## DEPARTMENT OF THE INTERIOR

 Frankinn K. Lane, SecretaryUnited States Geological Survey George Otis Smita, Director

BULLETIN 635

## SPIRIT LEVELING IN GEORGIA

1896 TO 1914, NCLUSIVE

R. B. Marshati, Chief Geografmer


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WASHINGTON GOVERNMENT PRINTING OFFICE


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

# SPIRIT LEVELING IN GE0RGIA, 1896 T0 1914 INCLUSIVE. 

# R. B. Marshall, Chief Geographer, 

## INTRODUCTION.

Previous publication.-That portion of the results \&qpirit leveling in Georgia previously published as part of Bulletin 441, containing descriptions and elevations of bench marks established in Georgia from 1896 to 1909 , inclusive, and based on the 1903 adjustment, has been corrected to agree with the 1907 adjustment of precise leveling of the United States Coast and Geodetic Survey, and is here republished, together with the results of spirit leveling by the United States Geological Survey in Georgia 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 1896 to 1906, inclusive, was done under the direction of H. M. Wilson, geographer, and that from 1907 to 1914, inclusive, was done 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-rodded 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 $0.02 \sqrt{\mathrm{D}}$ and that for the primary work by $0.05 \sqrt{\mathrm{D}}$, in which D is the length of circuit in miles.

Bench marles.-The standard bench marks are of two forms. The first form is a circular bronze or aluminum tablet ( $C$ and $E, \mathrm{Pl} . \mathrm{I}$ ), $3 \frac{1}{2}$ inches in diameter and $\frac{1}{4}$ 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 ( $F, \mathrm{Pl}$. 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 $D, \mathrm{Pl} . \mathrm{I}$ ), is used for unimportant points. This consists of a special copper nail $1 \frac{1}{2}$ inches in length driven through a copper washer seven-eighths inch in diameter. The tablets as well as the caps on the iron posts are appropriately lettered, and cooperation by States is indicated by the addition of the State name ( $G, \mathrm{Pl} . \mathrm{I}$ ).

The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot as determined by the levelman. These numbers are stamped with $\frac{3}{16}$-inch steel dies on the tablets or post caps, to the left of the word "Feet." The office adjustment of the notes and the reduction to mean sealevel 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 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 preciselevel 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 Georgia have been published by the United States Geological Survey up to September 1, 1915. They may be obtained for 10 cents each or $\$ 3$ for 50 , except as otherwise noted, on application to the Director of the Survey at Washington, D. C.

Acworth. ${ }^{1}$
Atlanta.
Carnesville (Ga.-S. C.).
Cartersville. ${ }^{1}$
Cartersville special. ${ }^{1}$
Cohutta.
Columbus (Ala.-Ga.).
Crawfordville (Ga.-S. C.).
Dahlonega (Ga.-N. C.).
Dahlonega special.
Dalton (Ga.-Tenn.).
Ducktown special (Tenn.-Ga.-N. C.). Elberton (Ga.-S. C.).
Ellijay (Ga.-N. C.-Tenn.).
Fort Payne (Ala.-Ga.).

```
Gainesville.
McCormick (Ga.-S. C.).
Marietta.
Monroe.
Opelika (Ala.-Ga:).
Ringgold (Ga.-Tenn.).
Rome (Ga.-Ala.).
Stevenson (Ala.-Ga.-Tenn.).
Stilesboro. }\mp@subsup{}{}{1
Suwanee.
Talbotton.
Tallapoosa (Ga.-Ala.).
Walhalla (Ga.-S. C.-N. C.).
Wedowee (Ala.-Ga.).
```


## PRECISE LEVELING.

Atlanta, Baxley, Brunswick, Cochran, Dalton, Eastman, Everett, Forsyth, Gresston, Jackson, Jesup, Lumber City, McDonough, McRae, Macon, Marietta, Ringgold, Rome, Scotland, Surrency, and Tobesofkee quadrangles.

APPLING, BIBB, BUTTS, CLAYTON, COBB, COFFEE, DODGE, FLOYD, FULTON, GLYNN, GORdon, henry, monroe, padlding, polk, pllaski, telfair, twiggs, wayne, and WHITFIELD COUNTIES.

The elevations in the following list are a portion of the results of precise leveling carried from Morehead, N. C., through North Carolina, Tennessee, and Georgia to Brunswick, Ga. For description of the methods of leveling see under "Precise leveling" in North Carolina (Bull. 441, pp. 58-59). The leveling from Red Clay to Atlanta was done in 1897 by W. C. Hall; the remainder of the line was run in 1898 by E. L. McNair.

[^0]
# DALTON QUADRANGLE. <br> [Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $84^{\circ} 30^{\prime}-85^{\circ}$.] <br> From Red Clay south along Southern Ry, to Carbondale. 

Red Clay, in front of railroad station; top of west rail $\qquad$
Cohutta, 157 feet east of west rail of main track, in north front of W.
A. Williams's brick store; bronze tablet stamped " 866 MC " $\qquad$
Feet. 822.9
865.728

Varnell, in front of station; top of west rail
807.6

Waring, 24 feet west of west rail of main track and 6.6 feet north of mile-post H 35 ; iron post stamped " 795 MC "
794. 013

Dalton, in front of station; top of west rail
Dalton, in water table at north side of Cleveland Street entrance of Whitfield County courthouse ; bronze tablet stamped " 774 MC "
773.419

Phelps, 50 feet west of west rail opposite switch point, at south end of side track, near southeast corner of post office ; iron post stamped " 712 MC " $\qquad$ 711. 283

Carbondale, at road crossing; top of west rail 761. 6

## RINGGOLD QUADRANGLE.

[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $85^{\circ}-85^{\circ} 30^{\prime}$.]
From Carbondale south along Southern Ry, to Sugar Valley.
Miller, 76.4 feet west of west rail, at northeast corner of L. C. Rooker's store; iron post stamped " 719 MC "
717. 756

Sugar Valley, at road crossing; top of west rail
646.1

## ROME QUADRANGLE.

[Latitude $34^{\circ}-34^{\circ} 30^{\prime}$; longitude $85^{\circ}-85^{\circ} 30^{\prime}$.]
From Sugar Valley south along Southern Ry, to Rockmart.
Oostanaula, road crossing ; top of west rail
630.7

Oostanaula River, west pedestal block of south abutment of bridge

- H 61.3, 7.6 feet west of west rail ; copper bolt stamped " 620 MC "--

618. 981

Reeves, at road crossing; top of west rail
636.2

Plainville, in front of station; top of west rail
677.1

Pinson, 23.3 feet east of west rail and 15.3 feet north of switch point; iron post stamped " 653 MC " $\qquad$ 651.718

Harper, at road crossing ; top of west rail
677. 7

Etowah River, center of 300 -foot bridge $\mathbf{H} 78.9$; top of west rail__-_ $\quad 621.4$
Rome, in face of steps to Fourth Avenue entrance of post office; aluminum tablet stamped " 614 MC "
612. 607


Lindale, in front of station; top of west rail
651.1

Silver Creek, at road crossing; top of west rail
679.6

Chambers, at road crossing; top of west rail_
702.9

Chambers, 0.08 mile south of, in north abutment of trestle H 86.3, 7 feet west of west rail ; copper bolt stamped " 697 "
695.949

Briceville, at road crossing; top of west rail 824.7

Byrd, in front of station sign ; top of west rail
862.0

Seney, in front of station; top of west rail
Seney, 0.4 mile south of, 6 -foot arch culvert, in west face wall, 6.3Feet.feet south of center of arch; copper bolt stamped " 799 MC "Ravenel, at road crossing; top of west rail797.967
Long, at road crossing; top of west rail738.4
734.6Seaboard Air Line Ry., under Southern Ry. bridge H. 101.7; top ofnorth rail
745. 0
Southern Ry. bridge H 101.7 over Seaboard Air Line Ry.; top of west rail ..... 765.0Rockmart, 0.1 mile north of, Euharlee Creek Bridge, in south abut-ment 5.7 feet west of west rail ; copper bolt stamped " 774 MC "---
Rockmart, in front of station; top of west rail762.755764. 4
MARIETTA QUADRANGLE.
[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $84^{\circ} 30^{\prime}-85^{\circ}$.]
From Rockmart southeast along Southern Ry, to Oakdale.
Don, at road crossing ; top of west rail ..... 912.2
Beatty switch, at road crossing; top of west rail ..... 926.4
Braswell, in front of station; top of west rail1, 056.1
Braswell, 0.5 mile south of, in west wall of tunnel, 3 feet from north portal; bronze tablet stamped " 1088 MC " ..... -1, 087. 074
South switch, in front of station; top of west rail ..... 1, 062.1McPherson, 79.8 feet west of west rail, 30 feet south of road crossing.2 feet from northeast corner of J. E. Butler's house; iron poststamped " 1015 MC"1, 013. 888
I'umpkinvine Bridge, at center of 360 -foot viaduct H 116.7; top of west rail ..... 910.5
Dallas, at road crossing; top of west rail ..... 1, 002.8
Dallas, west side of south entrance of Paulding County courthouse; bronze tablet stamped " 1050 MC " ..... 1, 049,538
Hiram, in front of station; top of west rail ..... 960.0
Powder Springs, 2.2 miles north of, 0.3 mile north of milepost 128, in rock formation on west side of cut ; copper bolt stamped " 957 MC "- ..... 956. 170
Powder Springs, in front of station; top of west rail ..... 912.6
Sweetwater Creek, center of 130 -foot bridge H 133.4 ; top of west rail_ ..... 896.0Austell, in front of station; top of west rail927.4Austell, W. E. Shelerton's hotel, in north front of building, 6.7 feetfrom west corner ; bronze tablet stamped " 930 MC "929. 185
Mableton, in front of station; top of south rail ..... 980.7Nickajack, at road crossing; top of south rail
$\qquad$Starbuck field, road crossing; top of south rail850.5Lenox, 0.4 mile west of, 70 feet west of milepost 142,8 feet south ofsouth rail, in solid rock; copper bolt stamped " 804 MC "803.748Lenox, at road crossing; top of south rail795.9
atlanta quadrangle.
[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $84^{\circ}-84^{\circ} 30^{\prime}$.]
From Oakdale southeast along Southern Ry, to Tunis.
Oakdale, in front of station; top of south rail ..... 809.2
Chattahoochee River bridge H 144.5, at west end of trestle approach; top of south rail ..... 794.3
Payton, 16 feet south of south rail of main track and 12 feet west of west side of station ; iron post stamped " 855 MC "

Feet.
854. 400 893.7 1, 032.0
Atlanta, center of Union Station shed; top of rail
Atlanta, in north newel post of Washington Street entrance of State capitol ; aluminum tablet stamped " 1050 MC "

1, 049.546
South Atlanta, road crossing; top of south rail $1,015.4$
Constitution, 4 feet south of station signpost, 25 feet south of rail-
road; iron post stamped " 847 Morehead, 1898 " 847.006

Henrico, at signpost; top of south rail
862.1

Conley, top of south rail
Ellenwood, 20 feet south of track, 2 feet northwest of station platform ; iron post stamped " 848 Morehead, 1898 "
847. 734

Rex, opposite signboard ; top of west rail 781.4

Stockbridge, brick post-office building, 18 feet to left of front doorway, 2.5 feet above ground; aluminum tablet stamped " 810 Morehead, 1898 "
809.546

Tunis, at road crossing; top of west rail

## MCDONOUGH QUADRANGLE.

> [Latitude $33^{\circ} 45^{\prime}-34^{\circ}$; longitude $84^{\circ}-84^{\circ} 15^{\prime}$. ] From Tunis southeast along Southern Ry. to Jenkinsburg.

## Ilippen, opposite station ; top of west rail

McDonough, granite footstone of stone arch at right of main entrance to Henry County courthouse ; aluminum tablet stamped " 866 Morehead, 1898 "
865.441

Locust Grove, 55 feet north of railroad station, 25 feet west of main track, 3 feet north of black-oak tree 4 inches in diameter; iron post stamped " 837 Morehead, 1898 "
836.236
Jenkinsburg, 25 feet west of Southern Ry. station, 20 feet south of track; iron post stamped " 766 Morehead, 1898"
765. 148

## JACKSON QUADRANGLE.

$$
\text { [Latitude } 33^{\circ} 45^{\prime}-34^{\circ} \text {; longitude } 83^{\circ} 45^{\prime}-84^{\circ} \text {.] }
$$

From Jenkinsburg southeast along Southern Ry, to Flovilla.

Jackson, Butts County courthouse, in sandstone just above water table at right of front entrance; aluminum tablet stamped " 727 Morehead, 1898" $-$
Flovilla, in front of station; top of west rail
726.287
587.8

## FORSYTH QUADRANGLE.

## [Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $83^{\circ} 45^{\prime}-84^{\circ}$.]

## From Cork southeast along Southern Ry. to Dames Ferry.

Cork, 10 feet south of station platform ; iron post stamped " 546 Morehead, 1898"
545. 597

Berner, in front of station; top of west rail


## MACON QUADRANGLE.

[Latitude $32^{\circ} 45^{\prime}-33^{\circ}$; longitude $83^{\circ} 30^{\prime}-83^{\circ} 45^{\prime}$.]

## From Popes Ferry southeast along Southern Ry, to Macon.

Popes Ferry, in front of station; top of west rail
Holton, 35 feet north of station, 29 feet west of center of track; iron post stamped " 339 Morehead, 1898 " $\qquad$
Virgin, road crossing ; top of west rail
338. 733

Virgin, 0.9 mile south of, at milepost 236 ; top of west rail
Macon, United States post-office building at corner of Mulberry and Third streets, in water table at left of Mulberry Street entrance; aluminum tablet stamped " 334 Morehead, 1898 " ${ }^{1}$ $\qquad$
Macon, northeast corner of new post-office building; aluminum tablet_
Macon, 0.7 mile south of, at crossing of Central of Georgia Ry. and Southern Ry.; top of west rail of Southern Ry
310.3

## TOBESOFKEE QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-32^{\circ} 45^{\prime}$; longitude $83^{\circ} 30^{\prime}-83^{\circ} 45^{\prime}$.]
From Reid southeast along Southern Ry, to Adams Park.
Reid, opposite signboard, 40 feet southwest of center of main track; iron post stamped " 272 Morehead, 1898 "
271. 719

Bullards, 2 feet south of south end of platform, 35 feet east of center of main track; iron post stamped " 259 Morehead, 1898 "
258. 468

Adams Park, 19 feet east of center of track, 3.5 feet south of platform ; iron post stamped " 259 Morehead, 1898 "
258.640

COCHRAN QUADRANGLE.
[Latitude $32^{\circ} 15^{\prime}-32^{\circ} 30^{\prime}$; longitude $83^{\circ} 15^{\prime}-83^{\circ} 30^{\prime}$. ]
From Adams Park southeast along Southern Ry. to Empire.
Westlake, 33 feet east of center of main track, 2.5 feet south of station platform; iron post stamped " 234 Morehead, 1898 "
234.130

McGriff, 12.5 feet west of center of track, 4.5 feet south of pump house ; iron post stamped " 259 Morehead, 1898 "
L.ongstreet, in front of station; top of rail
258.517

Cochran, 55 feet west of station platform, 33 feet west of center of main track, 3 feet north of large telegraph pole; iron post stamped " 342 Morehead, 1898"
341. 471

Empire, 50 feet north of station platform, 13 feet west of center of main track, 4 feet south of post marked "Stop; " iron post stamped " 381 Morehead, 1898 "

[^1]
# GRESSTON QUADRANGLE. <br> [Latitude $32^{\circ}-32^{\circ} 15^{\prime}$; longitude $83^{\circ} 15^{\prime}-83^{\circ} 30^{\prime}$.] <br> At Gresston. 

Gresston, 26 feet west of southwest corner of station, 17 feet west of center of track; iron post stamped " 400 Morehead, 1898 "

Feet. 400. 287

## EASTMAN QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 15$; longitude $83^{\circ}-83^{\circ} 15 \prime$.]
From Eastman southeast along Southern Ry, to Cox.

| Eastman, 37 feet north of station, 17 feet west of center of track; iron post stamped " 357 Morehead, 1898 " $\qquad$ | 356. 697 |
| :---: | :---: |
| Godwinsville, 15 feet north of station, 20.5 feet west of center of main track; iron post stamped " 312 Morehead, 1898 " $\qquad$ | 311. 460 |
| Chauncey, 47 feet north of center of main track, 2 feet east of station platform; iron post stamped " 300 Morehead, 1898 " $\qquad$ | 299. 294 |
| Misler, in front of station ; top of west rail | 292.7 |
| Cox, in front of station; top of west rail | 286.8 |

## McRAE QUADRANGLE.

[Latitude $32^{\circ}-32^{\circ} 15^{\prime}$; longitude $82^{\circ} 45^{\prime}-83^{\circ}$.]
From Cox southeast along Southern Ry, to McRae.
Achord, opposite signboard; top of south rail
Achord, opposite signboard near west end of siding, 100 feet south of southwest corner of store, 28 feet south of center of main track; iron post stamped " 275 Morehead, 1898 " 274. 532

Helena, crossing of Southern Ry. and Georgia \& Alabama Ry.; south rail of Southern Ry
246. 6

McRae, 8 feet east of railway station platform, 1 foot east of telegraph pole and 32 feet south of center of main track; iron post stamped " 229 Morehead, 1898"
229. 327

## SCOTLAND QUADRANGLE.

[Latitude $31^{\circ} 45^{\prime}-32^{\circ}$; longitude $82^{\circ} 45^{\prime}-83^{\circ}$.]
From McRae southeast along Southern Ry. to Towns.
Scotland, 8 inches east of east edge of railway station platform, 35 feet south of center of main track; iron post stamped " 142 Morehead, $1898^{\prime \prime}$
141. 769

Towns, 39 feet south of center of railway station platform, 34 feet south of center of main track; iron post stamped " 128 Morehead, $1898^{\prime \prime}$
217. 505

## LUMBER CITY QUADRANGLE.

[Latitude $31^{\circ} 45^{\prime}-32^{\circ}$; longitude $82^{\circ} 30^{\prime}-82^{\circ} 45^{\prime}$. ]

## From Lumber City southeast along Southern Ry. to Hazlehurst.

Lumber City, 200 feet east of railway station, 52 feet north of center of main track, 26 feet southwest of corner of barber shop, 3.5 feet west of chinaberry tree; iron post stamped " 146 Morehead, 1898 "--
Hazlehurst, 30 feet south of center of main track, 2 feet east of railway station platform; iron post stamped " 256 Morehead, 1898 "

## BAXLEY QUADRANGLE.

[Latitude $31^{\circ} 30^{\prime}-31^{\circ} 45^{\prime}$; longitude $82^{\circ} 15^{\prime}-82^{\circ} 30^{\prime}$.]
From Hazlehurst southeast along Southern Ry, to Wheaton.

Graham, 9.5 feet west of station, 26 feet south of center of main track, 2.5 feet north of telegraph pole; iron post stamped " 244 Morehead, 1898 "

Feet.
243. 894

Pine Grove, 39 feet east of road crossing, 47 feet east of freight platform at station, 16 feet south of center of main track, between two posts supporting sign " Pine Grove; " iron post stamped " 229 Morehead, 1898" $\qquad$
Haxley, 67 feet east of end of railway station building, 37 feet south of center of main track, 4 feet west of telegraph pole; iron post stamped " 206 Morehead, 1898 "
229.116
205.887

Wheaton, 57 feet northeast of northeast corner of freight platform at station, 44 feet south of corner of shanty, 33 feet north of center of main track; iron post stamped " 200 Morehead, 1898 " $\qquad$

## SURRENCY QUADRANGLE.

[Latitude $31^{\circ} 30^{\prime}-31^{\circ} 45^{\prime}$; longitude $82^{\circ}-82^{\circ} 15^{\prime}$.]
From Surrency southeast along Southern Ry, to Odum.
Surrency, 45 feet south of railway station platform, 37 feet south of center of main track; iron post stamped " 187 Morehead, 1898"
186. 429

Brentwood, 54 feet east of freight building and platform at railway station, 36 feet north of center of main track, 45 feet south of store ; iron post stamped " 167 Morehead, 1898 "- $\qquad$
Odum, 78 feet west of station platform, 25.5 feet south of center of main track, 43.5 feet north of porch of L. Carter \& Bros.' warehouse ; iron post stamped " 155 Morehead, 1898 "
154. 810

## JESUP QUADRANGLE.

[Latitude $31^{\circ} 30^{\prime}-31^{\circ} 45^{\prime}$; longitude $81^{\circ} 45^{\prime}-82^{\circ}$.]

## At Jesup.

Jesup, 2.5 feet southwest of Southern Ry. station (also station of Atlantic Coast Line), 33 feet northwest of center of main track of Atlantic Coast Line; iron post stamped " 99 Morehead, 1898 "
99. 496

## EVERETT QUADRANGLE.

[Latitude $31^{\circ} 15^{\prime}-31^{\circ} 30^{\prime}$; longitude $81^{\circ} 30^{\circ}-81^{\circ} 45^{\prime}$.]
From Gardi southeast along Southern Ry, to point 2 miles north of Dock Junction.

Gardi, 2.5 feet from southeast corner of railway station, 39 feet northeast of center of main track; iron post stamped " 61 Morehead, 1898"
61. 341

Pandarvis, between signboard posts 850 feet south of head block at north end of siding, 22 feet northeast of center of main track, 174 feet south of corner of dwelling house; iron post stamped " 85 Morehead, 1898" $\qquad$
Mount Pleasant, 95 feet northwest of railway station, 42 feet southwest of center of main track; iron post stamped " 55 Morehead, 1899 "

Everett, 29 feet west of railway station, 11.5 feet west of center of main track, 109.5 feet northwest of center of crossing of the South-
ern Ry. and the Atlantic Coast Line R. R., 2.5 feet northwest of telegraph pole; iron post stamped " 16 Morehead, 1899 "

Feet.
16. 305
18. 239
20.7
24.647

BRUNSWICK QUADRANGLE.
[Latitude $31^{\circ}-31^{\circ} 15^{\prime}$; longitude $81^{\circ} 15^{\prime}-81^{\circ} 30^{\prime}$. ]
At Brunswick.
Brunswick, at southwest corner of Newcastle and Mansfield streets, in foundation wall at right of Newcastle Street entrance of city hall; aluminum tablet stamped " 10 Morehead, 1899 " $\qquad$
Brunswick, Glauber \& Isaac's warehouse, near McCullough's wharf ; large spike in oak stump under hole made through floor (U. S. Engineer Corps elevation, 7.662)
Brunswick, 80 feet south of Glauber \& Isaac's warehouse, 12 feet west of office building, on spike in notch on southwest side of liveoak tree 20 inches in diameter (U. S. Engineer Corps elevation, 8.572)

Brunswick, McCullough's wharf, 20 feet back from and 16 feet south of edge of ballast pile, top of coupling of $1 \frac{1}{2}$-inch gas pipe driven in ground now about 15 inches above surface (U. S. Engineer Corps elevation, 6.922)
6. 871

Brunswick, northeast corner of F and Oglethorpe streets, top of iron pipe 1 foot below surface of sidewall, 1 foot from fence on line of Oglethorpe Street; bricks to be removed (U. S. Engineer Corps elevation, 14.432) $\qquad$

Ringgold quadrangle.
[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $85^{\circ}-85^{\circ} 30^{\prime}$. ]
DADE COUNTY.
The elevation following is a portion of the results of precise levels extending from Chattanooga to Nashville, Tenn. The section of this line from Chattanooga, Tenn., to Stevenson, Ala., was recovered by the Coast and Geodetic Survey precise levels, the adjustment of which has caused the original elevations by this line at Stevenson to be raised 0.157 foot with respect to Chattanooga. The remainder of the line to Nashville is a spur. The simultaneous double-rod method was used. The leveling was done in 1899 by W. W. Gilbert.

From Chattanooga southwest along Nashville, Chattanooga \& St. Louis Ry, to Stevenson, Ala. (portion of line).
Hooker, 2.3 miles west of, at west end face of tunnel, south side of Feet. track, 4 feet above rails; bronze tablet stamped " 974 "

Macon and Meriwether quadrangles.
BALDWIN, BIBB, AND JONES COUNTIES.
The following are the unadjusted results of a precise line of levels run in 1906, beginning at an iron post at Holton station, stamped " 339 Morehead, 1898," on the precise line from Atlanta to Brunswick, and running southeast along the Southern Railway to Macon, thence northeast along the Georgia Railroad to Milledgeville. The elevation of the bench mark at Holton, as determined by the 1912 adjustment, is accepted as 338.733 feet above mean sea level. The total divergence between direct and reverse lines was 0.023 foot in a total distance of 39 miles.

## MACON QUADRANGLE.

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[Latitude }3\mp@subsup{2}{}{\circ}4\mp@subsup{5}{}{\prime}-3\mp@subsup{3}{}{\circ}\mathrm{ ; longitude }8\mp@subsup{3}{}{\circ}3\mp@subsup{0}{}{\prime}-8\mp@subsup{3}{}{\circ}4\mp@subsup{5}{}{\prime}\mathrm{ .]
From Holton via Macon to James.
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Holton, 35 feet north of station, 29 feet west of center of track; iron

Feet.

338. 733

Molton, 5.10 miles south of, at road to Macon Gas \& Light Co.'s plant, corner of fence; iron post stamped " 310 "
310.423

Macon, northeast corner of new post office ; aluminum tablet stamped " 333 "
332.625

Macon, 3.65 miles northeast of ; west side of track, 4 feet south of milepost 187 ; iron post stamped " 351 "
351. 206

Macon \& Atlanta Junction, in front of station; top of rail
348.0
466. 909 milepost 72 ; iron post stamped " 467 "
feet west of Roberts, west side of track, 35 feet west of station; iron post stamped " 539 "
538.701

Roberts, 2.36 miles northeast of, west side of track, railroad crossing south side of highway, 880 feet south of milepost 66 ; iron post stamped " 564 "
564.317

James, in front of station ; top of rail
490.325

James, 0.94 mile northeast of, west side of track, milepost 63, top of aluminum tablet stamped " 486 "
485. 680

## MERIWETHER QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $83^{\circ} 15^{\prime}-83^{\circ} 30^{\prime} .1$
From James northeast along Georgia R. R. to Milledgeville.
Haddock, in front of station; top of rail
484. 178

Haddock, Jones County Bank, front face; aluminum tablet stamped " 499 "
499.212

Browns Crossing, in front of station; top of rail
362.658

Browns Crossing, 0.93 mile northeast of, north side of track, milepost 53 , top of ; aluminum tablet stamped " 337 "
337.142

Browns Crossing, 3.84 miles northeast of, west side of track, milepost 50 , top of; aluminum tablet stamped " 356 "
355.582

State Farm, 0.84 mile northeast of, 1.5 miles south of Milledgeville, west side of track, top of milepost 47 ; aluminum tablet stamped " 360 "

## PRIMARY LEVELING.

> Dahlonega, Dalton, and Ellijay quadrangles.

FANNIN, GILMER, HABERSHAM, LUMPKIN, MURRAY, RABUN, TOWNS, UNION, WHITE, AND Whitfield counties.

The elevations in the following list were determined from connection with precise leveling at Dalton. The leveling was done as follows: In Dahlonega and Ellijay quadrangles in 1896 by T. S. Mauldin, jr.; in Dalton and Ellijay quadrangles in 1900 by W. S. D. Moore; and in Ellijay quadrangle in 1907 by W. H. Gray and J. S. Martin. The bench marks established in 1896 are stamped with figures of elevation which are nearly 33 feet greater than the heights now accepted.

## DALTON QUADRANGLE (EMBRACING COHUTTA, ENOCH, SPRING PLACE, AND TALKING ROCK $15^{\prime}$ QUADRANGLES).

[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $84^{\circ} 30^{\prime}-85^{\circ}$.]
From Dalton east along highways to Wolf Pen Gap.

Dalton, north side of Cleveland Street entrance to county courthouse,
Feet. 773. 419 in water table ; bronze tablet stamped " 774 M . C."- $\qquad$
Oran, 1.5 miles east of, 0.5 mile east of Federal road, on north edge of road, in limestone; bronze tablet stamped " 800 Atlanta"
799. 213
Hassler Mill, 1 mile northeast of, 1.5 miles east of junction of Dalton road with Westfield pike, 0.1 mile north of John Gregory's residence, west edge of road, in limestone; bronze tablet stamped " 919 Atlanta"
Conasauga, on south side of road opposite John McClurd's store, in sandstone; bronze tablet stamped "1518 Atlanta" 1,517. 225
Wolf Pen Gap 1, 924

ELLIJAY QUADRANGLE (EMBRACING BLUE RIDGE, CARTECAY, HEMP, AND RANDA $15^{\prime}$ QUADRANGLES).
[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $84^{\circ}-84^{\circ} 30^{\prime}$.]
From Wolf Pen Gap east along highways to Cherry Log, thence northeast aiong Louisville \& Nashville R. R. to Mineral Bluff.
Ellijay, 6 miles north of, 0.5 mile north of road leading to Wolf Pen Gap, 100 feet east of branch flowing south and 500 feet east of William Harper's residence, in rock north of road; bronze tablet stamped " 1739 Atlanta" $1,737.552$
Blue Ridge, in southeast corner of front wall of Boling \& Crawford's store; bronze tablet stamped " 1751 Atlanta"

1, 718. 219
Toccoa River railroad bridge, top of pier at south end ; marked point
on marble block
Cole Crossing, 250 feet west of track, north of road, in ledge of slate rock; copper bolt stamped " 1702 "

1, 669. 541
From Mineral Bluff southeast along highway to Morganton, thence west to Blue Ridge.
Mineral Bluff, 0.5 mile east of, in ledge of slate on left of road, 225 feet east of Burrell's blacksmith shop; hole

1,611. 532
Morganton, grove opposite Baptist Church; copper bolt stamped "1839"
From Morganton east along highway to Young Cane, thence southwest to Dick, thence north to Morganton.
Feet.
Brackett's store, opposite church near store, southwest of and 110 feet from intersection of roads; copper bolt stamped " 1906 " ..... 1, 873. 209
Hemptown Gap, at summit, 65 feet southwest of nail in root of white- oak tree on right of road; copper bolt stamped " 2211 " ..... 2,178. 122
Young Cane, at side of Butt's store ; iron post stamped " 1966 " ..... 1, 933.037
Skeenah Gap, at summit dwelling, in large rock in lane to left ; cop- per bolt stamped " 2388 " ..... $2,355.577$
Cochrans, 0.5 mile west of, in rock at north edge of road; copper bolt stamped " 1887 Ft ." ..... 1, 853.887
Wilscot, 0.3 mile southeast of, rock on right of road near spring, in rocky ledge above river ; copper bolt stamped " 1859 " ..... $1,826.439$
Morganton, fork of road near William Woody's house, in large rock: copper bolt stamped " U. S. G. S. 1981 Ft. B. M." ..... 1, 947.821
From Young Cane southeast along highway to Mulky Gap, thence south to Cavender Bridge, thence west to Dial.
Mulky Gap, 200 yards north of summit, in large rock on left of road; copper bolt stamped " 2760 " ..... 2, 727. 753
Cavender Bridge over Toccoa River, near north end, in large rock;copper bolt stamped " 2095 "$2,062.207$
From Tocoa River road south up Rock Creek road toward Argo.
Argo, 2 miles north of, at crossing of Rock Creek, in rock on left edge of road; copper bolt stamped " 2199 " ..... $2,166.834$
From Cavender Bridge south along highway to Dahlonega.
Gaddistown. 0.5 mile south of, across road from Anderson \& Jones's store at road forks, in large rock; copper plug stamped " U. S. G. S. 2152 Ft. B. M." ..... $2,119.15$
Cooper Gap, summit of, 175 feet to left of road, in field; copper bolt stamped " 2861 " ..... 2, 828. 194
Two Run, 2 miles southeast of, in large quartz rock on right of road about 700 feet beyond fork of Narrow Gauge and Dahlonega roads; copper bolt stamped " 1632 " ..... $1,599.230$
Jay, under west end of bridge across Etowah River, in rock; copper bolt stamped " U. S. G. S. B. M. 1360 Ft." ..... 1,327. 801
From Blairsville northwest along highway to Culberson, N. C.
Ivylog Church, at Murphy-Culberson road fork; iron post stamped "1949" ..... 1,915. 851Culberson, N. C., 1.5 miles southeast of, in rock at crossing of creekon right of road, about 700 feet beyond stream; copper boltstamped " 1617 "1,584. 546From Blue Ridge north along Louisville \& Nashville R. R. to McCays (double-run line).
Curtis, 2 miles south of, at right of railroad, on rock ledge ; aluminum tablet stamped " 1533 " ..... 1, 533. 074

Galloway, 1,800 feet north of, 110 feet south of Cattle Gap, in rock Feet. east of railroad; aluminum tablet stamped " 1512 "
Kyle, 2 miles north of, railroad bridge across Toccoa River, , north end of east abutment, fifth course of stone in abutment, east side; aluminum tablet stamped " 1472 " (elevation possibly plus or minus 1 foot in error)
$1,471.344$

## DAHLONEGA QUADRANGLE.

[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $83^{\circ} 30^{\prime}-84^{\circ}$.]
From Blairsville southeast along highway to Tesnatee Gap, thence southwest to Dahlonega.

Porter Springs, 3.5 miles south of, 0.5 mile south of road fork, 500 feet south of crossing of branch, west of road, in sandstone; bronze tablet stamped " 1581 Atlanta"
Dahlonega, North Georgia Agricultural College, in south wall of west
L of main building; aluminum tablet stamped " 1484 Atlanta "_--. 1,483. 188
From point near Loudsville southeast along highway to Cleveland, thence northeast to Robertstown, thence southeast to Clarkesville.
Loudsville, 1 mile southeast of post office, 950 feet south of crossroads, west of road, in sandstone; bronze tablet stamped " 1597 Atlanta " 1,596. 459
Cleveland, in east front at southeast corner of county courthouse; aluminum tablet stamped " 1571 Atlanta"

1,570. 562
Nacoochee, 200 feet west of ford to Chattahoochee River, in ledge of rock 6 feet above surface of road; aluminum tablet stamped " 1349 Atlanta ".

1,348. 269
Robertstown, 500 feet south of road fork, 200 feet east of creek, in large bowlder; bronze tablet stamped " 1468 Atlanta"

1, 466. 775
Pole, 0.6 mile west of, 0.2 mile east of Cleveland road, north of road, in sandstone; bronze tablet stamped " 1415 Atlanta"
$1,413.666$

From Cleveland southeast along highway to View, thence northeast to Clarkesville.
Benefit, 1 mile northwest of, 2.5 miles southeast of Cleveland, north of road, in rock ledge; bronze tablet stamped " 1476 Atlanta "--..-
Mossy Creek, 1.25 miles east of, 400 feet east of branch flowing northeast, 60 feet north of road, in stone; bronze tablet stamped " 1330 Atlanta"

1,329. 558
Demorest, step at entrance to bank; top of southwest corner
1, 349, 17
From Demorest south along highway and Tallulah Falls Ry. to Cornelia.
Cornelia, at southwest corner of King \& Seller's store; bronze tablet stamped " 1522 Atlanta"
From Clarkesville north along highway via Soque to Burton, thence west via Hiwassee to Blairsville.
Bowden's mills, 5 miles north of Clarkesville, 500 feet north of road, at edge of creek bed, opposite north end of wool carder building; bronze tablet stamped " 1370 Atlanta" $\qquad$ eet
Soque, 0.25 mile north of, on right bank of Soque River, 70 feet above ford, in rock; bronze tablet stamped " 1585 Atlanta" $1,585.650$
Burton, 2 miles south of, 200 feet south of Moceasin Creek ford, west
of road, in rock; bronze tablet stamped " 1784 Atlanta "
Burton, 1,000 feet north of, 400 feet south of road fork, between road and river, in rock; bronze tablet stamped " 1795 Atlanta" 1,795. 140
Dick Creek Gap, 100 feet west of summit, 50 feet south of road, in rock; bronze tablet stamped " 2668 Atlanta "
2, 668. 324
Visage, 1 mile east of, at point where road crosses bend in Hightower Creek, 50 feet west of upper crossing, in rock; bronze tablet stamped " 2067 Atlanta" 2, 067.822
Hiwassee, 3.5 miles southeast of, at fork of Unicoi Gap road, north of Clayton road, opposite end of bridge, in rock; bronze tablet stamped " 1914 Atlanta"
1,914. 265
Hiwassee, at northwest corner of front vestibule of county court house; aluminum tablet stamped " 1984 Atlanta"
1, 983. 634
Hiwassee, 4.5 miles west of, 2,000 feet east of road fork to Waṛne, at top of bank south of road, in bowlder; bronze tablet stamped "1948 Atlanta"
1,947. 835
Young Harris, in College Chapel, front wall near southeast corner ; bronze tablet stamped " 1928 Atlanta"
1, 928.416
From Soque north on Nacoochee road (spur line).
Soque, 2.5 miles north of, 800 feet west of fork of Nacoochee and Clayton roads, 70 feet west of Spring branch, north of road, in rock; bronze tablet stamped " 1694 Atlanta"
$1,694.049$

From Hiwassee south along highway to Mountain Scene (spur line).
Mountain Scene, 2 miles south of, 1,000 feet south of crossing of Center Creek, west of road, in rock; bronze tablet stamped " 2188 Atlanta"

2, 187.547

Cartecay, Cohutta, Enoch, Spring Place, Talking Rock, and Waleska quadrangles. GILMER, GORDON, MURRAY, AND PICKENS COUNTIES.

The elevations in the following list were determined by primary leveling, and accord with Bulletin 441 and the 1912 adjustment.

The leveling was done in Enoch and Spring Place quadrangles, in 1914, by H. S. Senseney, in Cartecay, Cohutta, and Waleska quadrangles, in 1914, by K. W. Trimble, and in Talking Rock quadrangle, in 1914, by Senseney and Trimble. Leveling was also done in Cohutta and Spring Place quadrangles, in 1911, by C. W. Arnold, but the closure error was excessive.

## CARTECAY QUADRANGLE.

[Latitude $34^{\circ} 30^{\prime}-34^{\circ} 45^{\prime}$; longitude $84^{\circ} 15^{\prime}-84^{\circ} 30^{\prime}$.]
From Tioga north along Louisville \& Nashville R. R. to Ellijay, thence to point
1 mile west.
Feet.

Tioga, 1.1 miles north of, 30 feet west of Louisville \& Nashville R. R., in base of telegraph pole; copper nail, marked " 1275.5 b . m."---1, 287.06
Ellijay, 4.1 miles south of, 12 feet south of point of frog of Ella Gap siding, 9 feet east of Louisville \& Nashville R. R., in sandstone ledge; bronze tablet stamped " 1368 " 1,369. 754
Ellijay, 2.9 miles south of, 30 feet west of Louisville \& Nashville R. R., in base of telegraph pole; copper nail marked " 1258.7 b. m."

Ellijay, 1.4 miles south of, 100 feet south of grade crossing, 30 feet west of Louisville \& Nashville R. R., in base of telegraph pole ; copper nail marked " 1247.8 b. m."
$1,259.35$
Ellijay, 150 feet northeast of Louisville \& Nashville R. R. station, in lower bench of concrete retaining wall, east side of steps to terrace of Marble Terrace Hotel ; bronze tablet stamped " 1275 " 1, 276.272
Ellijay, Gilmer County courthouse, on west end of center marble step to south entrance; chiseled square

1, 290.92
Ellijay, 0.9 mile west of, 20 feet north of highway, in root of pine tree ; copper nail marked " 1573.9 b. m."
$1,572.38$
COHUTTA QUADRANGLE.
[Latitude $34^{\circ} 45^{\prime}-35^{\circ}$; longitude $84^{\circ} 30^{\prime}-84^{\circ} 45^{\prime}$.]
Ollie, 0.7 mile north of post office, 270 feet north of grist mill, 8 feet west of highway, on sandstone ledge; chiseled square marked "B. M."
Conasauga, 40 feet east of old store and post office, 75 feet north of road fork, in sandstone ledge; bronze tablet stamped " 1518 " $1,517.225$

From Conasauga north along highway to point on Jacks River 4 miles north of Sassafras Gap. (Excessive error distributed in this line.)

Ellijay, 10 miles northwest of, opposite store where Conasauga post office formerly was, in outcrop ledge; bronze tablet stamped " 1518 Atlanta"
Ellijay, 10 miles northwest of, northeast of road forks, west side of road, on rock bowlder ; chiseled square, marked "B. M. 1652" 1, 652.17
Ellijay, 8.5 miles northwest of, 30 feet northeast of road forks, 80 feet northeast of house, in root of sycamore tree, marked "B. M. 1564"; nail 1,564. 13
Ellijay, 8 miles northwest of, 0.5 mile east of Mountaintown Creek, in rock ledge north of road; aluminum tablet stamped " 1655 " $1,654.537$
Ellijay, 7.5 miles northwest of, at top of hill, 4 feet south of road, in root of pine tree, marked "B. M. 1965 "; nail

1, 965.19
Ellijay, 7 miles northwest of, at road forks, 150 feet northwest of sehoolhouse, 10 feet south of road, in root of white-oak tree, marked "B. M. 1775 "; nail
Ellijay, 8 miles north of, 300 feet south of house, south of road, in Feet.rock ledge; aluminum tablet stamped " 1765 "1, 764.741
Ellijay, 10 miles north of, 20 feet north of stream crossing, 120 feetnortheast of house, in root of walnut tree, marked " B. M. 1843 ";nail1, 843. 44
Ellijay, 11 miles north of, 0.75 mile south of Sassafras Gap, 300 feet southwest of house, east side of road; point on rock marked "B. M. 2522 " ..... $2,522.39$
Ellijay, 12 miles north of, in Sassafras Gap, 50 feet west of trail, in large bowlder; aluminum tablet stamped " 3140 " ..... $3,140.566$Ellijay, 13 miles north of, 10 feet northeast of road forks, 600 feeteast of house, in root of chestnut stump, marked "B. M. 2741 ";nail2, 740.76
Ellijay, 15 miles north of, east side of road; point on rock, marked "B. M. 2522 " ..... 2, 522. 52
Ellijay, 16 miles north of, 0.5 mile south of church, 0.25 mile north of road forks, at mouth of West Fork of Jacks River, in rock ledge; aluminum tablet stamped " 2477 " ..... 2, 477. 530

From point on Jacks River 4 miles north of Sassafras Gap north along Jacks River to Alaculsy, thence west along highway to Cisco, thence south along Louisville \& Nashville R. R. to point 1.7 miles north of Eton, (Excessive closure error distributed in this line.)

Alaculsy, 16 miles southeast of, 3 feet east of road, 400 feet souțh of drain, in outcrop rock; aluminum tablet stamped " 2407 "
Alaculsy, 15.3 miles southeast of, west of road, on rock ledge; chiseled square, marked "B. M. 2318 "
Alaculsy, 14.6 miles southeast of, 100 feet east of Jacks River, opposite small drain, 5 feet east of road, in large bowlder ; aluminum tablet stamped " 2047 "
Alaculsy, 13.2 miles southeast of, east bank of Jacks River, 10 feet north of road crossing, 450 feet south of bridge over river; chiseled square on large bowlder, marked "B. M. 1948"
Alaculsy, 12.8 miles southeast of, 30 feet west of Jacks River, on large bowlder ; chiseled square, marked "B. M. 1893 "1,892. 55

Alaculsy, 11.7 miles southeast of, 6 feet east of Jacks River, on outcrop rock; chiseled square, marked "B. M. 1773 "1, 772. 62
Alaculsy, 11.2 miles southeast of, 15 feet east of Jacks River, in rock
ledge; aluminum tablet stamped " 1733 "------------------1, 732.660
Alaculsy, 10.2 miles southeast of, west of road, on rock ledge; chiseled square, marked "B. M. 1711 "
Alaculsy, 9 miles southeast of, at Beech Bottom, 40 feet east of stream crossing, 15 feet north of road, in root of small pine tree marked " B. M. 1549 "; nail
$1,548.27$
Alaculsy, 7.7 miles southeast of, 2 feet north of road, in outcrop rock; aluminum tablet stamped " 1723 "

1, 722.337
Alaculsy, 5.5 miles southeast of, 8 feet north of road, in root of apple tree, marked "B. M. 1432 "; nail

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1,431.67
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Alaculsy, 3.4 miles east of, south side of road, on rock at bend; aluminum tablet stamped " 1513 "
Alaculsy, 0.2 mile east of, 30 feet southwest of ford across Jacks River, 15 feet east of road; chiseled square on large bowlder,
Alaculsy, 1.5 miles east of, 10 feet east of road forks, 250 feet south

Feet. 1,003. 28 of railroad; chiseled square on bowlder, marked "B. M. 1003 ".Alaculsy, 0.2 mile east of, 30 feet southwest of ford, across Jacks River, 15 feet east of road; chiseled square on large bowlder, marked "B. M. 956 "
955. 68
Alaculsy, near, 70 feet east of wagon bridge over Conasauga River; nail in small walnut tree (U. S. Corps of Engineers' bench mark) _
Doogan, 1.1 miles east of, 40 feet west of wagon bridge over Conasauga River, 20 feet south of road, in outcrop rock; bronze tablet stamped " 983 "
982.412
Doogan, 30 feet north of, in snuall oak tree root; nail, marked "B. M. 1069 " $\qquad$ 1, 069.23
Cisco, 4.8 miles east of, north side of road; chiseled square on large bowlder, marked "B. M. 1072 "
1,071. 98
Cisco, 3.2 miles east of, 60 feet southwest of house, 10 feet south of road, in outcrop of rock; bronze tablet stamped " 1267 "
$1,267.274$
Cisco, 2.2 miles east of, 50 feet west of road forks, at top of hill ; chiseled square on rock ledge, marked "B. M. 1111 "
1, 111. 31
Cisco, 1 mile east of, at road forks, 10 feet southeast of, 100 feet southeast of schoolhouse, in root of oak stump, marked "B. M. 948 "; nail
947. 83
Cisco, 300 feet south of station, in east end of concrete culvert of Louisville \& Nashville R. R. ; bronze tablet stamped " 828 "
827.926
Fairy, 1.6 miles north of, 400 feet north of deep cut on Louisville \& Nashville R. R., on west end of concrete culvert; chiseled square marked "B. M. 860 "
860.08
Fairy, 0.3 mile north of, in southeast corner of east end of concrete culvert of Louisville \& Nashville R. R.; bronze tablet stamped " 822 "
822.348
Crandall, 3.2 miles north of, on west end of concrete culvert of Louisville \& Nashville R. R. ; chiseled square, marked "B. M. 805 "-
Crandall, 1.7 miles north of, in east pier of Louisville \& Nashville bridge 14, over Sumac Creek; bronze tablet stamped " 781 " $\qquad$
805. 26
780.445
Crandall, 0.3 mile south of, 30 feet north of wagon bridge over Louisville \& Nashville R. R.; top of switch bolt marked "B. M. $828^{"}$
827. 92
Eton, 1.7 miles north of, west side of track ; top of bolt in cattle guard over concrete viaduct, marked " B. M. 792 "

## ENOCH QUADRANGLE.

[Latitude $34^{\circ} 30^{\prime}-34^{\circ} 45^{\prime}$; longitude $84^{\circ} 45^{\prime}-85^{\circ}$.]
Near Chatsworth on Louisville \& Nashville R. R.

Chatsworth, 1.5 miles south of, west end of culvert; bronze tablet stamped " 719 "
719. 012

Chatsworth, 2.6 miles south of, 25 feet north of road crossing, in mile post marked "L 381 E 47 " ; spike, painted " U. S. B. M. 729 "
728. 44

## SPRING PLACE QUADRANGLE.

$$
\text { [Latitude } 34^{\circ} 45^{\prime}-35^{\circ} \text {; longitude } 84^{\circ} 45^{\prime}-85^{\circ} \text {.] }
$$

## From Eton southeast along Louisville \& Nashville R. R. to Chatsworth.

Fiton, 0.5 mile north of, east end $o^{f}$ concrete culvert of Louisville \& Nashville R. R.; aluminum tablet stamped " 754 "

Eton, in front of station; top of east rail
753.930

734.9

Eton, 1 mile south of, west end of culvert; chiseled square painted " 718 "
718.16

Eton, 2.3 miles south of, 500 feet north of bridge over railroad, east end of culvert; chiseled square, painted "U. S. 752." $\qquad$
Eton, 3 miles south of, west end of culvert; bronze tablet stamped " 755 " $\qquad$
Chatsworth, in front of station; top of west rail
Chatsworth, road crossing south of station, at northeast corner, in telephone pole; spike painted " U. S. B. M. 725 " $\qquad$

From point 1.5 miles east of Oran and 0.5 mile south of Federal road north along Louisville \& Nashville R. R. to point 0.5 mile north of Eton, (An excessive closure error has been distributed in this line.)

Chatsworth, 2 miles northeast of, 0.5 mile east of Federal road, in limestone ledge; shank of bronze tablet $\qquad$
Eton, 2 miles south of, 600 feet south of bridge over Louisville \& Nashville R. R., on southwest corner of concrete culvert; chiseled square marked "B. M. 740 " $\qquad$
Eton, 1 mile south of, west of track, on west end of culvert; chiseled square marked " B. M. 718 " $\qquad$
Eton, 0.5 mile north of, east end of concrete culvert of Louisville \& Nashville R. R.; aluminum tablet stamped " 754 "
799.213
739. 50
718.16
753.930

TALKING ROCK QUADRANGLE.
[Latitude $34^{\circ} 30^{\prime}-34^{\circ} 45^{\prime}$; longitude $84^{\circ} 30^{\prime}-84^{\circ} 45^{\prime}$.]

From point near Chatsworth along Louisville \& Nashville R. R. southeast to Carters, thence south to Ranger.

Chatsworth, 4.2 miles south of, 50 feet northwest of road crossing, in telephone pole; spike, painted "U. S. B. M. 751 "
750.99

Ramhurst, in front of station; top of west rail
766. 89

Ramhurst, west end of north abutment of railroad bridge over Rock Creek; bronze tablet stamped " 763 "
762.817

Ramhurst, 1.4 miles south of, west end of south abutment of trestle over the Federal road; chiseled square, painted " U. S. 749 "
749. 60

Ramhurst, 2.6 miles south of, east end of north abutment of trestle; chiseled square, painted "U. S. 712 " $\qquad$ 711.95

Coniston, 100 feet north of station, 50 feet west of track, in limestone outcrop; bronze tablet stamped " 705 "
705. 046
705.7

Coniston, 1.4 miles south of, 50 feet northwest of road crossing, in telephone pole; spike, painted " U. S. 693 "

Feet. 693. 20
694.05
694.074
714.878
739. 00
735.2
728.34
759.971
759.93
741. 96
749.3

## From Carters northeast along highway to point near Ellijay.

Carters, 1.1 miles north of, 25 feet south of forks of roads, in root of tree; copper nail with washer
Carters, 2.4 miles northeast of, 0.6 mile east of the Federal road, on road to Ellijay, south side of, on ledge; chiseled square, painted "U. S. 876 "
875. 69

Carters, 3.5 miles northeast of, south side of road, in outcrop; bronze tablet stamped " 1148 "

1, 147. 762
Carters, 4.8 miles northeast of, at forks of roads, in root of tree; copper nail with washer
$1,372.62$
Tailscreek, 3.7 miles southwest of post office, 50 feet southwest of the intersection of the "Spring Place-Ellijay" road, and the road to Carters, in root of tree; copper nail with washer
Tailscreek, 2.5 miles southwest of post office, 400 feet west of forks of roads, north side of road, in outcrop; bronze tablet stamped " 1299 "

1, 298. 986
Tailscreek, 1.3 miles southwest of post office, west side of road, on outcrop; chiseled square, painted "U. S. B. M. 1375"
$1,374.98$
Tailscreek, 250 feet north of post office, east side of road, in root of tree ; copper nail with washer, stamped "U. S. G. S. B. M." 1, 407.04
Tailscreek, 1.1 miles east of post office, south side of road, in root of stump ; copper nail with washer, stamped " U. S. G. S. B. M."
Tailscreek, 1.4 miles east of post office, 60 feet west of Tailscreek, north side of road, on ledge; chiseled square, painted " U. S. 1345 "- 1, 345. 32
Tailscreek, 1.4 miles east of post office, 30 feet west of ford of Trailscreek, in center of creek, in ledge; bronze tablet stamped " 1337 "
$1,337.086$
Tailscreek, 3 miles east of post office, 50 feet east of Elder's store, north side of road, on outcrop; chiseled square, painted " U.S.B.M. 1467 "

Tailscreek, 4.3 miles east of post office, about 0.5 mile west of Roosevelt post office at forks of roads, on outcrop; chiseled square, Feet. painted "U.S. 1516.5"

1, 516. 35
Roosevelt, 0.3 mile north of post office, 200 feet southeast of church, in northeast corner of road fork, in base of black-oak tree ; copper nail, marked " 1453.3 B.M."

1, 454. 82
Roosevelt, 1.1 miles east of post office, 7 feet north of highway, on sandstone ledge ; chiseled square, marked "1329.1 B.M."

1, 330.53
Roosevelt, 2.3 miles east of post office, 120 feet east of road fork, 10 feet south of highway, in quartz ledge; bronze tablet stamped "1498"

1, 499.826
Ellijay, 2.1 miles west of, 20 feet south of highway, 10 feet east of corner fence post, in root of black-oak tree ; copper nail, marked "1650.7 B.M."

1, 649. 16
From point near Roosevelt northwest along highway to ollie.
Roosevelt, 1 mile north of post office, 120 feet north of road fork, 5 feet east of highway, in quartz ledge; bronze tablet stamped " 1564 "
Roosevelt, 1.8 miles north of post office, 220 feet west of road fork, 7 feet south of highway, in root of large oak tree; nail marked " 1587.8 B.M."

1, 589. 31
Roosevelt, 2.9 miles north of post office, 40 feet east of road fork,
8 feet north of highway; chiseled square on sandstone ledge, marked "1407.4 B.M.".-

1, 408. 85
Roosevelt, 3.7 miles north of post office, 100 feet east of road fork, 8 feet north of highway, in sandstone ledge; bronze tablet stamped " 1360 "
Ollie, 2 miles south of post office, 7 feet north of angle in highway; chiseled square on sandstone ledge, marked "1447.8 B.M."
Ollie, 0.9 mile south of post office, 180 feet east of stream crossing, 15 feet north of highway, in root of black-oak tree; copper nail, marked " 1485.2 B.M."-
$1,487.69$
Ollie, 35 feet east of post-office building and store, 40 feet northeast of road fork, in sandstone ledge; bronze tablet stamped " 1506 "-

1, 507. 388
From point near Carters along highway southeast to Talking Rock, thence north along Louisville \& Nashville R. R. to Tioga.
Carters, 1.5 miles southeast of, 20 feet north of highway; top of marble land monument inscribed $24-\mathrm{D}$ and $2-\mathrm{S}$ on south side; marked " 703.3 B.M."
703. 55

Carters, 3.1 miles southeast of, 12 feet southwest of road fork, in base of oak tree; copper nail marked " 699.3 B.M."
699.50

Carters, 3.9 miles southeast of, 10 feet north of highway, 15 feet north of stream, in sandstone ledge; bronze tablet stamped " 764 "
764.258

Carters, 5.5 miles southeast of, 120 feet west of road fork, 20 feet north of highway; copper nail in root of oak tree, marked " 1137.8 B.M."

1, 138.02
Carters, 6.8 miles southeast of, 50 feet east of small stream, 7 feet north of highway; chisel mark on sandstone ledge, marked " 1000.1 B.M."

1,000. 42
Carters, 8.1 miles southeast of, 0.4 mile west of Franklin Pierce residence, 5 feet north of highway, in sandstone ledge; bronze tablet stamped " 1046 "

Blaine, 3.4 miles northwest of post office, 300 feet west of Ball Creek

Church, 12 feet north of highway; copper nail in base of oak tree, marked " 1164.7 B.M."

Feet. $1,165.11$
Blaine, 2.3 miles northwest of post office, 16 feet north of highway; copper nail in root of oak tree, marked " 1185.7 B.M."
$1,186.16$
Blaine, 1.5 miles northwest of post office, 15 feet north of north end of highway bridge over Talking Rock Creek, in granite ledge; bronze tablet stamped " 975 "
975.153

Blaine, in southeast corner of crossroads ; copper nail in base of blackoak tree, marked "1134.4 B.M."

1, 134. 82
Talking Rock, 2.4 miles west of, in northwest corner of road fork; copper nail in base of telephone pole, marked " 1051.4 B. M."
$1,051.84$
Talking Rock, 1.2 miles west of, 10 feet south of highway; copper nail in root of oak tree, marked " 1072.7 B. M."1, 073.14

Talking Rock, 10 feet north of west entrance of Warlick House, 0.4 feet west of property line, in concrete sidewalk; bronze tablet stamped " 1085 "
Talking Rock, 1 mile north of, 40 feet north of milepost 424,9 feet west of railroad; chiseled square on sandstone ledge, marked " 1055.7 B.M."

1, 056.15
Carns Mill, grade crossing; top of rail
Carns Mill, 0.2 mile north of, in west end of south wooden abutment to railroad bridge over Talona Creek; copper nail, marked " 1075.0 B.M."

Carns Mill, 1 mile north of, 170 feet south of grade crossing, 7 feet west of Louisville \& Nashville R. R., in sandstone ledge; bronze tablet stamped " 1089 "
Whitestone. opposite Louisville \& Nashville R. R. station ; top of rail_ 1, 106. 6
Whitestone, 0.1 mile north of, 30 feet west of Louisville \& Nashville
R. R. ; copper nail in base of telegraph pole, marked "1108.8 B.M." 1, 109. 16

Whitestone, 1 mile north of, 50 feet south of grade crossing, 30 feet west of Louisville \& Nashville R. R.; copper nail in base of telegraph pole, marked "1132.4 B. M."
Talona, 0.5 mile south of, on wooden bridge 102; copper nail in top of west end of south abutment, marked " 1154.9 B.M." $1,155.40$
Talona, 65 feet southeast of grade crossing, 35 feet southwest of store building, in sandstone ledge; bronze tablet, stamped " 1166 "-1, 166. 241
Tioga, 0.2 mile south of, on wooden bridge 101; copper nail in top of west end of south abutment, marked " 1188.3 B.M."

1, 188. 80
WALESKA QUADRANGLE.
[Latitude $34^{\circ} 15^{\prime}-34^{\circ} 30^{\prime}$; longitude $84^{\circ} 30^{\prime}-84^{\circ} 45^{\prime}$.]

## From Fairmount north along Louisville \& Nashville R. R. to Ranger.

Fairmount, in south side of west end of Bank of Fairmount, 300 feet north of crossroads; aluminum tablet stamped " 757 Adj. 1903 "--
Fairmount, 1.1 miles north of, 200 feet north of grade crossing, 12 feet west of Louisville \& Nashville R. R.; chiseled square on limestone ledge, marked " 737 B. M." $\qquad$ Fairmount, 2.4 miles north of, in top of north end of west concrete culvert head, 14 feet west of Louisville \& Nashville R. R.; chiseled square, marked " 728.5 B . M."
757. 557

Ranger, 1.3 miles south of, 15 feet west of Louisville \& Nashville R. R., in top of north end of concrete culvert head; bronze tablet stamped " 717 "
727.16
718. 58

Acworth, Adairsville, Stilesboro, and Waleska quadrangles.

## bartow, cherokee, cobb, gordon, padlding, and pickens counties.

The elevations in the following list were determined by extensions from Rockmart and Brasswell on the precise-level line along the Southern Railway. The leveling was done as follows: In Acworth, Adairsville, Stilesboro, and Waleska quadrangles in 1903 by B. J. Green and in 1905 by W. R. Winstead; in Acworth and Stilesboro quadrangles in 1906 by H. W. Hills.

## STILESBORO QUADRANGLE.

[Latitude $34^{\circ}-34^{\circ} 15^{\prime}$; longitude $84^{\circ} 45^{\prime}-85^{\circ}$.]
From Stilesboro south to Brasswell.
Stilesboro, 3.8 miles southwest of, 5 yards northeast of road forks,

100 yards west of house on Brasswell road; iron post stamped " 727

Feet. 726.995

Stilesboro, 7.65 miles southwest of, on Brasswell road, 5 yards northeast of road fork east; iron post stamped " 1101 Adj. 1906"

1, 100.976

## From Aeworth southwest to Brasswell. ${ }^{1}$

Acworth, 6.5 miles southwest of, 0.5 mile south of Crowville, 10 yards north of road forks; iron post stamped " 979 Adj .1906 "
980.242

Acworth, 10.25 miles southwest of, 3.25 miles south of Crowville, 14 miles from Yorkville, southwest of road at forks, iron post stamped " 1031 Adj. 1906 " 1, 032.580
Acworth, 14.5 miles southwest of, 12 miles south of Cartersville, on main Cartersville-Dallas road, at Huntsville settlement, on Burnt Hickory Ridge, in triangle plot west of road at intersection with Stilesboro road ; iron post stamped " 1059 Adj. 1906 " $\qquad$ 1, 059.800
Acworth, 18 miles southwest of, on Brasswell road at intersection with Stilesboro road, in triangular plot southwest of road; iron post stamped " 844 Adj .1906 "
885.196

From Rockmart along Seaboard Air Line Ry, to Cartersville.
Stilesboro, 400 feet northwest of station, at southwest corner of foundation of M. E. Church; aluminum tablet stamped " 741 Adj. 1903 "741. 205

Cartersville, 4.4 miles west of ; in northeast corner of east abutment of bridge over Etowah River; aluminum tablet stamped " 680 Adj . 1903 "
680. 489

Sartersville, main entrance to courthouse, on top of coping of west wiag wall; bronze tablet stamped " 787 Atlanta"
786. 690

## From Cartersville southeast along highways to Emerson.

Emerson, 500 feet north of station, at north end of west side of railroad culvert ; chiseled square
824.39

From Cartersville northwest along railroad to Cassville, thence west along highway to Kingston.

Rogers, in northeast corner of Mr. Hay's yard, 60 feet east of railroad; iron post stamped " 727 Adj. 1903 " $\qquad$ 726.918

Cass, 300 feet southeast of station; top of west rail of main track_-.-

[^2]$\left.\begin{array}{ll}\text { Cassville, } 0.4 \text { mile south of, southeast angle of road forks, northeast } & \text { Feet. } \\ \text { corner of Baptist Church yard; iron post stamped " } 821 \mathrm{Adj.} \mathrm{1903"-} & 820.791 \\ \text { Cassville, } 3.2 \text { miles west of, opposite road fork to north, } 10 \text { feet }\end{array}\right]$.
ADAIRSVILLE QUADRANGLE.
[Latitude $34^{\circ} 15^{\prime}-34^{\circ} 30^{\prime}$; longitude $84^{\circ} 45^{\prime}-85^{\circ}$.]
From Kingston north to Fergusson crossroads.
Cement, 125 feet north of switch, at second-class road crossing; top of west rail
672.0

Cement, 30 feet north of mail rack, in northwest corner of west abutment of railroad culvert; aluminum tablet stamped " 672 Adj. 1903 "
Halls, 150 feet north of station ; top of west rail of main track
Halls, 1,250 feet north of station, in northwest corner of west abutment of railroad culvert; aluminum tablet stamped " 778 Adj. 1903 "
Adairsville, in north front face of hotel Midway, 8 feet east of main entrance; aluminum tablet stamped " 713 Adj .1903 " $\qquad$
Adairsville, 2.3 miles north of, 200 feet north of small stream, 100 feet north of road fork to east, 100 feet west of two houses, 600 feet west of Mart King's house, 20 feet east of road, in top of large rock; aluminum tablet stamped " 673 Adj .1903 "
673. 294

From Fergusson crossroads east 3 miles, thence south to Cassville.
Fergusson crossroads, in south chimney of Mr. Fergusson's house; aluminum tablet stamped " 682 Adj. 1903 "
682.156

Fergusson crossroads, 3.1 miles east of, in southeast angle of road forks; iron post stamped " 813 Adj .1903 " $\qquad$
Folsom, in front of white house, 10 feet south of road, in southwest angle of road forks; iron post stamped " S02 Adj. 1903 " $\qquad$
Folsom, 3.2 miles south of, 107 feet south of Green schoolhouse, 250 feet north of J. M. Green's house, 10 feet west of road, in top of large rock; aluminum tablet stamped " 909 Adj. 1903 " $\qquad$ Cassville, 4 miles north of, 400 feet north of Oakdale schoolhouse, top of hill at second-class crossroads, 5 feet south of mail box; iron post stamped " 903 Adj .1903 "
802. 722
908. 840
903.383

From point east of Fergusson crossroads north to Farmville, thence east to Fairmount.

Farmville, in south side of west chimney of G. W. Stewart's house; aluminum tablet stamped " 735 Adj .1903 "
735. 383

Sonora, southeast angle of crossroads, top of hill, in northwest corner of yard; iron post stamped " 731 Adj. 1903 "
730.939

Sonora, 3.2 miles east of, 100 feet north of small stream, 60 feet northwest of spring at road fork to left; iron post stamped " 729 Adj. 1903 "

## ACWORTH QUADRANGLE.

$$
\text { [Latitude } 34^{\circ}-34^{\circ} 15 \text {; longitude } 84^{\circ} 30^{\prime}-84^{\circ} 45^{\prime} \text {.] }
$$

From Emerson southeast via Allatoona and north via Webster Ferry to Corbin.

> Allatoona, Nashville, Chattanooga \& St. Louis Ry. water tank, on top of east foundation pier ; bronze tablet stamped " 866 Atlanta"

Corbin, at road intersection; iron post stamped " 1046 Atlanta" 1, 045.855

From Sutallee southeast to Woodstock, thence west to Acworth, thence northwest to Allatoona.

Sutallee, in southeast angle of crossroads, opposite store; iron post stamped " 1110 Adj, 1903 " $\qquad$
Etowah River, in large rock at south end of steel bridge; aluminum tablet stamped " 822 Adj. 1903 "
$1,110.271$

Woodstock, 6.5 miles northwest of, 0.4 mile south of Putnam ford, in large rock 6 feet west of road; aluminum tablet stamped " 836 Adj. 1903" S21. 865

Woodstock, 200 feet south of station, in south wall of building belonging to Perkinson, McAfee \& Latimer, 21 inches west of southeast corner; aluminum tablet stamped " 967 Adj .1903 "
835.983
967.549

Woodstock, 3.7 miles southwest of, at foot of hill 600 feet east of Noonday Creek Bridge, 8 feet north of road, in large rock; aluminum tablet stamped " 899 Adj. 1903 " $\qquad$
Acworth, 2.9 miles east of, 0.3 mile southeast of Nashville, Chattanooga \& St. Louis Ry. milepost C. 106 A. 32, in center of west abutment of culvert over small stream; aluminum tablet stamped " 972 Adj. 1903 "
972. 471

Acworth, 100 feet south of west end of station, at northeast corner of drug store; aluminum tablet stamped " 912 Adj. 1903 " $\qquad$
Acworth, 4 miles north of, in northeast corner of north abutment of railroad bridge 375 over Allatoona Creek; aluminum tablet stamped " 862 Adj .1903 "
899.291

Allatoona, 300 feet north of station, in southeast corner of northeast pier of water tank; bronze tablet stamped " 866 Atlanta"
911. 765
862.180
865.877

From Acworth southwest to Brasswell (part of line).
Acworth, 3.25 miles southwest of, at intersection of Crowville and Roxana roads, 20 yards south of house of E. W. Brooks; iron post stamped " 933 Adj. 1906 "
934. 008

## WALESKA QUADRANGLE.

[Latitude $34^{\circ} 15^{\prime}-34^{\circ} 30^{\prime}$; longitude $84^{\circ} 30^{\prime}-84^{\circ} 45^{\prime}$.]

## From Corbin, northwest to White, thence southwest te Cartersville.

White, at northeast corner outside of J. E. White's yard; iron post stamped " 841 Atlanta"
841.603

## From White north along highway via Pine Log to Fairmount.

Pine Log, in dwelling yard of William Roberts, north side of gate; iron post stamped " 870 Atlanta"
Fairmount, 5.3 miles south of, northeast angle of road forks, in north side of large rock; aluminum tablet stamped " 823 Adj. 1903 "
823. 439

Fairmount, in south side of west end of bank of Fairmount, 300 feet north of crossroads; aluminum tablet stamped " 757 Adj . 1903 "

Feet. 757.557
707. 529

Fairmount, 2 miles west of, 100 feet south of house to left, in large rock; aluminum tablet stamped " 707 Adj . 1903 "

From Fairmount east along highway to Jerusalem, thence to Sutallee.
Fairmount, 3.6 miles northeast of, at top of hill, 20 feet north of road, in large soapstone; aluminum tablet stamped " 1061 Adj. 1903 "-
$1,060.970$
Jerusalem, northwest corner of church; aluminum tablet stamped " 1216 Adj. 1903 "
$1,216.645$
Jerusalem, 3.75 miles south of, northwest angle of road forks, 30 feet west of old courthouse, 4 feet west of sycamore tree; iron post stamped " 971 Adj. 1903 "
971. 589

Waleska, 2.9 miles north of, opposite road fork to northwest, 15 feet east of road; iron post stamped " 1115 Adj .1903 " $1,115.088$
Waleska, in second pillar at west side of south side of chapel of Reinhardt Military College ; aluminum tablet stamped " 1153 Adj. 1903 "- 1, 153. 543
Waleska, 3.6 miles south of, at south angle of old road fork to southeast, top of hill; iron post stamped " 1122 Adj. 1903 "

1,120.900
Moores Mills, 780 feet west of former post office, east of Shoal Creek, 100 feet south of bridge, on top of large rock; aluminum tablet stamped " 894 Adj. 1903 "
894.491

## Rome and Wedowee quadrangles.

CARROLL, CHATTOOGA, FLOYD, HEARD, POLK, ANB TROUP COUNTIES.
The elevations in the following list were determined by extension from a bench mark at Rome recovered by the precise-level line from Morehead City, N. C., to Brunswick, Ga. A connection was obtained at Lagrange in Wedowee quadrangle with levels extended from McDonough and Macon, but an excessive closure error was allowed to stand because there were not sufficient data to effect a reliable readjustment.
The leveling in Rome quadrangle was done in 1896 by J. A. McDonough; in Wedowee quadrangle in 1899 by W. S. D. Moore. The standard bench marks set in 1896 in Rome quadrangle, based on a railroad elevation at Rome, are stamped with figures of elevation mostly 15 feet too high.

## ROME QUADRANGLE.

[Latitude $34^{\circ}-34^{\circ} 30^{\prime}$; longitude $85^{\circ}-85^{\circ} 30^{\prime}$.]
At Rome.
Rome, Second Avenue Bridge crossing Oostanaula River; zero of
gage established by U. S. Engineer Corps (Engineer Corps old elevation 576.41)

Feet.
561.47

Rome, in coping of steps on north side of post-office building; bronze tablet stamped " 627 "
612.623

East Rome, in front of station; top of rail
From Rome northwest along highway via Crystal Springs to Summerville.
Rome, 3.5 miles north of, in W. L. Aycock's front yard, 100 feet south of his blacksmith shop, on east side of road at road forks; iron post stamped " 636 "
Armuchee, John W. Selman's front yard, 20 feet southeast of house; iron post stamped " 632 " $\qquad$
Kartah, northwest corner of J. M. Kendrick's front yard; iron post stamped " 702 " $\qquad$
Summerville, at southeast corner of county courthouse; bronze tablet stamped " 668 "
From Rome west along Central of Georgia Ry, to Lavender, thence northeast along highway to Crystal Springs.

Lavender, near station and west of schoolhouse, east side of J. F. Maple's yard, near front gate; iron post stamped " 697 " $\qquad$
Fouche, in soutbwest corner of front yard of G. W. Milum; iron post stamped " 742 "
Crystal Springs, 1 mile south of, at crossing of Texas Valley road and road across Lavender Mountain from Crystal Springs to Rome, in east side of W. T. Freeman's front yard ; iron post stamped " 660 "-

From Lavender north along Central of Georgia Ry, via Holland's store to Summerville.

Tulip (post office at Sprite switch), west side of gate in J. P. Bonshilon's front yard; iron post stamped " 710 "
Lyerly, northwest corner of A. McLeod's front yard, on main Sum-

- merville road; iron post stamped " 658 "


## From Summerville west along highway to Alpine.

Raccoon Creek Ford, 0.5 mile west of, at crossroad; iron post stamped " 681 "
Alpine, in southwest angle of crossroads, 75 feet from large oak tree; iron post stamped " 783 "

From Forney, Ala., east to Cave Spring.
Cave Spring, 1.5 miles west of, 100 feet west of branch, between Lumpkin's house and graveyard, in limestone ledge north of road; copper bolt stamped " 694 "

From Rome along highway south and west via Sixmile and Briscoe to Cave Spring, thence north to Lavender.
Sixmile, in D. B. Sanders's front yard, north of house, near fence; iron post stamped " 713 "
Sixmile, 4 miles south of, on Rome-Cedartown road, in front of J. F. Anglin's house ; iron post stamped " 858 "
Cedartown, 3 miles northeast of, on middle Rome road, in Mrs. M. E. Lawson's yard; iron post stamped " 907 "
Cave Spring, 5.5 miles southeast of, in R. A. Ray's front yard, between corner of house and corner of yard on east; iron post stamped " 770 "
Cave Spring, Deaf and Dumb Institute, in wall near corner stone of building, 1.3 feet above outer brick of trimming course; bronze tablet stamped " 664 "
Foster Mills, 0.8 mile north of, 300 feet north of summit of hill, in rock on east side of road; copper bolt stamped " 630 U. S. G. S."--
653.077
$6 S 2.765$
694. 862
642.607
666. 130
768. 588
679. 390
698. 477
843.107
892. 470
755. 326

Feet.
617.213
687.171
726. 626
665.491

417
649. 742
615.224

## From Livingston west to Anniedelle (single spur line).

Anniedelle, 3.5 miles west of Livingston, in corner of yard of San-

Feet. 595.134

## WEDOWEE QUADRANGLE.

[Latitude $33^{\circ}-33^{\circ} 30^{\prime}$; longitude $85^{\circ}-85^{\circ} 30^{\prime}$.]
From Finley, Ala., along highway to Antioch, thence via McGee Bridge to Lagrange.
Antioch, in southeast angle of crossroads; iron post stamped " 744 Anniston"
743. 710
McGee Bridge, in south pier of bridge over Chattahoochee River, in west face of southwest corner; bronze tablet stamped " 591 Anniston"
590.680
Lagrange, in north face of new county courthouse, in coping of foundation; aluminum tablet 788.797

From Lagrange north along highway via Franklin to Roopville, thence west to
Graham.
Wares, in northwest angle of crossroads; iron post stamped " 751 Anniston"
Philpots Ferry, 1.2 miles north of, 50 feet northeast of east end of bridge over New River; iron post stamped " 625 Anniston" 624. 783

Franklin, in east face of northeast corner of county court-house; aluminum tablet stamped " 695 Anniston"
Franklin, 3.2 miles southwest of, af Hillabahatchee Creek, 2 feet west of south end of bridge; iron post stamped " 637 Anniston "--
Franklin, 3 miles north of, at Humphrey's mill, 2 feet east of north end of bridge over Centralhatchee Creek; iron post stamped " 648 Anniston"
Centralhatchee, 2 miles southeast of, at junction of road from Centralhatchee with Five Notch road; iron post stamped " 672 Anniston"
671.134

Centralhatchee, in forks of road opposite cotton gin; iron post stamped " 848 Anniston"
847.941

Roopville, on east side of street, 200 feet south of road leading west;
iron post stamped " 1253 Anniston"
Graham, 2.5 miles northeast of, at junction of McIntosh road with
Bowdon-Wedowee road; iron post stamped " 961 Anniston "---- 960.634
From Roopville east 3 miles to Star Point schoolhouse (spur line).
Star Point schoolhouse, 300 feet south of, in angle of crossroads; iron post stamped "1074 Anniston"

Columbus, Fayetteville, Fort Valley, Macon, McDonough, Opelika, Paschal,
Reynolds, Talbotton, Tobesofkee, and Zebulon quadrangles.
BIBB, CHATTAHOOCHEE, CRAWFORD, HARRIS, HENRY, HOUSTON, MERIWETHER, MUSCOGEE, PIKE, SPALDING, TALBOT, TAYLOR, AND TROUP COUNTIES.

The elevations in the following list were determined by extensions from Macon and McDonough on the precise-level line from Atlanta
to Brunswick. The leveling was done as follows: In Talbotton quadrangle in 1905 by Carroll Caldwell, W. N. Franklin, and F. L. Foust; in Fayetteville, McDonough, Zebulon, and Opelika quadrangles in 1905 by Foust; in Paschal, Reynolds, Fort Valley, and Macon quadrangles in 1905 by Caldwell; and in Columbus quadrangle in 1905 by Caldwell, and in 1907 by J. B. Metcalfe, jr.

## McDONOUGH QUADRANGLE.

## [Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $84^{\circ}-84^{\circ} 15^{\prime}$. ] <br> From McDonough southwest along Southern Ry, to Towalaga.

McDonough, in granite footstone of stone arch, at right of main en-
trance to county courthouse ; aluminum tablet stamped " 866 Moorhead, 1898 "

Feet. 865.441

McDonough, 3.9 miles south of, 600 feet north of milepost 185, in south chimney of residence of S. G. Gardiner; aluminum tablet stamped " 883 Adj. 1903 "
882.897

Greenwood, 25 feet west of main track, in south brick foundation of station; aluminum tablet stamped " 859 Adj. 1903 "
859.018

Luella, in front of station; top of rail
859.9

Luella 100 feet west of station, 200 feet south of post office, in southeast corner of Bailey's brick warehouse; aluminum tablet stamped " 866 Adj. 1903 " $\qquad$
Towalaga, in front of station; top of east rail
Towalaga, 0.7 mile south of, 200 feet south of milepost $11,1,000$ feet south of house on hill, in southeast corner of culvert; aluminum tablet stamped " 712 Adj. 1903 "
865.652

742 . 8
712. 534

FAYETTEVILLE QUADRANGLE.
[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $84^{\circ} 15^{\prime}-84^{\circ} 30^{\prime}$.]

## At Experiment

Experiment, in front of station; main track, top of east rail
Experiment, 350 feet wesi of station, 50 feet west of post office, in
small brick monument; aluminum tablet stamped " 946 Adj .1903 "
946. 205

ZEBULON QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $84^{\circ} 45^{\prime}-85^{\circ}$.]

From Griffin along Southern Ry, to Molena.
Griffin, in front of station; top of rail ..... 961.9Griffin, in front face at northwest corner of county courthouse;aluminum tablet stamped "969 Adj. 1903 "969.373
Rover, 600 feet northeast of station, 300 feet west of railway, in east chimney of G. C. Gaisert's house; aluminum tablet stamped " 977 Adj. 1903 " ..... 977. 460
Rover, in front of station, main track; top of west rail ..... 972.4
Williamson, 275 feet east of Southern Ry., northwest of railway crossing, in south chimney of residence of J. M. Thompson; aluminum tablet stamped " 922 Adj. 1903 "
Feet.
921. 727
903.3
881.498
Concord, 250 feet east of station, 300 feet east of post office, at crossing of county road and main street, at southwest corner of Dr. Mallory's drug store ; aluminum tablet stamped " 815 Adj. 1903 "--
Neal, in front of station; top of west rail
Neal, 200 feet west of station, 200 feet north of post office, in foundation of chimney of residence of G. J. Williamson; aluminum tablet stamped " 819 Adj. 1903 "
Molena, 300 feet northeast of station, 100 feet east of railway, in southwest corner of Molena warehouse ; aluminum tablet stamped " 776 Adj .1903 "
TALBOTTON QUADRANGLE.
[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $84^{\circ} 30^{\prime}-85^{\circ}$.]
From Molena southwest along Southern Ry, to Ellerslie.
Molena, 2.3 miles south of, southeast pedestal of bridge over Flint River; aluminum tablet stamped " 679 Adj. 1903 "
679.569
Woodbury, 0.3 mile south of station, at road crossing; iron post stamped " 780 Adj. 1903 "
780.480
Raleigh, in front of station; top of rail
Bullochville, in north wall of brick storehouse of B. F. Bulloch, postoffice building; aluminum tablet
754.4
Nebula, in front of station; top of rail
929.664
Shiloh, in first pillar east of southwest corner pillar under platform to station; aluminum tablet
905.523
Oak Mountain station (Cleola post office), 75 feet west of railroad, 100 feet southwest of station; iron post stamped "Prim. Trav. Sta. No. 11 "
675.985
Waverly Hall, in east edge of north wall of large brick storehouse, occupied by I. H. Pitts \& Bro. ; aluminum tablet
728.897
Ellerslie, 30 feet north of stone house of R. F. Carter \& Son, 10 feet west of public highway, 100 feet east of station; iron post
716. 160

## From Woodsbury west along Macon \& Birmingham Ry, to Harris.

Snelson, road crossing at flag station; top of rail
864.9
Snelson, 0.5 mile west of crossing, 10 feet south of track, on embankment in cut, large bowlder; aluminum tablet
889.273
Harris, in northwest corner of intersection of the Macon \& Birmingham and the Central of Georgia railroads ; iron post
884.004
Harris, grade crossing of railroad; top of rail
884.0

From Harris southwest along Central of Georgia Ry. to Columbus.
Crowders flag station, at road crossing; top of east rail
937.6

Stinson, in pillar under south side of passenger station; aluminum tablet
859.827
White Sulphur Springs, in Hotel Meriwether, in west chimney;

Feet.
789.600
Cameo, in foundation to section house in northwest corner of road crossing; aluminum tablet ..... 831.125
Chipley, 100 feet south of station, northeast corner of court to Com- mercial Hotel ; iron post ..... 922. 469
Tiptop, in northeast corner of yard to residence of R. M. Wall, on south side of highway 75 feet west of track; iron post ..... 1, 036.973
Hamilton, north side of public square, 200 feet north of courthouse,50 feet southwest of west edge of Robertson Hotel, 200 feet east ofrailroad crossing; iron post stamped " 778 Adj. 1903 "777. 395
Kingsboro, just north of switch ; top of east rail at road crossing ..... 605.9
Cataula, 4 miles north of, in north pier of railroad bridge over Mul- berry Creek; aluminum tablet stamped " 562 Adj. 1903 " ..... 561. 737
Cataula, 10 feet south of station; top of east rail ..... 692.7
Cataula, 200 feet southeast of station, 175 feet south of post office,5 feet northwest of house of J. W. Thompson; iron post stamped" 700 Adj. 1903 "699. 454
Mobley, 200 feet north of switch stand; top of east rail ..... 654.4
Fortson, 75 feet south of station, 15 feet east of Fortson's store, 100feet west of track, 50 feet south of highway, 2 feet south of plankfence; iron post stamped " 519 Adj. 1903 "518. 842
Nankipooh, 40 feet west of track, 10 feet east of southeast corner of small storehouse; iron post stamped " 504 Adj .1903 " ..... 504.138
From Paschal west along Central of Georgia Ry. to Schatulga.
Geneva, in chimney in west side of hotel called Morris House; aluminum tablet stamped " 581 Adj. 1903 "580.757
Juniper, in brick wall at rear of station; aluminum tablet stamped " 422 Adj. 1903 "" ..... 421. 380
Box Springs, in foundation 3 feet to right of signal window, near en- trance; aluminum tablet stamped " 364 Adj. 1903 " ..... 363.940
Box Springs, 3 miles southwest of, in top of culvert south of track; aluminum tablet stamped " 366 Adj .1903 " ..... 366. 214
Upatoi, in south corner of station, in brick foundation; aluminum tablet stamped " 418 Adj. 1903 " ..... 417.812
Upatoi, 3 miles southwest of, on top of small culvert south of track; aluminum tablet stamped " 430 Adj .1903 " ..... 429. 558
Commonwealth, 2.9 miles southwest of, at road crossing 20 feet northof track, 30 feet east of road; iron post stamped "Prim. Trav. Sta.No. 2, 346 Adj. 1903 "345. 373
From Cataula east along highways via Ellerslie and Baughville to Talbotton, thence southeast along railroad to Paschal.
Ellerslie, 5.3 miles east of, north edge of road, opposite small whitedwelling occupied by D. U. Biggs ; iron post749.649
Newry (former post office), in southwest corner of yard at Hendrickresidence north of road; iron post828.158
OPELIKA QUADRANGLE.
[Latitude $32^{\circ} 30^{\prime}-33^{\circ}$; longitude $85^{\circ}-85^{\circ} 30^{\prime}$.]
From Newry to Lagrange.
Lagrange, 4 miles southeast of, at southwest abutment of bridge overLong Cane Creek; aluminum tablet659.430
From Mountain Hill north along highway to Jones Crossroads, thence northwest to Gabbettville, thence northeast to Lagrange.Mountain Hill, 1.2 miles north of, on long hill, 50 feet north of road,in front face of south chimney of J. W. Cline's residence; aluminumtablet stamped " 779 Adj .1903 "Feet.778.892
Whitesville, 200 feet south of former post office, 50 feet west of storeat crossroads ; iron post stamped " 735 Adj. 1903. Prim. Trav. Sta.No. 13 "734. 381
Jones Crossroads, 750 feet south of former Paulina post office, at footof short hill, at road forks, 100 feet east of road, in chimney ofH. P. Studivant's house; aluminum tablet stamped " 801 Adj.1903 "800.228
Janes Crossroads, 3 miles northwest of Alfred's bridge over Flat Shoal Creek, in southeast corner of east pedestal; aluminum tablet stamped " 613 Adj. 1903 " ..... 612. 289
Gabbetville, 100 feet south of station, 100 feet east of post office, in front face of brick warehouse; aluminum tablet stamped " 606 Adj. 1903 " ..... 605.417
Cannonville, 3.3 miles northeast of, 700 feet north of highway cross-ing, in southeast culvert over small stream; aluminum tabletstamped "648 Adj. 1903 "647. 426
From Mountain Hill south along highways (double-rodded spur line).
Mountain Hill, 3.1 miles south of, 200 feet north of road forks, innorth chimney of residence of I. U. Nicks; aluminum tabletstamped " 566 Adj. 1903 "565. 289
Mountain Hill, 7 miles south of, in northeast corner of north abut- ment of covered bridge over Mulberry Creek; tablet stamped " 490 Adj. 1903 " ..... 489.217
From Gabbettville southwest to West Point.
West Point, west end of Western Ry. of Alabama bridge over Chatta-hoochee River, on north end of granite pier; bronze tablet stamped" 573 Anniston"573. 423
West Point, in northwest corner of freight station, in twelfth layerof brick from bottom, 1.6 feet south of north end; aluminumtablet stamped " 570 Adj. 1903 "570.503
Baughville, in flat edge of rock under stone chimney to H. W. Bald- win's store (former post office) ; aluminum tablet ..... 759. 776
Baughville, 3.9 miles north of, south edge of road, 2 feet southwestof post to mail box, on property of B. F. Childre; iron post_660.319
Talbotton, 10 feet north of southeast corner of courthouse ; iron post_-725. 587
From Talbotton north along highways via Pleasant Hill to Bullochville.
Talbotton, 2.5 miles north of, southwest corner of abutment of bridgeover Edwards Creek; bronze tablet536. 084
Belleview, at residence of J. H. Bryan, in northeast corner of yard; iron post stamped " Prim. Trav. Sta. No. 7 "

747. 460

Belleview, $\mathbf{3 . 2}$ miles northeast of, 1,000 feet west of residence of the widow Owen, in triangle at road forks to south, on rock; aluminum tablet
Evans Chapel, 1,500 feet west of, in west chimney of Franklin Acad-

Feet.

789. 492
Chalybeate, 250 feet northwest of post office and store, at house of J. D. Nelson, east edge of road; iron post stamped " Prim. Trav. Sta. No. 9 "
790. 221
From Shiloh east along public highway (spur line, checked).
Shiloh, 2 miles east of, 200 feet east of crossroads, 15 feet north of edge of road; iron post_
866.740

## From Hamilton west and north along public roads via Copeland and Troup factory to Newry.

Hamilton, 3.5 miles southwest of, 250 feet southeast of house of Virgil Hudson (colored), property owned by John Hudson (white); iron post
Hamilton, 9.5 miles west of, 0.3 mile north of five points crossroads, 10 feet off east edge of road to northeast, at summit of ridge, in rock; bronze tablet
Copeland, 2.6 miles northeast of, 40 feet southeast of intersection of roads, northwest of Hopewell Church ; iron post
853.249
Smiths Mill, on Turkey Creek, 300 feet south of, in stone foundation of chimney of house of the late West Smith, occupied by W. L. Blythe; aluminum tablet $\qquad$
Troup factory (old site), 75 feet off north edge of road, 200 feet east of covered bridge over Flatshoal Creek, on embankment, large bowlder; aluminum tablet.
Ursula, 0.8 mile northeast of former post office, at junction of public roads, 40 feet off south edge of east-west road, 200 feet southwest of residence of John Smith; iron post
840.800
710.041
676. 273
819. 234

## MACON QUADRANGLE.

[Latitude $32^{\circ} 45^{\prime}-33^{\circ}$; longitude $83^{\circ} 30^{\prime}-83^{\circ} 45^{\prime}$.]
From Macon south along Central of Georgia Ry, to Rutland.
Macon, post office at corner of Mulberry and Third streets, in water table at left of Mulberry Street entrance; aluminum tablet stamped " 334 Morehead, 1898 "
333.942

Macon, 5.5 miles south of, in south abutment, at west corner of rail-
road bridge crossing Rock Creek; aluminum tablet stamped " 283 Adj. 1903"
283. 291

TOBESOFKEE QUADRANGLE.
[Latitude $32^{\circ} 30^{\prime}-32^{\circ} 45^{\prime}$; longitude $83^{\circ} 30^{\prime}-83^{\circ} 45^{\prime}$.]
From Rutland southwest along Central of Georgia Ry, to Echeconnee.
Rutland, road crossing at north side of station; top of rail_-------- 341.2

Echeconnee, in north pillar of A. S. J. Taylor's store; aluminum tablet stamped " 314 Adj. 1903"
314. 292

## FORT VALLEY QUADRANGLE.

$$
\text { [Latitude } 32^{\circ} 30^{\prime}-32^{\circ} 45^{\prime} \text {; longitude } 83^{\circ} 45^{\prime}-84^{\circ} \text {.] }
$$

## From Byron southwest along Central of Georgia Ry, to Everett.

Byron, in southwest corner of station; aluminum tablet stamped " 506
Adj. 1903 "

Feet. 505.885
382. 037
374.127
524.010
497. 881
377.325

## REYNOLDS QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-32^{\circ} 45^{\prime}$; longitude $84^{\circ}-84^{\circ} 15^{\prime}$. ]
From Everett west along Central of Georgia Ry, to Reynolds.
Everett, 3 miles southwest of, in top of northeast pier of railroad bridge over Flint River; aluminum tablet stamped " 319 Adj. 1903 "
318. 907

Reynolds station, in northeast corner of Rick Bros. store, 100 feet south of track; aluminum tablet stamped " 435 Adj. 1903 "
434. 450

Reynolds, 3.6 miles southwest of, in culvert north of track, 800 feet west of C. M. Carter's house ; aluminum tablet stamped " 527 Adj. 1903 "
527.238

## PASCHAL QUADRANGLE.

[Latitude $32^{\circ} 30^{\prime}-32^{\circ} 45^{\prime}$; longitude $84^{\circ} 15^{\prime}-84^{\circ} 30^{\prime}$.]
From Butler west along Central of Georgia Ry, to Paschal Junction.
Butler, at county courthouse; aluminum tablet stamped " 636 Adj. 1903 "
636. 152

Butler, 3.7 miles southwest of, in southeast end of tenant's house of

- Supervisor Watson's plantation, in chimney; aluminum tablet stamped " 652 Adj. 1903 "
652.078

Howard, in northeast corner of O. T. Matthews \& Co.'s store ; aluminum tablet stamped " 634 Adj. 1903 "
634. 225

Paschal Junction, 100 feet east of station, primary-traverse station No. 5 ; iron post stamped " 656 Adj .1903 "
655.320

## COLUMBUS QUADRANGLE.

$$
\text { [Latitude } 32^{\circ} 15^{\prime}-32^{\circ} 30^{\prime} \text {; longitude } 84^{\circ} 45^{\prime}-85^{\circ} \text {.] }
$$

From Schatulga west along Central of Georgia Ry. to Columbus.
Schatulga, 3.5 miles southwest of, south side of track, 600 feet southwest of road crossing, in brick culvert; aluminum tablet stamped " 270 Adj. 1903 "

Muscogee Junction, 1 mile west of, 20 feet west of road crossing,
north of track; iron post stamped " Prim. Trav. Sta. No. 1, 255 Adj. 1903 "

Feet.
255. 096
250. 267

Columbus, 1 mile northwest of station, east end of Central of Georgia Ry. bridge over Chattahoochee River, north of track, in third step from top of abutment ; aluminum tablet stamped " 255 Adj. 1903 "-
255.175

## From Columbus southeast along Seaboard Air Line to Cusseta.

Columbus station, 3 miles southeast of, in southwest pillar of railroad bridge over Bulls Creek; aluminum tablet stamped " 245 Adj. 1907 " $\qquad$
Esquiline flag station, in front of ; top of rail
244. 678

Columbus, 7.75 miles east of, in southwest pillar of railroad bridge over Upatoi Creek; aluminum tablet stamped " 235 Adj. 1907"
305.4

Gchillee, at southwest corner of store; iron post stamped " 273 Adj . 1907 "
235.282
273. 042

Cusseta, in southeast corner of jail, south front; aluminum tablet stamped " 540 Adj. 1907 "
540. 104

From point 5 miles southeast of Ochillee north along highway via Cook's mill to point near Upatoi, thence west to Central of Georgia Ry., thence southeast along latter to point 3 miles southeast of Columbus.

Halloca station, 10 feet south of where road crosses track; iron post stamped " 323 Adj. 1907 "
Halloca, 2.8 miles north of station; on road to Upatoi via Cook's mill, at northwest corner of schoolhouse (old courthouse) yard; iron post stamped "Prim. Trav. Sta. No. 4, 1906, 486 Adj. 1907 "
Cook's mill, 0.6 mile northwest of, 6.95 miles north of Halloca station, on road to Upetoi, at southwest corner of church; iron post stamped " 290 Adj .1907 "
322. 783
486. 369
289. 585

Halloca station, 10.3 miles north of, on road to Upatoi where Columbus road turns west, east of forks; iron post stamped " 466 Adj . 1907 "
466. 078

Columbus, 10.5 miles east of, 25 feet northeast of crossroads; iron post stamped " 490 Adj .1907 "
490. 300

Columbus, 6 miles east of, on road to county farm, 20 feet southwest of railroad crossing; iron post stamped " 272 Adj. 1907 "
272.013

From Cusseta south and west along highway to Jamestown, thence northwest to Columbus.

Cusseta, 2.5 miles southwest of, on road to Jamestown, at road forks; iron post stamped " Prim. Trav. Sta. No. 3, 1906, 475 Adj. 1907"--
Jamestown, 0.25 mile north of, in southwest angle at road forks; iron post stamped " 451 Adj. 1907 "
475.243
450. 683

Jamestown, 4 miles northwest of, on road to Columbus, northeast of forks; iron post stamped " 283 Adj .1907 "
282. 565

Jamestown, 8 miles northwest of, on road to Columbus, at southwest corner of Colman's store ; iron post stamped " 340 Adj .1907 "
339.618

Sand Hill Springs, 7 miles south of Columbus, 2 miles north of Shack, east of road; iron post stamped " 242 Adj. 1907" $\qquad$
Columbus, 4.5 miles southeast of, on Shack-Jamestown road, northeast of forks; iron post stamped " 257 Adj. 1907 "

Crawfordville, Eatonton, Greensboro, Jackson, Machen, Madison, Meriwether, Milledgeville, and Shoulder quadrangles.

BALDWIN, BUTTS, GREENE, JASPER, LINCOLN, MCDUFFIE, MORGAN, OGLETHORPE, TALIAFERRO, WARREN, AND WILKES COUNTIES.

The elevations in the following list were determined by extension from Jackson and adjusted at Lisbon in agreement with leveling extended from Dalton. The leveling was done as follows: In Jackson, Monticello, Madison, Greensboro, and Crawfordville quadrangles in 1903 by J. A. Parker; in Eatonton, Meriwether, and Monticello quadrangles in 1906 by C. H. Semper; and in Milledgeville quadrangle in 1909 by F. W. Farnsworth. Additional leveling was done in Eatonton, Greensboso, and Milledgeville quadrangles, as well as that in Shoulder quadrangle, in 1911, by J. B. Metcalfe, jr.

JACKSON QUADRANGLE.
[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $83^{\circ} 45^{\prime}-84^{\circ}$.]
From Jackson east along highways to Monticello (checked line).

MACHEN QUADRANGLE.
[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $83^{\circ} 30^{\prime}-83^{\circ} 45^{\prime}$.]
From Monticello northeast along Central of Georgia Ry. to Godfrey (checked line).
Monticello, southeast end of Bethel Church, between two doors, 5 feet northwest of main entrance; iron post stamped " 754 Atlanta".
754.151

Monticello, in east corner of courthouse, 2 feet from ground, in sand-
stone; aluminum tablet ${ }^{1}$ stamped " 689 Atlanta, 1903 "----- 689.234
Machen, grade crossing of Central of Georgia Ry.; top of rail_-....-
Machen, 0.8 mile northeast of, 0.25 mile southwest of Shady Dale, near railway crossing, northwest corner of Providence Church; iron post stamped " 626 Atlanta, 1903 "
626.310

Godfrey, 20 feet south of railway, 1 foot west of station; iron post stamped " 615 Atlanta, 1903 "
614. 764

## From Willard northwest along Central of Georgia Ry, to Machen.

Willaid, 1.5 miles northwest of, at railroad crossing, 120 feet south of milepost 219,12 feet east of track; iron post stamped " 590 "---
589.647

Athon siding, in front of station; top of rail 603.7

Athon siding, 7 feet north of track, 50 feet east of warehouse; iron post stamped " 604 "
603. 562

Aikenton, in front of station; top of rail
635. 6

Aikenton, 1.4 miles north of, 20 feet north of track at railroad crossing, east margin of highway ; iron post stamped " 650 "
650. 103

Machen, 0.8 mile northeast of, 0.25 mile southwest of Shady Dale, northwest corner of Providence M. E. Church, near crossing; iron post stamped " 626 Atlanta, 1903 "

[^3]
## MADISON QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-33^{\circ} 45^{\prime}$; longitude $83^{\circ} 15^{\prime}-83^{\circ} 30^{\prime}$.]

## rcFrom Godfrey north along Central of Georgia Ry, to Madison, thence southeast along Georgia R. R. to Carey (checked line).

Madison, at northwest corner of station, in brick pillar of shed just
under water table, 3 feet from ground; aluminum tablet stamped " 683 Atlanta, 1903 "

Feet. 682.567
625.100
445. 820

MERIWETHER QUADRANGLE.
[Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $83^{\circ} 15^{\prime}-83^{\circ} 30^{\prime}$.]
Trom Milledgeville north along Central of Georgia Ry, to point near Meda.
State Farm, 2.4 miles northwest of, railroad crossing ; top of rail_---
State Farm, 3.5 miles northwest of, 45 feet north of milepost 192, 50 feet west of track at east margin of highway; iron post stamped " 453 "
453.023

State Farm, 6.4 miles northwest of, 0.3 mile south of Meriwether, 25 feet east of track, at milepost 195; iron post stamped " 356 "--
Meriwether, in front of station ; top of rail
356.357
348.8

Meriwether, 2.7 miles north of, 298 feet north of milepost 198, 20 feet east of track, 10 feet south of private road crossing; iron post stamped " 419 " $\qquad$

Dennis, 1 mile north of, on south side of track, 15 feet east of milepost 201 ; iron post stamped " 464 "
464.367

GREENSBORO QUADRANGLE.
[Latitude $33^{\circ} 30^{\prime}-33^{\circ} 45^{\prime}$; longitude $83^{\circ}-83^{\circ} 15^{\prime}$.]
From Carey east along Georgia R. R. to Robinson (checked line).
Greensboro, at road crossing; top of west rail
-602. 2
Greensboro, Main and Broad streets, southwest corner of courthouse, right of main entrance, 3.5 feet from ground; aluminum tablet stamped " 650 Atlanta, 1903 "
649. 715

Union Point, 150 feet from center of bank building, between two stores, 2.5 feet above ground; aluminum tablet stamped " 667 Atlanta, 1903"

666. 848

From Greensboro southeast along highways to point 4.6 miles east of Greensboro.

[^4]Greensboro, 1.6 miles east of, in southwest corner of forks of road to south; chiseled square on rock, marked " 625.3 "

$\qquad$

Feet.
625. 38

Road forks to north, in root of tree; nail, marked " 523.7 "

Greensboro, 3.5 miles east of, 150 feet north of road, 250 feet west of
church, on top of large bowlder; aluminum tablet stamped " 609.6"

Greensboro, 4.6 miles east of, 4 feet north of road, 30 feet west of
forks to north, on north end of culvert; cross, marked " 653.3 "-
From point 8.4 miles north of Reads Ferry along highways to Greensboro.
Reads Ferry, 8.4 miles north of, 25 feet north of road, at southeast corner of schoolhouse; iron post stamped " 612 "
612.085
Reads Ferry, 9.6 miles north of, about 1.5 miles southwest of Greensboro, 50 feet south of milepest 85,6 feet south of road crossing; top joint of east rail, marked " 544.3 "
544.7
Greensboro, in southwest corner of courthouse, right of main entrance; aluminum tablet stamped " 650 Atlanta, 1903 "
649.713

## CRAWFORDVILLE QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $82^{\circ} 30^{\prime}-83^{\circ}$.]
From Robinson east along Georgia R. R. to Barnett, thence north to Sharon (checked line).
Robinson, in front of station; top of rail
Robinson, 500 feet east of post office, at southwest corner of R. C. Monk's store ; iron post stamped " 626 Atlanta, 1903 "
Crawfordville, east of main entrance of courthouse, in brick pillar 3 feet from ground; aluminum tablet stamped " 617 Atlanta, 1903 "--
Barnett, 200 feet west of station, 150 feet southwest of railroad, east corner of J. B. Garrett's house (Balter homestead) ; iron post stamped " 642 Atlanta, 1903 "
641.163

Sharon, 200 feet east of station, John O. Keeffee's store on Main Street, 50 feet from center of store, in southeast corner ; aluminum tablet stamped "607 Atlanta, 1903"
606. 769

From Sharon north along Georgia R. R, to Washington, thence north along highways to Tignall, thence northeast to Lisbon.
Hillman, at road crossing; top of rail
468.0

Ficklin, road crossing near station; top of rail
429.0

Washington, 5.5 miles south of, 0.25 mile north of brickyard, 100 feet west of railroad, in front of negro cottage, at east end of Shepard Hall, used as negro school, south of main entrance; iron post stamped " 429 Atlanta, 1903 "
428. 732

Washington, in front of station; top of high rail
Washington, Washington Exchange Bank on Main Street, 300 feet south of courthouse, in northwest corner of bank building, 3 feet from ground; aluminum tablet stamped " 619 Atlanta, 1903 "
Armstrong, 40 feet west of highway at road forks, in front of J. C. Newsome's store, in northeast corner of E P. Robert's yard; iron post stamped " 607 Atlanta, 1903 "
Tignall, east of Washington-Broad highway, at southwest corner of William Bolton \& Co.'s store; iron post stamped " 644 Atlanta, 1903 "
643.645

Dyson, 1 mile east of, 300 feet north of center of road, west end of old house, in brick chimney; aluminum tablet stamped " 534 Atlanta, 1903 "

From Tignall west along highways to Anon, thence north and east to Bells Bridge, thence south to Tignall.
Ophelia, 0.2 mile north of, in front of and between two entrances to church; iron post stamped " 599 Atlanta, 1903 ". $\qquad$
Anon (former post office), at forks of road, 400 feet from bank, at northwest corner of J. C. Brooks's store; iron post stamped " 498 Atlanta, 1903"

Feet.
598. 549
497. 514

Vesta, 300 feet west of former post office, at road crossing, on north side, back of west end of schoolhouse; iron post stamped " 627 Atlanta, 1903 "
626.495

Rocky Branch Church, 600 feet east of road forks to Bullard's ferry, south of road, in front of and between two entrances to church; iron post stamped " 485 Atlanta, 1903 "
484. 389

Bells Bridge over Broad River, 900 feet north of, south end of E. W. Bell's house, at chimney; iron post stamped " 388 Atlanta, 1903 "--

From Armstrong west along highways to Celeste, thence south via Philomath to Lyneville, thence northeast to Washington.
Celeste, at southeast corner of E. A. Barnett's store (former post office) ; iron post stamped " 648 Atlanta, 1903 "
647. 522

Peerman, 5 miles east of, at forks of Woodstock-Lexington road, south end of Jackson Chapel Church; iron post stamped " 653 Atlanta, 1903"
652.621

Philomath, 600 feet from road forks, at north side, southwest corner of Bryan Bros.' store; iron post stamped " 646 Atlanta, 1903 "
645. 454
525.453
522.391
572.656

From Sharon east along highways to Wrightsboro, thence zigzag northward to Lisbon.
Sharon, 9.1 miles east of, at Sharon-Norwood road forks, northwest corner of Charles Mansfield's store; iron post stamped " 534 Atlanta, 1903"
533. 774

Wrightsboro, 50 feet from road fork, at northeast corner of O. L. Williams's store; iron post stamped " 392 Atlanta, 1903 "
391. 670

Anthony, 3.3 miles east of crossroads, 40 feet from center of road, in front of Cedar schoolhouse, at left of entrance; iron post stamped " 476 Atlanta, 1903 "
479. 669
462. 711
498. 697

Aonia, 1.2 miles east of, on north of road, in fork of lane that runs to Mr. Shipp's house ; iron post stamped " 463 Atlanta, 1903 " $\qquad$
Aonia, south of road at forks, northeast corner of Ware \& Tatum store ; iron post stamped " 499 Atlanta, 1903 "
Adasburg, north of road, at south corner of Fanning Bros.' store; iron post stamped " 524 Atlanta, 1903 "
523.597

Metasville, east of road at private forks, at northwest corner of Dr.
H. C. Waltrous's house, by brick pillar; iron post stamped " 569 Atlanta, 1903 " $\qquad$
Possie, 0.4 mile north of former post office, west of and 10 feet from center of road to Danburg, in front of Mulberry Church; iron post stamped " 472 Atlanta, 1903 "
568.570
471. 494
Danburg, northeast corner of E. R. Anderson's store, left of main entrance ; iron post stamped " 566 Atlanta, 1903 "
Feet.
565.458
Graball, 1.1 miles south of, on Augusta road, in front of negro cottage, 0.2 mile north of Fishing Creek, 15 feet from center of road; iron post stamped " 360 Atlanta, 1903 "
359. 575

## EATONTON QUADRANGLE.

[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $83^{\circ} 15^{\prime}-83^{\circ} 30^{\prime}$.]
From Phoenix store along highways to a point 2.1 miles north of Phoenix.
Rockville, 5.7 miles west of, at Phoenix store, 75 feet southeast of crossroads ; in root of large black-oak tree ; nail, marked " 592.6 "-
592.96

Phoenix, 1.6 miles north of, in northeast corner of Spivey's road crossing; in root of large red oak tree; nail, marked " 532.2 "
532.54

Phoenix, 2.1 miles north of, 150 feet south of drain and 20 feet east of road; in ledge of rock; aluminum tablet stamped " 436 "
436.607

From Phoenix store southwest along highways to Eatonton.
Phoenix, 1.1 miles west of, in southwest corner of road to house, 8 feet south of main road, in red-oak tree; nail, marked " 566.5 "-
566. 84

Phoenix, 2.6 miles west of, 200 feet east of forks to north, 6 feet north of road, in root of white-oak tree; nail, marked " 539.4 "
539.77

Phoenix, 2.6 miles north of, 20 feet east of forks to north, 6 feet north of road; iron post, stamped " 537 "
537. 628

Phoenix, 3.9 miles west of, just at top of hill and about 30 feet northwest of road to east, 4 feet west of road and about 4 feet above level of same, in root of tree; nail, marked " 595 "
595.44

Phoenix, 4.9 miles west of, just at top of hill, 125 feet southeast of house, 6 feet west of road, in root of red-oak tree; nail, marked " 621 "
621. 24

Phoenix, 4.9 miles southwest of, just at top of hill, 125 feet southeast of house, 6 feet west of road; iron post, stamped " 623 "
623. 333

Phoenix, 6.4 miles southwest of, about 1.2 miles north of Eatonton,

- 6 feet east of road forks to northeast, in root of pine tree; nail, marked " 548.6 "
548.92

From point near Meda along Central of Georgia Ry. to Willard.
Dennis, 4.2 miles north of, at railroad crossing, 12 feet south of railroad track, at west margin of highway ; iron post, stamped " 579 "-
579.059

Meda, in front of station platform ; top of rail
Eatonton, in front of station; top of rail
592.9

Eatonton, northwest corner of county courthouse; iron post, stamped "Prim. Trav. Sta. No. 16, 577 "
564.4

Eatonton, 1.3 miles north of, at railroad crossing, 12 feet west of track, at south margin of highway ; iron post, stamped " 561 " $\qquad$ 561. 404

Eatonton, 4.4 miles northwest of, 20 feet east of track, 7 feet south of milepost 213 ; iron post, stamped " 464 "
464. 393

Eatonton, 7.5 miles northwest of, 625 feet west of milepost 216 , at railroad crossing, 10 feet south of track; iron post, stamped " 544 "---
544. 209

Willard, in front of station; top of rail
560.5

## MILLEDGEVILLE QUADRANGLE.

## [Latitude $33^{\circ}-33^{\circ} 15^{\prime}$; longitude $83^{\circ}-83^{\circ} 15^{\prime}$.]

From point 4.8 miles south of Harris Mill south along highways to Devereux.
Harris Mill, 4.8 miles south of, at intersection of Sparta-Oconee Springs ferry and Devereux roads, 6 feet north of road; chiseled square on large flat rock, marked " 466.7 "

Feet.
466. 79

Harris Mill, 6.1 miles south of, just at top of hill, 10 feet east of road, near house, in root of walnut tree; nail, marked " 472 "
472.04

Harris Mill, 6.7 miles south of, 150 feet east of Sparta-Oconee Springs and Harris Mill-Devereux cross roads, 25 feet south of road, in ledge of rock; aluminum tablet stamped " 492 " $\qquad$
Harris Mill, 8.3 miles south of, about 1.5 miles north of Devereux, in low flat place, 4 feet east of road, in root of pine tree; copper nail marked " 507 " $\qquad$
Devereux, 0.4 mile southwest of, in top of granite milepost 32 ; aluminum tablet stamped " 577 "
507.15
577. 330

From point near State farm northeast along Georgia R. R. to Devereux.
State Farm, 0.8 mile east of, 1.5 miles west of Milledgeville, west side of track, in top of milepost 47 ; aluminum tablet stamped " 360 "--
Milledgeville, 0.4 mile northeast of, highest point of granite milepost 45
360.496

Milledgeville, 1.4 miles northeast of, in top of granite milepost 44 ; aluminum tablet stamped " 291 "
308.10

Oconee River R. R. bridge, 2 miles northeast of, in top of granite milepost 41 ; aluminum tablet stamped " 377 "
291. 325

Thomas siding, 0.2 mile northeast of, on highest point of granite milepost 39
376. 756

Carrs, 2.2 miles southwest of, in top of granite milepost 38 ; aluminum tablet stamped " 445 "
403. 86

Carrs, 0.8 mile northeast of station, in top of granite milepost 35 ; aluminum tablet stamped " 523 "
445. 125

Devereux, 0.4 mile southwest of, in top of granite milepost 32 ; aluminum tablet stamped " 577 "
522.693
577. 330

From Devereux south along highway to Friendship Church, thence west to Milledgeville. ${ }^{1}$

Devereux, 0.9 mile south of, in southwest angle of road corner ; nail in root of hickory tree
603.30

Devereux, 3.4 miles south of, 35 feet south of road fork, in southeast angle of road corner ; iron post stamped " 611 "
611. 189

Sheba, at southeast corner of former post office; iron post stamped " 580 "
580.218

Friendship Church, 3.2 miles north of, 3 feet north of post-oak tree, 80 feet northwest of crossroad ; iron post stamped " 541 "
540.892

Friendship Church, at northwest corner of ; iron post stamped " 492 "
492. 512

Friendship Church, 2.4 miles west of, 2 feet north of pine tree, in northwest angle of crossroad; iron post stamped " 486 "
Friendship Church, 3 miles west of, 100 feet east of milepost 11, in

Feet.
489.99
394.964
413. 288
464. 20
471. 77
434.911 of center of road; aluminum tablet stamped " 435 "
Oconee River highway bridge, east pier of, on north end of pier; point painted with cross mark on iron cap
268. 429
Milledgeville, 3 feet from southeast corner of county courthouse yard fence; iron post stamped " Prim. Trav. Sta. No. 19. 326 " $\qquad$ 325. 730

From point 2 miles northeast of Oconee River R. R. bridge north along highway to Island Creek, thence east to point near Devereux.
Bass School, 0.5 mile north of, 200 feet south of small stream, west of road, in large granite bowlḍer; aluminum tablet stamped " 398 "--
Island Creek, southeast corner of courthouse; iron post stamped "Prim. Trav. Sta. No. 18, 465 "
397.650

Island Creek, 2.3 miles east of courthouse, 280 feet west of road corner, south of road; nail in root of oak tree $\qquad$ 536. 62

Devereux, 3.5 miles west of, 3.8 miles east of Island Creek courthouse, 15 feet north of road corner ; iron post stamped " 573 "
573.323

Devereux, 1.4 miles west of, in northeast angle of road corner; nail in root of oak tree
608. 33

## From Milledgeville to Georgia State Sanitarium.

## Georgia State Sanitarium, at north entrance to freight station; iron

 post stamped " 399 "399.089

## SHOULDER QUADRANGLE.

[Latitude $33^{\circ} 15^{\prime}-33^{\circ} 30^{\prime}$; longitude $83^{\circ}-83^{\circ} 15^{\prime}$.]
From point 6.4 miles east of Greensboro along highway to Siloam, thence south along Union Point \& White Plains R. R. to White Plains, thence south along highways to a point 4.8 miles south of Harris Mills, thence west along highways via Rockville to a point 4.5 miles northwest of Rockville.

Greensboro, 6.4 miles southeast of, north of road, 75 feet east of road forks to north, 200 feet south of church and schoolhouse, in root of small tree ; copper nail, marked " 659 "
658.73

Siloam, about 400 feet west of railroad crossing, 25 feet northwest of Hal Rhodes residence, 15 feet south of road; iron post stamped " 720 "
719.548

Siloam, railroad crossing at; top of rail marked " 716.7 "
716.7

Siloam, 1.8 miles south of, $\mathbf{7}$ feet east of railroad track, 50 feet south of road crossing ; chiseled square on rock, marked " 700 "
700.37

Siloam, 3.4 miles south of, 30 feet east of railroad track, about 5 feet above level of same, in ledge of rocks; aluminum tablet stamped " 681 "
681.316

Siloam, 4.6 miles south of, 40 feet west of railroad crossing, north side of road, in small red-oak tree; copper nail, marked " 692 "

White Plains, west side of White Plaius Bank Building, 20 feet south of entrance, 3 feet above ground, in brick wall; aluminum tablet stamped " 696 "

Feet.
695. 676

White Plains, $\mathbf{1 . 2}$ miles south of, in forks of road to east, in root of large black-oak tree; nail, marked " 630 "
630.33

White Plains, 2.4 miles south of, 125 feet west of second-class road forks to southwest, on large rock; chiseled square, marked " 584 "-
584.38

White Plains, 4.1 miles south of, 100 feet west of schoolhouse, $\mathbf{7}$ feet east of road, in root of red-oak tree; nail, marked " 618 "
617. 69

White Plains, 4.1 miles south of, at northwest corner of schoolhouse, 60 feet east of road; iron post stamped " 623 "
623. 528

White Plains, 5.3 miles south of, in small grove of pine trees, 6 feet west of road, in root of pine tree; nail, marked " 541 ", $\qquad$
FWhite Plains, 6.4 miles south of, 6 feet west of road, about 100 feet north of creek crossing where mail post stands; chiseled square on rock, marked " 425 "
424.73

White Plains, 7.5 miles south of, intersection of White Plains, Sparta, and Harris Mill roads; rock marked " 490.4 "
490.50

White Plains, 7.5 miles south of, intersection of White Plains, Sparta, and Harris Mill roads; iron post stamped " 491 "
491.167

White Plains, 8.4 miles south of, 25 feet north of second-class road to south, 200 feet east of milepost " Sparta 11 mi.", 6 feet north of road, in root of tree; nail marked " 481 "
481. 16

White Plains, 9.7 miles south of, 100 feet west of top of rise in road, 7 feet north of same, in root of red-oak tree; nail, marked " 435 "
White Plains, 10.9 miles south of, 400 feet west of creek, 20 feet southeast of road forks, 3 feet south of road; cross on rock, marked " 360 "
White Plains, 11.4 miles south of, at Harris Mill, 75 feet northeast of store, 30 feet east of road; iron post stamped " 390 , Prim. Trav. Sta. No. 4 "
540.99

Harris Mill, 1 mile south of, at intersection of Sparta, Eatonton, and Devereux roads, 6 feet north of forks, in top of cedar post; nail, marked " 453 "
453.34

Harris Mill, 2.6 miles south of, 16 feet north of drain and 6 feet west of road; cross on rock, marked " 381 "
380.70

Harris Mill, 3.4 miles south of, second-class road forks to west, about 600 feet north of colored church, 20 feet east of road, on top of hill; aluminum tablet set in rock, stamped " 495 " $\qquad$
Harris Mill, 4.8 miles south of, at intersection of Sparta, Oconee Spring Ferry, and Deveraux roads, 6 feet north of road; chiseled square on large flat rock, marked " 467 "
Harris Mill, 6.4 miles southwest of, just at top of hill, 30 feet northwest of road forks south, $\mathbf{7}$ feet north of road, in side of tree; nail, marked " 512 "
435. 81
360.18
393.272
495. 453
466. 79
512.41

Harris Mill, 7.5 miles southwest of, in northeast angle of road forks, in root of large red-oak tree; nail, marked " 598 "
598.03

Harris Mill, 7.5 miles southwest of, at T road north, at residence of C. C. Harper ; iron post stamped " 600 "
600.046

Harris Mill, 8.7 miles southwest of, 6 feet north of road, about 0.5 mile west of Antioch Church, in root of large white-oak tree; nail, marked " 509.4 "
509.58

Harris Mill, 10.2 miles southwest of, in southwest corner of T road south to Silvin Hill; iron post stamped " 484 Prim. Trav. Sta. No. 24 "

Harris Mill, 11.5 miles south of, 40 feet south of Logdam Creek, 6
Feet. 333.12

Harris Mill, 13.2 miles southwest of, at Oconee Spring Ferry, 75 feet east of east bank, 10 feet north of road, in root of white-oak tree; nail, marked " 327.8 "
Harris Mill, 13.2 miles southwest of, at Oconee Spring Ferry, 75 feet east of east bank of river, 10 feet north of road; iron post stamped " 327 "
326.981
312.

Harris Mill, 15.4 miles southwest of, about 1 mile south of Rockville, just at top of hill by old shack, 20 feet west of road, in root of tree; nail, marked " 520.3 "
520.54

Rockville, in angle of road forks, 125 feet north of store; iron post stamped " 559 Prim. Trav. Sta. No. 17, 1906 Ga"
559.053

Rockville, 1.4 miles north of, in southeast corner of $T$ road south, on rock at end of culvert ; cross, marked 650 "
650.43

Rockville, 2.8 miles northwest of, in west corner of forks to south, on large rock; cross marked " 634.7 "
635.03

Rockville, 3.9 miles northwest of, 100 feet east of second-class road forks south, 6 feet south of road, on corner rock; cross marked " 558.5 "
Rockville, 4.5 miles west of, in west corner of road forks to southwest, in root of red-oak tree; nail marked " 600.8 "
601. 12

Rockville, 4.5 miles northwest of, in west angle of road forks to southwest; iron post stamped " 602 "
602.574

From point 3.8 miles north of Phoenix north along highways to a point 8.4 miles north of Reads Ferry.

Phoenix, 3.8 miles north of, in southwest angle of road forks to southwest, in root of red-oak tree; nail, marked " 513 "
513. 44

Phoenix, 4.8 miles north of, in north angle of road forks to northwest, about 0.2 mile southwest of Reads Ferry ; iron post stamped " 460 Prim. Trav. Sta. No. 25 "
459.967

Oconee River at Reads Ferry; water level, Feb. 14, 1911
395
Reads Ferry, 1 mile north of, just at top of hill, 20 feet south of road and about 75 feet north of house, in root of tree; nail, marked " 521 "
Reads Ferry, 1.6 miles north of, in forks of $\mathbf{T}$ road south, intersection of Reads Ferry, Greensboro, and White Plains roads; cross on rock marked " 580 "
580.22

Reads Ferry, 2.7 miles north of, 100 feet north of road forks to southwest, 10 feet west of road, in root of pine tree ; nail marked" 544 "-
Reads Ferry, 4.3 miles north of, 100 feet west of Richland Creek, 6 feet north of road, set in ledge of rock; aluminum tablet stamped " 434 "
Reads Ferry, 5.2 miles north of, in southeast angle of road forks, in side of telephone pole; nail, marked " 489.4 "
489.85

Reads Ferry, 7.2 míles north of, top of hill, 20 east of road near large white house, in root of tree; nail, marked " 562.5 "
562.93

Reads Ferry, 8.4 miles north of, north side of road, by schoolhouse, in root of pine tree; nail marked " 611 "

## From White Plains west along highways via Liberty post office to Reads Ferry.

White Plains, 1.2 miles west of, north side of road, 30 feet north of forks to south; chiseled square on rock, marked " 659 "

Feet.
658.98

White Plains, 2.3 miles west of, just at top of little rise, 6 feet north of road, 30 feet northwest of second-class forks; chiseled square on rock marked " 617 "
617.50

White Plains, 3.8 miles west of, 250 feet east of bridge over Jerigan Creek, 10 feet north of road, about 3 feet above level of same, in ledge of rock; aluminum tablet stamped " 464 "
464. 452

White Plains, 4.4 miles west of, at Clements store, in northeast corner of road forks, in root of large red-oak tree; copper nail, marked " 604 "
603. 83

White Plains, 5.3 miles west of, about 50 feet west of drop off in road, 6 feet north of same, on rock; chiseled square, marked " 567 ",
White Plains, 6.6 miles west of, 300 feet west of hill top, 6 feet north of road, on rock; chiseled square, marked " 586 "
566. 76

White Plains, 7.7 miles west of, 300 feet north of road forks, about 250 yards north of Liberty Church, 10 feet east of road, in ledge of rock; aluminum tablet stamped " 572 "
572.438

Liberty, 1.2 miles west of post office, just at top of hill, 20 feet to south of road; cross on rock marked " 564 "
564. 10

Liberty, 2.1 miles west of post office, 40 feet south of road forks to north, about 60 feet southeast of Sandy Creek crossing; chiseled square on rock marked " 436 "
435.82
403. 77 -
407.903

Liberty, 4.8 miles west of post office, 50 feet west of forks to south, about 500 feet south of large brick house, in root of large red tree; copper nail, marked " 545 "
545.32

Liberty, 5.9 miles west of post office, at Salem Church, 10 feet southwest of road forks to south, in root of white-oak tree; nail, marked " 608 "
608.30

Liberty, 6.9 miles west of post office, 400 feet west of M. Callahan's house, 60 feet east of forks of road, 6 feet south of same, in ledge of rock; aluminum tablet stamped " 557 "
Liberty, 3.8 miles west of post office, 4 feet west of road, by large poplar tree, about 450 feet south of bridge over Richland Creek, in root of tree; copper nail, marked " 404 "
Liberty, 3.8 miles west of post office, 75 feet south of east end of bridge over Richland Creek; aluminum tablet set in rock stamped " 408 "
556. 798

$$
25070^{\circ}-\text { Bull. } 635-16-4
$$

## GEORGIA-SOUTH CAROLINA PRIMARY LEVELING.

Carnesville, Crawfordville, Elberton, and Walhalla quadrangles.

ELBERT, FRANKLIN, HABERSHAM, AND HART COUNTIES, GA.; ABBEVILLE, ANDERSON, AND oconee counties, s. c.

The elevations in the following list (Tugaloo and Savannah Rivers Survey) were determined by extensions from Rome and Jackson, Ga. The leveling was done in 1903 by T. B. O'Hagan.

WALHALLA QUADRANGLE.
[Latitude $34^{\circ} 30^{\prime}-35^{\circ}$; longitude $83^{\circ}-83^{\circ} 30^{\prime}$.] From Clarkesville to Tallulah Falls, Ga.
Clarksville, Habersham County court house, north side of east en- Feet.
trance; bronze tablet stamped " 1373 Atlanta "--.-.-.-.
Tallulah Falls, 20 feet south of station, 70 feet east of public road,
in rock; bronze tablet stamped " 1569 Atlanta" (on single spur
line)
From point 2 miles south of Tallulah Falls south down Tugaloo and Savannah
Rivers to Knox Bridge.
Panther Creek, 600 feet south of mouth, 50 feet west of river, west edge of public road, in large rock; bronze tablet stamped " 715 Atlanta" $\qquad$ 713. 793

Tames Prather homestead, middle step of front entrance; bronze tablet stamped " 728 Atlanta"
726. 873

Tugaloo River, Southern Railroad bridge crossing Tugaloo River, on west abutment; bronze tablet stamped " 666 Atlanta"
665. 467

Jenkins Ferry, W. J. Perkins's homestead, north side of house, in chimney, 2 feet above ground; bronze tablet stamped " 732 Atlanta" (on single-spur line)
730. 754

Shelor Ferry, 0.3 mile southwest of, 100 feet northwest of P. E. Martin's house, 10 feet north of road, in large rock; bronze tablet stamped " 630 Atlanta"
628.875

## CARNESVILLE QUADRANGLE.

$$
\text { [Latitude } 34^{\circ}-34^{\circ} 30^{\prime} \text {; longitude } 83^{\circ}-83^{\circ} 30^{\prime} \text {.] }
$$

At Knox Bridge.
Knox Bridge, 200 feet west of, in chimney of S. A. Glenn's house; bronze tablet stamped " 613 Atlanta"
612. 241

## ELBERTON QUADRANGLE.

[Latitude $34^{\circ}-34^{\circ} 30^{\prime}$; longitude $82^{\circ} 30^{\prime}-83^{\circ}$.]

## From Knox Bridge south down Tugaloo and Savannah rivers to Lisbon,

Averys Ferry, 20 feet south of river, top of cliff, in rock; bronze tablet stamped " 588 Atlanta"
587. 443

Andersonville, S. C., east side of road, 200 feet east of river, northwest of Little Beaverdam Creek, in rock; bronze tablet stamped " 538 Atlanta" $\qquad$
Browns Ferry, S. C., 1,200 feet northeast of, O. C. Brown's house, in brick and stone abutment at rear, northwest corner; bronze tablet stamped " 518 Atlanta"
537.519
516.891

Parks Ferry, 0.2 mile above, west side of Ferry road, opposite house, foot of steep hill, in cliff; bronze tablet stamped " 495 Atlanta"--
Craft Ferry, 125 feet west of boat landing, 60 feet west of river, in rock; aluminum tablet stamped " 450 Atlanta" $\qquad$
Harper Ferry, S. C., 250 feet south of W. J. Taylor's house, side of brook, in limestone; bronze tablet stamped " 420 Atlanta "- $\qquad$
Calhoun Falls, S. C., 2 miles west of, Seaboard Air Line bridge over Savannah River, east side of bridge, in abutment; bronze tablet stamped " 383 Atlanta" $\qquad$
Feet.
382.161

Calhoun Ferry, 2.5 miles southeast of, 50 feet west of river, in large rock; bronze tablet stamped " 320 Atlanta" $\qquad$ 319.252

## CRAWFORDVILLE QUADRANGLE.

[Latitude $33^{\circ} 30^{\prime}-34^{\circ}$; longitude $82^{\circ} 30^{\prime}-83^{\circ}$.]

## At Lisbon.

Lisbon, in brick wall of R. L. Cade's store; bronze tablet stamped "328 Atlanta"


## APPENDIX.

## SECONDARY ELEVATIONS.

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

| Name of locality. | Quadrangle. | County. | Elevation. |
| :---: | :---: | :---: | :---: |
| Alcovy Mountain. | Monroe | Walton | Feet. $1,108$ |
| Bald Mountain | Cohutta. | Murray | 4,010 |
| Bear Mountain | Cartersville Speci | Cheroke | 2,276 |
| Beety Mountain | Cohutta....... | Fannin | 3,495 |
| Bell Mount. | Dahlonega | Towns | 3, 446 |
| Big Bald..... | Ellijay. | Gilmer | 4,120 |
| Black Mountain |  | Dawson, Gilmer | 3,600 |
| Blood Mountain triangulation s | Dahlonega | Lumpkin, Unio | 4,463 |
| Blue Mountain. | do. | Towns....... | 4,045 |
| Brasstown Bald (the highest point | do | Towns, Union. | 4,768 |
| Brawley Mountain | Enlijay | Fannín. | 4,031 |
| Brushy Knob..... | Cartersville Specia | Bartow | 1,527 |
| Carnes Mount triangulation station | Tallapoosa. | Polk | 1,316 |
| Carrollton | ... do..... | Carroll | 1,095 |
| Cedarcliff Mountain. | Dahlonega | Towns | 3,391 |
| Cedartown. | Rome. | Polk. | 809 |
| Chestnut Mountain. | Dahlonega | Rabun. | 4,600 |
| Chimney Mountain. | .... do..... | Habersham, W | 3,446 |
| Coosa Bald. | do | Union........ | 4,287 |
| Cornish Mountain | Monroe | Newton | 1,000 |
| Covington... | ......do. | ....do. | 763 |
| Cowpen Mountain. | Cohutta. | Fannin | 4,137 |
| Cowrock Mountain. | Dahlonega. | White. | 3,867 |
| Dicks Creek Gap. | do. | Rabun, Towns | 2,669 |
| Doogan Mountain. | Cohutta | Murray........ | 2,025 |
| Douglas Mountain. | , | Gilmer. | 2,585 |
| Eagle Mountain | Dahlonega | Towns | 4,280 |
| Fort Mountain | Cohutta | Murray | 2,835 |
| Frozen Knob. | Ellijay. | Union.. | 3,489 |
| Glassy Knob | Dahlonega. | Towns. | 3,650 |
| Goshen Mountain | .....do.... | Habersham | 2,923 |
| Grassy Mountain. | Suwaneo | Pickens | 3,290 |
| Grassy Mountain | Cohutta | Murray | 3,682 |
| Gregory Knob. | Ellijay | Fannin, Union | 3,480 |
| Gulf Mount. | Ringgold. | Walker. | 2,200 |
| Gumlog Mountain. | Dahlonega. | Towns, Union. | 3,743 |
| Hemp Top | Cohutta. | Fannin |  |
| High Point. | Ringgold | Walker. | 2,392 |
| High Point | Rome.. | Chattooga | 1,617 |
| High Top...... | Ellijay. | Fannin, Union | 3,462 |
| Hightower Bald...... Horsetrough Mountai | Dahlonega | Towns....... | 4,567 |
| Horsetrough Mountai <br> Hughes Gap. |  | Union, White | 4,052 |
| Hughes Mountain. | Ducktown Special | Fannin. | 1,996 2,159 |
| Kelley Mountain. | Ellijay | Union. | 2,522 |
| Lafayette. | Ringgold. | Walker |  |
| Lavender Mountain triangulation s | Rome.... | Floyd. | 1,695 |
| Leadpole Mountain. | Dahlonega | White | 2,206 |
| Levelland Mountain | ....do.... | Lumpkin, Union | 3,942 |
| Little Bald. | do | Towns, Union. | 4,473 |
| Little Bald | Ellijay | Gilmer. | 4,021. |


| Name of locality. | Quadrangle. | County. | Elevation. |
| :---: | :---: | :---: | :---: |
| Monroe... | Monroe | Walton. | Feet. 910 |
| Mule Top.. | Cohutta | Fannin. | 3,057 |
| Paris Mountain . | Ellijay. |  | 2,318 |
| Parke Knob. | Ringgold |  | 3,680 2,329 2, |
| ${ }_{\text {Pine }}$ Pigeonntain triangulation station | Cartersville Speci | Bartow | 1,552 |
| Pink Knob. | Cohutta. | Gilmer. | 3,482 |
| Pink Mountain. | Dahlonega | White. | 2,709 |
| Rich Mountain | Ellijay. | Gilmer. | 4,081 |
| Ringgold. | Ringgold. | Catoosa. | 785 |
| Rocky Mountain | Dahlonega | Towns, White | 4,060 |
| Rocky Mountain | Ellijay. | Gilmer | 3,541 |
| Rocky Top.. Round Top. | Ringzold | Union | 3,060 |
| Round Top. | Ringgold. | Walk | 2,378 |
| Sharptop Mountain. | Ellijay. | Fannin, Union. | 2,083 |
| Skitt Mountain triangulation st | Dahlonega | White. | 2,076 |
| Slaughter Mountain | .do. | Union. | 4, 370 |
| Snake Mountain | do | Rabun, | 3,365 |
| Social Circle... | Monroe.. | Walton |  |
| Spaniard Knob. | Dahlonega | Towns. | 3,860 |
| Springer Mountain | Ellijay. | Fannin, |  |
| Strawberry Top | Datani.. | Union White | 1,686 |
| Suwanee Mountai | Suwanee.. | Forsyth.... | 1,967 |
| Sweat Mountain. |  | Cobb... | 1,694 |
| Talona Mountain. | Ellijay . | Gilmer. | 2,115 |
| Tickanetley Bald |  |  | 4,054 |
| Tifton Mountain |  | Fannin | 3,201 |
| Tray Mountain. | Dahlonega | Habersham, White, | 4,398 |
| Turkeypen Mountain. | do | Union... | 3,227 |
| Turniptown Mountain. | Elijay | Gilmer | 3,614 |
| Unicoi Gap. | Dahlonega | Towns, White | 2,963 |
| Walker Mountain | do. | White. | 2,641 |
| Walnut Mountain | Ellijay | Gilmer. | 2,628 |
| Watson Mountain |  | Fannin | 2,769 |
| Wildeat Knob. | Dahlonega | Union | 4,018 |
| Wilson Mountain |  |  | 3,047 |
| Wolfpen Ridge. |  | Towns, Union..... | 4,251 |
| Yonah Mountain . | do | White | 3,173 |

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(A)


[^0]:    ${ }^{1}$ Acworth, Cartersville special, and Stilesboro sheets show parts of Cartersville quadrangle on larger scale, and Cartersville special sheet shows parts of Acworth and Stilesboro quadrangles on the same scale.

[^1]:    ${ }^{1}$ This bench mark was destroyed with building in 1906 , and the new one was established in 1907 by precise levels from Holton.
    ished

[^2]:    ${ }^{1}$ The error in this line ( -1.247 ) is excessive; an arbitrary adjustment of 1 foot was made at first part of line.

[^3]:    ${ }^{1}$ Permission was granted L. O. Benton, Aug. 5, 190S, to remove this bench mark.

[^4]:    Greensboro, 0.8 mile east of, 20 feet northeast of crossroads, at top of hill; cross on rock, marked " 620 "

