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SPIRIT LEVELING IN MISSISSIPPI

1901 TO 1915, INCLUSIVE

R. B. MARSHALL, CHIEF GEOGRAPHER

Part of work since 1906 done in cooperation with
State of Mississippi through Tallahatchie Drainage Commission
A. L. Dabney, Assistant Chief Engineer



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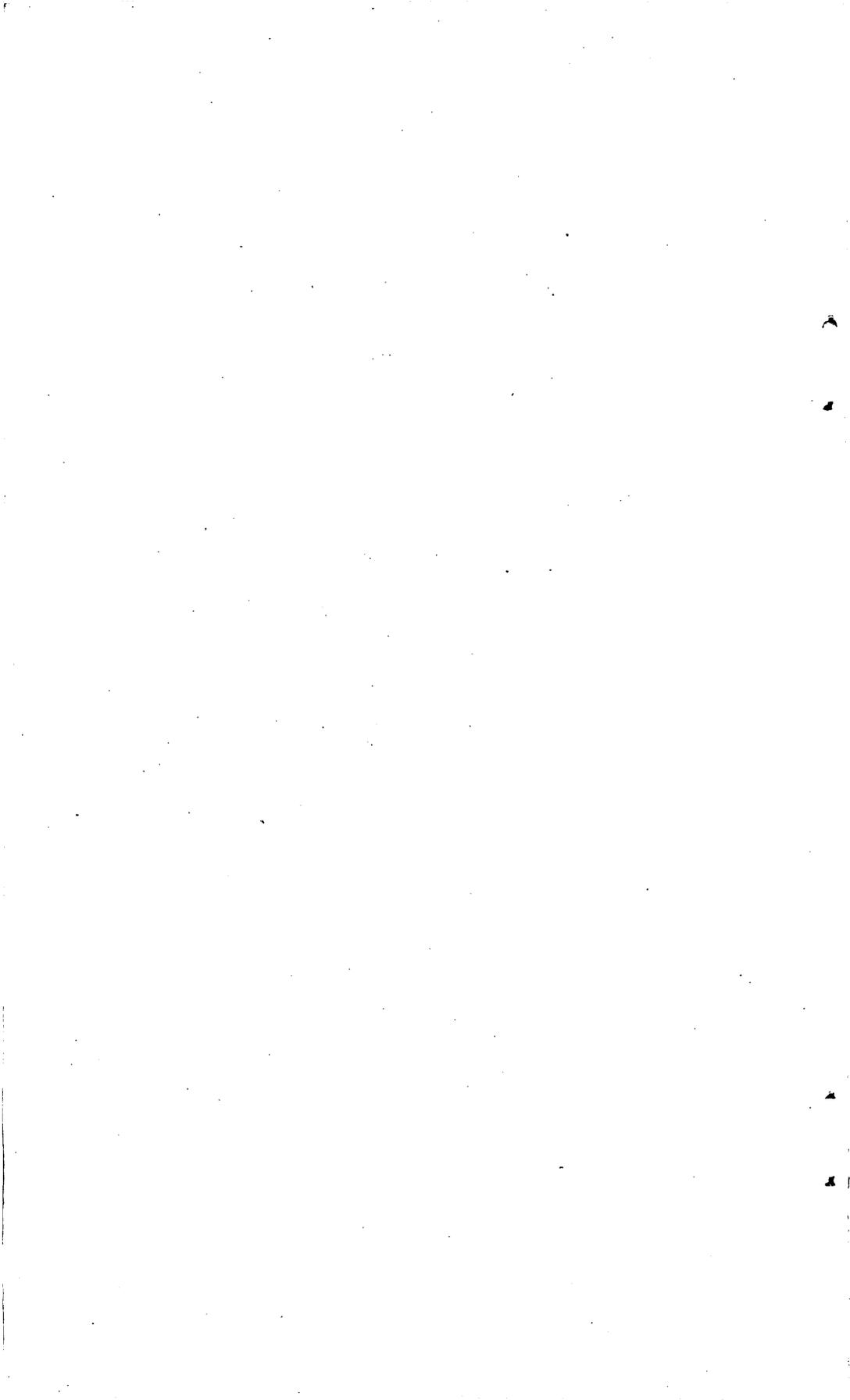
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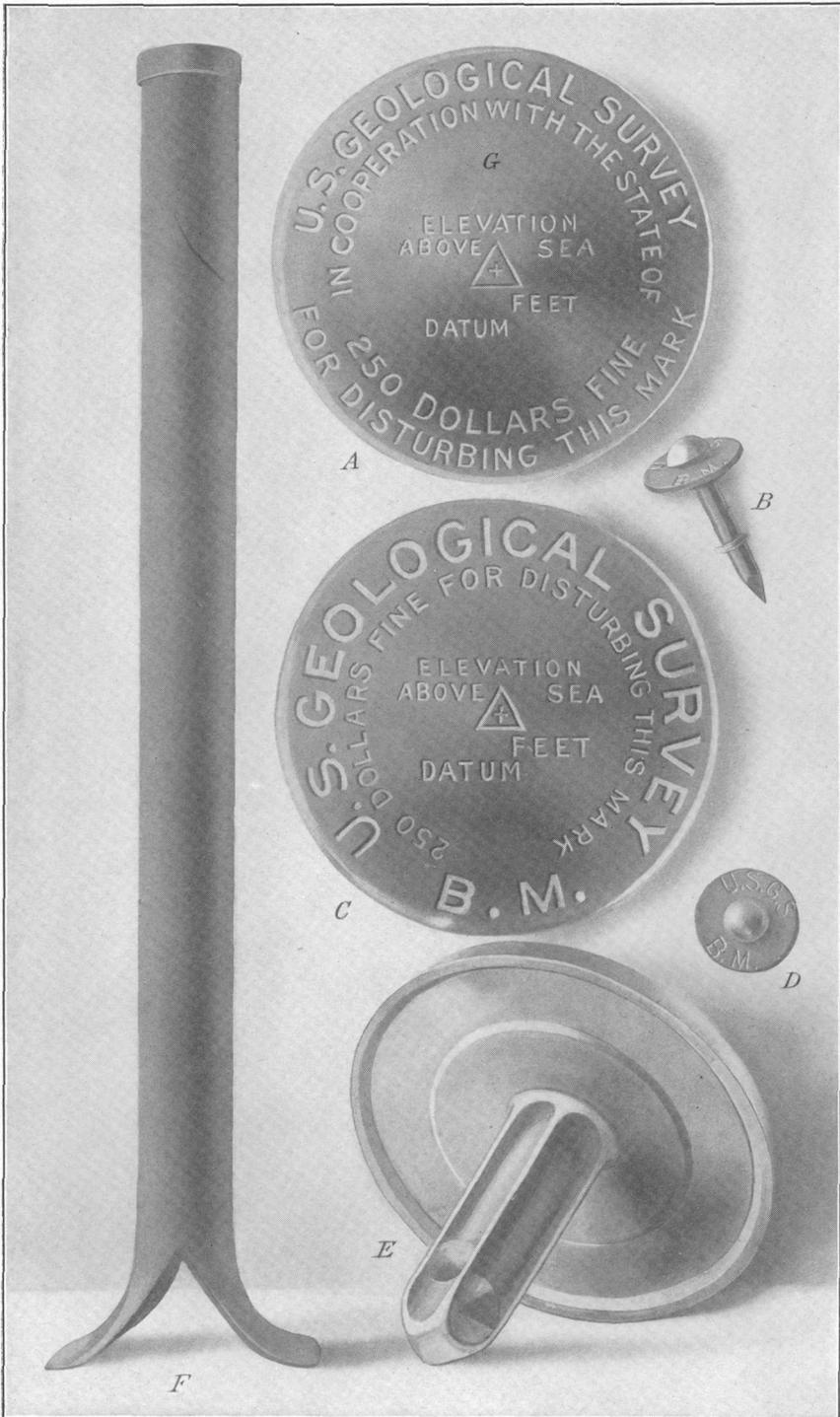
CONTENTS.

	Page.
Introduction.....	5
Cooperation.....	5
Previous publication.....	5
Personnel.....	5
Classification.....	5
Bench marks.....	6
Datum.....	6
Topographic maps.....	7
Precise leveling.....	7
Tunica and Tutwiler 30' quadrangles, including several 7½' subdivisions (De Soto, Panola, Quitman, Tallahatchie, Tate, and Tunica counties)...	7
Primary leveling.....	10
Clarksdale, Greenwood, Helena, Tunica, and Tutwiler 30' quadrangles including several 7½' subdivisions (Bolivar, Coahoma, De Soto, Leflore, Quitman, Tallahatchie, Tate, and Tunica counties).....	10
Florence, Jackson, Pelahatchee, Raymond, and Terry quadrangles (Hinds, Copiah, Madison, and Simpson counties).....	34
Bovina, Vicksburg, and Yokena quadrangles (Warren County).....	37
Doloroso and Natchez quadrangles (Adams and Jefferson counties).....	40
Burnsville and Iuka quadrangles (Tishomingo County).....	43
Appendix: Elevations adjusted by the United States Coast and Geodetic Survey from precise leveling.....	47
Index.....	77

ILLUSTRATION.

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





GEOLOGICAL SURVEY BENCH MARKS.

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

SPIRIT LEVELING IN MISSISSIPPI, 1901 TO 1915, INCLUSIVE.

R. B. MARSHALL, Chief Geographer.

INTRODUCTION.

Cooperation.—The State of Mississippi contributed financially, through the Tallahatchie Drainage Commission, A. L. Dabney, assistant chief engineer, to this work in 1907 and 1908.

Previous publication.—That portion of the results of spirit leveling in Mississippi previously published in Bulletin 458, containing descriptions and elevations of bench marks established from 1901 to 1909, inclusive, and based on the 1907 adjustment, is here republished, together with the results of spirit leveling by the United States Geological Survey in Mississippi since 1909. The elevations by the 1907 adjustment were not changed by the 1912 adjustment and are not likely to be changed by any future adjustment of the level net.

Personnel.—The field work from 1901 to 1906, inclusive, was done under the direction of H. M. Wilson, geographer, and the later work under Frank Sutton, geographer. The work since January, 1908, was done under the general direction of R. B. Marshall, chief geographer. Credit is given in the headings of the several lists to the respective levelmen. The office work of computation, adjustment, and preparation of lists was done mainly by S. S. Gannett, geographer, 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. The former are determined by lines of levels run either in both forward and backward directions or by simultaneous double-rodged lines, a high-grade instrument being used and special precautions being taken in observations and reduction to correct errors and make the line continuously good throughout. The latter or primary levels are determined with the Y level, precautions being taken against only the principal errors and the levels being run mostly in circuits of single

lines. The allowable limit of error observed on the precise work already done by the Geological Survey in this State is represented in feet by $0.017\sqrt{D}$ and that for the primary work by $0.05\sqrt{D}$, in which D is the length of circuit in miles.

Bench marks.—The standard bench marks are two forms. The first form is a circular bronze or aluminum tablet (C and E , Pl. 1), $3\frac{1}{2}$ inches in diameter and $\frac{1}{4}$ inch thick, having a 3-inch stem, which is cemented in a drill hole in solid rock in the wall of some public building, a bridge abutment, or other substantial masonry structure. The second form (F , Pl. I), used where masonry or rock is not available, consists of a hollow wrought-iron post $3\frac{1}{2}$ inches in outer diameter and 4 feet in length. It is split at the bottom and spread out to a width of 10 inches in order to give a firm bearing on the earth, and is set about 3 feet in the ground. A bronze or aluminum-bronze cap is riveted upon the top of the post. A third style of bench mark with abbreviated lettering (B and D , Pl. I), is used for unimportant points. This consists of a special copper nail $1\frac{1}{2}$ inches in length driven through a copper washer $\frac{7}{8}$ inch in diameter. The tablets as well as the caps on the iron posts are appropriately lettered, and cooperation by States is indicated by the addition of the State name (G , Pl. I).

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

Datum.—All elevations determined by the United States Geological Survey and the United States Coast and Geodetic Survey are referred to mean sea level, which is the level that the sea would assume if the influence of winds and tides were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. Mean sea level is the average height of the water, all stages of the tide being considered. It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results

these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels as determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

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

Topographic maps.—Maps of the following quadrangles wholly or partly in Mississippi have been published by the United States Geological Survey up to June 1, 1916. They may be obtained for 10 cents each or \$3 for 50, on application to the Director of the Survey at Washington, D. C.

Cat Island (La.-Miss.).	Jonestown.
Coahoma.	Lake Cormorant.
Dundee.	Lula.
Florence.	Moon Lake.
Hollywood.	Rigolets (La.-Miss.).
Iuka (Miss.-Ala. Tenn.).	Toulme (La.-Miss.).
Jackson.	Walnut Lake.

PRECISE LEVELING.

Tunica and Tutwiler 30' quadrangles (including, though list not so subdivided, Banks, Belen, Crenshaw, Lake Cormorant, Lambert, Prichard, Sledge, Tibbs, Tutwiler, and Vance 7½' quadrangles.

DE SOTO, 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. 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 Engineers, 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' quadrangle by W. H. Monahan and in the Tutwiler 30' 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. For additional descriptions and elevations of bench marks along the Mississippi River, see Permanent marks, Cairo to the Gulf of Mexico, vols. 1, 2, and 3, Mississippi River Commission, 1915.

TUNICA QUADRANGLE.

[Latitude 34° 30'–35°; longitude 90°–90° 30'.]

From State line near Darwin, Tenn., south along Yazoo & Mississippi Valley R. R. to Crenshaw.

Lake View, 159 feet west of track, 15 feet east of northeast corner of pumping station; iron post stamped "222"-----	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 R. R. station, at northwest corner of store of W. W. Blythe, 163 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 crossing; iron post stamped "Prim. Trav. Sta. No. 26, 199"-----	199. 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

	Feet.
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. 32, 181"---	181. 632
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 churchyard, top of concrete monument No. 2-----	189. 267
Crenshaw, in front of station; top of rail-----	189. 4

TUTWILER QUADRANGLE.

[Latitude 34°-34° 30'; longitude 90°-90° 30'.]

From Crenshaw south along Yazoo & Mississippi Valley R. R. to Tutwiler.

Crenshaw, 2.6 miles south of, 85 feet east of track, 37 feet north of road; iron 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.....	Feet. 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 west of crossing; iron post stamped "Prim. Trav. Sta. No. 16-A, 157".....	156. 681
Tutwiler, 3 miles north of, at milepost "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 stone; iron post stamped "Prim. Trav. Sta. No. 17-A, 155".....	154. 726
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 7½' 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' 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' quadrangle in 1908 by Mashburn; in the Helena 30' quadrangle in 1908 by Gray; in the Tunica 30' 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.

[Latitude 34°-30'-35°; longitude 90°-90° 30'.]

From Lake Cormorant west to levee, thence along levee north and east to Lake View.

	Feet.
Section 11-12 on levee, 60 feet east of road, between two wooden posts; iron post.....	205. 912
Section 10-11 on levee, 100 feet east of road; iron post.....	205. 689
Norfolk, 0.4 mile south of Baptist Church, at center of crossroads; iron post stamped "Prim. Trav. Sta. No. 56".....	208. 808
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
Lake View, 159 feet west of center of track, 15 feet northeast of pump station; iron post stamped "222".....	222. 368

From 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
Lake Cormorant, 1.5 miles west of, 40 feet southeast of crossroads, 140 feet west of New Liberty Church, in line of wire fence, south of road; iron post marked "Mississippi River Commission, 1906".....	204. 525
Lake Cormorant, 2.9 miles southwest of, 0.5 mile east of Star Landing, 250 feet east of section stone "15-16"; Mississippi levee iron post.....	206. 423
Lake Cormorant, 3.8 miles southwest of, on east edge of levee road, in southeast angle of road fork leading east to Holliday'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;" Mississippi 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

From Clack southwest toward Commerce.

Clack, 1.4 miles southwest of, 150 feet east of section stone "20-21;" Mississippi levee iron post stamped "203".....	203. 080
Clack, 2.3 miles southwest of, 140 feet east of section stone "21-22," 40 feet south 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"-----	Feet. 202. 625
Commerce, 2.5 miles north of, 120 feet east of section stone "22-23;" Mississippi levee iron post stamped "201"-----	201. 187
From Clack northeast along Yazoo & Mississippi Valley R. R. 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
From Lake Cormorant west 0.22 mile to church (double-spur line).	
Lake Cormorant, 0.2 mile west of, 60 feet southwest of southwest corner of church, 30 feet north of fork of road, 200 feet northeast of Mr. Jeffrey's house, in concrete monument; aluminum tablet stamped "208;" stamped in concrete "Miss. 1908 U. S. G. S. No. 1"-----	208. 156
From Lake Cormorant east to the hills (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
From 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 crossroads, in root of large elm tree; nail painted "209.75"-----	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"-----	291. 64
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"-----	315. 96
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"-----	306. 10
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"-----	311. 74

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"-----	Feet. 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
From Tunicanorth and northeast along Yazoo & Mississippi Valley R. R. 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
From 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
From 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"-----	189. 66
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"-----	197. 312
From 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 northwest of northwest corner of Hill's gin; iron post stamped "Prim. Trav. Sta. No. 60, 198"-----	Feet. 198. 105
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

From 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

From 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
Agricultural Department bench mark (not described)-----	197. 912

From 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
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From 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"-----	189. 350
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From point 2 miles northeast of Hollywood northeast along Yazoo & Mississippi R. R. 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"-----	200. 571
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"-----	200. 490

From Robinsonville east to Banks.

Lost Lake bridge, 200 feet west of, at T road; iron post-----	194. 597
Banks, 201 feet south of station, 18 feet east of track; iron post stamped "Prim. Trav. Sta. No. 26, 199"-----	199. 412

From Robinsonville west toward Commerce.

Robinsonville, 1.6 miles west of, in white-oak tree; nail-----	199. 88
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PRIMARY LEVELING.

15

From 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"-----	Fect. 195. 813
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From 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

From 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

From 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

From 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
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From Prichard east to foot of hills.

Prichard, 15 feet north of trail, at edge of bayou; on hickory tree----	185. 94
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From 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 Arkabutla 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

From Hollywood southeast 3 miles (double spur line).

Hollywood, 3 miles east of, on Hollywood and Prichard road, 2 feet north of northwest corner of Rainey's schoolhouse; iron post----	192. 745
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From 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"-----	Feet. 270.104
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-----	205.12
Cub Lake, 100 feet southeast of Locky & Emerson's store, in embankment 75 feet southwest of crossroads; iron post stamped "225"---	225.021

From Pleasant Hill Church southwest to Sheford School.

Sheford school; iron post stamped "Prim. Trav. Sta. No. 62"----- 272.457

From 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"---	186.283
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

From 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"-----	180.38

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 "180.54"-----	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, 2 miles west of, 500 feet northeast of negro schoolhouse, 10 feet north of road, in root of oak tree; nail marked "179.3"-----	178.90
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

From 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"-----	176.12
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"-----	176.591
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"-----	186.928

From Savage northeast 3 miles.

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"-----	180.44
From point near Dundee northeast along Yazoo & Mississippi Valley R. R. 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 south-east of mail crane, 53 feet east of main railroad track; iron post stamped "Prim. Trav. Sta. No. 8, 191"-----	Feet. 190.991
Evansville, at office of experiment station of Department of Agriculture, in northeast corner of Dr. Dye's yard; iron post stamped "199.010"-----	192.462

From Evansville west to Austin.

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"-----	187.36
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. X B. M."-----	196.862

From Austin north to Mangum Bros.' store.

Mangum Bros.' store, 0.4 mile south of, 175 feet east of section post "40-41"; Mississippi Levee iron post stamped "193"-----	193.174
Mangum Bros.' store, 25 feet north of, at south gatepost at fork of road leading east; iron post stamped "Prim. Trav. Sta. No. 10, 197"-----	197.077

From Austin southwest to O. K., thence 3 miles south.

Austin, 0.7 mile south of, 25 feet east of levee, on embankment; top of section stone "43-44," marked "202.1"-----	201.94
O. 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 running west, opposite W. Kyle's farm; iron post stamped "Prim. Trav. Sta. No. 17, 206"-----	206.161

From 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"-----	180.78
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"-----	184.42

From 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
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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"-----
 Feet.
 187. 449

From Dundee northeast via Dubbs to point 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"-----
 175. 54

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"-----
 178. 355

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 marked "180.0"-----
 179. 70

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"-----
 184. 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"-----
 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

From 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.

[Latitude 34°-34° 30'; longitude 90° 30'-91°.]

From 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 Norfeet'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"-----	Feet. 202.326
O. 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 milepost-----	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.

[Latitude 34°-34° 30'; longitude 90°-90° 30'.]

From point 1.6 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"-----	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, 5.4 miles west of, 75 feet north of wire fence, in root of oak tree; spike marked "172.03"-----	172.16
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"-----	173.375
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 post office, in root of gum tree; nail marked "174.09"-----	174.22
Tibbs, 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"-----	174.34

From Tibbs southwest 1.2 miles.

Tibbs, 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"-----	171.205
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
From point 2.8 miles west of Tibbs southwest along highways to Rich, thence southeast along highways to point 1.7 miles 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 Six-mile Lake, 75 feet west of road, in woods near old field owned by Tibbs & Co.; iron post stamped "172"-----	Feet. 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 southeast 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"-----	167. 64
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

From Rich south along highways to Matagorda.

Rich, in front of station; top of rail-----	181. 2
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

From Matagorda northeast along highways to point 1.3 miles south 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

From 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
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From Coahoma north along Yazoo & Mississippi Valley R. R. to point near Dundee.

Moon, 4.8 miles north of Coahoma, 2 feet south of southwest corner of Carr Bros.' store; iron post stamped "Prim. Trav. Sta. No. 2, 182" -----	Feet. 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

From 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

From 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
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From 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"-----	163.872
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"-----	163.62
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"-----	156.179
Bobo Bayou, 2.4 miles east of, 8.3 miles east of Marks, 15 feet south of road, 15 feet west of north bank of bayou, 150 feet east of road crossing bayou, in root of sycamore tree; nail painted "161.9"-----	161.96

From point near Marks southeast via Coldwater 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
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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"-----	Feet. 161.70
From Marks north to point near Hinchliff, thence northwest 4 miles, thence east to Stalls.	
Marks, 1.2 miles northeast of, on west edge of road, in root of 12-inch sassafras tree; nail painted "161.7"-----	161.78
Marks, 5.3 miles northwest of, 2 miles west of Yazoo & Mississippi Valley R. R. 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
From 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 of new 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 leading south to Lamber, in root of oak tree; nail painted "159.2"-----	159.30
From Lambert east to Coldwater River (single primary spur line).	
Lambert, 1 mile south of, in angle formed by Yazoo & Mississippi Valley R. R. 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
From Jonestown southwest to point near Cloverhill.	
Jonestown, 50 feet southwest of main street crossing with road leading south to Clarksdale, in northeast corner of J. Richberger's brick store; bronze tablet 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
From 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"-----	169.977
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"-----	Feet. 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 courthouse; bronze tablet stamped "172"-----	170. 918
From point 5 miles east of Jonestown east and southeast to point 6 miles northwest of 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
From 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
From 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 storehouse, 5 feet south of northwest corner of store on east side of Belen and Lyon road; iron post stamped "167"-----	167. 115
From point 3.8 miles southwest of Belen south via Sabino to Mud schoolhouse, thence west to Big Creek.	
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"-----	164. 02
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"-----	167. 940
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"-----	160. 173
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"-----	164. 06
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"-----	165. 14
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"-----	166. 73

Sabino, 7.7 miles southwest of, 3.1 miles west of A. Fowler's saw-mill, on east side of road, 250 feet south of McGuire's Chapel, in root of large oak tree; nail painted "163.8"-----	Feet. 163.12
From 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
Mud schoolhouse, 2.6 miles east of, in northwest angle of road forks known as "J. J. Dickey and M. D. Baisclair forks," 4 feet east of oak tree; iron post stamped "162"-----	161.822
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
From 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
From Big Creek at Sec. 36, T. 27 N., R. 3 W., south 1 mile and southwest to Melancholy Bayou.	
Boxelder, at southwest corner of SE. $\frac{1}{4}$ sec. 36, T. 27 N., R. 3 W.; iron post stamped "165"-----	165.233
T. 26 N., R. 3 W., on section line between secs. 1 and 12, 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. $\frac{1}{4}$ 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
From 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"-----	156.08
Buford Lake, 5 feet east of railway track, 1.5 feet north of platform of Yazoo & Mississippi Valley R. R.; iron post stamped "Prim. Trav. Sta. No. 13-A 160"-----	160.268
From Mattson southeast along Yazoo & Mississippi Valley R. R. to Tutwiler (adjusted mean of two lines). Elevations determined from leveling by L. W. Mashburn, Tallahatchie Commission.	
Dublin, 2,000 feet south of, 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
From Tutwiler south along Yazoo & Mississippi Valley R. R., 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

From Crevi north to Porter's Ferry.

Yocona Bottom, gate of, 1,000 feet north of, on 18-inch hickory tree; bench mark No. 19.....	Feet. 172. 07
Crevi, 3 miles north of, at south end of bridge over Yocona River, 179.22 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. 63 180. 27
Crevi, near, Wallis's bench mark H. 42.....	
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

From Charleston north to Crevi.

Charleston, on west side of Yazoo & Mississippi Valley R. R., 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.....	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.

[Latitude 34°-34° 30'; longitude 90° 30'-91°.]

From Clarksdale north along Yazoo & Mississippi Valley R. R. 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 R. R. bridge over Sunflower River; chiseled cross marked "U. S. + P. B. M.".....	172. 930
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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 storehouse; iron post stamped "160"-----	Feet. 160. 355
Lyon, 400 meters south of station, 200 meters west of Yazoo & Mississippi Valley R. R. 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 R. R. main line, at southwest corner of yard of railway section house; top of pipe (post in bad order, loose in ground)-----	173. 416
From 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"-----	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
From 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"-----	165. 275
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
From 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
From 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"-----	161. 728
From Clarksdale south along east side of Sunflower River.	
Hobson's yard, 25 feet south of southwest corner of, in root of locust tree; 10-penny nail-----	169. 28
From 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-----	Feet. 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, north of, at stone bench mark marked "3-4," 155 feet from levee; iron pipe-----	165. 705
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)-----	174. 120

At Farrell.

Farrell, northwest side of Yazoo & Mississippi Valley R. R. station, 45 feet west of railroad; iron post stamped "Prim. Trav. Sta. No. 1, 167"-----	167. 315
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From 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 post oak 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. $\frac{1}{4}$ 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

From 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

From Bobo southwest 2 miles along highway (small circuit).

Bobo, 1 mile south of, north of schoolhouse, in middle of road, in southeast root of 30-inch sweet gum tree; 20-penny nail----- Feet.
163. 14

From 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

From Melancholy 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 drainage experiment station, Department of Agriculture; iron post----- 160. 946

From point 2 miles south of Clarksdale along east bank of Sunflower River to Traynham, 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)----- 166. 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. $\frac{1}{4}$ sec. 7, 5 feet south of southwest corner of St. Paul Church; iron post stamped "163"----- 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----- 163. 14

T. 26 N., R. 4 W., just north of southwest corner of sec. 25, on east bank of Sunflower River, in east root of 24-inch pecan tree; 20-penny nail----- 161. 44

Line to Bobo on Yazoo & Mississippi Valley R. R.

T. 26 N., R. 4 W., in NW. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 36, 180 feet south of corner where road makes a right angle, in east root of 36-inch elm tree; 20-penny nail----- 159. 82

T. 25 N., R. 3 W., near southwest corner of NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 6, at mouth of lane 350 feet south of house, 1 miles east of Traynham, on southwest part of Eggleston's plantation, in corner of fence on north side of lane; iron post stamped "156"----- 156. 276

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 corner of yard, 50 feet northeast of E. L. Johnson's; iron post stamped "158"----- 158. 437

T. 25 N., R. 4 W., SW. $\frac{1}{4}$ sec. 9, near house where road for Roundaway leaves river road a short distance north of Shapley's Ford, in east root of white oak tree; 20-penny nail----- 155. 90

T. 25 N., R. 4 W., at corner secs. 7, 8, 17, and 18; iron post stamped "154"----- 154. 248

From mouth of Harris Bayou west and northwest to Bobo.

T. 26 N., R. 4 W., NW. $\frac{1}{4}$ sec. 35, corner of Mr. Johnson's yard, south of where Harris Bayou empties into Sunflower River, in 12-inch catalpa tree; 20-penny nail----- 160. 32

T. 26 N., R. 4 W., NW. $\frac{1}{4}$ 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"-----	Feet. 161. 016
T. 26 N., R. 4 W., SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ 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

From St. Paul Church west to Pullen.

St. Paul Church, 10 feet southeast of southeast corner of, 300 feet north of forks 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 Sunnyside 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 gate to field, 400 feet west of negro house, in woods in root of large oak tree stump; spike-----	160. 25
Pullen, 75 feet west of railroad; iron post stamped "163"-----	162. 758

From Rudyard north to Coahoma, thence northeast 0.8 mile.

Rudyard, 20 feet west of railroad, 70 feet north of station, 50 feet 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 R. R. tracks; iron post-----	177. 763
Coahoma, in front of station; top of rail-----	182. 1
Coahoma, 2.5 feet from northwest corner of brick hotel; iron post stamped "Prim. Trav. Sta. No. 1, 179, 1908"-----	178. 448

From 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
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From Coahoma west to Friar Point, thence south 3 miles.

Long Lake flag station, 1,100 feet south of fork of main road fork, 300 feet north of negro schoolhouse; iron post stamped "178"-----	Feet. 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 south- west of negro house, 100 feet northwest of cotton house, in root of black gum tree; nail-----	177.10

From 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 Mc- Kay'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"__	188.442
Friar Point, 7 miles north of, 0.2 mile west of negro cabin, near cen- ter 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"-----	191.556

From 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"-----	183.937
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Bench mark established by United States engineers on precise level line from
Clarksdale.

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 R. R., in root of 10-inch elm tree 1 foot out from trunk, on edge of small cemetery; nail (elevation 181.885 feet, or 55.4379 meters, Cairo datum)-----	162.126
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Bench mark established by L. W. Mashburn; elevation determined from pre-
ceding by double line.

Mattson, 150 feet south of station, 50 feet left of track, at corner of Jenkin's store; iron post-----	163.252
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GREENWOOD QUADRANGLE.

[Latitude 33° 30'–34°; longitude 90°–90° 30'.]

From 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
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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"-----	Feet. 147.402
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From 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-----	196.01

From point near Tutwiler southeast along Yazoo & Mississippi Valley R. R. to Webb.

Tutwiler, 2.8 miles southeast of, 50 feet south of main track and 200 feet south of white house west of track; iron post stamped "Prim. Trav. Sta. No. 30-A"-----	150.574
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 R. R. 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-----	149.661

From Webb southeast along Yazoo & Mississippi Valley R. R. 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"-----	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

From 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; nail-----	146.56
Sharkey, 2 miles north of, on river bank at Green London's house, in cottonwood 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

	Feet.
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

From 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
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From point 6 miles south of Paynes west to Brushy Bayou, thence down Brushy Bayou to Green Lee deadening, thence southwest across Tippe Bayou to point 2.5 miles northeast of Philipp.

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

From Glendora southeast along Yazoo & Mississippi Valley R. R. to Money.

Black Bayou tank, about 0.9 mile south of, at mile post "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 Tallahatchie 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
Geran, 0.7 mile south of, 50 feet east of milepost "J. 106-M. 125;" iron post-----	137. 231

From 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 O-----	139. 45
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From Money south along Yazoo & Mississippi Valley R. R. 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"; iron post-----	Feet. 125. 115
Greenwood, 150 feet west of northwest corner of Yazoo & Mississippi Valley Railroad station, south side of street in angle made by Armour Packing Co.'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); top of cap on pipe-----	133. 379
Greenwood, in courthouse yard (U. S. Army Engineers' bench mark No. 24); top of bolt in stone under above-described iron pipe-----	129. 311

Florence, Jackson, Pelahatchee, Raymond, and Terry quadrangles.

HINDS, COPIAH, MADISON, AND SIMPSON COUNTIES.

The elevations in the following list were determined by primary leveling extended from the Coast and Geodetic Survey precise level line along the Alabama & Vicksburg Railway (Queen & Crescent Route.)

The leveling was done in the Pelahatchee, 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.

[Latitude 32° 15'-32° 30'; longitude 90°-90° 15'.]

From Jackson north along Illinois Central R. E. to Madison.

Jackson, bottom of a square cut in stone water table, basement of the United States courthouse and postoffice, 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. B. M."-----	Feet. 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

From 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
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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 "Adj 1903"-----	Feet. 408. 493
Robinson's springs, 300 feet north of Mrs. Robinson's residence. 12 feet north of large pine tree, near center of lawn, in limestone boulder; bronze tablet stamped "331 Adj 1903"-----	330. 858
From 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 Lucknow road, in grass plot; iron post stamped "271 Adj 1903"---	271. 460
Lucknow, 2 miles southwest of, 150 feet off north edge of road, 2 feet west of southwest corner of Liberty Baptist Church; iron post stamped "302 Adj 1903"-----	301. 905
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

PELAHATCHEE QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 89° 45'-90°.]

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"-----	391. 630
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FLORENCE QUADRANGLE.

[Latitude 32°-32° 15'; longitude 89° 45'-90°.]

From Jackson south along Illinois Central R. R. 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"-----	266. 124
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"-----	263. 862
From 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. 156
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"-----	Feet. 418. 504
Rexford, 4.5 feet north of northeast corner of Barlow's store; iron post stamped "424 Adj 1903"-----	424. 635
Rexford, ¾ 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
Whites post office (discontinued), 35 feet south of center of road 2.5 feet west of northwest corner of post office and store of J. D. Sandiper; iron post stamped "356 Adj 1903"-----	356. 761
Sinai post office, 0.5 mile north of, summit of short steep hill, west edge of road, at southeast corner of fence around small negro cabin; iron post stamped "319 Adj 1903"-----	319. 656
From Greenfield west to Pearson, thence southwest to Plain, thence south to Florence, thence northeast to Monterey.	

Pearson, 300 feet southeast of station, 50 feet south of highway crossing, northeast corner of Williams's store; iron post stamped "287"-----	287. 150
Plain, 500 feet northwest of station, at forks in road, at southeast corner of post office; iron post stamped "276"-----	276. 493
Plain, 2.9 miles south of, 100 feet west of road crossing, at forks in road; iron post stamped "334"-----	334. 154
Plain, on Gulf & Ship Island R. R., west of station, near center of town, at northeast corner of post office; iron post stamped "313"-----	313. 382
Florence, 2.1 miles east of, at top of hill, crossing second-class road; iron post stamped "393"-----	393. 597

RAYMOND QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 90° 15'-90° 30'.]

From Clinton 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 or arch, bottom of square cut; lettered thus: "U. S. □ 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, bend 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.

[Latitude 32°-32° 15'; longitude 90° 15'-90° 30'.]

From Byram southwest along Illinois Central R. R. to Terry, thence along highway southwest, west, and north to Drygrove (single spur line).

	Feet.
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".....	420. 805
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".....	354. 087
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".....	334. 655
Dabneys crossroads, 300 feet north of, just off east edge of road, at southwest 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 Adj 1903".....	374. 805

Bovina, Vicksburg, and Yokena quadrangles.

WARREN COUNTY.

The elevations in the following list are based upon Coast and Geodetic Survey bench mark E, 2 kilometers east of Vicksburg, on Coast and Geodetic Survey bench mark H, at Bovina, and on Mississippi River Commission permanent bench mark 2, 3 kilometers north of Vicksburg. The line started originally from Coast and Geodetic Survey bench mark C at Vicksburg, but from connections made during this work that bench mark has apparently been lowered 5.243 feet from value given on page 111, Coast and Geodetic Survey Special Publication No. 18.

The leveling was done in 1914 by R. H. Kilmer.

BOVINA QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 90° 30'-90° 45'.]

From Newman's Grove north to Bovina.

	Feet.
Newman's grove, 1 mile northeast of, 150 feet west of private road crossing, in telephone pole; railroad spike marked "B. M. 283".....	282. 963
Bovina, in front (south) wall of brick building owned by the district school and used as a store, just east and north of railroad station, in second brick from the southwest corner, in twenty-second course above ground, fifteenth course above sidewalk; intersection of a cross in end of copper bolt (C. & G. S. b. m. H.).....	247. 368

Bovina, 0.8 mile north of, in forks of road near center of triangle; iron post stamped "Prim. Trav. Sta. No. 5, 142, 1914" ----- Feet. 141.960

VICKSBURG QUADRANGLE.

[Latitude 32° 15'–32° 30'; longitude 90° 45'–91°.]

From Vicksburg south along Mississippi & Warrenton R. R. to Cedars, thence east along highways to Asbury Church and north to Newman Grove.

Vicksburg, in southwest corner of park, west of Alabama & Vicksburg Ry. passenger station, in a marble post 1.2 meters in the ground, 0.25 meter above surface of ground dressed on top to 0.25 by 0.175 meter; bottom of a square cut 0.009 meter deep, lettered "U. S. C. & G. S. B. M." (C. & G. b. m. C.; C. & G. S. Elev. 206.154) ----- 200.911

NOTE.—This bench mark has apparently been moved and lowered 5.243 feet as determined from connections made in 1914 by R. H. Kilmer with other precise bench marks in this locality.

Vicksburg, 1.5 miles south of, east side of track, in base of post L 221–49; railroad spike, marked "B. M. 113" ----- 113.11

Vicksburg, 2.3 miles south of, in southwest abutment of wooden railroad bridge marked L 222–24; top of square-headed bolt, marked "139" ----- 139.27

Vicksburg, 3 miles south of, in southeast abutment of wooden railroad bridge marked L 223–09; top of square-headed bolt, marked "B. M. 120" ----- 119.68

Stout, 3.6 miles south of Vicksburg, 100 feet west of road crossing; iron post stamped "106" ----- 106.124

Stout, 0.8 mile south of, at second-class road crossing, east side of track, in telephone pole; railroad spike marked "B. M. 109" ----- 108.808

Stout, 2 miles south of, in southeast abutment of wooden railroad bridge L. 225–47; copper nail marked "B.M. 98" ----- 98.23

Stout, 3 miles south of, in top of post L 226–66; wire nail marked "B.M. 98" ----- 98.08

Cedars, 1.1 miles east of, 30 feet west of road, in root of elm tree 3 feet in diameter; copper nail marked "B.M. 139" ----- 138.746

Cedars, 2 miles east of, 10 feet north of road, in root of sweet-gum tree 2 feet in diameter; copper nail marked "B.M. 234" ----- 233.79

Cedars, 3.2 miles east of, 210 feet east of road forks, in root of sweet-gum tree 15 inches in diameter; copper nail marked "B.M. 286" ----- 236.34

Cedars, 4.2 miles east of, in triangle of T road running south from Grange Hall; iron post stamped "310" ----- 310.208

Cedars, 5.6 miles east of, at foot of deep cut, in root of walnut tree 2 feet in diameter; copper nail marked "B.M. 185" ----- 184.76

Cedars, 6.6 miles east of, south side of road, in root of gum tree 1 foot in diameter; copper nail marked "B.M. 265" ----- 264.58

Cedars, 7.6 miles east of, opposite cabin, in root of oak tree 4 feet in diameter; copper nail marked "B.M. 285" ----- 284.46

Asbury Church, 0.5 mile north of, 10 feet north and 10 feet east of center of T road west; iron post stamped "Prim. Trav. Sta. No. 2, 1914 281" ----- 280.417

Asbury Church, 1.5 miles north of, 10 feet north of road; root of black-oak tree 3 feet in diameter, marked "B.M. 268" ----- 268.43

Asbury Church, 2.5 miles north of, 5 feet north of road, in sweet-gum tree 6 inches in diameter; railroad spike marked "B.M. 208"-----	Feet. 207. 69
Asbury Church, 3.4 miles north of, opposite T road running west, on line of wire fence; iron post stamped "300"-----	300. 154
Asbury Church, 4.5 miles north of, beside signboard that reads "7 miles to Vicksburg"; root of water-oak tree marked "B.M. 276"__	276. 30
Asbury Church, 5.5 miles north of, 1,070 feet north of Baldwins Ferry road, in root of elm tree 1 foot in diameter; copper nail marked "B.M. 258"-----	257. 82
Asbury Church, 7 miles north of, opposite T road running southeast, 15 feet east of large pine tree; iron post stamped "223"-----	222. 859
From point near Bovina northwest along highways to Redwood, thence southwest along Yazoo & Mississippi Valley R. R. to Walters.	
Bovina, 2 miles northwest of, east side of road, top of oak stump 1 foot in diameter; copper nail marked "B.M. 194"-----	193. 77
Bovina, 3.2 miles northwest of, 30 feet east of road, in root of red-oak tree 3 feet in diameter; copper nail marked "B.M. 250"-----	249. 94
Bovina, 3.7 miles northwest of, in southwest quadrant of cross roads on Jackson road; iron post stamped "266"-----	265. 941
Bovina, 4.7 miles northwest of, south side of road, in root of oak tree 2 feet in diameter; copper nail marked "B. M. 293"-----	293. 19
Bovina, 5.7 miles northwest of, 5 feet east of road, in root of oak tree 1 foot in diameter; copper nail marked "B. M. 303"-----	303. 20
Bovina, 7 miles northwest of, forks of Flowerwood and Oak Ridge road, 70 feet south of store barn, east side of road; iron post stamped "321"-----	321. 369
Bovina, 8 miles northwest of, 5 feet east of road; root of elm tree 1 foot in diameter marked "B. M. 330"-----	330. 43
Bovina, 9 miles northwest of, at second-class road crossing running east, in root of water oak tree; copper nail marked "B. M. 325"__	324. 82
Bovina, 10.4 miles northwest of, 10 feet west of road, in root of water-oak tree 2 feet in diameter; copper nail marked "B. M. 305"-----	304. 86
Bovina, 11.7 miles northwest of, 2.3 miles northeast of Redwood, in triangle at forks of road; iron post stamped "184"-----	184. 220
Bovina, 12.4 miles northwest of, 100 feet south of bridge over Skilletelah Creek, in root of blackthorn tree; copper nail marked "B. M. 128"-----	128. 120
Redwood, in northwest quadrant of cross roads, at southeast corner of blacksmith shop; iron post stamped "Prim. Trav. Sta. No. 4, 1914 101"-----	101. 380
Redwood, 1 mile southwest of, at second road crossing west of Redwood, in telephone pole; copper nail marked "B. M. 99"-----	99. 03
Redwood, 2.2 miles southwest of, in third telephone pole west of Blakely station; railroad spike marked "B. M. 106"-----	105. 95
Redwood, 3.2 miles southwest of, south side of track, in telephone pole; railroad spike marked "B. M. 105"-----	104. 60
Redwood, 4 miles southwest of, 50 feet south of Yazoo and Mississippi Valley R. R., 5 feet north of right of way, at second-class road cross, at iron gate; iron post stamped "106"-----	105. 730
Redwood, 5 miles southwest of, 270 feet west of road crossing, in telephone pole; railroad spike marked "B. M. 104"-----	103. 70

Redwood, 6 miles southwest of, at second-class road crossing opposite colored church at signal station, in telephone pole; railroad spike marked "B. M. 103"-----	Feet. 102. 54
Redwood, 7.1 miles southwest of, opposite white cottage, 100 feet west of cattle guard, in telephone pole; railroad spike marked "B. M. 101"-----	100. 69
Vicksburg, 3 kilometers above, on east side of public road near W. H. Hundermark's store, 26 meters from west corner and 16.4 meters from southwest corner of yard, 31.92 meters from center of Yazoo & Mississippi Valley R. R.; copper bolt in stone under ground; top of cap on iron post (U. S. C. E. p. b. m. 2)-----	101. 046

Near Newman's grove.

Newman's grove, 2.8 miles south of, opposite old deserted church, 200 feet south of road forks, in root of pine tree; copper nail marked "B. M. 289"-----	288. 616
Newman's grove, 2 miles south of, 30 feet west of road, in root of sweet-gum tree 2 feet in diameter; copper nail marked "B. M. 315"-----	314. 693
Newman's grove, 1.2 miles south of, 200 feet east of overhead road bridge over Alabama & Vicksburg Ry., in root of water-oak tree; copper nail marked "B. M. 351"-----	351. 46
Newman's grove, 40 feet east of road crossing, 100 feet north of Little's store; iron post stamped "314"-----	313. 792

YOKENA QUADRANGLE.

[Latitude 32°-32° 15'; longitude 90° 45'-91°.]

Near Cedars.

Cedars, 0.5 mile south of, 640 feet east of railroad crossing, at T road running north; iron post stamped "Prim. Trav. Sta. No. 1, 1914"---	104. 298
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Doloroso and Natchez quadrangles.

ADAMS AND JEFFERSON COUNTIES.

The elevations in the following list were determined by primary leveling and accord with the 1912 adjustment.

The leveling was done in 1915 by H. S. Senseney.

DOLOROSO QUADRANGLE.

[Latitude 31° 15'-31° 30'; longitude 91° 15'-91° 30'.]

From Highland Church along highway southwest to point on Kingston Road 6.6 miles southeast of Natchez.

Highland Church, 1.3 miles southwest of, 75 feet west of gate, south side of road, in root of tree; copper nail with washer marked "U. S. B. M. 348"-----	Feet. 348. 44
Natchez, 6.6 miles southeast of, in northeast corner of road forks, near Alex. Turner's mail box; iron post stamped "Prim. Trav. Sta. No. 9, 1914, 321"-----	320. 839

NATCHEZ QUADRANGLE

[Latitude 31° 30'–31° 45'; longitude 91° 15'–91° 30'.]

From Natchez northeast along Yazoo & Mississippi Valley R. R. to Selma, thence along highways southwest to Washington, thence south 5.5 miles, thence southwest to Highland Church.

Natchez, United States Engineers' gage, in middle park on the bluff at head of street leading up from "under the hill," near a large red-oak tree and in line with the north side of Bontura alley, which is midway between and parallel with Main and State streets, cap on pipe, has raised letters "U. S. C. E. B. M." around a raised knob in center; stone and pipe (C. & G. S. report, 1907)-----	Feet. 199. 612
Natchez, Monroe, and Wall streets, intersection of; top of south rail.	212. 7
Natchez, Monroe, and Union streets, intersection of; top of south rail.	228. 1
Natchez, 200 feet west of Standard Oil Co., north side of track, in telephone pole; spike marked "U. S. B. M. 205"-----	205. 31
Natchez, 2.6 miles east of, at southwest corner of road crossing, near the Mississippi Packing Co., in telephone pole; spike marked "U. S. B. M. 180"-----	179. 54
Natchez, 2.6 miles east of, at southeast corner of road crossing, near the Mississippi Packing Co., in culvert; bronze tablet stamped "181"-----	180. 981
Natchez, 3.6 miles east of, west end of trestle "LN 94-56," north side of trac; painted bolthead marked "U. S. B. M. 15"-----	152. 56
Natchez, 4.7 miles east of, east end of trestle "LN 93-43," south side of track; painted bolthead marked "U. S. B. M. 172"-----	171. 84
Foster, front of station; top of north rail-----	185. 0
Foster, 50 feet north of freight station, in concrete foundation of engine of burned mill; bronze tablet stamped "192"-----	192. 230
Foster, 1 mile east of, 12 feet west of milepost "N. 7 J. 91," south side of track, in telephone pole; spike marked "U. S. B. M. 192"-----	191. 85
Foster, 2.1 miles east of, west end of trestle "LN 89-95," north side of track; painted bolthead marked "U. S. B. M. 218"-----	218. 44
Selma, front of station; top of south rail-----	229. 2
Selma, 680 feet south of, east side of road, in culvert; bronze tablet stamped "219"-----	218. 921
Selma, 1.2 miles southwest of, at road forks, in mail-box post; spike marked "U. S. B. M. 285"-----	284. 55
Washington, southwest corner of road forks, in culvert; bronze tablet stamped "279"-----	279. 339
Washington, 0.9 miles south of, on northeast corner of small bridge; copper nail with washer stamped "U. S. B. M. 204"-----	203. 86
Washington, 1.5 miles south of, at road forks, in root of tree; copper nail with washer marked "U. S. B. M. 289"-----	288. 81
Washington, 2.1 miles south of, at railroad crossing; top of south rail.	297. 0
Washington, 3.2 miles south of, 0.2 mile northwest of road forks, east side of road, in culvert; bronze tablet stamped "380"-----	380. 509
Washington, 4.4 miles south of, east side of road, in stump; copper nail with washer marked "U. S. B. M. 389"-----	388. 88
Washington, 5.5 miles south of, about 1 mile east of Zion Watch Church, at road forks; iron post stamped "Prim Trav. Sta. No. 8, 1914, 314"-----	313. 964
Zion Watch Church, 100 feet west of crossroads, south side of road, in root of tree; copper nail with washer marked "U. S. B. M. 345"-----	345. 07

Zion Watch Church, 0.9' mile west of, 180 feet west of gate to Mount Airy, south side of road, on culvert; chiseled square marked "U. S. B. M. 356" -----	Feet. 355. 63
Zion Watch Church, 2.1 miles southwest of, 50 feet south of road forks, west side of road, opposite gate; iron post stamped "358" -----	358. 278
Highland Church, front of, in root of tree; copper nail with washer marked "U. S. B. M. 362" -----	361. 58
 From point 6.6 miles southeast of Natchez along Kingston Road to Natchez.	
Natchez, 5.4 miles southeast of, west side of road, in root of tree; copper nail with washer marked "U. S. B. M. 249" -----	249. 30
Natchez, 4.2 miles southeast of, west side of road, on culvert; chiseled square marked "U. S. B. M. 118" -----	118. 18
Natchez, 3.6 miles south of, 80 feet east of road forks just south of bridge over St. Catherines Creek, south side of road, in culvert; bronze tablet stamped "105" -----	104. 418
Natchez, 2.5 miles south of, west end of north abutment of small bridge; chiseled square marked "U. S. B. M. 120" -----	120. 39
Natchez, 1.7 miles south of, where Mississippi Central R. R. crosses road, in east abutment, under center of track; bronze tablet stamped "151" -----	150. 838
 From Natchez along highways north to Anna, thence east and south to Selma.	
Natchez, 2 miles northeast of, 50 feet south of bridge, west side of road, on culvert; chiseled square marked "U. S. B. M. 159" -----	158. 71
Natchez, 3.6 miles northeast of, 640 feet north of road forks, west side of road, in culvert; bronze tablet stamped "240" -----	240. 436
Natchez, 4.7 miles northeast of, west side of road, on culvert; chiseled square marked "U. S. B. M. 273" -----	272. 52
Pine Ridge, 0.2 mile north of post office, 60 feet south of road forks, east of road; iron post stamped "Prim. Trav. Sta. No. 10, 1914, 271" -----	270. 999
Pine Ridge, 1.2 miles north of post office, 50 feet north of road forks, west side of road, on culvert; chiseled square marked "U. S. B. M. 263" -----	262. 77
Pine Ridge, 2.2 miles northwest of post office, 180 feet west of gate, south side of road, in root of tree; copper nail with washer marked "U. S. B. M. 238" -----	238. 87
Pine Ridge, 3.5 miles northwest of post office, east side of road in root of tree; copper nail with washer stamped "U. S. B. M. 255" -----	255. 39
Anna, 2.7 miles southwest of, on the Jenkins plantation, 4 feet south of gate to cotton gin; iron post stamped "88" -----	88. 246
Anna, 1.7 miles southwest of, 100 feet west of Friendship Church, south side of road, in root of tree; copper nail with washer marked "U. S. B. M. 81" -----	80. 99
Anna, 60 feet south of road forks, west side of road; iron post stamped "Prim. Trav. Sta. No. 11, 1914, 84" -----	84. 342
Anna, 1.3 miles southeast of, 20 feet north of old road, west side of road, in tree; spike marked "U. S. B. M. 287" -----	287. 33
Anna, 2.3 miles southeast of, northwest corner of crossroads, on culvert; chiseled square marked "U. S. B. M. 282" -----	281. 78

	Feet.
Anna, 3.4 miles east of, 50 feet south of gate, in center of triangle made by forks of road; iron post stamped "277"-----	276.475
Anna, 4.5 miles east of, north side of road, 15 feet west of gate, in root of tree; copper nail with washer stamped "U. S. B. M. 212"---	211.44
Anna, 5.6 miles east of, south side of road, in root of tree; copper nail with washer marked "U. S. B. M. 216"-----	215.82
Anna, 7.2 miles east of, where road turns south to Milford Church, 30 feet east of forks; iron post stamped "219"-----	219.340
Milford Church, 1.5 miles north of, at southeast corner of small bridge, in post; copper nail with washer marked "U. S. B. M. 134"---	133.45
Milford Church, 0.5 mile northwest of, 150 feet east of road forks, in chimney of negro cabin; bronze tablet stamped "237"-----	237.028
Milford Church, 1 mile south of, east side of road, in tree; spike marked "U. S. B. M. 275"-----	274.43
Milford Church, 2.6 miles south of, 50 feet west of north end of bridge over Wades Bayou, in root of tree; copper nail with washer marked "U. S. B. M. 190"-----	190.14
Milford Church, 3.6 miles south of, northeast corner of road forks; iron post stamped "280"-----	280.211
Milford Church, 4.8 miles south of, 240 feet east of St. Mary's Church, north side of road, on culvert; chiseled square marked "U. S. B. M. 279"-----	278.40

Burnsville and Iuka quadrangles.

TISHOMINGO COUNTY.

The following elevations are based on Coast and Geodetic Survey bench marks and the United States Corps of Engineers' bench marks in the vicinity of Iuka.

The leveling was done in 1909 by William Oram and in 1911 by J. B. Metcalfe, jr.

For additional elevations in Iuka quadrangle in Alabama, see Bulletin 517.

IUKA QUADRANGLE.

[Latitude 34° 45'-35°; longitude 88°-88° 15'.]

From a point 3 miles west of Iuka, north along highways via Eaves to a point 2.18 miles north of Gardner's store.

	Feet.
Iuka, 3 miles west of, 200 feet west of grade crossing, southeast corner of stone culvert; aluminum tablet-----	490.782
Iuka, 2.3 miles northwest of, 300 feet east of creek crossing, 6 feet east of road to south; nail in root of gum tree, marked "487.2"---	487.26
Iuka, about 4 miles northwest of, 100 feet west of Barns's mail box, in northwest corner of second-class road crossing, 6 feet north of road; nail in root of hickory tree, marked "612.5"-----	612.45
E. F. Parnell's house, about 600 feet northeast of, in southeast angle of four corner roads, 75 feet east of drain crossing; iron post stamped "508"-----	507.448
Eaves, 1.5 miles south of, 250 feet west of residence of A. W. Davice, 6 feet north of T road south; nail in root of red-oak tree, marked "527"-----	527.00

Eaves, 0.2 mile south of, 20 feet north of second-class road to southwest, 6 feet west of road; copper nail in root of red-oak tree, marked "561.5"-----	Feet. 561.47
Eaves, 40 feet north of old store building, 25 feet west of road, 400 feet north of drain crossing; iron post stamped "Prim. Trav. Sta. No. 10, 509"-----	508.610
Price's mill, 1.9 miles south of, copper nail in top of stump painted "467"-----	466.93
Yellow Creek, 1,135 feet south of, about 350 feet northeast of Levi Robertson's house, 6 feet east of road; copper nail in root of white-oak tree 4 feet in diameter, marked "428.4"-----	428.37
Price's mill, 0.2 mile south of, in north angle of three corner roads, 350 feet east of one-story frame house painted white; iron post stamped "485"-----	484.776
Gardner's store, 0.5 mile north of, in southwest corner of T road southeast, 150 feet south of B. M. Mosley's mail box; notch cut in side of 15-inch maple tree, marked "462.6"-----	462.51
Intersection of roads, top of hill; copper nail in root of white oak, marked "472.4"-----	472.32
Gardner's store, 1.5 miles north of, 15 feet east of steep rise in road, 150 feet south of second-class road forks to west; copper nail in root of leaning 12-inch hickory tree, marked "545"-----	544.97
Gardner' store, 2.2 miles north of, 300 feet north of second-class T road east, 8 feet east of road, about 0.2 mile north of church and schoolhouse, 175 feet T road to west; J. W. Smith's mail box is in southwest corner of T road; iron post stamped "451"-----	451.375
Iuka, in hotel yard of Mr. Leatherwood, about 130 feet north of railroad crossing and 40 feet south of hotel, just inside of fence; iron post stamped "569"-----	569.261

From Iuka northwest along Southern Ry. 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 Engineers)-----	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

From Iuka southeast along Southern Ry. 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 farthest 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

PRIMARY LEVELING.

45

From Iuka south along roads 3 miles and return.

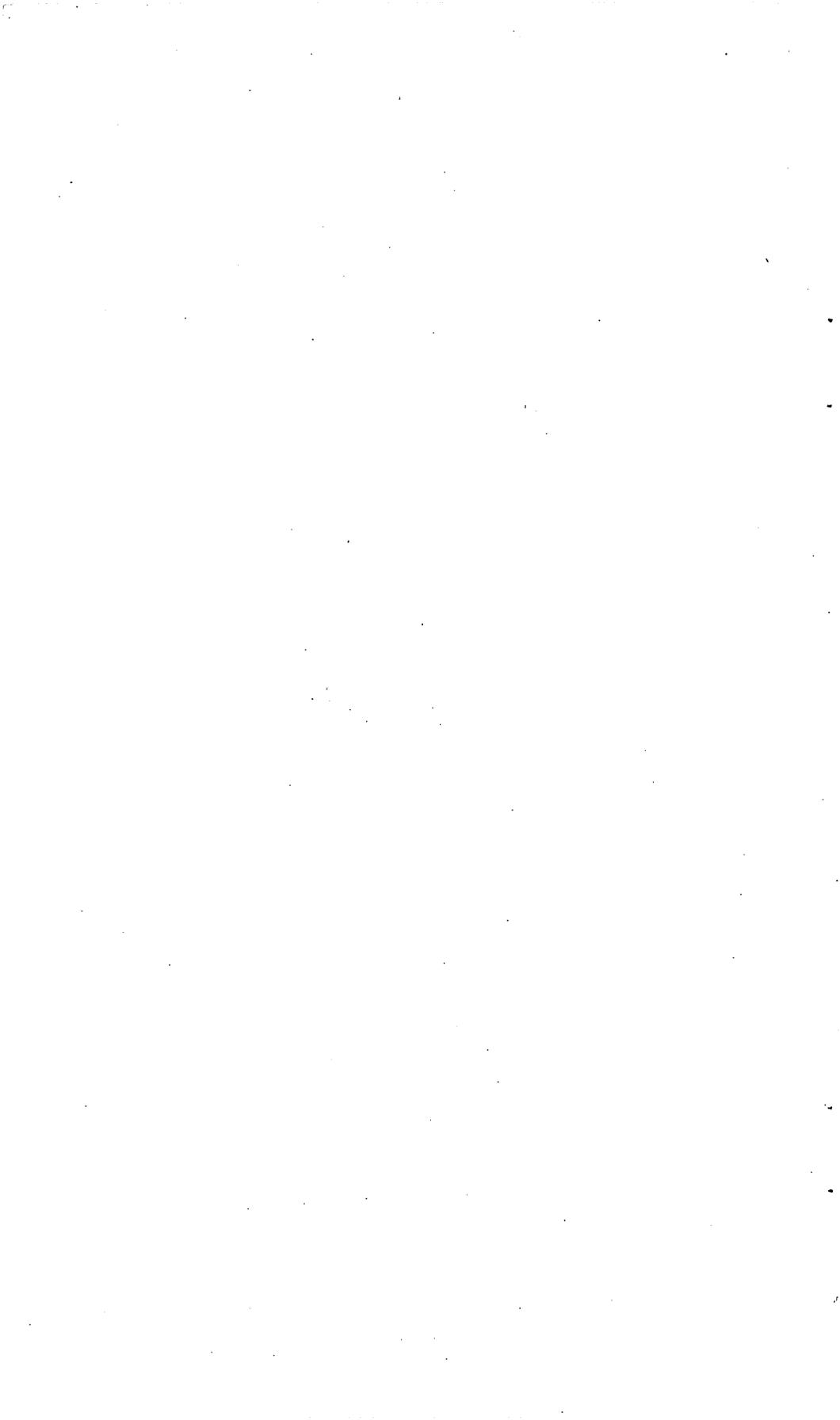
Iuka, 2.2 miles south of, 400 feet south of house, in root of large oak tree, copper nail marked "598"-----	Feet. 597.974
Iuka, 3.3 miles south of, at intersection, 50 feet south of stream crossing, east side of road; iron post stamped "548"-----	547.922

BURNSVILLE QUADRANGLE.

At Burnsville.

[Latitude 34° 45'-35°; longitude 88° 15'-88° 30'.]

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)-----	470.024
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APPENDIX.

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

Arkansas City, Artesia, Basic City, Bay St. Louis, Bee Lake, Beulah, Biloxi Bay, Booneville, Bougere, Bovina, Bucatunna, Burnsville, Chunky, Clarksville, Commerce, Corinth, Cude, Decatur, Eagle Bend, Fitler, Florence, Fort Adams, Fort Loring, Friar Point, Greenville, Greenwood, Gulfport, Harpersville, Heathman, Ittabena, Iuka, Jackson, Lacona, Lake Providence, Leland, Longwood, Lucre, Macon, Meridian, Milliken, Montgomery Point, Moon Lake, Morton, Natchez, Nettleton, Norfolk, Pelahatchee, Perthshire, Pettit, Quitman, Raymond, Redleaf, Redwood, Renalara, Rigolets, Satartia, Scooba, Scranton, Shubuta, Sidon, Stormville, Tchula, Tunica, Tupelo, Vicksburg, Vinegar Bend, West Point, Wilsons Point, and Yazoo quadrangles.

ADAMS, ALCORN, BOLIVAR, CLARKE, COAHOMA, DESOTO, HANCOCK, HARRISON, HINDS, HOLMES, ISSAQUENA, JACKSON, KEMPER, LAUDERDALE, LEE, LEFLORE, LOWNDES, NEWTON, NOXUBEE, PRENTISS, RANKIN, SCOTT, SUNFLOWER, TISHOMINGO, TUNICA, WARREN, WASHINGTON, WAYNE, WILKINSON, AND YAZOO COUNTIES.

The following descriptions and elevations are taken from reports of the Coast and Geodetic Survey and are republished by permission of the superintendent of that bureau. The bench marks were established by the Coast and Geodetic Survey, by the Mississippi River Commission, and by the Corps of Engineers, United States Army, from precise leveling and were included in the 1912 adjustment by the Coast and Geodetic Survey. The elevations are likely to be changed only slightly by any future adjustment. For descriptions and elevations of secondary bench marks along the Mississippi River, see Permanent marks, Cairo to the Gulf of Mexico, vols. 1, 2, and 3, Mississippi River Commission, 1915.

ARKANSAS CITY QUADRANGLE.

[Latitude 33° 30'–33° 37' 30"; longitude 91° 07' 30"–91° 15'.]

Along Mississippi River.

Bolivar, in northwest corner of lot owned by Dr. Richardson, 15 meters back of levee, and 12 meters north of the northwest corner of Dr. Richardson's house, 6 meters from front of office adjoining the house, 16 meters north of brick cistern in yard, and about 900 meters above Bolivar post office; top of brass bolt in stone post (U. S. C. E. p. b. m. 78) -----	Feet. 141.050
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Buck Ridge, on Maj. Edmonds's plantation, about 60 meters back of levee, and about 50 meters northwest of Maj. Edmonds's house, on north side of garden fence near northwest corner of garden; top of brass bolt in stone post (U. S. C. E. p. b. m. 79)-----	Fect. 141. 863
Content, about 15 meters back of levee and 18 meters east of Miller's store, on land of E. F. Miller (lessee), in northwest corner of field at intersection of road leading across the point from Content to Jenkins Landing, with levee road; top of brass bolt in stone post (U. S. C. E. p. b. m. 80)-----	143. 297
Childers, or Jenkins Landing, on grounds of the Jenkins's estate, three-fourths of a mile above Stop Landing, 10 meters back from levee, in southwest corner of yard, 25 meters southwest from corner of Jenkins's house, about 27 meters southwest of cistern on south side of house, 50 meters south of cistern on north side of house, and 3 meters south of large gum tree; top of brass bolt in stone post (U. S. C. E. p. b. m. 81)-----	140. 456
Mound Place, in west corner of W. E. Ringo's yard, about 10 meters back from levee and 75 meters northeast of new store, now building, of W. E. Ringo & Co., stone is about 27 meters west from corner of house, and about 75 meters southwest of store of Simon & Brown; top of brass bolt in top of stone post (U. S. C. E. p. b. m. 82)-----	138. 993
Wilkersons Landing, near, on O. L. Shelby's plantation, in southwest corner of yard back of Shelby's house (lately torn down); 55 meters back of levee, which is here about 200 meters from river bank, 40 meters southwest of a red cedar tree, 60 meters southwest of the easterly cistern and 30 meters southwest of the westerly cistern in yard, and about 110 meters west of store at Wilkerson's landing, a blacksmith shop is to be built just west of the site of the old Shelby house; top of brass bolt in stone post (U. S. C. E. p. b. m. 83)-----	139. 219
Port Anderson, in southeast corner of yard on Thomas S. Kennedy's plantation (John Graves, lessee), 25 meters east of a brick cistern at southeast corner of house and 40 meters southeast of a brick cistern at northeast corner of house, 55 meters back from levee and about 160 meters above an abrupt turn in levee; top of brass bolt in top of stone post (U. S. C. E. p. b. m. 85)-----	136. 968
Arkansas City, opposite, 1,600 meters below Shelby's store and 650 meters below junction of levees, and 630 meters above another junction, on inner slope of levee on Clarke Place; stone (M. R. C. stone 63/2)-----	145. 262
Port Anderson, 425 meters above second angle below residence, at angle in levee, at Levee Board station 3710; iron pipe (U. S. C. E. t. b. m. 121.=Levee Board b. m.)-----	145. 046

ARTESIA QUADRANGLE.

[Latitude 33° 15'-33° 30'; longitude 88° 30'-88° 45'.]

Artesia, in the southwest pier of the hotel, in the third course from the top and one brick from the north end of the pier; center of cross on copper bolt leaded horizontally into a brick (C. & G. S. b. m. G)-----	234. 419
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BASIC QUADRANGLE.

[Latitude 32°-32° 15'; longitude 88° 45'-89°.]

At Enterprise.

Enterprise, center of head of copper bolt, 0.0646 meter in length and 0.0132 meter in diameter, leaded horizontally in the middle of a brick in the north face of Chickasahay Mills. The brick is in the tenth course above the ground, about halfway between the two main doors of brick structure (C. & G. S. b. m. B₂)-----
Feet.
245. 255

BAY ST. LOUIS QUADRANGLE.

[Latitude 30° 15'-30° 30'; longitude 89° 15'-89° 30'.]

Near Bay St. Louis.

Bay St. Louis, about one-half meter north of the fence along the south side of right of way of the Louisville & Nashville R. R. and about 1 meter west of the corner of the fence at the west side of Front Street, about 12 meters south of the center of the track, and about 30 meters west of the railroad trestle over Bay St. Louis; the stone is about 2 inches above ground and has its corners chipped off; the top of a copper bolt leaded in the top of a stone, marked "U. S." (U. S. C. E. p. b. m. 11)-----
21. 391

Bay St Louis, in the face of the southern brick wall of the vestibule of the Catholic Church, about halfway between the side entrance of the vestibule and the main front wall and about 1 meter above the ground; the building has been stuccoed over and a hole left in the stucco at the bolt; center of a copper bolt leaded horizontally (U. S. C. E. p. b. m. 10)-----
23. 530

Waveland, 36 meters south of the southwest corner of the station, on the Louisville & Nashville R. R., in line with the fence on the west side of the lane along the west side of Merwood dairy farm, 12 meters north from the corner of the fence at the end of the lane, 12 meters west of the shell road leading toward the bay; and is the top of a cross in the center of a marking stone marked "U. S." projecting 3 inches above the ground (U. S. C. E. p. b. m. 9)-----
15. 492

BEE LAKE QUADRANGLE.

[Latitude 33°-33° 07' 30"; longitude 90° 15'-90° 22' 30'.]

At Bee Lake.

Bee Lake, at north corner of Illinois Central R. R. depot;
 Top of bolt in limestone (U. S. C. E. p. b. m. 29)-----
 Top of cap on iron post-----
108. 038
112. 106

BEULAH QUADRANGLE.

[Latitude 33° 45'-33° 52' 30"; longitude 90° 52' 30"-91'.]

Along Mississippi River.

Beulah, about three-fourths of a mile below, on the land of the Owens heirs, a quarter of a mile above northwest corner of the Bell plantation, now owned by J. W. Farmer, 1 meter southwest of a sycamore tree and 142 meters northeast of a house; top of copper bolt in top of stone (U. S. C. E. p. b. m. 71)-----
146. 342

Clark's landing, about 520 meters below, 42 meters back from Lake Beulah, $1\frac{1}{2}$ meters from cottonwood tree in woods, in top of stone set in ground; top of copper bolt (U. S. C. E. p. b. m. 72)----- Feet. 148. 517

BILOXI BAY QUADRANGLE.

[Latitude $30^{\circ} 15' - 30^{\circ} 30'$; longitude $88^{\circ} 45' - 89^{\circ}$.]

Near Biloxi and Ocean Springs.

- Biloxi, on the building on the southwest corner of Back Bay road (or Mule Street) and Jackson Street. The center of head of copper bolt leaded horizontally into the center of the second brick from the southeast corner of the fourteenth course above the sidewalk, in the east wall (C. & G. S. b. m. $I_1 = U. S. C. E. b. m. 18$)----- 22. 041
- Biloxi Bay Bridge, 225 meters west of the west end of and 30 meters south of center of track of the Louisville & Nashville R. R. The bench mark is a cross cut on the top of the marking stone (the copper bolt has been destroyed) set in the ground. Pine trees near the stone are marked with five narrow blazes (C. & G. S. b. m. $H_1 = U. S. C. E. p. b. m. 19$)----- 5. 856
- Biloxi Bay Bridge, on the Louisville & Nashville R. R. The bench mark is the head of a copper bolt leaded vertically in the top of a marking stone set in the ground 4 meters north of center of track and 114 meters west of the west end of bridge. The letters "U. S." are cut upon the top of the stone (C. & G. S. b. m. $G_1 = U. S. C. E. p. b. m. 20$)----- 6. 939
- Biloxi Bay Bridge, on the north side of the drawbridge pier of, on the Louisville & Nashville R. R. The top of a copper bolt leaded vertically in the concrete inside of the iron caisson. The bolt is about halfway between cogwheels and extreme north point of iron caisson. It is 16 inches to extreme north edge of caisson and 18 inches to cogwheels. The caisson is 30 feet in diameter, filled with concrete, and rests on top of piles in 12 feet of water (C. & G. S. b. m. $F_1 = U. S. C. E. p. b. m. 21$)----- 1. 073
- Biloxi Bay Bridge, near the east end of; about 68 meters south of the Louisville & Nashville R. R. track, in the yard of and near the northwest corner of the frame house owned and occupied by Rev. J. B. Walker. The bench mark is the bottom of the square cut in the top of a marble stone, 6 by 4 inches on top and about $2\frac{1}{2}$ feet long, projecting about 1 inch above ground, and has the letters "U. S. C. S." cut upon the top. Distance from center of bench to brick pier under northwest corner of house 0.8 meter (C. & G. S. b. m. E_1)----- 15. 722
- Ocean Springs, in chimney on west side of storehouse owned and occupied by A. Franco. It is the center of head of copper bolt 0.0125 meter in diameter, leaded horizontally into the middle brick in the twenty-first layer above the ground (C. & G. S. b. m. D_1)----- 24. 728
- Ocean Springs, near, near the east end of the Biloxi Bay Bridge, and about 68 meters south of the Louisville & Nashville R. R. track, in the yard of the frame house owned and occupied by the Rev. J. B. Walker, and 0.8 meter from the brick pier under the northwest corner, the bottom of a square cut in the top of a marble stone 6 by 4 inches on top and about $2\frac{1}{2}$ feet long, projecting about 4 inches above the ground, with the letters "U. S. C. S." cut upon the top (C. & G. S. p. b. m. E_1)----- 15. 722

Ocean Springs, near, on the east side of Biloxi Bay, 75 meters north of the Louisville & Nashville R. R. track, and about 90 meters east of the Biloxi Bay R. R. trestle; 1 meter west of the gallery of the summer cottage of Bishop J. C. Keenor, and 3½ meters north of the southwest corner of the gallery in front of the house:	
¾-inch copper bolt leaded into a vitrified tile.....	Feet. 18. 097
Top of cap (U. S. C. E. p. b. m. Keenor).....	22. 080
Biloxi, on the upper edge of the iron plate of the Biloxi gage, at angle in the line of piling near gage house; marks are cut thus: \blacktriangle in the iron, and the letter B is cut in plank near the bench mark (U. S. C. E. p. b. m. Biloxi gage B).....	5. 571
Biloxi, near, 225 meters west of Biloxi Bay Bridge, and 30 meters south of the center of track of the Louisville & Nashville R. R., on the top of a stone post. Permanent bench mark 19 or H ₁ was established on this stone, but the top was broken off, destroying the mark. The present bench mark is the intersection of cross lines in the corner of the stone nearest the bay. (Pine trees near the stone are blazed facing it) (U. S. C. E. p. b. m. 19 A).....	5. 696
Biloxi, in the northeast corner of the yard of the public school, on the south side of the Louisville & Nashville R. R., and on the west side of the street which leads south to the city hall, in the northeast root of a leaning sycamore tree about half an inch under the surface of the ground; top of wire nail (U. S. C. E. t. b. m. 184).....	17. 592
Biloxi, in the top of the southeast corner of the buttress standing on the east side of the entrance to the city hall and courthouse, on the north side of Howard Avenue and facing Main Street leading south to the beach; the top of the buttress is the same height as the water table of the building, and is built of brick and covered with cement, the bolt is 0.1 meter from the east and south edges of the buttress and nearly flush with its surface; the top of copper bolt leaded vertically (U. S. C. E. p. b. m. City Hall).....	23. 041
Biloxi, about 60 meters southwest of the southwest corner of the passenger depot in one of the many northeast roots of the large, lone, double, live-oak tree standing in open plat of ground which belongs to the Louisville & Nashville R. R. Co. and is a proposed park; top of a wire nail (U. S. C. E. t. b. m. 183).....	23. 576
Biloxi, 13 meters south of the warehouse and 115 meters west of the Louisville & Nashville R. R. passenger depot, in the northwest portion of open plat of ground belonging to the railroad and proposed as a park, 25 meters east of the Hygeia ice plant, in the south root of a 4-foot live-oak tree, about 3 feet from the body of the tree; top of a wire nail (U. S. C. E. t. b. m. 186).....	23. 806
Biloxi, in the southeast corner of the yard of the Hygeia ice plant, owned by Charles McCormack; 30 meters south of the ice factory building, 74 meters south of the Louisville & Nashville R. R., 136 meters west of the passenger depot, about 1 meter each from the south and east fences; the cap is about 2 feet above the ground; ¾-inch copper bolt leaded into a vitrified tile.....	21. 352
Top of cap (U. S. C. E. p. b. m. Hygeia).....	25. 331
Beauvoir, in the top of a marking stone 11 meters south of the center of the track of the Louisville & Nashville R. R., 2½ meters west and 1 meter north of the southwest corner of the station building, the corners of the stone are chipped off; a copper bolt leaded (U. S. C. E. p. b. m. 17).....	25. 800

BOONEVILLE QUADRANGLE.

[Latitude 34° 30'–34° 45'; longitude 88° 30'–88° 45'.]

At Booneville.

Booneville, in the east front of the courthouse, the brick is in the eighteenth course below the window sill, and is the second one from the northeast corner; the center of a cross in end of a brass bolt leaded horizontally into a brick (C. & G. S. b. m. T)----- Feet.
533.982

BOUGERE QUADRANGLE.

[Latitude 31° 15'–31° 22' 30"; longitude 91° 30'–91° 37' 30".]

Near Arnot on Mississippi River.

Arnot, near, 286 meters back of Kindling Altar Church (colored), on left bank of river, a little below middle of Dead Mans Bend, 9 meters west of permanent bench mark Kindling; wire fence is nailed to south side of this tree; tree in field and south root in lane, in bench cut on south root of a 36-inch oak tree standing on north side of lane; top of 30d. boat spike driven vertically (U. S. C. E. t. b. m. 35)----- 52.027

Arnot, near, on left bank of river, among some trees at back edge of field on land of Mrs. Margaret Winchester, 1½ meters north of north fence of land leading back from the river past the Kindling Altar Baptist Church (colored), which stands on north side of lane on land of M. Rothchild, of Keinstra, La. It is a little below Gaines Landing, a little below the middle of Dead Mans Bend, 9 meters back of tree bearing temporary bench mark 35, 295 meters back of the church, and 414 meters back of left bank of river; a 12-inch gum tree standing just north of fence is 3 meters west of pipe; an 18-inch hackberry stands north-northeast 3 meters; a 15-inch gum stands east-northeast 3 meters; all blazed with a triangle facing pipe:
Bolt in tile----- 48.825
Top of cap (U. S. C. E. p. b. m. Kindling)----- 52.818

BOVINA QUADRANGLE.

[Latitude 32° 15'–32° 30'; longitude 90° 30'–90° 45'.]

From Bovina east along Alabama & Vicksburg Ry. to point near Bolton.

Bovina, in front (south) wall of brick building owned by the district school and used as a store, just east and north of the railroad station; the intersection of a cross in end of copper bolt in the twenty-second course above ground, fifteenth course above sidewalk, and in second brick from the southwest corner (C. & G. S. b. m. H)--- 247.368
Big Black River, on west abutment of Alabama & Vicksburg Ry. bridge over, south of track, and about 2 meters below top of rails; the bottom of a square cut in top of stone supporting end of iron superstructure, marked "U. S. □ B. M." (C. & G. S. b. m. I)----- 152.706
Big Black River, in the top of the remains of the old stone pier to the old railway (Alabama & Vicksburg) bridge over; the old pier is on the east bank of the river between the two iron piers under the new bridge, on the southwest corner of the old pier; the bottom of a square cut, lettered "U. S. □ B. M." (C. & G. S. b. m. J)----- 105.672

Smiths station, south of the track and east of the cottonseed warehouse of Mississippi Cotton Oil Co., Capital City Mill, and near the railway right of way; the iron marks the northeast corner of a lot owned by John Fleckenstein; the surface at the intersection of a cross cut on top of a piece of railroad iron buried firmly in the ground (C. & G. S. b. m. K)-----	Feet. 134. 859
Edwards, in the side (east) wall of the brick railroad station building at, in the eleventh course above the ground and in the second brick from southeast corner of the building; the intersection of a cross in end of a copper bolt (C. & G. S. b. m. L)-----	226. 213
Edwards, about 5½ kilometers east of, in the top of the stone pier under the railroad bridge over Bakers Creek; the pier is on the east bank under the trestle work just east of the end of the iron bridge, and the bench mark is south of the track near the south edge of the pier; the bottom of a square cut marked U. S. □ B. M. (C. & G. S. b. m. M)-----	173. 166

BUCATUNNA QUADRANGLE.

[Latitude 31° 30'–31° 45'; longitude 88° 30'–88° 45'.]

From Bucatunna north along Mobile & Ohio R. R. to Waynesboro.

Bucatunna, center of cross on head of copper bolt leaded horizontally in south chimney of house belonging to Mr. F. H. Hooge. This house is on the west side of the Mobile & Ohio R. R., about 50 meters south of railroad station. The bolt is in the center of the middle brick in the thirteenth course above the water-table course (C. & G. S. b. m. J ₂)-----	151. 328
Winchester, bottom of cavity 1 inch square and one-half inch deep, cut in white marble block set in front yard near the gate of Mr. A. J. Hendrick's house. This marble block projects about 4 inches above the ground; bottom of square cut in top of stone post (C. & G. S. b. m. K ₂)-----	163. 067
Waynesboro, center of cross on head of copper bolt leaded horizontally into a brick on the front side of Mr. J. P. Turner's store on the northeast corner of Car and Station streets. The bolt is in the center of the fifth brick from the south wall and in the twelfth course above the foundation (C. & G. S. b. m. L ₂)-----	192. 923

BURNSVILLE QUADRANGLE.

[Latitude 34° 45'–35°; longitude 88° 15'–88° 30'.]

At Burnsville.

Burnsville, 195 feet south of station, in west wall of brick house belonging to Mr. M. O. Elledge, 105 feet south of its northwest corner, in the fifteenth course of brick from the ground; center of the punch mark in copper bolt leaded horizontally (U. S. C. E. p. b. m. 1)-----	470. 025
Burnsville, 138 feet north of center of railroad track, 65 feet east of the east end of depot, in foundation of old turntable, on the east part of wall near center of large coping stone; top of copper bolt leaded vertically (U. S. C. E. p. b. m. 2)-----	465. 225
Burnsville, 9 miles west of, 607 feet east of mile post 453A (from Bristol), on the north edge and 16 inches from the west edge; bottom of a square hole cut in stone (C. & G. S. b. m. A ₂)-----	538. 644

Corinth, 4½ miles east of, 2,900 feet east of milepost 455A (from Bristol), on the south end of a stone-arch culvert, on the east coping stone, 12 inches and 10 inches from the south and east edges, respectively; bottom of a square hole cut in stone (C. & G. S. b. m. B₂) ----- Feet.
 481. 118

CHUNKY QUADRANGLE.

[Latitude 32° 15'–32° 30'; longitude 88° 45'–89°.]

From Chunky east along Alabama & Vicksburg Ry. to Meridian.

Chunky, in the cement covering the top of the brick retaining wall to the small culvert, the culvert is near the railroad station, on the east side, and the bench mark is north of the main track, between it and the switch; the bottom of a square cut (C. & G. S. b. m. D₁) ----- 311. 892

Chunky River, on the railway bridge (iron) over (second crossing east of Chunky station), in the stone pier under the west end of the bridge and helps to hold the iron plate under the west end of the superstructure in position, it is south of the track, at the west end of the plate, and inside the superstructure, the stone of which the pier is composed is soft and irregular; top of an iron bolt (C. & G. S. b. m. E₁) ----- 298. 037

Graham station, in the top of the elbow on top of the 2½-inch pipe of the small artesian well in the yard of W. J. Graham, the pipe extends 20 feet into the ground and has been in position for several months, there is a large artesian well in the yard, near the small one; the surface at the intersection of a cross cut, lettered "U.S. + B.M." (C. & G. S. b. m. F₁) ----- 309. 566

Meridian, 8 miles west of, in the upper surface of the brick lining to the railroad tunnel, at the west entrance to the tunnel in the fifth course above the end of the ties, counting around the lining, and the third brick from the west end of the tunnel, north of the track; bottom of square cut, lettered "U.S. □ B.M." (C. & G. S. b. m. G₁) ----- 389. 402

CLARKSDALE QUADRANGLE.

[Latitude 34° 07' 30"–34° 15'; longitude 90° 30'–90° 37' 30".]

Near Clarksdale.

Lyon, in ground near northeast corner of Baptist Church, which is a large frame structure about 400 meters south of depot and 200 meters west of track; pipe is in line with north wall of church and 2 meters east of east wall; top of iron pipe (U. S. C. E. p. b. m. Lyon) ----- 173. 963

Clarksdale, in ground at west corner of courthouse grounds, 18 meters northwest of line of extreme northwest wall and 39 meters southwest of line of southwest wall, north 83° west 41 meters from northwest corner; top of iron pipe set vertically in ground (U. S. C. E. p. b. m. Clarksdale I) ----- 173. 805

Clarksdale, near south corner of main portion of section foreman's house, in line with southwest wall of main portion of building and 2 meters from northwest wall of same part of house; house is most northeasterly of three and 400 meters (?) northeast of track; top of iron pipe set vertically in ground (U. S. C. E. p. b. m. Clarksdale II) ----- 172. 565

Sunflower River, on stone cap block of northeast pier (Clarksdale side) of Yazoo & Mississippi Valley R. R. bridge over, at upstream end of pier, in line with northeast face of pedestal block and 0.1 meter from north corner of pedestal; cross cut marked "U. S. + P. B. M." (U. S. C. E. p. b. m. Clarksdale III)-----
 Feet. 172. 943

COMMERCE QUADRANGLE.

[Latitude 34° 45'-34° 52' 30"; longitude 90° 22' 30"-90° 30'.]

Along Mississippi River.

Commerce, in southeast corner of field, at northwest corner of intersection of the "Commerce-Austin" or county road with "Abbey's Lane," in center line of east fence of field, and 12 meters north of south fence; the field belongs to Mr. John R. Bridger; top of copper bolt leaded vertically into top of stone post 3 feet long and 5 inches square, set in ground with its top about 4 inches above the surface, marked "U S X B M" (U. S. C. E. p. b. m. Commerce)-----
 197. 017

Mhoons landing, in northwest corner of field belonging to Mhoon and Brinkley, 3 meters from north fence and 0.5 meter from west fence, in front of Allen Brinkley's house, about 400 meters west of road leading to landing, and about 30 meters south of levee; top of copper bolt leaded vertically into top of stone post 3 feet long and 5 inches square, set in ground with top about 4 inches above ground and marked "U S X B M" (U. S. C. E. p. b. m. Mhoons landing)--
 194. 662

CORINTH QUADRANGLE.

[Latitude 34° 45'-35°; longitude 88° 30'-88° 45'.]

From Rienzi north along Mobile & Ohio R. R. to Corinth.

Rienzi, in the outer face of the north chimney on the east side of Taylor's Hotel, the brick is in the fifteenth course above the ground and is the third one from the north side of chimney; the center of a cross in end of a copper bolt leaded horizontally into a brick (C. & G. S. b. m. U)-----
 455. 800

Corinth, in the east wall of a store on Waldren Street, the building is opposite the courthouse and is used as the city hall; brick in the third course above the sill of the window, near the north end of the building, and is the fourth one south of this window; the center of a cross in end of a brass bolt leaded horizontally into a brick (C. & G. S. b. m. V)-----
 451. 505

Corinth, in the west wall of the courthouse, brick in the fourteenth row below the line of window sills and in the fifth row south of the fifth cellar ventilator, counting from the northwest corner of the building; center of a cross in end of a brass bolt leaded horizontally into the brick (C. & G. S. b. m. W)-----
 451. 692

Corinth, in the southwestern part of courthouse yard, on curbing of well at its northeast corner; being the highest point in square cut in stone and marked "U. S." (U. S. C. E. t. b. m. 1) (b. m. settled, elevation doubtful)-----
 449. 487

Corinth, on a store building occupied by J. C. Small, hardware merchant, on the southwest corner of Franklin and Oruse streets, one block west and two blocks south of the courthouse, on the stone sill under the show window on the east side of the store, 12 feet south of the northeast corner and 8 inches above the pavement; bottom of square hole cut in stone (C. & G. S. b. m. C₃)-----
 448. 408

CUDE QUADRANGLE.

[Latitude 33° 22' 30''-33° 30'; longitude 90° 22' 30''-90° 30']

Near Baird.

Baird, about 750 meters northwest of, about 18 meters east of the south end of the Georgia Pacific Ry. approach to bridge over Sunflower River, in the northwest corner of yard belonging to house occupied by E. B. and G. B. Wade and owned by J. J. Oliver:	Feet.
Top of bolt set in limestone (U. S. C. E. p. b. m. 20)-----	117. 355
Top of cap on iron post-----	121. 423
Sunflower River, on right bank of, about 14 meters west of north end of Georgia Pacific Ry. trestle approach to drawbridge over Sunflower River, and in southeast corner of yard to cabin occupied by Buck Willis on W. A. Pollock's plantation:	
Top of bolt set in limestone (U. S. C. E. p. b. m. 19)-----	114. 967
Top of cap on iron post-----	119. 035
Baird, about 1 kilometer northwest of, on the top of and on west end of south pier of the Georgia Pacific Ry. bridge over Sunflower River, 0.80 meter from south edge of pier, 0.23 meter south of track on pier, 0.78 meter from west edge of pier, and 0.4 meter west of joint in stone; cross cut marked "U. S. X B. M." (U. S. C. E. p. b. m. 18)-----	126. 598

DECATUR QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 89°-89° 15']

From Newton east along Alabama & Vicksburg Ry. to Hickory.

Newton, in the front (east) wall of a brick store; this building belongs to T. J. Bingham and stands south of the track on the west side of the main street of the town, with its south wall just outside the railroad right of way; the bolt is in the fifth course above the sidewalk and in the second brick from the southeast corner of the building; the intersection of a cross in end of a copper bolt (C. & G. S. b. m. B ₁)-----	424. 487
Hickory, in the chimney on the east end of the dwelling house of A. E. Gray; the house is south of the track and immediately west of the Hanner house; the chimney is on the east end of the house, and the bolt is in the north face in the nineteenth course above the ground and in the second brick from the northeast corner; the intersection of a cross in end of copper bolt (C. & G. C. b. m. C ₁)-----	326. 079

EAGLE BEND QUADRANGLE.

[Latitude 32° 30'-32° 37' 30''; longitude 91°-91° 07' 30'']

Near Ingomar.

Ingomar post office, 3½ miles above, on Tennessee plantation, in brick chimney of cotton gin; center of head of copper bolt marked "U. S. B. M." (U. S. C. E. b. m. 153)-----	104. 849
Ingomar post office, about 4 miles above, on Forest Home plantation, in southwest face of chimney of dwelling house; center of head of copper bolt (U. S. C. E. b. m. 150)-----	105. 945

FITLER QUADRANGLE.

[Latitude 32° 37' 30"-32° 45'; longitude 91°-91° 07' 30".]

From Shiloh plantation along Mississippi River to point near Hays post office.

Shiloh plantation, near landing, in north face of brick chimney of cotton gin; center of head of copper bolt marked "U. S. B. M." (U. S. C. E. b. m. No. 140)-----	Feet. 111. 371
Hays post office, on Elliston plantation, in brick pillar (second one from southwest corner) supporting dwelling-house porch; center of head of copper bolt (U. S. C. E. b. m. 137)-----	106. 371

FLOWEREE QUADRANGLE.

[Latitude 32° 30'-32° 37' 30"; longitude 90° 45'-90° 52' 30".]

Along Yazoo River.

Belle Isle plantation, in northeast corner of E. C. Cordwent's yard, on left bank of Yazoo River, almost opposite mouth of Steele Bayou:

Top of bolt set in limestone (U. S. C. E. p. b. m. 6)-----	93. 556
Top of cap on iron post-----	97. 624
Calmar post office, in southeast corner of garden attached to and on north side of post office, rented (1892) by J. H. Adler and belonging to D. M. Legg's store and post office, about 1 kilometer southeast of Adams Landing on Yazoo River:	
Top of bolt set in limestone (U. S. C. E. p. b. m. 7)-----	102. 244
Top of cap on iron post-----	106. 312

FORT ADAMS QUADRANGLE.

[Latitude 31°-31° 07' 30"; longitude 91° 30'-91° 37' 30".]

Near Fort Adams on Mississippi River.

Fort Adams, about 400 meters below the present landing for, about 30 meters above a ravine, on the small flat on the side of the bluff, between and a little back of two small cabins on the flat and 50 meters back of a large house standing at foot of slope. In 1900 it was reported that the store originally near the stone was gone, that the bluff above and below the stone had been sliding into the river but seemed stable around the stone, and that the stone was in good condition; bottom of a square hole cut in the top of a stone monument (U. S. C. E. p. b. m. XLVIII)-----

78. 724

Fort Adams, about 600 meters below the lower end of the village of, 635 meters below permanent bench mark Fort Adams, and 1,800 meters above the present landing on the river of Fort Adams; on east root of a 2-foot willow tree standing in road at foot of bluff; top of a wire nail (U. S. C. E. t. b. m. 1)-----

44. 947

Fort Adams, in the lower end of the village of, in the front yard of Mr. H. L. Stutzmans, on the east side of Main Street and north side of the street running east to the foot of the bluffs, 3½ meters east of the northeast corner of the street intersection, 3 meters south of the southwest corner of the house, 69 meters below the south end of the bridge over a ravine:

¾-inch copper bolt leaded into a vitrified tile-----	51. 647
Cap (U. S. C. E. p. b. m. Fort Adams)-----	55. 613

Fort Adams, just above the corners at the upper end of the village, at southwest corner of the house of Mr. Baker, 455 meters above permanent bench mark XLIX; the stone was reported in good condition in 1900; bottom of a square hole cut in the top of a stone monument (U. S. C. E. p. b. m. XLIX)-----
 Feet.
 68. 517

FORT LORING QUADRANGLE.

[Latitude 33° 30'–33° 37' 30"; longitude 90° 15'–90° 22' 30".]

At Fort Loring.

Fort Loring, in stone coping on the north end of the east pier supporting the Southern Ry. drawbridge over Yazoo River, at the northeast corner of the iron rest plate; cross cut marked "U. S. X P. B. M." (U. S. C. E. p. b. m. 23)-----
 134. 599

Fort Loring, in fence corner of fences dividing railway right of way, public road, and small garden, on McLemore & Baird's place, about 12 meters south of the Southern Ry. track and 6 meters west of the right top bank of Yazoo River:

Top of bolt in limestone (U. S. C. E. p. b. m. 22)-----
 128. 504

Top of cap on iron post-----
 182. 572

FRIAR POINT QUADRANGLE.

[Latitude 34° 15'–34° 22' 30"; longitude 90° 37' 30"–90° 45'.]

Near Friar Point.

Friar Point, in a brick in northeast end of southeast wall of brick building belonging to W. H. Dickerson, which is in block 2 of Fuller's addition; center of hole in copper bolt 1 centimeter in diameter (U. S. C. E. p. b. m. Friar Point II)-----
 181. 351

Friar Point, 10.5 miles below, measured along the levee, on Ledbetter's plantation, 13 meters east of levee, 610 meters above houses on Ledbetter's plantation, and near three trees (box elder, sycamore, and pecan); top of copper bolt in top of stone (U. S. C. E. p. b. m. 57)-----
 171. 551

Friar Point, on Chism Avenue between Sycamore and Yates streets, 10 meters north of north wall and 1 meter east of east wall of Gaines's house, in ground at northeast corner of yard of H. H. Gaines; center of head of iron pipe set vertically in ground (U. S. C. E. p. b. m. Friar Point III)-----
 176. 578

Coahoma, in ground 8 meters south of south wall and in line with east wall of Methodist Church which is a large frame house, standing almost centrally in a triangle formed by the Yazoo & Mississippi Valley R. R. tracks, 3 meters west of 0.5-meter blazed gum; top of pipe set vertically in ground (U. S. C. E. p. b. m. Coahoma)-----
 177. 975

Cloverhill station on Yazoo & Mississippi Valley R. R. main line, 15 meters north of, in ground at southwest corner of yard of railway section houses; top of pipe set vertically in ground (U. S. C. E. p. b. m. Cloverhill)-----
 173. 428

Friar Point, in southwest wall of jail, 118 centimeters from west corner of building and 135 centimeters above the ground, in second tier of bricks above water table; center of hole in outer end of copper bolt, 1 centimeter in diameter leaded horizontally into brick marked with letters "P. B. M." (U. S. C. E. p. b. m. Friar Point I)-----
 183. 415

GRAND LAKE QUADRANGLE.

[Latitude 33°-33° 07' 30"; longitude 91° 07' 30"-91° 15'.]

From Palmetto plantation along Mississippi River to Lake Washington.

	Feet.
Palmetto plantation, in brick pillar at northwest corner of dwelling house; the center of head of copper bolt (U. S. C. E. b. m. 70)-----	114. 495
Leota, about a mile below, on Albemarle plantation, in front face of dwelling house, in second brick below water sill and about the middle of large brick column on left-hand side of entrance to house; the center of head of copper bolt (U. S. C. E. b. m. 65)-----	120. 997
Leota, back of, on Maryland plantation, in second brick below wood sill, about the middle of north face of dwelling house; the center of head of copper bolt (U. S. C. E. b. m. 62)-----	120. 485
Lake Washington Landing, near, on D. M. Hill's plantation, in a block of cement set in the ground about 53 feet back of the levee and 100 feet north of road from landing to Lake Washington; the top of copper bolt (U. S. C. E. b. m. 56)-----	118. 340

GREENVILLE QUADRANGLE.

[Latitude 33° 22' 30"-33° 30'; longitude 91°-91° 07' 30'.]

Near Greenville.

Greenville, about 2½ miles below, and abreast of La Grange Landing, the top of an iron spike driven vertically into large cottonwood tree near foot of eastern slope of levee (U. S. C. E. b. m. 5)-----	128. 940
Greenville, near, in fourteenth course above water sill of C. P. Huntington's ginhouse chimney; the center of head of copper bolt, marked "U. S. B. M."-----	133. 126
Greenville, on corrugated iron doorsill on north side, near northwest corner of building known as the bank building; the precise point is not marked, but can be defined as the point near the back side and west end of sill, 32 centimeters from front face, 5.5 centimeters from doorstrip, and 9 centimeters from west door jamb (U. S. C. E. b. m. Greenville 1)-----	131. 506
Millers Bend; top of brass bolt in top of stone post between two trees about 20 meters east of angle in levee at Millers Bend (U. S. C. E. p. b. m. Millers Bend)-----	127. 303
Greenville, in southwest corner of Blanton burial ground, north of Main and east of Locust Street, in fence corner, copper bolt leaded vertically in upper surface of 18 by 18 by 4 inch tile placed about 3 feet below ground, the face of the tile is marked "Mississippi River Commission U. S. B. M. Triangulation 1893." Tile is surmounted by an iron pipe placed on the tile over the copper bolt (U. S. C. E. b. m. O. 1893)-----	125. 416
Offutts Landing, 300 meters above, on lands of Thomas S. Kennedy (Mr. Martin, lessee), in southwest corner of field, 1 meter back of old levee, 25 meters north of new levee, which marks the boundary line between Bolivar and Washington counties, and is therefore in Bolivar County; top of brass bolt 4 millimeters above top of stone post (U. S. C. E. p. b. m. 86)-----	135. 390

Millers Bend, about three-fourths mile back of the river, in corner at intersection of old and new levees, about $1\frac{1}{2}$ miles below Bernard's plantation, on east side of levee, $15\frac{1}{2}$ meters southwest of oak tree 2 feet in diameter and $18\frac{1}{2}$ meters northwest of gum tree $2\frac{1}{2}$ feet in diameter, on which is temporary bench mark 533, both of these trees are marked by five notches; top of brass bolt set in top of stone (U. S. C. E. p. b. m. 87)-----	Feet. 129. 642
Argyle, about 1 mile north of, in southwest corner of field on lands of James Rogers (colored), in corner of fence at crossing of new levee and Arkansas City road, the Memphis and Greenville telegraph line here leaves the levee and follows the Arkansas City road; top of brass bolt in top of stone post (U. S. C. E. p. b. m. 88)-----	125. 408
Greenville, supposed to be on southern boundary of the city of, on the northern line of Huntington's plantation, about 100 meters south of house of M. S. Morgan, in large stone forming north end of the Greenville base line of the Coast and Geodetic Survey; top of copper bolt (U. S. C. E. Greenville North Base triangulation station)-----	126. 223

GREENWOOD QUADRANGLE.

[Latitude $33^{\circ} 30' - 33^{\circ} 37' 30''$; longitude $90^{\circ} 07' 30'' - 90^{\circ} 15'$.]

At Greenwood.

Greenwood, in north corner of yard to Greenwood section house belonging to the Illinois Central R. R., about 70 meters east of the depot: Top of bolt set in limestone (U. S. C. E. p. b. m. 25)-----	125. 387
Top of cap on iron post-----	129. 455
Greenwood, in west corner of yard to Leflore County courthouse at corner of Front and Cotton streets: Top of bolt set in limestone (U. S. C. E. p. b. m. 24)-----	129. 311
Top of cap on iron post-----	133. 379

GULFPORT QUADRANGLE.

[Latitude $30^{\circ} 15' - 30^{\circ} 30'$; longitude $89^{\circ} - 89^{\circ} 15'$.]

From Mississippi City west along Louisville & Nashville R. R. to Pass Christian.

Mississippi City, in the west wall of the jail, in center of fifth brick from northwest corner, in the fifteenth course above the water table; center of copper bolt leaded horizontally and marked "U. S. B. M." (U. S. C. E. p. b. m. 16)-----	20. 866
White Harbor, 252 meters east of the station, 8 meters north of center of track of the Louisville & Nashville R. R., and 193 meters east of milepost 62 N. O., the top of a copper bolt leaded in the top of a stone marked "U. S." (U. S. C. E. p. b. m. 14)-----	30. 860
Pass Christian, about 9 meters south of the center of the Louisville & Nashville R. R. track, $5\frac{1}{2}$ meters south of the platform, and $8\frac{1}{2}$ rail lengths east of the passenger depot; the stone projects about 1 inch out of the ground and has one corner broken off; top of a copper bolt leaded in the top of a stone marked "U. S." (U. S. C. E. p. b. m. 13)-----	11. 050

HARPERVILLE QUADRANGLE.

[Latitude 32° 15'–32° 30'; longitude 89° 15'–89° 30'.]

From Forest east along Alabama & Vicksburg Ry. to Lake.

Forest, in the county jail building (brick) at, in the front (east) wall in the third course above the corner stone and in the third brick from the northeast corner of the building; the intersection of a cross in end of copper bolt (C. & G. S. b. m. Z.)-----	Feet. 481. 311
Lake, in a brick chimney at, in the east side of the east chimney on the south end of a dwelling house owned by Mrs. Prestridge, the house is north of the track and about 200 meters west of the railroad station, the bolt is in the third course above the ground and the second brick from the southeast corner of the chimney; the intersection of a cross in end of a copper bolt (C. & G. S. b. m. A ₁)-----	451. 790

HEATHMAN QUADRANGLE.

[Latitude 33° 22' 30''–33° 30'; longitude 90° 37' 30''–90° 45'.]

From Indianola to Heathman.

Indianola, in southwest corner of the grounds around the county courthouse:	
Top of bolt set in limestone (U. S. C. E. p. b. m. 17)-----	117. 631
Top of cap on iron post-----	121. 699
Heathman, at west end of young bois d'arc hedge between board and wire fences in front of yard belonging to residence of J. A. Crawford, 2 meters northeast of northeast corner of his store and 5 meters south of the Georgia Pacific Ry. track (main line):	
Top of bolt set in limestone (U. S. C. E. p. b. m. 16)-----	121. 594
Top of cap on iron post-----	125. 662

ITTABENA QUADRANGLE.

[Latitude 33° 22' 30''–33° 30'; longitude 90° 15'–90° 22' 30''.]

Ittabena, in southeast corner of yard around Letulah school, and about 2.5 meters from east fence and 1.5 meters from south fence:	
Top of bolt set in limestone (U. S. C. E. p. b. m. 21)-----	125. 183
Top of cap on iron post-----	129. 251

IUKA QUADRANGLE.

[Latitude 34° 45'–35°; longitude 88°–88° 15'.]

Iuka, 2,250 feet west of depot, 1,190 feet west of mliepost 115, in south end of stone culvert, in top stone, 5¼ inches from the south end and 37¼ inches from west end; top of a copper bolt leaded vertically (U. S. C. E. p. b. m. 3)-----	564. 838
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Near Buggs Landing on Tennessee River.

Buggs Landing, 0.4 mile from the river on the left or north bank of Whetstone Creek, 78 feet above where the road crosses it, in front (vertical) face of the slatelike rock where it has split off and fallen into creek, 2 feet above the east part of this vertical face and 1 foot above ground; copper bolt leaded horizontally (U. S. C. E. p. b. m. 56)-----	371. 527
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Buggs Landing, at foot of bluff half a mile below, on land of Samuel Buggs, about 245 feet below ravine running into bluff, in small grotto at mouth of small cave, 15 feet above a beech tree 16 inches in diameter, 32 feet above fence and 60 feet below a small spring; top of copper bolt leaded vertically into ledge of rock (U. S. C. E. p. b. m. 57)-----
 Feet.
 387. 396

JACKSON QUADRANGLE.

[Latitude 32° 15'–32° 30'; longitude 90°–90° 15'.]

From Jackson east along Alabama & Vicksburg Ry. to Greenfield.

Jackson, in the stone water table to the stone basement of the United States courthouse and post office; the bench mark is under the center of the east window in the north front of the building; the bottom of a square cut which is 6 millimeters deep and lettered "U S C & □ G S B M" (C. & G. S. b. m. P)-----
 297. 722

Jackson, in the retaining wall to the small culvert (earthenware pipe) under the railroad just west of the railroad water tank on west bank of Pearl River; the bench mark is south of the track and on the brick at the west end of the third course above the earthenware pipe, in the top of the brick; the bottom of a square cut (C. & G. S. b. m. Q)-----
 275. 695

Pearsons, in the top of the brick retaining wall to the culvert (large iron pipe) under the railroad 200 meters east of; the bench mark is on the top course of brick just east of the one which is above the center of the pipe and is south of the track; the bottom of a square cut, lettered "U S □ B M" (C. & G. S. b. m. R)-----
 280. 741

Greenfield post office, in the top of the brick retaining wall to the culvert (small earthen pipe) under the railroad, north of the track and near the outer edge of the wall; the culvert is at the west end of the switch; the bottom of a square cut, lettered "U S □ B M" (C. & G. S. b. m. S)-----
 311. 256

LACONA QUADRANGLE.

[Latitude 34°–34° 07' 30"; longitude 90° 52' 30"–91°.]

Along Mississippi River.

Robinsonville, on east slope of levee, about 90 meters above deserted store on east side of levee, where road from gin crosses levee; top of copper bolt in top of stone (U. S. C. E. p. b. m. 61)-----
 162. 083

Lake Charles Landing, about 140 meters above Simpson's store, on east slope of levee, near locust trees; top of copper bolt in top of stone (U. S. C. E. p. b. m. 62)-----
 165. 830

LAKE PROVIDENCE QUADRANGLE.

[Latitude 32° 45'–32° 52' 30"; longitude 91° 07' 30"–91° 15'.]

At Ben Lomond.

Ben Lomond plantation, in west face of chimney of ginhouse just back of Ben Lomond post office; the center of head of copper bolt (U. S. C. E. b. m. 112)-----
 109. 593

LELAND QUADRANGLE.

[Latitude 33° 22' 30"-33° 30'; longitude 90° 52' 30"-91°.]

From the Bogue to Stoneville.

The Bogue, in south corner of yard to cabin occupied by John Bailey (colored) on Robert Ingram's place, about 1 meter from left top bank of Bogue Phalia, about 40 meters northwest of the Georgia Pacific Ry. trestle across the Bogue, directly opposite the ginhouse on the right bank and about 75 meters southeast of the highway bridge:

	Feet.
Top of bolt set in limestone (U. S. C. E. p. b. m. 15)-----	115. 003
Top of cap on iron post-----	119. 071

Stoneville, in the east corner of orchard belonging to house occupied by A. Jones and owned by J. C. Greenley, orchard is between house and grocery store belonging to Yuen Sing & Co., it is 0.7 meter from front fence and 0.4 meter from porch of store:

Top of bolt set in limestone (U. S. C. E. p. b. m. 14)-----	122. 510
Top of cap on iron post-----	126. 578

LONGWOOD QUADRANGLE.

[Latitude 32° 45'-32° 52' 30"; longitude 91°-91° 07' 30".]

Near Tallulah Landing.

Tallulah Landing, one-third mile above, on Lockwood plantation, near southeast corner of brick foundation of dwelling house; the center of head of copper bolt (U. S. C. E. b. m. 128)-----

106. 748

Tallulah Landing, 2 miles above, in brick foundation of Tallulah post office, or better known as Old Tallulah Courthouse; the center of head of copper bolt (U. S. C. E. b. m. 124)-----

104. 796

LUCRE QUADRANGLE.

[Latitude 32° 37' 30"-32° 45'; longitude 90° 22' 30"-90° 30'.]

Opposite L'Argent.

L'Argent, opposite, in Yazoo County, 70 meters from the left bank of Yazoo River, in the west corner of calf lot across the public road from and belonging to cabin on Indian mound, which is opposite the mouth of Big Sunflower River and on Gilruth's plantation:

Top of bolt set in limestone (U. S. C. E. p. b. m. 8)-----	94. 885
Top of cap on iron post-----	98. 953

MACON QUADRANGLE.

[Latitude 33°-33° 15'; longitude 88° 30'-88° 45'.]

Near Macon.

Macon, on the Mobile & Ohio R. R., on the southeast corner of the coping on the south abutment of bridge over Nuxubee River; center of a cross which measures 0.250 meter from extreme south edge of stone and 0.220 meter from iron wall plate resting on stone (C. & G. S. b. m. F)-----

175. 922

Macon, near Mobile & Ohio R. R. station, in the south pier of the water tank; center of a cross on the end of a brick; center of cross is 0.0035 meter from extreme south end of pier and 0.0435 meter from extreme east end (C. & G. S. b. m. 96)----- Feet.
180. 397

MERIDIAN QUADRANGLE.

[Latitude 32° 15'–32° 30'; longitude 88° 30'–88° 45'.]

At Meridian.

Meridian, on courthouse, on the iron doorsill at the north entrance, near the east edge of the sill and measures, from its center to the extreme north edge of sill, 0.32 meter and 0.0445 meter from the east door jamb; cross cut marked thus: "X" (C. & G. S. b. m. C)----- 344. 025
Meridian, the upper part of the last stroke in the last "N" in the name of John Stinson inscribed on the granite block placed in the northeast corner of the courthouse. This block bears the names of the board of supervisors. In 1897 reported as no longer accessible. (C. & G. S. b. m. D)----- 344. 960

From Toomsuba west along Alabama Great Southern R. R. to Meridian.

Toomsuba, 120 feet above the east end of station, in the fourth brick from the west side of brick culvert running under siding on the north side of track; top of copper bolt leaded vertically. (U. S. C. E. p. b. m. 28)----- 290. 731
Russell, 400 feet above, 1,335 feet below, milepost 7 from Meridian, on the northeast corner of brick culvert under track; highest point of square cut in cement (U. S. C. E. t. b. m. 207)----- 413. 123
Meridian, at the southeast corner of Fifth Street and Twentieth Avenue, about 120 feet east of south entrance, on opposite side of street, on curb 26 feet east of east point of curb; highest point in square (U. S. C. E. t. b. m. 217)----- 334. 212
Meridian, at the south entrance to the post-office building, on the west end of doorsill stone, 4 inches from west jamb and 3 inches from south face of stone; top of copper bolt leaded vertically (U. S. C. E. p. b. m. 29)----- 340. 823

MILLIKEN QUADRANGLE.

[Latitude 32° 52' 30"–33°; longitude 91° 07' 30"–91° 15'.]

At River Dale plantation.

River Dale plantation, opposite Arkansas line, in second brick pillar south from north corner of dwelling house; the center of head of copper bolt (U. S. C. E. b. m. 83)----- 113. 648

MONTGOMERY POINT QUADRANGLE.

[Latitude 33° 52' 30"–34°; longitude 91°–91° 07' 30".]

Along Mississippi River.

Concordia, 7½ miles below, on Stokes's plantation, on east slope of levee, 150 meters below bridge crossing ditches of levee, respectively 91 and 127 meters below houses on east side of levee, 19 meters west of fence, and 6¾ meters south of elm tree; top of copper bolt in top of stone (U. S. C. E. p. b. m. 66)----- 155. 078

Terrene, about 1 mile south of, on east slope of levee, 120 meters north of Ben Williams's house, 106 meters south of Morris Williams's house, and 4.5 meters east of center of levee; top of copper bolt in top of stone (p. b. m. 67)-----
 Feet.
 155.223

MOON LAKE QUADRANGLE.

[Latitude 34° 22' 30"-34° 30'; longitude 90° 30'-90° 37' 30".]

Along Mississippi River.

Trotters Landing, on east side of levee at foot of embankment in J. T. Brame's field, about 6 meters south of where a branch levee runs off toward the east on north side of Mr. Brame's field and about 65 meters north of where main levee enters field, the stone post is marked with the letters "U. S. P. B. M." on top; top of copper bolt leaded vertically in top of stone post, 1 meter long and 13 centimeters square, set in ground with top about 5 centimeters above the surface (U. S. C. E. p. b. m. Trotters Landing)-----
 185.193

Glendale, in northwest corner of T. C. Ferguson's yard; top of copper bolt leaded vertically in top of stone post, 1 meter long and 13 centimeters square, set in ground with top about 5 centimeters above surface, marked with the letters "U. S. P. B. M." (U. S. C. E. p. b. m. Glendale)-----
 184.829

Delta, about 17 meters south of levee and about 625 meters south of where road crosses levee, inside of field; top of brass bolt leaded vertically in top of stone post, 1 meter long and 13 centimeters square, set in ground with top about 8 centimeters above surface, stone marked with the letters "U. S. P. B. M." on top (U. S. C. E. p. b. m. Delta)-----
 179.714

MORTON QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 89° 30'-89° 45'.]

From Clarksburg east along Alabama & Vicksburg Ry. to Morton.

Clarksburg, in the upper surface of the large earthenware pipe used as a railroad culvert just west of, the bench mark is south of the track on the highest part of the pipe, which projects 0.25 meter outside the brick retaining wall; the bottom of a square cut, lettered "U. S. □ B. M." (C. & G. S. b. m. X)-----
 271.794

Morton, in the upper surface of the large iron pipe used as a culvert under the railroad, the bench mark is at the north end of the pipe (north of the track) and at the highest point of the upper surface, just inside the enlarged portion at the edge; the central surface inside four lines forming a square, lettered "U. S. □ B. M." (the culvert is a short distance west of the railroad station). (C. & G. S. b. m. Y)-----
 454.668

NATCHEZ QUADRANGLE.

[Latitude 31° 30'-31° 37' 30"; longitude 91° 22' 30"-91° 30'.]

At Natchez.

Natchez, 1 meter north of south fence of inclosure of Natchez waterworks pumping station, under the hill, 1½ meters below pipe leading out of ground to southwest corner of settling basin, in line with the fence leading downstream from said inclosure along the east side of the road leading to ice plant:

Tile and pipe (U. S. C. E. p. b. m. Waterworks)-----
 67.283

Top of cap-----
 71.247

Natchez, 0.75 meter (or 2½ feet) above the downstream river corner of the brick building owned by the Natchez Ice Co., on the river face of the building, and has the letter N cut in the second brick above the spike. This was formerly used as one of the bench marks for the United States gage at Natchez, but its settlement had caused it to be abandoned for some years; in the second mortar course above ground; top of head of boat spike driven horizontally (U. S. C. E. p. b. m. B. M. N. (Ewens 1886))-----	Feet. 71. 171
Natchez, 0.9 meter above upstream river corner of brick building on which is situated bench mark 3 (Babbitt, 1874), useful as Natchez gage bench mark; in bench cut on upstream root of a 10-inch chinaberry tree; top of 40d wire nail driven vertically (U. S. C. E. t. b. m. 77)-----	71. 703
Natchez, long used as gage bench mark for Natchez U. S. Engineer gage, 0.065 meter back from river end of sill, on upstream side of brick building known as the Ray & Grant Building under the hill; building is on the river side of the street and electric railroad track to the ferry, and below the street leading to coal office and elevator; bench mark is 3.5 meters toward river from upstream land corner of the building; V-cut on iron doorsill (U. S. C. E. b. m. 3 (Babbitt, 1874))-----	80, 666
Natchez, one of the Natchez U. S. Engineer gage bench marks, in the third mortar course above floor of gallery of John Contis's building, standing on the east or land side of the street and electric railroad track leading up the hill from the ferry, 45 meters above or north of bench mark 3 (Babbitt, 1874); nail is now flush with wall, 1.35 meters or 4½ feet to the left of the center of the center door to said building; this door is 79; building is used as a boarding house by Miss E. Mason; top of head of a large nail driven horizontally (U. S. C. E. p. b. m. A (Ewens, 1892))-----	90. 899
Natchez, for United States Engineer gage, in middle park on the bluff at head of street leading up from "under the hill," near a large red-oak tree and in line with the north side of Bontura alley, which is midway between and parallel with Main and State streets; stone and pipe (U. S. C. E. p. b. m. 1)-----	195. 541
Cap on pipe has raised letters "U. S. E. B. M." around a raised knob in the center-----	199. 612

NETTLETON QUADRANGLE.

[Latitude 34°-34° 15'; longitude 88° 30'-88° 45'.]

From Okolona north along Mobile & Ohio R. R. to Verona.

Okolona, at Mobile & Ohio R. R. station, center of copper bolt leaded horizontally into a brick in the southwest pier of the station, the brick is the middle one on the west side of the pier, and in the seventh course from the ground (C. & G. S. b. m. L)-----	306. 089
Okolona, on cotton warehouse, on the east front and near the south end of the warehouse occupied by C. R. Smith, in a brick which is the thirteenth one south of door and in the twenty-second course from the ground; center of bolt leaded horizontally (C. & G. S. b. m. K)-----	311. 200
Tubby Lubby Creek, on the Mobile & Ohio R. R. bridge over, the bottom of a square cut in the capstone of the pier on the north bank of the creek, is west of the track and is roughly lettered: "U. S. □ B. M." (C. & G. S. b. m. M)-----	250. 203

Shannon, in the east wall of R. B. Clark & Co.'s store; the brick is in the sixth row above the foundation and is the sixth one from the north end of wall; center of a cross in end of a brass bolt leaded horizontally into a brick (C. & G. S. b. m. N)-----	Feet. 253.772
Verona, in the south front of R. L. Trice & Son's store, in a brick which is in the sixth row above the foundation and is the third one from the west side; center of a cross in end of a brass bolt leaded horizontally (C. & G. S. b. m. O)-----	316.203

NORFOLK QUADRANGLE.

[Latitude 34° 52' 30"-35°; longitude 90° 15'-90° 22' 30".]

Along Mississippi River.

Horn Lake Creek, 40 meters southwest of ford across, on Lower Horn Lake road; the following trees are blazed on the side toward the bench mark: A cypress 30 meters northeast, an oak 18 meters north, and an oak 11 meters south of the bench mark; top of copper bolt leaded vertically into top of stone post 3 feet long and 5 inches square, and set in the ground with its top 4 inches above the surface, stone marked on top "U S X B M" (U. S. C. E. p. b. m. Horn Lake Creek)-----	220.600
Star Landing, in southeast corner of yard in front of James A. Lamb's house, about 3 meters from south fence and about 1 meter from east fence; the house is on the north side of the Star Landing and Hernando road, and is 640 meters east of the levee; top of copper bolt leaded vertically into top of stone post 3 feet long and 5 inches square, set in ground with its top about 4 inches above the surface, stone marked on top "U S X B M" (U. S. C. E. p. b. m. Star Landing)-----	207.089

PELAHATCHEE QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 89° 45'-90°.]

From Brandon east along Alabama & Vicksburg Ry. to Pelahatchee.

Brandon, in the top of the brick retaining wall to the culvert under the railroad just west of the railroad station, the bench mark is north of the track on the third row of bricks back from the face of the wall and west of the center of the culvert; the bottom of a square cut, lettered "U S □ B M" (C. & G. S. b. m. T)-----	397.076
Rankin, in the top of one of the stones forming the foundation under one of the supports to the railroad water tank, the bench mark is on the southwest corner of the stone under the south one of the two most westerly supports; the bottom of a square cut, lettered "U S □ B M (C. & G. S. b. m. U)-----	422.781
Pelahatchee, in the front wall of the Lessel House, which is a two-story brick building north of the track opposite the railroad station; the bolt is in the bottom course of fire brick (with which the front wall is faced) and in the second brick from the southeast corner of the building; the intersection of a cross in end of copper bolt (C. & G. S. b. m. W)-----	358.976

PERTHSHIRE QUADRANGLE.

[Latitude 33° 52' 30"-34°; longitude 90° 52' 30"-91°.]

Australia post office, 1,000 meters above, in top of stone on west slope of levee; top of copper bolt (U. S. C. E. p. b. m. 63)-----	Feet. 162. 224
Carsons, 446 meters above triangulation South Base, which is at turn in levee below the post office, on east slope of levee; top of copper bolt in top of stone (U. S. C. E. p. b. m. 64)-----	161. 450
Concordia, near bend of levee, on east side of levee, the stone is 54 meters below Green's store, 36 meters above Williams's store, and 24 meters from levee; top of copper bolt in top of stone (U. S. C. E. p. b. m. 65)-----	158. 392

PETTIT QUADRANGLE.

[Latitude 33° 07' 30"-33° 15'; longitude 91°-91° 07' 30".]

From Longwood plantation along Mississippi River to Wayside plantation.

Longwood plantation, in west face of ginhouse chimney; the center of head of copper bolt, marked "U. S. B. M." (U. S. C. E. b. m. 46)---	120. 328
Glenora plantation, in west face of ginhouse chimney; the center of head of copper bolt (U. S. C. E. b. m. 42)-----	120. 669
Auburn plantation, in north face of ginhouse brick chimney on Buckner's estate; the center of head of copper bolt marked "U. S. B. M." (U. S. C. E. b. m. 39)-----	119. 094
Wayside plantation, near the banks of Lake See, in brick foundation on right of porch in front side of dwelling house; the center of head of copper bolt (U. S. C. E. b. m. 33)-----	121. 935

QUITMAN QUADRANGLE.

[Latitude 32°-32° 15'; longitude 88° 30'-88° 45'.]

At Quitman.

Quitman, near Mobile & Ohio R. R. station, bottom of square cavity cut in the top of marking stone set in the front yard, on the left side of the gate (as you go in) of Dr. Jere. Sander's hotel (C. & G. S. b. m. D ₂)-----	229. 752
Quitman, on courthouse, center of cross cut on head of copper bolt leaded horizontally in the middle of a brick on the west face and near the northwest corner of the courthouse; the brick is in the fourth layer above the water table and is the second brick from north end of pillar at corner of building (C. & G. S. b. m. C ₂)-----	232. 473

RAYMOND QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 90° 15'-90° 30'.]

From Bolton east along Alabama & Vicksburg Ry. to Clinton.

Bolton, about 1 kilometer west of, in the top of the stone pier under the west end of the iron railroad bridge over Bakers Creek; the pier is on the west bank of the creek and the bench mark is south of the track and near the south edge of the pier; this end of the pier is rounded; the bottom of a square cut, lettered "U. S. square B. M." (C. & G. S. b. m. N)-----	204. 255
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Clinton, about one-half kilometer west of, in the top of the coping to the stone arch culvert; the mark is north of the track, a little west of the center of the arch; the bottom of a square cut, lettered "U S \square B M" (C. & G. S. b. m. O)-----
 Feet. 332.348

REDLEAF QUADRANGLE.

[Latitude $33^{\circ} 15' - 33^{\circ} 22' 30''$; longitude $91^{\circ} 07' 30'' - 91^{\circ} 15'$.]

From Refuge along Mississippi River to Richardson's plantation.

Refuge, in second pier on northwest side of Mr. Richardson's store; the center of head of copper bolt (U. S. C. E. b. m. 22)----- 130.364
 Refuge plantation, in ginhouse chimney, about 3 feet above ground; the center of head of copper bolt (U. S. C. E. b. m. 19)----- 131.207
 Highland plantation, about 6 miles below Greenville, in block of cement placed about 70 feet north of Mr. Warfield's house, near large cottonwood tree; the top of copper bolt (U. S. C. E. b. m. 11)----- 129.780
 Warfield Point, about 2 miles above, on Richardson's plantation, on a stump 8 feet in diameter and 8 feet high in a cypress swamp; the top of an iron spike (U. S. C. E. b. m. 8)----- 131.283

REDWOOD QUADRANGLE.¹

[Latitude $32^{\circ} 22' 30'' - 32^{\circ} 30'$; longitude $90^{\circ} 45' - 90^{\circ} 52' 30''$.]

Near Yazoo & Mississippi Valley R. R. bridge.

Blakely plantation, in north side of brick smokestack of gin, about 5 centimeters from ground; top of head of large spike (U. S. C. E. p. b. m. 3)----- 113.343
 Yazoo River, in northwest corner of cabin yard on left bank of, about 130 meters southwest of south end of Yazoo & Mississippi Valley R. R. bridge, and 20 meters from top of river bank:
 Top of bolt in limestone underground (U. S. C. E. p. b. m. 4)--- 94.580
 Top of cap on iron post----- 98.648
 Yazoo & Mississippi R. R. bridge, on capstone of south end pier on west side of; cross cut, marked "U. S. B. M." (U. S. C. E. p. b. m. 5)----- 105.813

RENALARA QUADRANGLE.

[Latitude $34^{\circ} 07' 30'' - 34^{\circ} 15'$; longitude $90^{\circ} 45' - 90^{\circ} 52' 30''$.]

Along Mississippi River.

Hughes Landing, about 800 meters above Burkes, 38 meters below bend in levee, and 23 meters above a small honey locust on west slope of levee, 2 millimeters above top of stone, on west slope of levee; top of copper bolt in top of stone (U. S. C. E. p. b. m. 58)----- 171.863
 Hughes Landing, $3\frac{1}{4}$ miles below, in east slope of levee, near Campbell's house, 3 meters north of a sycamore tree, about 80 meters above junction of levees, top of bolt is 6 millimeters above top of stone; top of copper bolt in top of stone (U. S. C. E. p. b. m. 59)----- 174.140
 Sunflower Landing, $2\frac{1}{2}$ miles above, on east side of levee, about 230 meters above deserted cabin on levee, and about 800 meters above Triangulation Richardson; top of copper bolt in top of stone (U. S. C. E. p. b. m. 60)----- 168.618

¹Forms northeast quarter of Vicksburg 15' quadrangle.

SPIRIT LEVELING IN MISSISSIPPI, 1901 TO 1915.

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RIGOLETS QUADRANGLE.

[Latitude 30°-30° 15'; longitude 89° 30'-89° 45'.]

Near Claiborne.

Chinchuba, in the northwest portion of the yard around the section house at the station and about 10 meters south of the center of the Louisville & Nashville R. R. track is the top of a cross in the center of a stone, marked "U. S." projecting about one-half foot above the ground (U. S. C. E. p. b. m. 8)-----	Feet. 9.705
Claiborne, just north of the north fence of the house lot of Pat Ferril, 18 meters south of the center of the Louisville & Nashville R. R. track, 12 meters (measured parallel to the track) east of the station house; the center of a cross cut in the top of a stone, marked "U. S." (U. S. C. E. p. b. m. 7)-----	4.157
Claiborne, near, on a high point of ground just east of East Pearl River; 200 meters east of the iron truss bridge over East Pearl River on the Louisville & Nashville R. R., 27.2 meters south of the center of the track, in the gravel walk along the front of Baldwin Lodge, and 12 meters west of the house; the property is owned by A. Baldwin, of New Orleans; the top of a copper bolt leaded into the top of a stone, standing 10 inches above the ground and marked "1882 U. S. B. M." (U. S. C. E. p. b. m. 6)----	10.279

ROSEDALE QUADRANGLE.

[Latitude 33° 45'-33° 52' 30"; longitude 91°-91° 07' 30".]

Along Mississippi River.

Rosedale, in Col. Montgomery's front yard, 4 meters north of south fence and 1 meter east of west fence; top of copper bolt in top of stone (U. S. C. E. p. b. m. 68)-----	147.086
Rosedale, half a mile below Col. Montgomery's house, on east side of levee, opposite a sweet-gum tree situated on west side of levee at edge of pond, 65 meters below fence above which are two houses; top of copper bolt in top of stone (U. S. C. E. p. b. m. 69)---	151.696
Riverton, 290 meters below post office, at east base of levee, 31 meters below a cottonwood tree on east side of levee, on which tree is temporary bench mark 475; top of copper bolt in top of stone (U. S. C. E. p. b. m. 70)-----	150.528

SATARTIA QUADRANGLE.

[Latitude 32° 37' 30"-32° 45'; longitude 90° 37' 30"-90° 45'.]

From L'Argent along Yazoo River to Enola.

L'Argent in the southeast corner of cotton lot adjoining landing warehouse and about 25 meters from right top bank of Yazoo River, about 15 meters southwest of L'Argent store and 50 meters southeast of gin:	
Top of bolt set in limestone (U. S. C. E. p. b. m. 9)-----	88.517
Top of cap on iron post-----	92.585

Satartia, in northeast corner of yard of Union Church and Masonic lodge (Satartia Lodge, No. 176) at corner of Plum and Perry streets:

Top of bolt set in limestone (U. S. C. E. p. b. m. 10)-----	Feet. 97.611
Top of cap on iron post-----	101.679

Enola, in the northeast corner of yard to R. D. Saunder's dwelling, about 8 meters south of J. F. Powell's store, and about 30 meters north of R. D. Saunder's store:

Top of bolt set in limestone (U. S. C. E. p. b. m. 11)-----	99.754
Top of cap on iron post-----	103.822

SCOOBA QUADRANGLE.

[Latitude 32° 45'-33°; longitude 88° 15'-88° 30'.]

Scooba, in the south side of the chimney at the west end of J. H. Duke's store, almost in the center of the brick in the eighteenth course from the ground and one brick from the west end of chimney; center of copper bolt leaded horizontally (C. & G. S. b. m. E)-----

193.533

SCRANTON QUADRANGLE.

[Latitude 30° 15'-30° 30'; longitude 88° 30'-88° 45'.]

Scranton, on the north face and near the northeast corner of the courthouse. It is the center of head of copper bolt 0.0125 meter in diameter, leaded horizontally in the middle of the tenth brick above water table (C. & G. S. b. m. C₁)-----

16.955

SHUBUTA QUADRANGLE.

[Latitude 31° 45'-32° 00'; longitude 88° 30'-88° 45'.]

From milepost 89 north along Mobile & Ohio R. R. to De Soto.

Shubuta, south of, milepost 89 of the Mobile & Ohio R. R., bottom of cavity 1 inch square and one-half inch deep, cut in white marble block set on east side of track. This stone is 11.1 meters, at right angles, from the center of track. It projects about 3 inches above the ground (C. & G. S. b. m. M₂)-----

177.611

Shubuta, center of cross on head of copper bolt leaded horizontally into the front wall of Mr. M. Greenhood's store, a one-story brick building on the north side of Ocutta Street, west of the Mobile & Ohio R. R. The bolt is in the center of a brick, 2½ bricks east of store door and 2½ west of west side of window, in the fourteenth course above the foundation and two courses above lower sill of window (C. & G. S. b. m. N₂)-----

201.128

De Soto, near railroad station of the Mobile & Ohio R. R. Bottom of cavity 1 inch square and one-half inch deep, cut in marking stone set in the ground 0.38 meter north of north wall of station and 1.45 meters west of the east wall. This stone is a white marble block projecting about 3 inches above the ground (C. & G. S. b. m. O₂)---

207.910

SIDON QUADRANGLE.

[Latitude 33° 22' 30"-33° 30'; longitude 90° 07' 30"-90° 15'.]

Sidon, in northwest corner of yard to Sidon section house belonging to the Illinois Central R. R., about 35 meters south of the depot.	Feet.
Top of bolt set in limestone (U. S. C. E. p. b. m. 26)-----	122. 529
Top of cap on iron post-----	126. 597

STORMVILLE QUADRANGLE.

[Latitude 33° 37' 30"-33° 45'; longitude 91°-91° 07' 30".]

Along Mississippi River.

Prentiss, 2 miles back from, in northwest corner of Hughes's plantation, 72 meters southeast of junction of old and new levees, 65 meters northwest of ginhouse, 27 meters south of southwest corner of dwelling, 12 meters south of west corner of stable, in top of stone set in corner of fence; top of copper bolt (U. S. C. E. p. b. m. 73)-----	146. 906
Prentiss, 2 miles back of, 63 meters west of ginhouse, 120 meters below junction of old and new levees, on east slope of levee, 80 meters southwest of dwelling, 60 meters southwest of stable, and about 50 meters below permanent bench mark 73; top of copper bolt in top of stone (U. S. C. E. p. b. m. 74)-----	148. 520
Prentiss, 2 miles back from, 220 meters south of junction of old and new levees, in east slope of levee, 117 meters southwest of ginhouse, and 100 meters below permanent bench mark 74; top of copper bolt in top of stone (U. S. C. E. p. b. m. 75)-----	148. 897
Nebletts Landing, in northwest corner of Neblett's plantation, stone is planted in corner of fence at turn in levee, about 20 meters from levee south and east, and about 25 meters from front of house at said corner of levee; top of bolt is 2 millimeters above top of stone; top of brass bolt in stone post (U. S. C. E. p. b. m. 76)-----	145. 472
Stormville (or Storm's), in rear of house owned by D. McGreevy, 80 meters back of levee and 25 meters back from front of McGreevy's store, just inside of fence on south side of road, and about 60 meters north of the post office; top of bolt is flush with top of stone; top of brass bolt in top of stone post (U. S. C. E. p. b. m. 77)-----	142. 257

TCHULA QUADRANGLE.

[Latitude 33° 07' 30"-33° 15'; longitude 90° 07' 30"-90° 15'.]

At Tchula.

Tchula, on top of southeast bolt holding roller to southeast pier of drawbridge over Tchula Lake; cross cut (U. S. C. E. p. b. m. 28)---	118. 353
Tchula, in east corner of yard to Tchula section house belonging to the Illinois Central RR.:	
Top of bolt in limestone (U. S. C. E. p. b. m. 27)-----	114. 540
Top of cap on iron post-----	118. 608

TUPELO QUADRANGLE.

[Latitude 34° 15'-34° 30'; longitude 88° 30'-88° 45'.]

From Tupelo north along Mobile & Ohio R. R. to Baldwyn.

Tupelo, in the front wall of Fulton Hotel, in the twenty-first course above the ground, in the second brick from the southeast corner; center of a cross in end of a brass bolt leaded horizontally (C. & G. S. b. m. P)-----	279. 481
---	----------

Salttillo, in a limestone block in the front yard of James R. Boling's house, near the northwest corner of a brick flow pit on the south side of the house; square cut (C. & G. S. b. m. Q)-----	Feet. 314. 189
Guntown, in the chimney on the north end of J. W. Kernodle's house, brick in the twelfth course above the ground and the second one from the outer face of chimney on the side toward the front of the house; the center of a cross in end of a brass bolt leaded horizontally into a brick (C. & G. S. b. m. R)-----	399. 432
Baldwyn, in the southwest corner of the yard to the Bucey Hotel, in a limestone block; bottom of a square cut (C. & G. S. b. m. S)---	375. 737

TUNICA QUADRANGLE.

[Latitude 34° 37' 30''-34° 45'; longitude 90° 22' 30''-90° 30'.]

At Austin.

Austin, in southeast corner of yard of courthouse, at intersection of Commerce and Coldwater streets, 1 meter from either fence; top of copper bolt in top of stone post 3 feet long and 5 inches square, set in ground with its top about 3 inches above the surface and marked "U S X B M" (U. S. C. E. p. b. m. Austin I)-----	196. 863
Austin, in the yard of the Methodist Episcopal Church South, on Church Street, in line with front side of church, 22 meters west of church and 1 meter east of west fence; top of copper bolt leaded vertically into top of stone post 3 feet long and 5 inches square set in ground with top about 2 inches above the surface, marked on top "U S X B M" (U. S. C. E. p. b. m. Austin II)-----	194. 635

VICKSBURG QUADRANGLE.

[Latitude 32° 15'-32° 30'; longitude 90° 45'-91'.]

Near Vicksburg.

Vicksburg, in north end of the brick pumping station of the Vicksburg waterworks; the building is on the left bank of river under the hill, and about 1.6 kilometers south of the city limits of Vicksburg; in the first course above the water table and in the third brick from the northwest corner of the building; the intersection of a cross in the end of a copper bolt leaded horizontally (U. S. C. E. p. b. m. B)-----	98. 441
Kleinston, in open ground at Kleinston, below Vicksburg, 30 meters east of incline to Delta transfer boat, between east and west road on north, and an old broken levee on south, extending back to high ground; 1,565 meters above Refuge oil mill, 1,000 meters above waterworks, and 1,178 meters below compress, nearly west of railroad bridge where permanent bench mark Pelican is situated; it has three pieces of railroad rail around it for protection; copper bolt in marking stone (U. S. C. E. p. b. m. M. R. C. <u>107</u>)-----	88. 330

Kleinston, in top surface of eighth coping stone from the top of the south wing of the west abutment of the plate girder bridge of the Alabama & Vicksburg Ry. over street or main road from furniture factory to Kleinston; this bridge is on the curve about midway between the Yazoo & Mississippi Valley R. R. and the Yazoo Canal; it is the main route of all trains from the Alabama & Vicksburg Ry. depot to the incline of the Mississippi and Louisiana transfer to Delta, La.; this stone is about on the level with the top surface of the bearing stone which carries the plate girders of this bridge; in the middle of the stone east and west, being 0.34 meter from each edge, east and west, and 0.10 meter north of its south edge; top of copper bolt leaded vertically, and has the letters "U. S. P. B. M." cut in stone around it (U. S. C. E. p. b. m. Pelican)-----	Feet. 102. 378
Vicksburg, directly across road from and back of bench mark <u>107</u> 1	
106 meters; top of permanent cap on iron pipe planted on downstream edge of crown of second piece of old levee; the top of the cap just off the slight ridge across the top was used as the bench mark; (C. & G. S. b. m. A)-----	94. 209
Vicksburg, between railroad tracks just north of freight depot of the railroad, west of Washington Street, in railroad yard of Alabama & Vicksburg Ry.; intersection of a cross cut on iron top of cistern (C. & G. S. b. m. Cistern)-----	193. 864
Vicksburg, in southwest corner of park west of Alabama & Vicksburg Ry. passenger station; a marble post 1.2 meters in the ground, 0.25 meter above surface of ground, dressed on top to 0.250 by 0.175 meter; the bottom of a square cut in top at center 0.009 meter deep, lettered "U S C □ G S B M" (C. & G. S. b. m. C) (elevation doubtful, probably 5.243 foot lower)-----	206. 154
Vicksburg, in front of passenger station of Alabama & Vicksburg Ry., about 1.2 meters south of the base of the vertical face of the deep cut forming north line of yard; cross on permanent cap of iron pipe at its north edge; pipe has a circular disk about 0.15 meter in diameter attached to it near bottom; (C. & G. S. b. m. D)-----	197. 979
Vicksburg, about 2 kilometers east of, just inside right-of-way fence of Alabama & Vicksburg Ry., about 100 meters east of the first overhead road bridge over railroad, south of track, on slope leading out of the first depression east of said bridge and 6 meters west of second telegraph pole; cross cut in top of permanent cap of iron pipe driven in ground, at its north edge; (C. & G. S. b. m. E)-----	249. 461
Vicksburg, about 3 kilometers east of, just inside right-of-way fence of Alabama & Vicksburg Ry., 10 meters west of fourth telegraph pole west of second overhead bridge, on south side of track; top of cap on iron pipe driven in ground; (C. & G. S. b. m. F)-----	263. 120
Newman's Station, in north face of brick chimney to the residence of J. A. Newman, on west end of house, in twelfth course above ground, in second brick from northwest corner; there is a crack across back of chimney; intersection of cross in end of copper bolt (C. & G. S. b. m. G)-----	331. 203
Vicksburg, on east side of National Cemetery gate; cross cut in stone placed to hold gate when open (U. S. C. E. p. b. m. 1)-----	103. 307

Vicksburg, about 8 kilometers above, on east side of public road, by W. H. Hundermark's store, 2.6 meters from northwest corner and 16.4 meters from southwest corner of yard, 31.92 meters from center of Yazoo & Mississippi Valley R. R. track :

Copper bolt in stone under ground (U. S. C. E. p. b. m. 2)-----	Fect. 96.978
Top of cap on iron post-----	101.046

VINEGAR BEND QUADRANGLE.

[Latitude 31° 15'-31° 30'; longitude 88° 15'-88° 30'.]

At State Line.

State Line, center of cross on head of copper bolt leaded horizontally into west side of the south chimney of Mr. E. A. Lister's house. This house is on the east side of the Mobile & Ohio R. R., just opposite the water tank, and is the next one north of Mr. B. A. Cragin's house. The bolt is in the center of the middle brick in the tenth course above the ground (C. & G. S. b. m. I₂)-----

264.921

WEST POINT QUADRANGLE.

[Latitude 33° 30'-33° 45'; longitude 88° 30'-88° 45'.]

At West Point.

West Point, bottom of square cavity cut in brick in the top of offset on the east front of the Jackson House, center of bench to extreme east edge of brick measures 0.012 meter (C. & G. S. b. m. H)-----

238.097

West Point, on courthouse, a point on the granite block or tablet bearing the inscription of Cannon Lodge, No. 159, situated in the north-east corner of the courthouse. There is a horizontal line near the middle of this tablet and the bench is the point directly below the letter "A" (C. & G. S. b. m. I)-----

243.166

WILSONS POINT QUADRANGLE.

[Latitude 32° 52' 30''-33°; longitude 91°-91° 07' 30''.]

Near Mayersville.

Reserve Plantation, in west face of brick chimney of ginhouse, about one-fourth mile from levee and 3½ miles above Ben Lomond post office; the center of head of copper bolt (U. S. C. E. b. m. 105)-----

108.904

Mayersville, one-fourth mile below, on Wade Lawn plantation, in west face of brick chimney at north end of dwelling house; the center of head of copper bolt (U. S. C. E. b. m. 95)-----

112.398

Mayersville, about 2 miles above, on Glen Annie plantation, in front face of brick pillar supporting the southwest corner of portico of Col. H. B. Keep's house; the center of head of copper bolt (U. S. C. E. b. m. 90)-----

111.470

SPIRIT LEVELING IN MISSISSIPPI, 1901 TO 1915.

YAZOO QUADRANGLE.

[Latitude 32° 45' - 32° 52' 30"; longitude 90° 22' 30" - 90° 30'.]

At Yazoo City.

Yazoo City, in north corner of yard to county courthouse:	Feet.
Top of bolt in limestone (U. S. C. E. p. b. m. 12)-----	117.690
Top of cap on iron post-----	121.758
Yazoo City, in north corner of yard to city public-school building, school is near intersection of Washington and Main streets:	
Top of bolt set in limestone (U. S. C. E. p. b. m. 13)-----	102.789
Top of cap on iron post-----	106.857

INDEX.

	Page.
A.	
Adams County-----	40, 47
Alabama & Vicksburg Ry-----	34,
52, 54, 56, 61, 62,	65, 68
Alabama Great Southern R. R-----	64
Albin-----	32
Alcorn County-----	47
Alfrey-----	10
Alligator-----	28
Antlers-----	25
Alonzo-----	36
Anna-----	42, 43
Argyle-----	60
Arkansas City-----	48
quadrangle-----	47-48
Arnot-----	52
Artesia-----	48
quadrangle-----	48
Asbury Church-----	38, 39
Askew-----	9
Austin-----	18, 73
Australia-----	68

B.	
Baird-----	56
Baldwyn-----	73
Banks-----	8, 12, 13, 14
Basic, quadrangle-----	49
Bay St. Louis-----	49
quadrangle-----	49
Bayou-----	33
Beauvoir-----	51
Bee Lake-----	49
quadrangle-----	49
Belen-----	24
Bench marks, description of-----	6
plate showing-----	5
Ben Lomond-----	62
Beulah-----	49
quadrangle-----	49-50
Beverly-----	27
Big Black River-----	52
Biloxi-----	50, 51
Biloxi Bay quadrangle-----	50-51
Birdie-----	21
Black Bayou Junction-----	33
Blands Bayou-----	28
Bobo-----	28, 29
Bayou-----	22
Bogue, The-----	63
Bolivar-----	47
County-----	10, 47
Bolton-----	68

C.	
Booneville-----	52
quadrangle-----	52
Bougere quadrangle-----	52
Bovina-----	37, 38, 39, 52
quadrangle-----	37-38, 52-53
Bowdre-----	14
Boxelder-----	25
Brandon-----	35, 67
Brown, W. E., work of-----	10
Brushy Bayou-----	33
Bucatanna-----	53
quadrangle-----	53
Buck Ridge-----	48
Buford Lake-----	9, 25
Buggs Landing-----	61, 62
Burnsville-----	45, 53
quadrangle-----	45, 53, 54
Byram-----	35, 37

C.	
Calmar-----	57
Carsons-----	68
Cedars-----	38, 40
Charleston-----	26, 32
Childers Landing-----	48
Chinchuba-----	70
Chunky-----	54
quadrangle-----	54
Clack-----	11
Clalborne-----	70
Clarke County-----	47
Clarksburg-----	65
Clarksdale-----	26, 27, 54
quadrangle-----	26-31, 54, 55
Clarks Landing-----	50
Clayton-----	17
Clinton-----	36, 69
Cloverhill-----	27, 58
Coahoma-----	21, 30, 58
County-----	10, 47
Commerce-----	12, 13, 55
quadrangle-----	55
Concordia-----	64, 68
Content-----	48
Cooperation by the State-----	5
Copiah County-----	34
Corinth-----	54, 55
quadrangle-----	55
Craig-----	33
Crenshaw-----	9, 17, 20
Crevi-----	26
Cub Lake-----	16
Cude quadrangle-----	56

D.		H.	
	Page.		Page.
Dabney, A. L., work of	7-8, 10	Hancock County	47
Dabney, John, work of	10	Harperville quadrangle	61
Danforth	31	Harrison, C. J., work of	7
Darling	9	Harrison County	47
Datum, inland, marking of	7	Hays	57
De Soto	71	Heathman	61
County	7, 10, 47	quadrangle	61
Deborah	27	Helena quadrangle	19-26
Decatur quadrangle	56	Hickory	56
Delta	65	Hinchcliff	9
Dickerson	27	Hinds County	34, 47
Doloroso quadrangle	40	Holmes County	47
Dragg	8	Hollywood	14, 15
Drygrove	37	Horn Lake Creek	67
Dubbs	16, 19	Hughes Landing	69
Dublin	25		
Dundee	17, 18, 19	I.	
Durham	29	Illinois Central R. R.	34, 35
E.		Indianola	61
Eagle Bend quadrangle	56	Ingomar	56
Eaves	43, 44	Issaquena County	47
Edwards	53	Ittabena	61
Ellis, J. R., work of	34	quadrangle	61
Engineers, Corps of, U. S. Army, elevations established by	47	Iuka	43, 44, 45, 61
Enola	71	quadrangle	43-45, 61, 62
Enterprise	49	J.	
Evansville	16, 18, 19	Jackson	34, 35, 62
F.		County	47
Falcon	9	quadrangle	34-35, 62
Farrell	27, 28	Jarmon Ferry	33
Fittler quadrangle	57	Jefferson County	40
Floweree quadrangle	57	Johnson's store	13
Florence	36	Jonestown	23, 24
quadrangle	35-36	K.	
Forest	61	Kemper County	47
Fort Adams	57, 58	Killmer, R. H., work of	37
quadrangle	57-58	Kleinston	73, 74
Fort Loring	58	L.	
quadrangle	58	Lacona quadrangle	62
Foster	41	Lake	61
Foust, F. L., work of	34	Lake Charles Landing	62
Franklin, W. W., work of	34	Lake Cormorant	8, 11, 12
Friar Point	31, 58	Lake Providence quadrangle	62
quadrangle	58	Lake View	8, 11
G.		Lambert	9, 10, 23
Gardner, C. C., work of	10	L'Argent	63, 70
Geran	33	Lauderdale County	47
Gladys	32	Lee County	47
Glendale	65	Leflore County	10, 47
Glover	8	Leland quadrangle	63
Grade Lake quadrangle	59	Leota	59
Gray, W. H., work of	10	Levee	28
Greenfield	35, 62	Leveling, precise	7-10, 47-76
Greenville	59, 60, 69	precise, standard for	5, 6
quadrangle	59-60	primary	10-45
Greenwood	34, 60	standard for	5, 6
quadrangle	31-34, 60	Locopolis	32, 33
Gulfport quadrangle	60	Long Lake	31
Guntown	73	Longstreet	10
		Longwood quadrangle	63

Lost Lake	Page.
bridge	8
Louisville & Nashville R. R.	60
Lowndes County	47
Lucknow	35
Lucre quadrangle	63
Lula	22
Lyon	24, 27, 54

M.

McCorkle, J. E., jr., work of	10
McCoy, G. H., work of	10
Macon	63, 64
quadrangle	63-64
Madison	34, 35
County	34
Mangum Bros' store	14, 18
Maps, topographic, list of	7
Marionette	8
Marks	9, 22, 23
Mashburn, L. W., work of	7, 10
Matagorda	21
Mattson	31
Maud	17
Mayersville	75
Meridian	54, 64
quadrangle	64
Metcalfe, J. B., jr., work of	43
Mhoon's Landing	13, 14, 55
Milliken quadrangle	64
Millers Bend	59, 60
Mississippi City	60
Mississippi River Commission, elevations established by	47
Mobile & Ohio R. R.	53, 55, 66, 71, 72
Monahan, W. H., work of	7, 10
Money	33
Monterey	35
Montgomery Point quadrangle	64-65
Moon	22
Moon Lake quadrangle	65
Morton	65
quadrangle	65
Mound Place	48

N.

Natchez	40, 41, 42, 65, 66
quadrangle	41-43, 65, 66
Nebletts Landing	72
Nettleton quadrangle	66, 67
Newman's	74
Newman's grove	40
Newton	56
County	47
Norfolk	11
quadrangle	67
Noxbee County	47

O.

Ocean Springs	50, 51
Offutts Landing	59
O. K.	18, 19, 20
Okolona	66
Oliver	29
Oram, William, work of	43

P.

Panola County	Page.
Pass Christian	7
Paynes	32, 33
Pearl	35
Pearson	36
Pearsons	62
Pegram	44
Pelahatchee	67
quadrangle	35, 67
Penton	12
Personnel, record of	5
Perthshire quadrangle	63
Pettit quadrangle	63
Phillip	33
Pine Ridge	42
Pink	16, 17
Plain	36
Pocahontas	36
Port Anderson	48
Porter's Ferry	26
Prentiss	72
County	47
Prichard	8, 15
Publication, previous	5
Pullen	29, 30

Q.

Quitman	68
County	7, 10
quadrangle	68

R.

Rankin	67
County	47
Raymond quadrangle	36, 68, 69
Redleaf quadrangle	69
Redwood	39, 40
quadrangle	69
Refuge	69
Renalara quadrangle	69
Rexford	36
Rich	21
Ridgeland	34
Rienzi	55
Rigolets quadrangle	70
Robinsonville	14, 62
Rorison, N. S., work of	10
Rosedale	70
quadrangle	70
Radyard	30
Russell	64

S.

Sabino	24, 25
Salttillo	73
Sarah	8, 9, 17
Satartla	71
quadrangle	70, 71
Savage	8, 15, 16, 17
Scoba	71
quadrangle	71

	Page.		Page.
Scott County -----	47	Tunica -----	13 14, 15
Scranton -----	71	County -----	7 10, 47
quadrangle -----	71	quadrangle -----	8-9, 11 19, 73
Sea level, mean, definition of -----	6, 7	Tupelo -----	72
Selma -----	41	quadrangle -----	72, 73
Sensenev, H. S., work of -----	40	Tutwiler -----	10 25, 32
Shannon -----	67	quadrangle -----	9, 10
Sharkey -----	32		
Shubuta -----	71	U.	
quadrangle -----	71	United States Coast and Geodetic	
Sidon -----	72	Survey, elevations ad	
quadrangle -----	72	justed by -----	47-76
Simpson County -----	34		
Sinai -----	36	V.	
Sledge -----	9	Vance -----	10
Smiths -----	53	Verona -----	67
Stalls -----	9, 23	Vicksburg -----	38, 40, 73 74, 75
Star -----	36	quadrangle -----	38-40 73-75
Landing -----	67	Vinegar Bend quadrangle -----	75
State Levee -----	20		
Stoneville -----	63	W.	
Stormville -----	72	Walls -----	8
quadrangle -----	72	Warren County -----	7, 47
Stout -----	38	Washington -----	41
Summer -----	32	County -----	47
Sunflower County -----	47	Waveland -----	49
Landing -----	69	Wayne County -----	47
River -----	55, 56	Waynesboro -----	53
Swan Lake -----	32	Webb -----	32
		West Point -----	75
T.		quadrangle -----	75
Tallahatchie County -----	7, 10	White Harbor -----	60
Tallulah Landing -----	63	Whitehead -----	32
Tate County -----	7, 10	Whites -----	36
Tchula -----	72	Wilkersons Landing -----	48
quadrangle -----	72	Wilkinson County -----	47
Terrene -----	65	Wilsons Point quadrangle -----	75 76
Terry -----	37	Winchester -----	53
quadrangle -----	37		
Thompsonville -----	37	Y.	
Tibbs -----	20, 21	Yazoo & Mississippi Valley R. R. ---	8, 9, 12, 13, 22, 25, 26, 28, 29, 32, 33, 39, 41, 69
Tishomingo County -----	47	Yazoo City -----	76
Tocowa -----	26	County -----	47
Toomsba -----	64	quadrangle -----	76
Tougaloo -----	34	River -----	69
Trotters Landing -----	20, 65	Yocona Bottom -----	26
Tubby Lubby Creek -----	66	Yokena quadrangle -----	40