inch locust tree; nail marked " 69.65 "
Locust Ridge, 3.9 miles northeast of, 55 feet north of center of tracks, 20 feet west of second-class road, 225 feet southwest of telegraph pole marked " $576-5$ "; iron post stamped " 65 LA 1909"

$$
65.268
$$

Locust Ridge, 3.9 miles northeast of, 55 feet north of center of tracks, 20 feet west of second-class road, in base of 12 -inch sweet gum tree; spike marked " 64.927 "
64.86

Locust Ridge, 380 feet north of station, at southwest corner of porch of Locust Ridge plantation store; iron post stamped "Prim. Trav. Sta. No. 94, 69 LA 1909"
68.724
point near st. joseph along highway north and west to lare bruin (portion of line).
St. Joseph, 2.8 miles northeast of, 1 mile south of Pleasant View Church; iron post stamped "Prim. Trav. Sta. No. 79, 78"
77.966

St. Joseph, 5 miles north of, 75 feet north of Catfish Bayou, 800 feet northeast of James Curry's house; iron post stamped "Prim. Trav. Sta. No. 80, 76".
76.413
st. Joseph along highay northwest to avondale, thence north and east to osceola.
Avondale, 1.2 miles north of, on east side of road, 175 feet northeast of Jerry Lewis's cabin, in hub on west side of 10 -inch chinaberry tree which stands 18 feet east of a similar tree; nail marked " 72.96 "
72.83
point 1.3 miles west of osceola west toward gold bell church (single spur line Checked by secondary levels).
Buckhorn, 0.4 mile southwest of, 30 feet south of dim road to west, on east side of road to south, in hub on root of 8 -inch sweet gum tree; nail marked "T. P. 70.11"
avondale along hehway southwest to oneonta, thence south to locust ridge.
Avondale, 3 miles southwest of, main forks of road at Hubbard's bridge, at junction of telephone lines, 4 feet northeast of center of grass triangle, 120 feet northeast of north end of bridge; iron post stamped " 66 LA 1909".
66.310

Oneonta, 125 feet north of plantation house, south side of road, in hub on south side of 48 -inch water oak tree; nail marked " 70.04 "
Oneonta, 250 feet west of plantation house, 53 feet southeast of commissary, 3 feet south of telephone pole; iron post stamped "Prim. Trav. Sta. No. 88, 71 LA $1909 "$
70.663

Cross Keys store, set in southwest corner of cross roads at, 60 feet east to store door, 25 feet southeast to corner of icehouse; iron post stamped " 70 LA 1909 Prim. Trav. Sta. No. 89"
avondale along mogway west to deltabridge, thence southeast to oneonta.
Hunt's bridge, 69 feet west of south end, 30 feet northwest of $T$ road junction; iron post stamped "Prim. Trav. Sta. No. 83, 73 LA 1909".
Hunt's bridge, 2.6 miles southwest of, north side of road, 200 feet north of cabin occupied by Hilliary Buford, in hub on bench on east side of 48 inch live oak tree; nail marked " 71.956 "
Hunt's bridge, 2.7 miles west of, northwest corner of fence around Hilliary Buford's garden, 15 feet south of center of road, 40 feet south of row of four large live oak trees and one pecan tree, 300 feet southeast of a large pecan tree standing alone on south edge of road; iron post stamped " 72 LA 1909 "
Feet.
71. 896
Hunt's bridge, 3.8 miles west of, north side of road, 1,000 feet west of road to north across bayou, in hub on south side of 48 -inch pecan tree; nail marked " 70.23 "
Hunt's bridge, 4.3 miles west of, 35 feet northwest of Troad junction, on south side of bayou, 400 feet south of large brick chimney at Daniel's cotton gin, in hub on root on southeast side of twin locust tree; nail marked " 68.7 "
Deltabridge, 90 feet west of west end of iron bridge over bayou, 30 feet west of forks of road, 20 feet south of southeast end of doctor's office; iron post stamped "Prim. Trav. Sta. No. 87, 71 LA 1909"

## hunt's bridge along highway northwest to gold bell church, thence south to DELTABRIDGE.

Hunt's bridge, 69 feet southwest of south end of, 30 feet northwest of $T$ road junction; iron post stamped "Prim. Trav. Sta. No. 83, 73 LA 1909"....
Gold Bell Church, 300 feet east of, 800 feet northwest of Crimea house, beside paling fence on east edge of road, near forks; iron post stamped "Prim. Trav. Sta. No. 84, 70 LA 1909"
Gold Bell Church, 2 miles southwest of, 40 feet west of road, on east side of small levee, in hub on root of 48 -inch cottonwood tree; nail marked " 68.03 "
Gold Bell Church, 3.2 miles southwest of, on east edge of road in woods, in west base of tall 48 -inch gum tree; spike marked " 68.61 "
Deltabridge post office, about 0.25 mile northeast of, 400 feet west of forks, north edge of main St. Joseph-Deltabridge road, in hub on line 26 -inch gum tree; nail marked "T. P. 70.39"
deltabridge along hlghway northwest to hard bargain, thence northeast to SARANAC STORE, THENCE SOUTHEȦT TO GOLD BELL CHURCH (PORTION OF LINE).
Deltabridge, 90 feet west of west end of iron bridge over bayou, 30 feet west of forks of road, 20 feet south of southeast end of doctor's office; iron post stamped "Prim. Trav. Sta. No. 87, 71 LA 1909"
Deltabridge, 2.9 miles north of, 993 feet north of Mayflower bridge, on east edge, of road, 110 feet south of road to west at schoolhouse, in hub on west side of elm tree 60 inches in diameter; nail marked " 66.31 ".
Deltabridge, 3.4 miles north of, at Hard Bargain plantation, 3.0 miles southwest of Saranac store, on west edge of road, 600 feet south of Hard Bargain house, 30 feet east of doctor's office, 20 feet south of road to west; iron post stamped "Prim. Trav. Sta. No. 86, 71 LA 1909".
Gold Bell Church, 300 feet east of, on east edge of road, near forks; iron post stamped "Prim. Trav. Sta. No. 84, 70 LA 1909".
vidalia along road. northwest to trestle 11, thence south to scotland plantation, THENCE NORTHEAST TO VIDALIA (PORTION OF CIRCUIT).
Vidalia, on right bank in lot immediately back of lot on which stand courthouse and jail, 262.48 feet ( 80 meters) back of levee, 176.66 feet ( 54 meters) from upper back corner of courthouse, 79 feet ( 24.1 meters) from upper back corner of iron fence surrounding courthouse and jail (Coast and Geodetic Survey triangulation east base), in stone post 14 inches square; copper bolt (the figures 1878. are cut on the side next the river, and the letters "U. S. Coast S." on the opposite side) (Coast and Geodetic Survey bench mark LXIII).
Vidalia, in courthouse yard, center of cross in stone post 5 by 7 inches, 5 feet northwest of gallery at recorder's office (reference mark to base line)

Fect.

62.65
Vidalia, at southwest corner inside of iron picket fence around courthouse; iron post stamped "Prim. Trav. Sta. No. 103, 63 LA 1909"
62. 792
Vidalia, 0.3 mile northwest of courthouse, 1,483 feet ( 452 meters) back of levee along Trinity Street (now Concordia Avenue), on southwest side of street, 21.25 feet ( 6 meters) from center of street, 37.0 feet ( 11.3 meters) in front of the front tree of two large pecan trees standing about 1.30 feet apart, above upper side of road; top of iron post (Mississippi River Commission bench mark 132/3).
Taconey plantation, near, 5 feet north of telephone pole at angle in road, 25 feet north of gate, 100 feet southwest of top of levee at bend in levee, 150 feet west of gate across second-class road to south, 500 feet east of Taconey plantation house; iron post stamped "Prim. Trav. Sta. No. 102 LA 1909".
Scotland plantation, 250 feet west of plantation house, on south side of river road, directly opposite second-class road to north through line of cabins, in hub on root on northwest side of dead 20 -inch cottonwood tree; nail marked " 62.98 ".
White Hall plantation store, 50 feet east of the southeast corner of, 5 feet northeast of chinaberry tree on north edge of levee road, 60 feet northeast of road crossing White Hall Lake on a ramp; iron post stamped "Prim. Trav. Sta. No. 106, 62 LA 1909".
64. 840
63. 415
62. 867
62. 134
Vidalia, 175 feet southwest of St. Louis, Iron Mountain \& Southern Railway station, 110 feet southeast of Marx and Scharff's warehouse; top of bolt on dome of municipal water plug; marked " 63.61 ". .
Vidalia, on curbstone in front of Beer, Myers \& Co.; chiseled square marked
" 63.39 ".................................................................................... 63.
harrisonburg quadrangle (including nos. 46 to $517 \frac{1}{2}$ Quadrangles).
vidalia along road northwest to trestle 11, thence south to scotland plantation, thence northeast to vidalia (portion of circutr).

Trestle 11, 1 mile southwest of, on east side of road, 65 feet south of two blazed oak trees, in hub on twin sweet gum tree; nail marked " 53.07 ". .
Scotland plantation, 1.7 miles north of, east side of road, in hub on 26 -inch sweet gum tree; nail marked " 52.38 ".
53.01
52. 32
point near minorca northwest along road to ferriday, thence south along railroad to lucerna, thence northeast along mghway to scotland.
Minorca, 1.1 miles northwest of, at second-class road to south through gate, at railroad trestle 11, in root of dead stump 30 feet west of road junction; nail; mark on fence 10 feet south "B. M. 59.45 ".
Minorca, 2.1 miles northwest of, 3.5 miles southeast of Ferriday, at corner of wire fence, 15 feet east of southeast corner of negro church on south side of levee road; iron poststamped "Prim. Trav. Sta. No. 101, 63 LA 1909".
Sycamore store, 77 feet west of southwest corner of, 9 feet south of ditch, 210 feet back of bank of lake, 11.5 feet back of center of levee, about half way between store and gate to road leading back to plantation house; tile and pipe (Mississippi River Commission permanent bench mark "Sycamore").
Ferriday, 1,600 feet west of station, in northeast corner of wire fence surrounding public schoolhouse; iron post stamped " 59 LA 1909 Prim Trav. Sta. No. 100".
Ferriday, 50 feet west of railroad, 37 feet south of roadmaster's office (St. Louis, Iron Mountain \& Southern Railway), highest point on stopcock on water plug; mark on telegraph pole 20 feet northeast "B. M. 61.73"....
61.76
Ferriday, 2.1 miles south of, 100 feet east of railroad, 450 feet northeast of milepost 197, 205 feet northeast of second-class road crossing, in northwest corner of wire fence around southern of two negro cabins, on property
of Mr. Smith, of Texas \& Pacific Railway, 20 feet east of 16 -inch elm tree; iron post'stamped "Prim. Trav. Sta. 108, 55 LA 1909".

Feet.
54. 922

Lucerna, 0.9 mile north of, 50 feet west of center of tracks, on west side of wire fence, 350 feet north of milepost 194; iron post stamped " 51 LA 1909"
51. 123

Bash station, 0.9 mile east of, 100 feet west of center of levee, 50 feet west of center of levee road, 15 feet north of T road leading west between Lucerna and Saughy plantations, 0.5 mile southeast of Lucerna plantation house; iron post stamped " 63 LA 1909 Prim. Trav. Sta. No. 107 ".
63. 018

Lucerna plantation, opposite the sixth milepost below Vidalia, 365 feet ( 111 meters) back of center of levee, 27.77 feet ( 9 meters) above center of a ditch, which leads back past a metal-covered gin, 413.5 feet ( 124 meters) above a road crossing levee and running back past plantation house, about 250 feet above a string of cabins; tile and pipe (Mississippi River Commission permanent bench mark "Lucerna")
62.600

Scotland, 1.1 miles west of, 12 feet north of road, 5 feet south of fence, on top of cement and brick cistern; chiseled square marked " 65.92 "

## MISSISSIP'PI.

## PRECISE LEVELING.

Tunica and Tutwiler $30^{\prime}$ quadrangles (including Banks, Belen, Crenshaw, Lake Cormorant, Lambert, Prichard, Sledge, Tibbs, Tutwiler, and Vance $7 \frac{1}{2}$ quadran-gles-names not given in list).
desoto, panola, quitman, tallahatchie, tate, and tunica counties.
The elevations in the following list are a portion of those determined by a spur line of precise levels run from Memphis, Tenn., to Tutwiler, Miss. A prism level and yard rods were used, and the line was leveled in both forward and backward directions, broken by bench marks into sections about 1 mile long, the closure error in feet of which was limited to $0.017 \sqrt{\mathrm{D}}$ ( D being the distance between bench marks in miles). At Tutwiler, checked primary levels of the Tallahatchie Drainage Commission extended from bench marks at Mattson and Greenwood, Miss., on precise-level lines of the United States Corps of Enginers, corrected to this datum, closed plus 0.212 and plus 0.082 feet, respectively, prior to their adjustment.

The leveling was done in 1908, in the Tunica $30^{\prime}$ quadrangle by W. H. Monahan and in the Tutwiler $30^{\prime}$ quadrangle by Monahan and C.J.Harrison. A few standard iron posts and concrete monuments, descriptions of which are included in this list, were established by L. W. Mashburn, under the direction of A. L. Dabney, assistant chief engineer, Tallahatchie Drainage Commission.

## TUNICA QUADRANGLE

state lene near darwin, tenn., south along yazoo \& mississippi valley railroad toCRENSHAW.
Lake View, 159 feet west of track, 15 feet east of northeast corner of pump- Feet ..... 222. 347
Lake View, in front of station; top of rail ..... 222.8
Walls, 132 feet north of station, 156 feet east of track, at southwest corner of store of R. Bozeman; iron post stamped " 215 " ..... 215. 352
Walls, in front of station; top of rail ..... 213. 7
Glover, at southeast corner of store of W. C. Knight, 63 feet west of track; iron post stamped " 211 " ..... 211. 628
Glover, in front of station; top of rail ..... 212.6
Lake Cormorant, 458 feet northeast of Yazoo \& Mississippi Valley Railroad station, at northwest corner of store of W. W. Blythe, 168 feet east of track; iron post stamped "Prim. Trav. Sta. No. 24, 207 " ..... 206. 906
Lake Cormorant, in front of station; top of rail. ..... 208.0
Marionette, 39 feet southwest of station platform, 45 feet west of track; iron post stamped "Prim. Trav. Sta. No. 25, 202" ..... 201. 788
Marionette, in front of station; top of rail ..... 203. 2
Marionette, 1.5 miles south of, at milepost "J. 206-M. 24," 75 feet to right of track; concrete slab ..... 199. 412
Banks, in front of station; top of rail ..... 200.3
Banks, 200 feet south of station, 18 feet east of track, 36 feet north of cross- ing; iron post stamped "Prim. Trav. Sta. No. 26, 199" ..... 1.99. 391
Lost Lake, in front of station; top of rail ..... 199.7
Lost Lake, 106 feet west of track, 192 feet southwest of station platform; iron post stamped "Prim. Trav. Sta. No. 27, 195" ..... 195. 484
Dragg, 57 feet west of track, 75 feet southwest of station sign "Dragg"; iron post stamped "Prim. Trav. Sta. No. 28, 191" ..... 190.895
Prichard, 1.5 miles north of, at milepost "J. 197-M. 33," 70 feet to right of track; concrete post ..... 190.536
Prichard, 240 feet northwest of station, 105 feet west of track; iron post stamped "Prim. Trav. Sta. No. 29, 191" ..... 191. 538
Prichard, in front of station; top of rail ..... 194.8
Savage, 0.5 mile north of, at milepost "J. 191-M. 39," 100 feet from center of track; concrete slab ..... 186. 154
Savage, 289 feet northwest of station, 127 feet west of track, at southeast corner of store; iron post stamped "Prim. Trav. Sta. No. 30, 187 " ..... 186.722
Savage, in front of station; top of rail ..... 192.6
Savage, 2.4 miles south of, at milepost "J. 188-M. 42," 100 feet to left of track; concrete monument ..... 183. 201
Sarah, 456 feet north of station, 60 feet west of track, at southeast corner of building of R. Brown; iron post stamped "Prim. Trav. Sta. No. 31, 199" ..... 198. 955
Sarah, in front of station; top of rail ..... 194. 8
Askew, 220 feet northwest of station, 153 feet west of track, 15 feet north of road; iron post stamped "Prim. Trav. Sta. No. 30, 181" ..... 181. 682
Askew, in front of station; top of rail. ..... 185. 7
Crenshaw, 189 feet east of track, 123 feet south of road, at northwest corner of hotel; iron post stamped "Prim. Trav. Sta. No. 33, 187" ..... 186. 907
Crenshaw, in church yard, top of concrete monument No. 2. ..... 189. 267
Crenshaw, in front of station; top of rail. ..... 189.4

## TUTWILER QUADRANGLE.

CRENSHAW SOUTH along yazoo \& mississippl valley railroad to tutwiler.
Crenshaw, 2.6 miles south of, 85 feet east of track, 37 feet north of road; iron Feet. post stamped "Prim. Trav. Sta. No. 34, 170" ..... 170.052
Sledge, 216 feet east of station, at northwest corner of store owned by J. A. Hanks; iron post stamped "Prim. Trav. Sta. No. 35, 168". ..... 168. 408
Sledge, in front of station; top of rail. ..... 171.7
Falcon flag station, 3,000 feet north of, at milepost "J. 174-M. 57;" 100 feet to right of track; iron post ..... 164. 815
Falcon, in front of station; top of rail. ..... 170. 2
Falcon, 15 feet west of track, at south end of station platform; iron post stamped "Prim. Trav. Sta. No. 36, 172" ..... 171. 645
Darling, 2,000 feet north of station, in corner of office yard, at milepost "J. 171-M. 60," 100 feet to left of track; iron post. ..... 164. 114
Darling, 24 feet east of track, at north end of station, beside telegraph pole; iron post stamped "Prim. Trav. Sta. No. 37, 168 " ..... 168. 491
Darling, in front of station; top of rail ..... 168.7
Stalls, in front of station; top of rail: ..... 167.5
Hinchcliff, 0.8 mile north of, at milepost "J. 168-M. 63," 100 feet to left of track; iron post. ..... 163. 000
Hinchcliff, 51 feet west of track, 63 feet north of S. S. Johnson's store, at corner of fence; iron post stamped "Prim. Trav. Sta. No. 19-A, 162"... ..... 162.547
Hinchcliff, in front of station; top of rail ..... 167.0
Iron drawbridge "L. E. 64-76;" top of rail ..... 168.8
Marks, 1.2 miles north of, water tank, at milepost "J. 165-M. 66," 100 feet from center of track; iron post ..... 159.984
Marks, 24 feet east of track, at south end of platform; iron post stamped "Prim. Trav. Sta. No. 12-A, 163 " ..... 163.471
Marks, 0.2 mile east of station, in yard of Baptist Church, near Mrs. Green's residence, stone (probably concrete monument No. 3). ..... 164. 889
Marks, in front of station; top of rail. ..... 164. 7
Marks, 1.6 miles south of, at milepost "J. 162-M. 69," 70 feet to left of track, near fence; iron post. ..... 160.850
Lambert, in front of station; top of rail ..... 161.9
Lambert, 105 feet east of track, 35 feet north of road, at fence corner of hotel yard; iron post stamped "Prim. Trav. Sta. No. 11-A, 160" ..... 159. 806
Buford Lake, 313 feet south of switch stand, at north end of platform; iron post stamped "Prim. Trav. Sta. No. 13-A, 160 ". ..... 160. 247
Lambert, 3.8 miles south of, at milepost "J. 156-M. 75," 60 feet to left of center of track; iron post ..... 152. 763
Alfrey, in front of station; top of rail. ..... 157.4
Longstreet, 56 feet east of track, at corner of store, 75 feet southeast of bridge "L. E. 77-91;" iron post stamped "Prim. Trav. Sta. No. 14-A, 153"... ..... 152. 893
Longstreet, in front of station; top of rail. ..... 156.8
Vance, in front of station; top of rail. ..... 157.6
Vance, 33 feet east of track, at south end of station; iron post stamped "Prim. Trav. Sta. No. 15-A, 155 " ..... 155. 304
Vance, 90 feet north of milepost "J. 150-M. 81," 150 feet to right of track, between store of Ross \& Lowshe and old drug store; iron post. ..... 155. 496
Vance, 3 miles south of, 10 feet north of road, 42 feet vest of crossing; iron post stamped "Prim. Trav. Sta. No. 16-A, 157" ..... 156. 681
Tutwiler, 3 miles north of, at milepost́ "J. $147-$ M. 84 ," 50 feet to left of track; iron post ..... 156. 554
Tutwiler, 75 feet north of track, 120 feet northeast of northeast corner of station, at corner of store; iron post stamped "Prim. Trav. Sta. No. 17-A,

Feet.
Tutwiler, in front of station; top of rail. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 157.9

## PRIMARY LEVELING

Clarksdale, Greenwood, Helena, Tunica, and Tutwiler quadrangles (including, though list is not so subdivided, Alligator, Banks, Belen, Chapeltown, Charleston, Clarksdale, Coahoma, Commerce, Crenshaw, Dublin, Dundee, Friar Point, Glendora, Greenwood, Helena, Hollywood, Jonestown, Lake Cormorant, Lambert, Locopolis, Lula, Money, Moon Lake, Oxberry, Paynes, Philipp, Prichard, Renalare, Robinsonville, Rome, Sabino, Sherard, Sledge, Swan Lake, Tibbs, Tocowa, Tunica, Tutwiler, and Walnut $7 \frac{1}{2}{ }^{\prime}$ quadrangles).
bOLIVAR, COAHOMA, DE SOTO, LEFLORE, QUITMAN, TALLAHATCHIE, TATE, AND TUNICA counties.

The elevations in the following lists were determined by primary leveling extended from the precise level lines of the Mississippi River Commission along the Mississippi River and from Friar Point to Clarksdale, and from that of the Geological Survey, Memphis, to Tutwiler.

The leveling was done in the Clarksdale $30^{\prime}$ quadrangle in 1907 by J. E. McCorkle, jr., and John Dabney, and in 1908 by W. H. Gray, L. W. Mashburn, and N.S. Rorison; in the Greenwood $30^{\prime}$ quadrangle in 1908 by Mashburn; in the Helena $30^{\prime}$ quadrangle in 1908 by Gray; in the Tunica $30^{\prime}$ quadrangle in 1908 by W. E. Brown, G. H. McCoy, C.C. Gardner,Rorison, and Gray; and in the Tutwiler 30' quadrangle in 1907 by McCorkle, and in 1908 by Gray, Mashburn, W. H. Monahan, and Rorison. The leveling done by Mashburn was under the direction of A. L. Dabney, assistant chief engineer, Tallahatchie Drainage Commission.

TUNICA QUADRANGLE.
LAKE CORMORANT WEST TO LEVEE, THENCE ALONG LEVEE NORTH AND EAST TO LAKE VIEW.

Section 11-12, on levee, 60 feet east of road, between two wooden posts;

Fect.

205. 912

Section 10-11 on levee, 100 feet east of road; iron post..................... 205.689

Section 8-9 on levee; iron post................................................... 210.264
Section 6-7 on levee; iron post.................................................... 207.171
Section 5-6 on levee; iron post.................................................... 207.020
Section 4-5 on levee; iron post.................................................. 210.698
Section 3-4 on levee; iron post................................................... 212.186
Section 2-3 on levee; iron post.................................................. 209.064

point near lake cormorant southwest along levee to clack.
Lake Cormorant, 1 mile west of, north edge of road, 60 feet east of gate; 100 feet south of one-room house; nail in root of large oak tree painted " 202.547 "
202. 74
$83979^{\circ}$-Bull. 458-11-4
Lake Cormorant, 1.5 miles west of, 40 feet southeast of crossroads, 140 feetwest of New Liberty Church, in line of wire fence, south of road; ironpost marked "Mississippi River Commission, 1906"Feet.Lake Cormorant, 2.9 miles southwest of, 0.5 mile east of Star Landing, 250feet east of section stone " $15-16$;" Mississippi levee iron post206. 423
Lake Cormorant, 3.8 miles southwest of, on east edge of levee road, in south- east angle of road fork leading east to Holliway's gin; iron post stamped "206" ..... 206. 082
Lake Cormorant, 3.9 miles southwest of, opposite section stone " $16-17$;" Mississippi levee iron post painted " 205.44 " ..... 205. 730
Clack, 2.4 miles north of, 70 feet east of road, 20 feet east on line with fence, 200 feet east of section stone " $17-18$;" Mississippi levee iron post stamped " 202 " ..... 202.214
Clack, 1.3 miles north of, 150 feet east of section stone "18-19 C;" Missis- sippi levee iron post stamped " 200 " ..... 200. 688
Clack, 0.4 mile west of, 40 feet east of fork of road to north, on south edge of road leading east to Clack, opposite section post " $19-20$;" Mississippi levee iron post stamped " 204 " ..... 204. 854
Clack, in northwest angle of road fork on east side of Yazoo \& Mississippi Valley Railroad track; iron post stamped "Prim. Trav. Sta. No. 15-206". ..... 206.093
CLACK SOUTHWEST TOWARD COMMERCE
Clack, 1.4 miles southwest of, 150 feet east of section stone " $20-21$;'" Missis- sippi levee iron post stamped " 203 " ..... 203.080
Clack, 2.3 miles southwest of, 140 feet east of section stone " $21-22$, " 40 feetsouth of road leading to Robinsonville from Robert Jefferson's house;Mississippi levee iron post stamped " 201 "200. 917
Commerce, 2.6 miles north of, 70 feet east of road, 130 feet west of Antney Massy's house, 600 feet north of section stone " $22-23$;'" iron post stamped " 202 " ..... 202.625
Commerce, 2.5 miles north of, 120 feet east of section stone " $22-23$;" Mis- sissippi levee iron post stamped " 201 " ..... 201. 187
CLACK NORTHEAST ALONG YAZOO \& MISSISSIPPI VALLEY RAILROAD TO LAKE CORMORANT.
Penton, 130 feet south of, 80 feet south of corner of store, 2 feet north of northeast corner of fence; iron post stamped "Prim. Trav. Sta. No. 16, 205" ..... 205. 197
Lake Cormorant, 30 feet east of restaurant, 450 feet northeast of station, 1 foot north of northeast corner of F. T. Withers \& Co.'s store; iron post stamped "Prim. Trav. Sta. No. 24, 207 " ..... 206. 906
lake cormorant west 0.22 mile to church (double-spur line.)
Lake Cormorant, 0.2 mile west of, 60 feet southwest of southwest corner ofchurch, 30 feet north of fork of road, 200 feet northeast of Mr. Jeffrey'shouse, in concrete monument; aluminum tablet stamped " 208 ;" stampedin concrete "Miss. 1908 U.S. G.S. No. 1"208. 156
lake cormorant east to the hllls (single-spur line.)
Lake Cormorant, 3 miles east of, south of road; nail in gum tree ..... 211.38
Lake Cormorant, 4.2 miles east of, at forks of road; nail in white oak tree ..... 301. 12
Lake Cormorant, 5.7 miles east of, 10 feet south of road, in pasture; iron post ..... 219.086

POINT 1.2 MILES EAST OF LAKE CORMORANT, SOUTH, THENCE WEST TO BANKS.
Lake Cormorant, 1.2 miles east of, on north side of road, 800 feet west of

Feet.
209. 941

Lake Cormorant, 2.2 miles southeast of, in northwest angle of T road leading west to Wilson's; iron post stamped "Prim. Trav. Sta. No. 67, 203 "
203.531

Lake Cormorant, 3.3 miles southeast of, 10 feet west of road, 100 feet northeast of northeast corner of double house, in root of 24 -inch sycamore tree; nail painted " 209.1 ".
209.28

Lake Cormorant, 3.9 miles southeast of, on south edge of road, 40 feet west of fork of second-class road leading east, at top of ridge, in root of 12 -inch hickory tree; nail painted " 291.47 "
Lake Cormorant, 4.9 miles southeast of, on east edge of road, 725 feet south of house, 40 feet north of second-class road south, in root of peach tree; nail painted " 315.8 "
Lake Cormorant, 5.2 miles southeast of, 15 feet east of road, 50 feet southwest of small lake, 300 feet north of Tiny Perry's house; iron post stamped " 312 "
312.649

Lake Cormorant, 6.6 miles southeast of, at intersection of main road to Banks, in root of hickory tree; nail painted " 305.96 " $\therefore$
Banks, 4.8 miles northeast of, on west edge of road, 40 feet north of road forks south to Commerce road, in root of large oak tree; nail painted "311.6"
Banks, 3.2 miles east of, on west side of road, 25 feet south of south end of bridge over Whites Creek; 4 feet north of beech tree; iron post stamped "213"
306.10
311.74
212.967

Banks, 2.4 miles east of, on east edge of road, 50 feet south of bridge over
branch, 0.6 mile west of Commerce road, in root of black gum tree; nail
painted " 215.88 ".............................................................................. 216.00
TUNICA NOR'TH AND NORTHEAST ALONG YAZOO \& MISSISSIPPI VALLEY RAILROAD TO POINT NEAR ROBINSONVILLE.

Tunica, 385 feet south of station, 30 feet north of crossing; iron post stamped "Prim. Trav. Sta. No. 9, 196"
195.647

Tunica, in front of station; top of rail........................................................ 197. 3
COMMERCE EAST TO POINT NEAR ROBINSONVILLE.
Commerce, on north edge of road, 175 feet east of forks of road at levee, 340 feet southwest of Abby's store, nail in root of thorn locust tree; painted "202.49"
202.88

Commerce, 1 mile east of, in northwest angle of road forks, 1,000 feet east of Mount Olive Church; iron post stamped "Prim. Trav. Sta. No. 57, 197"..
197.737

Commerce, 2.9 miles east of, at southwest corner of schoolhouse, 140 feet east of St. Peter's Church, at crossroads; iron post stamped "197"
197.799

POINT NEAR COMMERCE SOUTH ALONG LEVEE ROAD TO JOHNSON'S STORE, THENCE SOUTHEAST TO POINT 3 MILES NORTH 'OF TUNICA.
Commerce, 2 miles southwest of, 45 feet east of intersection of Commerce road with road leading south to Tunica, in root of large cottonwood tree; nail painted " 196.98 "
197.38

Commerce, 3.5 miles southwest of, 70 feet west of public highway, in berm of levee; iron post stamped "Prim. Trav. Sta. No. 58, 202".
201.971

Commerce, 6.8 miles southwest of, 0.7 mile east of Johnson's store, 30 feet south of road, 60 feet west of crossroads, 70 feet north of northwest corner of Mount Nebo Church, in root of large sweet gum tree; nail painted "189, 21 ".
Tunica, 3 miles north of, 50 feet southeast of railroad crossing, immediately opposite section " $L$ "-5, Memphis milepost 36, 570 feet north of; iron post stamped "Prim. Trav. Sta. No. 11, 197".
Feet.
JOHNSON'S STORE SOUTH ALONG LEVEE TO MANGUM BROS.' STORE, THENCE EAST TO TUNICA.
Johnson's store, 225 feet east of, at northeast corner of fence on south side
of road; iron post stamped "Prim. Trav. Sta. No. 59,198 "............ 198.643
Johnson's store, 0.6 mile south of, 300 feet east of section post " $32-33$ ";
Mississippi Levee iron post stamped "195"............................. 195.142
Johnson's store, 1.6 miles south of, 250 feet east of section post " $33-34$;"
Mississippi Levee iron post stamped " 195 "........................... 195.338
Mhoon's Landing, 0.3 mile east of, 150 feet east of section post " $34-35$;"
Mississippi Levee iron post stamped " 193 "........................... 193.504
Mhoon's Landing, 1.3 miles south of, 400 feet east of section post " $35-36$;"
Mississippi Levee iron post stamped " 188 "........................... 188.742
Mhoon's Landing, 1.7 miles south of, 40 feet east of levee, 300 feet north-
west of northwest corner of Hill's gin; iron post stamped "Prim. Trav.
Sta. No. 60,198 "..........................................................................
Mhoon's Landing, 2.4 miles south .of, 100 feet east of section post " $36-37$;"
Mississippi Levee iron post stamped " 195 "............................ 195.440
Mangum Bros.' store, 2.8 miles north of, 200 feet east of section post " $37-38$;"
Mississippi Levee iron post stamped " 192 "............................. 192.369
Mangum Bros.' store, 1.8 miles north of, 125 feet east of section post " $38-39$;"
Mississippi Levee iron post stamped "195"............................. 195.409
Tunica, 1.7 miles west of, north of road, 2 feet west of southeast corner of
fence around Z. T. White's residence; iron post stamped "198"....... 198.131
Tunica, 400 feet south of Yazoo \& Mississippi Valley Railroad station, east
of railroad; iron post stamped "Prim. Trav. Sta. No. 9, 196".......... 195.647
point 1 mile north of hollywood north to levee.
Hollywood, 4 miles north of, 10 feet northeast of forks of road leading north, in root of pecan tree; spike marked "194.94".
194.70
Hollywood, 5 miles north of, 5 feet north of road, 300 feet west of vacant
house, in base of oak tree; spike marked " 191.68 "......................... 194.42

HOLLYWOOD EAST 2 MILES.
Hollywood, 75 feet east of station, in line with west wall of brick store; iron post stamped "Prim. Trav. Sta. No. 12".
197.324

hollywood south 3 miles, thence west to tunica.
Hollywood, 2.6 miles east of, west of road, near gate, in walnut tree; spike.
192.74
point 2 miles east of tunica south to gurlach road.
Tunica, 2 miles east of, in northwest corner of J. W. Mixon's yard, on Tunica and Gurlach road; iron post stamped " 189 "
ponnt 2 miles northeast of hollywood northeast along yazoo \& mississipfi valley railroad to clack.
Bowdre, 2 feet south of southwest corner of little store, 300 feet northeast of Mr. Wagner's house, 20 feet north of dirt road, 50 feet east of freight house; iron post stamped "Prim. Trav. Sta. No. 13, 201".
Robinsonville, 40 feet north of water tank, 40 feet west of track, 3 feet east of southeast corner of Mrs. Kennedy's yard fence; iron post stamped "201"

## robinsonville east to banks.

Lost Lake bridge, 200 feet west of, at T road; iron post.

194.597

- Feet.
Banks, 201 feet south of station, 18 feet east of track; iron post stamped "Prim. Trav. Sta. No. 26, 199" ..... 199.412
robinsonville west toward commerce.
Robinsonville, 1.6 miles west of, in white oak tree; nail. ..... 199.88
POINT 1.5 MILES EASt OF ROBINSONVILLE SOUTH AND WESt TO POINT 1.5 miles NORTH OF HOLLYWOOD.
Hollywood, 4 miles northeast of, 100 feet southwest of negro cabin, 50 feet west of bayou, in northeast corner of old store owned by Dr. L. L. Minor; iron post stamped " 196 " ..... 195.813
point near prichard north and west to hollywood.
Tunica-Hollywood-Prichard road•forks, 200 feet east of, in root of oak tree; spike ..... 194.60
House, 100 feet west of, near forks of road leading west, in root of 30 -inch oak tree; spike ..... 194.14
Prichard, 1.2 miles west of, north of public road 50 feet, 120 feet west of long bridge over slough, 1 foot west of southwest corner of church; iron post. ..... 194.631
POINT 2 MILES WEST OF PRICHARD SOUTH AND WEST TO POINT 2 MILES SOUTHEAST OF TUNICA.
Prichard, 2 miles west of, in northwest corner of field, 15 feet south of east fork of road leading south, 30 feet south of Tunica and Prichard main road running east-west; iron post stamped " 194 " ..... 193.756
Prichard, 4.2 miles west of, on west side of trail, in oak tree; spike. ..... 185.44
Prichard, 5.2 miles west of, north side of old road to Tunica, in root of large oak tree; spike ..... 186.82
Tunica, about 2 miles east of, on Tunica and Gurlach road, in northwest corner of J. W. Mixon's yard; iron post stamped " 189 ". ..... 189.350
banks east 2 miles, thence south 2 miles, thence northwest to banks.
Banks, 3.5 miles east of, west bank of road, at top of hill, in root of large oak tree; spike ..... 295.04
Banks, 4 miles east of, in center of crossroads, on the Banks and Cub Lake road, 200 feet north of house on hill; iron post ..... 311.605
lost lake east and north to point 3 miles southeast of banks.
T. 3 S., R. 9 W., southwest corner sec. 32 (near), about 200 feet northeast of junction of $T$ road to north; iron post ..... 212.921
PRICHARD EAST TO FOOT OF HILLS.
Prichard, 15 feet north of trail, at edge of bayou; on hickory tree ..... 185.94
point 3 miles northeast of savage northeast to pleasant hill church.
Savage, 3.5 miles northeast of, on west edge of road, 25 feet west of forks of road leading east, in root of large oak tree; spike ..... 309. 18
Savage, 5.3 miles northeast of, in center of triangle made by forks of Arka- butla and Bluff roads to Cub Lake; iron post. ..... 307.930
Savage, 7.4 miles northeast of, 6 feet north of road, 75 feet east of old field, in root of oak tree; spike ..... 282.38


## HOLLYWOOD SOUTHEAST 3 MILES (DOUBLE SPUR LINE).

$$
\begin{aligned}
& \text { Hollywood, } 3 \text { miles east of, on Hollywood and Prichard road, } 2 \text { feet north of } \text { Feet. } \\
& \text { northwest corner of Rainey's schoolhouse; iron post.............................. } 192.745
\end{aligned}
$$

pleasant hill church north to cub lake.
Savage, 7.9 miles northeast of, on top of hill on Savage and Cub Lake main
road, 3 feet west of northwest corner of Pleasant Hill Church; iron post
stamped " $270^{\circ}$ "................................................................................. 2704
Savage, 10.1 miles northeast of, 25 feet east of crossroads, 200 feet east of
house, near section corner, in gum tree; spike. . ............................... 279.54
Savage, 12.2 miles northeast of, 5 feet southeast of Pratt's bridge over Cold Water River on Cub Lake and Arkabutla road; iron post.
199.943

Cub Lake, about 0.2 mile south of, 10 feet east of road, in root of elm tree;
spike.......................................................................................................... 12
Cub Lake, 100 feet southeast of Locky \& Emerson's store, in embankment 75 feet southwest of crossroads; iron post stamped " 225 ".
225.021
pleasant hill church southwest to sheford school.
Sheford school; iron post stamped "Prim. Trav. Sta. No. 62".
272.457

POINT 2.9 miles east of evansville southeast via walnut lake to walnut lake SCHOOLHOUSE.

Evansville, 4 miles east of, north edge of road, 75 feet south of negro cabin, in root of oak tree; nail marked " 186.2 ".
186.00

Evansville, 5.5 miles east of, 300 feet north of house on Gardford farm, 200
feet west of gate entering farm on west side, near section corner, 15 feet
east of large oak tree; iron post stamped " 186 "...................................... 1863
Evansville, 6.4 miles east of, on west edge of road, in root of tree; nail
marked " 178.5 ". . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 178.44
Evansville, 8.2 miles east of, on side of Walnut Lake, 700 feet west of old house in vacant field owned by Tucker brothers, in root of large oak tree; nail marked " 177.7 ".
177.52

Dubbs, 11.6 miles east of, 2 feet northeast of northeast corner of R. C. Tucker's store; 75 feet west of house; iron post stamped "Prim. Trav. Sta. No. 50, 185".
184.947

Dubbs, 9.6 miles east of, 10 feet south of road, 100 feet north of Walnut Lake, 300 feet east of Walnut Lake schoolhouse, 75 feet northeast of bridge over Walnut Lake, in root of hickory tree; nail marked "180.8".
180.38

POINT 2.9 MILES EAST OF DUBBS EAST TO SARAH.
Dubbs, 2.9 miles east of, in northeast corner of G. W. Pruette's yard, 30 feet north of corner of house, 100 feet south of Clear Lake, 30 feet south of road; iron post stamped " 181 "
181.050

Dubbs, 3.6 miles east of, 60 feet north of center of road, 140 feet northeast of little white house, 70 feet south of White Oak Bayou, in root of hickory tree; nail marked " 178.3 ".
177. 96

Dubbs, 4.3 miles east of, 60 feet northwest of intersection of road leading north over White Oak Bayou, 125 feet west of vacant house, 100 feet south of bayou, about 0.3 mile west of Pink post office, in root of large post oak tree; nail marked " 178.9 ".
178.62

Pink, 1 mile east of, 50 feet south of Clear Lake, 80 feet northeast of church, 250 feet east of negro house, in root of oak tree; nail marked " 180.73 "..

Pink, 2.2 miles east of, 100 feet east of fork of Clayton and Asken roads, almost in center of triangle, 130 feet east of large wooden bridge over Walnut Lake, 100 feet northeast of northeast corner of C. W. Terry's cotton gin; iron post stamped " 181 ".

Feet.
181. 162

Pink, 3.1 miles east of, on bank of Walnut Lake, 30 feet west of road, 75 feet northwest of cotton house, in gum tree; nail marked " 1.80 .54 "
180. 16

Pink, 5.2 miles east of, 10 feet south of road, 100 feet northeast of Walnut Lake, 200 feet southeast of Walnut Lake schoolhouse, 75 feet northeast of east end of bridge over lake, in root of hickory tree; nail marked "180.80".
180.38

Sarah, about 3 miles west of, 0.9 mile east of Mr. Mitchell's house, 150 feet northeast of bridge over bayou, 5 feet south of large red oak tree in woods; iron post stamped "Prim. Trav. Sta. No. 51, 179".
178. 586


- Sarah, about 0.2 mile west of, on south bank of Cold Water River, 30 feet north of center of road, 100 feet northeast of negro cabin, 10 feet south of water's edge, in root of tree; nail marked " 177.8 "
177.30

Sarah, 400 feet north of station, 1 foot east of southeast corner of Brown's
store, 50 feet southwest of railroad crossing, 120 feet east of end of iron
bridge over river; iron post stamped "Prim. Trav. Sta. No. 31,200 ".... 198.976. hally east to crenshaw.
Dundee, 9.45 miles east of, 50 feet north of bridge over Cold Water River, 800 feet east of Gurlach mill, 100 feet west of old sawmill shed; iron post stamped "Prim. Trav. Sta. No. 46, 177 "
175.829

Dundee, 13.4 miles east of, in northeast corner of Wesley Williams's yard,
25 feet northeast of house, in northwest corner of Moore \& Co.'s farm;
iron post stamped "Prim. Trav. Sta. No. 47, 176 "....................... 175.902
Dundee, 15.2 miles east of, 10 feet north of road, 25 feet east of old vacant house, on section line, in root of oak tree; spike marked "176.472"....
Dundee, 16.4 miles east of, 75 feet west of intersection of road leading south, 200 feet.west of negro cabin, in northeast corner of E. P. Vanderburg's farm on sec. 2; iron post stamped "Prim. Trav. Sta. No. 48, 177"......
Crenshaw, 300 feet southeast of station, 2 feet north of north corner of D. E. Davenport's hotel; iron post stamped "Prim. Trav. Sta. No. 33, 187 "...
176. 12
176.591
186.928

SAVAGE NORTHEAST 3 MLES. -
Savage, 289 feet northwest of station, 127 feet west of track, at southeast corner of store owned by A. P. Poe; iron post stamped "Prim. Trav. Sta. No. 30, 187 "
186.743

Savage, 2.5 miles northeast of, on west edge of road, 75 feet east of creek,

- in root of water oak tree; spike marked " 180.35 "..

18044
point near dundee northeast along yazoo \& mishissippi valley raltroad to tunica.
Maud, 80 feet east of station, 2.5 feet north of J. W. Lake \& Co.'s store; iron post stamped "Prim. Trav. Sta. No: 5, 188".
187.915

Clayton, 4 feet north of mail crane, 40 feet west of station, 200 feet south of
water tank; iron post stamped "Prim. Trav. Sta. No. 7, 197"........ 196.816
Evansville, 80 feet east of southeast corner of station, 50 feet southeast of mail crane, 53 feet east of main railroad track; iron post stamped "Prim. Trav. Sta. No. 8, 191 "
190. 991

Evansvill2, at effice of experiment station of Department of Agriculture, in northeast corner of Dr. Dye's yard; iron post stamped " 199.010 "....
192.462

Evansville, 0.9 mile west of, 40 feet south of Evansville and Austin dirt road, 150 feet east of bridge over slough, 300 feet southwest of negro cabin, in root of large oak tree; nail marked " 187.5 ".
Evansville, 2.1 miles west of, 10 feet south of Tunica and Austin dirt road, 250 feet south of negro cabin, 50 feet south of intersection of road to right, in root of large oak tree; nail marked "192-5"
192.32

Austin, in southeast corner of courthouse yard, in top of stone post 3 feet long and 5 inches square, copper bolt; stone marked "U. S. $\times$ B. M.".. $19 \dot{6} .862$

## AUSTIN NORTH TO MANGUM BROTHERS' STORE.


Austin, 0.7 mile south of, 25 feet east of levee, on embankment; top of section stone " $43-44$," marked " 202.1 "
201.94
0. K., 1.4 miles south of, 15 feet east of top of levee, 20 feet west of base of levee; point on top of stone post 45-46 marked " 201.4 "
201.18
O. K., 2.4 miles south of, 5 feet east of top of levee, 75 feet west of base of levee; top of stone milepost, painted "205.2".
205.08
O. K., 3 miles south of, in large bend on top of levee, 7 feet southeast of spur levee runring west, opposite W. Kyle's farm; iron post stamped "Prim. Trav. Sta. No. 17, 206"
206. 161

DUNDEE WEST TO TROTTER'S LANDING.
Dundee, 0.1 mile northwest of station, 10 feet east of Alexander's storehouse, 120 feet west of main railroad and crossing; iron post stamped "Prim. Trav. Sta. No. 5, 185"
185. 136

Dundee, 2.3 miles west of, 75 feet southeast of southeast corner of Friendship Church, 600 feet west of negro house, in root of large white oak tree; nail marked " 180.9 "
Dundee, 3.9 miles west of, in center of road, 250 feet west of negro cabin, 800 feet east of church, in root of elm tree; nail marked " 184.6 ".

## evansville east to walnut lake.

Evansville, 1.9 miles east of, 50 feet south of crossroads, 95 feet south of southwest corner of New Hope Church, 80 feet west of graveyard, in root of oak tree; nail marked "185.1"
184.94

Evansville, 2.9 miles east of, on line with section corner, 25 feet east of crossroads, 700 feet south of Rance Williams's house, 600 feet east of Billie Warner's house; iron post stamped "Prim. Trav. Sta. No. 23, 187, 1908"..

## dundee northeast via dubbs to pornt 2.9 miles east of dubbs.

Dundee, 0.4 mile east of, 40 feet south of " 44 " road, on fence line, in root of 12 -inch gum tree; nail marked " 178.8 ".
178.54

Dundee, 2.2 miles east of, 25 feet north of center of " 44 " road, 150 feet northwest of cabin, in root of large oak tree; nail marked "175.7"
Dundee, 3 miles east of, at center of fork of road leading north to Dubbs from " 44 " road, 100 feet northeast of negro cabin; iron post stamped "Prim. Trav. Sta. No. 44, 179"
Dundee, 4.1 miles east of, at center of fork, 100 feet north of double log house, in cotton field, on section line, in root of 24 -inch thorn tree; nail

Feet.marked " 180.0 "
Dundee, 5.1 miles northeast of, 40 feet north of road leading to house, 300 feet east of public road, 10 feet east of fence line in field, in root of 30 -inch walnut tree; nail marked " 185.02 ". ..... 181.82
Dubbs, 2 feet west of northwest corner of F. W. Connon's store, 50 feet east of W. C. Channell's store, 200 feet east of section corner; iron post stamped "190" ..... 190.141
Dubbs, 1 mile east of, 40 feet northwest of road fork, on road leading north on section line, 150 feet northwest of house, in root of large oak tree; nail marked " 183.5 " ..... 183.26
Dubbs, 1.8 miles east of, 20 feet south of road, 200 feet southwest of house, in root of large oak tree; nail marked " $181.8^{\text {b" }}$ ..... 181.46
Dubbs, 2.2 miles east of, at intersection of lane running south, 150 feet southwest of house, in root of large oak tree; nail marked "181.77". ..... 181.52
dundee east to hally.
Dundee, 1.2 miles east of, 'in Jack Gray's yard, 6 feet west of northwest corner of house, in root of large oak tree; nail marked "184.1" ..... 183.96
Dundee, 3.8 miles east of, 6 feet north of road, 5 feet west of cotton field, 0.25 mile north of house, in root of elm tree; nail marked " 178.4 ". ..... 178.20
Dundee, 4.8 miles east of, 15 feet east of intersection of roads running south, 30 feet east of gate entering field, in root of walnut tree; nail marked " 177.0 " ..... 176.82
Dundee, 6.3 miles east of, 75 feet west of Two Mile Lake, 36 feet west of gate of Dr. Stewart's plantation, in edge of woods, 300 feet north of negro cabin; iron post stamped "Prim. Trav. Sta. No. 45, 174" ..... 173.345
HELENA QUADRANGLE.
point 3 miles south of o. K. south to state levee.
O. K., 6.2 miles south of, 85 feet east of top of State Levee, 10 feet west of road fork, 600 feet southwest of negro cabin on Frank Norfleet's farm; iron post stamped "Prim. Trav. Sta. No. 19, 197" ..... 196.680
O. K., 7.5 miles south of, 10 feet east of top of levee, 75 feet west of basement, 25 feet south of old settlement road crossing over levee; iron post stamped " 202.4 " ..... 202.326
0. K., 8 miles south of, 25 feet east of top of levee, 35 feet west of basement, 300 feet north of bend in levee; top of stone milepost, marked " 199.0 ". . ..... 198.82
Trotter's Landing, 3.1 miles north of State Levee; top of stone mile post. . ..... 198.817
State Levee, 1.8 miles north of, 50 feet south of old road across levee, 0.2 mile west of house, in center of angle of levee; iron post stamped "Prim. Trav. Sta. No. 19, 193" ..... 192.607
State Levee, 150 feet northwest of Burnett's store, 80 feet east of road, 100 feet north of railroad, nail in root of large oak tree. ..... 181.94
TUTWILER QUADRANGLE.
POINT 1.0 miles south of crenshaw southwest to tibbs, thence north to
EDGE OF QUADRANGLE.
Crenshaw, 1.4 miles west of, 40 feet north of crossroads, in root of oak tree; spike marked " 170.76 " ..... 170.88
Crenshaw, 2.4 miles west of, in line with wire fence, 75 feet west of dirt road leading south, 100 feet southwest of house, in root of oak tree; nail marked " 171.90 ". ..... 172.02
Crenshaw, 2.7 miles west of, near section line running east-west, in southwest corner of L. E. Brook's yard, 45 feet southwest of house owned by Will Roseburgh \& Co.; iron post stamped " 173 ".
Feet.
172.845
Crenshaw, 3.2 miles west of, 100 feet west of crossroads, 200 feet west of
Yellow Lake, in root of hickory tree; spike marked " 172.35 "......... 172.48
Crenshaw, 4.4 miles west of, in center of slough, in root of large oak tree; nail marked " 166.91 "
167.02

Crenshaw, 6 miles west of, 3 feet southeast of southeast corner of house owned by H. W. Martin situated about in center of cotton field (road makes bend around house); iron post stamped " 173 ".
Crenshaw, 8.4 miles west of, 75 feet southeast of forks of road, 300 feet southwest of bridge over Coldwater River, about 600 feet east of Tibbs pust office, in root of gum tree; nail marked " 174.09 "

> Tibbs mill, 2.7 miles north of, on west bank of Coldwater River, 5 feet north of road, in root of elm tree; spike marked " 174.22 "...............................
173.375
tibis west 1.2 miles.
Tibbs mills, 0.7 mile southwest of, in southeast corner of S. P. Scott's yard, 100 feet southeast of southeast corner of house; iron post stamped " 171 ".
Tibbs, 1.2 miles southwest of, 3 feet southeast of road, in root of hickory tree 20 inches in diameter; spike marked " 172.73 ".
172.88
point 2.8 miles west of tibbs southwest along highways to rich, thence southeast along highways to point 1.7 mles south of birdie.
Tibbs, 2.8 miles southwest of, 300 feet west of Sun Rise Bayou, 5 feet east of road, in root of 18 -inch hickory tree; spike marked " 173.60 "
173.78

Tibbs, 4.4 miles southwest of, on bank of Six-mile Lake, 200 feet west of Sixmile Lake, 75 feet west of road, in woods near old field owned by Tibbs \& Co.; iron post stamped " 172 ".
172. 282

Tibbs, 6.3 miles southwest of, on bank of bayou, 200 feet south of house; in
root of large oak tree; spike marked " 171.37 "................................... 171.60
Rich, 5.3 miles northeast of, in the east corner of Stempson Land Co.'s Hotel yard, 35 feet east of southeast corner of hotel, 350 feet south of old sawmill shed; iron post stamped " 172 ". 172.612

Rich, 3.1 miles northeast of, 3 feet coutheast of track, in root of elm tree;
spike marked " 171.54 "........................................................................ 171.80
Rich, 1.9 miles northeast of, 50 feet west of house, 25 feet east of road, in root of 16 -inch oak tree; spike marked " 175.18 ".
175. 50

Rich, 2 feet west of northwest corner of Scott \& Garrott's store; iron post stamped " 180 "
179.916

Rich, 2.5 miles east of, 200 feet south of house, 150 feet west of Yazoo Pass River, in root of 24 -inch oak tree; spike marked " 172.96 "
173.36

Rich, 3.2 miles east of, 50 feet east of Rich and Birdie dirt road running north-south along bank of Yazoo Pass River, 200 feet east of river, in road near large bend in road; iron post stamped " 174 ".
174. 286

Rich, 5.4 miles east of, in southeast corner of Burns Dickerson's house, 200 feet south of Coldwater River, on south bank, 600 feet south of Griffin's store at Birdie; iron post stamped " 172 "
172.263

Birdie, 1.3 miles south of, on west bank of Coldwater River, 30 feet east
of dirt road, 200 feet north of road leading west through lane, root of gum
tree; marked " 167.27 "..............................................................................
Birdie, 1.8 miles south of, 2 feet north of road, 75 feet south of house, in lane, root of hickory tree; marked " 168.22 ".
168. 70

## RICH SOUTH ALONG HIGHWAYS TO MATAGORDA.

Rich, in front of station; top of rail

181.2
Feet.
Rich, 2.5 miles south of, in northwest corner of E. O.' Leach's yard, 600 feet north of his sawmill, 50 feet northwest of house, property owned by the United States Nursery Co.; iron post stamped " 176 "
176.664
matagorda northeast along hagways to pont 1.3 miles souti of birdie.
Matagorda, 1.2 miles east of, 40 feet north of road forks leading north, in old vacant field, 300 feet south of house, in root of large oak tree; spike marked " 170.74 "
171.76
Matagorda, 3.3 miles east of, 2 feet north of northwest corner of Macklin's Church, 200 feet south of house, 150 feet south of bridge over bayou, church is 40 feet south of Jonestown and Birdie dirt road; iron post stamped " 170 ".
170.211
Matagorda, 5.3 miles east of, 5 feet east of road, in woods near old field, in root of oak tree; spike marked " 168.19 ".
168.56
POINT NEAR COAHOMA SOUTHEAST TO JONESTOWN.

Coahoma, 4.9 miles east of, 0.3 mile north of Mrs. Cohn's former residence, on east side of road, in root of large hickory tree; nail painted " 175.3 "..
175. 24
coahoma nortit along yazoo \& mississippi valley railrond to point near
dundee.
Moon, 4.8 miles north of Coahoma, 2 feet south of southwest corner of Carr Bro.'s store; iron post stamped "Prim. Trav. Sta. No. 2, 182"
181.945

Lula, bench mark of the Department of Agriculture, office of drainage
experiment station; iron post............................................................ 181.885
Lula, 0.1 mile north of station, at northwest corner of Fraternity Hall; iron post stamped "Prim. Trav. Sta. No. 3, MISS 182"
181.840

Lula, 2.4 miles north of, 130 feet north of settlement dirt road crossing, 75 feet west of dirt road forks, 17 feet east of railroad, 3 feet north of milepost "N. O. 401-M 54;" iron post stamped "Prim. Trav. Sta. No. 4, 186".
185.945
marks west 4 miles toward belen.
Marks, 10 feet east of southwest corner of platform of Yazoo \& Mississippi Valley Railroad station, 1.5 feet west of telephone pole on south side of station; iron post stamped "Prim. Trav. Sta. No. 10 A".
163.492

Marks, 2.4 miles west of, on northwest edge of road, 150 feet west of southwest end of wooden bridge over Cassidy Bayou, in root of large oak tree; nail painted "164.6".
164.72

Marks, 3.2 miles west of, south of road, 30 feet southeast of south end of wooden bridge over Cassidy Bayou, 400 feet northeast of northeast corner of Mr. Turner's residence; iron post stamped "Prim. Trav. Sta. No. 9 A, 166 "
165.926
point 3.2 miles west of marks northwest to point 6 miles northwest of marks.
Mr. Turner's residence, 2.6 miles north of, in northwest angle formed by lane leading west, 150 feet east of southeast corner of S. H. Pankey's house; iron post stamped " 166 "
166. 128
marks east to bobo bayou.
Marks, 0.5 mile east of, 50 feet northeast of east end of iron bridge over Coldwater River, in root of large oak tree; nail painted " 163.8 ".
Marks, 1.3 miles southeast of, at forks of road leading east to Batesville and south to mouth of Coldwater River, 60 feet west of house, in root of wild cherry tree; nail painted "163.5".
163. 872
163. 62
Marks, 6 miles east of, 12 feet north of road, on east bank of Bobo Bayou, Clunet ford, on road from marks east to Batesville; iron post stamped "156"

Feet.

156. 179

161.96
point near marks southeast via colpwater river to blank (single secondary SPUR LINE).
Marks, 1.3 miles southeast of, at forks of road leading east to Batesville and south to mouth of Coldwater River, in root of wild cherry tree; nail painted " 163.5 ". ..... 163.62
Marks, 2.2 miles southeast of, on west edge of road, 170 feet southwest of Tom Cottle's house, 200 feet north of abrupt curve in road, in root of large oak tree; nail painted " 161.6 ". ..... 161. 70
marks north to point near hinchcliff, thence northwest 4 miles thence east to STALLS.
Marks, 1.2 miles northeast of, on west edge of road, in root of 12 -inch sassa- fras tree; nail painted " 161.7 ". ..... 161.76
Marks, 5.3 miles northwest of, 2 miles west of Yazoo \& Mississippi Valley Railroad crossing, 350 feet west of road forks, on north edge of road, in root of 20 -inch oak tree; nail painted " 163.4 ". ..... 163. 48
Stalls, 1.4 miles west of, 150 feet from southeast corner of county farm barn, in root of 28 -inch black gum tree; nail painted " 163.6 ". ..... 163.66
point 2.4 miles west of marks southeast to point 1.1 miles southeast of holcomb SAWMILL, THENCE NORTH TO MARKS (SECONDARY CIRCUIT).
Marks, 2.4 miles west of, on north edge of road, 175 feet east of south end ofnew bridge over Cassidy Bayou, in root of large oak tree; nail painted" 164.6 ".164. 72
Marks-Belen road, 1.3 miles south of, 130 feet northwest of gate at road forks, in root of large oak tree; nail painted "157.3" ..... 157. 45
Holcomb's sawmill, 0.2 mile south of, in northwest angle of road fork lead- ing south to Lambert, in root of oak tree; nail painted " 159.2 ". ..... 159.30
Lambert east to coldwater river (single primary spur line).
Lambert, 1. mile south of, in angle formed by Yazoo \& Mississippi Valley Railroad and road, in root of Spanish oak tree; nail painted " 156.7 "... ..... 156.80
Lambert, 2.7 miles southeast of, 350 feet east of sawmill, at junction of tram road, in root of hickory tree; nail painted " 154.6 " ..... 154. 66
JONESTOWN SOUTHWEST TO POINT NEAR CLOVERHILL.
Jonestown, 50 feet southwest of main street crossing with road leading southto Clarksdale, in northeast corner of J. Richberger's brick store; bronzetablet stamped " 175 ".175. 069
Jonestown, 3.4 miles southwest of, 60 feet east of crossroads, in southeast angle formed by crossroads leading north and south from Jonestown and Cloverhill road, in root of pecan tree; nail marked "171.8" ..... 171.78
Jonestown, 3.4 miles southwest'of, in center of angle formed by fork leading north from crossroads, 0.2 mile west of automatic gate on Jonestown and Cloverhill road, 60 feet east of pecan tree; iron post stamped " 172 ". ..... 172. 246

## point near jonestown east 5 miles, thence south to belen.

Jonestown, 2.3 miles east of, 150 feet north of ford crossing Moore Bayou, in triangle of road forks; iron post stamped "Prim. Trav. Sta. No. 3-A, 170"
Feet.
Jonestown, 5 miles east of, at forks of road running north, 40 feet south of east end of wooden bridge over bayou, in root of oak tree; nail painted "163.9". ..... 163.68
Jonestown, 5.5 miles east of, 30 feet west of road, immediately opposite road fork east; iron post stamped "Prim. Trav. Sta. No. 4-A, 166 ". ..... 165. 405
Belen, 3.3 miles northwest of, on east side of road, 45 feet northwest of north corner of Jones Chapel Church; iron post stamped " 170 " ..... 169. 369
Belen, in northeast pier of entrance on east side of Quitman County court- house; bronze tablet stamped " 172 ". ..... 170.918
point 5 miles east of jonestown east and southeast to point 6 miles northwestof marks.
Mr. Turner's residence, 4.6 miles north of, north edge of road, immediately opposite fork, in root of ash tree; nail painted " 163.6 " ..... 163. 34
belen east to cassidy bayou.
Belen, 1.1 miles east of, 25 feet north of road, 30 feet south of Cassidy Bayou, at road crossing, in root of oak tree; nail painted " 154.6 " ..... 154. 74
belen south 2 miles, thence southwest to deborah.

Belen, 3.8 miles southwest of, 1,500 feet southwest of Massidonia Church, on south edge of road leading south to Sabino, from Belen and Lyon road; iron post stamped "Prim. Trav. Sta. No. 5-A, 164 ".163. 432
Belen, 6.6 miles southwest of, 20 feet west of road, immediately opposite road fork east, 125 feet north of G. W. Price's store; iron post. ..... 165.084
Lyon, 6.9 miles east of, at west end of Webb's store house, 5 feet south ofnorthwest corner of store on east side of Belen and Lyon road; iron poststamped " 167 "167. 115
point 3.8 mles southwest of"belen south via sabino to mud schoolhouse, thence west to big creer.

Belen, 6.9 miles southwest of, on east side of road, 235 feet south of white gate, 100 feet east of little new house, in root of oak tree; nail painted "164.2"
Sabino, in west angle of road forks, at corner of fence, 130 feet southeast of Dr. Scott's store; iron post stamped "Prim. Trav. Sta. No.6-A, 168"...
Sabino, 3.2 miles southwest of, at southeast corner of Mud bridge over Cassidy Bayou, in northwest angle of road fork leading southwest to Bellview, 375 feet southwest of Mud schoolhouse, 110 feet northwest of Mack Christman's house; iron post stamped " 160 "
Sabino, 4.6 miles southwest of, 1.3 miles northwest of Mud bridge over Cassidy Bayou, 350 feet west of A. Fowler's sawmill, on west side of road, on east bank of Big Creek, in root of gum tree; nail painted "U. S. 164.2"..
Sabino, 5.4 miles southwest of, 0.8 mile southwest of A. Fowler's sawmill, on north edge of road, 500 feet west of road fork, 15 feet south of southwest corner of old house, in root of large tree; nail painted " 165.3 "
Sabino, 6.6 miles southwest of, 2 miles west of A. Fowler's sawmill, on north edge of road, immediately opposite fork leading west to three houses, 1.5 feet east of mail box No. 72; iron post stamped " 166 "

MUD SCHOOLHOUSE EAST TO OLD ANTLERS POST OFFICE. (PART OF LINE TO BUFORD LAKE.)
Mud schoolhouse, 375 feet southwest of, 110 feet northwest of Mack Christman's house, at southeast corner of east end of bridge over Cassidy Bayou, in west angle of road leading southwest to Bellview; iron post stamped "160"
160.173

Antlers, old post office, north edge of road, opposite road fork leading to Clarksdale, in corner of fence, 4 feet west of 12 -inch gate post, 140 feet northeast of northeast corner of J. J. Dickey's residence; iron post stamped " 159 ".
158. 957
big creek from sec. 21 southeast to sec. 36, t. 27 N., R. 3 W.
T. 27 N., R. 3 W., in SW. $\frac{1}{4}$ sec. 22 , in front of gin near bank of Big Creek, in south root of 24 -inch white oak tree; 20-penny nail.
161. 38
big creek at sec. 36 , r. 27 N., R. 3 w., south 1 mile and south west to melancholy bayou.
Boxielder, at southwest corner of SE. $\frac{1}{4}$ sec. 36, T. 27 N., R. 3 W.; iron post stamped " 165 ".
165. 223
T. 26 N., R. 3 W., on section line between secs. 1 and 13,25 feet east of south gate of Dave Baxley's place, south of gin, in west root of 24 -inch hickory tree; 20-penny nail.
163. 70
T. 26 N., R. 3 W., in NE. $\frac{1}{4} \mathrm{sec} .15,30$ feet northwest of north end of bridge over Hopson's Bayou, in south root of hackberry tree; 20-penny nail.
160.56

ANTLERS OLD POSt Office southeast to buford lake.
Buford Lake, 0.9 mile northwest of, on south edge of road, 60 feet west of
south end of wooden bridge over Buford Lake, at fork of road leading
north to Lambert, in root of oak tree; nail painted " 156.3 ".............
Buford Lake, 5 feet east of railway track, 1.5 feet north of platform of Yazoo
\& Mississippi Valley Railroad; iron post stamped "Prim. Trav. Sta. No.
13-A 160 "................................................................................................
Mattson southeast along yazoo \& mississippi valley railroad to tutwiler (adjusted mean of two lines). Elevations determined from leveling by l. W. mashbURN, tallahatchie commission.
Dublin, 2,000 feet south of, at milepost "J. 144-M. 87," 60 feet to right of center of track; iron post.
156. 994

Tutwiler, 1.8 miles northwest of, at milepost "J. 141-M. 90 ," 40 feet to left
of center of track; iron post............................................................ 157.582
TUTWILER SOUTH ALONG YAZOO \& MISSISSIPPI VALLEY RAIIROAD, 1.2 MILES (PART OF DOUBLE LINE TO GREENWOOD, ESTABLISHED BY L. W. MASHBURN, TALLAHATCHIE COMMISSION).

Tutwiler, 1.2 miles south of, at milepost "J. 138-M. 93 ," 60 feet to right of track; iron post
148.082

CREVI NORTH TO PORTER'S FERRY.
Yocona Bottom, gate of, 1,000 feet north of, on 18-inch hickory tree; bench mark No. 19 .
Crevi, 3 miles north of, at south end of bridge over Yocona River, 179.22 Feet. feet above zero of gage; iron post ..... 180.710
Crevi, near, 1 mile west of W. P. Murphy's house, in fence, 30 feet east of Wallis's bench mark H. 42; on root of tree; bench mark No. 24 ..... 181.63
Crevi, near, Wallis's bench mark H. 42 ..... 180.27
Tocowa, 2 miles south of, about 1,200 feet northwest of negro house on hill, 250 feet north of big sycamore tree, west of road, on 8 -inch elm tree; bench mark No. 26 ..... 176.89
Tocowa, 2.5 miles north of, about 1,200 feet south of old $\log$ house, on right of road, on west of valley road; on 24 -inch red oak tree; bench mark No. 30 . ..... 201. 57
Tocowa, 3 miles north of, 20 feet to east of valley road, 300 feet south of " W . 117 B. M.," on black gum tree; bench mark 31 ..... 199.58
Caldwell's store, 0.5 mile south of, 10 feet west of small bridge, west of road; iron post ..... 202. 623
Caldwell's store, 50 feet northwest of, at crossroads, on big gum tree; bench mark No. 33 ..... 186.95
Caldwell's store, 1.5 miles northeast of, on old road, 300 feet south of big washout, on 18 -inch white oak tree; bench mark No. 35 . ..... 177.50
Porter's Ferry, 600 feet east of, south of river, on 24 -inch red oak tree; bench mark No. 37 ..... 179.66
charleston north to crevi.
Charleston, on west side of Yazoo \& Mississippi Valley Railroad, at corner of small restaurant; iron post ..... 179. 366
Charleston, about 3.25 miles north of, about 1,000 feet north of stream, east of road; on root of large red oak tree; bench mark 5 ..... 208.21
Charleston, about 4.5 miles north of, about 0.5 mile north of Mr. Cord's house, east of road, about 100 feet south of steep hill and small branch at bottom, on big red oak tree; bench mark 7 ..... 210.36
Charleston, about 6 miles north of, west of road, 30 feet north of stream crossing, 350 feet southwest of dwelling, east of road; iron post stamped. . ..... 196.45
Charleston, north of, on Joseph Thornton's place, about 1,000 feet north of big gully running across road, east of road, on big red oak tree; bench mark 10 ..... 190.07
Charleston, 9 miles north of, about 1.5 miles south of Crevi, 1,000 feet north of Bunlyn, on 12 -inch sycamore tree; bench mark No. 14 ..... 183.15
CLARKSDALE QUADRANGLE
Clarksdale north along yazoo \& mississippi valley railroad to rudyard.
Clarksdale, at upstream end of bridge in line of northeast face of pedestal block and 0.1 meter from north corner of pedestal, on stone cap block of northeast pier (Clarksdale side) of Yazoo \& Mississippi Valley Rail- road bridge over Sunflower River; chiseled cross marked "U. S. + P. B. M." ..... 172.930
Deborah, 290 feet north of wooden bridge across Big Creek (Cassidy Bayou), 340 feet north of Leeton's gin, at southeast corner of C: W. Leeton's store- house; iron post stamped " 160 " ..... 160.355
Lyon, 400 meters south of station, 200 meters west of Yazoo \& Mississippi Valley Railroad track, in line with north wall of church and 2 meters east of east wall, near northeast corner of "Old" Baptist Church; iron post (pipe in bad order, bent and very loose in ground). ..... 173. 950
Cloverhill, 15 kilometers north of station on Yazoo \& Mississippi Valley Railroad main line, at southwest corner of yard of railway section house; top of pipe (post in bad order, loose in ground) ..... 173.416

## dickerson south to farrell, thence east to cloverhill.

| Dickerson, 1,400 feet west of station, in southeast corner of T road; iron post stamped " 173 ". | Feet. <br> 173.029 |
| :---: | :---: |
| Farrell, 1.2 miles east of, 100 feet east of wooden bridge over slough, on north edge of road, in root of large oak tree; nail. | 167.68 |
| Farrell, 3 miles northeast of, 300 feet southeast of Oak Ridge Church, in root of pecan tree; nail. | 173.68 |

Farrell, 6.6 miles northeast of, 3 miles south of Dickerson, east of road, 200 feet north of road fork east, 300 feet north of plantation store, in root of gum tree; nail: ..... 174. 24

LYON EAST TO DEBORAH, THENCE SOUTH AND WEST TO CLARKSDALE.

Deborah, 290 feet north of wooden bridge crossing Cassidy Bayou, 340 feet north of Leeton's gin, at southeast corner of C. W. Leeton's storehouse; iron post stamped " 160 "
160.355

Clarksdale, 3 miles east of, in north angle of road forks leading ;west to Clarksdale and north to Belen and Lyon road; iron post stamped " 165 ".
Reinhart's brick kiln, 600 feet west of, at southwest corner of sec. 18, T. 27 N., R. 4 W., at forks of road, by south side of section corner stone; top of iron stake
170.28
cloverhill east 2.2 miles. (part of line to jonestown.)
Cloverhill, 2.2 miles northeast of, on east edge of road, 120 feet south of crossroads, in root of pecan tree; nail painted " 170.5 ".
170.50

Clarksdale southwest along railroad to beverly.
Beverly (the curve), 50 feet south of railroad, 235 feet west of bridge over Clark's float, in north root of 24 -inch oak tree; 20-penny nail
161.04

Beverly, in northeast corner of sec. 31, T. 27 N., R. 4 W., southwest of milepost "No. 374 M 81," 2 feet north of north corner of church; iron post stamped " 162 ".
165. 275
161.728

CLARKSDALE SOUTH ALONG EAST SIDE OF SUNFLOWER RIVER.

LOMBARD'S STORE WEST TO BLANDS BAYOU.
Lombard's store, 825 feet southeast of east end of, 5 feet northeast of southwest corner of Macedonia Negro Baptist Church, in NW. $\frac{1}{4}$ sec. 35, T. 27 N., R. 5 W.; iron post stamped " 165 ".
164.800
T. 27 N., R. 5 W. , near northeast corner of SW. $\frac{1}{4}$ sec. 28 , near one-fourth
line, north of road, 150 feet west of Mr. Baugh's home, in west root of
30 -inch elm tree; nail........................................................................... 165.54
T. 27 N., R. 5 W. , sec. 29 , at intersection of road with levee, in east root of
24 -inch scrubby sycamore tree; nail........................................................... 165.20

Main levee, 1 mile west of, 175 feet from stone bench mark marked."4-5;",
iron pipe.................................................................................. 163.639

Levee, at stone bench mark marked "1-2," 140 feet from fence; iron pipe. . 165.832
Levee, top of United States Gage No. 184
177.426

Blands Bayou, 500 feet north of, stone bench mark marked " $88-89$ " .... 181.86
Blands Bayou, 100 feet from south side of, 350 feet northwest of main levee where it crosses the bayou, about 350 feet from top of levee opposite Mr. Parish's house, on east side of spur levee, in top of stone marked "U. S."; spike (is known as permanent bench mark 59)
AT Farrell.
Farrell, northwest side of Yazoo \& Mississippi Valley Railroad station, 45

Feet.feet west of railroad; iron post stamped "Prim. Trav. Sta. No. 1, 167". 167.315
pullen southwest to duncan, thence east to northeast corner of sec. 18 t. 25 n., R. 4 W.
Bobo, at corner of secs. 11., 12. 13. and 14, T. 26 N., R. 5 W.; iron post stamped "164" ..... 164. 125
Alligator, at east corner of Methodist Church; iron post stamped " 163 ".. ..... 162.669
Bridge over Hushpuckena River, 2,495 feet south of, in north root of 30 - inch postoak tree; 20-penny nail ..... 153.88
Duncan Mercantile Co.'s store, across small drain from, in north root of 36 -inch cottonwood tree; 20-penny nail ..... 157.68
Duncan, 1,000 feet southwest of station, 4 feet east of northeast corner of New Bethel Methodist Church; iron post stamped " 158 " ..... 158.494
T. 25 N., R. 5 W., SE. $\frac{1}{4} \mathrm{sec} .10$, east of Duncan, in yard of house at west end of third bridge over Howden Lake east of Duncan, in east root of 18-inch elm tree; 20-penny nail ..... 155. 12
T. 25 N., R. 5 W., SE. $\frac{1}{4}$ sec. 10, near northeast corner of R. W. Mitchell's house, 125 feet southwest of west end of bridge over south end of Howden Lake; iron post stamped " 155 " ..... 155. 322
T. 25 N., R. 4 W., southeast corner of NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 18 , in front of house just west of above section corner, in east root of 18 -inch elm tree; 20 - penny nail ..... 151.92
BOBO NORTHWEST TO LOMBARD'S STORE.
T. 26 N., R. 5 W., SW. $\frac{1}{4}$ sec. 11, about 1 mile west of Bobo, about 100 feet west of bridge, in north root of 36 -inch cottonwood tree; 20 -penny nail. ..... 159.80
T. 26 N., R. 5 W., near northeast corner of sec. 10,2 miles northwest of Bobo, north of road, in front of house, in north root of hickory tree 18 inches in diameter; nail ..... 161. 58
bobo southwest 2 miles along highway (small circuit).
Bobo, 1 mile south of, north of schoolhouse, in middle of road, in south- east root of 30 -inch sweet gum tree; 20 -penny nail. ..... 163. 14
BEVERLY SOUTHWEST TO PULLEN.
Pullen, near northeast corner of SE. $\frac{1}{4}$ sec. 1, T. 26 N., R. 5 W.; iron post stamped " 163 " ..... 162. 758
Melancioly bayou northwest to boone, thence to st. paul church.
T. 26 N., R. 3 W., SW. $\frac{1}{4}$ sec. 15, about 550 feet west of Press Maddox's house, on north side of road; iron post stamped " 162 " ..... 162. 328
T. 26 N., R. 3 W., in northeast corner of NW. $\frac{1}{4}$ SE. $\frac{1}{4}$ sec. 8, office of drain- age experiment station, Department of Agriculture; iron post ..... 160.946
point 2 miles soutif of clarksdale along east bank of sunflower river to trayn- ham, thence west to northeast corner of sec. 18, t. 25 N., r 4 w.
Durham, 0.3 mile west of, in fork of road, in root of 30 -inch elm tree; 10- penny nail (Department of Agriculture bench mark) ..... 1.66. 01
St. Paul Church, 0.25 mile north of, in root of 24 -inch pecan tree; 20 -penny nail. ..... 165.00
T. 26 N., R. 3 W ., near southwest corner of SE. $\frac{1}{4} \mathrm{sec} .7,5$ feet south of

Feet.
163.317
T. 26 N., R. 4 W., at intersection of section line between secs. 13 and 24 and Sunflower River, about 0.5 mile north of Schyder's Ditch, on west side of road, in north root of blazed gum tree 36 inches in diameter; nail. .
T. 26 N., R. 4 W. . just north of southwest corner of sec. 25 , on east bank ofSunflower River, in east root of 24 -inch pecan tree; 20 -penny nail163.14
LINE to bobo on yazoo \& mississippi valley railroad.
T. 26 N., R. 4 W ., in NW. $\frac{1}{4}$ SW. $\frac{1}{\mathrm{sec} .36,180 \text { feet south of corner where }}$road makes a right angle, in east root of 36 -inch elm tree; 20-penny nail. .T. 25 N., R. 3 W., near southwest corner of NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 6, at mouth oflane 350 feet south of house, 1 mile east of Traynham, on southwest partof Eggleston's"plantation, in corner of fence on north side of lane; ironpost stamped " 156 "159.82
Oliver post office, near southeast and southwest quarter line in sec. 3,T. 25 N.; R. 4 W., on north bank of Sunflower River, in northeast cornerof yard, 50 feet northeast of E. L. Johnson's; iron post stamped " 158 "..T. 25 N., R. 4 W., SW. $\frac{1}{} \mathrm{sec} .9$, near house where road for Roundawayleaves river road a short distance north of Shapley's Ford, in east root ofwhite oak tree; 20-penny nail161.44T. 25 N., R. 4 W., at corner secs. 7, 8, 17, and 18; iron post stamped " 154 ". .156. 276
158.437
MOUTH OF HARRIS bayou West and Northwest to bobo.
T. 26 N., R. 4 W., NW. $\frac{1}{4} \mathrm{sec}$. 35, corner of Mr. Johnson's yard, south ofwhere Harris Bayou empties into Sunflower River, in 12 -inch catalpatree; 20-penny nail.160.32
T. 26 N., R. 4 W., NW. $\frac{1}{4} \mathrm{sec} .35,300$ feet south of the mouth of Harris Bayou, in northeast corner of yard to Mr. Johnson's house; iron post stamped " 161 ". ..... 161.016
T. 26 N., R. 4 W., SE. $\frac{1}{16}$ of sec. 33, about 0.5 mile west of gate, on south bank of Harris Bayou, 250 feet west of section line, in southwest root of 30 -inch white oak tree; 20-penny nail ..... 158. 74
T. 26 N., R. 4 W ., about 225 feet west of southeast corner of sec. 32, in north root of 48 -inch white oak tree; 20-penny nail ..... 158. 48
T. 26 N., R. 4 W., about 50 feet northwest of southeast corner of sec. 31; iron post stamped " 157 " ..... 156. 169
T. 26 N., R. 4 W., on section line between secs. 31 and 32,550 feet from south end of bridge, just south of Harris Bayou, on east side of road, southwest of double house, in east root of pecan tree; 20-penny nail ..... 158.06
T. 26 N., R. 4 W., at corner secs. 19, 20, 29, and 30, about 1,250 feet north of Styan's sawmill; iron post stamped " 154 ". ..... 154.059
Government farm, in first tenant yard north of bridge over Harris Bayou, in northwest root of 18 -inch sweet gum tree; 20-penny nail. ..... 161. 40
St. PaUl Church west to pullen.
St. Paul Church, 10 feet southeast of southeast corner of, 300 feet north of forbs of public road; iron post stamped " 163 ". ..... 163. 317
St. Paul Church, 0.7 mile west of, 75 feet south of road forks, in root of elm tree; nail. ..... 160.66
St. Paul Church, 1 mile west of, 50 feet west of forks of road, in root of elm tree; spike. ..... 160. 26
St. Paul Church, 3.2 miles west of, 30 feet west of northwest corner of Sunny- side schoolhouse, in root of large oak tree; nail ..... 156.72
St. Paul Church, 7 miles west of, 2 feet south of road, 300 feet west of gateto field, 400 feet west of negro house, in woods in root of large oak treestump; spike

Feet.
160.25

Pullen, 75 feet west of railroad, in yard; iron post stamped " 163 "........ 162.758
rudyard norti to coahoma, thence northeast 0.8 mle
Rudyard, 20 feet west of railroad, 70 feet north of station, 50 feer southeast of W. W. Miller's store, 30 feet northwest of road crossing; iron post stamped " 174 "
174.812

Coahoma, 10 feet west of 19 -inch blazed gum tree, in ground 26 feet south of south wall and in line with east wall of Methodist Church, which is a large frame building standing almost centrally in a triangle formed by the Yazoo \& Mississippi Valley tracks; iron post
Coahoma, in front of station; top of rail
Coahoma, 2.5 feet from northwest corner of brick hotel; iron post stamped "Prim. Trav. Sta. No. 1, 179, 1908"
177.763
182.1
178.448

COAHOMA SOUTHEAST 1.3 MILES.
Coahoma, 1.3 miles east of, in southwest angle of fork of second-class road leading south, 700 feet south of large frame house, in root of oak tree; nail painted " 180 "
179.96
coahoma west to friar point, thence south 3 mles.
Long Lake flag station, 1,100 feet south of fork of main road fork, 300 feet north of negro schoolhouse; iron post stamped " 178 "
178.069

Friar Point, in northeast end of southeast wall of brick building of W. H. Dickerson, block 2, Fuller's addition; copper bolt 181.339

Friar Point, 2.8 miles south of, 40 feet west of road, 500 feet southwest of negro house, 100 feet northwest of cotton house, in root of black gum tree; nail177.10
friar point northeast along levee to state levee.
Friar Point, 3.7 miles north of, 100 feet east of levee road, 150 feet east of top of levee, 15 feet east of elm tree, 200 feet west of McKay's farm; iron post stamped " 180 "
180.420

Friar Point, 3.7 miles north of, 10 feet west of levee road, 600 feet northwest
of large elm tree; iron post stamped "Prim. Trav. Sta. No. 22 "....... 187.646
Friar Point, 6.5 miles north of, 17 feet west of levee road, 75 feet southwest of fork of settlement road east, 50 feet west of top of levee, 0.1 mile west of old vacant store; iron post stamped " 188 "
Friar Point, 7 miles north of, 0.2 mile west of negro cabin, near center of
triangle of levee, 30 feet west of road; iron post stamped "Prim. Trav.
Sta. No. 21, 189.2 ".................................................................. 189.172
Friar Point,. 10.5 , miles north of, 30 feet west of levee road, 80 feet east of
top of levee, 600 feet west of Thompson's store; iron post stamped "Prim.
Trav. Sta. No. $20,191.6$ "...................................................................... 556
POWELL SIDING SOUTHEAST TO MASCOT STATION.
Danforth, 40 feet east of station, 3.3 miles east of State Levee, 48 feet southeast of settlement road, 15 feet east of railroad; iron post stamped " 184 "..

BENCH MARK ESTABLISHED BY UNITED STATES ENGNEERS ON PRECISE LEVEL LINE FROM clarksburg.
Temporary bench mark $10-$ Mattson, about 700 feet from station, 200 feet from track, east of first cattle guard on Lombardy Branch of Yazoo \& Mississippi Valley Railroad, in root of 10 -inch elm tree 1 foot out from trunk, on edge of small cemetery; nail (elevation 178.87 feet, or 55.4379 meters, Cairo datum)
188. 442
183. 937
bench mark established by l. W. mashburn-elevation determined from preceding by double line.
Mattson, 150 feet south of station, 50 feet left of track, at corner of Jenkin's store; iron post

## GREENWOOD QUADRANGLE.

## POINT 4 miles east of locopolis east to charleston.

| 2,000 feet west of Shook house, 120 feet east of fence corner, on root of big black gum tree; bench mark No. 11 | 145.48 |
| :---: | :---: |
| Gladys, flag station, 1,000 feet west of milepost "C 5-P 21," on east of railroad, near telephone pole; iron post stamped "Prim. Trav. Sta. No. $36-A^{\prime \prime}$ | 147. 402 |

## charleston south to point 6 miles south of paynes.

| Charleston, 0.5 mile south of, about 700 feet south of end of spur running to foot of hill, on east of road, on 24 -inch hackberry tree; bench mark No. 1. | 181. 90 |
| :---: | :---: |
| Charleston, 1.5 miles south of, 70 feet south of Sta. B. 29, east of road, on big hickory tree; bench mark No. 3 . | 191. 88 |
| Charleston, 3.2 miles south of, 300 feet south of house, under hill, in corner of wire fence, 200 feet from road; iron post. | 203. 080 |
| Paynes, 2 feet northeast of northeast corner of store; iron post......... | 181. 509 |
| Paynes, 1.2 miles south of, 0.2 mile south of Dr. Demman's , 100 feet south of log house, on root of 18 -inch red-oak tree; bench mark No. 10. | 205. 81 |
| Taylor Church, on Leverett plantation, in front of church; on root of small post oak; bench mark No. 13. | 193. 75 |

Paynes, 6 miles south of, on top of small hill north of Shannon place, on root of big oak tree; bench mark No. 16 .
Tutwiler, 2.8 miles southeast of, 50 feet south of main track and 200 feet feet south of white house west of track; iron post stamped "Prim. Trav. Sta. No. 30-A"
Sumner, west of track, in fourth lot south of jail; iron post stamped "Prim. Trav. Sta. No. 31-A" ..... 152.644
Webb, 20 feet from northeast corner of Yazoo \& Mississippi Valley Railroad station; iron post stamped "Prim. Trav. Sta. No. 32-A". ..... 152.844
Webb, east end of Main Street, 1,200 feet east of station, in base of large shade water oak; spike ..... 149. 661WEbB SOUTHEAST ALONG Yazoo \& Mississippl valley railroad to glendora.
Albin, at north corner of Jerry Robinson's store; iron post stamped " Prim. Trav. Sta. No. 50-A" ..... 150.093
Swan Lake, at southeast corner of W. E. Hawkin's store, on west side of railroad and opposite station; iron post stamped "Prim. Trav. Sta. No. 49-A, 1908 MISS. $148{ }^{\prime \prime}$. ..... 148. 600
Whitehead flag station, about 1,200 feet south of, at milepost "J. 123-M. 108," 45 feet to left of center of track; iron post ..... 145. 385
swan lake north to locopolis, thence east 4 miles.
Swan Lake; 0.5 mile east of, 15 feet south of west end of iron bridge, in top of concrete monument, aluminum tablet stamped " 148.308 " ..... 148. 431
Swan Lake, 0.5 mile east of, 15 feet south of west end of iron bridge, on south side of concrete monument; brass pin ..... 144. 829
Swan Lake, 2.1 miles east of, in Walter Powell's yard, in root of gum tree; ..... Feet. nail. ..... 146. 56
Sharkey, 2 miles north of, on river bank at Green London's house, in cot- tonwood tree; spike ..... 145.01
Locopolis, 1.2 miles southwest of, on Webb-Locopolis road, 300 feet west of Madison White's house, in gum tree; spike ..... 149.93
Locopolis, 100 feet west of ferry, in oak tree; spike. ..... 139.77
Jarmon Ferry, 2 miles east of; high water mark, 1905 ..... 150.27
Locopolis, Denman's house, 1,000 feet east of second long bridge east of, at sharp turn, on north of road, in root of 14 -inch red oak; nail. ..... 146.30
Locopolis, 3.5 miles east of, 1,200 feet east of bridge over bayou, in woods, on north side of road, 8 feet east of small gum tree; iron post stamped "Prim. Trav. Sta. No. 35-A". ..... 150.277
Bayou, 1,000 feet west of, by small field with negro cabin in center, south of road; on big pecan tree ..... 148. 72
POINT 6 MILES SOUTH OF PAYNES SOUTH TO COUNTY LINE.
Paynes, 6.7 miles south of, about 2.5 miles north of county line, west of road; root of small honey locust, bench mark No. 17. ..... 197.70
ipointóiälles sóvti of paynes west to brushy bayou, thence down brushy bayou to green lee deadening, thenc̈e southwest across tippo bayou to point 2.5 milesnorthenst of philif.
T. P. Shannon's place, about 1 mile west of, at end of lane, root of 20 -inch water oak; bench mark A ..... 136.02
Dr. Franklin's place, at corner of garden, on bank of Wrong Prong Bayou, root of dead white oak tree; bench mark D ..... 138.64
Brushy Bayou, on east bank of and east of road, 1 mile northeast of Green Lee deadening, on 30 -inch pin oak; bench mark H . ..... 133.70
Taylor mill, 2 miles southwest of, about 0.25 mile northwest of end of lane leading to river road, root of hackberry tree; bench mark N ..... 136.60
glendora southeast along yazoo \& mississippi valley railroad to money.
Black Bayou tank, about 0.9 mile south of, at milepost "J. 120-M. 111," 45 feet east of track; iron post. ..... 145.317
Black Bayou Junction, about 0.8 mile south of, west of track, 50 feet north of milepost "J. 118-M. 113," in base of 18 -inch black locust tree; spike. . ..... 141. 70
Philipp, at corner of Beard \& Co.'s old store; iron post stamped "Prim. Trav. Sta. No. 46-A, 1908 MISS" ..... 142.476
Philipp, about 2.5 miles south of, east of milepost "J. 109-M. 122," 50 feet from center of track; iron post. ..... 138.500
Philipp, 3 miles south of, on lower or most southerly line of Tallabatchie County, east side of river, 150 feet from bank, 50 feet west of station 1 of traverse; 24-inch sycamore tree (Murphy's bench mark). ..... 134.82
Geren, 0.7 mile south of, 50 feet east of milepost "J. 106-M. 125;" iron post. . ..... 137. 231
philipp northeast 2.5 miles.
Philipp, 2.5 miles northeast of, in front of negro house, on root of 48-inch water oak; bench mark 0 . ..... 139.45
money south along yazoo \& mississippi v́alley railíoad to greenwood.
Money, 0.3 mile south of, at milepost "J. 103-M. 128," 50 feet east of track; iron post. ..... 136. 508
Craig siding, 1 mile north of, at milepost "J. 100-M. 131,": 100 feet east of track; iron post. ..... 128. 904
Greenwood, 3.8 miles north of, 100 feet east of milepost "J. $97-$ M. 134;" Feet.
iron post. ..... 125.115
Greenwood, 150 feet west of northwest corner of Yazoo \& Mississippi ValleyRailroad station, south side of street in angle made by Armour PackingCo.'s building and Cassety dry goods store; iron pipe 3 inches in diameter,projecting 6 inches above ground.130. 281
Greenwood, in courthouse yard (U. S. Army Engineers' bench mark No. 24); top of cap on pipe ..... 133.388
Greenwood, in courthouse yard (U. S. Army Engineers' bench mark No. 24); stone ..... 129.311Brandon, Florence, Jackson, Raymond, and Terry quadrangles.HINDS, COPIAH, MADISON, AND SIMPSON COUNTIES.The elevations in the following list were determined by primaryleveling extended from the Coast and Geodetic Survey precise levelline along the Alabama \& Vicksburg Railway (Queen \& CrescentRoute).
The leveling was done in the Brandon, Raymond, and Terry quadrangles in 1905 by W. W. Franklin; in the Jackson quadrangle in 1901 by J. R. Ellis, and in 1905 by Franklin; and in the Florence quadrangle in 1906 by F. L. Foust.

## JACKSON QUADRANGLE.

JACKSON NORTH ALONG ILLINOIS CENTRAL RAILROAD TO MADISON.
Jackson, bottom of a square cut in stone water table, basement of the United States courthouse and post office, under center of east window in north front of building; square is cut one-fourth inch deep and lettered thus: U.S.
C. \& G.S. ..... Feet.B. M.297. 722
Jackson, 2.2 miles north of, on main Jackson and Canton road, in northwest corner of yard to attendants' residence and about 20 'feet east of main entrance to grounds of State insane asylum; iron post stamped " 322 ADJ 1903". ..... 322. 188
State insane asylum, 100 feet north of station; top of west rail of main track. ..... 309.7
Tougaloo, 150 feet southeast of station, 135 feet due east of switch stand, 3 feet south of porch of storehouse of W. R. Shearer; iron post stamped " 314 ADJ 1903" ..... 314. 125
Ridgeland, 0.4 mile south of, 10 feet east of track, 50 feet west of public highway, in top of bridge culvert; aluminum tablet stamped " 353 ADJ 1903". ..... 352. 836
Ridgeland, in front of station; top of east rail. ..... 355.4
Madison, in north wall of John McKay's store; bronze tablet stamped "334.5 JACKSON". ..... 334. 809
Madison, east wall of brick storehouse occupied by Madison Mercantile Co.; aluminum tablet stamped " 335 ADJ 1905". ..... 334.645
madison west along highway to robinson's springs.
Madison, 4 miles northwest of, 240 feet.south of Chinaberry schoolhouse, on east side of road, at junction of road, in. stone; bronze tablet stamped " 415 JACKSON" ..... 415.267
Madison, 4.4 miles northwest of station, 50 feet southwest of cabin on Stokes place, 25 feet off east edge of road; iron post stamped " 408 ADJ 1903 ".. Robinson's springs, 300 feet north of Mrs. Robinson's residence, 12 feet north of large pine tree, near center of lawn, in limestone bowlder; bronze tablet stamped " 331 ADJ 1903" ..... 330.858
Jackson northeast along highway to lucknow, thence southeast to greenfield
Jackson, 4.8 miles east of, 40 feet off west edge of main Jackson and Luck- now road, in grass plot; iron post stamped " 271 ADJ 1903" ..... 271.460Lucknow, 2 miles southwest of, 150 feet off north edge of road, 2 feet westof southwest corner of Liberty Baptist Church; iron post stamped " 302ADJ 1903"
Lucknow, 1.3 miles south of, on embankment in center of grass plot where public road forks to east to Brandon, 25 feet south of southwest corner of yard of residence of Mary Feet, house owned by J. W. Lovelace; iron post stamped " 355 ADJ 1903".
354.930

## bRANDON QUADRANGLE.

AT BRANDON.
Brandon, in southwest corner of pasture on stock farm of S. P. Barton, 250 feet northeast of station; iron post stamped " 391 ADJ 1903"

## FLORENCE QUADRANGLE.

jackson south along illinois central railway to byram.
Pearl station, northeast corner of yard of two-story yellow frame house, on west side of track, in front of station; iron post stamped " 266 ADJ 1903 ". .
Byram, 0.2 mile north of station, large concrete culvert 737.94, over Trayon Creek, in top of west wall; aluminum tablet stamped " 264 ADJ 1903 "..
266. 124
263.862
greenfield south via monterey to rexford, thence west to alonzo, thence north TO BYRAM.

Greenfield, 100 feet north of track, southwest corner of post office and storehouse of W. L. Mangren; iron post stamped " 313 ADJ 1903"
313.385

Greenfield post office, in top of retaining wall of culvert (small earthenware pipe), under railroad, north of track and near outer edge of wall; bottom of a square cut
311.256

Monterey, 30 feet south of center of road,, 3 feet west of northwest corner of
storehouse of J. L. Floyd; iron post stamped " 432 ADJ 1903 "'........... 432.640
Monterey, 3.5 miles south of, at main highway to Star, in northeast corner
of intersection of crossroads; iron post stamped " 346 ADJ 1903"...... 346.095
Star, 70 feet north of northeast corner of station, 83 feet northwest of northwest corner of post office, in grass plot; iron post stamped " 418 ADJ 1903".
Rexford, 4.5 feet north of northeast corner of Barlow's store; iron post stamped "424 ADJ 1903".
418.504

Rexford, 3.4 miles west of, summit of hill north of Limestone Creek where road makes sharp bend to west, settlement road to northeast, 21 feet south of center of road, 2.5 feet north of northwest corner of carriage house of N. G. Barlow; iron post stamped " 390 ADJ 1903"
390.188

Alonzo, 5 miles east of, 0.2 mile south of Barron's store, in southwest corner
of public road fork; iron post stamped " 394 ADJ 1903"................. 394.592
Alonzo, 0.8 mile southeast of post office, in northwest corner of intersection of fork to north; iron post stamped " 296 ADJ 1903"
296.581


## RAYMOND QUADRANGLE:

GLINTON NORTH along highway to pocahontas, thence northeast to robinson spring.
Clinton, 0.8 mile west of, in top of coping stone of arch culvert, north of track, a little west of center of arch, bottom of square cut; lettered thus: U. S. ロ B. M.
332.350

Clinton, 4.6 miles north of, 300 feet south of Bogue Chitto Creek crossing, on embankment, 20 feet off west edge of road; iron post stamped " 230 ADJ 1903"
230.248

Pocahontas, 4.2 miles southwest of, fork of road to south, behd to southwest, on embankment about 10 feet opposite east edge of road; iron post stamped " 243 ADJ 1903 "
243. 132

Pocahontas, in foundation under southwest corner of storehouse of W. R. Lane; aluminum tablet
237.490

Pocahontas, at southwest corner of Methodist Church; iron post stamped " 245 ADJ 1903"
245. 118

## TERRY QUADRANGLE.

byram southwest along illinois central railroad to terry, thence along highway SOUTHWEST, WEST, AND NORTH TO DRYGROVE (SINGLE SPUR LINE).

Byram, in front of station; top of east rail.
264.4

Byram, 2.7 miles south of, in top of concrete culvert 740.97, aluminum tablet stamped " 270 ADJ 1903"
270.401

Terry, 100 feet north of station, 3 feet west of west track, in top of concrete wall of bridge over highway; aluminum tablet stamped " 291 ADJ 1903"
291. 283

Terry, 4.8 miles south of, 175 feet west of main Jackson and Crystal Springs road, 15 feet south of road running east-west; iron post stamped " 421 ADJ 1903"
Terry, 8.7 miles southwest of, at junction of public road northwest and southeast, 2 miles northwest of Crystal Springs, on embankment; iron post stamped "420 ADJ 1903"
419. 955

Thompsonville, 3.6 miles southeast of, about 100 feet east of main Raymond road which forks to north, just off south edge of road at northwest corner of fence of small negro cabin; iron post stamped " 354 ADJ 1903".
Thompsonville post office, 7 feet south by 10 feet west of southeast corner of storehouse of J. E. Bankston, on west edge of road; iron post stamped " 334 ADJ 1903"
Feet. ..... 334.655
Dabneys crossroads, 300 feet north of, just off east edge of road, at south- west corner of large church; iron post stamped " 348 ADJ 1903 " ..... 347.681
Drygrove, southeast corner of large frame storehouse, west edge of road; iron post stamped " $375 . \mathrm{ADJ}$ 1903" ..... 374.805
Burnsville and Iuka quadrangles.
TISHOMINGO CODNTY.The elevations in the following list were determined by primaryleveling extended from the precise level line of the Coast and GeodeticSurvey passing through this area and that of the United States Corpsof Engineers along Tennessee River.The leveling was done in 1909 by William Oram.
1
IUKA QUADRANGLE.iUka northwest along southern rallway to burnsville.
Iuka, 2,250 feet west of station, 1,190 feet west of milepost 115 , in south end of stone culvert, in top of stone, 5.8 inches from south edge and 37.8 inches from west edge; copper bolt (Precise bench mark 3, U. S. Army Engi- neers) ..... 564.838
Iuka, 3 miles west of, 200 feet west of grade crossing, southeast corner of stone box culvert; aluminum tablet stamped " 491 IUKA" ..... 490.782
iUka Southeast along southern railway to pegram.
Iuka, in front of station; top of rail ..... 556.5
Iuka, 0.7 mile east of, south of track; copper nail in root of pine tree marked " 564 " ..... 564. 08
Gravel siding, 0.6 mile west of, bolt farthest west on north side of track in railroad bridge; marked " 531 " ..... 530.41
Gravel siding, abandoned turntable west side, 50 feet north of track, 80 feet west of station; aluminum tablet stamped "497." (This bench mark may be 0.2 foot lower than the elevation given.) ..... 497. 035
Gravel siding, 0.6 mile east of, bolt farbihest east-on south side of track on railroad bridge; marked " 469 " ..... 467.88
Pegram, 1 mile west of, 0.5 mile east of milepost 120 , west abutment of bridge, northwest corner of coping stone (precise bench mark 41); square cut in stone. ..... 433. 210
iUka south along roads 3 miles and return.
Iuka, 2.2 miles south of, 400 feet south of house, in root of large oak tree, copper nail marked " 598 " ..... 597.974
Iuka, 3.3 miles south of, at intersection, 50 feet south of stream crossing, cast side of road; iron post stamped " 548 " ..... 547. 922
BURNSVILLE QUADRANGLE.AT BURNSVILLE.
Burnsville, 195 feet south of station, in west wall of brick house owned by M. O. Elledge, in fifteenth course of brick from ground; copper bolt (Precise bench mark 1, U. S. Army Engineers.)

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[^0]:    : This line unadjusted, elevations carried from Hatfield to Indian Territory bench mark, closing minus 8.724.

[^1]:    ${ }^{1}$ Bench marks numbered 1 to 6 were established by Prof. G. D. Harris, state geologist (Louisiana Gcological Survey).
    ${ }_{2}$ This tide station was established by Prof. G. D. Harris at the expense of the Louislana Geological Survey, but the gage was set and records made by and at the expense of the Coast and Geodetic Survey. The elevation given was determined from the automatic record for the years 1905 and 1906. The tide at Weeks, La., is diurnal, or has one high water and one low water in each day, about half the time.

[^2]:    1 This bench mark has been destroyed according to letter from G. C. Scarlette, September 23, 1910.

[^3]:    ${ }^{1}$ A line was run also between Port Allen and Arbroth, but no standard bench marks were established.
    $83979^{\circ}$ - Bull. $458-11-3$

