UNITED STATES DEPARTMENT OF THE INTERIOR<br>Harold L. Ickes, Secretary<br>GEOLOGICAL SURVEY<br>W. C. Mendenhall, Director

Bulletin 898

# SPIRIT LEVELING IN MISSOURI 

1896-1938

J. G. STAACK<br>Chief Topographic Engineer

## Prepared in cooperation with the

STATE OF MISSOURI
GEOLOGICAL SURVEY AND WATER RESOURCES
H. A. Buehler, Director


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[The letters in parentheses preceding the titles are those used to designate the parts for advance publication]


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# UNITED STATES DEPARTMENT OF THE INTERIOR Harold L. Ickes, Secretary <br> GEOLOGICAL SURVEY <br> w. C. Mendenhall, Director 

## Bulletin 898-A

# SPIRIT LEVELING IN MISSOURI <br> Part 1. SOUTHEASTERN MISSOURI <br> 1896-1937 

J. G. STAACK

Chief Topographic Engineer

## Propared in cooperation with the

 STATE OF MISSOURI

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# PART 1. SOUTHEASTERN MISSOURI, 1896-1937 

## J. G. Staack, Chief. Topographic Engineer

## INTRODUCTION

Scope of report.-This bulletin, which for convenience is to be published in eight parts, contains the results of all spirit leveling done by the United States Geological Survey in Missouri, including those heretofore published. Fach of the parts deals with one of eight sections into which the State has been divided for this purpose and which have been designated northeastern, northwestern, southeastern, squthwestern, central, east-central, south-central, and west-central Missouri. In each part descriptions of the points for which figures of elevation have been determined are listed according to the quadrangles in which the points occur. Results of spirit leveling other than that done by the United States Geological Survey have not been included.

Cooperation.-The State has contributed financially to the work of leveling in Missouri since 1907, ordinarily cooperating with the United States Geological Survey on a dollar-for-dollar basis. The agencies concerned in this cooperation are the Missouri Geological Survey and Water Resources and, since 1929, the Missouri State Highway Commission. Since 1934, the Missouri Geological Survey and Water Resources, under allotments from the Federal Fmergency Relief Administration and the Works Progress Administration, has also supplied the funds to pay the personnel working on extensive projects of leveling in the State. For these projects the United States Geological Survey. has furmished equipment and supervision as its share of the cooperation.

Classification of levelingo-Spirit leveling is classified according to the degree of refinement in the instruments and methods used and according to the closure errors.

First-order leveling ${ }^{* *}$ consists of leveling done with the most improved instruments, all sections being leveled twice, in opposite directions, under varying conditions. Olosures are not allowed to exceed the amount in feet represented by the formula 0.017 times the square root of the length of section in miles.

Second-order leveling, according, to regulations of the United States Geological Survey, comprises lines leveled twice with reliable instruments, though not necessarily of the most improved type. Closures are not allowed to exceed, 0.035 times the square root of the length of section in miles.

Third-order leveling is made up of lines that are run, either with first-order equipment or with an engineer's wye level and rods of the New York type, in single-line circuits that are required to close within the limits of 0.05 times the square root of the

[^0]length of circuit in miles. This is equivalent to 0.071 times the square root of the length of section in miles if the line is leveled twice.

All leveling done by the United States Geological Survey in Missouri is of thirdorder accuracy except as otherwise stated.

Adjustments,-A preliminary step to the adjustment of first, second, and third-order leveling is the application of all corrections for rod error, temperature, and unbalanced sights, as well as the orthometric corrections required because of the convergence toward the poles of level surfaces of different elevations. The adjustment of a net of leveling begins with the first-order lines. Most of these lines in both the United States and Canada have already been combined in a general net and adjus ted to remove accidental closure errors by the mathematical method known as least squares. The latest adjustment of this kind was made in 1929 by the United States Coast and Geodetic Survey and is known as the "1929 general adjustment of first-order leveling." This adjustment included the first-order lines in Missouri, and the elevations thus derived are the fundemental references for elevations determined by second- and thirdorder nets. The third-order leveling of the United States Geological Survey in Missouri has been adjusted by determining weighted mean elevations for new junction points and prorating the errors of each link. The weights are taken as the reciprocals of lengths of links. The third-order net has thus been brought into agreement with the best information available for the reaulta of the fundamental first-order leveling, although the published figures of elevation may be changed slightly by future adjustments of the level net.

Benchmarks.-The benchmarks used by the United States Geological Survey (pl. 1) are of two general classes-principal and supplementary. Principal benchmarks are placed at more or less regular intervals along a level line and are established with the aim of making them as nearly permanent as practicable. They are usually bronze or aluminum tablets, iron posts, or copper bolts. Supplementary or auxiliary benchmarks are less formal in design and are placed between the principal benchmarks. Some of the supplementary benchmarks in comon use are copper nails fitted with washers, spikes, and marks cut with a chisel on rock or masonry.

The tablets are circular in shape, measure 3-7/8 inches in diameter, and taper from a thickness of three-eighths of an inch at the center to about a quarter of an inch near the rounded edge. During a short period in the earlier years of the Survey's leveling the tablets set were made of aluminum. The softness of this metal, however, made them susceptible to damage, so that aluminum as a material for tablets was soon discarded. The earliest tablets set and those now being placed are made of bronze, and bronze is the material now specified for standard tablets. Each tablet is cast with a 3-inch shank extending from the center of its reverse side, by means of which it is cemented in place, and each bears an inscription on its face. The inscriptions on the tablets already placed differ in many details, because of changes in design at various times. The face of every tablet, however, is cast with the words "J.S. Geological Survey", a cross at the center, which indicates the fiducial point for position or elevation, and the words "Elevation above sea." On some tablets the inscription indicates that they were set in connection with a project in which a State or other organization cooperated; on some the inscription includes a triangle, which signifies a located point, enclosing the cross at the center. Tablets bearing a triangle enclosing a cross may be used not only as benchmarks but also as triangulation- or traverse-station marks


## GEOLOGICAL SURVEY BENCHMARKS.

$A$ and $B$, Standard tablets, principal benchmarks, used where masonry or rock is available to hold them. $A$ is used in cooperating States; the State name is inserted at $a . C$, Under side of $A$ and $B$, showing shank used to hold tablet in place. $D$ and $E$, Two views of copper nail and copper washer, a supplementary benchmark, used for points lying between those marked by standard tablets. $F$, Standard iron post fitted with bronze cap similar in design to the standard tablet, formerly used where no rock or masonry was available; superseded by concrete post with tablet set in top.

The inscription on most of the tablets already set includes the warning " 250 dollars fine for disturbing this mark", but the latest design omits this phrase and adds the sentence "For information write the Director, Washington, D.C."

If the tablet is to mark a transit-traverse station the traverseman stamps it with letters indicating this use of it, such as "Prim. Trav. Sta.", "P.T.S.", or "T.T.", as well as his own identifying letter or letters, the serial number of the station, and the year, using steel dies. If the tablet is set as a benchmark, the levelman stamps it with his identifying letter or letters, the serial number, and the year. He may at the same time stamp upon it with steel dies the figures of elevation to the nearest foot, or these figures may be added later. Tablets that serve as benchmarks may have been set as such or they may have been set to mark traverse stations. Thus some of them serve a dual purpose, but each has stamped upon it the date and the identifying designation of only the engineer who established it.

The figures of elevation that appear on a tablet are usually those determined by field computation only. It is sometimes found, therefore, that they do not represent the latest information. This has happened either because they refer to some independent datum temporarily adopted before flrst-order trunk lines made standard datum available, or because a later adjustment made in the office has rendered necessary an appreciable change in the figures as determined in the field. It is assumed that engineers and others who require accurate figures of elevation for the marks will use those printed in a bulletin such as this one, instead of accepting the stamped figures. If the appropriate bulletin is not conveniently accessible, a request for the desired information may be addressed to the Director of the United States Geological Survey, Washington, D.C.

The tablets, of whatever style, are cemented into holes drilled in solid rocks or in the walls of public buildings, bridge abutments, or other masonry structures. Where masonry or rock is not available, the tablets are set in the tops of reinforced concrete posts, which may be either precast or mixed and molded at the selectod site. The posts are about 8 inches square or 8 inches in diameter at the top and larger at the base. They vary in length from 36 to 48 inches and are generally set so as to profect about 6 inches above ground.

Antedating the concrete posts which are now constructed to hold the tablets, in places where masonry or rock is not available, are wrought-iron posts, to the tops of which are riveted bronze caps of similar design to the tablets. These iron posts measure 4 feet in length and $3 \frac{1}{2}$ inches in outer diameter and are set about 3 feet in the ground. The bottom of the post spreads out to a width of about 10 inches in order to give it a firm footing in the earth. No iron posts have been set in recent years. They have proved impracticable, as they are easily disturbed and are subject to rust at the ground level, which eventually destroys them.

The third form of principal benchmark, set only in the early leveling, is a copper bolt, designed to be wedged into a drill hole in rock or masonry and perhaps further secured with lead or cement. This bolt measures 4 inches in length and 1 inch in diameter and has a slot at one end into which fits a brass wedge. The wedge serves to expand the bottom end of the bolt, so that after the bolt has been driven to almost its full length into the hole, it cannot be easily removed. The exposed end of the bolt bears an appropriate inscription, stamped upon it with steel dies. This inscription is
made up of the letters " $\mathrm{T} S \mathrm{~S} G \mathrm{~S}^{\prime \prime}$, the letters indicating the datum used, the abbreviated word "Ft.". and the figures of elevation.

Supplementary benchmarks are of many kinds. One kind consists of a copper nail lith inches long supplied with a copper washer seven-eighths of an inch in diameter, through which the nail is driven into the root of a tree or some timber structure or cemented into rock after bending the point. The designation " $U S G S E B M$ is stamped on each washer; and on some washers the abbreviation of the name of the cooperating State is added. Another kind of supplementary benchmark is a chiseled square, used on the horizontal surface of rocks or masonry atructures, or a chiseled cross, used on a vertical surface. Nails, track spikes, and small capped iron pipes also serve as supplementary benchmarks, and occasionally easily described and recognized points, such as doorsills and tops of hydrants are so used.

Preservation and restoration of benchmarks.-Any person who finds that a principal benchmark has been damaged, disturbed, or destroyed or that it should be reset or redescribed on account of highway or other improvements will render a public service by commanicating the facts to the Director, United States Geological Survey, Washington, D.C., before taking any action affecting the location or elevation of the mark. A proper form, accompanied by a return-addressed, franked envelope, will be sent for use in reporting the action taken and in recording the revised description of the mark, if any, and the notes made in obtaining the revised elevation.

Datum.-All elevations determined by the United States Geological Survey and those determined by the United States Coast and Geodetic Survey for inland mapping are referred to mean sea level, which is the level that the sea would assume if the influence of winds, tides, and currents were eliminated. This level is not the elevation determined from the mean of the highest and 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 helght 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 those due to 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 mast 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 made in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.*

Location of the area.-Southeastern Missouri, as the term is used in this bulletin and as the subject of part 1 of the bulletin is that section of the State lying south of latitude $38^{\circ}$ and east of longitude $91^{\circ} 15^{\prime}$. (See fig. 1.)

Index map.-The accompanying index map of southeastern Missouri (fig. 2) shows the relative position of the quadrangle areas which make up this section. A quadrangle is the unit of topographic survey adopted by the United States Geological Survey for dividing the ares of the United States. All the quadrangles in southeastern Missouri measure 15 minutes in latitude by 15 mimutes in longitude. With the name of each

[^1]quadrangle, as shown on the map, is given the number of the page in this bulletin on which begins the list of descriptions of benchmarks in that quadrangle.

Maps of many of the quadrangles in southeastern Missouri may be purchased at 10 cents each retail or 6 cents each in lots of 50 or more. Prepayment is required and may be made by money order, payable to the Director of the United States Geological Survey, or in cash-*the exact amount, at sender's risk. Postage stamps should not be sent.


Figure l. -Oatiine map of Missouri showing the names and relative position of the oight sections covered by the parts of Builetin 898 , on spirit leveling in the State. The shaded portion represents the section designated as southeastern Missouri, and the white areas within this portion represent tracts where no leveling nas uden done by the United States Geological Survey

Diagrams of quadrangles showing routes of levelinge-At the beginning of the list of benchmark descriptions for each quadrangle is a diagram showing the routes followed by the lines of leveling in and immediately adjacent to that quadrangle. To aid in identifying these routes, the boundaries of the townahips and ranges in the quadrangle are indicated by light dashed lines, and the designations of these land subdivisions are given on the margin. The principal settlements are also shown. The solid lines represent the routes of the third-order leveling of the United States Geological Survey. To each of these is assigned a number, and the same number is assigned to the list of descriptions of benchmarks along that route. The heavy dashed lines represent the firstorder leveling of the United States Coast and Geodetic Survey.

Personnel. -The leveiling of the United States Geological Survey in southeastern Missourl was done under the supervision of the several chief geographers or chief topographic engineers who were in administrative charge of the topographic branch during the years when the lines were run. Included in the heading that precedes the descriptions of benchmarks established along any line of leveling are the name of the levelman who ran that ilne and the date when it was run, or, if this information has been omitted, it may be assumed that the levelman and date are the same as those indicated for the line immediately preceding. The adjustment of the third-order level net was done
 Water Resources and supervised by W. R. Broaddus, of the United States Geological Survey. The entire work involved was under the general supervision of R. M. Wilson, chief of the section of computing, under the general direction of J. G. Staack, chief topographic engineer.

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THIRD=ORDER LEVELING
(Latitude $37^{\circ}-37^{\circ} 15^{\prime} ;$; longitude $89^{\circ}-89^{\circ} 15^{\prime}$ )

Mississippi County


1. IN SOUTHWEST CORNER OF QUADRANGLE, NORTH: AND WEST TO WEST BORDEF (by H. P. Jones in 1931)
(Hine continued from ${ }^{\text {( }}$ okliffe quadrangle but last benchmark established is given in Charleston quadrangle, see líne no. 1.)
T. 27 N., R. 17 E., in Wis. sec. 8, on top of levee, at milepost 26 , leaded in top of concrete post; copper bolt

Feet.
N., R. 17 E., in SWis sec. 5, in NE. piling of wooden retaining-wall of bridge over Blg Lake Bayou; copper nail and washer
(Continued in Thebes quadrangle; see łine no. 5.)

Cape Girardeau County


1. IN VEEST PART OF QUADRANGLE (by R. T. Gale in 1921)

Cape Girardeau, 3.5 mi . NE. of, alang rd. to Egypt Milis, in sEl sec. 2l, T. 31 Ne, R. 14 E ., in E . wing wall of concrete culvert; chiseled square 340.65

Cape Girardeau, 4 mi. NE. of, along rd. to Egypt Mills, in W童 sec. 22, T. 31 N., R. 14 E. , on W. side of rd., 50 ft . from bed of creek, 2 ft. SW. of W. E. Whittaker's mall box, in root of 30-in. oak tree; copper nail and washer
Cape Girardeau, 5 mi . NE. of, along rd. to Egypt Kills, in NWh sec. 22, T. 31 N.,
R. 14 E., in $S E$ end of concrete wing wall of iron bridge; chiseled square 352.94

Cape Girardeau, 6 mi . NE. of, along rd. to Egypt Milis, near $N$. quarter cor. sec. 14, T. 31 N., R. 14 E.,.SW. of T-rd. W., in root on S. side of 36-in. elm tree; copper nail and washer
Cape Girerdeau, 6.5 mi . NE. of, along rd. to Egypt Mills, in $\mathrm{SW} \frac{\mathrm{T}}{\mathbf{L}} \mathrm{sec} .12, \mathrm{~T} .31 \mathrm{~N} .$, R. $14 \mathrm{E} ., 20 \mathrm{ft}$. SW. of rd. fork E., 10 ft . S . of two mail boxes; iron post stamped "US GS Mo 347"

Egypt Mills, $2.5 \mathrm{mi} . \mathrm{SE}$. of, along rd. to Cape Girardeau, in NEf sec. 12, T. $31 \mathrm{~N} .$, R. 14 E., 20 ft . S. of T-rd. W., in roat of tree about 2 in. underground; copper riail and washer
Egypt Mills, 0.5 mi . S. of, along rd. to Cape Girardeau, N. of Tird. S., in root of small tree; copper nail and washer
Egypt Mills, 800 ft . N. of post office, 120 ft . W, of schoolhouse, on E . side of 365.95

Egypt Mills, 0.8 mi . NW. of, along rd. to R. $14 \mathrm{~W} ., \mathrm{S}$. of T-rd. SW., in root of $48-\mathrm{in}$. cottonwaod tree; copper nall and Washer
Egypt Mills, 2 mi . NW. of, along rd. to Iona School, about 0.4 mi . N. of center sec. 27, T. 32 N., R. 14 E., in NE. concrete wing wall of bridge; chiseled square
Egypt Mills, 2.5 mi . NW. of, along Greens Ferry Road, in SWise sec. 22, T: 32 N., R. 14 E., on S. side of T-rd. E., 5 ft . E. of telephone pole, at edge of fence line; iron post stamped "1921 Mo 446"
445.657

Egypt Mills, 2.8 mi . NW. of, along Greens Ferry Road, in What sec. 22, T. 32 N., R. $14 \mathrm{~W} ., \mathrm{S}$. of T-rd. N., in root of $30-\mathrm{in}$. elm tree; copper nail and washei 449.90

Egypt Mills, 3.2 mi . NW. of, along Greens Ferry Road, about 0.2 mi . N: of center sec. 21, T. 32 N., R. 14 E., about 900 ft . W. of large house, on N. side of rd., at SW. corner of small bridge, in iron; ohiseled square
(Continued in Cape Girardeau quadrangle; see line no. 9.)

## 2. FROM WEST BORDER OF QUADRANGLE EAST TO EGYPT MILLS (Continued from Cape Girardeau quadrangle; see line no. 10.)

Egypt Mills, about 2.1 mi. W. of, about 0.2 mi. SE. of oenter sec. 33 , T. 32 N., R. $14 \mathrm{E} ., 100 \mathrm{ft}$. NW. of rd. forks, between rd. and creek, in root on NE. side of 24-in. sycamore tree; copper nail and washer
Egypt Mills, 1.3 mi . W. of 250 ft . E. of rd. fork N., 30 ft . W. of creek, in root on SW. side of large elm tree; copper naill and washer

For an additional level line along Mississippi River, refer to United States Coast end Geodetic Survey Iirst-order line, St. Louis, Mo.; to Cairo, Ill.

Missisaippi and Scott Counties


Thebes, Ill., at W. end of W. concrete approach to R. R. bridge over Miseissippi River, on S. side, in top of NW. corner of concrete bese of square end post of guardwall; chiseled square $\qquad$
Thebes bridge, 100 meters ( 328 ft .) N . of, almost on line with tangent of st. LouisSan Francisco R. R., 110 meters ( $361 \mathrm{ft}$. ) W. of Mississippi River, 20 meters ( $66 \mathrm{ft}$. ) E. of rd. at E. edge of R. R. right-of-way; tile and iron pipe (U. S. C. E. B. M. designated "10/3")

Reference mark, 20 ft . S. of pipe, on W. side of R. R., in ditch, top of limestone outcrop; chiseled square
348.46

[^2]2. FROM THEBES BRIDGE: FIEST ALONG MLSSOURI PACIFIC R. R: AND ST. LOUIS SOUTHWESTERN R. R. TO WEST BORDER OF QUADRANGLE (by H. P. Jones in 1931)

Thebes bridge, 0.5 mi . W. of, 1.2 mi . E. of Illmo, along Missouri Pacific R. R. on N. side of tracks, in top of concrete head wall at center of R. R. bricee 405.92 oyer rd.; chiseled square
Illmo, 0.7 mi . E. of, 1.5 mi . W. of Thebes bridge, along St. Louis Southwestern R. R., SW. of rd. crossing, in NE. corner of concrete base of signal; chiseled square
(Continued in Morley quadrangle; see line no. 4.)

## 3. FROM WEST BORDER OF QUADRANGLE NORTHEAST TO COMMERCE

Commerce, about 4 mi . SW. of, in NWI sec. 3, T. 28 N., R. 14 E., on N. side of rd. at corner from W. to N., in root of $36-i n$. oak tree; copper nail and washer
333.97
commerce, about 2.5 mi . SW. of, near cor. secs. $26,27,34$, end 35 , T. 29 N. , R. 14 E., about 200 ft . E. of farmhouse, in N . end of E. concrete abutment of bridge; chiseled square
370.80

Commerce, about 1.5 ml . SW. of, in SEl sec. 26, T. $29 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 110 \mathrm{Pt}$. E. of
rd.. fork NW., in front yard of house, in root of 38-in. oak tree; copper nall and washer
Commerce, 0.8 mi. W. of, near rd. fork $S$. , on $S$. side of 32-in. beech tree; oopper nall and washer
Commerce, in SW. corner of yard of public school, on E. side, at end of concrete oidemalk; chiseled square
 slope of bluff at edge of timber; flat stone and iron pipe (U. S. C. E. B. M. designated $\mathrm{ng} / 3^{\mathrm{n}} \mathrm{J}$
Pipe
Stone
343.101
4. EAST ALONG SODTH BORDER OF QUADRANGLE
(Contínued from Morley quadrangle; see line no. 8.)
Blodgett, 2.5 mi . E. of, 50 ft . N. and 13 ft . E of T-rd. E. at W. cor. secs. 6 and 7, T. 27 N., R. 15 E., 13 ft. E. of T-rd. W. at E. cor secs. 1 and 12 ,
T. 27 N., R. 14 E., in concrete post; standard tablet stamped "T TT 10 E 1931" 321.230

Reference mark, on S. side of rd., 40 ft . SE. of mall boxes, in root of $20-1 \mathrm{n}$. oak tree; copper nail and washer
T. 27 N., R. 15 E., cor. gecs. $5,6,7$, and $8,125 \mathrm{ft.E}$. of T-rd. S., on S. gide of rd.., in fence line, in root of $32-1 n$. oak tree; oopper nail and washer 322.00
T. 27 N., R. 15 E., cor. secs. 4, 5, 8, and $9,30 \mathrm{ft}$. NW. of State Highway 55, at rd. W., in steel I beam of low culvert; chiseled square

## (For balance in Charleston quadrangle, see line no. 1.)

T. $27 \mathrm{~N}:, \mathrm{R} .15 \mathrm{E} ., \mathrm{in} \mathrm{SW}$ 全 sec. $1,100 \mathrm{ft}$. N. of rd. forks, on W. side of rd., 2 ft. S: of mail boxes in pront of house, in root of 28-in. elm tree; copper nall and washer
Lusk School, near center sec. 1, T. 27 N., R. 15 E., in E. part of achoolyard, in end of concrete sidewalk; chfseled square
in end of concrete sidewalk; chfseled square 326.84

Lusk Chapel, in NE $\frac{1}{4}$ sec. $I, T .27 \mathrm{~N}$. , R. $15 \mathrm{E} ., 550 \mathrm{ft}$. SW. of rd. fork E., l ft.E. of SE. corner of chapel, in concrete post; standard tablet stamped "T T 22 E $1931{ }^{11}$
324.237

Price Landing, 900 meters. ( $2,952 \mathrm{ft}$. ) southmard from, 1,200 meters ( $3,936 \mathrm{ft}$.) back' (westward) from Elkins Llanding, in NW. corner of Joseph Moore's fleld, l25 meters ( 410 ft. ) toward river from church, 20 meters ( 66 ft .) from fence corner, 3 meters (10 ft.) E. of fence on E. side of ra.; flat stone and iron pipe. (U.S. C. E. B. M. designated "6/4")

Oap
Stone
T. 27 N., R. 16 E., about $0.3 \mathrm{mi} . \mathrm{N}_{\text {. of }}$ of center sec. 6 , in front yard of F. L. Middleton's house, in root of 14-in. elm tree; copper nail and washer
324.76
T. $27 \mathrm{~N} ., \mathrm{R} .16 \mathrm{E} .$, in SEl sec. $6,100 \mathrm{ft}$. S. of rd. forks, on W . side of rd., inside fence, in root of 36-in. oak tree; copper nail and washer
T. 27 N., R. 16 E., near quarter cor. between secs. 5 and 8 , on Mississippi-Scott county line, 31 ft . S. of rd., 13 ft . S. and 2 ft . W. of corner fence post, in concrete post; standard teblet stamped "T T 23 E 1931"
(Continued in Charleston quadrangle; see line no. 1.)
5. IN SOUTHEAST CORNER OF QUADRANGLE FROM EAST BORDEF NORTHWEST TO THOMPSON LANDING (Continued from Cairo quadrangle; see line no. 1.)

6. IN MIDDLE OF NORTH HALF OF WEST EORDER OF QUADRANGLE
(Continued from Morley quadrangle; see line no. 4.)
Illmo, $1.5 \mathrm{mi} . \mathrm{S}$. of, in $W^{\frac{1}{2}} \sec .10, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 40 \mathrm{ft}$. E. of T-rd. W., in root on W. side of l8-in. oak tree; copper nail end washer
(Continued in Morley quadrangle; see line no. 4.)
For additional level lines south along Mississippi River to Comerce, refer to United States Coast and Geodetic Survey first-order lines; St. Louis, Mo., to Cairo, Ill., and Cape Girardea.u, Mo., to Hoxie, Ark:

CHARLESTON QUADRANGLE
(Latitude $36^{\circ} 45^{\prime}-37^{\circ}$; longitude $89^{\circ} 15^{\prime}-89^{\circ} 30^{\prime}$ )
Mississipp,1, Nem Madrid, and scott Counties


1. EAST ALONG NORTH BORDER OF QUADRANGLE (by H. P. Jones in 1931)
(Continued from Thebes quadrangle; see line no. 4.)
T. 27 N., R. 15 E., 440 .ft. N. of cor. secs. 8,9 , 16 , and 17 ; 110 ft . S. and

Feet 30 ft . W. of junction of State Highway 55 and rd . E., in concrete post; standard tablet stamped "T T 20. E 1931"
T. $27 \mathrm{~N} .$, R. 15 E., about 0.2 mi . S of N. cor. secs. 15 and 16 , on SW: aide of 325.720 rd.; at curve in'state highway 55 to S. . in root of $28-1 \mathrm{n}$. oak tree; copper nail and masher
T. 27 N., R: 25 E., about 0.2 mi . S. of N. quarter cor. sec. 15 , at T-rd. W., in center of intersection, in root of $50-1 n$. oak tree; copper nail and washer 324.88
T. $27 \mathrm{~N} ., \mathrm{R} .15 \mathrm{E} .$, about 0.2 mi . N. of S. quarter cor. eec. $15,30 \mathrm{ft}$. SE. of Twrd. E., in root of $30-i n$. oak tree; copper nail and washer
T. 27 N., R. 15 E., about 0.2 ml . N. of S. cor. secs. 14 and $15,190 \mathrm{ft}$. S. of rd. corner from W. to S., on.E. gide of rd., l ft. E. of fence, in root of 20-1n. oak tree; copper nall and washer
T. 27. N., R. 16 E., about 850 ft . W. of quarter cor, betreen secs. 13 and 14,40 ft. W. of Charleston-Commerce road at lane E., 2 ft . N. and 12 ft . W. of fence corner, in SE. corner of Jacob Jeffries' yard, in concrete post; atandard tablet stamped "T T 21. E 1931"
T. $27 \mathrm{~N} ., \mathrm{R}$. 15 E. , in SE sec. $11,70 \mathrm{ft}. \mathrm{SW} .\mathrm{of} \mathrm{T-rd}. \mathrm{W.} ,\mathrm{inside} \mathrm{of} \mathrm{fence}$, root of 36-in. oek tree; copper nail and washer
(For balance in Thebes quadrangle, see line no. 4.)
T. 27 N., R. 16 E., in SWis sec. 9, on top of levee, at milepost betveen mi. 19 and 20, on bottom storie righest point $\quad 333.19$
T. 27 N., R. 16 E. , in NWI sec. I5, on top of levee, at milepost between mi. 20 and 21, on bottom stone; tighest point 27 N., R. 16 E ., about 0.4 mi . N. of cor. gecs. $14, \mathrm{~J}, 52$, and $23,52 \mathrm{ft} . \mathrm{S}$ and 20 ft . E. of old T-rd. S., 2 ft . N. end 10 ft . E. of corner post, in concrete post; standard tablet stamped "T T 24 E 1931"
and
T. 27 N., R. 16 E., in SEt sec. 14, on top of levee, at mllepost between mi. 22
and 23 , on bottom stone; highest point
T. 27 N., R. 16 E., in SE $\frac{1}{4}$ sec. 13 , on top of levee, at milepost between mi. 23

and 25, leaded in top of concrete post; copper bolt 12.8 meters ( 42 fti ) E. of E. side of Big Lake School, 16.1 meters ( $53 \mathrm{ft}$. ) S . of concrete rd., in concrete post; standard U. S. C. \& G. S. tablet stamped "Big Lake"
Reference mark no. $1,75 \mathrm{ft}$. E. of driveway, 44 ft . S . of concrete highway, at S. fence line, in concrete post; standard U. S. C. \& G. S. reference mark tablet
(Line continued in wickliff quadrangle but next benchmark established is given in Cairo quadrangle; see line no. 1.).

## 2. SOUTH ALONG WEST BORDER OF QUADRANGLE

Blodgett, 2 mi. E. and 1 mi. S. of, near cor. secs. 7, 12,13 , and $18, \mathrm{~T} .27 \mathrm{~N} .$, Rs. 14 and 15 E., in NW. corner of yard of house, in root of $40-1$. oak tree; copper nail and washer $\qquad$
Blodgett, about 2.5 mi . SE. of, in SEA sec. 13, T. $27 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 22 \mathrm{ft}$. S. of
Missouri Pacific R. R., 0.5 mi . N. of White Oak Church, 25 ft. NW. of J. W.
Lawson's mail box, in root of 12-in. hickary tree; copper nail and washer 325.96
T. 27 N., R. 14 E., in center of El sec. $24,20 \mathrm{ft}$. N. and 21 ft . W. of T-rd. W.,

2 ft . N. of fence, in concrete post; standard tablet stamped "T T 9 E 1931 " 316.677
Reference mark, at jog in rd. to W., in SE. concrete wing wall of wooden bridge over drainage ditch; chiseled square.
T. 27 N., R. 14 E., B8O ft. E. of center sec. $25,430 \mathrm{ft}$. W. of T-rd. N., on N. side of rd., in root of $36-1 n$. tree; copper nail and washer
(For balance in Sikeston quadrangle, see line no. 1.)
Buckeye, about 800 ft . S. of N. quarter cor. sec. 13 , T. 26 N., R. $14 \mathrm{E} ., \mathrm{S}$. of
junction of U.S. Highway 60 and $T-r d . S$. , in $W$. head wall of conorete culvert;
ohiseled square 311
T. 26 N., R. $14 \mathrm{E} .$, about 0.2 mi . N. of S . quarter cor. sec. 13 , on E. side of rd.
opposite house, in root of $36-1 n$. sycamore tree; copper nail and washer 313.4
Bement School, at quarter cor, between secs. 24 and 25, T. 26 N., R. 14 E., 40 ft.
W. of rd., 27 ft . S . of large oak tree, 2 ft . N. of fence, in SE. corner of schoolyard, in concrete post; standard tablet stamped "T T 18 C 1931.
Reference mark, 80 ft . SE. of SE, corner of schoolhouse, in root of 36-in. oak 308.518 tree; copper nail and washer
Bement School, 1 mi. S. of, near S. quarter cor. sec. 25, T. 26 N., R: 14 E. , in fence
line, 25 ft . E. and 50 ft . N. of crossroads, in top of stump of 5-in. cataipa tree; copper nail and washer
Tps. 25 and 26 N., R. 14 E., at quarter cor. between secs. 1 and $36,2 \mathrm{mi}$. S. of Bement School, 20 ft . S. and $18 \mathrm{ft}^{\circ}$. E. of small bridge over draihage ditch, in concrete post; standard tablet stamped "T T 17 C 1931" 303.747
Reference mark, 135 ft . S. of house, in field, in root of lone oak tree; copper nail and washer
T. 25 N., R. 14 E., near S. quarter cor. sec. $1,15 \mathrm{ft}$. N. and 80 ft . W. of crosaroeds, inside of fence, in root of $30-1 n$. oak tree; copper nail and washer
T. 25 N., R. $14 \mathrm{E} .$, near N. quarter cor. bec. $13,10 \mathrm{ft}$. S. of T-rd. N., in root of 26-in. hackberry tree; copper nail and washer 301.15
T. 25 N. , Rs. 14 and $15 \mathrm{E} .$, near N . oor. secs. 13 and $18,200 \mathrm{ft}$. SE. of rd. corner from W. to $\mathrm{S} ., 15 \mathrm{ft} . \mathrm{S}$. and 75 ft . E. of junction with private rd., in root of 18-in. oak tree; copper nail and washer
T. 25 N, , Rs. 14 and $25 \mathrm{E} .$, secs. $13,18,19$, and $24,25 \mathrm{ft}$. N. and 15 ft . W. of T-rd. W., at cor. of, in concrete post; standard tablet stamped "T T 16 C 1931" 300.037

Reference mark; io ft. E. of T-rd. W., in root of 24-in. oak tree; copper nail and washer
T. 25 NA , Rs. 14 and $15 \mathrm{E}$. , near cor. secs. $19,24,25$, and 30 , on F . side of T-rd.
W., at wooden culvert, in NW. Wing wall; copper nail and washer 299.06
T. $25 \mathrm{~N} ., \mathrm{Rs} .14$ and 15 E ., near cor secs . $25,30,31$, and 36 ; on E . side of rd. 30 ft . N. of T-rd. W., in root of 28-in. aycamore tree; copper nail and washer 298.31
Mat thews, 5.5 mi . E. of, along rd. to East Prairie, $25 \mathrm{ft} . \mathrm{S}_{\text {. }}$ and 30 ft . W. of crossroads at cor. Tps. 24 and $25 \mathrm{~N} ., \mathrm{Rs} .14$ and $15 \mathrm{E} ., 15 \mathrm{ft}$. F . of large elm tree at entrance to rd. S., in concrete post; standard tablet stamped "T T 15 C 1931" 295.842
Reference mark, 10 ft . S. and 5 ft . W. of T-rd. N., in root of 36-1n. oak tree;
copper naij and washer
296.93
(Continued in Sikeston quadrangle; see line no. 2.)
For an additional level Iine along St. Louis Southwestern R. R. and Missouri Pacific R. R., refer to United States Coast and Geodetic Suivey second-order line, 4.5 miles North' of Lilibourn, Nic. to 4.5 miles West of Clinton, Ky.

NEW MADRID QUADRANGLE*
(Latitude $36^{\circ} 30^{\prime}-36^{\circ} 45^{\prime}$; longitude $890^{\circ} 30^{\prime}-89045^{\prime}$ )

## New Madrid and Stoddard Caunties



1. FROM NEW MADRID WEST ALONG ST. LOJIS SOUTHWESTERN R. R, TO WEST BORDER OF QUADRANGLE (by Laigh P. Towneend in 1908. Preliminary adjustment.)
New Madrid, 25 ft . S. of St. Louis Southwestern R. R., on E. side of N.-S. street $\frac{\text { Feet }}{298.385}$ \# Madrid, 0.8 .mi. W. of, along St. Louis Southwestern R. R., between tracks, in top of cornerstone ohiseled "U. S."; copper bolt 299.259
New Madrid, 3.6 mi . W. of, along St. Louis Southwestern R. R., 45 ft . N. of track,
20 ft . E. of N.-S. rd., at NE. corner of T-rd., 2 ft . from corner post, inside fence; iron post stamped "3O1"
Lilbourn, E. of station, 3.5 ft . Irom R. R. crossing, at NE. corner of crossroads, in fence corner at SW . corner of field; iron post stamped "285"
Lilbourn, crossing of St. Lquis-San Francisco.R. R. and St. Louis Sauthmestern R. R.; top of rail

Lilbourn, 1 mi. W. of, along St. Louis Southwestern R. R., short distance E. of Boden, on $N$. side near middle of first R. R. bridge W. of Lilbourn; bolt
Lilbourn, 2.6 mi . W. of, along Bt. Louis Southwestern R. R., 10 ft . W. of milepost 39, 25 ft . S. of S. reil, in line with telegraph polea; iron post stamped "281"
280.509

Catron, on grounds of old sawmill, just outside of $N$, right-of-way of main track of St. Louis Southwestern R. R., SW. of grove of trees, W. of house; iron post stamped "282".
(Contimed in Malden quadrangle; see line no. 1.)
For additional level lines along St. Louis Southwestern R. R. and St. Louis-San Francisco R. R., refer to United States Coast and Geodetic Survey second-order lines; 4.5 miles North of Lilbourn, Mo., to 4.5 miles West of Clinton, KJ., Sikeston to Lilbourn, Lilbourn to Naylor, Lilbourn, Mo., to Clinton, Ky., and Lilbourn, Mo. to Leachvilie, Ark.


1. SOUTH ALONG EAST BORDER OF QUADRANGLE (by H. P. Jones in 1931)
(Continued from Charleston quadrangle; see line no. 2.)
T. 27 N., Ri 14 E., 400 ft . W. of center sec. 26 , at dim rd. fork $\mathrm{SW} .$, on S .

Feet side of rd., in root of 2z-in. tree; copper nail and washer
T. 27 N., R. 14 E., 0.2 mi . E. of quarter cor. between secs: 34 and $35,15 \mathrm{ft}. \mathrm{~N}^{317.59}$ and 16 ft . W. of crassroads, 3 pt . N. and 2 ft . E. of pence corner, in concrete post; standard tablet stamped "T T B E 1931"
Reference mark, on E. side of rd., 30 ft . S. of mail boxes, in root of $18-1 \mathrm{n}$. oypress tree; copper nail and washer
T. 26 N., R. 14 E., 400 ft. Na of W. sixteenth cor. sec. 2, 400 ft . S. of house,
 in root of $16-1 n$. Dak tree; copper nail and washer
T. 26 N., R. 14 E., about 400 ft . W. of cor. secs. $1,2,11$, and 12, in $S E$. ooncrete abutment of steel bridge; chiseled square
T. 26 N., R. 14 E., in NE昱 sec. $14,40 \mathrm{ft}$. N. and 54 ft . W. of T-rd. N., 40 ft . S. of Missouri Pacific R. R. at ra. crossing, 3 ft. NW. of telephone pale, in concrete post; standard tablet stamped "T T 7 E 1931"
Reference mark, in SE. concrete abutment of steel bridge over North Cut drainage ditch; chiseled square
(Continued in Charleston quadrangle; see line no. 2.)
2. FROM EAST BORDER OF QUADRANGLE WEST ALONG SOUTH BORDER TO CANALOU, THENCE NORTH BY WAY OF MOREHOUSE TO VANDUSER AND NORTH BORDER
(Continued from Charleston quadrangle; see line no. 2.)
Mathews, about 4.5 mi . E. of, along rd. to East Prairie, about goo ft. W. of N. oor. secs. 1 and 2, T: $24 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} .$, on S . side of rd., 60 ft . inside of fence, in root of 2Z-in. oak tree; capper nail and washer
294.62

Matthews, 3.5 ml . E. of, along rd. to East Prairie, $20 \mathrm{ft} . \mathrm{S}$. and 22 ft . E. of T-rd. N. at S . cor. secs. 34 and $35, \mathrm{~T}$. $25 \mathrm{~N} ., \mathrm{R}$. 14 E. , in conerete post; standard tablet stamped "T T 14 C 1931"
293.971

Reference mark, 30 ft. S. and 60 ft . W. of T-rd. N., in root of 24-in. willow 294.28
tree; copper nall and washer
atthews, about 2.6 ml . E. of along rd. to East Prairie, near S. cor. secs.
and $34, \mathrm{~T} .25 \mathrm{~N} ., \mathrm{R}$. 14 E. , on S. side of rd., in root of $60-\mathrm{in}$. oak tree; copper nail and washer
Matthews, about 2 mi. E. of, elong rd. to East Prairie, about 0.3 mi . E. of s . oor. secs. 32 and $33, \mathrm{~T} .25 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} .$, on S . side of rd., in root of $12-\mathrm{in}$ oak tree; copper nail and washer
Mathews, 1 mi. E. of, along rd. to East Prairie, 30 ft . S. and 45 ft . W. of U. S. Highway 61 at cross rd. $95 \mathrm{ft}$. . of filling station, in concrete post; standard tablet stamped "T T il C 1931m
Reference mark, in S. end of concrete island of filling atation; chiselod squere 310.96
Matthews, on $S$. side of street, in lower step to sidewalk, 20 ft . NE. of entrance to general store building; chiseled square
thews, 0.4 mi . W. of general store; iron pipe stamped "R 5 C 49 g (U.S. C. E.
Matthevs, 0.4 mi . W. of general store; iron pipe stamped "R 5 C 49 M (U. S. C. E.
B. M.)
Matthems, about 0.4 mi . W. of, along rd. to Canalou, in SE. abutment of bridge; ohiseled square
312.274
at thews, about 1.2 mi . W. of, along rd. to Canalou, about 0.2 mi . E. of S. oor.
secs. 35 and 36, T. 25 N., R. 13 E., in SW. abutment of bridge; chiseled aquare
291.74

Matthews, about 1.9 mi . W. of, along $r$ d. to Canalou, near s . quarter cor. sec. 35, T. $25 \mathrm{~N} .$, R. $13 \mathrm{E} ., 45 \mathrm{ft}$. S. of T-rd. N., inside of fence, in root. of $28-\mathrm{in}$. oak tree; copper nall and washer

[^3]Canalou, 3.5 mi . E. of, 2.5 mi . W. of Mathews, near cor secs. 2, 3, 34, and 35, Tps. 24 and $25 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} ., 25 \mathrm{ft}$. S. of rd., 35 ft . NE. of frame house, on fence line S., in concrete post; standard tablet stamped "T T 10 C 1931"
Canalou, about 2.4 mi . E. of, along rd. to Matheng, about 500 ft . E. of cor. secs. $3,4,33$, and 34 , Tps. 24 and $25 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E.}$, on S : side of rd., in front of house, in ront of 22-in. oak tree; copper naili and washer
Canalou, about 1.3 mi . E. of, along rd. to Matthews, near cor. secs. 4, 5, 32, 289.17 33 , Tps. 24 and $25 \mathrm{~N} ., \mathrm{R}$. $13 \mathrm{E} ., 20 \mathrm{ft}$. SW. of crossroads, in bottom of corner fence post; spike
291.75

Canalou, at N. edge of, near SW. corner of T-rd. S., 170 ft . E. of St. Louis-San Francieco R. R. at rd. crossing, in W. end of head wall of concrete culvert; ohiseled square (U. S. C. E. B. M.)
289.74

Canalou, 30 ft . N. and 30 ft . W. of first rd. croseing $N$. of St . Louis-San Francisco R. R. depot; in concrete post; standard tablet stemped T TBC 1931 "
288.633

Canalou, about 1.5 ml . N. of, along St. Louis-San Francisco R. R., in E $\frac{1}{2}$ sec. 30, T. 25 N., R. 13 E.; on W. side of track, in root of 20-in. cottonwood tree; copper nail and washer
Canalou, about 2.5 mi . N. of, alang St. Louis-San Francisco R. R., in SEt sec. 19, T. 25 N., R. 13 E., on E. side of treck; in root of 28 -in. oak tree; oopper nall and washer
Canalou, 2.8 ml . N. of, 3.7 mi . S. of Morehouse, along St. Louis-San Francisco R. R., 21 ft . S, and 45 ft . E. of R. R. at rd. crossing, in NW. corner of pield, in concrete post; standard tablet. $B$ tamped "T T 9 C 1931"
Morehouse, about 2.3 mi . S. of, along St. Louis-San Francisco R. R., in NE $\frac{1}{4}$ sec.
 root of $12-1 n$. oak tree; copper nail and viasher
294.30

Morehouse, about 1.6 mi . S. of, along St. Louis-San Francisco R. R., in $E_{2}$ sec. 7, T. 25 N., R. 13 E., on E. efde of track, at rd. crosising, on $N$. end of iron pipe culvert; painted square
295.80

Morehouse, about 1 mi. S. of, along St. Louis-San Francisco R. R., in SEl sec. 6, T. $25 \mathrm{~N} ., \mathrm{R}_{\mathrm{o}} 13 \mathrm{E}$, , 230 ft . E. of rd. crossing, on S . side of rd., in root of 26-1n. oak tree; copper nall and washer
299.51

Morehouse, near E. edge of, 51 ft . N. and 16 ft . E. of crossroads, 6 ft . S. and 16 ft. E. of Missouri Pacific R. R. at rd. crossing, 3 it. N. of crossing signal, in concrete post; standard tablet stamped "T T 1 E 1931"
302.307

Reference mark, in NE. corner of concrete base of electric warning signal; ohiseled square
Morehouse, about 0.8 mi . N. of, along St. Louis-San Francieco R. R., near cor. secs. $29,30,31$, and $32, \mathrm{~T}: 26 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E}$. , at rd. orossing, in concrete base of warning sign; chiseled square
Morehouse, about 1.8 mi . N. of, along rd: to Salcedo, near cor. secs. 19, 20; 29, and $30, \mathrm{~T} .26 \mathrm{~N}$, , R. $13 \mathrm{E} ., 30 \mathrm{ft}$. W. of T -rd . E., inside of fence, in root of 26-in. oak tree; copper nail and washer
Salcedo, 0.2 mi . E. of cor. secs. $17,18,19$, and $20, \mathrm{~T}, 26 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} ., 25 \mathrm{ft}$. S. and 78 ft . E. of crossroads, $25 \mathrm{ft}. \mathrm{S} .\mathrm{and} 13 \mathrm{ft.E}$. of St. Louis-San Francisco. R. R. at rd. crossing, in concrete post; standerd tablet stamped "T T 2 E 1931 "'
Reference mark, 30 ft . NW. of crosaroads, in root of $40-\mathrm{in}$. oak tree; copper nail and washer
Tanner, about 1 mi . S. of, along rd. to Salcedo, about 0.2 mi . E. of cor. secs. 7 , 8, 17 , and 18, T. $26 \mathrm{~N} .$, R. $13 \mathrm{E},. 20 \mathrm{ft}$. N. and 10 ft . W. of crogaroads, on W. end of iron pipe culvert; painted square
302.04

Tanner, about 0.2 mi. E. of cor gecs. 5, 6, 7, and 8, T. 26 N., R. 13 E., 160 ft . W. of crossroads, on N. side of rá., in root of 26-1n. oek tree; copper nail and washer
306.04

Tanner, 0.8 mi . N. of, in NWI sec. 5, T. $26 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E}, \mathrm{f}, \mathrm{ft}$.N . and 18 ft . E. of rd. corner W. and S., 2 ft . S. and 18 ft . E. of S. gatepost, in concrete post. standard tablet stamped "T T 18 E 1931 "
Reference mark, 25 ft . N. and 15 ft . W. of T-rd. S., in root of $26-1 \mathrm{r}$. oak tree, copper nail and washer
Tanner, abaut 1.9 mi . N. of, slong rd. to Crowder, in Eh sec. 31, T. 27 N., R. 13 E., on W. side of rd. at curve, opposite dim ford across Little River, in root of 28-in. oak tree; copper nail and washer
Crowder, about 1.3 mi . STM. of, along ra. to Tanner, in swis sec. 30, T. $27 \mathrm{~N} ., \mathrm{R}$. 13 E., on W. 日ide of rd. at curve, in root of $50-1 n$. oak tree; copper nall and washer
307.48

Orowder, about 0.7 mi. W. of, near center of No gec. $30, \mathrm{~T} .27 \mathrm{~N}, \mathrm{R}$ R. 13 E, , 21 ft . S. and 45 ft . E. of rd. fork NE., 2 ft . W. of fence, 5 ft . S. of corner post, 310.806

Vanduser, about 1.5 mi . S. of, near center sec. 19 , T. 27 N. , R. 13 E. , in fence line, in root of $36-i n$. locust trea; copper nail and washer
Vanduser, 1 mi . SW. of, near center sec. 18, T. $27 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} ., 50 \mathrm{ft} . \mathrm{S}$. and 25 ft . W. of St. Louls-San Francisco R. R. at ra. crossing, in root on N. side of large gum tree; copper nail and masher
Vanduser, 150 ft . S. of St. Louis-San Francisco R. R. depot, 21 ft . S. and 18 ft . E. of R. R. at rd. crossing, 1 ft . S. and 3 ft . W. of R. R. crossing sign, in concrete post; standard tablet stamped "T T 16 E 1931"
313.412

Reference mark, 185 ft . NE. of tablet, 75 ft . N. and 90 ft . E. of R. R. at rd. orossing, in raot on W. side of gum tree; copper nall and washer
Vanduser, about 0.9 ml . W. of, on line between secs. 7 and 18, T. 27 N., R. 13 E., 90 ft . N. of Thrd. S., in root of 24-in. oak tree; copper nail and washer 314.57
.Vanduser, about 1.3 mi . W. of, near S. cor secs. 7 and 12, T. 27 N. , Rs. 12 and 13 E., in NE. concrete wing wail of wooden bridge over Caney Creek; chiseled equare
312.60
3. FHOM POINT NEAR CENTER OF BAST BORDER OF QUADRANGLE WEST BY WAY OF SIKESTON TO SALCEDO

Sikeston, about 4.1 mi . NE. of, along J. S. Highway 60 , near line between secs. 14, and 15, T. 26 N., R. 14 E. , in N. end of E. abutment of concrete bridge; chiseled square
Miner, in village of, 30 ft. N. and 24 ft . W. of crossroads at cor. secs. 15, 16, ${ }^{310.49}$
and 2h, T. 26 N ., R. $14 \mathrm{E} ., 51 \mathrm{ft}$. S. and 24 ft . W. of Missouri Pacific R. R. at rd. crossing; in concrete post; standard tablet stamped "T T 6 E. 1931" 309.669
Sikeston, about 1.9 mi . NE. of, along U. S. Highway 60 , in NE $\frac{1}{2}$ sec. $20, \mathrm{~T} .26 \mathrm{~N} .$, R. $14 \mathrm{E} .$, in $\mathrm{N}_{\text {. end }}$ of E . abutment of concrete bridge; chiseled square

Sikeston, at E. limits of city, 2 ft . N. and 1 ft . E. of NE . corner of red brick building of Missouri State Highway Department, in concrete post; standard tablet stamped "T T 5 E 1931"
gikeston, at W. side of entrance to city hall; 1 ft . N. of W. banister of steps, in concrete sidewalk; standard tablet stamped "T T 4 E 1931"'
sikeston, at N. limits of, at end of pavement, in E. concrete curb; chiseled square
Sikeston, about 0.6 mi . N. of, at jog in old U. S. Highway 61, 100 ft . S. and 23 ft. W. of T-rd. S., 35 ft . SE. of S. corner of service station, 25 ft . N. of mail boxes, in $S$. corner of concrete base of gasoline pump; chiseled square
Sikeston, about 1 mi . N. of, along St. Louis-San Francisco R. R., on Matthews' farm, 39.5 meters ( 130 ft .) W. of W. rail at rd. crossing, 13.9 meters ( 46 ft .) N. of rd.., 5.9 meters ( $19 \mathrm{ft}$. ) N. of wire fence, buried 18 in. below surface, in concrete post; standard U. S. C. \& G. S. triangulation station tablet stamped
328.367 "Sikeston"
Reference mark no. 1, SE. of station, in corner of field, 14 meters ( 46 ft. ) W. of oattle guard on R. R. track, in concrete post; standard U. S. C. \& G. S. reference mark tablet
Sikeston, about $1 \mathrm{mi} . \mathrm{N}$. and 1 mi . W. of, along rd. to Salcedo, about 800 ft . E. of cor. secs. 13, 14, 23, and 24, T. 26 N., R. 13 E. , on S. side of rd., in front yard of house, in root of 28-in. oak tree; copper nail and washer.
sikeston, about 1 ml . N. and 2 ml . W. of, along rd . to Salcedo, near cor. secs. 14, 15,22 , and 23 , T. $26 \mathrm{~N} .$, R. $13 \mathrm{E.}$,15 ft . S. and 15 ft . W. of crossroads, on concrete base of corner fence post; painted circle

304.09
T. 26 N., R. 13 E., secs. $15,16,21$, and $22,54 \mathrm{ft}$. N. and 63 ft . W.o of T-rd. N. at cor. of, $1 \mathrm{ft}, \mathrm{S}$. and 2 ft . E. of SE . corner of church, in concrete post; standard tablet stamped "T T 3 E. 1931"
Reference mark, in 'SW. corner of schoolyard, in concrete platform; chiseled square
Salcedo, about 1 mi . E. of, along ra. to Sikeston, 50 ft . W. of cor. secs. 16, 17, 20, and 21, T. $26 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} .$, in N . end of F . abutment of wooden bridge; chiseled square
4. FROM NORTH BORDER OF QUADRANGLE SOUTH ALONG U. S. HIGHWAY 6l, BY WAY OF SIKESTON, TO POINT NEAR MATTHEWS (by L. V. Johnson in 1931)
(Continued from Morley quadrangle; see line no. 10.)
T. 27 N., R. 13 E., near quarter cor. between secs. 11 and $14,30 \mathrm{ft}$. S. and 45 ft . W. of U. S. Highway 61 at cross rd., 4 ft . S. and 2 ft . E. of fence corner, in concrete post; standard tablet stamped "T T 14 E 1931"
Reference mark, at SW. corner of crossroads, in head wall of concrete culvert; ohiseled square
T. 27 N., R. 13 E. , on 11 ne between secs. 14 and 23 , along U . S. Highway 61 , about 33.67 0.3 ml . N. of cross rd.; 22 ft . W. of highway, in head wall of concrete culvert; chiseled square
 store and service station, 260 ft . N. and 22 ft . W. of dim cross rd., in W. head wall of concrete culvert; chiseled square
334.88

Sikeston, 5.7 mi . N. of, along U. S. Highway $61,250 \mathrm{ft}$. S. and 22 ft . W. of highway in front of Kindered's store and service station, 33 ft . N. and 22 ft . W. of T-rd. E. to farmhouse, in N. head wall of concrete culvert; chiseled square 334.81
Sikeston, 5.3 ml . N. of, along U. S. Highway 61, about 0.5 mi . S. of Kindered'a store and service station, $15 \mathrm{ft} . \mathrm{N}$. and 33 ft . E. of cross rd., in head wall of concrete culvert; chiseled square
Sikeston, 4 mi . N. of, along J. S. Highway $61,0.8 \mathrm{mi}$. N. of Hunter school, 85 ft . N. and 110 ft . W. of rd. fork N., 3 ft . NW. of telephone pole, in concrete post; standard tablet stamped "T T 15 E 1931"
Reference mark, 80 ft . SE . of tablet, at NE. corner of rd. forks, in head wall of concrete culvert; chiseled square
335.337
or concrete culvert; chiseled square . Highway 61, in swis sec. 1, T. 26 N .334 .82
, at slight curve in highway, about 0.3 mi . S. of Hunter School, near NE. corner of farmyard, 13 ft . S. and 22 ft . W. of cross rd., in S . head wall of concrete oulvert; chiseled square
330.24

Sikeston, 2.2 mi . N. of, along U. S. Highway 61 , near center gec. 12, T. 26 N., R. 13 E., about 1 mi . S. of Hunter School, 440 ft . N. of rd. E. to old highway and private rd. W., 22 It. $\mathbb{T}$. of highway, in head wall of concrete culvert; chiseled square
332.20
gikeston, 1.5 mi . N. of, along U. S. Highway 61 , in NEt seo. 13, T. 26 N., R. 13 E., about 300 ft . E. of aeroplane hangar, about 60 ft . E. of highay, 30 ft . W. of old highway, in S. side of concrete base of N. Iron gate post; chiseled square 328.83
Sikeston, 0.9 mi . S. of, along old $0 . \mathrm{S}$. Highway $61,25 \mathrm{ft}$. W: of highway, at NE. corner of Memorial Cemetery, in oonorete base of red brick corner post; ohiseled square
sikestion, 1.1 mi . 8. of, along U. S. Highway 61, NE. of junction of paved rd. No, 6 ft . W. of signboard, in N. head wall of concrete culvert; chiseled square 326.40
sikestion, about 1.8 mi . S. of, along U. S. FMghway 61, about 0.6 mil . N. of Fairvier School, near group of aignboards on E. side of highmay, $10 \mathrm{ft} . \mathrm{g}$. and 35 ft . E. of private rd. E. to farmhouse, in brace at STF. corner of large wooden culvert; oopper nall and washer
sikeston, 2.1 mi . S. of, 0.2 ml . N. of Fairvie⿴ School, 15 ft . g. and 50 ft . W. of m . 5
U. S. Highway 61 at ra. W., in conorete post; standard tablet atamped nT is 13 - 1931"

Reference mark, 6 ft . E. of tablet, in concrete highway marker; chiseled square
322.62

Sikeston, 3.3 mi . S. of, along U. S. Highway 61, about 500 ft . NW. of laree barn on Rawleigh Jersey Farm, 15 ft . N. and 15 ft . E. of T-rd. E., in E. head wall of concrete culvert; chiseled square
319.47

Sikeston, 4.2 mi . S. of, along U. S. Highway $61,35 \mathrm{ft} . \mathrm{N}$. and 60 ft . E. of Tra. E., in root on NE, side of 20-in. sweet gum tree; nail and washer 317.68

Sikeston, 4.8 mi . S. of, along U. S. Highway 61 , about 0.2 mi . S. of large silo, 18 ft . S. and 35 ft . W. of T-rd. W., in root on E. side of sycamore tree; copper nail and washer
Sikeston, 5.1 mi . S. of, in SW. cor. sec. $17, \mathrm{~T} .25 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 35 \mathrm{ft}$. N. and 50 ft. W. of U. S. Highway 61 at private rd., in $S W$. corner of field, in concrete post; standard tablet stamped "T T 12 C 1931"
317.318
sikeston, 6.2 mi . S. of, at slight turn in U. S. Highway 61, on line between secs. 20 end 29, T. 25 N., R. 14 E., 20 ft . N. and 12 ft . E. of cross rd., in E. head well of concrete culvert; chiseled square
Sikeston, 7.2 mi . S. of, along U. S. Highway 61, about l mi. E. and 1 mi . N. of Matthews, about 0.5 mi . Si of Conway School, 10 ft . S. and 40 ft . W. of T-rd. W., in wooden brace at SW: corner of wooden culvert; copper nall and washer
5. FROM WEST BORDER IN NORTHWEST CORNER OF QUADRANGLE EAST ALONG ST. LQUIS-SAN FRANCISCO R. R. TO POINT ABOU'I TWC MALES WEST GFi VANDOSER (by E. W. Gouchenour in 1931)
(Continued from Bloomfield quadrangle; see line no. 2.)
Himmel, $1 \mathrm{mi}$. E. of, along St. Louis-San Francieco R. R., 75 ft . S. and 280 ft . E. of center line of drainage ditch, in root on NW. eide of gum tree; copper nail and washer
309.53

Vanduser, 2 mi . W. of, along St. Louis-San Francisco R. R., about 600 ft . E. of Stoddard-Scott county line, 85 ft . N. of rd. crossing, in root on SE. side of black gum tree; copper nail and washer
6. FROM WEST BORDER OF QUADRANGLE EAST ALONG U. S. HIGHWAY 60 TO MORE:HOUSE (by E. W. Gouchenour and L. V. Johnson in 1931)
(Oontinued from Bloomfield quadrangle; see line no. 8.)
Buffington, about 200 ft . SE: of Misaouri Pacific R. R. station, on N. side of U. S. Hi ghway 60 , in N. head wall of concrete culvert; chiseled square

Morehouse, 2 mi . W. of, along U. S. Highway 60, on. W. bank of Little River drainage ditch, 35 meters ( 115 ft. ) S . of pavement W. of bridge, in concrete post; standard U.S. C. \& G. S. triangulation station tablet stamped "Ditah"
Reference mark no. 1, 32.5 meters ( 107 ft. ) from station in azimuth $185^{\circ}$, in SW . corner of W. approach abutment of bridge; standard U. S. C. \& G. S. reference mark tablet
Morehouse, $1.6 \mathrm{mi} . W$. of along $U$. $S$. Highway 60 , in $N$ end of W. abutment of conce 277 bridge over drainage ditch no. 37; chiseled cross (Little River Drainage Commission B. M.)
301.19

For additional level lines along Missouri Pacdfic.R. R. and St. Louis-San Francisco R. R., refer to United States Coast and Geodetic Survey second-order lines; Sikeston to Poplar Bluff, Sikeston to Lilbourn, and Delta to Sikeston.

MORLEY QUADRANGLE<br>(Latitude $37^{\circ}-37^{\circ} 15^{\prime}$; longitude $89^{\circ} 30^{\prime}-89^{\circ} 45^{\prime \prime}$ ).

Cape Girardeau, Scott, and Stoddard Counties


1. IN NORTHWEST CORNER OF QUADRANGLE, NORTHEAST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO NORTH BORDER (by E. C. Bibbee in 1914) (Continued from Advance quadrangle; see line no. 1.)
Delta, 0.9 ml . SW. of, along St. Louis-San Francisco R. R., in NW. corner of Feet retaining wail, at E. end of R. R. bridge over Whitewater River; ohiseled square
347.00

Delta, 260 ft . E. of St. Louis-San Francisoo R. R. and Misaouri Pacific R. R. crossing, 200 ft . NE. of R. R. station, 30 ft . N. of track, 90 ft . S. of State Highway 25; iron post stamped "Prim Trav Sta No 4 F 1924 Mo 337 "
Delta, 0.7 mi. NE. of, along St. Louis-San Francisco R. R., at E. end of R. R.
trestle no. A-145.3, in W. end of first tie; spike
336.584
337.19

Sharpsboro, 600 ft . NE. of, 60 ft . S. of St. Louis-San Francisco R. R., 30 ft . W. of State Highway 25, in front of house; iron post stamped "Prim Trav Sta No 3 F 1924 MO $333^{\prime \prime}$
Blomeyer, 2 mi . SW. of, along St. Louis-San Francisco R. R., in base of signpost marked "Sta. l mile"; spike
Blomeyer, 0.8 mi . SW. of, along St. Louis-San Francisco R. R., in base of fifth telegraph pole $E_{\text {, of signpost marked "Sta. I mile"; spike }}$
Blomeyer, 300 ft . NE. of, 50 ft . N. of St. Louis-San Francisco R. R., 20 ft . S. of State Highway 25 , 20 ft. W. of rd.; iron post stamped "Prim Trav Sta No 2 F . 1924 Mo 337 "
Blomeyer, 1.1 mi . NE. of, along St. Louis-San Francisco R. R., in base of third
telegraph pole $E$. of signpost marked "Sta. 1 mile"; spike
Nash, 0.8 mi. SW. of, along St. Louis-San Francisco R. R., 60 ft. N. of track, 50 ft . W. of rd. crossing, in root of sweet gum tree; copper nail
Nash, 70 ft . E. of St. Louis-San Francisco R. R. station, 70 ft . S. of track, on
W. side of. rd.; iron post stamped "Prim Trav Sta No 1 F 1924 Mo 334 m

Nash, 1.2 ml . NE. of, along St. Louis-San Francisco R. R., 300 ft . W. of milepost
$138,4 \mathrm{ft}$. S. of R. R. right-of-way, in root of large eim tree; copper nail 334.20
Nash, 1.6 mi . NE. of, along St. Louls-San Francisco R. R., 100 ft . N. of R. R., 25 ft. N. of private rd. along S. side of field; iron post stamped "Prim Trav. Sta No $131920^{\circ}$ Mo $337{ }^{\prime \prime}$
(Continued in Cape Girardeau quadrangle; see line no. 1.)
2. FROM NORTH BORDER OF QUADRANGLE SOUTH TO BLOMEYER (by S. R Archer in 1920)

Bloneyer, about 1.5 mi . N. of, 300 ft . N. of levee, on E . gide of rd. in driveway to house, 20 ft . E. of SW . corner of front yard, in root on $W$. side of $36-1 \mathrm{n}$. elm tree; copper nail and washer
Blomeyer, about 0.7 ml . N. of, in $\mathrm{NE}_{4}^{1} \mathrm{sec} .36$, T. $30 \mathrm{~N} .$, R. 12 E., at main span of bridge over drainage ditch, in top of $W$. end of bridge seat; chiseled square 350.47
3. FROM POINT NEAR CENTER OF WEST HALF OF SOUTH BOHDER OF QUADRANGLE NORTHEAST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO MORLEY, THENCE NORTH BY HOAD TO BENTON, CHAFFFE, AND BLOMEYER, THENCE 'SOUTHWEST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO DELI'A (by E. W. Gouchenour in 1931)

Vanduser, 1.1 mi . NE. of, on center of St. Louis-San Francisco R. R. trestle no. E-162.0; painted bolt head $\qquad$
Vanduser, 2 mi . NE. of, along. St. Louis-San Francieco R. R., 25 ft . S. and 90 ft . E. of rd. crosaing, in. root on $N$. side of gum tree; copper nail and washer 318.32
Brooks Junction, 0.5 mi . SW. of, along St. Louis-San Francisco R. R., 10 ft . S. and 90 ft . E. of ra. crossing, in fence line, in root of small tree; copper nail and washer
Brooks Junction, $10 \mathrm{ft} . \mathrm{S}$. and 65 ft . W. of crossing of two St. Louis-San Franoisco R. R. lines, 6 ft . N . of crossing sign, in concrete post, standard tablet

Reference mark, near SW, corner of R. R. crossing, in SE. corner of concrete base of ladder to signal; chiseled square
Morley, l mi. SW. of, along St. Louis-San Francisco R. R., 130 ft . N. and 70 ft . E. .
Morley, at $S$. 11 mitg of, 0.3 mi . W. of schoolhouse, 27 ft . S. and 39 ft . E. of St. Louls-San Francisco R. R. at rd. crossing, 10 ft . NE of corner post, 2 ft . from fence, in concrete post; standard tablet stamped "T T 13 E 1931"
Reference mark, $160 \mathrm{ft} . \mathrm{S}$. and 60 ft . W . of tablet, in root on N . side of wild cherry tree; copper nail and washer
Morley, at public school, at $W$. side of front entrance, in bottom concrete step; ohiseled square.
Morley, 1 ml . NW. of, 10 ft . N. and 40 ft . E. of. rd. fork N., in SW. wing wall of concrete culvert; chiseled square
343.201

Morley, 1.5 mi . N. of, at point where old Benton-Morley road joins U. S. Hi ahe
61, in N. head wall of concrete culvert; chiseled square

1. 28 N., R. 13 E., near SE. cor. sec. $22,40 \mathrm{ft}$. N. and 40 ft . W. of U. S. Highway 61 at private $r$ d. N., 10 ft . $\mathrm{S}_{\mathrm{A}}$.and 4 ft . W. of fence corner, in concrete post; standard tablet stamped "T T 35 E 1931"'
Reference mark, along U. S. HIghway 61, in g. head wall of concrete culvert; chiseled square
Benton, about 2 mi. SW. of, along U. S. Highway 61 , near center sec. 23, T. 28 N. R. $13 \mathrm{E} ., 100 \mathrm{ft}$. S. and 200 ft . W. of rd. fork N., in N. bead wall of concrete culvert; chiseled square
Benton, 0.9 mi . SW. of, along $\mathrm{J} . \mathrm{S}$. Hignway $61,55 \mathrm{ft} . \mathrm{S}$. and 18 ft . W. of rd. fork. S. in $S$. end of concrete culvert; chiseled square
Benton, at $S$. entrance to courthouse, in SE. balustrade of steps; standard tablé stamped "T T 36 E 1931"
Reference mark, in W. balustrade of steps; chiseled square
Benton, 0.5 mi . W. of, along rd. to New Hamburg, 50 ft . S. and 25 ft . W. of rd. fork S., in root on E. side of twin oak tree; copper nail and wesher 4
Benton, limi. W. of, along rd. to New Hamburg, 25 f.t. N. of rd. fork SW. to Oran, in root on W. side of stump; copper nail and washer

New Hamburg, 1 mi . S. of, along rd. to Benton, 290 ft . N. of rd. fork S., on E . end of iron pipe culvert; painted square

New Hambure, $25 \mathrm{ft} . \mathrm{S}$. and 18 ft . W. of entrance to St. Lawrence School, 63 ft . N. and 21 ft . E. of crossroads, 2 ft . E. of edge of sidewalk, in concrete post; standard tablet stamped "T T 37 E 1931"
Reference mark, 50 ft . S. of tablet, in S . end of concrete curb; chiseled square about $300 \mathrm{ft} . \mathrm{S}$. of junction with private rd. W., in fence ine on W. side of rd., in root on $N$. side of large walnut tree; copper nall and wasner
372.33

New Hamburg, 1.6 mi . NW. of, ibout 0.25 mi . S. of NE. cor. sec. 33, T. 29 N. , R. $13 \mathrm{E} ., 35 \mathrm{ft} . \mathrm{S}$. of T-rd. E., on W. end of iron pipe culvert; painted square
New Hambure, about 2.2 ml . NW. of, in swe seo. $28, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} ., \mathrm{about} 600 \mathrm{ft}$. W. of rd. corner, on top of hill, about 100 ft . S. of junction with private rd., in pasture, in root of tree; copper nail and washer
T. 29 N., R. 13 E., near quarter cor. between secs. 28 and 29, 27 ft . E. and 20 ft . S. of rd. fork W., 2 ft . W. of fence $\mathrm{N}_{\mathrm{H}}$. in concrete post; standard tablet stamped "T T 38 E 1951"
Chaffee, $2 \mathrm{ml} . \mathrm{SE}$. of, in $\mathrm{E}_{\mathrm{L}} . \sec .20, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} ., 20 \mathrm{ft} . \mathrm{W}$. of dim rd. fork SW., in root on E. side of $20-1 n$. oak tree; copper nall and washer
Chaffee, about limi. SE. of, on top of ridge, 40 ft . W. of dim. T-rd. SW., in root on E. side of black oak tree; copper nail and washer
Chaffee, in SE. edge of, $10 \mathrm{ft} . \mathrm{N}$. and 40 ft . E. of T-rd. E., in N . end of W. concrete abutment of wooden bridge over ditch; chiseled square
Chaffee, 48 ft . S. and 114 ft . E. of SE. corner of St. Louis-San Francisco R. 65 ft . E. and 27 ft . N. of R. R. at E.W. rd. crossing, 4 ft . N. of curb, 10 ft. W. of pole, in concrete post; standard tablet stamped "T T 39 E 1931"
Reference mark, 10 ft . E. of tablet, $N$. curb of street, at foot of telephone pole
Chaffee, at St. Louis-San Francisco R. R. station, in front of ticket agent's window, main track of R. R.; top of W. rail
Chaffee, 1.3 mi . N. of St. Louis-San Francisco R. R. station, on W. side of rd., in field, in root on E. side of gum tree; copper nail
345.74
T. $29 \mathrm{~N} ., \mathrm{R}_{\mathrm{L}} 13 \mathrm{E}$. , near center of $\mathbb{S}_{2}^{2} \mathrm{sec} .5,16 \mathrm{ft} . \mathrm{N}$. and 80 ft . W. of St. Louism San Francisco R. R. at rd. crossing, 24 ft . E. and 24 ft . N. of rd. corner S . and E.., in concrete post; standerd tablet stamped "T T 40 E 1931 "
329.197

Reference mark, $30 \mathrm{ft} . \mathrm{S}$. and 45 ft . W. of crossing, in S . end of iron pipe culvert; painted square
Frisco Junction, 1 mi . NE. of, along St. Loilis-San Francisco R. R., 20 ft. S. and 40 ft . W. of rd crossing, on S . end of 1 ron pipe culvert; painted square
Blomeyer, $0.3 \mathrm{mi} . \mathrm{S}$. of, along State Highway 55 , 20 ft . N. and 45 ft . E. of rd. fork E., in N. head wall of concrete culvert; chiseled square
Blomeyer, 300 ft . NE. of, 50 ft . N. of St. Louls-San Francisco R. R., 20 ft . S. State Higbway $25,20 \mathrm{ft}$. W. of rd.; iron post stamped "Prim Trav Sta No 2 F 1924 Mo $337{ }^{\prime \prime}$
Blomeyer, about 1 mi . SW. of, along St. Louis-San Francisco R. R., in NW务 sec. $l_{3}$ T. 29 N., R. 12 E., 40 ft . N. and 10 ft . E. of T-rd. N., in E. head wall of concrete culvert; chiseled square

Illmo, 48 ft . W. of W. end of R. R. station, $20 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. of rd. crossing of main line tracks, 30 ft . SE . of SE . corner of old yard office building, on fire hydrant; top of bolt
Illmo, at SW. corner of Second and Cherry streets, 1 ft . NE. of telephone pole, in top of concrete curb; chiseled square
Illmo, about 0.5 mi . S. of, along rd. to Commerce, $165 \mathrm{ft} . \mathrm{N}$. and 39 ft . E. of T-rd. W., $18 \mathrm{ft} . \mathrm{S}$. and 2 ft . W. of fence corner, in concrete post; standard tablet stamped "T T 33 E 1931"
432.475

Reference mark, at NW. corner of T-rd. W., in head wall of concrete culvert;
423.92

## (For balance in Thebes quadrangle, see line no. 6.)

Tllmo, 2 mi. S. of, about $1,000 \mathrm{ft}$. N. of cor. secs. 9, 10,15 , and $16, \mathrm{~T} .29 \mathrm{~N}$, R. 14 E : , top of piling of retaining wall at SE. corner of wooden oulvert; copper nail and washer
Illmo, 3 mí1. S. of, about 0.3 mi . N. of cor. secs. 15, 16,21 , and 22, T. 29 N. , R. $14 \mathrm{E} .$, in bottom land, on E. side of rd., in root of 24-in. tree; copper

## nail and washer

 E. of SE. corner of yard, in concrete post; standard tablet stamped "T T 32 E 1931".
461.525
T. 29 N., R. 14 E., 150 ft . E. of cor. secs. $27,28,33$, and 34, 5 mi . S. of Illmoy on S. side of rd., in root of 14-1n. Willow tree; copper nall and washer 410.05
T. 29 N., R. $1.4 \mathrm{E} .$, near center of $\mathrm{W}_{2}^{1} \mathrm{sec} .34,15 \mathrm{ft}$. S. and 12 ft . E . of rd. fork NW., 9 ft . N. and 15 ft . E. of telephone pole, 1 ft . S. of fence, in concrete post; standard tablet stamped "T T 31 E. 1931"
Reference mark, 150 ft . SW. of rd. fork NW., in top of head wall of concrete culvert; chiseled square
T. $28 \mathrm{Ni}, \mathrm{R}$. $14 \mathrm{E} .$, near quarter cor. between secs. 3 and $4,6.8 \mathrm{mi}$. S. of Illmo, 150 ft . E. of house, on $S$. side of rd., in root of $36-1 \mathrm{n}$. oak tree; copper nail and washer
T. $28 \mathrm{~N} .$, R. $14 \mathrm{E} .$, secs. 9 and $10,25 \mathrm{ft}$. S. and 27 ft . E. of crossroads at quarter cor. between, 25 ft . N. end 24 ft . W. of NW. corner of Westmoreland Church, in concrete post; standard tablet gtamped "T T 30 E 1931"
Reference mark, $65 \mathrm{ft}^{2} \mathrm{SW}$. of SW . corner of Westmoreland Church, in root of 14 in. oak tree; copper nall and washer
T. 28 N., R. 14 E., near quarter cor. between secs. 15 and 16 , about 6 mi . SW. of commerce, on W. side of rd. opposite house, in root of l4-in. catalpa tree; copper nail and washer
T. 28 N., R. 14 E., cor: secs. 15, 16, 21 , and 22, about 7 mi. SW. of Commerce, on E. side of rd. at T-rd. E., 140 ft . N. of house, in root of $26-\mathrm{in}$. oak tree; copper nail and washer
328.62
T. 28 N., R. 14 E., 450 ft . S. of cor. secs. $21,22,27$, and $28,49 \mathrm{ft}$. N. end 10 ft . E. of State Highway 55 at N.-S. cross rd., 5 ft . N. and 1 ft . W. of fence corner, in concrete post; standard tablet stamped "T T 29 E 1931"
Reference mark, at NW. corner of crossroads, in root of $22-1 \mathrm{n}$. oak tree; copper nail and washer
root of 24-1n. oak tree; copper nall and washer
T. 28 N., R. 14 E., near S. cor. secs. 33 and $34,30 \mathrm{ft}$. NW. of T-rd. N., in root of 36-in. oak tree; copper nail and washer

1. $27 \mathrm{~N} .$, R. 14 E., about 0.4 mi . W. of N. cor. secs. 2 and $3,21 \mathrm{ft}$. S. and 36 ft E. of rd. fork SE., $2 \mathrm{ft} . \mathrm{N}$. and 10 ft . E. of fence corner, in concrete post; standerd tablet stamped "T T 28 E 193l"
Reference mark, in SE. corner of farmyard, in root of $9-1 n$. redbud tree; copper nail and washer
 at curve, in root of $40-1 n$. oak tree; copper nail and washer
Blodgett, in N. limits of, on E. side of rd., 30 ft . SE. of rd. fork NE., in root of $38-i n$. oak tree; copper nail and washer
327.04

Blodgett, 140 ft . W. of Missouri Pacific R. R. depot, 56 ft . S. of main track at. rd. crossing, 1 ft . N. of N. boundary of park, 6 ft . E. of E. edge of sidewalk, in concrete post; standard tablet stamped "T T 11 E 1931"
Reference mark, 100 ft . NW. of crossroads, in SW . corner of concrete watering trough; chiseled square
Blodgett, about 0.8 mi. W. of, about 0.1 mi . W. of cor. secs. 3, 4, 9, and 10 , T. 27 N., R. 14 E., on $N$. side of rd., in root of $30-i n$. oak tree; copper
nall and washer
Blodgett, 1.8 mi. W, near cor. secs. $4,5,8$, and 9, T. 27 N., R. 14 E., in
Blodgett, 2.8 mi . W. of, near cor. secs. 5, 6,7 , and 8, T. 27 N., R. 14 E., on N. side of rd., opposite house, in root of $22-i n$. hickory tree; copper nail and washer
Ward School, 210 ft . S. and 25 ft . W. of T-rd. W. at quarter cor. between secs. 5 and 6, T. 27 N., R. 14 E., 1 ft . N : and 8 ft . W. of post at SE. corner of schoolyard, in concrete post; stendard tablet stamped "T T $12 \mathrm{E} \mathrm{1931"}$
328.945

Reference mark, 50 ft . S . of SE . corner of school, in root of 24-in. oak tree; oopper nail and washer
Morley, about 1.3 mi . E. and 1.5 mi . S. of, in NWI sec. 6, T. $27 \mathrm{~N} ., \mathrm{R}$. $14 \mathrm{E} . \mathrm{g}$ in NE. Wing wall of steel bridge over drainage ditch; bolt
327.23
322.
600
ft. E. of rd. corner, on $N$ : side of rd., in front of house, in root of 40-in. oak tree; copper nail and washer
341.78

Morley, about 0.7 mi . E. of, about 0.2 mi . W. of N . cor. secs. 1 and $6, \mathrm{~T} .27 \mathrm{~N} . \mathrm{m}^{\mathrm{m}}$ Rs. 13 and $14 \mathrm{E} ., 260 \mathrm{ft}$. W. of rd. corner, on $\mathrm{N} . \operatorname{side}$ of rd. in front of house, in root of $45-1 n$. oak tree; copper nail and washer
5. FROM EAST BORDER OF QUADRANGLE WEST BY WAY OF NEW HAMEURG AND CANEY CREEK TO WEST BORDER
T. 28 N., R. 14 E., in $N W^{2}$ sec. $4,57 \mathrm{ft}$. NE. of rd. fork N., in root of $36-\mathrm{in}$. oak tree; copper nall and washer
T. 28 N., R. 14 E., in'NW $\frac{1}{4} \mathrm{sec} .5,1,400 \mathrm{ft}$. W. of Joe H. Legrand 's farmhouse, 15 ft . N. and 9 ft . E. of junction of dim rd. N., 2 ft . S. and 35 ft . E. of fence corner, in concrete post; standard tablet stamped "T T 41 E 1931"
416.322
T. 28 N., R. 14 E., 1 , $n$ NWh gec. 6 , about 800 ft . E. of U. S. Highway 61 , near SE. corner of wooden bridge, in root of 28-in. sycamore tree; copper nail and washer
Tps. 28 and $29 \mathrm{~N} .$, Rs. 13 and $14 \mathrm{E},$. about 750 ft . E. of cor. of, NW. of U. S. Highway 61 at cross rd.; in top of head wali of concrete culvert; chiseled square 438.68
Tps. 28 and 29 N., R. 13 E., near quarter cor. between gecs. 1 and 36 , in top of SE. abutment of steel bridge; chiseled square
Tps. 28 and 29 N., R. 13 E., about 0.25 ml . W. of cor. secs. $1,2,35$, and 36 , 15 ft. S. and 35 ft . E. of T~rd. S., in root of 34-in. oak tree; copper nail and washer
441.87

Tps. 28 and $29 \mathrm{~N} .$, R. $13 \mathrm{E} .$, about 900 ft . E. of quarter cor. between secs. 4 and 33 , in NE. concrete abutment of steel bridge; chiseled square
T. 29 N., R. 13 E., near S. sixteenth cor. betmeen secs. 32 and $33,60 \mathrm{ft}$. W. of dim rd. fork N., on N. side of rd., in root of Il-in. elm tree; copper nail and washer
444.72
T. $29 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} .$, near center sec. $32,33 \mathrm{ft}$. E. of old T-rd. S., 7 ft . N. and $27 \mathrm{ft} . \mathrm{E}$. of center of gate, in ooncrete post; standard tablet stamped "T T 42 E 1931"
432.748

Reference mark, 45 ft . E. and 20 ft . N. of abandoned T-rd. S., in root of $18-1 \mathrm{n}$. hickory tree; copper nail and washer
T. 29 N., R. 13 E., near quarter cor. between secs. 31 and 32, in SE. retaining wall of wooden bridge; copper nail and wesher
T. 29 N., R. $12 \mathrm{E} \cdot$, in NEt sec. 36 , about 650 ft. N. of T-rd. E., in SE. concrete abutment of steel bridge; chiseled square. $\quad 344.29$
T. 29 N., R. 12 E., in SEt sec. 36 ; about 0.5 mi . E. of Caney Creok, 50 ft . W. of rd. forks, near St. Louis-San Francisco R. R. at rd. crossing, on S. side of rd., on iron pipe culvert; painted square
Oaney Creek, at village of, in SEt. sec. 35 , T. 29 N., R. 12 E., $10 \mathrm{ft}$. . and 63 ft. E. of Missouri Pacific R. R. at rd. crossing, on S. side of rd.; 6 ft . NE. of telephone pole, in concrete post; standard tablet stamped "T T 43 E 1931"
Reference mark, on $N$. side of rd., 12 ft . N. of fence corner, in root of 14-in. maple tree; copper nall and washer

Caney Creek, about 0.2 ml . S. and 0.5 mi . W. of, near N , quarter cor. sec. 2, T. 28 N., R. 12 E., $12 \mathrm{ft} . \mathrm{S}$. and 15 ft . W. of T-rd. S., on W. side of rd., on iron pipe culvert; painted equare
Caney Creek, about 0.8 mín. W. and 1.1 mi . S. of, about 0.2 mi . S. of quarter cor. between secs: 2 and $3, T .28 \mathrm{~N} ., \mathrm{R} .12 \mathrm{E} ., 150 \mathrm{ft}$. E. of rd. corner, in field, in root of $24-1 n$. pecan tree; copper nail and washer
328.52

Caney Creek, about 0.8 mi . W. and 1.8 mi . S. of, near quarter cor, between secs. 10 and $11, T .28 \mathrm{~N} ., \mathrm{R}$. I2 E.e. at NE. corner of wooden bridge; bolt 321.95
T. 28 N., R. 12 E., near cor. secs. $10,11,14$, and 15 , on SW . corner of bridge; 323.20
T. 28 N., R. 12 E., about 0.2 mi . S. of c̣or. secs. $10,11,14$, and $15,27 \mathrm{ft}$. S. and 2 ft . E. of rd. corner N . and E., 6 ft . S. and 2 ft . W. of fence corner, in concrete post; standard tatilet stamped "T T 44 E 1931"
T. 28 N., R. $12 \mathrm{E}_{\mathrm{H}}$, in SE $\frac{1}{4}$ sec. 9, along Oran-Perkins road, in top, at NE. corner of W. concrete abutment of bridge over drainage ditch no. 1; crosscuit (Little River Drainage Cominission B. M.)
324.28

Perkins, 2 ml . E. of; along Oran-Perking road, near cor. secs. 8, 9, 16, and 17, T. 28 N., R. 12 E., 40 ft . N. and 45 ft . E. of crossroads, in root on S. side of 18-in. elm tree; copper nail and washer
321.16
(Continued in Advance quadrangle; see line no. 9.)
6. FROM CENTER OF WEST HALF OF SOUTH BOMDER OF QUADRANGLE NOFTH TO FOINT 2 MILES WEST OF ORAN
(Continued from Sikeston quadrangle; see line no. 2.)
Vanduser, about 1.3 mi . W. and 1 mi . N. of, near E. cor. secs. 1 and $12, \mathrm{~T} .27 \mathrm{~N} .$, R. 12 E., 125 ft . W. of crossroads, in root of 24-in. elm tree; copper nail and washer
Vanduser, about 1.3 mi . W. and 1.5 mi . N. of, near W. quarter cor. sec. 6, T. 27 N., R. $13 \mathrm{E} .$, on E. side of rd., in fence line, in root of 12-1n. catalpa tree; oopper nail and washer
T. 27 N., R. 13 E., in NW $\frac{1}{4}$ sec. $6,14 \mathrm{ft}$. S, and 48 ft . E. of rd. forks, $2 \mathrm{ft} . \mathrm{SE} 2.34$ of corner post, in field, in concrete post; standard tatlet stamped "T $T 25$ E1931"
Reference mark, 50 ft . W. of small wooden bridge at rd. corner, in root on $N$. side of 24-in. oak tree; copper nail and washer
T. 28 N., R. 12 E., near S: cor. secs. 33 and 34 , about 1.8 mi . W. and 3 mi . N. of Vanduser, on lower step to Hooe School; chiseled square and 34, about 319.14
T. $28 \mathrm{~N} .$, R. 12 E., about 0.3 ml . E. of cor. secs. $27,28,33$, and 34 , about 1.7 mi. W. and 4 mi . N. of Vanduser, about 50 it . NE. of crossroads, at fence corner, in root of 6-in. oak tree; copper nail and washer
316.03
T. 28 N., R. 12 E., near quarter cor. between secs. 22 and $27,5 \mathrm{ft} . \mathrm{N}$. and 20 ft . E. of T-rd. W., 1 fit. W. and $2 \mathrm{ft}$. . N. of fence corner, in concrete post; standard tablet stamped "T T 26 E 1931"
Reference mark, 12 ft . S. of gate, 2 ft . E. of post inside fence corfier, in root of. 6-1n. catalpa tree; copper nail and washer
319.23

Oran, about 3.5 mi . W. of, 850 ft . W. of quarter cor. between secs. 15 and $22, \mathrm{~T} .28 \mathrm{~N}$. , R. $12 \mathrm{E} ., 50 \mathrm{ft}$. W. of T-rd. S., in root of $30-1 \mathrm{n}$. elm tree; copper nail and washer
Oran, about 2.5 mi . W. of, in SWh sec. 14, T. $28 \mathrm{~N} .$, R. 12 E., in Bryan Schoolyard, in root of $36-1 \mathrm{n}$. oak tree; copper nall and washer 320.48
 of T-rd. S., on S. side of rd., in root on N. side of 24-in. oak tree; copper nail and washer
324.08
7. FROM FORNFELT WEST TO ANCELL, THENCE NORTH ALONG U. S. HIGHWAY 61 TO NORTH BORDER OF QUADRANGLE

Fornfelt, 30 ft . W. of N . end of R. R. station, in base of telephone pole; opike
Ancell, $60 \mathrm{ft} . \mathrm{N}$. and 40 ft . W. of NW. corner of St. Louis Southwestern R. R. station, in concrete head wall of culvert under U. S. Highway 6l; chiseled square
Ancell, about 0.5 mi . N. of, along U. S. Highway 6I, on E. end of S. abutment of
concrete tridge over Littie Ramsey Creek; chiseled square
363.43
352.39

Ancell, about 1.5 mi . N. of, along U. S. Highway 61 , about 0.8 mi . S. of Cape GirardeauScott courity line, on $E$. side of highway, at rd. leading to farmhouse, on $N$. end of concrete pipe culvert; painted square
Ancell, about 2.5 ml . N. of, along U. S. Highway 61, on E. end of S. wooden retaining wall at approach to bridge over diversion channel; copper nail and washer
352.38
(Continued in Cape Girardeau quadrangle; see line no. 11)

## 8. FROM BLODGETT EAST TO EAST BORDER OF QUADRANGLE

Blodgett, in N. limits of, on E. side of rd., 30 ft . SE. of rd. fork NE., in root of 38-in. oak tree; copper nall and washer
327.04

Blodgett, 1 mi. E. of, 0.25 ml . W. of cor. secs. 1, 2, 11 , and $12 ;$ T. 27 N., R. 14 E., in SE. concrete wing wall of wooden bridge; chiseled square
(Continued in Thebes quadrangle; see line no. 4.)
9. FROM DELTA SOUTHWEST ALONG ST. LOUIS SOUTHWESTERN R. R. TO WEST GORDER OF QUADRANGLE (by L. Vo Johnson in 1931)

Delta, 0.8 mi . SW. of, along St. Louis Southwestern R. R., 180 ft . NE. of R. R. sign South Delta, 60 ft . N. of track, in right-of-way fence, in root on SW. side of 12-in. elm tree; copper nail and washer
(Continued in Advance quadrangle; see line no. 2.)

## 10. FROM MORLEY SOUTH TO SOUTH BORDER OF QUADRANGLE

Morley, 1.4 mi. S. of school, along old sand rd., 100 ft . S. and 7 ft. W. of private rd. W. to farmhouse, in root on SE. side of 30-in. oak tree; copper nail and washer
Morley, 2 mi . S. of, 0.8 mi . E. of U. S. Highway 61,50 meters ( 164 ft .) W. of dirt and sand rd., on land owned by H. K. Dickey, on highest point of prominent sand hill, in concrete post; standard U. S. C. \& G. S. triangulation station tatlet etamped "Morley"
Reference mark, no. 1, 357 ft . NE. of station, in W. fence line along side rd., 30 meters ( 98 ft .) S. of $S$. end of gate at foot of sand hill, in concrete post; standerd U. S. C. \& G. S. reference mark tablet
T. 27 N., R. 13 E., near quarter cor, between secs. 2 and $11,30 \mathrm{ft}$. E. and 18 ft. S. of T-rd. E., in S. head wall of concrete culvert; chiseled square
(Continued in Sikeston quadrangle; see line no. 4.)

## 11. FROM DELTA NORTH ABOUT 2 MILES

Delta, 1.6 mi . N. of, in S. concrete pier on W. side of Missouri Pacific R. R. bridge; cross cut (Little River Drainage Comission B. M. designated "32") 352.89

For an additional level line along St. Louis-San Francisco R. R., in northwest quarter of quadrangle, refer to United States Coast and Geodetic Survey first-order line, Cape Girerdeau, Mo., to Hoxie, Ark. For an additional line southeast through quadrangle, followirg Missouri Pacific R. R. and'St. Louis-San Francisco R. R.; refer to United States Coast and Geodetic Survey second-order lines; Fredericktown to Delta and Delta to Sikeston.

CAPE GIRARDEAU QUADRANGLE*
(Latitude $37^{\circ} 15^{\prime}-37030^{\prime \prime}$; longitude $89^{\circ} 30^{\prime}-89^{\circ} 45^{\prime}$ )

## Cape Girardeau County



1. FROM SOUTH BORDER OF QUADRANGLE NORTHEAST ALONG ST. IOUIS-SAN FRANCISCO R. R. TO CAPE GIRATIDEAU (by E. C. Bi bbee in 1914)

> (Continued from Morley quadrangle; see line no. 1.)

Gulf Junction, 3.6 mi . SW. of, along St. Louis-San Francisco R. R., 50 ft . S. of Feet track, in root of elm tree; copper nail (reported destroyed)
Gulf Junction, 2.8 mi . SW. of, along St. Louis-San Francisco R. R., at Rock Levee switch, $25 \mathrm{ft} . \mathrm{S}$. of track, 15 ft . W. of rd. crossing, in root of oak tree; copper nail (reported destroyed).
Gulf Juriction, 0.6 mi . SW. of, along St. Louis-San Francisco R. R., 15 ft . N. of 345.62 track, $W$. side of rd., on $N$. end of tile drain; highest point
Gulf Junction, 450 ft . NE. of St. Louis-San Francisco R. R. station, 80 ft . E. of R. R., $20 \mathrm{ft} . \mathrm{N}$. of private rd., 1 ft . W. of fence; iron post stamped "Prim Trav Sta No 141920 Mo 346"
Cape Girardeau, 1.2 mi . S. of St. Louis-San Francisco R. R. station, SE. corner of South Fountain and Elm Streets, at N. entrance of R. B. Andrew's general store, in $E$. end of first step from bottom; chiseled square
Oape Girardeau, on Water Street, second entrance from N. to River View Hotel, in outer vertical face of stone step which extends under buttress at NE. corner; horizontal copper tolt (U. S. C. E. P. B. M. designated "54")

[^4]2. IN SOUTHEAST CORNER OF QUADRANGLE, FROM GULF JUNCTION NORTHEAST ALONG ST. LOUISSAN FRANCISCO R. R. TO CAPE GIRARDEAD (by S. R. Archer in 1920)

Gulf Junction, about 0.4 mi . NE. of, alone St. Louis-San Francisco R. R., in top of E. end of parapet wall to N. abutment of bridge no. 133.5 over Cape La Croix Creek; chiseled square
Cape Girardeau, at foot of Independence Street, opposite and 200 ft . N. of st. San Francisco R. R. passenger station, in top of corner of balustrade at end nearest river of right angle off-set in concrete retaining wall; chiseled square
340.76

Cape Girardeau, on E. side of Water Street and St. Louis-San Francisco R. R. track, at foot of Themis Street, at top of levee, in top of $E$. end of $N$. concrete foundation of Mississippi River water gauge indicator stand; chiseled square 339.67
Cape Girardeau, at SW. corner of Themis and Water stretts, on N. side at NE. corner of Hobb Mercantile Company's tuilcing, in top of E. end of stone doorsill at entrence to building, leaded vertically; copper bolt (U. S. C. E. B. M.)
341.033

Cape Girardeau, at SE. corner of Broadway and Fountain Streets, on E. side of N. entrance to post office builoing, at base of lamp pedestal, in top of granite block; standard tablet stamped "Prim Trav Sta No $11920 \mathrm{Mo} \mathrm{409"}$
408.582
3. FROM CAPE GIRARDEAU NORTH TO CENTER OF EAST BORDER OF QUADRANGLE, THENCE VEST TO CENTER OF QUADRANGLE, THENGE SOUTA AND SOUTHEAST TO KOCK LEVEE

Cape Girardeau, at NE. limits of, along rd. to Egypt Mills, at bridge over Sloan Creek, in W: end of S. stone abutment of main span; chiseled square
Cape Girardeau, about 1.4 mi . N. of, along The. Bend Road, in SE $\frac{1}{4} \mathrm{sec} .29, \mathrm{~T} .31 \mathrm{~N}$. , R. 14 E., 40 ft . N. of rd. crossing, on W. side of rd. N., in root on NE. side of 30-in. oak tree; copper nail and washer
396.39

Cape Girardeau, about 2.2 mi . N. of, along The Bend Road, near quarter cor. between secs. 20 and 29, T. 31 N., R. 14 E., 155 ft . S. of private rd. W., in top at S. end of $W$. head wall of concrete culvert; chiseled square

Cape Girardeau, about 2.6 ml . N. of, along The Bend Road, in SER sec. 20, T. 31 N., R. 1.4 E., $75 f^{\prime} t$. S. of rd. forks, on E. side of rd., in root on E. side of 36-in. elm tree; copper nail and washer
360.34

Cape Girardeau, about 2.6 mi . N. of, along The Bend Road, in SEl sec. 20, T. 31 N. , R. $14 \mathrm{E} ., 60 \mathrm{ft}$. S. of rd. forks, on W. side of rd., in fence line; iron post stamped "1920 Mo 362"
361.369

Cape Girardeau, etout 2.8 mi . N. of, along Cepe Creek, in El sec. 20, T. 31 N., R. 14 E., near Juden School, at NW. corner of rd. forks, in root on E. side of lo-in. sycamore tree; copper nail. Fund washer
T. 31 N., R. 3.4 E., near E. cor. secs. 17 and 20 , about 0.1 mi . N. of private rd. E., in center of $E$. hesd wall of concrete culvert; chiseled square
T. 31 N., R. 14 E.., near SW. car. sec. 9, on S. side of Juden Creek, 60 ft . N. of rd. forks, on W. side of rd., in root on W. side of 36-in. gum tree; copper nail and washer
T. 31 N., R. 14 E., in SWlis sec. 4, on N. side of Little Flora Creek, 300 ft. W. of rd. forks, 4 in. E. of S. side of door at E. entraxice of schoolhouse, in SW. corner of concrete platform; chiseled square
T. 31 N., R. 14 E., near E. quarter cor. sec. 5 , on E. bank of Little Flora Creck, 125 ft. S. of N. drain to creek, 120 ft . S. of rd. forks, on w. side of rd., in root on N. side of $36-1 \mathrm{n}$. elm tree; copper nail and washer
T. 31 N., R. $14^{\prime}$ E., near center sec. $5,360 \mathrm{ft}$. N. of house, on $W$. side of $r d$. on N. bank of S. fork of Little flore Creek, in root on E. side of 36-in. oak tree; copper nall and washer
Cape Girardeau, 6 ml . N. of, near center sec. $\mathrm{o}^{5}$, T. $31 \mathrm{~N} .$, R. 14 E., 350 ft. S. of residence of Henry Froemsdorf, 32 ft . S. $56^{\circ}$ E. of crossroads, 44 ft . E. of rd. at E. bank of Little Flora Creek, 10 ft . N. of entrance to field; iron post stamped "Prim Trav Sta No 21920 Mo 451 "
T. 31 N., R. $14 \mathrm{E} .$, in NWlis. sec. 8 , ebout 800 ft . W. of.T-rd. N., about 600 ft . W. of house on N. side of rd., 200 ft . W. of forks of creek, on S . bank, at fence corner, in root on N. side of $24-1 n$. cherry tree; copper nail and washer 482.46
T. $31 \mathrm{~N} .$, R. 14 E. , near center NW $\frac{2}{4} \mathrm{sec} .7$, on top of ridge, 50 ft . E. of most southern point of rd. in curve to S., 40 ft . E. of rd. SE., 50 ft . E. of rd. S., on S . side of rd., in root on $N$. side of 15-in. bickory tree; copper nail and
T. Washer 31 N., R. 13 E., near center NE $\frac{2}{4} \mathrm{sec}$. $12,20 \mathrm{ft}, \mathrm{N}$. and 20 ft . W. of T-rd. S.,
620.69 in root on W. side of 24-in. oak tree; copper nail and washer in root on W. side
T. 31 N., R. 13 E., in NW管 sec. 12 , at SW . corner of T-rd. W., in root on W. side of 5-in. maple tree, 3 in. under ground; copper nail and washer 481.13
Cape Girardeau, 4.5 mi . N. and 2 mi . W. of, in What sec. 12, T. $31 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E} ., 450 \mathrm{ft}$. E. of brick reaidence of Ben Heuer, 15 ft . E. of edge of N.-S. rd. at junction of rd. W., 25 ft . W. of W. bank of creek; iron post stamped "Prini Trav Sta No 41920 Mo $480^{\prime \prime}$
T. 31 N., R. 13 E., near center sec. il, in center of rd. junction $W$. of Randol School, in root on S. elde of 36-in. oak tree; copper nail and washer
T. $31 \mathrm{~N} ., \mathrm{R}$. J. $3 \mathrm{E} .$, , in $\mathrm{NW}^{\frac{1}{4}} \mathrm{sec} .11,210 \mathrm{ft}$. W. of main rd. forks, near SW . corner of triangie, on N. side of ra. W., at fence corner, in root on-S. side of 15-in. walnut tree, 4 in. under ground; copper nall and washer
Jackson, about 4 mi. E. of, along Rainbridge Road, in NWit sec. 10, T. 31 N., R. 13 E., (actually in land erant) on S. side of rd., in front of house, in top of W. end of concrete retaining wall; ohiseled square
529.68

Jackson, 3 mi. E. of, 175 ft . NW. of Randoi Creek, 125 ft . SE. of rd. forks, 115 ft . NW. of corner of rd. S., 40 ft . W. of Cape Girardeau Northern R. R., on W. side of rd., in root on S. gide of $30-1 n$. walnut trée; copper nail and washer 437.06
Jackson, $3^{\prime} \mathrm{mi}$. E. of, 300 ft . NW. of Randol Creek, $39 \mathrm{ft}^{\prime}$. S. $51^{\circ}$ W. from Cape Girardeau Northern R. R. at rd. crossing, 6 ft . from fence line; iron post stamped "Primi Trav Sta No 51920 Mo 438".
Jack:son, about 3.8 ml . E. of, on S. gide of Cape Girardeau Northern R. R. track, 15 ft . N. and 25 ft . E. of T-rd. S., in S . side of $12-1 \mathrm{n}$. sycamore tree, 3 in. underground; spike

Cape Girardeau, 6 ml . NW. of, elong, gravel rd, to Jackson, in N $\frac{2}{2}$ sec. 21, T. $31 \mathrm{~N} .$, , R. 13 E. , (actually in land grant) 450 ft . NW. of rd. fork $\mathrm{SW} ., 50 \mathrm{ft}$. W. of cuivert. 35 ft . E. of milepost, on $N$. side of rd., in root on $N$. side of 24-in. persimmon tree.; copper neil and washer
498.08

Cape Girardeeu, about 6 mi . NW. of, 300 ft . SW. of Cape Girardeau-Jackson road, in top of $W$. head wall of concrete culvert; chieeled square
Jackson, sbout 3.8 mi . SE. of, along Benton Road, about 0.5 mi . N. of Oak Grove School, 50 ft . NE. of crossroads, in root on SW. side of 30-in. walnut tree; copper nail and washer
451.21

Jackson, about 3.8 mi . SE. of, along Benton Road, akout 0.5 mi . N. of Oak Grove School, 65 ft . E. of crossroads, $15 \mathrm{ft} . \mathrm{E}$. of fence corner, on S . side of rd. NE.; iron post stamped "1920 Mo 451 "
Jackson, about 3.9 mi . SE. of, along Benton Road, 530 ft . SE. of croseroads, in
top of S. end of E. head wall of culvert; chiseled square
450.451
426.34

Jackson, about 4.7 mi . SE. of, along Benton Road, 0.9 mi . SE. of crossroads, 0.5 mi .
N. of church and cemetery, near SE. corner of private rd. E., in root on $W$. side of $15-1 n$. oak tree; copper nail end washer
Jackson, about 5.2 mi . SE. of, along Benton Road, near church and cemetery, at SE. comer of T-rd. E., in root on W. side of $30-i n$. oak tree; copper nail
and washer
528.97
491.58

Jackson, about 6 mi . SE . of, 140 ft . W. of main forks of Benton Road and rd. W. to Gordonville, W. of N. corner of triangle formed by ras., at fence corner, in root on N. side of 24-in. oak tree; copper nail and washer
Jackson, about 6.7 mi . SE. of, along Beriton Road, 40 ft . W. of crossroads, on N. side of rd. W., in root on E. side of 36-in. oak tree; copper nail and washer
508.57

Jackson, about 6.7 mi . SE : of, along Benton Road, at SW . corner of crossroads, 4
ft . S. of fence corner; iron post stamped "1920 Mo 514" 513.49
Fock Levee, 3.7 mi . NW. of, along Benton Road, l.l mi. NW. of crossing of Bloomfield Road, 180 ft . NW. of rd. SW., on E. side of rd., in root on W. aide of litin. wild cherry tree; copper nail and washer
456.29

Rock Levee, 2.6 mi . NW. of, along Benton Road, at N. corner of crossing of Bloomfield
Road, in root on SW. side of 12-in. oak tree; copper nail and washer
Rock Levee, 2.6 mi . NW. of, along Benton Road, near E. corner of crossing of Eloomfield Road, 2 ft . SE. of fence corner; iron post stemped "1920 Mo 435"
Rock Levee, 1.3 mi . N. of, along Benton Road; 350 ft . W. of rd. corner from W. t
S., in top of $S$. end of E. concrete abutment of bridge; chiseled square
434.967
360.97

Rock Levee, 0.7 mi . N. of, along Benton Road, 370 ft . S. of rd. fork NE., in top
of $N$. end of W. head wall of concrete culvert; chiseled square
P 355.98
Rock Levee, 240 ft . N. of St. Louis-San Francisco R. R. elong Benton Road, 200 ft . S. of rd . E. to Cape Girardeau, ir top of $W$. end of seat of $S$. concrete abutment of bridge; chiseled square
350.53

Rock Levee, 0.9 mi . NE. of, along St, Louis-San Francisco R. R., on N. side of traok, 17 ft . N. of right-of-way fence line, 90 ft . S. of concrete rd., 35 ft . SE. of schoolhouse, in root on SW. side of $24-1 n$. pecan tree; copper naị and washer 341.31

## 4. FROM YOINT 2.6 MILES NORTHWEST OF ROCK LEVEE WEST ALONG SOUTH BORDER OF QUADRANGLE

Dutchtown, 4.1 mi . E. of, along Bloomfleld Road, 0.9 mi . S. of crossing of Benton Road, 60 ft . S. of private rd. NW., on W. side of rd., in root on NE. side of 36-in. sycamore tree; copper nail and washer
Dutchtow, 3.8 mi . E. of, along Bloomfield Road, 1.2 mi . S. of crossing of Benton Road, on $E$. side of rd., near curve, in center of E. wing wall of N. concrete abutnent of bridge; chiseled square
353.16

Dutchtovn, 2.8 mi . E. of, along Bloomfield Road, about 0.5 mi . E. of Pecan Grove Schooly on N . side of rd., 40 ft . W. of rd. N., in root on SE. side of l.2-in. persimmon tree; copper nall and washer
Dutchtown, 2.2 mi . E. of, along Bloomfield Road, near Pecan Grove Sohool, at NW. corner of rd. N., in top of concrete head wali of drein pipe; chiseled square 360.48
Dutchtovin, 1.7 mi . E. of, along Bloomfield Road, at NE. cor. of rd. N., 50 ft . W. of private rd. S., in root on S. side of $30-1 n$. walnut tree; copper nail and washer
Dutchtown, $1.7 \mathrm{mi} . E$. of, along Bloomfield Road, 20 ft . S. of T-rd. N., 56 ft . S. $70^{\circ}$ W. from. SW. corner of concrete culvert abutment, 2 ft . W. of fence corner; iron post stamped "Prim Trav Sta No 121920 Mo 356 "
Dutchtown, 0.6 mi . E. of, along Bloomfield Road, on S . side of rd., 125 ft . E. of top of hill, opposite and 60 ft . E. of house on N . side of rd., in root on W. aide of 30-in. wild cherry tree; copper nail and washer
Dutchtown, at E. edge of, 50 ft . W. of T-rd. S., on N. side of rd. W., in root on SE. side of 30 -in. oak tree; copper nail. and washer
360.73

Dutcktown, S. side of Main Street, 75 ft . W. of Missouri Pacific R. R. at street crosajng, at NE. corner of store belonging to H. F. Schulenbere, in SE. corner of concrete platfors; chiseled cross
355.76

Dutchtown, 0.9 mi . W. of, alone Bloomfield Road, 450 ft . W. of schoolhouse, on N. side of rd., at NE. corner of concrete bridge, ift. from railing, in top, near bridge end, of wing wall; chiseled square
Dutchtown, 2 mi . W. of, along Bloomfield Road, S. of rd. forke, on N. bank of drein, in root on $N$. gide of twin locust tree; copper nail and washer
Dutchtown, 2 mi . W. of, alone Bloomfield Road, 85 ft . SW. of rd. forks, $32 \mathrm{ft} . \mathrm{S} .15^{\circ}$ $30^{\prime}$ W. of center of small vooden bridge on E.-W. rd., neer E.-W. fence, iron post stamped "Prim Trav Sta No 111920 Mo 359"
Dutchtown; $3.1 \mathrm{mi} . \mathrm{W}$. of, 1.1 mi . NW: of rd. fork NW. from Bloomileld Road at SW. corner of T-rd. S., in root on SE. side of 24-ir. sycamore tree; copper nall and
T. Washer 30 ., R. 12 E., SE $\frac{1}{4}$ sec. $16,50 \mathrm{ft}$. E. of T-rd. N., ot SW . corner of bridge,
376.34

In top and near S. end of concrete wing wall; chiseled square
rd. S., at fence corner, in root of 18-1n. oak tree; copper nail and washer 532.89

## 5. NORTH ALONG SOUTH HALF OF WEST RORDER OF QUADRANGLE (Continued from Marble Hill quadrangle; see line no. 1.)

T. 30 N., R. 12 E., W管 sec. 17 , at $N$. boundry line of land grant, on W. aide of rd. at curve, in root on E. side of $30-1 n$. maple tree; copper nall and washer 374.58 T. 30 N., R. 12 E., NW sec. 17, near curve in rd. to N., and private rd. SW., T. 30 N., R. 12 E. Wing wall of W. abutment of bridge; chiseled square of gate, in root on W. side of 8-1n. elm tree; copper nall and washer
383.75 Gordonvilie, 3 mi . W. and 1 mi . S. of, in $\mathrm{S}_{2} \mathrm{sec}$. 5 , T. 30 N. , R. 12 E ., (actually in land grant) 130 ft . N. of T-rd. W., on E. side of rd. in fence line, in root on W. aide of l4-in. maple tree; copper nall and washer
 in land grant), at T-rd. W., 350 ft . E. of drain crossing rd. W., 260 ft . N. of same drain crossing rd. S., 15 ft . S. and 12 ft . W. of junction of rds.; iron post stemped "Frim Trav Sta No 91920 Mo 427 "
Gordonville, about 3 mi. W. of, in $\mathrm{N}_{2}$ sec. 5, T. $30 \mathrm{~N} . \mathrm{g}$. R. 12 E., 100 ft . E. of T-rd. S., on N. gide of rd. in fence line, in root on SW, side of l2-in. elm tree; copper nail and washer
499.53
T. 30 N., R. 12 E., in Whec. se NE. of village of Houck, 70 ft . N. of T-rd. N., on W. side of rd., in root on E. eide of 30-in. oak tree; copper nail and washer
T. 31 N., R. 12 E., quarter cor. between secs. 31 and $32,300 \mathrm{ft}$. E. of T-rd. S. and private ra. N., 100 ft. W. of small drain, on $g$. gide of rd. in fence line,
in root on $E$. side of l2-in. mulberry tree; copper nail and washer 446.43
T. 31 N., R. 12 E., W. sixteenth cor. sec. 32, near T-rd. N. on W. side of rd., on S. bank of creek, in root on E. side of $36-1 n$. sycamore tree; copper nall and washer
. 31 N., R. 12 E., SWh sec. 29, in NW, part of village of Tilsit, on S. side of rd. at curve to N., in NW. corner of schoolyard, in root on W. side of 24-in. gum tree; copper nail and washer
494.73
T. 31 N., R. 12 E., near quarter cor. between secs. 19 and $20,60 \mathrm{ft}$. E. of T-rd. S., on N. gide of rd. E., in root on SE. side of $36-i n$. oak tree; copper nail and washer
390.26
(Contimed in Marble Hill quadrangle; see line no. 1.)
6. FROM CENTER OF WEST BOHDER OF QUADRANGLE EAST TO POINT 3 MILES EAST OF JACKSON (Continued from Marble Hill quadrangle; see ilne no. 1.)
Jackson, 3.8 ml . W: of, along Marble Hill Road, near Cane Creek School, 100 ft . W. of T-rd. S., on S. alde of rd. W., in root on N. side of lizin. hickory tree; copper nail and washer
492.19

Jackson, 3.1 ml . W. of, along Marble Hill Road, 200 ft . W. of bridge over Cane 18 ft . W. of milestone 13 , on N . side of rd. inside of fence, in root on SE. side of $30-1 n$. walnut tree; copper nail and washer
413.58

Jackson, 2.7 ml . W. of, along Marble Hill Road, 75 ft . W. of T-rd. N., on S. side of rd., in front yard of house, in root on NW. side of 24-1n. cottonwood tree; copper nail and washer
Jackion, 2.1 mi . W. of, along Marble Hıll Road, NW, of T-rd. S. and privete rd. N., 5 ft . W. of fence corner; iron post stamped "1920 Mo 512 "'
465.91

Jackson, l. 3 mi. W. W. of, along Marthle Hill Road, 400 ft. NE. of curve in rd. NE., 5 of drain, on W. side of rd., in root on E. gide of large twin sycamore tree, 4 in. under ground; copper nail and washer
439.16

Jackson, 0.9 mi. W. of, along Karble Hill Road, in S. aide of post at $W$. end of S. bridge railing; chiseled square
429.76

Jackson, on S. side of West Main Street near junction of rd. to Oak Ridge, 65 ft . E. of atreet $S ., 18 \mathrm{ft}$. E. of junction of Oak Ridge road, 5 ft . E. of fire plug, in top of curbing; chiseled square
444.47

Jackson, on West Main Street at bridge over Hubble Creek, in top of $N$. end of E. stone abutment; chiseled square

A17.32
Jackson, at Main'street entrance to courthouse, in center of top of lovest limestone head block on E. side of main entrance steps; standard tablet stamped "Prim Trav Sta No 6 1920. Mo 497"
496.816

Jackson, in E. part of, near Missouri Pacific R. R. station, between Missouri Pacific R. R. and Cape Girardeau Northern R. R. tracks, on S. side of East Main Street, in top of E. end of S. concrete head wall of culvert; chiseled square 432.15
Jackson, 0.7 mi. E. of Missouri Pacific R. R. atation, along Cape Girardeau Northern R. R., between R. R. and creek, 450 ft . SW. of point on R. R. which is S. of rd. corner, in root on $N$. side of 42-in. sycamore tree, 4 in. under ground; copper nail and washer
Jackson, 1.6 mi . E. of, along Cape Girardeau Northern R. R., 200 ft . W. of E. end of cut, 100 ft . W. of top of grade, 5 ft . N. and 3 ft . above N. rail, in top of limestone outcrop; chiseled square
Jackson, 2 mi . E. of, along Cape Girardeau Northern R. R., 175 ft . NE. of rd.
orossing, on $N$. side of rd., in root ori s. side of $24-i n$. oak tree; copper.
nail and washer
499.13

## 7. NORTH ALONG NORTH HALF OF WEST BORDER OF QUADRANGLE (by R. T. Gale in 1921)

Jackson, 4 ml . W. of, along Millersville Road, at NE. corner of rdo function N.,
5 ft . inside of field, in root on S. side of $30-1 n$. cherry tree; copper nail and washer
Jackson, about 4.J mi. NW. of, along Millersville Road, on S. side of rd., 500 ft . 470.60 E. of house, in root on SW. side of $30-1 n^{\circ}$. oak tree; copper nail and washer 477.74 Jackson, about 5 mi . NW, of, 0.6 mi . N. of Millersvilie Road, NE. of small church, in root on W. side of $30-i n$. hickory tree, 1 in. under ground; copper neil and washer
Jackson, 5.5 mi 。 NW. of, by rd., about 1.6 ml . S. of Roberts School, along rd. leading to Millersville Road, 35 ft . E. of junction of three rds., in black osk tree; copper nail and washer

Jackson, about 6 mi . NW. of, by rd., about 0.8 mi . S. of Roberts School, along rd. S. to Millersville Road, about 0.5 mi . W. of Jackson-Oak Ridge road, 60 ft . N. of T-rd. W., on E. side of rd., in root on $W$. side of locust tree; copper nail and washer
Jackson, 6 mi . NW. of, by ra., about 0.8 mi . S. of Roberts School, along rd. to Millersville Road, about 0.5 mi . W. of Jackison-Oak Ridge road, 50 ft . W. of T-rd. W., 10 ft . E. of large locust tree; iron post stamped ni921 Mo 469 n
Jackson, about 6.5 mi . NW. of, by rd., about 0.5 mi . S. of Roberts School, near T-rd. W., about 150 ft . W. of concrete silo, in root on SE. side of 30-in. white oak tree; copper nail and washer
Jaokson, 6 ml . NW. of, along Jackson-Oak Ridge road, 125 ft . E. of Roberts School, on E. side of rd., opposite a point between two T-rds. W., in root on NW. side of 30-1n. hard maple tree; copper nall and washer
Jackson, 6.8 mi . NW. of, along Jackson-Oak Ridge road, about 0.8 mi . N. of Roberts Sohool, 500 ft . SW. of rd. fork NW, on SW. eide of rd., in root on E : side of 36-1n. oak trea; copper nall and washer
467.75

Byrd Creek bridge on Jackson-Oak Ridge road, 400 ft . N. of, 40 ft . W. of creek, on E. side of rd., 5 ft . N. of maple tree; iron post stamped "Prim Trav Sta No 1 J B L 1921 Mo $4322^{\prime \prime}$
432.234

Jackson, 3.2 (? 7.2) mi. NW, of, along Jackson-Oak Ridge road, at SW. cor. of T-rd. W. and private rd. to barn, in concrete base of iron corner fence post; horizontal pipe
479.77

Jackson, 8 mi . NW. of, along Jackson-Oak Ridge road, SW. of T-rd. W., 10 ft . NW: of L. M. Mouser's mail box, in small limestone rock; chiseled square
Oak Ridge, 2.5 mi : S. of, along Jackson-Oak Ridge road, 50 ft . E. of rd. fork NW., in $S$. wing wall of concrete culvert; chiseled square
Oak Ridge, 2.5 ml . S. of, along Jackson-Oak Ridge road, near rd. fork NW., 80 ft . SW. of concrete culvert, on $S$. eide of rd., about 2 ft . from fence; iron post stemped "1921 Mo 469".
468.745

Oak Ridge, 2.5 mi . S. of, along Jackson-Oak Ridge road, near junction of private rd. W., on E. side of rd.: in root on W. side of $24-\mathrm{in}$. black oak tree, 1 in. underground; copper nail and washer
Oak Ridge, 1.8 mi . S. of, along Jackson-Dak Ridge road, SE. of junction of rd. E., in rence line, in root on W. side of 24-in. walnut tree; copper nall and washer
Oak Ridge, 0.8 mi . S. of, along Jackson-Oak Ridge road, on line between secs. 4 and 5, T. 32 N., R. 12 E., near rd. junction W., on E. side of rd., about 50 ft . NW. of house, in fence line, in root 2 ft . SE. of 18-1n. black oak tree; copper nail and washer
575.01

## 8. EAST NEAR CENTER OF NORTH BORDER OF QUADRANGLE

 (Continued irom Altenburg quadrangle; see line no. l.)T. 33 N., R. 12 E., gecs. 35 and 36 , about 0.1 mi . S. of quarter cor, between, on N. side of rd. at T-rd. S., 20 ft . E. of fence; iron post stamped "Prim Trav Sta No 7 J B L 1921 Mo 623"
T. 33 N., R. 12 E., in $E \frac{1}{2}$ sec. $36,1.2 \mathrm{mi}$. W. of Pocahontas, along road to Oak Ridge, NE. of croseroads, in root on NW. side of $8-i n$. elm tree; copper nail and waşher
(Continued in Altenburg quadrangle; see, line no. 1.)
9. FROM CENTER OF NORTH HALF OF EAST BORDER OF GUADRANGLE WEST AND NORTH TC NORTH BORDER
(Continued from Jonesbora quadrangle; see line no. 1.)
Oriole, about 1.3 mi . E. of, along Greens Ferry Road, near quarter cor between secs. 20 and 2l, T. $32 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} .$, about 0.3 mi . E. of cross rd., 50 ft . N. of barn, between persimmon tree and fence, in root of tree 2 in. underground; copper nail and washer
Oriole, 1 ml . E. of, about 0.2 mi . E. of center sec. 20, T. 32 N., R. 14.E., SW. of orossroads, 34 ft . E. of wooden culvert under N.-S. rd., about 60 ft . W. of group of mall boxes, 11 ft . back from edge of bank, 10 ft , above rd.; iron post stamped "Prim Trav Sta No 31920 Mo 538"
588.589

Oriole, about 1 mi . E. and 0.5 ml . N. of, on 1 ine between secs. 17 and $20, \mathrm{~T} .32 \mathrm{~N}$. , R. $14 \mathrm{E} ., \mathrm{SE}$. of rd. junction $W$. of house, in root on S . side of small white oak tree; copper nail and washer
625.40

Oriole, about 1 ml . E. and 1 mi . N. of, near center sec. $17, \mathrm{~T} .32 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 700$ ft . N. of small house, on W. side of rd., 50 ft . S. of ra. forks, in root on E. side of $12-1 \mathrm{n}$. black oak tree; copper nail and pasher

Oriole, about 1 mL . E. and 1.5 ml . N. of, in NEA sec. $17, \mathrm{~T} .32 \mathrm{~N}$. , R. 14 E. , about 50 ft . SW. of creek, 150 ft . from smali house, in root of $30-1 \mathrm{n}$. elm tree; copper nail and washer
404.25

Neelys Landing, 2.5 mi . SW. of, in NE $\frac{1}{2}$ sec. $8, \mathrm{~T} .32 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 650 \mathrm{ft} . \mathrm{S}$. of ir on bridge over Indian Creek, 30 ft . NE, of rd. fork SE ., on bank of creek, in root on $N$. side of 48-in. sycamore tree, 2 ft . above ground; copper nail and washer
Neelys Landing, 2.5 mi . SW. of, in NEt sec. 8, T. $32 \mathrm{~N} ., \mathrm{R}$. $14 \mathrm{E} ., 60 \mathrm{ft}$. E. of rd. fork SE., $20 \mathrm{ft} . \mathrm{E}$. of edge of bed of creek, 2 ft . from fence; iron post stamped "1921 Mo 358"
58. 802

Neelys Landing, about 1 mi . SW. of, about 0.5 mi . S. of NE. cor. sec. 5, T. 32 N. , R. $14 \mathrm{E} ., \mathrm{SW}$. of junction of rds., in root on E . side of 12 -in. persimmon tree; 1 in. underground; copper nail and washer
Neelys Landing, about $0.5 \mathrm{mi} . \mathrm{SW}$. of, in NWI sec. $4, \mathrm{~T}, 32 \mathrm{~N} ., \mathrm{R} .14 \mathrm{E} ., 60 \mathrm{ft}$. W. of rd. fork N., in root on N. side of $30-1 \mathrm{n}$. black oak tree; copper nall and washer

## 10. NEAR CENTER OF EAST BORDER OF QUADRANGLE

> Cape Girardeau, about 6.7 mi . N. of, 200 ft . E. of SW. cor. sec. 33, T. $32 \mathrm{~N} ., \mathrm{R} . \mathrm{I}_{4}$ E., 100 ft . W. cf junction of T-rd. N., on N . side of rd., in root on SE. side of $24-1 \mathrm{n}_{\text {. }}$. v:ild cherry tree; copper nail and wesher
> 487.95
> (Contirued in Jonesboro quadrangle; see line no. 2.)
> 11. IN SOUTHEAST CORNER OF QUADRANGLE: (leveled twice by H. P. Jones and L. V. Johnson in 1931)
> (Contimued from Morley quadrangle; see line no. 7.)
> Rock Levee, about l mi. W. of, along St. Louis-San Francisco R. R., 40 ft. E. of old concrete gateway, on $N$. side of tracks, in root of $28-i n$. oak tree; copper nail and washer
> 340.84
> For additional level lines along Mississippi River and St. Louis-San Francisco R. R., refer to United States Coast and Geodetic Survey first-order lines; St. Louis, Mo., to Cairo, Ill., and Cape Girardeau, Mo., to Hoxie, Ark.

$$
\begin{aligned}
& \text { (Latitude } 37^{\circ} 30^{\prime}-37^{\prime} 45^{\prime} ; \text { QUADRANGLE' } 1 \text { ongitude } 89^{\circ} 30^{\prime}-89^{\circ} 45^{\prime \prime} \text { ) } \\
& \text { Cape Girardeau and Perry Counties }
\end{aligned}
$$



1. EAST ALONG SGUTH BORDER OF QUADRANGLE (by R. T. Gale in 1921)
(Continued from Perryville quadrangle; see line no. 2.)
Oak Ridge, 0.8 mi . W. of, along rd. to Sedgewickille, at T-rd. S., at lower end Feet of drain crossing; chiseled square
Oak Ridge, in S. corner of schoolyard; iron post stamped "Prim Trav Sta No 2
ak Ridge, in S. corn
J B L 1921 Mo $592^{\prime \prime}$
Oak Ridge, in front of post office, in NW. corner of sidewalk; chiseled square 612.60 Oak Ridge, 0.9 mi . E. of, along rd. to Neelys Landing, near center NEA sec. $33, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{g}$ R. 12 E., 20 ft . NE. of T-rd. N., in clay bank about 4 ft . above rd., remains of telephone post about $2 f t$. out of ground; copper nail and vasher
Oak Ridge, 1.4 mi . E. of, along rd. to Neelys ianding, near eenter NWise sec. 34, T. 33 N, ,
R. 12 E., 100 ft . S. of T-rd., in root on W. side of large sycamore tree, 3 in. 620.45 undereround; copper nail and washer
Oak Ridge, 1.7 mi . E. of, along rd. to Neelys Landing, about 0.1 mi. W. of center sec.
34, T. 33 N., R. 12 E., 125 ft . NE. of small house, 50 ft . NE. of Cape Girardeau
Northern R. R., between track and rd., in root on W. side of black oak tree; copper nail and washer
Oak Ridge, 2.3 mi . E. of, along rd. to Neelya Landing, at T-rd. N., at querter cor. between secs. 34 and $35, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R}$. $12 \mathrm{E} .$, in top of N . head wall of concrete culvert; chiseled square
Oak Ridge; 2.8 mi. E. of, along rd. to Neelys Landing, near center sec. 35, T. 33 N.g. R. 12 E., 30 ft . N. of T-rd. N., 3 ft . inside fence corner, in roat on $g$. side of white oak tree, 4 in. underground; copper nail and washer
586.20
(For balance in Cape Girardeau quadrangle, see line no. 8.)
Pocahontas, 0.8 mi . W. of, along rd, to Oak R1dge, about $1,000 \mathrm{ft}$. from stream orossing, in $W$. head wail of smali culvert; chiseled square
Pocahontas, in front of F. J. Schoen's atore, in NE. corner of concrete sidewalk; ohiseled square
T. 33 N., R. 13 E., near center sec. 32 , at NE. corner of crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 8 J B L 1921 Mo 532 "
Pocahontas, 1.2 mi . E. of, along rd. to Neelys Landing, about 0.2 mi . N. of W. quarter cor.'sec. 33, T. ' 33 N., R. 13 E., about $1,000 \mathrm{ft}$. NE. of house, on E. side of rd., at rd. junction N., in root on W. side of 24-in. white oak tree; copper nail and washer
[^5]Pocahontas, $1.9 \cdots \mathrm{mi}$. E. of, along rd. to Neelys Landing, about 0.2 md . NW. of center sec. 33, T. 33 N., R. 13 E., 250 ft . NE. of Rudolph Pitaled's mail box and driveway, on SE. side of rd., in root on W. side of $24-1 n$. tree 3 in. underground; copper nail and washer
Pocahontas, 2.5 mi . E. of, elong rd. to Neelys Landing, in SE皆 sec. 28, T. 33 N. R. $13 \mathrm{E}:$, about 750 ft . N. of large house, 70 ft . N. of small drain crossing, on w. side of rd., in root on $N$. side of $24-i n$. white oak tree, about 5 in. undereround; copper nail and washer
492.77

Pocahontas, 3.2 mi. E. of, along rd. to Neelys Landing, near center sec. 27, T. 33 N., R. 13 E., 0.3 mi . W. of New Bethel Church, 70 ft . SE. of rd. junction, on SE. side of rd., in root on W. side of 24-in. black oak tree; copper nail and washer 647.28
New Betrel Church, 250 ft . S. of, about 0.3 mi . E. of center sec. $27, \mathrm{~T}$. $33 \mathrm{~N} ., \mathrm{R}$. i3 E., on E. side of rd. at forks, in concrete post; standard tablet stamped "Prim Trav Sta No 9 J E L 1981 Mo 711."
711.272

New Bethel Church, about 1.2 mi . SE. of, along rd. to Neelys Landing, about 0.2 mi . N. of S. quarter cor. sec. 26, T. $33 \mathrm{~N} ., \mathrm{R} .13 \mathrm{E}$. , about 750 ft . S. of Cak Hill School, SE. of footkridge, on $N$. side of rd., in root of small white oak tree; copper nail and washer
577.66
T. 33 N ., R. $13 \mathrm{E} .$, about 0.4 mi . SE. of NW. cor. sec. 36, in bed of creek, at rd. forks, in root of $12-i n$. sycamore tree with four mail boxes atteched to it; copper nail and washer
T. 33 N.: R. 14 E., near center $N E \frac{1}{4} \mathrm{sec}$. $31,200 \mathrm{ft}$. SE. of small $\log$ house, at curve in ro.; iron post stamped "1921 Mo 441"
T. 33 N., R. 14 E., about 0.2 ml . S. of NE. cor. sec. $31,300 \mathrm{ft}$. W. of rd. forks, on NW. side of rd., 3 ft . E, of L. McCain's house, in root on E. side of 48-in. black oak tree; copper nall and washer
11.83

Neelys Landing, I. mi. W. of, along rd. to New Bethel Church, about 0.2 mi . S. of N. quarter cor. sec. $32, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R}, 14 \mathrm{E} ., 125 \mathrm{ft}$. S. of Sheppard School, 100 ft . W. of rd. forks, on N. side of rd., fin root on NE. side of 36-in. walnut tree; copper nail and washer
383.27

Neelys Landing, 0.6 mi . W. of, at junction of dim rd. N., between main rd. end creek, in root on W. side of 24-in. sycamore tree; copper nail and washer 357.7
Neelys Larding, about 0.3 mi . N. of St. Lovis-San Francisco R. R. station, 30 ft . W. of track, in concrete post; stancard tablet stamped "Prim Trav Sta No 10 J B L 1921 Mo 352"
352.817

Neelys Lending, J. 1 mi. N. of, 0.5 mi . S. of Dog Creek, 60 meters ( $298 \mathrm{ft}$. ) W. of St. Louis-San Francisco R. R., on top of promirent bluff; stone post (U. S. C. E. B. M. Indian Creek triangulation station)

## 2. FROM OAK RIDGE NORTH TC UNIONTOWN

T. 33 N., R. 12 E., about 0.3 mi . S. of NW. cor. sec. $28,100 \mathrm{ft}$. N. of T-rd. N., on W. side of rd., in root on SE. side of 18-in. white oak tree; copper nail and washer
T. 33 N., R. 12 E., about 0.2 mi . N. of center sec. 20 , at center of rd. forks, in large ilmestone rock; chiseled square
T. 33 N., R. 12 E., near conter NE1 sec. $17,30 \mathrm{ft}$. W. of rd. NW., opposite gate to field, in root on E. side of 18 -in. black oak tree; copper nail and washer 549.18
T. 33 N., R. 12 E., in NW $\frac{1}{4}$ sec. 16 , about 600 ft . E. of section line, 75 ft . S. of T-rd. N., 15 ft . W. of fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 11 J B L 1921 Mo 545"
544.297
T. 33 N., R. 12 E., cor. secs. 4, 5,8 , and $9,50 \mathrm{ft}$. S. of rd. forks, at sec. cor., in large limestone rock; chiseled square
462.10

Appleton, 1.6 mi . SW. of, 1 mi . N. of SE. cor. long sec. 5, T. $33 \mathrm{~N} ., \mathrm{R} .12 \mathrm{E} ., 150$ ft. S. of T rd. S., on W. side of rd., in root on S. side of wild cherry tree; oopper nail and washer
464.64

Appleton, 0.5 mi . S. of, at junction of rds. to Oak Ridge and Jackson, in SE. end of SW. head wall of concrete culvert; chiseled square 447.92
Appleton, in top of NE. wing wall of large iron bridge across Apple Creek; chiseled square
400.67

## 3. EAST THROUCH CENTER OF GUADRANGLE TO WITTENBERG

(Continued from Ferryville quadrangle; see line no. 1.)
Schnurbusch Church, 0.2 mi . SE. of, on $N$. side of Uniontovn-Biehle road at rd. NW., 20 ft . from center of rd.; iron post stamped "Prim Trav Sta No 16 J B L 1921 Mo 468"
Uni ontown, 1.3 ml . SW. of, 200 ft . W. of footbridge across creek, in triangle formed by junction of $r$. S., in root on SW. side of $24-i n$. white oak tfee; copper nail and washer
Uniontown, about 500 ft . F. of crossroads, on S . side of rd. 2 ft . N of picket 4 ft . W. of telephone pole, in concrete post; standard tabiet stamped nprim Trav Sta No 22 J B L 1921 Mo 578"
Uni ontown, 0.7 mi . E. of, 100 ft . NE. of rd. forks, in root on S. side of white oak tree, 2 in. underground; copper nail and washer

ヶ560.23
Uniontown, 1.8 mi . E. of, 0.3 ml . N. of quarter cor. between secs. 34 and $35, \mathrm{~T} .34 \mathrm{~N} .$, R. $12 \mathrm{E} ., 250 \mathrm{ft}$. E. of T-rd. S., 20 ft . S. of T-rd. N., on S. idde of rd., in, root of 18-1n. white oak tree; copper nail and washer
539.35

Uni ontom, 2.8 ml . E. of, about 0.3 mi . N. of quarter cor. between secs. 35 and 36 , T. 34 N., R. 12 E., about 650 ft . E. of house, 20 ft . N. of T-rd. S., at fence corner, in root on S. side of black oak tree; copper nail and washer 518.46
T. 34 N., H. 12 E., in SE $\frac{1}{4}$ sea. $25,100 \mathrm{ft}$. NE. of laree iron bridge over Indian Creek, 50 ft . N. of T~rd. NW.; iron post atamped MPrim Trav Sta No 23 J B L 1921 Mo $377^{\prime \prime}$
376.561

Frohna, 1.8 mi . SW. of, along rd. to Uniontown, about 0.3 mi . N. of rd. forks, 1,000 ft. N. of house, on W. side of rd., at gate, in root on E. side of 24-in. black okk tree; copper nail and washer . 559.98
Frohna, 0.5 mi . SW. of, along rd. to Uniontown, 100 ft . from small house, on SE. side of rd., in SW. end of concrete retaining wall for ir f fence; chiseled square 550.03
Frohna, 1 ft . NE. of NE. corner of post office building, 30 ft . E. of center of rda; iron post stamped "Prim Trav Sta No 24 J B L 1921 Mo 594"
593.606

[^6] square
Altenburg, 1 mi. $E$. of post office, along rd. to Wittenberg, 40 ft . E. of T-rd. S., 5 ft. ingide fence corner; iron post stamped "Prim Trav Sta No 25 J B L 1921 Mo 577"
Altenburg, 1.8 mi. NE, of, along rd. to Wittenbers, 50 it. SE. of rd. junction SE., in root on NE. side of $36-i n$. black oak tree; copper nail and washer
Wittenberg, 1.7 mi . SW. of, along rd. to Altenbure, $40 \mathrm{ft} . \mathrm{NE}$. of ra. junction, in root on W. alde of $36-1 n$, bard maple tree; copper nail and washer
Wittenberg, 0.6 mi . SW . of, along rd. to Altenburg, on $N$. side of rd., in root on E. side of $42-i n$. elm tree; copper nail and washer
Wittenbere, at Wittenberg Flouring Mill, on side facing river, between ground floor door and down river corner of mill, in stone foundation wali; center of copper bolt leaded horizontally (U. S. C. E. B. M. desienated "45")
362.302

## 4. FROM UNI ONTOWN NORTH TO CRCSSTOWN

Unjontomn, about 500 ft . E. of croseroads, on S . side of rd., 2 ft . N. of picket fenoe, 4 ft . W. of telephone pole, in concrete post; standard tablet stamped "Prim Trav Stá No 22 J B L 1921 Mo 578"
Uniontown, 0.8 mi . NW, of, along Perryvilie and Jackson Road, in NWit aec. 28, T. $34 \mathrm{~N} ., \mathrm{s}$ R. $12 \mathrm{E} . \mathrm{E}_{\mathrm{s}} \mathrm{NW}$. of junction of rd. N. to Menfro station, in root on W. side of white oak tree; copper nail and washer
Uniontown, about' 2.3 mi . NW. of.s along Perryville and Jackaon Road, in NW $\frac{1}{4}$ sec. 20 , T. 34 N., R. $12 \mathrm{E} .$, about 150 ft . N. of fence corner, in small group of trees at turi in rd., on W. side of rd., in root on W: aide of white oak tree; copper nail and washer
Uniontown, about 3 mi . NW. of, about 0.1 mi . S. of NW. cor. sec. 2O, T. $34 \mathrm{~N} ., \mathrm{R} . \mathrm{I} 2 \mathrm{E} .$, 40 ft . NE. of crosiroads, in concrete post; standard tablet stamped "Pria Trav Sta No 12 J B L 1921 Mo 579"
Eureka, about $1.5 \mathrm{mi} . \mathrm{S}$. of, along rd. to Uniontown, about 0.3 mi . N. of SW. cor. aec. 8, T. 34 N.: R. $12 \mathrm{E} ., 60 \mathrm{ft}$. S. af rd. function, 5 ft . S. of bed of creek, in root on NW. gide of $36-1 n$. black oak tree; copper nail and washer 527.01
Eureka School, 800 ft. SW. of., in sec. 5, T. 34 N., R. $12 \mathrm{E}, \mathrm{f}$ on N. side of Wittenberg road at rd. S. to Unionvilie, in concrete post; standard teblet stamped "Prim Tray Sta No 14 J B L 1921 Mo 643"
 on W. side of rd., in root on NE. side of large white oak tree; copper nail and washer
 drain, 150 ft . s . of small group of trees, in root on NE . side of small persimmon tree; copper nail and washer
Hager School, 350 ft. NW. of, $1 \mathrm{ft} . \mathrm{g}$. of fence, in corner of schoolyard; iron post stamped "Prim Trav Sta No 15 J B L 1921 No 616 m
crosstown, 0.8 mi . S. of, 10 ft . from T-rd. E., at Martin Schnessler's mail box, In root on W. side of 18-in. tree; copper nail and washer 574
Orosatomn, at NW. corner of James Grimand's store, in W. foundation wall; standard tablet stamped "Prim Trav Sta No 71913 Mo 570":
(Continued in Campbell Hill quadrangle; see line no. 1.)
For an additional level line along Mississippi River, refer to United States Coast and Geodetic Survey first-order line, St. Louis, Mo. to Cairo, Ill.

PERRYVILLE QUADRANGLE
(Latitude $37^{\circ} 0^{\prime}-37^{\circ} 45 ;$; Iongitude $89^{\circ} 45^{\prime}-90^{\circ}$ )
Boilinger, Cape Girardeau, and Perry Counties


## 1. EAST THROUGH CENTER OF QUADRANGLE (by R. T. Gale in 1921)

 (Continued from Higdon quadrangle; see line no. 3.)T. 34 N., R. 9 E., near center sec. 25, NE. of junction of rd. N., in root on SW. Feet side of white oak tree; copper nail and washer 884.89 T. 34 N., R. 10 E., in W ${ }^{1} \frac{1}{2}$ sec. 30 , about 750 ft . W. of T-rd. S., 700 ft . W. of house, on N. side of rd., N. of E.-W. fence, in root on S. side of $30-\mathrm{in}$. black oak tree; copper nail and washer
831.08
T. 34 N., R. 10 E., in SWh sec. 29, 100 ft . N. of Lukefahr School, 5 ft . W. of sandstone rock, in root on N. side of large white oak tree; copper nail and washer
719.13

Millheim, 3.3 mi . W. of, along rd, to Yount, about 300 ft . SE. of house, on N . side of rd., in root on $N$. side of l2-in. black oak tree; copper nail and washer 776.94
Millheim, 2.9 mi . W. of, along rd. to Yount, 0.2 mi . N. of center sec. 28, T. $34 \mathrm{~N} .$, R. 10 E., 20 ft . NE. of junction of Greenville-Perryville and Uniontown-Yount roads; iron post stamped "Prim Trav Sta No 20 J B Li 1921 Mo 826"
825.159
millheim, 1.5 mi . W. of, along rd. to Yount, near N. sixteenth cor. sec. 27, T. $34 . \mathrm{N}$. , R. 10 E., on S. side of rd. in fence ine, in root on N. side of 24-in. white oak tree; copper nail and washer
678.41

Millheim, 0.8 ml . NW. of, along ra. to Yount, in NWR sec. 26, T. $34 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} ., 200$ ft. SE. of house, on NE. side of rd. corner, in root on N. side of 30-in. white oak tree; copper nall and washer
Millheim, about 350 ft . W. of mill, 40 ft . N. of creek, 10 ft . S. of rd.; iron post stamped "Prim Trav Sta No 19 J B L 1921 Mo 581"
Milheim, 1 mi . SE. of, along ra. to Biehle, 0.3 mi . N. of Schumer springs, 60 ft . 3. of rd. fork SW., in root on NW. side of hard maple tree; copper nail and washer
526.37

Biehle, 1.2 mi . W. of, along rd. to Millhelm, about 500 ft . W, of house, 15 ft . N. of rd., in root on SW. side of black oak tree; copper nail and washer 579.74
Biehle, 100 ft . SW. of Cape Girardeau Northern R. R. station, 100 ft . W. of rd. crossing, about 150 ft . S. of junction of three rds., in bank about 4 ft . above roadbed, in root on SW. side of 30 -in. black oak tree; copper nall and washer
Biehle, 350 ft . NW. of rd. Junction, 10 ft . from fence corner, 20 ft . from private driveway; iron post stamped MPrim Trav Sta No 18 J B L 1921 Mo 527 mi priva 526.55
Biehle, $1.2 \mathrm{mi} . \mathrm{E}$. of, along rd. to Schnurbusch, in NEA sec. 33, T. 34 N., R. 11 E., at NE. corner of small bridge, in iron brace; chiseled square
Biehle, 2 mi . E. of, along rd. to Schnurlusch, near center sec. 34, T. 34 N., R. 11 E., about 100 ft . E. of creek, 10 ft . E. of $24-1 \mathrm{n}$. black oak tree, 3 ft . N. of wire fence, on S. eide of rd.; iron post stamped "Prim Trav Sta No 17 J E L. 1921 Mo 454"
453.158
 $1,000 \mathrm{ft}$. W. of T-rd. N., 600 ft. E. of T-rd. S., at SE. corner of timbered tract, in root on SE. side of 24-in. black oak tree; copper nail and washer
Schmurbusch, about 0.7 mi . SW. of, along rd, to Biehie, in what sec. 31, T. 34 N. , R. 12 E. , on N . aide of rd., 75 ft . E. of rd. forks, 5 ft . E. of fence corner, in root on $S$. aide of $48-1 n$. black oak tree; copper nail and wagher
473.33
(Continued in Altenburg quadrangle; gee line r:o. 3.)
2. EAST ALONG SOUTH BORDER OF QUADRANGLE
(Continued from Higdon quadrangle; see line no. 4.)
Patton, 1.6 mi . E. of, along rd. to Oak Ridge, at T-rd. S., in top of storre on which is chiseled "NE Cor Sur 773"; chiseled square
Patton, 1.8 mi. E. of, along rd. to Oak Ridge, 30 ft . 3. of small church on top of hill, on N. aide of rd., in root on S. side of white oak tree; copper nail and washer
Patton, 2 mi. E. of, along rd. to Oak Ridge, on top of high ridge, on N. side of rd., opposite house, in root on $S$. side of 24-in. black oak tree; copper nail and washer
Patton, 2.9 mi . E. of, along rd. to Oak Ridge, 50 ft . SW. of Flatwood School, 20 ft . SW. of well, $2 \mathrm{ft} . \mathrm{S}$. of fence, in concrete post; standard tablet stamped "prim Trav Sta No 6 J B $L 1921$ Mo 722"
Patton, $3.2 \mathrm{mi} . \mathrm{E} .0 \mathrm{f}, \mathrm{along} \mathrm{rd}$. to Oak Ridge, 50 ft . NE. of Lebanon Church, 150 ft . E. of rd. junction, on $S$. side of main rde, in root on $N$. side of $36-1 n$. black oak tree; copper nail and washer
sedgewickvilie, 1.8 mi . W. of, along rd. to Patton, at T-rd. S., in NE. wing wal of concrete culvert; chiseled square
Sedgewickville, 0.8 ml . W. of, along rd. to Patton, 60 ft . W. of T-rd. S., on N. side of main rd., in root on 8 . side of $30-1 n$. white pak tree; copper nail and washer
Sedgewickville, 0.7 mi . W. of, along rd. to Patton, at junction of rd. NW., in E. wing wall of small concrete culvert; ohlseled square
652.33

Sedgewickville, about, $1,000 \mathrm{ft}$. W. of post office, lís ft . SW. of Lutheran Parsonage, 10 ft . SW. of large maple tree, in $S E$ corner of field; iron post gtamped "Prim Trav Sta No. 5 J BL 1921 Mo 642"
Sedgewickvilie, 0.7 . mi. E. of, along rd. to Oak Ridge, NW. of cross rd., in fence inne, in root on W. side of $36-1 n$. white oak tree; copper nail and washer 655.70 Sedgévickville, 1.2 mi . E. of, along rd. to Oak Ridge, about 0.2 mi . W. of schoolhouse. SW. of T-rd. S., in root on N. side of badly washed oak tree; copper nail and washer
gedgewickville, 2 mi. E. of, along rd. to Oak Ridge, at T-rd. N.g 75 ft. N. of amall drain, 50 ft . W. of $\log$ house, in root on $N$. side of $30-1 n$. walnut tree; copper nall and washer
Sedgewickvilie, 2.3 mi . E. of, along rd. to Oak Ridge, 20 ft . SW . of small bridge,
at rd. forks, in root on NE. side of l2-in. hickory tree; copper nail and
washer

Sedgewickiille, $3.7 \mathrm{mi} . E$. of, along rd. to Oak Ridge, 20 ft . SW. of T-rd. S., 2 ft . E. of gate in fence corner, in large flint rock; chiseled square
(For balance in Marble Hill quadrangle, see line no. 2.)
Oak Ridge, $1 . \Xi \mathrm{mi}$. W. of, along rd. to Sedgewickville, 20 ft . E. of crossroads, in W. end of $N$. head wall of concrete culvert; chiseled square

For an additional level line along State Highway 5l, refer to United States Coast and Geodetic Survey second-order line, Fredericktown to Claryville.

MARBLE HILL QUADRANGLE<br>(Latitude $37^{\circ} 15^{\prime}-37^{\circ} 30^{\prime}$; longitude $89^{\circ} 45^{\prime}-90^{\circ}$ )<br>Bollinger and Cape Girardeau Counties



1. NORTH ALONG SOU'TH HALF OF EAST BCHDER OF GUADRANGLE (by s. R. Archer in 1920)
(Continued from Cape Girardeau quadrangle; see line no. 4.)
Whitewater, 3 mi . NE . of, 800 ft . SE. of Maple Grove School, at rd.forks, 70 ft . SE of center of bridge, 28 ft . SE. of birch tree, on E. side of rd., 2 ft . from fence, in concrete post; standard tablet stamped "Prim Trav Sta No 101920 Mo 362"
Reference mark, in top near center of $E$. wing wall of $N$. concrete abutment of highway bridge; chiseled square
(For balance in Cape Girardeau quadrangle, see line no. 5.)
Tilsit, 0.8 mi . NW. of, in NE sec. $30, \mathrm{~T} .31 \mathrm{~N} ., \mathrm{R} .12 \mathrm{E} ., 150 \mathrm{ft}$. W. of small bridge, $15 \mathrm{ft} . \mathrm{S}$. of $\mathrm{T}-\mathrm{rd}$. N., 2 ft . from fence on S . side of rd.; iron post stamped "Prim Trev Sta No 81920 Mo 407 "
407.096

Tilsit, about 1.5 ml . NW. of, in top of s . end of parapet wall of E . concrete abutment of bridge over Eyrd Creek; chiseled square
Tilsit, about 2 mi . NW. of, on NE. corner of bridge over Cain Creek, in top of outer edge of horizontel steel plate on top of circular steel pillar; chiseled square
Tilsit, about 3 ml . NW. of, on $W$. side of rd., in root on NW . side of $36-\mathrm{in}$. oak tree; copper nail and washer
Burfordville, 3 mi . E. of, along rd. to Jackson, $45 \mathrm{ft} . \mathrm{s} .27^{\circ} \mathrm{W}$. from rd. fork S ., 58 ft . S. of hickory tree on N . side of rd., 1 ft . from fence on W. side of rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 71920 Mo 455" 454.437
Jackson, 5 mi . W. of, along Burfordville road, 125 ft . NW. of T-rd. S., on N. side of rd., in field, in root on $S$. side of $30-i n$. maple tree; spike
(Continued in Cape Girardeau quadrangle; see line no. 6.)
2. EAST ALONG EAST HALF OF NORTH BURDEF OF QUADRANGLy (by R. T. Gale in 1921)
(Continued from Perryville quadrangle; see line no. 2.)

Sedeewickville, 2.5 mi . E. of, along rd. to Oak Ridge, 500 ft . N. of rd. forks, 200 $f t$. SW. of farmhouse, on $E$. side of main rd., 2 ft . from fence, in concrete post; standard tablet stamped "Prim Trav Sta No 4 J B L 1921 Mo 461 "
Sedgewickville, 3 mi . E. of, along rd., to Oak, Ridge, about 0.1 mi . NE. of SW. cor. sec. 32, T. 33 N., R. 11 E., 50 ft . NE. of crossroads, in SE. end of NW. concrete wing wall of bridge across Whitevater River; chiseled square
450.81

Sedgewickville, 4.4 mi . E. of, along rd. to Oak Ridge, about 0.2 mi . SW. of center sec. $33, \mathrm{~T} .33 \mathrm{~N} . ;$ R. 11 E.; 75 ft . SE. of junction of rd. to Daisy, 50 ft . N. of barri on $S$. side of rd., in root on $N$. side of 18-in. white oak tree; copper nail and washer.
570.47

Sedgewickville, 4.9 mi . E. of, along rd. to Oak Ridge, about 0.2 mi . E. of S . quarter cor. sec. 33, T. 33 N., R. 11 E., 100 ft . W. of T-rd. E., on N. side of rd., in root on S. side of 24-in. black oak tree; copper nail and washer
559.41

Sedgewickville, 5.4 mi . E. of, along rd. to Oak Ridge, at Caney Fork Church, alout $0.1 \mathrm{mi} . \mathrm{E}$. of SW . cor. sec. $34, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R}$. 11 E. , on bottom concrete step of church; chiseled squere
548.58

Sedgevickville, 5.9 mi . E. of, along ra. to Oak Ridge, 200 ft . E. of Caney Fork Creek, 40 ft . S. of rd. forks, on SW . side of main rd., in root on N. side of 36-in. hard maple tree; copper nall and washer
Sedgewickville, 6.5 mi . E. of, alonit rd. to Oak Ridge, 100 ft . E. of T-rd. S., 200 ft . SE. of farmhouse, on S . side of rd., in root on $N$. side of 30 -in. locust tree; copper rail and washer
523.07

Oak Ridge, 4.3 mí. W. of, along rd. to Sedgewickville, near center of $N \frac{1}{2} \sec .2$, T. $32 \mathrm{~N} .$, R. $11 \mathrm{E} ., 75 \mathrm{ft}$. NE. of crossroads, $10 \mathrm{ft} . \mathrm{SE}$. of large white oak tree, in concrete post; standard tablet atamped "Prim Trav Sta No 3 J B L $1921^{\prime}$ Mo 553"
552.867

Oak Ridge, 3.4 mi . W. of, along rd.. to Sedgewickville, in NW $\frac{1}{4}$ sec. 1, T. 32 N., R. il E., 50 ft . E. of T-rd. S., on S. side of rd., in root on $N$. side of persimmon tree; copper nail and washer
Oak Ridge, 2. 2 mi . W. of, along rd. to Sedgevickville, in NW $\frac{1}{4}$ sec. 6, T. $32 \mathrm{~N} ., \mathrm{R} .12 \mathrm{E} .$, 50 ft . E. of rd. forks, 65 ft . NW. of small house, 3 ft . W. of N.-S. fence; iron post stamped "1921 Mo 617"
616.571

Reference mark, in NE. corner of sandstone rock; chiseled square
616.97

Oak Ridge, 1.8 mi . W. of, along rd. to Sedgewickville, at N . quarter cor. sec. 6, T. 32 N., R. 12 E., 100 ft . N. of Cape Girardeau Northern R. R., 200 ft . E. of small house, 80 ft . N. of rd. forks, on E . side of rd., in root on NW. side of small black oak tree; copper nail and washer
(Continued in Perryville quadrangle; see line no. 2.)
3. FROM WEST BORDER OF QUADHANGLE SOUTHEAST TO LUTESVILLE THENCE NORTH AND WEST T'O WEST BORDER (by W. R. Broaddus in 1926)
(Continued from Marquand quadrangle; see line no. 4.)
Lutesville, 0.8 mi . NW. of on S . side of State Highway 34, opposite Missouri Pacific R. R. trestle no. 889, in top of $S$, head wall of concrete culvert; chiseled square
Lutesville, 212 ft . N. of Missouri Racific R. R. at public rd. crossing, 150 ft . W. of Presbyterian Church, in SW. corner of yard of Fred Elfrank, in N. edge of concrete sidewalk; standard tablet stamped "P T. Sta No 41 S.1926"
Reference mark, $215 \mathrm{ft} . \mathrm{S} .60^{\circ} \mathrm{W}$. of tablet, in top of first step at front entrance of Presbyterian Church; chiseled square
417.44

Crooked Creek, at Lutesville, under highway bridge; surface of water December 23, 1926 at $4 \mathrm{p} . \mathrm{m}$.
Lutesville, 0.5 mi . NE. of, at $W$. angle of intersection of State Highways 34 and 51, in top of head wall of concrete culvert; chiseled square
Lutesville, 1.3 mi . N. of, on $S$. side of State Highway $51,50 \mathrm{ft}$. SE. of junction of old Glenallen road, in top of $S$. head wall of concrete culvert; chiseled square
425.52

Lutesiville, 2 mi . N. of, along State Highway 51 , in NW is sec. $31, \mathrm{~T} .31 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E}$. , in $N$. end of $E$. wing wall of concrete culvert; standard tablet stamped "P T Sta No 40 S 1926"
481.151

Reference mark, $635 \mathrm{ft} . \mathrm{S}$. of tableti, in top of W . head wall of concrete culvert under highway; chiseled square
470.80

Lutesville, z.l mi. N. of, along State Highway 5l, about 0.3 mi . S. of rd. forks, 500 ft . S. of summit of hill, in top of $W$. head wall of concrete culvert; chiseled square
654.66
(Continued in Marquand quadrangle; see line no. 5.)
4. IN SOUTHEAST CORNFR OF QUADRANGLE SOUTHWEST TO SOUTH BORDER (by George w. Moore in 1931)

Whitewater, 2.2 mi . NE. of, 25 ft . W. of T-rd. N., in top of E. end of S . bead wall of laree concrete culvert; chiseled square $\quad 3$
Whitewater, 1.5 mi . NE. of, at NE. corner of crossroads, in top of SE . piling of wooden bridge; copper nail and washer
(Continued ir Advance quadrangle; see line no. 8.)
5. FROM SOUTH BURDER OF QUADRANGLE NORTHWEST ALONG MISSOURI PACIFIC R. R. TO LU'SESVIIILE (Continued from Advance quadrangle; see line no. 8.)

Whitewater, 1.8 mi . NW. of, along Missouri Pacific R. R.; on SW. guardtimber of R. R. bridge no. 900: second driftbolt from NW. end

Laflin, 3.5 ml . E. of, along Missouri Pacific R. R., 0.3 mi. E. of R. R. bridge no. 899, 45 ft . S. and 24 ft . W. of R. R. at Marble Hill-Whitewater road crossing, in
large sandstone rock; standard tablet. stamped "P T Sta No 48 S 1926"
Reference mark, 33 ft . N. of tablet, 26 ft . W. of crossing, on top of s . end of 24-in, iron culvert; painted square
Laflin, 2.7 mi . SE. of, along Missouri Pacific R. R., 50 ft . SW. of track, outside right-of-way fence, in root on SE. side of Il-in. oak tree; copper nail and washer
Laflin, 1.9 mi . E. of, along Missouri Pacific R. R., 70 ft . W. of ra. crossing, on S. guardtimber of bridge no. 8978; top of extreme E. driftbolt

Laflin, 1.5 mi . E. of, along Missouri Pacific R. R.; 125 ft . E. of Bollinger-Cape Girardeau county line, on W. end of S. guarditimber of bridge no 897-A; top of. W. driftbolt
Laflin, 0.5 mi . E. of, along Missouri Pacific R. R., in top near center of s. end: of E. concrete abutment of bridge no. 897; chiseled square . . . 386.20
Leflin, in NE $\frac{1}{4}$ sec. 13, T. 30 N., R. 10 E., in E. end of concrete porch of store of Elirink \& Son; standard tablet stamped "P T Sta No 47 S 1926"
Reference mark, 88 ft . SE, of tablet, in park, in root on NE. side of 29-in. locust tree
Laflin, 1 mi . W. of, along Missouri Pacific R. R., 65 ft . N. and 35 ft . W. of farm rd. crossing, 15 ft . N. and 27 ft . W. of gate to pasture, in root on S. side of 47-1n. oak tree; copper nail and washer
Laflin, 1.3 mi . W. of, along Missouri Pacific R. R., 5 ft . W. of E. end of S . retaining wall of $W$. concrete abutment of bridge no: 895 ; chiseled square of Leopold-Marble Hill road, in W. wall of concrete culvert; standard tablet stamped "P T Sta No 46 S 1926"
395.997

Lutesvilie, 2.6 mi . E: of, along Missouri Pacific R. R., in top of E. end of S . concrete retaining wall of E. abutrent of Missouri Pacific R. R. bridge no 894; chiseled square
Lutesville, 2 mi. E. of, along Missouri Pacific R. R., O.2 mi. E. of center of R. R. bridge no. $891-A ; 49 \mathrm{ft} . \mathrm{S}$. of tracks, 1 ft . N . of right-of-way fence, in root on NW. side of twin, wild cherry tree; copper nail and washer
Lutesvilie, 1.4 mi . E. of, along Missouri Racific R. R., in guardtimber of bridge no. 891: top of NW. driftholt
uteaville 20.6 mi . F. of, along Misaouri Pacific R. R., 5 ft. below track level, lit. NE. of base of SW. girder of large steel bridge no. 890 over Crooked Creek, in top of SW. end of SE. concrete abutment; chiseled square
6. FROM LDTESVILLE SOUTH ALONG STATE HIGHWAY 51 TO SOUTH BORDER OF QUADRANGLE (by L. V. Johnson in 1931)

Lutesville, near $S$. limits of, along State Highway, 51 , about 0.6 mi . S. of Missouri Paoific R. R. station, at NW. corner of steel bridge over O'Possum Creek, in concrete abutment; chiseled square
Lutesville, l. 3 mi . S. of, along State Highway 51 , on $N$. slope of hill, 380 ft . N. of service station, 14 ft . E. of highway, in head wall of concrete culvert; chiseled square
Luteaville, 2.2 mi . S. of, along State Highway $51,400 \mathrm{ft}$. S. of T-rd. W.; 13 ft . W.
of highway, in center of W. head wall of concrete culvert; chiseled square 666.45
Lutesville, 3.2 mi. S. of, along State Highway $51,380 \mathrm{ft}$. N. of center sec. 19, T. 30 N., R. 10 E., in $S$. end of w. wing wall of concrete culvert; standard tablet stamped "P T Sta No $42 \mathrm{~S} 1926{ }^{\prime \prime}$
Reference mark, opposite side of rdi from tablet, on $E$. head wall of same culvert; chiseled square
(Continued in Advance quadrangle; see.line no. 7.)
7. FROM MARBLE HILL ALONG STATE HIGHWAY 34 EAST AND NORTHEAST BY WAY OF BURFORDVILLT TC POINT NEAF EAST BORDER OF QUADFANGLE (by W. R. Broaddus in 1933)

Marble Hill, at NW, entrance to Bollinger County Courthouse, on NE. end of stone steps; chiseled square
Marble Hili, 0.7 mi . E. of, along State Hi ghway 34 , at NE . corner of bridge over Hurricane creek, in top of concrete wing wall; chiseled square
Marble Hill, 1.1 mi : E. of, along State Highway 34, 75 ft . E. of rd. junction at top of ridge, 20 ft . N. of highway, in root on $N$. side of 18 -in. white oak tree; copper nail and washer
Marble Hill , 1.6 mi . E. of, 100 ft . W. of junction of State Highway 34 and County Route $B$ to Scopus, in top of $S$. head wall of concrete culvert; chiseled square 543.50
Marble Hi-ll, 2.3 mi . E. of, along State Highway 34, in Nw sec. 3, T. 30 N., R. 10 E., 700 ft . E. of farmhouse of Jeff Wisecarver; in N. wing wall of concrete cilvert.; standard tablet stamped "P T Sta No 50 S 1926"
Reference mark, 58 ft . S. $60^{\circ} \mathrm{E}$. of tablet, in root on E . side of $10-\mathrm{in}$. boxelder tree; copper nail and washer
Marble Hill, 3.2.mi. E. of, along State Highway 34, at foot of hill aloping E. in S. wing wall of E. concrete abutment of bridge no. F-750; chiseled square 482
Marble Hill, 3.9 mi . E, of, along State Highway 34, 40 ft . W. of junction of rd. SE. at signboard marked "Lafinn $3^{\mathrm{H}}$, in top of S . head wall of concrete culvert; chiseled square

### 482.56

Hog Creek; floor of kridge
Huskey School, 4.9 mi . NE. of Marble Hill, along State Highway 34, llo ft. W. of school, 60 ft . E. of rd. Junction; in $S$. Wing mall of concrete culvert; standard tablet stemped "P T Sta No 51 s 1926"
Reference mark, 67 ft . S. $10^{\circ} \mathrm{E}$. of tablet, ir root on W . side of zo-in. white oak

Marble Hill, 5.3 mi . NE. of, along State Highway $34,85 \mathrm{ft}$. N. and 20 ft . E. of rd. forke, in root on W. side of 24-ih. black oak tree; copper nail and washer 537.8
Marble Hill, 6 mi . NE. of, along State Highway 34, 140 ft . SW. of filling station at rd. fork E., in tóp of N. bead wall of concrete cuivert; chiseled square
Marble Hłll, 6.9 mi . NE. of, alone State Highway 34, at top of hill, in front of farmhouse, 20 ft . W. of highway, in top of second concrete step on terrace; chiseled square
680.17
burfordville, 4.1 mi. W. of, along State Highway 34, near quarter cor. between secs, 18 and $19, \mathrm{~T} .21 \mathrm{~N} ., \mathrm{R}$. $11 \mathrm{E} ., 500 \mathrm{ft}$. NE. of junction of ra., 480 ft . SW. of Wm. Riehm's farmhouse, in W. wirg wall of concrete culvert; standard tablet stamped "P T Sta No 52 S 1926 658"
Reference mark, 380 ft . SW. of tablet, in top of N . head wall of concrete culvertig 668.75
chiseled square

Burfordville, 3.1 mf . W. of, along State Highway 34, 0.4 mi . E. of Bollinger-Cape Girardeau county line, in top of $N$. head wall of concrete culvert; chiseled square
Burfordville, 2.3 mi . W. of, along Statë Híghway 34 , at Grevei hill, on W. bank of creek, 50 ft . S . of highway, on county rd., in top of SW. corner of bridge; chiseled square
425.51

Burfordville; 1.3 ml . W. of, along State Highway $34,340 \mathrm{ft}$. E. of highway at crossing of old route, in top of $S$. head wall of concrete culvert; chiseled square 508.27

Burfordville, 330 ft . E. of post office, in SE . corner of concrete porch of garage of P. H. Holmes; standard tablet stamped "P T Sta No $53 \mathrm{~S} 1926389 \mathrm{n} \quad 3$
Reference mark, 190 ft . W. of tablet, in top of S . head wall of concrete culvert; ohiseled square
388.688

Burfordville, 0.6 mi . E. of, along old route of State Highwey $34,175 \mathrm{ft}$. N. of rd. forks, in top of $W$. head well of concrete culvert; chiseled square 387.78
Burfordville, 2 ml . E. of, along State Highway 34, 30 ft . N. of rd., 30 ft . S. and 8 ft. W. of SW. corner of J. W. Craig's farmhouse, in root on SW. side of 28-in. boxelder tree; copper nail and washer
Burfordville, 2.9 mi . E. of, along State Highway $34,0.4 \mathrm{mi}$. E. of croseing of creek, 65 ft . N. of highway, in front of farmhouse, in root on SE. gide of 14-in. cedar tree; copper nail and washer
451.91

## 8. NORTH THHOUGH MIDDLE OF NORYH HALF OF QUADRANGIE

 34, 220 ft . SE. of schoolhouse, 45 ft . N. and 10 ft . W. of T-rd. W., in root on W. side of 30-in. white oak tree; copper nail and washer

Hamestring School, 0.8 mi . N. of, in NWh swis sec. 7, T. 31 Na, T-rd. S., in root on $N$. side of 15 -in. bickory tree; copper nail and washer 616.94
glopus, 2.2 mi . E. of post office, 440 ft . S. of lot corner which is 0.8 mi . N. of SW. cor. sec. 6, T. 31 N., R. 11 E., 75 ft . NW. of farmhouse of John J. Hahn; on W. side of entrance to barn lot, near fence post, in limestone boulder; standard tablet stamped "P T Sta No 54 S 1926597 "
Reference mark, 23 ft . S. $80^{\circ}$ W. of tablet, in root on $E$. side of $15-1 \mathrm{n}$. walnut tree; copper nail and mesher
597.18

Scopus, $3 \mathrm{mi} . \mathrm{E}$. of, 0.4 mi . W. of rd. forks, in creek valley, at fork of creek S., 12 ft. S. of rd., 15 ft . SW. of small bridge; in root on NW. side of liz-in. walmut tree; copper nall and washer
T. 32 N., R. 11 E., about 0.3 ml . S. of NW. cor. sec. $31,15 \mathrm{ft}$. S. and 40 ft . E. of rd. corner N, and E., on N. side of barn lot, in root on N. side of 30-in. black oak tree; copper nail and washer
593.55
T. $32 \mathrm{~N} ., \mathrm{R}$. $10 \mathrm{E} .$, near center of $\mathrm{SE} \frac{1}{4}$ gec. $25,35 \mathrm{ft}$. N. and 30 ft . W. of junction of rd. W. at top of hill, in root on E. side of 30-in. white oak tree; copper nail and washer
T. 32 N., R. 10 E., in NWT $\sec .25$, 150 ft . N. of N. entrance of ford across Little Whitewater River, 15 ft . E. of rd., in bench on T . side of 30 -in. black oak tree; copper nail and washer
Bridge at rd. fork $S$.
Scopus, 3 mi . NE. of post office, in NWI sec. 24, T. $32 \mathrm{~N} .$, R. 10 E., 0.2 mi . W. of O. S. Propst's farmhouse, 24 it. N. and 27 ft . W. of T-rd. N.s in fence corner, In eandstone ledge; standard tablet stemped "P T Sta No $55 \mathrm{~S} 19265^{\circ 0^{\circ}}$
523.104

Reference mark, 13 ft . SW. of tablet, in root on $N$. side of l2-in. cherry tree; copper nail and washer
523.76
T. $32 \mathrm{~N}_{.}, R_{\text {. }} 10 \mathrm{E}$. , near center of $\mathrm{SW} \frac{1}{4} \mathrm{sec}$. $13,10 \mathrm{ft}$. N . and 20 ft . W. of rd. corner from S. to E.; at $\mathrm{N}_{\mathrm{o}}$ end of long tangent, in root on NE. side of $20-\mathrm{in}$. hickory tree; copper nail and washer
601.80

Trinity Church, about $2 \mathrm{mi} . \mathrm{S} .01$; about $1 \mathrm{mi} . \mathrm{S}$. of U. S. Highway 61 , in land grant, 50 ft . S. of S. end of ford across Little Muddy Creek, in root on S. side of 30-in. sycamore tree; copper nail and washer
454.39
T. 32 N., R. 11 E., in NWh sec. 7, 218 ft . S. of U. S. Highway 61 at cross rd., 300 ft . SW. of J. W. Johnson's farmhouse, on E. gide of rd., in fence corner, in concrete post; standard tablet stamped "P T Sta No 56 S 1926631 "
Reference mark, 250 ft . N. of tablet, in NE. corner of crossroads, in top of $N$.
head wall of concrete cuivert; chiseled square
631.039
614.42
T. 32 N., R. 11 E.; in SW ${ }^{\frac{1}{4}} \mathrm{sec} .6,0.8 \mathrm{mi}$. N. of U. S. Highway 61 , at foot of hill, 20 $f t . N$. and 10 ft . E. of junction with private rd. SE., in root on SW. side of 18-in. wild cherry tree; copper nail and washer
477.87
T. 32 N., R. 11 E., in NW $\frac{1}{4}$ sec. $6,1.7 \mathrm{mi}$. N. of $\mathrm{J} . \mathrm{S}$. Highway $61,15 \mathrm{ft}$. N. and 10 ft . E. of rd. corner from S. to E., in root on E. side of 24-in. white oak tree; copper nail and washer
530.93

## 9. FROM POINT 3 MILES EAST OF SCOPUS WEST TO WEST BORDER OF QUADRANGLE

Scopus, 2.2 ml . E. of, in Panther Creak valley, 200 ft . SW. of Julius Cook's farmhouse, 45 ft . W. and 15 ft . S. of rd. fork S. to D. H. Hahn's house, in root on S. side of 10-in. walnut tree; copper nall and washer
Scopus, 1.5 mi . E. of, on top of ridge, about 0.1 mi . W. of S. cor. secs. 35 and 36 , T. 32 N., R. 10 E., 15 ft . N. and 20 ft . W. of rd. corner from N. to W., in root on SE. síde of 12 -in. walrut tree; copper rail and washer 586.91
Scopus, 0.5 ml . E. of, in $\mathrm{NW}^{\frac{1}{3}}$ sec. $2, \mathrm{~T}$. $31 \mathrm{~N} ., \mathrm{R}$. $10 \mathrm{E} ., 90 \mathrm{ft}$. E. and 20 ft . S. of rd. forks, in root on W. side of 20-in. black oak tree; copper nail and washer
610.19

Scopus, in NE $\frac{1}{4}$ sec. E, T. 31 N., R. 10 E., in.SW. corner of crossroads, 8 ft. S. and 3 ft . E. of center of front steps to residence of Mr . L. L. Bridges, at E. edge of concrete sidewalk, in concrete post flush with ground; stendard tablet stemped "1 B 1935 684"
683.587

Reference mark, 48 ft . NE. of tablet, in top of W. head wall of concrete culvert; chiseled stuare
Scopus, 0.8 mín. W. of, in front of Phillip Long's house, 30 ft . N. of rd., in root on SE: side of 24-in. white oak tree; copper nail and washer

Coles Church, 1.5 mi . W. of Scopus, along ra. to Hurricane, 45 ft . S. and 25 ft . E. of SE. corner of church, 10 ft . S. ond 10 ft . W. of T-rd. N., in root on N . side of 15-in. hickory tree; copper nail and washer
Scopus, 2.2 mi . W. of, along rd. to furricane, at top of prominent ridges opposite fermhouge of Elijah Ridines, lZ ft. S. of rd., in root on NE. side of $10-1 n$.
black oak tree; copper nail and washer
854.75
 S. of rd., 35 ft . N. of NW. corner of Lee Estes" farnihouse, 3 ft . NE. of corner fence post; in concrete post; standard tablet stamped "2 B 1933845 ":
Reference mark, 12.5 ft . N. $75^{\circ} \mathrm{E}$. of tablet, in root on N. side of 20-ir. black ook tree; copper naij and washer
Scopus, 3.9 mi . W. of, elong rd. to Hirricane, near center sec. 31, T. $32 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} .$, 210 ft . SE. of crossroads, 20 ft . S. of rd., in root on N . side of $15-\mathrm{in}$. white oak tree; copper nail and washer
Scopus, 4.3 ml . W. of, along rd. to Hurricane, 120 ft . W. of rd. forks, 15 ft . N. of rd., in root on S. side of 18 -in. white oak tree; copper nail and washer 848.82
(Continued in Marquand quadrangle; see line no. 7.)
For an additional level line along Missouri Pacific R. R., refer to United States Coast and Geodetic Survey second-order line, Fredericktown to Delta.

ADVANGE QUADRANGLE<br>(Latitude $37^{\circ}-37^{\circ} 15 \cdot$; longitude $89^{\circ} 45^{\prime}-90^{\circ}$ )

Bollinger, Cape Girardeau, Scott, and Stodidard Counties


1. FROM WEST BORDER OF QUADRANGLS: NORTHEAST ALONG SAINT LOUIS-SAN FHANCISCO R. R. TO EAST BORDER (by E: C. Bibbee in 1914)
(Continued from Zalma quadrengle; see line no. 1.)
Sturdivant., 1.9 mi. NE. of, along St. Louis-San Francisco R. R., in S. end of first Feet tie on $E$. end of trestle no. A-162.7; spike
Brownood, 0.7 mi . SW. of, along St. Louis-San Francisco R. R., in SE. corner of foundation to vater tank; copper nail
357.67

Brownwood, 250 ft . E. of junction of Bloomfield and Hoxie branches of St. Louis-San Francisco R. R., 30 ft . S. of R. R., 10 ft . N. of rd., in garden; iron post stamped "Prim Tretv Sta No 9 F 1924 Mo 353"
Brownwod, l.l mi. NE. of, along St. Louis-San Fraricisco R. R., 90 ft. N. of tracky
$3 \mathrm{ft} . \mathrm{S}$. of fence on N . side of public rd., in root of $18-1 \mathrm{n}$. elm tree; copper nail
352.14

Brownmood, 2.1 mi. NE. of, along St. Louis-San Francisco R. R., in front of signboard marked "Stal mi", in base of telegraph pole; rail spike
351.12

Advance, in SW. corner of achoolyard; iron post stamped "Prim Trav Sta No 8 F 1924 Mo $361^{\prime \prime}$
Advance, 1 mi . NE. of, along st. Louls-San Francisco R. R., 5 ft . N. of right-of-way, in county rd., in root of 42-in. maple tree; copper nail 357.88
Advance, 2.1 mi . NE. of, along St . Louis-San Francisco R. R., 4 ft . S. of right-of-way, in root of white oak tree; copper nail
346.46

Advance, 3 mi . NE. of, 50 ft . N. of St. Louis-San Francisco R. R., 5 ft . S. of fence corner at corner of Eollinger and Cape Girardeau counties on Stoddard county line; iron poat stamped "Prim Trav Sta No 7 F 1924 Mo 347"
Green Cox, 0.8 mi . SW. of, elong St. Louis-San Francisco R. R., In S. end of pirst 347.673 tie on W. end of trestle no. A-154.1; driftspike
Green Cox, 300 ft . SW. of St. Louis-San Francisco R. R. station signboard, 100 ft .
SE. of R. R., 30 ft. SE. of rd.; iron post stamped "Frim Trav Sta No 6 F 1924 Mo $336^{n}$
Arbor, 0.8 ml . SW . of, along St. Louis-San Francisco R. R., 45 ft . N. of track, on right-of-way line, in root of $42-i n$. sweet gum tree; copper nail 332.69
Arbor, 80 ft . E. of post office, 100 ft . N. of St . Louis-San Francisco R. R. station, 50 ft . NW. of track, 50 ft . N. of rd., 50 ft . E. of house; iron post stamped
"Prim Trav Sta No 5 F 1924 340"

Cliff station, 40 ft. S. of St. Louis-San Francisco R. R., 25 ft. E. of public rd. opposite trestle no. A-149.7, in root of walnut tree; copper nail 338.32 Delta, 2.6 mi . SW. of, along St. Louie-San Francisco R. R., 52 ft . S. of track, 65 ft. W. of public rd., opposite station sign l mile, in root of elm tree; copper nail $\qquad$
Delta, 1.7 mi . SW. of, along St. Louis-San Francisco R. R., in S. end of first tiek. on W. end of trestle no. A-147.8; driftspike
(Continued in Morley quadrangle; see line no. 1.)
2. FHOM EAST BORDER OF QUADRANGLE SOUTHWEST ALONG STATE HIGHWAY 25 TO ADVANCE (by L. V. Johnson in 1931).
(Continued from Morley quadrangle; see line no. 9.)
Delte, 1.6 mi . SW. of, along State Highway 25, 80 ft . NE. of rd. forks, about 60. ft. W. of St. Louis Southwestern R. R., 15 ft . E. of sharp curve in highway, in center of $E$. head wall of concrete culvert; chiseled square
333.77

Delta, 2 mi . SW. of, along State Highway 25 , about 0.4 ml . W. of St. Louis Southwestern R. R., 200 ft . W. of old barn, in E. end of N. head wall of concrete culvert; chiseled square
337.04

Arbor, 2 mi . NE. of, along State Highway $25,70 \mathrm{ft}$. N. of highway at first curve, in SE, wooden wing wall of St. Louis-San Francisco R. R. trestle no. A-148.8; copper nail and washer
Arbor, 0.9 mi . NE. of, along State Highway 25, on N. side of highway, in E. end of head wall of large concrete culvert; chiseled square
Arbor, 0.7 mi . SW. of, along State Higbway 25 , in E. end of $N$. head wall of large concrete culvert over drainage ditch no. 24; chiseled aquare
333.54

Green Cox, 0.9 mi , NE. of, along State Highway 25 , in E. end of $N$. head wall of large concrete culvert over drainage ditch no. 27; chiseled square at Nw 330.37
Advance, 3.6 mi . NE. of, along State Higbway 25, in concrete wirig wall at NW. corner of concrete bridge over drainage ditch no. 25; chiseled square
Advence, 1.7 mi . NE. of, along State Highway 25, 500 ft . E. of crossroads at Toga 13 ft . N. of highway, in E. end of N. head wall of concrete culvert; chiseled square $\quad 345.64$
Advance, 1.1 mi . NE. of, along State Highway $25,500 \mathrm{ft}$. SW. of rd. forks, $13 \mathrm{ft} . \mathrm{S}$. of highway, in E. end of s. head wall of concrete culvert; chiseled square 358.25
Advence, at $E$. 1.1 mita of, 250 ft . E. of center of triangle formed by intersection of State Highways 25 and $91,13 \mathrm{ft} . \mathrm{S}$. of highway, in E . end of S . head wall of concrete culvert; chiseled square
359.61
3. FROM POINT NEAR CENTEF OF NORTH HALF OF EAST BORDFR OF QUADRANGLE SOUTHWEST ALONG ST. LCUIS SOUTHWESTERN R. R. TO SOUTH BORDER

Delta, 2.2 mi . SW. of, along St. Louis Southwestern R. R., in wooden wing wall at NE. corner of wooden trestle no. 58; copper nall and washer
Delta, 3.2 mi . SW. of, along St. Louis Southwestern R. R., about 700 ft . S. of curve in R. R., 200 ft . E. of farmhouse, in $W$. end of SW. concrete abutment of R. R. culvert over creek; chiseled square
handles, 0.5 mi . N. of, along St. Louis Southwestern R. R., 45 ft . N. and $; 0 \mathrm{ft} .340 .91$ of rd. crossing, in root on $S$. side of $24-1 n$. maple tree; copper neil and washer
Randles, 400 ft . S. of St. Louis Southwestern R. R. station, 100 ft . E. of tracks, 75 ft . W. of post office, 33 ft . S. and 45 ft . W. of crossroads, in concrete post; standerd tablet stamped "P T Sta No 102 S 1926"
Reference mark, in front of Mathews General Store, in NW. corner of concrete base
of gasoline pump; chiseled square
332.16

Randles, 0.8 mi . S. of, along St. Louis Southwestern R. R., 12 ft . N. and 40 ft . W. of rd. crossing, in $N$. end of wooden box culvert; copper nail and washer 328.82
Randles, $1.5 \mathrm{mi} . \mathrm{S}$. of, along St. Louis Southwestern R. R., $100 \mathrm{ft} . \mathrm{E}$. and l ft ft . S. of rd. crossing, 7 ft . E. of fence corner, in root on SW . side of large white oak tree; copper nail and wesher
327.42

Perkins, 0.7 ml . N. of, along St. Louis Southwestern R. R., on E. side of track, about 200 ft. S. of private rd. crossing, about 20 ft . Nw. of telegraph pole no. 23, in top of concrete support for extra rail; chiseled square
328.58

Perking, 300 ft . NE . of St. Louls Southwestern R. R. station, at NE, corner of general store owned by Raymond Moore, in concrete porch; standard tablet stamped "P T Sta No 101 S 1926"
Reference mark, 25 ft . SW. of tablet, in E. corner of concrete floor of porch ta frame building; chiseled square
erkins, 0.7 ml . S. of, in sec. 13, T. $28 \mathrm{~N} ., \mathrm{R}$. Il E., in top of N . end of W . conorete pier of St. Louis Southwestern R. R. bridge over Whitewater River; (Little River Drainage Commission B. M. designated " 86 ")
332.777

Painton, 25 ft . N. and 100 ft . W. of main track of St. Louis Soutrwestern R. R. at E.-W. rd. crossing, in NE. corner of E. ond of concrete walk; chiseled square
Painton, 0.6 mi . SW. of, along St. Louis Southwestern R. R., in wooden wing wall at SW. corner of wooden trestle no. A-43; copper nail and washer
Messler, 180 ft . N. of W. P. Messler's general store, 100 ft . W. of St. Louls Southwestern R. R., in SE. corner of concrete foundation of wagon scales; standard tablet stamped "P T Sta No 100 S 1926"
322.726

Reference mark, 7 ft. NE. of tablet, in concrete wall; chiseled square 322.74

Messler, $1 \mathrm{mi} . \mathrm{S}$. of, along St. Louis Southwestern R. R., 12 ft . N. and 35 ft . W. of rd. crossing, in $N$. end of $30-1 n$. tile culvert; chiseled square
Messler; 1.6 mi . S. of, along St. Louis Sputhwestern R. R., in wooden wing wall at NE. corner of wooden trestle no. 41; copper nall and washer

Heagy, 600 ft . SW. of St. Louis. Southwestern. R. R. ot N. rd. crossing, 190 ft . NE. of R. R. switch, in wooden wing wall at SW. corner of wooden trestle no. 39; copper nall and washer
322.44

Bell City, 0.6 mi . NE. of, along St. Louis Southwestern R. R., 15 ft . S. of track, 15 ft. NE . of telegraph pole no. $29-5$, in top of $W$. concrete support for extra rail; chiseled square

Bell City, 5 ft . N. of front door of Bell City Bank, in Nw. oorner of step; standard tablet stamped "P T Sta No 99 S 1926"' 326.238
Reference mark, 40 ft . SE. of bank, in concrete step to old store building; chiseled square
Bell City, 1.1 ml . SW. of, along St. Louis Southwestern R. R., at SW. corner of wooden trestle no. 33, in wooden wing wail; copper nail and washer
Ardeola, 0.3 mi. NE. of, elong St. Louis Southwestern R. R., in wooden wing wall, at
NE. corner of wooden trestle no. 32 ; copper nail and washer
315.90
(Continued in Bloomfield quadrangle; see line no. 11.)

## 4. FROM MESSLER WEST TO JENKINS BASIN OUTLET

T. 28 N., R. 11 E., sec. 27, at outlet to Jenkins Basin, in head wall of stilling pool; square cut (Little River Drainage Commission B. M.)
321.82

## 5. FROM ADVANCE EAST AND SOUTH TO SOUTH BORDER OF QUADRANGLE

Advance, 0.7 mi . S. of intersection of State Highways 25 and $91,15 \mathrm{ft}$. N. and 15 ft . W. of T-rd. W., in W. end of N. head wall of concrete culvert; chiseled square
Advance, 1.6 mi . SE. of, along state Highway $25,5 \mathrm{ft} . \mathrm{g}$, and 12 ft . W. of corner of 357.62 highmay, in SW. head wall of concrete culvert under old rd.; chiseled square 357.69 Advance, $2.5 \mathrm{mi} . \mathrm{SE}$. of, along State Highway 25, in NEA sec. 24, T. 28 N., R. 10 E., 30 ft . N. and 50 ft : E. of corner of highway, in S . head wall of concrete culvert; oblseled square
354.62

Advance, 3.3 mí: SE . of, along State Highway $25,0.2 \mathrm{mi}$. N. of s. oor. secs. 19 and 24, T. 28 N., Rs. 10 and 11 E., 13 ft . W. of highway, at drain ditch W., in center of W. head wall of concrete culvert; chlseled square
366.74

Advance, 1.2 mi . E. and 2.8 mi . S. of, along State Highway 25, 0.2 mi . S. of cor. seos. $19,24,25$, and $30, \mathrm{~T} .28 \mathrm{~N} ., \mathrm{Rs} .10$ and $11 \mathrm{E.} 47 \mathrm{ft} .$,S . and 26 ft . E. of highway at crose rd., 20 ft . S. of fence corner; in concrete post; standard tablet stamped "T T 38 L 1931"
390.065

Reference mark, in SW. corner of crossroads, in head wall of concrete culvert; ohiseled square
389.51

AdVance, 4.3 mi . SE. of, along State Highway $25,0.2 \mathrm{mi}$. N. of s . cor. secs. 25 and 30 , T. 28 N. , Rs. 10 and 11 E., 15 ft . S. and 15 ft . E. of T-rd. E., in S. end of E. head wall of concrete culvert; chiseled square
363.63

Advance, $4.7 \mathrm{mi} . \mathrm{SE}$. of, along State Highway 25 , about 600 ft . S. of N. cor. secs. 31 and 36, T. 28 N., Rs. 10 and 11 E., 575 Pt . N. of T-rd. E., at SE. corner of bridge over creek, in concrete abutment; chiseled square
364.97

Advance, 5.6 mi . S. of, along State Highway 25, near S. car. secs. 31 and 36, T. 28 N., Rs. 10 and 11 E., 15 ft . E. of corner of highway, in center of E. head wall of ooncrete culvert; chiseled square
.368 .54
T. 27 N., R. 11 E., about 0.6 mi . S. of N. cor. secs. 5 and $6,0.2 \mathrm{mi}$. N. along State Highway 25 from junction of Bell City road, 28 ft . W. and 23 ft . S. of highway at rd. W., $9 \mathrm{ft} . \mathrm{S}$. of Pence corner, in concrete post; standard tablet stamped ${ }^{\mathrm{n} T} \mathrm{~T} 37 \mathrm{~L} 1931{ }^{\prime \prime}$
Reference mark, 350 ft . N. of T-rd. E., at SE. corner of concrete bridge over drain, in concrete abutment; ohiseled square
396.383
377.58

Advence, 7.3 mi . SE. of, along State Highmay $25,0.7 \mathrm{mi}$. N. and 0.2 mi . E. of S. cor. secs. 5 and 6, T. 27 N., R. 11 E., 82 ft. E. of SE. corner of church, in root on SW. side of 12-in. hickory tree; copper nail and washer
T. 27 N., R. 11 E., about 350 ft. N. of S. cor. secs. 5 and 6 , in Sw. concrete 463.37 abutment of highway bridge over Wolf Creek; chiseled square
(Continued in Bloomfield quadrangle; see line no. 10.)
6. IN SOUTHWEST CORNER OF QUADRANGLE, FROM SOUTH BORDER NORTH AND WEST TO WEST BORDER (Continued from Bloomfield quadrangle; see line no. 10.)
T. 27 N., R. 10 E., cor. sece. 3, 4, 9, and $10,15 \mathrm{ft}$. S. and 20 ft . W. of crossroads, in $S$. end of iron pipe culvert; chiseled square
Loora, 0.5 mi . N. and 2 mi . E. of, 38 ft . E. and 19 ft . N. of cor. seos. 4, 5, 8, and 9, T. 27 N., R. 10 E., 17 ft. E. of fence corner, in concrete post; standard tablet stamped "T T 28 L 1931 n
Reference mark, $120 \mathrm{ft} . \mathrm{N}$. and 27 ft . W. of crossroads, in root. on S. side of 15-1n. oak tree; copper nail and washer
T. 27 N., R. 10 E., near cor. secs. $5,6,7$, and $8,13 \mathrm{ft}$. S. and 30 ft . W. of smaii 33 bridge over drainage ditch, at fence N., in root on SW. Bide of 24-in. oak tree; copper nail and washer
(Continued in Zalma quadrangle; see line no. 7.)
7. FROM NORTH BORDER OF QUADRANGLE, NEAR NORTHWEST CORNER, SOUTHEAST ALONG STATE HIGHFAYS 51 AND 91 TO ADVANCE
(Continued from Marble Hill quadrangle; see line no. 6.)
Lutesville, 4.2 mi . S. of, along State Highway 51, in concrete abutment at $S$. corner of bridge over Dry Creek; chiseled square
Lutesville, 5.1 mi. S. of, along State Highway $51,850 \mathrm{ft}$. S. of private rd. E. to
F. A. Meseenger's farmhouse, 40 ft . N. and 15 ft . W. of highway at Tmfence W., 626.90
in W. head wall of concrete culvert over drain; chiseled square

Lutesville, 6.5 mi . S. of, along State Highway 51 , near quarter cor. between secs. 5
and $6, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R}$. $10 \mathrm{E} .$, at engle in highway from N . to SE., 225 ft . SE. of M. S. Baker's. farmhouse, in $W$. end of N. wing wall of concrete culvert; standard tablet stamped "P'T Sta No 43 S 1926"
603.530

Reference mark, $40 \mathrm{ft} . \mathrm{S}$. of tablet, in head wall of conerete culvert under old rd.; chiseled square
Lutesville, $7: 5 \mathrm{ml}$. S. of, along State Highway 51 , near quarter cor. between secs. 5 and 8, T. 29 N., R. 10 E., about 600 ft . W. of Johnson'School, 30 ft . W. of highway; In root on NE. side of 12-in. oak tree; copper nall and washer
Dongola, about $1 \mathrm{mi} . \mathrm{N}$. of, along State Highway 51 , near NE. cor: sec. 17, T. 29 N., R. 10 E. $\because 30 \mathrm{ft}$. S, and 15 ft . E. of highway at N.-S. rd.. near foot of hill known locally as Null Hill, in E. head wall of concrete culvert; chiseled square 412.71
Dongolia, 1 mi . E. of, 50 ft . S. of intersection of State Highway 51 and 91 , in $S$. head wall of concrete culvert; chiseled square. 368.76
Dongola, in SEd $\frac{1}{2} \mathrm{NE}_{4}^{1}$ sec. 20, T. $29 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} ., 36 \mathrm{ft} . \mathrm{S}$. and 30 ft . E. of junction of State Highway 51 and Greenbrier road, in concrete post; standard tablet stamped "P T Sta No 44 S 1926 "
372.632

Reference mark, 350 ft . N. of tablet, in S . bead wall of concrete culvert under highway; chiseled square
Aãvance, 5.1 mi . NW, of, along State Highway $91,430 \mathrm{ft} . \mathrm{g}$. of end of pavement, 13 ft. W. of highway, in W. head wall of concrete culvert over drainage ditch; chiseled square
372.56

Advance, 4.3 mi. NW. of, along State Highway 91, about l mi. NW, of ateel bridge over
diversion channel, about 750 fi. NW. of curve to E. in highway, in $S$. head wall of concrete culvert; chiseled square
Advance, 3.2 mi . NW. of, along State Highway 91, in concrete abutment at S . corner of steel bridge; chiseled square $\quad 370.79$
Advance, 2.5 mi . N. of, along State Highway 91, in NE $\frac{1}{4} \mathrm{NE} \frac{1}{4}$ sec. $35, \mathrm{~T}, 29 \mathrm{~N} ., \mathrm{R}$. $10 \mathrm{E} .$, , 400 ft . N. of house of F. O. Schlafitz, in W. wing mali of concrete culvert; standard tab'let stamped "P T Sta No 45 S 1926"
Reference mark, opposite side of rd. from tablet, in E. head wall of same culvert; chiseled square
Advance, $l .6 \mathrm{mi}$. N. of, along state Highway $91,17 \mathrm{ft}$. N. and 17 ft . W. of cross rd. at Bollinger-Stoddard county line, in $W$. head wall of concrete cuivert; chiseled square
Advance, 0.8 mi . N. of, along State Highway $91,10 \mathrm{ft} . \mathrm{N}$, and 20 ft . E. of private rd. E. through gate to farmhouse, in $N$. end of l2-in. tile culvert; chiseled square
8. FROM NOKTH BORDEF SOUTHWEST TO WHITEWATER THENCE NORTHVEST TO NOHTH EURDER (by G. W. Moore in 1931) (Continued from Karble Hill quadrangle; see line no. 4.)

Whitewater, 0.5 mi . NE. of, on SE. edge of $r \mathrm{~d}_{.}$, in top of SW. end of SE. head wall of concrete culvert; chiseled square
Whitewater, 3 ft . NW. of SW. corner of Whitewater Bank, in concrete sidewalk; standard teblet stamped "P T Sta No 49 S 1926"
Reference mark, at SW. corner of Whitewater Bank, in concrete sidewalk; chiseled square
Whitewater, 0.7 mi . NW. of, 70 ft . S. of Missouri Pacific R. R. at rd. crossing, 215 ft. W. of rd. forks, in top of $E$. end of $N$. head wall of concrete culvert; chiseled square
Whitewater, 1.1 mi. NW. of, elong Missouri Pacific R. R., opposite highway bridge at curve, in $E$. end of $S$. head wall of $R$. R. culvert; chiseled square

> (Continued in Marble Hill quadrangle; see line no. 5.)
9. FROM EAST BORDER OF QUADRANGLE WEST TO PERKTNS (by H. P. Jones in 1931)
(Continued from Morley quadrangle; see line no. 5.)
Perkins, 1.3imi. E. of, along Oran-Perkins road, 0.25 mi . E. of W. cor. secs. $\dot{B}$ and 17, T. 28 N., R. 12 E,, 20 ft . N. and 50 ft . E. of center of wooden bridge over drainage ditch, in root on SW. side of 18-in. oak tree; copper nail and washer

For an additional level line along St. Louis-San Francisco R. R., refer to United States Coast and Geodetic Survey first-order line, Cape Girardeau, Mo. to Hoxie, Ark. For an additional line along Missouri Pacific R. R., refer to United States Coast and Geodetic Survey sec̣ond-order line, Fredericktown to Delta.

Stodderd County


1. SOUTH ALONG WEST BORDER IN NORTHWEST QUARTER OF QUADRANGLE (by E. W. Gouchenour in 1931)
(Continued from Puxico quadrangle; see line no. 9.)
Leora, 2.5 mi. s. and 1 mi . E. of, 0.3 mi . NW. of Zion Church, 60 ft . W. and 17 ft Feet N. of rd. fork W., in concrete post; standard tablet stamped "T T 25 L 1931 " 377.146 Reference mark, $150 \mathrm{ft} . \mathrm{S}$. of rd. forks, 20 ft . W. of $\mathrm{rd}$. , in top of large stump copper nail and washer
378.86
of cor aecs $29,30,31$, and $32,33 \mathrm{ft}$. N and W. of crossroads, in root on E. side of small sycamore tree; copper nail and washer
T. 26 N., R. 10 E., 15 ft . N. and 105 ft . W. of T-rd. S. at N. cor. secs. 5 and 6, in fence line, in root on S. side of black oak tree; copper nail and washer
(Continued in Puxico quadrangle; see line no. 10.)
2. FROM WEST BORDER OF QUADRANGLE EAST TO BLOOMFIELD, THENCE NORTH TO AQUILLA, THENCE EAST, BY WAY OF ZETA, TO HIMMEL AND EAST BORDER
T. $26 \mathrm{~N} ., \mathrm{R} .10$ E., 0.2 mi. N. of cor. secs. $20,21,28$, and $29,60 \mathrm{ft}$. N. and 75 pt. E. of crossroads, in field, in root on S. side of white oak tree; copper nail and washer
 and 20 ft . E. of T-rd. W., in stump of persimmon tree; copper nail and washer 496.48
Bloomfield, 2 mi . W. of, in NWI sec. $22, \mathrm{~T}, 26 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E}, \mathrm{f} 65 \mathrm{ft}$. S. and 40 ft . E. of T-rd. S., 75 ft . E. of dim rd. N., 24 ft . E. of fence corner, in concrete post; standard tablet stamped "T T 22 L $1931{ }^{m}$
Reference mark, 25 ft . W. of T -rd. S., in concrete retaining mafl; chiseled square
447.149
447.69

Bloomfield, 1.5 mi . W. of, in SE. concrete abutment of small steel bridge; ohiseled square
Bloomfield, 1 mi. W. of; in NW. concrete abtment of steel girder bridge across Tedrick Creek; chiseled square
Bloomfield, in W. limits of, at SW. corner of yard of house of W. M. Lyles, in concrete retaining wall; chiseled square
421.94

Bloomfield, at $S$. entrance to Stoddard County Courthouse, in angle of brick wall, in top of $E$. end of second concrete step; stanleard tablet stamped rT T 21 L 1931"
Reference mark, 60 ft . S. of tablet, in N . edge of ooncrete ourb to cannon platform; chiseled square
497.37 .2
494.71

Bloomfield, 1 mi . N. of, along State Highway 25, in $S W$. oorner of conorete abutment of steel girder bridge aoross Lick Creek; chiseled square
404.22

Bloomfield, about 1.2 mi . N. and 0.2 ml . E. of, along State Highway 25, about 200 ft . N. of T-rd. N., in NWद्य sec. 13, T. $26 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} .$, in E. head wall of concrete culvert; chiseled square
405.32

Bloompleld, 2 mi . N. of, along state Highway 25, 0.2 mi . E. of quarter corner betweon secs. 11 and 12, T. 26 N., R. 10 E., at T-rd. E., in E. head wall of concrete culvert; chiseled square
425.71

Bloomfield, 2.2 mi . N. and 0.2 ml . E. of, along State Highway 25, liz ft. S. and 75 ft . W. of SW. corner of J. W. Cooper's hause, on SE. side of rd., at telephone pole, in fence corner, in concrete post; standard tablet stamped "l G 1931"
477.122

Reference mark, on bottom step of sidewaik leading to W. entrance of J. W. 0ooper's house; painted equare
476.80

Aquilla, 1.7 mi . SW. of, elong State Highway 25 , in $N$. end of $E$. hub guard on concrete bridge over Link Creek; chiseled square
Aquilla, 0.8 mi . SW. of, along State Highway 25 , near center sec. 36, T. 27 N., R. 10 E., 20 ft . S . and 30 ft . W. of croseroads, in S . head wall of concrete culvert; chiseled square
355.79

Aquilia, 0.5 mi : N. of. ${ }^{2}$ near quarter cor between secs. 25 and $30, T \cdot 27$ N., Rs. 10 and 11 E., 500 ft. N. of steel bridge over Castor River, 135 ft . E. of St. LouisSan Francisco R. R. at crossing of State Highway $25,20 \mathrm{ft}$. N. of track, on high bank, in concrete post; standard tablet atamped "P T Sta No 97 S 1926"
Zete, 1.2 mi . SW. of, along St. Louis-San Francisco R. R., on SE. corner of wooden bridge no. D-175.2; copper nail and washer
Zeta, 0.5 mi . SW. of, along St. Louis-San Francisco R. R., 40 ft . S. and 65 ft . E. of rd. crossing, inside R. R. right-of-way, in root on NW. side of hickory tree; oopper nail and washer
T. 27 N., R. 11 E., near S. quarter cor. sec. 28 , in NE. corner of N. concrete abutment of St. Louis Southwestern R. R. bridge over Castor River; chisel cut (Little River Drainage Commission B. M. designated "107")
324.43
zeta, 240 ft. N. of.R. R. depot, 50 ft. W. of St. Louis Southwestern R. R. track, $100 \mathrm{ft} . \mathrm{N} .20^{\circ} \mathrm{W}$. of crossing of St. Louis-San Francisco R. R., in concrete post; standard tablet stamped "T T 30 L 1931"
Reference mark, in SE. corner of concrete base to signal at R. R. depot windaw; ohiseled square
Zeta, 0.7 mi . NE. of 36 ft . N. and 250 ft . E. of st. Louis-San Francisco R. R. at rd. crossing, in top of stump; copper nail and washer
$320: 236$
324.48
T. 27 N., R. 11 E., near cor. secs. $22,23,26$, and $27,70 \mathrm{ft}$. S. and 240 ft . W. of crossroads, at NW. corner of schoolyard, in root on NE. side of white oak tree; copper nail and washer
319.01
T. 27 N., R. 11 E., near cor. secs. $23,24,25$, and 26 , in NE. abutment of bridge; copper nail and washer
315.92
T. 27 N., R. 11 E., near quarter cor. between secs. 24 and $25,35 \mathrm{ft}$. N. and 65 ft. W. of T-rd. N., in root on S. side of white oak tree; copper nail and washer
308.44
309.01

Durnell, 273 ft . E. of St. Louis-San Francisco R. R. station sign, 49 ft . N. and 30 Pt. E. of R. R. at rd. N., 9 ft . E. of fence corner, in concrete post; standard tablet stamped "T T 31 L 1931"
309.321
T. $27 \mathrm{~N} ., \mathrm{R} .12 \mathrm{E} .$, near SW. cor. sec. $19,75 \mathrm{ft}$. E. of center ine of drainage ditch, about 15 ft . N. of rd. corner from $W_{\text {. }}$ to $S$. ; concrete post (Little River Drainage Commission B. M. designated "100")
Durnell, 1.5 mi . NE. of, along St. Louis-San Francisco R. R. in SE. corner of bridge; painted bolt head
310.327
311.94

Himmel, 170 ft . W. of St. Louis-San Francisco R. R. station sign, 130 ft . E. of drainage ditch, $81 \mathrm{ft}, \mathrm{E}$. and 47 ft . S . of R . R. at rd . crossing, in/concrete post; standard tablet stamped "T T 32 L 1931 "
308.541

Reference mark, SE. of tablet, in pasture, in root on N. side of hickory tree
308.12
(Continued in sikeston quadrangle; see line no. 5.)

## 3. LITTLE RIVER DRAINAGE COMMISSION BENCHMARK NEAR DUHNELL

T. 27 N., R. 11 E., SWis sec. $24,70 \mathrm{ft}$. E. of center of drainage ditch no. 30, against N. right-of-way fence, in concrete post; bolt (Little River Drainage Commission B. M. desienated "99")

## 4. FROM AQUILLA NORTH ALONG STATE HIGHWAY 25 TO POINT NEAR NORTH BORDER OF QUADRANGIE

T. 27 N., R. 11 E., near cor. secs. 19, 20, 29, and $30,60 \mathrm{ft}$. N. and 20 ft . E. of crossroads, in root on W. side of $12-1 n$. walnut tree; copper nail and washer
T. 27 N., R. 11 E., ebout 0.2 mi. N. of cor. secs. $17,18,19$, and 20 , on W. side of rd., in concrete curb of spring; chiseled square
Ardeola, 3 mi . W. and 0.5 ml . S. of, in S . end of E. hub guard of concrete bridge; chiseled square
5. EAST ALONG WEST HALF OF SOUTH BORDER OF QUADRANGLE (by E. W. Gouchenour and L. V. Johnson in 1931)
(Continued from Puxico quadrangle; see line no. 10.)
T. $24 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} .$, in $\mathrm{NE}_{\frac{2}{4}}$ sec. $4,25 \mathrm{ft}$. S. and 10 ft . W. of rd. fork N., in atump; copper nail and washer
Dexter, 2.5 mi . S. of, along State Highway $25,56 \mathrm{ft}$. E. and 21 ft . N. of highway a E. - W. cross rd., 21 ft . N. and 26 ft . W. of St. Louis Southwestern R. R. at rd. crossing; iron post stamped "U S CE Q 6 C . 147"
Reference mark, 50 ft. W. of post, in NE. corner of $E$. head wall of concrete culvert; chiseled square
315.016

Dexter, 2.5 mi . S. and 1 mi . E. of, about 0.3 mi . E. of S . cor. secs. 34 and 35 T. $25 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E}$, , $11 \mathrm{ft}$.S . and 26 ft . E. of crossroads, in center of SW . concrete wing wall of steel bridge; chiseled square
Dexter, 2.5 mi . S. and 1.8 mi . E. of, $75 \mathrm{ft} .^{\circ} \mathrm{S}$. and 200 ft . E. of T-rd. N. et S. cor. secs. 35 and 3.6, T. 25 N., R. 10 E., in NW. corner of lover concrete step at entrance to Tatum School; chiseled square
Dexter, 2.5 mi . S. and 2.6 mi . E. of, near cor. Tps. 2.4 and $25 \mathrm{~N}, \mathrm{Rs} .10$ and 11 E. , 65 ft . W. and 12 ft . N . of crossroads, in root on sW . side of 24 m in. hickory tree; copper nail and washer

295.30

Dexter, 3 mi . E. and 2.5 mi . S . of, 32 ft . N. and 33 ft . W. of Trrd. N. at S. cor. secs. 31 and 32, T. $25 \mathrm{~N} ., \mathrm{R}$. $11 \mathrm{E} ., \mathrm{n} 8 \mathrm{ft}$. N. and 16 ft . W. of $32-\mathrm{in}$. black oak tree; iron post stamped "US S CE Q 6 C 134" 294.312
Frisoo, 1 ml . W. of, near N. cor. sect. 4. and $5, \mathrm{~T}, 24 \mathrm{~N} ., \mathrm{R} .11 \mathrm{E} ., 12 \mathrm{ft}$. N. and 65 ft . W. of $\mathrm{T}-\mathrm{rd}$. S., in root on S..bide of $15-\mathrm{in}$. sycamore tree; copper nall and washer
Frisco, 40 ft . N. and 80 ft . E. of T-rd. N., at S . cor. secs. 33 and $34, \mathrm{~T} .25 \mathrm{~N}$. , R: $11 \mathrm{E} ., 20 \mathrm{ft}$. SE. of SE. corner of general store, in root on S . side of 24-in. sweet gum tree; copper nail and washer

Frisco, $1 \mathrm{mi} . \mathrm{E} . \mathrm{of} ; 47 \mathrm{ft} . \mathrm{W}$. and 22 ft . N. of T-rd. N. a.t S. cor. gecs. 34 and 35, T. 25 N., R. 11 E., 284 ft . W. of T-rd. S. at N. cor. secs: 2 .and 3, T. $24 \mathrm{~N} . \mathrm{H}_{\mathrm{s}}$
R. 11 E., 26 ft . W. of fence corner, in ooncrete post; standard tablet stamped
"T T 49 L 1931".
294.043
(Continued in Malden quadrangle; see line no. 2.)
6. FROM SOUTH BORDER OF QUADRANGLE NORTH TO HUNTERVILLE (by L. V. Johnson in 1931)
(Continued from Malden quadrangle; see line no. 2.)
Hunterville, 4.2 mi . S. of, $65 \mathrm{ft} . \mathrm{S}$, ond 35 ft . E. of crossroads at cor secs. 1,6 , 31 , and $36, \mathrm{Tps} .24$ and $25 \mathrm{~N} ., \mathrm{Rs} .11$ and $12 \mathrm{E} ., 25 \mathrm{ft}$. W. of ghack, in root on W. side of 18-1n. oak tree; copper nail and washer
Hunterville, 3.2 mi . S. of, 16 ft . S. and 20 ft . W. of T-rd. W. at E. cor. secs. 25 and $36, \mathrm{~T}$. $25 \mathrm{~N} ., \mathrm{R}$. 11 E. , in S . ond of iron pipe culvert; chiseled and painted square
Hunterville, $2.3 \mathrm{mi} . \mathrm{S}$. of, 30 ft . E. and 25 ft . S. of Trid. E. at W. cor. вecs. 19.98 and 30, T. 25 N., R. 12 E., in concrete post; standard tablet stamped TT T 3 C 1931 n .
Reference mark in SW. corner of T-rd. W., in S . end of iron pipe culvert; chiseled and painted square
nd 25 ft. E. of T-rd. E. at. W. cor. secs. and and washer
7. FROM BLOOMFIELD EAST ABOUT 7 MLLES, THENCE SOUTH TO HINTERVILLE (by E. W. Gouchenour in 1931)

Bloomfield, at E. edge of, on Bloomfield-Essex road, in N. end of W. abutmert of steel girder bridge over creek; chiseled square
Bloomfield, 1.1 mi . E. of, along County Route E., in N. end of concrete abutment of steel girder bridge over drain; chiseled square
Bloomfield, 1.5 mi . E. of, along Hale Road, in front of barnlot gate to G. Baker's farm, in root on $S$. gide of white oak tree; copper nail and washer 418.04
Bloomfield, 2.mi: E. of, along Hale Road, in Nwit seo. 20, T. 26 N., R. 11 E., 26 ft. E. and 36 ft . S. of center of bridge over creek, 10 ft . W. and 36 ft . S. of T-rd. N., 16 ft . S. of fence corner, in concrete post; standard tablet atamped "T T. 33 L 1931"
Reference mark, in N. end of W. abutment of drainage ditch; chiseled square
Bloompield, 3 mi. E. of, along Hale RDad, 12 ft . S. and 50 ft . E. of T-rd. N. at cor. secs. 16, 17, 20, and 21, T. 26 N., R. 11 E., in root on N. side of white oak tree; copper nail and washer
T. 26 N., R. 11 E., near quarter cor. between seos. 16 and 21, 10 ft . N. and 15 ft. E. of crossroads, on N. end of tile culvert; painted square
T. 26 N., R. 11 E., 0.2 mi . S. of cor. secs. 15,16 , 21 , and 22 , about 300 ft . N. and 60 ft. E. of T-rd. E., in pasture, in root on E. side of elm tree; oopper nall and masher
T. 26 N., R. 11 E., in NE苃 sec. $22,25 \mathrm{ft}$. W. of rd. fork N., in root on E . side of white oak tree; copper nail and washer.
Idalia, 3 ml . NE. of, olong old Bluff road, on land owned and occupied by J. M. Hopkins, 30 meters ( 98 ft .) W. of rd. fork in SE. corner of small peach orchard, 7.3 meters ( $24 \mathrm{It}$. ) NW. of top of cut in rd.; standard U. S. C. \& G. S. triangulation station tablet stamped "Idalia"' (elevation undetermined)
Reference mark, E. of station, 6 meters ( 19 ft .) S. of rd. E., 20 meters ( $64 \mathrm{ft}$. ) E. of rd. forks, in concrete post; U. S. C. \& G. S. standard reforence tablet
T. 26 N., R. 11 E., in $S E$ sec. $14,30 \mathrm{ft}$. S. and 30 ft . E. of rd. forks, in root on W. side of hickory tree; copper nail and washer
T. 26 N. , R. $11 \mathrm{E} .$, in $\mathrm{SE}_{4} \mathrm{sec} .14,140 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. of rd. forks on bluff, in oak stump; copper nall and washer
Guam, $217 \mathrm{ft} . \mathrm{S}$. and 10 ft . E. of E. rail of St. Louis Southmestern R. R. at switch; iron post
T. 26 N., R. 12 E., $0.2 \mathrm{mi} . \mathrm{S}$. of w . cor. secs. 7 and 18 , 25 ft . S. and 12 ft . E. of T-rd. S., in root on S. side of large oak tree; copper nail and washer 310.13
T. 26 N., R. 12 E., 0.2 ml . S. of W. cor. secs. 18 and $19,200 \mathrm{ft}$. S. and 30 ft . E. of T-rd. W., in front of F. W. Wilson's residence, in root on S . side of 20in. oak tree; copper nail and washer
S. end of iron pipe oulvert; painted square
T. 26 N., Rs. 11 and 12 E., near quarter cor. between secs. 25 and $30,25 \mathrm{ft}$. S . and 22 ft . E. of T-rd. E., 9 ft. S. ond 2 ft . W. of fence corner, in concrete post;

Reference mark, 20 ft . S. and 40 ft .
oak tree; copper nail and washer
301.90
T. $26 \mathrm{~N} ., \mathrm{Rs}$. 11 and $12 \mathrm{E} ., 0.7 \mathrm{mi}$. N. of S. cor. secs. 31 and $36,30 \mathrm{ft}$. S. and 300.64 ft. E. of crosaroads, in root on SW. side of twin willow tree; copper nail and washer
Tps. 25 and 26 N., Rs. 11 and $12 \mathrm{E} .$, near cor. of, 18 ft . S. and 15 ft . E. of orossroade, in root of large elm tree; copper nail and washer
E. end of bridge across drainage ditch; copper nail and washer
8. FROM HUNTERVILLE EAST TO EAST BORDER OF QUADRANGLE (by E. W. Gouchenour and L. V. Johnson in 1931).

Hunterville, 43 ft . E. and 49 ft . N. of Missouri Paoifio R. R. dt public rd. croseing, in concrete post; standerd tablet stamped "T T 2 e i93i"
Reference mark, 260 ft. N. of tablet, in root on $W$. dide of large tree; copper 297.732 nail and washer
297.21

Hanterville, $0.2 \mathrm{mi} . \mathrm{S}$. and 1 mi . E. of, along U. S. Highway 60, near cor. secs. 7, 8,17 , and $18, \mathrm{~T} .25 \mathrm{~N} .$, R. $12 \mathrm{E} .$, in S . end of E . abutment of steel bridge over drainage ditch; chiseled square
297.50

Grayridge, 0.5 ml . S. of, along U. S. Highway 60, near right angle turn, in S. fence line, in root on N. side of oak tree; copper nall and washer
Grayridge, 0.8 mi . E. of; along U. S. Highway 60 in NWI sec. 9, T. $25 \mathrm{~N} ., \mathrm{R} .12 \mathrm{E} . \mathrm{g}$ $35 \mathrm{ft} . \mathrm{S}$. of highway, 45 ft . E. of property line, in conorete post; standard tablet stamped "T T i C 1931"
Reference mark, 0.5 mi . E. of Grayridge, along U. S. Highway 60, in E. abutment of 294.989 ooncrete bridge over Little River drainage ditch no. 42; chiseled square 300.73
Grayridge, 1.5 mi . E. of, along U. S. Highway 60, in N. end of W. abutment of concrete bridge over Little River drainage ditch no. 41; ohiseled cross (Littie River Drainage Commission B. M.)
300.67
(Continued in Sikeston quadrangle; see line no. 6.)
9. FROM BLOOMFIELD SOUTHEAST AND SOUTH TO POINT NEAR CENTER OF SOUTH BORDER OF QUADRANGLE (by L: V. Johnson in 1931)

Bloomfleld, 0.8 mi . S. of courthouse, 12 ft . N , end 25 ft . E. of State Highway 25 at private rd. E. to brick farmhouse, on E. side of highway, in concrete base of corner fence post; chiseled square
540.28

Bloomfield, 1 mi. S. of, alang State Highway 25, on Stoddard County Farm for the poor, about 0.1 ml . SW. of home, about 200 yds . S . of barn, in field, on highest point of small knoll; standard U. S. C. \& G. S. triangulation station tablet stemped "Poor"
Reference mark, N. of station, about 80 meters SW . of barn, 2 ft . S. of fence at E. end of rail seotion; $U, S . C . \&$. S. S. standard reference tablet
568.60

Bloomfleld, 2.1 mi. S. of, along State Highway 25 , about 250 ft . S. of cross rd., on E. side of highway, in $N$. end of E. head wall of concrete culvert over creek; chiseled square
521.64
T. 26 N., R. 10 E., 0.25 mi . s. of quarter cor, between secs. 35 and 36 , about 300 ft . SW . of farmhouse, 25 ft . W. and 8 ft . N. of rd . corner S . and W., in head wall of concrete culvert; chiseled square
565.84
T. $25 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} .$, in NW 等 $\mathrm{sec} .1,0.7 \mathrm{mi}$. SE. of farmhouse, on S. side of rd. near right engle turn, where rd. crosses small knoll, in root on $N$, side of 8 -in. oak tree; copper nail and washer
Dexter, $1.5 \mathrm{mi} . \mathrm{E}$. and 2.5 mi . N. of, near quarter cor. between secs. 1 and 12 , T. 25 N. , R. 10 E., 35 ft . S. and 10 ft . W. of T-rd. N., 18 ft . S. of fence corner, in concrete post; standard tablet atamped "T T 39 IL 1931"
Reference mark, 80 ft . N. and 45 ft . W. of T-rd. N., 45 ft . NW. of gate, in root on S. side of 12-in. hickory tree; copper nail and washer
T. 25 N. , Re. 10 and 11 E., cor. secs. $1,6,7$, and $12,180 \mathrm{ft}$. E. and 30 ft . N. of St. Louis Southrestern R. R. at E.-W. rd. crossing, 70 ft . S. and 20 ft . W. of T-rd. E., 20 ft . SE. of SE. corner of house, in root on NE. side of oak tree; oopper nall and washer
T. $25 \mathrm{~N} ., \mathrm{R}$. $11 \mathrm{E} ., \mathrm{cor}$. secs. $5,6,7$, and $8,45 \mathrm{ft}$. N. end 75 ft . W. of T-rd. S., inside fence, in root on. S. aide of 12-in. tree; copper nail and washer 300.04
T. 25 N., R. 11 E., cor. secs. 7, 8, 17 , and $18,12 \mathrm{ft}$. S. end. 17 ft . E. of crosaroads, in SW. end of SW. concrete wing wall of small wooden bridge over drain; chiseled square
Dexter, $3 \mathrm{ml} . \mathrm{E}$, and 0.8 mi . N. of, 0.3 mi . N. of cor. secs. $17,18,19$, and $20,299.60 \mathrm{~T} .25 \mathrm{~N}$. R. 11 E., 53 ft . S. and $31 \mathrm{ft} . \mathrm{W}$. of Missouri Pacific R. R. at rd. crassing, 16 ft . W. of fence corner, in concrete post; stendard tablet stamped "T T 40 L 193.1"
Raference mark, $1,700 \mathrm{ft}$. S. of tablet, 15 ft . N. and 10 ft . E. of crossroads, in E. end of l2-in. concrete culvert; chiseled square
Dexter, 3 mi. E. of, near cor. secs. $19,20,29$, and $30, T .25 \mathrm{~N} .$, R. $11 \mathrm{E} ., 12 \mathrm{ft}$. E. and 18 ft . N. of U. S. Highway 61 at N.-S. cross rd., in concrete head vall; ohiseled squere
T. 25 N., R. 11 E., 650 ft. S. of cor secs. $29,30,31$, and 32 , and crossroads, 33 it. N. and 12 ft . E. of rd. in front of Walnut Lane farmhouse, in NW. corner of concrete' base of mail box; chiseled square

## 10. WEST ALONG WEST HALF OF NORTH BORDER OF QUADRANGLE (Continued from Advance quadrangle; see line no. 5.)

Aquilla, 3.5 ml . N, of, along State Highway 25, near quarter' cor. between secs. 7 and 8, T. 27 N., R. 11 E., 182 ft . W. of highway, 27 ft . S. of rd. W., 17 ft . S. of rd. E., 60 ft. NW. of NW. corner of old schoolhouse, in concrete post; stenderd tablet stamped "T T 29 L 1931"
Reference mark, NE. corner of croseroads, in concrete head wall of culvert; chiseled square
437.098 N. and 35 ft . E. of rd. forkg in Sw oorner of farmyard, in root on S . side of 18-in. oak tree; copper nail and washer W. of T-rd. S., 6 ft . N. of fence ines in root on S. side of $10-\mathrm{in}$. oak tree; copper nail and washer
Zadoc, 150 ft . E. of C. C. Lewis' general store; 24 ft . S. and 27 ft . E. of St. Louis San Francisco R. R. at public rd. crossing, on high bank, in concrete post; standard tablet stamped "P T Sta No 96 S 1926"
T. $27 \mathrm{~N} ., \mathrm{R}$. $10 \mathrm{E} ., 0.2 \mathrm{ml}$. S. of cor. secs. $10,11,14$, and $15,20 \mathrm{ft} . \mathrm{N}$. and 18 ft. W. of crassroads, at NE. end of eate, in root on W. side of. 14-in. tree; copper nall and washer
T. $27 \mathrm{~N} .$, R. $10 \mathrm{E} .$, about 0.25 mi . S. of center sec. 10 , in center of triangle formed by T-rd. S., in root on W. side of 22-in. oak tree; copper nail and washer
T. 27 N., R. 10 E., about 0.2 mi . S. of quarter cor. between secs. 9 and $10,85 \mathrm{ft}$. S. and 15 ft . E. of T-rd. E., in root on W. side of $18-1 \mathrm{n}$. oak tree; copper nail and washer
362.00
(Continued in Advance quadrangle; see line no. 6.)
11. FROM NORTH BORDER OF QUADRANGLE SOUTHWEST ALONG ST. LOUIS SOUTHWESTERN R. R. TO ZETA
(Continued from Advance quadrangle; see line no. 3.)

Ardeola, 200 ft. N. of St. Louis Southwestern R. R. seotion house, 36 ft . W. of R. R. traok, near NE. corner of section house lot, in concrete post; standard tablet stamped "P.T Sta No 98 S 1926"
320.818

Ardeola, 1.1 mi . SW. of, along St. Louis Southwestern R. R., 780 ft . S. of switch, at NE. corner of wooden trestle no. 30, in wooden wing wall; copper nail and washer
322.93

Ardeola, 1.9 mi . SW. of, along.St. Louis Southwestern R. R., at SW. corner of wooden trestle no. 29, in wooden wing wall; copper nail and washer
320.48

Zeta, $0.5 \mathrm{mi.}. \mathrm{N}. \mathrm{of} ,\mathrm{along} \mathrm{St} .\mathrm{Louis} \mathrm{Southwestern} \mathrm{R}. \mathrm{R.} 18 \mathrm{ft} .$,N . and 10 ft . W. of oenter of track at rd. crossing, in $S$ : end of $W$. head wall of concrete culvert under track; chiseled square
324.63

For an additional level line along Missouri Pacific R. R., refer to United States coast and Geodetic Survey second-order line, Sikeston to Poplar Bluff.
(Latitude $36^{\circ} 30^{\prime}-36^{\circ} 45^{\prime}$; longitude $89^{\circ} 45^{\prime}-90^{\circ}$ )
Dunklin, New Madrid, and Stoddard Counties


1. FROM EAST BORDER OF GUADRANGIE WEST AND SOUTHVEST ALONG ST, LUU IS SOUTHWESTERN R. R. TO MALDEN (by Leigh D. Towneend in 1908. Preliminary ad.justerent)
(Contihued from New Madria quadrangle; see line no. 1.)
Como, 47 ft . N. of St. Louis Southvestern R. R. track, somewhat W. of seotion house Feet no. 8, on opposite side of track, in line with cattle guard and right-of-may fence, in corner of fence; iron post stamped "283".
282.613

Parma, opposite Union Station, 52 ft . S. of St. Louis Southwestern R. R. track, 54 ft . from St. Louis-San Francisco R. R. track, at junction of $W$. fence of St. Louis-San Francisco R. R. right-of-way and S. fence of St. Louls Southwestern R. R. right-of-way, just inside fence on atrletic grounds; iron post stamped "281" 281.305
Hyman, E. of, along St. Louis Southwestern R. R., 49 ft . N. of track, in corner formed by right-of-way fence and fence running out from cattle guard; iron post stamped "281"
Malden, 3.1 mf . NE. of, along St. Louis Southwestern R. R., 43 ft . SE. of SE. corner of R. R. bridge over drainage ditch no. 4, 80 ft . E. of ditch; iron post stamped "279"
Malden, 2 mi. NE. of, along St. Louis Southwestern R. R., NW. of milepost 56, on top of bridge stringer on $N$. side at E. end of bridge no. 138-A; last bolthead 282.49
Malden, opposite city hall, on N. side of Main Street, about 200 ft . E. of Four Cornere, W. of livery barn, on S. side and in SE. corner of concrete foundetion of brick office building, about 2 ft . above ground; aluminum tablet stamped $\mathrm{n}^{294}{ }^{\prime \prime}$
294.043

## 2. EAST ALONG NORTH BORDER OF QUADRANGLE (by L. V. Johnson in 1931) <br> (Continued from Bloomfield quadrangle; see line no. 5.)

T. 24 N., R. 11 E., cor. secs. 2, 3, 10 , and $11,7 \mathrm{ft}$. S. and 10 ft . W. of Trrd.
E.; in root on NE. eide of $24-\mathrm{in}$. tree; copper nail and washer 13 ft . N. of T-rd.
T. $24 \mathrm{~N} ., \mathrm{R}$. lil E., cor. sece, l, 2, 11 , and $12,55 \mathrm{ft}$. W. and 13 ft . N. of T-rd. 291.8
T. 24 N., R. 11 E., E. cor. secs. 1 and $12,5.2 \mathrm{mi}$. S. of Hunterville, 0.5 mi . N. of Karco School, 30 ft. N. and 20 ft. W. of T-rd. W.; iron post stamped UU S C $114{ }^{\prime \prime}$

Reference mark, 120 ft . N. of post, in root on NE. side of 24-in. tree; oopper nail and washer
(Continued in Bloomfield quadrangle; see line no. 6.)
For an additional level line along St. Louis Southwestern R. R., refer to United States Coast and Geodetic Survey second-order line, Lilbourn to Naylor.

RASCOLA QUADRANGLE
(Latitude $36^{\circ} 1^{\prime}-36^{\circ} 30^{\prime}$; longitude $89^{\circ} 45^{\prime}-90^{\circ}$ )
Dunklin, New Madrid, and Pemiscot Counties


1. FROM NORTH BORDER OF QUADRANGLE SOUTH ALONG ST. LOUIS-SAN FRANCISCO R. R. TO CLARK'ON, THENCE WEST TC WEST BORDER (by Leigh D. Townsend in 1908. Preliminary adjustment)

Note. - This is a single run, unchecked, spur line.
Feet
MoGire, W. of general store directly across St. Louis-San Francisco R. R., 47 ft. from track, $S$. of rd., I ft. from corner formed by fence from cattle guard and right-of-way fence; iron post stemped "290"
MoGuire, first rd. crossing St. Louis-San Francisco R. R., S. of, in E. rail on S. cattle guard; spike

MoGuire, 0.6 mi . S. of, along St. Louis-San Francisco R. R., at center of rd. orossing; top of E. rail
McGuire, 2.6 mi . S, of, along St. Louls-San Francisco R. R., at S. side of rd. crossing, E. rail of cattle guard; spike
clarkton, in NE. corner of public schoolgrounds, 130 ft . NW. of NW. corner of school, at turn in fence; iron post stamped "280"
Clarkton, 0.4 mi . W. of along St. Louis-San Francisco R. R., at first rd. crossing, in tie at SE . corner of cattle guard; spike
(Continued in Piggott quadrangle; see line no. 1.)
For additional level lines along St. Louis-San Francisco R. R. in southeast quarter of quadrangle, refer to United States Coast and Geodetic Survey second-order lines; Lilbourn, Mo. to Leachville, Ark., and Paragould, Ark. to Hayti, Mo.

# (Latitude $36^{\text {KENNETT }}-36^{\circ} 155^{\prime}$; longitude $90^{\circ}-90^{\circ} 15^{\prime}$ ) <br> Dunklin County 



1. FROM NORTH BORDER OF QUADRANGLE SOUTHWEST ALONG ST. LOUİS-SAN FRANCISCO R. R. TO SENATH (by Leigh D. Townsend in 1908. Preliminary adjustment)

$$
\begin{aligned}
& \text { (Continued from PigBott quadrangle; see line no. 1.) }
\end{aligned}
$$

Note. -This is a single run, unchecked, spur line.
Kennett, in front of $S t$. Louls-San Franciaco $R$. R otation top of
Kennett, in W. Bide of brick wall and near NW. corner of Shelton School, about 4 ft above ground; aluminum tablet stamped "270"
Kennet, 1.7 mil . SW. of, along St. Louls-San Francisco R. R., at rd. crossing; top of W. rail
Kennett, 4.6 mi . SW. of, along St. Louis-San Francisco R. R., 150 ft . NW. of milepost
E-232, et NW. corner of crossroadsy in field, 2 ft . from corner fence post; iron post stemped "261"
Senath, 2.5 mi . NE. of, along St. Louis-San Francisco R. R., near rá croseing, about 300 ft . SW. of milepost E-234, on NW. side of bridge E-2341, in beam which holds the bridge number board; head of rod
Senath, 0.9 mi . E. of, at first crossroads N. of first R. R. crossing NE.; iron post stamped "258"

For an additional level line along St. Louis Southmesterr R. R., refer to United States Coast and Geodetic Survey second-order line, Paragould, Ark. to Hayti, Mo. For an additional IIne from Arbyrd south along St. Louis-San Francisco R. R., refer to United States Coast and Geodetic Survey second-order line, Arbyrd, Mo. to Jonesboro, Ark.

PIGGOTT QUADRANGLE*
(Latitude $36^{\circ} 15^{\prime}-36^{\circ} 30^{\prime}$; longitude $90^{\circ}-90^{\circ} 15^{\prime}$ )
Dunkin Ccunty


1. FROM EAST BORDER OF QUADRANGLE WEST TO GIBSON, THENCE SOUTH BY WAY OF HOLCOMB TO THE SOUTH BORDER, FOLLOWING ST. LOUIS-SAN FRANCISCO R. R. (by Leigh D. Townsend in 1908. Preliminary adjustment)
(Continued fram Pascola quadrangle; see line no. 1.)
Note. - This is a single run, unchecked, spur line.
Gibson; in foundation of Odd Fellows building, on front face at NE. corner, about 3 ft . above ground; aluminum tablet atamped "285".

Feet
ibson, in front of St. Louis-San Francisco R. R. station; top of rail 284.677
282.5
R. R., four poles S. of milepost no. E-214, in $E$. end of beam furthest $N$. in wooden abutment of bridge no. E-2141; spike
276.84

G1bson, 2.3 mi. S. of, along St. Louis-San Francisoo R. R., at firgt rd. crassing N. of Holcomb, one pole N. of milepost na. E-215, on outside of E. rail, at $S$. oattle guard; spike

Holcomb, in front of St. Louis-San Francisca R. R. station; top of rail
280.2

Holcomb, at NE. corner of schoolhause, in angle made by entryway and N. side of building; iron post stamped "279"
Holcomb, 1.2 mi . S. of, along St. Louis-San Francisco R. R., at first rd. crossing, on outside of W. rail on N. end of fishplate; last bolt 277.54
Holcomb, $3 \mathrm{mi} . \mathrm{S} .0 \mathrm{f}, \mathrm{along}$ St. Louis-San Francisco R. R., about 300 ft . in front of public school, at W. side of entracne gate, at head of line fence from $S$. along rd.; iran post stamped "273" $\qquad$
Holcomb, 4.9 mi . S. of, alang St. Louis-San Francisca R. R., 20 ft . NE. of milepost no. E-22O, in root on W. side of aak tree; spike
White Oak, N. end of town, near St. Louis-San Francisco R. R. at rd. crossing, in fence corner formed by E. fence of right-of-way and fence running E. from cattle guard; iron post stamped " $270^{n}$
White Oak, in front of St. Lauis-San Franoisco R. R. station; top of rail. 270.3
Ipley, St. Louis-San Francisco R. R. station; top of rail
on S. side of elm tree; spike 265.77
Ipley, 1 mi . SE. of, in NW. corner of yard of district no. 1 school, in fence oorner; iron past stamped "270"
270.250

Ipley, 1.3 ml . SW. of, along St. Louis-San francisco R. R., at SE. carner of rd. orossing, opposite house, on outside of E. rail of N. cattle guard; last spike
(Continued in Kennett quadrangle; see line no. 1.)
For an additional level line in north central part of quadrangle, refer ta United Sttates Coast and Geodetic Survey second-arder line, Lilbourn ta Naylor.

PUXICO QUADRANGLE
(Latitude $36^{\circ} 45^{\prime}-37 a$; langitude $90^{\circ}-90^{\circ} 15^{\prime}$ )
Butler, Stoddard, and Wayne Countiea


1. FROM WEST BORDER OF QUADRANGLE EAST AND NORTHEAST ALONG ST. LOUISG-SAN FRANCISCO R. R. TO NORTH BORDER (by E. C. Bibbee in 1914)
(Continued from Poplar Bluff quadrangle; see line na. 1.)
Wappapello, l.l mi. E. af, along St. Louis-San Francisco R. R., opposite trestle no. B-180.9, at NW, corner af T-rd. N., in root of white oak tree; copper nail 342.1 Wappapella, 2.2 mi . E. of, along St. Louis-San Francisco R. R., at.SE. corner of trestio no. 179.9 , in $E$. end of inside girder; driftbalt
Mingo, 0.6 mi . W. af, alang St. Louis-San Francisco R. R., in W. end of foundation to water tank; copper nail
Mingo, 100 ft. 8 . of St. Louis-San Francisco R. R. station; 53 ft . S. of track, ft. W. of public rdi; iron post stamped nPrim Trav Sta No 14 F 1924 Mo 345"
Mingo, 1 mi. NE. of, alang St. Lauis-San Francisco R. R., 52 ft . S. of first rd. orossing, 2 ft. $S$. of R. R. property line, in root of dogwood tree; copper nail
Puxico, 0.7 mi. W. of, along St. Louis-San Francisao R. R., 60 ft . S. of first rd. orossing, on E. side of public rd., on bank of small creek, in root of lo-in. hickory tree; copper nail
Puxico, in SW. corner of park, 100 ft . S. of St. Louis-San Francisca R. R.; iran past stamped "Prim Trav Sta No 13 F 1924 Mo 370"

Puxico, l. 2 mi . NE. of, along st. Louis-San Francisco R. R., 700 ft . E. of aignpost marked "Sta. 1 mile", 80 ft. S. of track, 20 ft . S. of public rd., in root of sugar maple tree; copper nail
Puxico, 2.1 mi . NE. of, along St. Louis-San Francisco R. R., 10 ft . N. of track, 4
ft. E. of rd. crossing, on large, flat rock; highest point
Puxico, 2.4 mi . NE. of, along St. Louls-San krancisco R. R., 7 ft . S. or track, opposite George Kitchen's residence, in ledge of rocks; chiseled square
Puxico, 3.8 mi. NE. of, along St. Louls-San Francisco R. R., at Hickman switch, 100 ft. E. of rd. crossing, $51 . f t$. S. of track, in right-of-way; iron post stamped "Mo 351"

350.811

(Continued in Zalma quadrangıe; see line no. 1.)
2. FROM WEST BORDER OF QUADRANGLE EAST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO MINGO, THENCE SOUTHWEST ALONG SAME RAILROAD TO WEST BORDER (by M. J. Harden in 1931) (Continued from Poplar Bluff quadrangle; see line no. 2.)

Wappapello, 1.7 mi. E. of, along St. Louis-San Francisco R. R., 22 ft . N. and 6 pt. 341.62
Fingo, 1.3 mi . W. of, along St. Louis-San Francisco R. R., at NE. corner of bridge over drainage ditoh, in E. end of N. guardtimber; driftbolt
Mingo, 0.5 mi . W. of, along St. Louis-San Francisoo R. R., at NE. corner of bridge over small stream, in $E$. ond of $N$. guardtimber; driftbolt
Mingo, 0.7 mi . SW. of, along St. Louis-San Francisco R. R., at SE. oorner of smell bridge no. 178.8, in E. end of timber abutment; bolt
Mingo, 1.5 mi . SW. of, along St. Louis-San Francisco R. R., 35 ft . S. and 2 of Cobb station signpost, in root of 18-in. hickory tree; copper nail and washer (recovered by U.S.C. \& G.S.)
Mingo, 2.7 mi. SW. of, along St. Louig-San Francisco R. R., at SE. corner of steel bridge over drainage ditch, in small angle iron connecting end post to end beam; top of end rivet
Dale, 1.2 mi . NE. of St. Louis-San Francisco R. R. station, at $S E$. corner of R. R. bridge no. A-1815, in S. end of guardtimber; driftbolt
Dale, 0.4 mi . NE. of.St. Louis-San Francisco R. R. station, 45 ft . E. of N. end of R. R. bridge no. $182.2,100 \mathrm{ft}$. SW. of house, in concrete post; standard tablet stemped m. H 1931" (recovered by J.S.C. \& G.S.)
339.619

Reference mark, at SE. corner of R. R. bridge no. 182.2, in E. end of S. abutment; copper nall and washer
Dale, 100 ft. N. of signpost, on W. side of St. Louis-San Francisco R. R. crossing sign; spike
(Continued in Poplar Bluff quadrangle; see line no. 3.)

## 3. IN NORTHWEST CORNER OF QUADRANGLE (by George W. Moore in 1931)

 (Continued from Zalma quadrangle; see line no. 5.)Fry Sohool, 1 mi. S. of, along Zalma-Wappapello road, 215 ft . S. of rd. fork SE., at E. edge of rd., in root on SW. side of $10-1 \mathrm{n}$. oak tree; copper nail and washer
Fry School, $1.8 \mathrm{mi} . \mathrm{S}$. of, along Zalma-Wappapello road, at $W$. end of ford acrosa Stanley Creek, at $N$. edge of rd., in root on $S$. side of l9-in. maple tree; copper nail and washer
Fry School, $2.8 \mathrm{mi} . \mathrm{S}$. of, along Zalma-Wappapello road, 0.7 mi . N. of Union Hill School, 650 ft . S. of ford across Johns Branch, at E. edge of rd., in root on E. side of 12-in. oek tree; copper nail and washer
374.77

Wappapello, 3.5 mi . N. of, on Zalma-Wappapella wagon road, in NE. corner of Union Hill schoolyard, 48 ft . W. of rd., in concrete post; standard tablet stamped "P T Sta No 64 S 1926"
486.540

Reference mark, 70 ft . SE. of tablet, 45 ft . E. of woods rd. SE., in root on $W$. side of $10-1 n$. oak tree; copper niall and washer
482.04
(Continued in Poplar Bluff quadrangle; see line no. 7.)
4. FROM PUXICO EAST AND SOUTH TO CENTER OF QUADRANGLE, THENCE EAST TO POINT NEAR EAST BORDER

Puxico, in SW. corner of park, 100 ft. S. of St. Louis-San Francisco R. R.; iron post stamped "Prim Trav Sta No $13 \mathrm{~F} 1924 \mathrm{Mo} \mathrm{370"}$
370.495

Reference mark, 70 ft . SE. of tablet, at intersection of Richardson Avenue and East Railroad Street, in top NE. oorner of conorete foundation of lamppost; ohiseled square
371.13
T. 27 N., R. 8 E., in NW. cor. sec. $36,490 \mathrm{ft}$. E. of crossroeds, in top SW . end of S. wing wall of W. ooncrete abutment of small wooden culvert; chiseled square 383.48
T. 27 N., R. 8 E., 0.2 mi . W. of E. cor. secs. 25 and $36,30 \mathrm{ft}$. S. and 20 ft . W. of oroseroads, in root on N. side of 14-in. elm tree; copper nall and washer 418.79 T. 27 N., R. 9 E., 0.5 mi . W. of oor. secs. $29,30,31$, and $32,35 \mathrm{ft} . \mathrm{E}$. and 15 ft . S. of orossroade, in root on NW. side of 24-in. oak tree; copper nail and
washer.
 tablet stamped "T T 41 L 1931"
Reference mark, 415 ft . S. of orossroads, at $W$. edge of rd., in root on SE. side 372.817 of 20-in. ela tree; copper nail and washer
T. 27 N., R: 9 E., in SE. cor. sec. 31, in NW. angle of T-rd. N., in root on N. 354.14 side of 24-in. oak tree; copper nail and washer
T. 26 N., R. 9 E., near S. sixteenth cor. secs. 5 and $6,45 \mathrm{ft}$. N. and 20 ft . E. of rd. corner prom N. to E., in root on SW. side of 33-in. elm tree; copper nail and-wastrer
T. 26 N., R. 9 E., 0.3 ml . N. of quarter cor. between secs. 5 and $8,75 \mathrm{ft}$. N. and

90 ft . E. of T-rd. S., in yard, in root on SW. side of $27-1 \mathrm{n}$. oak tree; copper nail and washer
Puxioo, 3 mi. E. and $2.8 \mathrm{mi} . \mathrm{S}$. ot, in NEASW sec. $8, \mathrm{~T} .26 \mathrm{~N} ., \mathrm{R} .9 \mathrm{E} ., 20 \mathrm{ft}$. W. and 91 ft . S. of orossroads, 63 ft . S. of fence corner, in concrete post; standard tablet stamped "T T 42 L 1931 "
Reference mark, 65 ft . N. and 20 ft . W. of crossroads, 4 ft . W. of rail fence, in root on W. side of $24-1 n$. oak tree; oopper nail and washer
. 26 N. R. 9 E . N sixteent Cor , 353.59 roads, in fence line, in root on SW. eide of $24-$ in. oak tree; copper nail and washer
363.90
T. 26 N., R. 9 E., near cor. secs: $17,18,19$, and $20,25 \mathrm{ft}$. N. and 35 ft . E. of crossroads, in root on w. side of twin persimmon tree; copper nail and washer 374.16
Aid, 4 mi . W. of, 23 ft . E. and 22 ft . S. of crossroads at cor. secs. 19, 20, 29, and 30, T. 26 N., R. 9 E.; 4 ft . SE. of fence corner, in concrete post; standard tablet stamped "T T 43 L 1931"
Reference mark, 110 ft . N. of tablet, in fence line, in root on NW. side of 10 -in blazed persimmon tree; copper nail and washer
Aid, 3 mi. W. of, near cor. secs. 20, 21,28 , and 29, T. 26 N., K. 9 E., 25 ft . S. and 65 ft . W. of crossroads, in root on NW. side of 9-in. oak tree; copper nail and washer
Ald, 2 ml . W. of, near cor, secs. 21, 22,27 , and $28, \mathrm{~T}, 26 \mathrm{~N} ., \mathrm{R}, 9 \mathrm{E}, 65 \mathrm{ft}$, 342.54 115 ft . W. of center of bridge over large drainage ditoh, 25 ft . N. and 18 ft . W. of corner of farmyard, in root on $N$. side of 21-in. hickory tree; copper nail and washer
345.99

Aid, 1 ml . W. of, 29 ft . N. and 23 ft . E. of orossroads at cor. secs. 22,23 , 26, and 27, T. 26 N., R. 9 E., 11 ft . NE. of fence corner, in conorete post; standard tablet stamped "T T 44 L 1931 "
Reference mark, 45 ft . N. and 25 ft . W. of crossroads, 30 ft . E. of SE. corner of 366.307 J. D. Frank's house, in root on SW. side of 18 -in. walnut tree; copper nail and washer
365.71

Aid, $25 \mathrm{ft} . \mathrm{N}$. and 130 ft . E. of crossroads at cor. secs: 23, 24, 25, and 26, T. 26 N. , R. 9 E., at SW. corner of post office, in top et SW. corner of ooncrete stepping block; chiseled square
Ald, 1 mi . E. of, in NE. cor, sec. $25, \mathrm{~T} .26 \mathrm{~N} ., \mathrm{R} .9 \mathrm{E} ., 125 \mathrm{ft}$. SW. of croseroads, at $S$. edge of rd. W., in root on NW. side of 13 -in. walnut tree; copper nall and washer
402.90

Aid, 1.6 mi. E. of, near quarter cor. between secs. 19 and 30 , T. $26 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E}$. , in top at W. end of W. wing wall of concrete bridge; chiseled square 379.34
5. FROM WEST BORDER OF QUADRANGLE EAST ALONG U. S. HIGHWAY 60 TO FISK, THENCE NORTH TO POINT 1.5 MILES SOUTHVEST OF MINGO
(Continued from Poplar Bluff quadrangle; see line no. 6.)
 top at $E$. end of S. head wall of concrete culvert; chiseled square 32 Ash Hill, 0.5 mi . W. of, along U. S. Highway $60,35 \mathrm{ft.N}$. of highmay at rd. S.
Broseley, 1 ft . S. of fence, in concrete post; standard tablet stamped " 12 M Broseley, 1931 f. S. of fence, in concrete post, standard tablet stamped " 12
Reference mark, in SE. corner of N, parapet wall of E. abutment to bridge no. G-280 over ditch no. 11; chiseled square
, 1 parapet wall of E. abutment of bridge no. G-293 over drainage ditch no. 16; ohiseled square
325.356

25 , 8 near oenter of SEA sec. 29, on U. S. Highway 60, in SW, corner 326. N. parapet wali' of $W$. abutment of bridge no. G-294 over drainage ditch; chiseled square
Fisk, at N. side of Missouri Pacific R. R. bridge over St. Francis River, in top of W. pier; U. S. G. S. Gaging Station tablet
Fisk, at U. S. Highway 60 bridge over St. Francis River, in SW. corner of $S$. parapet wall of W. abutment; chiseled square (U. S. C. E. B. M.)
338.960

Fisk, 1 mi . E. of, along U. S. Highway $60,71 \mathrm{ft}$. E. and 66 ft . N. of highway at cross ra., 2 ft . S. of fence, in concrete post; standard tablet stamped " 13 M 1931 " 329.912
Reference mark, 125 ft . SW. of tablet, in SE. angle of crosaroads, in top at N. end of E. head wall of concrete culvert; chiseled square
329.48
T. 25 N., R. 8 E., 0.2 mi. E. of cor seos. $21,22,27$, and 28 , on State Highway 50 ft . N. and 50 ft . W. of crossroads, in root on NE. side of ll-in. oak tree; copper nail and washer
331.62
T. 25 N., R. 8 E., 0.2 mf. E. of cor. secs. $15,16,21$, and $22,20 \mathrm{ft}$. S. and 45 ft . E. of T-rd. S., 25 ft . E. of fence corner, in fence line, in root on $\boldsymbol{W}$. side of $20-1 n$. oak tree; copper nail and washer
334.38
T. 25 N., R. $8 \mathrm{E} ., \mathrm{N} . \operatorname{sixteenth}$ cor. between secs. 15 and $16,18 \mathrm{ft}$. N. of fence oorner, 24 ft . S. of center of gate at private T-rd. W., in root on E. side of $20-1 \mathrm{n}$. oak tree; copper nail and washer
332.78
T. 25 N., R. 8 E., seos. 9 and $10,50 \mathrm{ft}$. W. and 17 ft . S. of crossroads at quarter cor. between, in ooncrete post; standard tablet stamped "ly M 1931 ln
Reference mark, 45 ft . NE. of tablet, 13 ft . N. and 23 ft . W. of crossroads, in root on SW. side of 18 -in. oak tree; copper nail and washer . $25 \mathrm{~N}, \mathrm{R}$. 8 E , near quarter cor between secs. 3 and $4,25 \mathrm{ft}$. N. and 30 ft . of T-rd. W., 13 ft . N. and 15 ft . W. of corner fence post, in root on SW. side of 20-in. oak tree; copper nall and washer
T. 26 N., R. 8 E., in SW. cor. sec. $34,380 \mathrm{ft}$. E. of T-rd. S., $45 \mathrm{ft} . \mathrm{N}$. and 30 ft . E. of rd. corner from E. to N., in root on NW. side of 9-1n. tree; copper nail and washer
T. 26 .N., R. 8 E., in SE. or. sec. $28,25 \mathrm{ft}$. N. and 35 ft . W. of T-rd. W., in fence line, in root on SE. Biae of $24-i n$. oak tree; copper nail and washer 342.50
T. 26 N., R. 8 E., in NE. cur. sec. $\cdot 28$, 53 ft . W. and 18 ft . S. of crossroads, 30 ft . W. and 2 ft. S. of fence corner, in concrete post; standard tablet stamped "15 M 1931"
Reference mark, 210 ft . SE. of tablet, 160 ft . S. and 100 ft . E. of crossroads, in root on NW. side of lone 12-in. ash tree; copper nail and washer


## 6. FROM POINT L. 5 MILES SOUTH OF ASHERVILLE EAST TO CENTER OF QJADEAANGLE

T. 26 N., R. 8 E., cor. secs. 22, 23,26 , and $27,35 \mathrm{ft}$. S. and 260 ft . W. of orossroads, in root on N. side of 16-1n. sweet gum tree; copper nall and washer
346.05
T. 26 N., R. 8 E., cor. seos. 23, 24, 25, and $26,20 \mathrm{ft}$. N. and 30 ft . E. of oroseroads, 60 ft . NE. of NE. corner of Edmundson's store, in root on SW. side of 29-1n. oak.tree; copper nail and.washer
T. 26 N., R. 8 E., quarter cor: betmeen secs. 24 and $25,22 \mathrm{ft}$. N. and 40 pt . W. of orossroads, 2 ft. Inside fence, in root on SW. side of tmin oak tree; copper na 11 and washer
360.77
374.44

2 f., at E. cor. secs. 24 and $25,22 \mathrm{ft}$. S. and 55 ft . W. of T-rd. W., ft. inside fence, in root on NE. side of 8-in. ash tree; copper nail and washer
. 26 N., R. 9 E., quarter cor. between secs. 19 and $30,32 \mathrm{ft}$. N. and 50 ft . W. of T-rd. S., 14 Pt . N. of fence line, in root on SE. side of z4-in. oak tree; copper nall and waeher

## 7. From center of quadranale south and east to point near southeast corner

T. $26 \mathrm{~N} .$, R. 9 E., at SE. cor. sec. $30,30 \mathrm{ft}$. N. and 20 ft . W. of crossroads, in fence corner, in root on E. side of 15-1n. oak tree; copper nail and washer 336.68
T. 26 N., R. 9 E., near S. oor , secs. 31 and 32, 285 ft . W. of T-rd. S., 35 ft. S. and 60 ft. E. of corner of rd. from S. to E., in root on E. side of il-in. oak tree; oopper nail and washer
Dudley, 3 mi. N. and 1.2 mi . W. of, 58 ft . N. and 18 ft . W. of croseroads at cor. secs.
 otanderd tablet stamped "T T 45 L 1931"
347.699

Reference mark, $120 \mathrm{ft} . \mathrm{N}$. and 36 ft . W. of tablet, in root on SF . side of 24-in. oak tree; copper nail and washer
347.79
T. 25 N., R. 9 E., oor. secs. 7, 8, 17, and 18, 10 ft . N. and 43 ft . W. of rd. corner from S. to E., 9 Pt . S. and 23 ft. W. of fence corner, in root on E. side of 24-in. oak tree; copper nail and masher
T. 25 N., R. 9 E., in NE. cor. seo. $17,40 \mathrm{ft}$. S. and 35 ft . W. of crossroads, in fence, in root on NE. side of 19-in. olm tree; copper nail and washer 347.46
Dudley, 1 mi. N. of, 0.2 ml . E. of cor. secs. $16,17,20$, and 21, T. 25 N., R. 9 E., 116 ft . W. and 21 ft . N. of triangle at rd. fork $\mathrm{s} . ; 35 \mathrm{ft}$. W. of fence corner, in concrete post ; standard tablet stamped ${ }^{1} T T^{T} 46 \mathrm{~L} 1931 \mathrm{~m}$. 346.371
Reference mark, 0.2 mi. W. of tablet, 130 ft . E. and 20 ft . 8. of T-rd. N., in root on N. side of 23-1n. oak tree; copper nail and washer
346.77

Dudley, in SW. angle of T-rd. W., in top at NW. corner of concrete porch of Dudley's stare; chiseled square
Dudley, 0.6 mi . S. of, at F . edge of rd., in root on W. aide of 45-in. oak tree; oopper nail and washer (U. S. C. E. B. M.)
T. $25 \mathrm{~N} ., \mathrm{R} .9 \mathrm{E} .$, in SElNmis. sec. 33 , 100 ft . N. and 18 ft . E. of rd. corner from S . to W., in fence line, in root on SW. side of 10-1n. Wild cherry tree; copper nail and washer
T. 24 N., R. 9 E., in NE. oor. sec. 5 , 112 ft . S. of rd. corner fram W. to S., at
W. edge of rd., in root on NE. side of $30-i n$. oak tree; copper nail and washer 337.45

Dudley, $2.3 \mathrm{mi} . \mathrm{S}$. and 0.3 mi . W. of, 22 ft . W. and 25 ft . S. of T-rd. N. at quarter oor. between secs. 4. and 5, T. 24 N., R. 9 E.; $6 \mathrm{ft} . \mathrm{S}$. of fence corner, in concrete post; atandard tablet stampea nT T 47. L. 1931"
Reference mark, 975 ft . E. of tablet, in top of S . end of concrete pier at SE. oorner of iron bridge over drainage ditch; chiseled square (U. S. C. E. B. M.)
323.616
5. 24 N., R. 9 E., in SWhen in root on SW. side of 15-in. oypress tree; copper nail and washer
32.2 .78
T. 24 N., R. 9 E., in SEdNEA sec. 3 , 28 ft . N. and 45 ft . W. of T-rd. N., in root
on $N$. gide of 9-1n. white oak tree; copper nall and washer
326.16

Dudley, 2.5 ml . S. and 3 mi . E. of, $19 \mathrm{ft} . \mathrm{S}_{\text {. and }} 80 \mathrm{ft}$. E. of T-rd. S. at quarter cor. betreen secs. 1 and 2, T. 24 N., R. $9 \mathrm{E} ., 35 \mathrm{ft}$. E. oif fence corner, in conorete post; standard tablet stamped.nT T 48 L 1931 n
342.033

Reference riark, 62 ft . SE , of tablet, 48 ft . 8 . and 155 ft . E. ar T-rd. S., in root on N. side of 13-in. hickory tree; copper nail and washer (U. S. C. E. B. M.) 342.15 T. $24 \mathrm{~N} ., \mathrm{Rs}: 9$ and $10 \mathrm{E}$. , quarter cor. between secs. 1 and $6,65 \mathrm{ft}$. N. and 20 ft . F. of T-rd. W. in root on SE. side of $14-1 n$. oak tree; copper nail and washer 380.36
T. $24 \mathrm{~N} ., \mathrm{R} .10$ E., near center of NEt sec. $6,28 \mathrm{ft} . \mathrm{N}$. and 26 ft . E. of T-rd. N., in root on S. side of $16-1 \mathrm{n}$. oak tree; copper nail and washer
398.43

Dexter, 3 ml . W. and 2.7 mi . S. of, in NWit sec. 5, T. 24.N., R: $10 \mathrm{E} ., 58 \mathrm{ft}$. N. and 21 ft . W. of orossroads, in concrete post; standard tablet stamped nT T. 36 L' 1931"
405.427

Reference mark, 30 ft . N. and 20 ft . W. of orosaroads, in N. head wall of concrete oulvert; chiseled square

## 8. FROM POINT 1 MILE EAST OF FISK SOUTHEAST TO POINT 2.5 MILES SOUTHWEST OF DUDLEY

T. 25 N., R. 8 E., near center of NWTh sec. 34 , 35 ft . S. and 40 ft . E. of rd. corner from S. to E., in Jard, in root on NW. side of 19-in. oak tree; copper nail and washer
330.16

Lakeview School, 40 ft . SW. of SW. corner of, in NE. corner of turn in rd. from $N$ to E., in root on E. side of 20-in. oak tree; copper nail and washer 329.22

Tps. 24 and 25 N., R. 8 B., near quarter cor. between secs. 2 and $35,600 \mathrm{ft}$. E. of iron bridge over drainage ditch, 25 ft . $\mathrm{N}_{\text {. and }} 40 \mathrm{ft}$. F . from crossroads, in root on S. side of 18-1n. cypress tree; copper nail and washer
324.36

Tps. 24 and 25 N., R. 8 E., near quarter cor. between secs. 1 and $36,359 \mathrm{ft}$. E. and 12 ft . N. from center of bridge over drainage ditch, 65 ft . NW. of crossroads, on W. side of triangle at rd. Porks, in concrete post; standard tablet stamped "17 M 1931"
Reference mark, 36 ft . SE . of tablet, in root on S . side of 14 -in. oak tree; copper nall and washer
T. 24 N., Rs. 8 and 9 E., quarter cor. between secs. 1 and $6,56 \mathrm{ft}$. W. of turn in rd. from N. to E., 17 ft . N. and 11 ft . W. from fence corner, in root on NE. side of 20-in. oak tree; copper nail and washer
NE, side of $20-1 n$ oak tree; copper nail and washer. 329.60

Wooden culvert, in SE . end; copper nail and washer. $\quad$. and 135 ft . E. of junction 320.76 of T-rd. S., in root on SW. side of $24-1$. oak'tree; copper nail and washer 327.95

## 9. IN NORTHEAST: CORNER OF QUADRANGLE (by E, W. Gouchenour in 1931) (Oontinued from Zalma quadrangle; see line no. 8.)

T. 27 N., R. 9 E., oor gecs. 9, 10, 15 , and 16 ; 20 ft . N. and 15 ft . W. of crossroads, on $W$. end of iron pipe culvert; painted square
Leora, 0.5 mi . S. and 2.5 mi . W . of, 0.2 mi . W. of Fagan School, 46 ft . N. and 16 f . 34.65 E. of T-rd. N. at quarter cor. between secs. 10 and 16, T. 27 N., R. 9 E., 26 it. N. of fence corner, in concrete post; standard tablet stamped "T T 27 L 1931"
Reference mark, 10 ft . N. and 6 ft . W. of T-rd. N. F in W . head mall of concrete oulvert; chiseled square

1. 27 N., R. 9 E., 20 ft . N. and 120 ft . E. of cor. secs. $10,11,14$, and 15 , in root on SW: side of large black oak tree; copper nail and washer
T. 27 N., R. 9 E., near quarter cor. between secs. 11 and $14,6 \mathrm{ft}$. S. and 15 ft . E. of croseroads, on point of rock on $S$. end of culvert; painted square
T. 27 N., R. 9 E., at cor. secs. $11,12,13$, and 14,700 ft. W. of orossroads, 20 ft. S. of rd., in root on W. side of white oak tree; copper nail and washer 434.18
Leora, $0.5 \mathrm{mi} . S . \operatorname{of}, 28 \mathrm{ft}$. W. and 5 ft . N. of THrd. E. at W. cor. secs. 7 and 18, T. 27 N., R. 10 E., $108 \mathrm{ft} . \mathrm{N}$. and 24 ft . W. of T-rd. W. at E. 00 or . secs. 12 and 13 , T. $27 \mathrm{NF}_{\mathrm{F}} \mathrm{R} .9 \mathrm{E.}$, in concrete post; standardtablet stamped "T T 26 L 1931"
Reference mark no. 1 , in root on W. side of 24-in. blaok oak tree; copper nail and washer
Reference mark no. 2, 200 ft . S. of T-rd. W., in root on W. side of white oak
tree; copper nail and masher 1. in E. head wall of concrete culvert; chiseled square 6 ft . E. of T-rd. E.,
T. 27 N., R. 10 E., near NW. cor. sec. $30,12 \mathrm{ft}$. N. and 9 ft . E; of T-rd. E.,

## 10. SOUTH ALONG SOUTH HALF OF EAST BORDER OF QUADRANGLE <br> (Continued from Bloompleld quadrangle; see line no. l.)

Alhambra Church, about 300 ft , SE. of, 44 ft . E. and 17 ft . S. of croseroads at cor. secs. 5, 6, 7, and 8, T. 26 N, , R. 10 E., 69 ft . E. of E. and of house, in concrete post; standard tablet stamped "T T 24 L 1931"
Reference mark, $\delta 5 \mathrm{ft}$. S. and 15 ft . E. of crossroads, in root on N . side of wild cherry tree
T. 26 N., R. 10 E.; 900 ft. S. of cor. secs. 7, 8, 17 , and 18 , on NW. abutment of 422.96 steel girder bridge across drainage ditch; painted square $\qquad$
T. 26 N., R. 10 E., near quarter cor between secs. 17 and $18,18 \mathrm{ft}$. S. and 20 ft. W. of orossroads, in root on E. side of $15-1 n$. elm tree; copper nail and washer
T. 26 N., R. 10 E., near cor aecs, $17,18,19$, and $20,18 \mathrm{ft}$. S. and 115 ft . W. of crossroads, in root on NE. aide of persimmon tree; copper nail and washer 383.01
Bloomfleld, 4 mi . W. and 0.5 mi . S. of, about 0.2 mi . N . of cor. eecs. 19, 20, 29, and $30, \mathrm{~T} .26 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} ., 99 \mathrm{ft} . \mathrm{S}$. and 22 ft . E. of T-rd E., 22 ft . N. and 3 ft . E. of lone hickory tree, in concrete post; standard tablet stamped "T T 23 L $1931^{\text {" }}$
Reference mark, 20 ft . N. and 10 ft . E. of T-rd. E., on E. end of iron pipe culvert; painted square
T. 26 N., R. 10 E., 0.4 mi . N. of cor. eecs $29,30,31$, and $32,600 \mathrm{ft}$. S. and 30 ft. E. of T-rd. W., in root on NW. side of large oak tree; copper nail and washer
T. $26 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} .$, quarter cor. between secs. 31 and $32,300 \mathrm{ft}$. S. and 20 ft . E. of T-rd. E., in root of small oak tree; copper nail and washer
T. 25 N., R. 10 E., N. cor. eecs. 5 and 6, at T-rd. S., in root on E. side of hickory tree; copper nall and washer
T. 25 N., R. 10 E., 700 ft . S. of quarter cor: between secs. 5 and 6, in NW. wing wall of concrete abutment of steel girder bridge; chiseled square $\qquad$
Dexter, 2.5 mi . W. and 2 mi . N. of, 0.3 mi . S. of cor. eecs. $5,6,7$, and $8, \mathrm{~T} .25 \mathrm{~N} .9$ R. 10 E., 35 ft . E. and $5 \mathrm{ft} . \mathrm{N}$. of T-rd. W. through gate, in concrete post; standard tablet stamped "T T 34 L 1931"
Heference mark, is ft. S. of tablet, in root on SE. side of 24-in. oak tree
T. 25 N., R. 10 E., S. sixteenth cor between secs. 7 and $8,40 \mathrm{ft}$. S. and 30 ft . W. of orosis oads, in root on $S$ : side of $10-1 n$. persimmon tree; copper nall and washer
T. 25 N., R. 10 E., 0.2 mi. N. of cor eecs. $17,18,19$, and 20 , 22tet. $2 N$ and 33 ft. W. of T-rd. W., in root on E. side of persimmori tree; copper nail and washer
T. 25 N., R. 10 E., at cor. secs. $17,18,19$, and $20,30 \mathrm{ft}$. N. and 40 ft . E. of U. S. Highway 60 at T-rd. N., in $\mathbb{T}$. end of $N$. head wall of concrete culvert; ohiseled square
T. $25 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} .$, in SW . cor. sec. $20,330 \mathrm{ft}$. N. of Missouri Pacific R. R. ot rd. crossing, in root on SW. side of large oak tree; copper nail and washer 49 ft . S. and 29 ft . W. of R. R. at rd. croseing, 14 ft . W. of fence corner, in concrete post; standard tablet stamped "T T 35 L 1931"
367.598
T. $25 \mathrm{~N} ., \mathrm{R}$. 10 E., 0.2 ml . E. of cor. eecs. $19,20,29$, and $30,20 \mathrm{ft}$. N. and 35 ft . W. of orossroads, in root on W. side of sycamore tree
T. 25 N., R. 10 E., about 0.3 ml . NE. of cor. eecs. $29,30,31$, and $32,25 \mathrm{ft}$. N. and 30 ft . W. of T-rd. W., in root of white oak tree; copper nail and wesher 495.71
T. $25 \mathrm{~N} ., \mathrm{R} .10 \mathrm{E} ., 0.2 \mathrm{mi}$. E. of quarter cor. between secs. 31 and $32,40 \mathrm{ft}$. N. and 15 ft . W. of T-rd. W., in black oak stump; copper nail and washer
T. 25 N., R. 10 E., in $\operatorname{sW}$ root on W. side of black oak tree; copper nail and washer
(Continued in Bloopfield quadrangle; see line no. 5.)
For additional level lines along St. Louis-San Francisco R. R. in northwest quarter of quadrengle, refer to United States Coast and Geodetic Survey first-order line, Cape Girardeau, Mo. to Hoxie, Ark. and second-order ilne, Mingo to Hunter. For an additional line along Missouri Pacific R. R. In south part of quadrangle, refer to United States Coast and Geadetic Survey seoond-order line, Sikeston to Poplar Bluff.

(Latitude $37^{\circ}-37^{\circ} 15^{\text {ZALMA }}$; longitude $90^{\circ}-90^{\circ} 15^{\prime}$ )<br>Bollinger, Stoddard, and Wayne Counties



1. FROM SOUTH BORDER OF QUADRANGLE NORTHEAST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO EAST BORDER (by E. C. Bibbee in 1914)
(Continued from Puxico quadrangle; see line no. 1.)
Idlewild, in front of St. Louls-San Francisoo R. R. gtation; top of rail
Idlewild, 60 ft . S. of St. Louls-San Francisco R. R., 20 ft . W. of NW. corner of
Gearge Elder's store, in root of hickory tree; copper nail
Idlewild, 0.7 mi . NE. of, along St. Louis-San Franoisoo R. R., in N. end of first tie on W. end of trestie no. Aw169.7; drift spike
Kinder, in NF: oorner of sohoolyard, 50 ft . S. of St. Louis-San Francieco R. R., 250
ft. S. of store, 150 ft. E. of post office; iron post stamped "Prim Tray Sta No 12 F 1924 Mo 342 Zn (recovered by J.S.O. \& G.S.)
Kinder, 0.9 mi. NE. of, along St. Louis-San Francisco R. R., 57 ft. S. of track, 7
ft. S. of R. R. right-of-way, 50 ft. E. of rd., in root of 24-in. ash tree; copper nall
Eaglette, 0.8 mi . SW. of, along St. Loule-Sen Francisoo R. R., near rd. orossing, 52 ft . S. of track, 2 ft . S. of right-of-way line, in rd., in root of black oak tree; copper nail
Eaglette, near St. LouismSan Erancisco R. R. station, 50 ft . S. of track, $2 \mathrm{ft} . \mathrm{s}$. of right-of-way, 15 ft . W. of public rd.; iron post stamped "prim Trav Sta No $i l$ F 1924 Mo 346" (recovered by J.S.C. \& G.S.)
Reference mark, 63 ft . N . and 33 ft . E. of rd. croseing, in root on NF. side of sycamore tree; copper nail and washer
Sturdivant, $0.9 \mathrm{mi} . \mathrm{SW} . \mathrm{of}$, along St. Louib-San Francisco R. R., 50 ft . S. of traok, oppopite signpost marked "Station i mile", in root of black oak tree; copper nail
Sturdivant, 500 ft. W. of St. Louis-San Franoisco R. R. station, 50 ft . N. of traok, at SW: corner of J. M. Phelps" yard; iron post stamped "Prim Trav Sta No 10
F $1924349^{\prime \prime}$ (recovered by J.S.O. \& G.S.)
Sturdivant, in front of St. Louis-San Francisco R. R. station; top of rail

Sturdivant， 1 mi．NE．of，along St．Louis－San Francisco R．R．，in Homer Mcclennen＇s cowyard， 55 ft ．N．of track， 5 ft ．N．of right－of－way，in root of black oak tree；copper nail
351.47
（Continued th Advance quadrangle；see line no．1．）

## 2．ACROSS NORTHWEST CORNER OF QUADRANGLE（by W．R．Broaddus in 1926）

 （Continued from Greenville quadrangle；see line no．1．）T． 30 N．，R． 7 E．，in NE $\frac{1}{4}$ sec． 35 ，about 6 ml ．E．of Clubb， 600 ft ．E．of J．P．Ward＇s house， 300 ft ．W．of State Highway 34 at junction of rd．，in E．end of N．wing wall of conorete culvert；standard tablet stamped＂P T Sta No $69 \mathrm{~S} \mathrm{1926"}$
Reference mark， 610 ft ．N． $70^{\circ} \mathrm{E}$ ．of tablet， 50 ft ．S．of highway，in root on $W$ ． side of 7－in．maple tree；copper nall and washer
514.55

Olubb， 7.5 mi ．E．of，along State Highway 34 ，on ridge， 0.5 mi ．E．of point where high－ way crosses summit， 35 ft ．$S$ ．of highway，in root on N．side of $12-1 \mathrm{n}$ ．hickory tree；copper nail and washer
Castor River， 0.9 mi ．W．of，along State Highway 34， 150 ft ．W．of Bollinger－Wayne county line， 30 ft ．N．of highway，in root on S．side of 36－in．maple tree； oopper nall and washer
439.82

Castor River，at State Highway 34，under bridge；surface of water November 27， 1926 at 11 a．m．
419.7
er Castor

Sitzke Store， $220 \mathrm{ft} . \mathrm{S}$ ．of， 500 ft ．E．of E．end of State Highway 34 bridge over dat
River，at junction of highway and old Zalma－Fredericktown road，in concrete post； standard tablet stamped＂P T Sta No 68 S 1926 ＂ 43
Reference mark， 22 ft ．W．of tablet，in root on NE．side of 20－in．hickory tree； copper nail and washer
Grassy， 4 mi ．W．of，along State Highway 34， 1 mi．E．of Castor River， $30 \mathrm{ft} . \mathrm{N} .438$ highway，at top of hill，in root on S．side of 18－in．hickory trea；copper nall and wesher
Grassy， 2.6 mi ．W．of，along State Highway $34,30 \mathrm{ft}$ ．S．of highway， 200 ft ．E．of hilltop，in root on N．side of $12-1 n$ ．red oak tree；copper nail and washer
（Continued in Marquand quadrangle；see line no．4．）

3．FROM NORTH BORDER OF QUADRANGLE SOUTHWEST TO POINT 1.8 MILES NORTHWEST OF ZALMA （by George W．Moore in 1931）
（Continued from Marquand quadrangle；see line no．6．）
T． 30 N．，R． 9 E．，in NW童 sec． 27,210 ft．S．of rd．fork W．， 200 ft．SE．of rd．at orossing of Cane Creek，on E．side of rd．， 2 ft．NE．of fence corner，in concrete posit；standard tablet stamped＂T T 50 E 1931＂
Reference mark， 154 ft ．SW．of tablet， 50 ft ．NE．of ford across Cane Creek，on NW． edge of rd．，in root on S．side of 25－in．elm tree；oopper neil and washer 484.49
T． 30 N．，R． 9 E．，in S弪 sec． $28, .95 \mathrm{ft}$ ．W．of dim rd．fark S．，in saddle， 25 ft ． N．of main ra．，in root on S．side of 19－1n．oak tree；copper nail and washer 625.67
T． 30 N．，R． 9 E．\％in Wrer sec． $33,80 \mathrm{ft}$ ．N．of T－rd．W．， 140 ft ．N．of T－rd．E．，in top of $s$ ．end of $W$ ．wing wall of $S$ ．abutment of concrete culvert；chiseled square
Hahn， $0.6 \mathrm{mi} . \mathrm{N}$. of，elong rd．to Lutesville， 25 ft ． E ．of rd．，in triangle of dia fork E．， 25 ft ．E．and $20 \cdot \mathrm{ft}$ ．N．of fence corner，in root on SW．side of $10-1 \mathrm{n}$ ． oak tree；copper nall and washer
695.47

Hahn， 0.3 mi．N．of，in NEA sec．5，T． 29 N．，R． 9 E．， 21 ft．N．and 18 ft．W．of T－rd． E．， 33 ft．N．of old rd．W．， 2 ft．E．of fence，in concrete post；standard tablet stamped＂T T 51 E 1931＂
T． 29 N．，R． 9 E．，in NE空 sec． $8,0.2 \mathrm{mi}$ ．S．of Hahn，in top at center of E．wing $\begin{array}{ll}\text { wall of S．concrete abutment of small wooden bridge；ohiseled square } \\ \text { T．} 29 \text { N．，R．} 9 \text { E．，near center sec．} 8,620 \mathrm{ft} \text { ．E．of Eaker School，in top at } \mathrm{N} . & 598.28\end{array}$ end of E．wing wall of N．conerete abutment of wooden bridge；ohiseled square 548.78
 ft．E．of T－rd．E．， 1 ft ．W．of fence，in concrete post；standard tablet stamped ＂T T 52 E 1931 l ． 150 ft．S．of tablet， 5 ft ．E．of fence，in root on NE．alde of 558.094
Reference mark， 150 ft ．S．of tablet， 5 ft ．E．of fence，in root on NE．aide of 21－in．oak tree；copper nall and washer
T． 29 N．，R． 9 E．，in SW年 Bec． $17,65 \mathrm{ft}$ ．NE：of private rd．fork NE．， $40 \mathrm{ft} . \mathrm{S}$ ． of large gate，in root on W．side of $16-1 n$ ．oak tree；copper nail and washer
518.95

4．FROM NORTH BORDER OF QUADRANGLE SOUTHEAST BY WAY OF ZALMA TO POINT 3 MILES SOUTH OF GREENBRIER

Buohanan，1．8 mi．N．of post offioe，along old Zalma－Fredericktown road， 1 mi．S．of State Highway $34,150 \mathrm{ft}$ ．N．of curve in rd．fram SE．to S．， 25 ft ．E．of small drain crossing，in root on SW．side of 20－in．leaning oak tree；copper nail 438.33 and washer
Bughanan， 0.8 mi ．N．of past office，along old Zalma－Frederioktomn road， 35 ft．N．of T－rd．N．，in triangle of rd．forks，in root on N．side of 14－in．oak trea； oopper nail and washer
Buchanan，near oenter sec．5，T． 29 N．，R． 8 m．， 15 ft ．gE：of post office， 20 ft． W．of rd．；in ooncrete post；standard tablet stamped mp T Sta No 67 S 1986＂ 440.382
Reference mark， 60 ft ．SE．of tablet；at E ．edge of rd．，in roct on F ．side of 16－in．oak tree；copper nail and washer
Buohanan， 1.1 mi ．SE．of post office，along old Zalma－Fredericktown road， 65 ft ．S． of rd．fork E．，in root on E．side of $16-1 n$ ．oak tree；copper nail and washer 578.34
Buchanan， 1.3 mi ．SE．of post office，along old Zalma－Fredericktown road， 100 ft．N： of triangle of rd．forks， 30 ft ．NW．of rd．，in root on NE．side of 19－in．oak tree；copper nail and washer
Buchanan， 2.2 mi ．SE．of post office，along old Zalma－Fredericktown road，at NE． $63 \mathrm{~d} \boldsymbol{\mathrm { g }} \mathrm{a}^{9}$ of ra．，at $N$ ．end of park，in root on $S$ ．side of 10－in．oak tree；copper nail and washer
614.74

Zalma, 7.5 mi . NW. of, at NE. edge of rd., in root on SW. side of 9-in. oak tree; oopper nail and washer $1,500 \mathrm{ft}$. NW. of Wh. Wither's house, at W. end of ald field, 36 ft . N: of rd. forks, in concrete post; standard tablet stamped "P T Sta No 66 S 1926"
Reference mark, 52 ft . SW . of tablet, in root on SE. side of 19-in. aak tree; copper nall and washer
420.52

Zalma, 6.2 mi. NW. of, along old Zalma-Fredericktown road, 10 ft . N. and 10 ft . E.
of T-rd. W., in root on S. alde of $9-1 \mathrm{n}$. oak tree, copper nail and washer 390.
of T-rd. W., in root on S. alde of 9-in. oak tree, copper nail and washer
Zalma, 5.3 mi . NW. of, along old Zalma-Frederickiown road, 75 ft . E. and 22 ft . N. of ra. fork NE., in root on SE. side of 16-in. oak tree; copper nail and washer
416.72

Zalma, 4.6 mi . NW. of, along old Zalma-Fredericktomn road, 160 ft . NE. of small wooden bridge over oreek, at NW. edge of rd., in root on SW. side of $23-1 \mathrm{n}$. oak tree; oopper nall and masher
Zalma, 3.5 mi. NW. of, in NE, cor. sec. 24, T. 29 N., R. 8 E., on farm of C. R. 377.81 30 ft . S. and 20 ft . E. of junction of private rd., 10 ft . N. and 10 ft . E. of large gate, in conorete post; standard. tablet stamped "P T. Sta Na 65 S 1926" 380.157
Referenoe mark, 66 ft . NW. of tablet, 30 ft . N. and 35 ft . W. of rd. forke, in root on SE. Bide of 10-in: aycamore tree; copper nall and washer
385.15

Zalma, 2.8 mi . NW. of, along old Zalma-Fredericktown road, 110 ft . E. of woaden gate to field, at $S$. side of rd., in fence line, in root on NE. side of l8-in. white oak tree; copper nail and washer
381.54

Zalma, 1.8 mi . NW. of, along old Zalma-Fredericktom road, 70 ft . E. of rd. fork NW. in top near SW. end of N. wing wall of E. concrete abutment of small wooden bridge; chiseled square
Zalma, 1.3 mi . NW. of, along old Zalma-Fredericktown road, 30 ft . S. and 90 ft . E. of rd. forks, in roat on NW. side of ll-in. walnut trea; copper nail and washer
Zalma, 0.4 ml . N. of, along State Highway $51,20 \mathrm{ft}$. SW . of junction of old ZalmaFrederioktown road, 5 ft . SW. of NW. corner of bridge no. J-104, in top of NW. guard mall; chiseled square
Zalma, 720 ft. E. of post office, 82 ft . S. of SE. corner of St. Louis-San Francisco R. R. station, 21 ft . S. and 18 ft . W. of public rd. crossing, in sandstone boulder; standard tablet stamped "P T. Sta No 5B S. 1926"
374.134

Reference mark, $180 \mathrm{ft} . ? \mathrm{NW}$. of tablet, 70 ft . W. of NW. corner of st. Louls-San Francisco R.R. sta., in top of $N$. end of B. head wall of concrete culvert under State Highway 5l: chiseled square
Zalma, 1 mi . SE. of, along St. Louls-San Francisco R.R., on N. guardtimber of bridge no. C-168.3; top of second driftbolt from W. end of bridge
374.33
zalmage no. 372.94 Zalma, i. 5 mi. SE. of, along St. Louis-San Francisoo R. R., at S. edge of public rd. oroseing, in top $N$. end of W. guardtimber of bridge no. C-167.7 over Castor River; top of N. driftbolt
375.60

Zalma, 2.5 ml . SE. of, along St. Louis-San Francisco R. R., $118 \mathrm{ft} . \mathrm{N}$. of gtation sign on NE. side of tracks, 55 ft . NE. of tracks, in root on S. side of 19-in. oak tree; copper nall and washer
Greenbrier, 0.6 mi . NW. of, along St. Louis-San Francisco R. R., at SE. corner 365.86 bridge no. Cal65.9, 3 ft. S. of S. rail, in top $S$. end of W. cross bracing; copper nail and washer
Greenbrier, in sec. ll, T. 28 N., R. 9 E., 51 ft . N. and 18 ft . W. of main public crossing of Zalma Branch of St. Louls-San Francisco R. R., in SW. corner of ooncrete well-platform; standard tablet atamped "P T Sta No 57 S 1926"
Reference 365 -988 . 1 . and 30 . of St. Louls-San Francisco R. R. at main public rd. crossing, in root on SE. side of 19-in. hickory tree; copper nail and washer
Greenbrier, 0.8 ml . S. of, along rd., 40 ft . N. and $75 \mathrm{ft}$. . W. of T-rd. N., in root on NW. side of $22-i n$. oak tree; copper nail and washer
Greenbrier, 1.6 mi . S. of, along rd., 190 ft. N. of gates at private crossroads 360.72 20 ft . W. of rd., in fence line, in root on B . side of $14-1 \mathrm{n}$. hickory tree; copper nail and washer
Greenbrier, 2.7 mi . S. of, 0.4 mi . N. of croseroads, in top center of E. orosebeam of small wooden culvert; copper nail and washer

## 5. SOUTH ALONG WEST BORDER OF QUADRANGLE

Olubb, 7.1 mi. E. of, along State Highway 34, 2.1 mi. W. of Castor River, 55 it. S. of T-rd. SE., in root on N. side of 7-in. oak tree; copper nail and washer 644.58 Lowndes, 8.5 ml . NE. of, along rd., 0.6 mi . S. of State Highway 34, 16 ft . W. of rd. Pork SE., in root on SE. side of lo-in. pine tree; copper nail and washer 684.36 Lowndes, 7.5 mi . NE. of, along rd., 320 ft . NE. of rd. fork N., in saddle on top of ridge, at NW. edge of rd., in root on S. side of l2-in. oak tree; oopper nail and washer
Lowndes; 7 mi. NE. of, at NE. edge of rd., 12 ft . N. and 4 ft . W. of SW. corner of 56 F. L. Moyer's yard, in root on W. side of 12-in. walnut tree; copper nail and washer
T. $29 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} .$, near center sec. $1,130 \mathrm{ft}$. S. and 35 ft . W. of T-rd. E., 40 ft . SE . of rd. forks, 25 ft . E. and 2 ft . N. of oak tree in fence oorner, in ooncrete post; standard tablet stamped m 18 y 1931"
Reference mark, 66 ft . NW. of tablet, at 7 . side of rd., in root on NW. side of 9-in. oak tree; oopper nall and washer
Lownder, 5.4 mi . NE. of, 350 ft . N. of fence E., at W. edge of rd., in front of abandoned sammill, in root on SE. side of 3a-in. oak tree; copper nail and washer
Lowndes, 4.8 mi. NE. of, on line between secs. 12 and 13, T. $29 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} ., 60 \mathrm{ft}$. SW. of ford aoross small oreek, on W. side of rd., in fence corner, in root on SE. side of $17-1 \mathrm{in}$. oak tres; copper nail and washer
Lowndes, 4.2 ml . NE. of, 25 ft . N. and 25 ft . E. of rd. fork NE. at top of hill, in root on SW. side of 11-in. oak tree; copper nall and washer
473.56

Lowndes, 3.5 mi . NE. of, 0.7 mi . NE. of ford acroes Bear Creek, 90 ft . W. and 18 ft . S. of T-rd. N., $2 \mathrm{ft} . \mathrm{N}$. of sence, in concrete post; standard tablet stamped. "19 M 1931"

Reference mark, 162 ft . NE. of tablet, $48 \mathrm{ft} . \mathrm{N}$. of T-rd. N., at F . edge of rd., in fence line, in root on E. side of $24-i n$. white oak tree; copper nail and mesher
Lowndes, 2.8 mi . NE. of, on S . elde of $\mathrm{rd} ., 50 \mathrm{ft}$. E. of Bear oreek, in root on N. side of 22-in. sycamore trea; copper nall and washer

Lowndes, 2.8 mi . NE. of, at W. end of ford across Bear Creek, on S. side of rd. in root on N. side of $30-1 n$. oak tree; oopper nail and washer
Lowndes, 1.9 mi . NE. of, 80 ft . W. of rd. fork SE., on SE. bank af creek, in root on E. side of 14-in. oak trae; oopper nail and washer
Lowndes, 1.1 mi . NE. of, 110 ft . NW. of rd. fork NE., 25 ft . W. of fence, in root on W. side of 42-in. oak tree; copper nail and washer
(For balance in Greenville quadrangle, see line no. 3.)
Lowndes, 3.1 mi . SE. of, $35 \mathrm{ft} . \mathrm{S}$. and 40 ft . W. of T-rd. S., in raot on S . side of 6-in. oak tree; copper nail and washer
T. 28 N., R. $7 \mathrm{E} ., \mathrm{y} 0.2 \mathrm{mi}$. E. of cor. secs. $1,2,11$, and $12,0.2 \mathrm{mi}$. S. of Albert Stuartis residence, 130 ft . N. of T -rd. N.., inside of fence, in concrete post; standard tablet stamped PP T Sta Na 90 S 1926"
Reference mark, 132 ft. S. of tablet, at $S$. edge of rd., in root on $N$. aide of 14-1n. oak tree; copper nall and washer
Lowndes, 4.7 mi . SE. of, at dim rd. forks in woods, at E. edge of rd., in root on SW. side of 26-in. oak tree; copper nail and washer
Lowndes, 5.7 mi . SE. of, 55 ft . SE. of ford aaross amall creak, on NE, alde of rd., in root on W. side of 7-1n. oak tree; copper nall and vasher
Flatwood Sohool, 1.4 mi . SW. of, 120 ft . NW. of croseroads in woods, in root on SE. side of 22-1n. oak tree; copper nall and washer
Flatmood School, 0.6 mi . SW. of, 70 ft . N. of woods rd. W. at top of hill, at W. edge of rd., in root on NE. side of twin oak tree; copper nail and washer 580.41

Flatwood school, $50 \mathrm{ft} . \mathrm{S}$. and 50 ft . W. of cor . seos. 4, 5, 8, and 9, T. 28 N., R. 8 E., 18 It. E. of NE. corner of school, in SE. corner of concrete cistern ourbing; standard tablet stamped "P T Sta No $60 \mathrm{~S} 1926{ }^{n}$
Reference mark, 170 ft . SE. of tablet, in root on W. side of l2-in. oak tree; oopper nail and washer
Flatwood School, 0.5 mi . S. of, 35 ft . S. of T-rd. S., 6 ft . W. of NW. corner of farmyard, in root on NW. side of 15-in. oak tree; copper nail and washer 548.58 6-1n. oak tree; copper nall and masher
Mc Gee, 0.8 mi. N. of, 20 ft . E. of rd. fork NE., in root on NW. aide of 12-in. oak tree; copper nail and washer
431.65

Mc Gee, $180 \mathrm{ft} . \mathrm{E}$. of post office, 0.2 mi . S. of center of sec. 20, T. $28 \mathrm{~N} ., \mathrm{R} . \mathrm{B}$ E., 10 ft . N. and 15 ft . E. of Trd. N., in fence corner, in concrete post; standard tablet stamped "P T Sta No 61 S 1926"
Reference mark, 0.2 mi . N. of tablet, 230 ft . S . of $\mathrm{T}-\mathrm{rd}$. W., 15 ft . E. of rd., in reot on W. side of 10-1n. oak tree; copper nall and washer
Mc Gee, 0.5 ml . S. of, at E. edge of rd. at top of hill, in root on NW. side of 11-in. oak tree; copper nall and washer
Mo Gee, 1.1 mi. S. of, at NE. edge of rd., in root on SW. side of 22-1n. oak tree.; copper nall and washer
c Gee, 2.1 mi . S. of, 660 ft . N. of T~rd. N., 35 ft . S. and 20 ft . W. of privat rd. W., in root on E. side of ll-in. oak tree; copper nail and washer
Mc Gee, 2.5 ml . S. of, on Zalma-Wappapello wagon road; near cor. secs. 4, 6, 31, and 38, Tps. 27 and 28 N., R. $8 \mathrm{E} ., 0.2 \mathrm{ml}$. N. of Bright Prospect Charch, 280 ft . SE. of house of Byron Deoils, in fence corner, in concrete post; standard tablet stamped "P T Sta No 62 S 1926"
Reference mark, 50 ft . NW, of NW. corner of Bright Prospect Church, in root on SE. Ride of 24-in. sycamore tree; copper nail and washer
Mo Gee, 4.4 ml . S. of, 50 ft . SW. of THrd. SE., 110 ft . NE. of E. - W. rail fence at SE. edge of rd., in root on W. side of $17-1 n^{\prime}$. oak tree; copper nail and washer 472.88
Mo Gee, 4.9 ml . S. of, at $W$. edge of rd., in front of Oscar May's house, in root on NW. side of 12-in. oak tree; capper nail and washer
Ma Gee, 5.9 ml . S. of, 80 ft . N. of crossraads, in NW. corner of triangle of rd. forks, in root on W. side of l2-in. qak tree; copper nail and pasher plupe 507.42
Fry School, 300 ft . NE. of, 5 mi . N. of Wappapello along Zalma-Poplar Blupf wagon road, 250 ft . SW. of house of Byron Crites, at NE. corner of schoolgrounds, 5 ft . N. of wire fance, in ooncrete post; standard tabiet stamped "P T Sta No 63 S $1926^{1{ }^{\circ}}$
570.713

Reference mark, 245 ft . W. of tablet, 145 ft . N. of NE. corner of Fry School, 30 it. N. of ience; in root on N. alde of 7-in. oak tree; copper nail and washer 567.65
(Continued in Puxico quadrangle; see line no. 3.)

## 6. FROM Mo GeE EAST AND SOUTH TO STURDIVANT (by L. V. Johnson in 1931)

Mo Gee, 0.6 ml . NE. of, along rd. to Arab, 800 ft . E. of charch, at rd. corner N. to W., 7 ft. N. of E. gatepost at jog in fence, it root on N. side of $16-1 \mathrm{n}$. oak tree; copper nall and washer
Ko Gee, 1.6 ml . NE. of, along. rd. to Arab, 12 ft . S. of rd., 8 ft . N. of pasture 391.90
pasture gate,
Mo Gee, 2.1 ml . NE. of, along rd. to Arab, 600 ft . W. of house on N. aide and barn on S. side of rd., $50 \cdot \rho t$. NE. of ford acrose creek, 60 ft . NW. of dim rd. fork NW. along creek, in root on SW. aide of 12-in. oak tree; copper nail and washer
370.62
T. $28 \mathrm{~N} ., \mathrm{R} .8 \mathrm{E} .$, in $\mathrm{N}_{2}^{2} \mathrm{sec}$, $22,25 \mathrm{ft}$. S. and 22 ft . E. of T-rd. S., 5 ft . S. and 2 ft. E. of fence corner, in concrete post; standard tablet stamped "T T 45 E 1931"
Reference mark, 20 ft . SE. of tablet, in root on NE. side of 12-1n. oak trea;

Mo Gee, 3.6 mi . Ne. of, alang rd. to Arab, between $2 \mathrm{hills}, 40 \mathrm{ft}$. S. and 10 ft . E. of crossroeds, in root on NTR. side of 12-in. oak tree; copper nail and washer 447.76

Arab, near quarter cor. between secs. 24 and 25, T. 28 N., R. 8 日., 390 ft. E. of rd., $50 \mathrm{ft} . \mathrm{S}$. and 25 ft . W. of corner of fences $\mathrm{N} ., \mathrm{Si}$, and E., in front of store, in concrete post; standard tablet stamped "T T 46 E 1931 n
T. 28 N., R. 9 E., 0.2 mi. W. of quarter cor. between secs. 19 and 30, at NE. angle in drainage ditoh, 65 ft . N. and 30 ft . E. of front gate to farmhouse, 45 ft . N. of rd., in root on E. side of 18-in. gum tree; copper nail and washer 348.61
T. 28 N., R. 9 E., near cor evcs. 19, 20,29 , and $30,80 \mathrm{ft}$. E. and 22 ft . N. of T-rd. S., in root on SE. side of $12-1 n$. oak tree; copper nail and washer 348.02
T. 28 N., R. 9 E., secs. 20, 21,28 , and $29,18 \mathrm{ft}$. N. and 63 ft . E. of T-rd. N. at cor. of, 45 ft . E. and 1 ft . S. of fence corner, in concrete post; standard tablet stamped "T T 47 E 1931
Reference mark, $60 \mathrm{ft} . \mathrm{E}$. and 40 ft . S. of T-rd. N., in root on NE. aide of l2-in. elm tree, copper nail and washer 350.78
T. 28 N., R. 9 E., $800 \mathrm{ft.E}$. of cor. secs. $21,22,27$, and $28,75 \mathrm{ft}$. S. of private rd. S., in rd. fightmof-way, in root on N. side of 24-in. gum tree; copper nail and washer
T. 28 N., A. 9 E., secs. 22, 23,26 , and $27,18 \mathrm{ft} . \mathrm{S}$. and 12 ft . E. of orossroads at cor. of, $2 \mathrm{ft} . \mathrm{S}$. and 2 ft . E. of fence corner; in concrete post; standard tablet stamped "T T 48 E 1931"
Reference mark, 50 ft . W. and 12 ft . S. of crossroads, in 4-in. tree; copper nail and washer
353.963

Sturdivant, 1.5 ml . N. of, at cor. secs. $23,24,25$, and 26, T. 28 N., R. 9 E., at T-rd. S.; top of large iron peg
Sturdivent, 0.2 mi. N. of, at SE. corner of steel bridge over drainage ditch, in wooden support for wooden wing wall; copper nail and washer

## 7. IN SOUTHEAST CORNER OF QUADRANGLE <br> (Continued from Advance quadrangle; see line na. 6.)

T. 27 N.; Re. 9 and 10 E., near cor . secs. $1,6,7$, and $12,80 \mathrm{ft}$. S. and 27 ft . W. of center of triangle formed by rd. forks, 20 ft. E. of SE. corner of old barn, in root on $E$. side of 15-in. hickary tree; copper nail and washer
near quarter cor, between secs. 7 and 12, T. $27 \mathrm{N.}, \mathrm{Hs}$.9 and $10 \mathrm{E}, 22346.46$ S. and 25 ft . W. of orossroads, at Standard Oil Company service station, in NE. corner of conorete base of N. pump; chiseled square
8. FHOM KINDER SOUTH TO SOUTH BORDER OF QUADRANGLE (by E. W. Gouchenour in 1931)

Kinder, about 1 mi . NE. of, along St. Louis-San Franoisco R. R., 100 ft . S. and 30 ft. B. of Bloompield oroseing, in root on N. side of 20-1n. oak tree; copper nail and washer
Kinder, in NW. corner of sohoolyard, 50 ft. S. of st. Lauis-San Francisco R.R. R 250 ft. S. of atore, 150 ft . E. of post office; iron post stamped. "Prim Trav Sta No $12 \mathrm{~F} 1924 \mathrm{Mo} 342 \mathrm{n}^{\mathrm{n}}$
Reference mark, 9 ft . S. of tablet, in root on N. eide of 16-1n. white oak tree; oopper nall and washer
T. 27 N., R. 9 E., near cor. secs. $3,4,9$, and $10,15 \mathrm{ft}$. N. and 50 ft . E. of T-rd. E., In root on W. side of $20-1 n$. white oak tree; copper nail and masher 345.24
(Continued in Puxico quadrangle; see line no. 9.)
For an additional level line along St. Louis-San Francisco R. R., refer ta United States Coast and Geadetic Survey first-arder IIne, Gape Girardeau, Ma., to Haxie, Ark.

## YARQDAND QUADRANGLE

(Latitude $37^{\circ} 15^{\circ}-37^{\circ} 30^{\prime}$; longitude $90^{\circ}-90^{\circ} 15^{1}$.)
Bollinger, Madison and Wayne Counties


1. FROM SOUTH BORDER OF QUADRANGLE NORTH TO POINT 5 MILES SOUTHVEST OF MARQUAND, THENCE WEST TO WESI' BORDER ( $k y$ W. R. Broanius in 1926)
Allbright, 5.4 mi . S. of post office, 1.1 mi . N. of State Highway 34 at Castor River, 280 ft . N. of Clarence Swan's house, 20 ft . E. of Zalma-Fredericktown road, in root on E. side of 18-in. white oak tree; copper nail and washer
452.35

Allbright, 4.3 ml . S. of post office, along Zalma-Fredericktown road, 300 ft . NW. of George Bollinger's house, 15 ft . W. of rd., on S . side of gate, in root on E . side of 24-in. walnut tree; copper nail and washer
471.64

Allbright, 3.7 mi . S. of post office, along Zalma-Fredericktown road, 700 ft . SE, of Milier Chapel, 140 ft . E. of rd. forks, 35 ft . S. of rd. to Iatesville, at fence corner, in concrete post; standard tablet stamped "3 W R B"
Reference mark, 18 ft . S. of tablet, in root on W . side of 20-in. hickory tree; copper nall and washer
452.67

AIlbrizht, 2.7 mi . S. of post office, along Zalma-Fredericktown road, near Kinder Chapel, 40 ft . S. end 25 ft . E. of rd. junction, in front of J. L. Rhodes ${ }^{\prime}$ house, 1 ft . W. of yard gate in top of concrete block; chiseled square.

Allbright, 1.8 ml . S. of post office, along Zalma-Fredericktown road, 680 ft . N. of Kinder's general store, 70 ft . E. of rd. Junction, $20 \mathrm{ft} . \mathrm{N}$. of A. C. Kinder's house, in root on W. side of $36-1 \mathrm{n}$. sycamore tree; copper nail and washer 556.65
Allbright, 0.6 mi . SE, of post office, along Zalma-Fredericktown road, 750 ft . S. of ford across Castor River, 410 ft . NW. of rd. forks, 20 ft . E. of rd., in root on W. side of 14-in. oak tree; copper nail and wesher
Castor River, at crossing of Zalma-Fredericktown road; surface of water November 30, 1926 at. $10: 30$ a. m.
463.0

Allbright, 480 ft . NW. of post office, 90 ft . E. of zalma-Fredericktown road at junction of rd. to Marquand, in root on $N$. side of $30-1 n$. maple tree; copper nail and washer
Allbright, 1.1 mi . NE. of post office, in sec. $30, \mathrm{~T}, 31 \mathrm{~N} ., \mathrm{R} .8 \mathrm{E} ., 0.2 \mathrm{mi}$. N. of ford acrose Castor River, 2 ft . W. of NW. corner of Allbright School, in concrete post; standard tablet stamped "P T Sta No 31 S 1926"
485.673

Reference mark, 28 ft . W. of tablet, in root on W . side of $18-1 \mathrm{n}$. sycamore tree; copper nail end washer
Allbright, 2.4 ml . N. of. post office, along Zalma-Fredericktown road, 200 ft . NE. of William Havis' house, 100 ft . S. of creek crossing, 15 ft . E. of rd., in root on S. alde of $36-1 \mathrm{n}$. white oak tree; copper nail and washer 532.07
Allbright, 3.6 mi . N. of post office, along Zalma-Fredericktown road, 500 ft . S. of creek crossing, 190 ft . N. of N . end of long field, 20 ft . NE: of rd., in root on W. side of 40-1n. white oak tree; copper nail and washer
Marquand, 5 mi. SW. of, in SE $\frac{1}{4} \mathrm{sec} .12, \mathrm{~T} .31 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} ., 0.2 \mathrm{mi}$. E. of H. M. Pough's farmhouse, 10 ft . S . and 54 ft . W. of rd. forks, in ooncrete poet; standard tablet stamped "P T Sta No 30 S 1926"
Reference mark, 42 ft . S. $60^{\circ} \mathrm{E}$, of tablet, in root on N . side of $24-\mathrm{in}$. maple tree; copper nail and washer
Buckhorn, 4.7 mi . NE. of, along rd. to Marquand, in N $\frac{1}{2}$ 日eo. $14, \mathrm{~T}, 31 \mathrm{~N} ., \mathrm{R}, 7 \mathrm{E}$ ft. S. of rd., on E. side of private rd. leading to C. B. Pough's house, in
root on S. gide of 15-1n. black oak tree; copper nail and washer
Buckhorn, 3.5 mi . NE. of, along rd. to Marquand, near center sec. $14, \mathrm{~T} .31 \mathrm{~N}$.
.., 35

400 ft . SW. of sawmill, 15 ft . S. and 27 ft . W. of rd. forks, in sandstone
boulder; standard tablet stamped "P T Sta No 29 S 1926"
Reference mark, 158 ft . N. $45^{\circ} \mathrm{E}$. of tablet, 30 ft . NW. of rdi, in root on S . side of $25-1$. hickory tree; copper nail and washer
(Continued in Coldwater quadrangle; see line no. 4.)

## 2. FROM ALLBRIGHT NORTHEAST BY WAY OF MARQUAND TO NORTH BORDER OF QUADRANGLE

Allbright School, 1.4 mi . NE. of, on W. side of Castor River Valley, 60 ft . S. and 20 ft . W. of Lee Sitze's house, on N . side of rd.. in root on S . side of 12-in. walnut tree; copper nall and washer
667.86
 27 ft . NE. of ra., in bench on W. side of $36-1 n$. leaning sycamore tree; copper na11 and washer
496.44

Castor River, 0.9 mi . S. of Moore School, at ford; surfaoe of water December 7, 1926 at 10 a. m.
Marquand, 5.5 ml . S. of, near quarter cor. between seos. 21 and 22, T. 31 N., R. 8 E., 45 ft . W. of rd., in conarete steps of Moore Sohool; standard tablet stamped "P T Ste No 32 S 1926"
541.244

Reference mark, 24 ft . S. $80^{\circ} \mathrm{E}$. of tablet, in root on E. side of $12-1 \mathrm{n}$. cedar tree; copper nall and washer
544.16

Marquand, $4.8 \mathrm{mi} . \mathrm{S}$. of, 45 ft . N. and 5 ft . E. of front door of Moore Chapel, 75 ft .
W. of rd. junotion, in root on S. side of 24-in. red oak tree; copper nail and washer
Marquand, $3.7 \mathrm{mi} . \mathrm{S}$. of, 1.2 mi . S. of Ble Four School, 80 ft . SE. of rd. at reverge curve, in line with fence $N$. along W. side of rd., in root on N. side of 18-1n.
hickory tree; copper nail and washer
Marquand, 2.5 mf . S. of, at Big Four School, 60 ft . S. and 15 ft . W. of front door of Henry Watkíns' farmhouse, 20 ft . N. of rd., in granite boulder; standard tablet stamped "P T Sta No 33 S 1926" (reported destroyed)
Reference mark, 46 ft . W. of tablet, in root on S . side of $24-\mathrm{in}$. looust tree; oopper nail and washer

Marquand, 1.9 ml . S. of, 12 ft . E. of rd., 20 ft . S. of gate in.front of Mrs. B. E. Whitener's house, in root on W. aide of 15-in. maple tree; copper nail and washer
Marquand, $0.8 \cdot \mathrm{ml}$. SW. of, 30 ft . SE. of rd. forks, in root on W. side of 24-in. maple tree; copper nail and washer
Castor River, at Marquand, under bridge; surface of water Deoember 10, 1926 at 11 a. m.
Marquand, 200 ft . S. of Missouri Paoific R. R. depot, 34 ft . N. and 15 ft . E. of R. R. at public rd. crossing, in $W$. end of $N$. wing wall of concrete culvert; standard tablet stamped "P T Sta No 34 S 1926n
Reference mark, $488 \mathrm{ft} . \mathrm{S} .40^{\circ} \mathrm{W}$. of tablet, in top of S . wing wall of E. conorete abutment of steel bridge over Castor River; chiseled square
567.72

Karquand, 1.3 mi . E. of, along rd. to Patton, 110 ft . SW. of T. J. Lancesteris house, 20 ft. S. of rd.; on W. side of gate, in root on s. side af 7-in. sycamore tree; copper nail and washer
Marquand, 2.5 ml . E. of, along rd. to Patton, 65 ft . W. of rd. forks, in top of S. head wall of conorete culvert; chlseled square

Merquand, $3,5 \mathrm{mi}$. NE, of, about 0.8 ml . N. of rdi to Patton, 20 ft . W. of rd., 33 fit. NE, of house of J. H. KcDaniels, in root on E. side of l4-in. pine tree; copper nail and washer
(13, and 14 , 32 N 849.06 15 ft . N. and 54 ft . W. of T-rd. N., in granite boulder; standard tablet atamped "P T Sta No 35 S 1926"
Reference mark, 100 ft . S. $70^{\circ}$ W. of tablet, in root on N . side of large forked walnut tree; oopper nail and washer
Stone's store, 1.6 mi . S. of, 35 ft . SE. of rd. junction, in root on N . side of 14-in. red oak tree; copper nail and washer
(Continued in Higdon quadrangle; see line no. 5.)

## 3. FROM POINT 5 MILES SOUTHWEST OF MARQUAND NORTHEAST TO MARQUAND

Marquand, 4.2 mi. S亩. of, along Marquand-Buakhorn road, 0.8 mi. NE. of s. L. Stroup.'a house, 70 ft . N. of rd. forks, at H . Reed's mail bax, in root on E . side of 24-in. post oak tree; copper nail and washer
Marquand, 3 mi. SW. of, along Marquand-Buckhorn road, 580 ft . NE. of E. C. Trippra house; 90 ft. W. of small ravine, 20 ft . NW. of rd., in root on SE. side of 12-in. red oak tree copper nail and washer
Marquand, 2 ml . SW. of, aiong Buckhorn-Marquand road, 100 ft . NE. of rd. junction at top of ridge, 45 ft . SE. of rd., in root on N . side of 12 -in. hickory tree; oopper nail and washer
831.20
4. FROM SOUTH BORDER OF QUADAANGLE NORTH AND EAST TO GRASSY, THENGE NORTHEAST TO EAST BORDER OF QUADRANGLE, FOLLOWING STATE HIGHWAY 34
(Continued fram Zalma quadrangle; see line no. 2.)
Grassy, 1.7 mi . W. of post office, 550 ft . E. of Lee Robin's farmhouse, 30 ft . N. of State Highway 34, 3 ft. SW. of fence corner, in concrete post; standard tablet stamped "4 W R B 1926".
Referenoe mark, 167 ft . S. $45^{\circ} \mathrm{E}$. of tablet, in root on N. side of $24-\mathrm{in}$. black oak tree; copper nail and washer
$\qquad$

Gressy, 0.6 mi . W. of post office, 84 ft . W. of Kirkpatriokis general etore, 60 ft . S . of State Highway $\mathrm{3i}_{\mathrm{i}}$ in root on N . side of 18-in. red oak trea; oopper nail and washer
Grasay, 470 ft . E. of post offioe; along State Highinay 34, in top of N . head vall of concrete oulverti ahiseled square
arassy, 1.2 m1. NE. of, 40 It. N. of State Highway 34, in first step of ooncrete poroh at front of R. L. Vance's house; standard tablet stamped "5 WR B 1926" 644.280
Referenoe mark, 31 ft : S . $45^{\circ}$ W: of tablet, in root on s : side of $48-1 \mathrm{n}$. white oak tree; copper nail and washer
642.35
araasy, about 1.9 mif . NE. of, along state highmay 34, 250 ft . SE. of McGee chiroh,
in top of N. head wall of conorete culvert chiseled square 683.10
Luteravilie, 7.1 mi. W. of, 15 ft . S, and 40 ft . E. of State Highway 34 at junction of Gravelton roadi 2 ft . Inside of fence, in oonorete poeti standard tabiet atamped "6 W R B 1926"
Reference mark, 483 ft. S. $45^{\circ}$ W. of tablet, in top of W. head wall of concrete culvert; chiseled square
Lutesvilie, 6.1 mi. M. of, along State Highway 34, 580 ft . S. of E. P. McGragor's house, in top of W. head wall of ooncrete culvert; ohiseled square
712.84

Latesvilile, 5.5 mi . W. of, along State Highway 3.4, about 0.6 mi . E. of turn in highway, $35 \mathrm{ft} . \mathrm{S}$. of rd., oppasite Ed. Sharp's house, in roat on N. side of 24-in. red oak tree; copper nail and washer 68
Lutesville, 4.7 mi . W. of, 35 ft . E. of state Highway 34, at foot of long hill, 92 $f t$. NE. of conorete culvert, 2 ft. 8 KW . of fence oorner; in conorete post; standard tablet stamped $n 7$ W R B 1926"
Reference mark, 92 ft . S. $30^{\circ}$ W. of tablet, in top of E. head wall of oanorete oulvert; ohiseled square
Lutesvilie, 4.3 ml . W. of, along state Highway $34,280 \mathrm{ft}$. sW. of $\mathrm{T}=\mathrm{rd}$. s., in top of S . head wall of concrete oulvert; ohiseled square
Latespille, 3.1 mi. W. of, 0.2 mi. S. of Glenallen, $40 \mathrm{ft} . \mathrm{s}$. and 25 ft . W. of State Highway 34 , at rd. N., 5 ft . W. of fence corner, in conerete post; standard tablet stamped-"8 W. R B 1926"
Reference mark, $46 \mathrm{ft} . \mathrm{N} .20^{\circ} \mathrm{E}$. of tablet, NW. of rd. junction, in top of. W. head wall of concrete culvert i chiseled gquare
(Continued in Marble Hill quadrangle; see line no. 3.)

## 5. FROM EAST BORDER OF QUADRANGLE NORTH TO NORTH BORDER <br> (Continued from Marble Hill quadrangle; see line no. 3.).

Lutesville, 4 ml . N. of, along state Highway $51,30 \mathrm{ft}$. N. of junation of dim rd. E., in roat on SE. side of l5-in. red oak tree; copper nail and masher 666.24 Lutesville, 4.7 mi . N. of, along State Highway $51,0.2 \mathrm{mi}$. E. of quarter cor. between seçs. 23 and 24, T. 31 N., R. $9 . E$., 13 ft . N. and 13 ft . W. of highway at orose rd., in E. end of N. Wing wall of concrete oulvert; standard tablet stamped "P T Sta No 39 S.1926"
Reference mark, 29 ft . E. of tablet, in top or $N$. head wall of conorete culvert; ohiseled square

[^7]Lutesiville, $5.6 \mathrm{mi} . \mathrm{N}$. of, along State Highway 51., 385. ft. SE. of Theresa Petersi house, in top of $N$. heed wall of conorete culvert; chiseled square 734.11
Lutespille, 6.7 mi . N. of, 11 mi . S. of Pation, along State Highway 51, 60 ft . N. of junction of dim rd. E., 33 ft . E. of highway, at-curve, in root on. S. side of $12-1 n$. post oak tree; copper nail and washer
12-1n. post oak tree; copper nail and washer 741.4
Ration, $9.8 \mathrm{mi}, \mathrm{S}$. of, along State Highway $51,300 \mathrm{ft}$. SW . of Monroe Rabinson's farmhouse, $115 \mathrm{ft} . \mathrm{S}$. of highway at rd. W., in S. end of E. Wing wall of concrete oulvert; standard tablet stamped "P T Sta No 38 S 1926"
793.485

Reference mark, 380 ft . S. $30^{\circ} \mathrm{W}$. of tablet, in top of B . head wall of cancrete oulvert; chiseled square
Patton, 7.5 mi . S. of, along State Highway $51,850 \mathrm{ft}$. S. of junction of rd.E., 180 ft. E. of J. S. Cheek's house, in top of head wall of culvert; chiseled square
Pattion, $6.5 \mathrm{mi} . \mathrm{S}$. of, along State Highway 51, in NWix sec. 34, T. $32 \mathrm{~N} ., \mathrm{R} .9$ E., 30 ft . N. and 15 ft . E. of highway at rd. W. to Besaville, in S. end of E. Wing wall of poncrete culverti standard tablet stamped "P T Stáno $37 \mathrm{~S}^{2} 1926 \mathrm{n}^{\circ}$
Reference mark, 580 ft . N . $15^{\mathrm{o}} \mathrm{E}$. of tablet, in top of E. head wall of ooncrete oulvert; chiseled square
864.288

Patton, 5.4 mi . S. of, along State Highway $51,0.9 \mathrm{ml}$. SW. of Sitze's store, 230 It. S. of junotion of rd. N., in top of concrete head wall of culvert; chiseled square
Pation, 4.3 mi .9 . of, along State Highway $5 I_{2} 0.3 \mathrm{ml}$. N. of Sitze's store, at NE. corner of cross rd., in top of N. head wall of oonorete oulvert; ohiseled square
866.43

Patton, 3.8 ml . S. of, along State Highway 5l, 0.2 mi . S. of L. E. Martin's farmhouse, in S. end of W. wing wall of concrete culvert; standard tablet stamped "P T Sta No 36 S 1926in

782.577

Reference mark, 25 ft . N. $80^{\circ} \mathrm{E}$. of tablet, in top of E. Wing wall of concrete oulvert; chiseled square
Patton, 2.1 mi . S. op, along State H1ghway $51,500 \mathrm{ft}$. S. of junction of MarquandPatton road, in top of $E$. conorete guard wall of N . abutment of steel bridge; ohiseled square
Eatton, 1.1 ml . S. of, along State Highway $51,380 \mathrm{ft}$. S. of T-rd. E., in top of E. head wall of concrete culvert; ohiseled square
(Continued in Higdon quadrangle; see line no. 6.)
6. FROM POINT NEAR CENTER OF SOUTHEAST QUARTER OF QUADRANGLE SOUTH TO SOUTH BORDER (by George W. Moore in 1931)
 private cross rd., on E. side of rd., in fence line, in root on SW. side of 13-1n. hlokory tree; copper nall and washer
Qlenalien, about 3 ml . SW. of, near SW. cor. sea. $10, \mathrm{~T} .30 \mathrm{~N} ., \mathrm{R} .9 \mathrm{E} ., 55 \mathrm{ft}$. N. and 20 ft . E. of rd. forks, 7. It. W. of corner fence post, in root on W. side of 2l-in. oak tree; copper nall and washer
709.92

Glenallen, about 4 mi.SW. of, near center sec. 15, T. 30 N., R. 9 E., 19 ft . S. and 7 ft. E. of rd. fork S., on top of hill in woods, in concrete post; standerd tablet stamped "T T 49 E 1931"
Reference mark, 38 ft . W. of tablet, 20 ft . S. of rd. forks, in root on $N$. side of 7-in. oak tree; oopper nall and washer
 of NE. oorner of Dry Creek Cemetery, in root on NW. side of 20-1n. oak tree; copper nail and washer.
T: 30 N, , R. 9 E., about 0.2 mi . S. of N. oor. secs. 22 and $23,35 \mathrm{ft} . \mathrm{N}$. of rd. fork S., in root on SE. side of i2-in. oak tree; copper nail and washer 695.90
T. 30 N., R. 9 E., in SEt sec. 22, abaut 0.9 mi . N. of ford aoross Cane creek, 50 ft. SW. of rd. forks near top of hill, in root on $N$. side of 9-in. oak tree; oapper nall and washer
654.58

> (Continued in Zalma quadrangle; see line no. 3.)
7. FROM EAST BORDER OF QUADRANGLE WEST ALONG HIGHWAYS TO POINT 6.5 MILES SOOTH OF PATTON (by W. R. Broaddus in 1933)
(Continued from Marble Hill quadrangle; see line no. 9.)
Boopus, 5.2 mi. W. of, in NEt sec. 36, T. 32 N., R. 9 E., 15 ft. g. and 28 ft. W. of rd. corner from E. to N., in root on N. side of $24-1 n$. white oak tree; copper nail and washer
Soopus, 5.9 ml . W. of, in NES sec. 35, T. $32 \mathrm{~N} .$, R. 9 E., 0.4 pi. E. of Hurrioane Sohool and Churoh, 450 ft . E. of ford aoross creek, 35 ft . S. and 60 ft . W. of orossroads, 17 it. S. of 36-in. white oak tree; in conorete post; standard tablet stamped "3 B 1933 675"
Reference mark, 21 ft. N. of tablet, in root on N. gide of $36-1 \mathrm{n}$. white oak tree: oopper nail and washer
674.93
 E. of State Highway $51,170 \mathrm{ft}$. W. of C. N. Weiton's house, líst. N. of rd., at look of hill, in root on SE. Side of 30-in. looust tree; copper neil and washer
694.40

Soopus, 7.2 mi. W. of, 0.2 ml . W. of E. cor. secs, 27 and 34, T. $32 \mathrm{~N} ., \mathrm{R}, 9$ E., 0.6 mi. E. of Stat.a Highway 51, near J. M. Trentham's farmhoust, 25 ft . S. of rd.
in root on N. aide of 14-in. white oak tree; copper nail and washer
846.93

For an additional level line along Miesouri Pacific R. R., refer to United Statea Coast and Geodetic Survey second-order IIne, Fredericktown to Delta.

Bollinger, Madison, Perry, St, Francolis, and Ste. Genevieve Counties


1. SOUTH ALONG EAST BORDER OF QUADRANGLE (by Edward Bandli in 1907)

Minnith, 6.3 mi . S. of, 7.7 mi . Nw. of Silver Lake, halfway up hill, at curve in rd. to $\mathrm{S} ., 20 \mathrm{ft}$. W. of rdi, 5 ft . SE. of large oak tree, in ledge of rock; aluminam tablet stamped "650"
Silver Lake, 5.6 mi . N. of, 8.4 mi . S. of Minnith, near eignpost at fork of rd.g in root of tree; nail
Silver Lake, 1.8 mi . NW. of, $20 \mathrm{ft} . \mathrm{N}$. and 10 ft . W. of ra. at private rd. N., in ledge of rock; alyminum tablet stamped "608"
607.594

Silver Lake, 0.6 mi . S. of, 400 ft . from crossroads, 25 ft . E. of cluster of trees, 15 ft . N. of a second cluster of trees, in ledge of rook across amall stream eronird. intersection; aluminum tablet stamped " 545 n
T. 34 N., R. 9 E., near center sec. 14, 0.1 mi. NE. of Tucker 's house, 200 ft . S. of oreek, 10 ft . E. of rd., $6 \mathrm{ft} . \mathrm{N}$. of large oak tree, 4 ft . NE. of small tree, in ledge of sandstone; aluminum tablet stamped "607"
silver Liake, 6.9 mi . S. of, 0.1 mi . S. of Yount post office, at NW. corier of crossroads, in root of tree; nail
626.60

Yount post office, 1.3 ml . S. of, 0.2 mi . Irom Yountis house, 220 ft . W. of Fredericktown road at junction with private rd., across creek from rd., in ledge of rock; aluminum tablet stamped "609n.
Ratton, 4.2 mi . N. of, 0.1 mi . SE. of George Regan's house, 30 ft . SE. of bridge, 10 ft . E. of rd.; aluminum tablet stamped n700"
Ration, on W. side of Main Street, at. SE. corner of Johnson Brothers' flour mill, in stone foundation wail; aluminum tablet stamped "Erim Trav Sta No 81907 Mo 605"
2. FROM PATTON WEST AND NORTH TO POINT 4.3 MILES NORTHEAST OF FREDERICKTOWN, THENCE NORTHEAST BY WAY OF WOMACK TO NORTH BORDER OF QUADRANGLE

Patton, 2.3 mi . NW. of, 300 ft . N. of Fredericktown road at private rd. fork, 90 ft. E. of spring floving from ledge of rock, 200 ft . N. of Sohneider's.house; aluminum tablet stamped " 639 "
$\qquad$
609.978 00.005
3. NEAR GENTER OF EAST BORDER OF GUADRANGLE (by R. T. Gale in 1921)
 of E.-W. rd., 40 ft . N. of fence cormer, in twin white oak tree; copper nail and washer 786.66
T. 34 N., R. 9 E., near center of Whec. 26 , 10 ft . $\mathrm{N}_{\mathrm{C}}$ cf rd. at rd. NW., 50 ft . E. of fence corner, in root on W. side of 24 -in. black oak tree; copper nail and washer
849.37
 of Uniontown-Yount road, 5 ft . S; of fence corner; iron post stamped "Prim $\begin{aligned} & \text { Trav Sta No } 21 \mathrm{~J} \mathrm{~B} \mathrm{~L} \mathrm{1921} \mathrm{Mo} 876^{\circ} \\ & \text { (Continued in Perryville quadrangle; see line no. 1.) }\end{aligned}$
876.038

## 4. FROM PATTON EAST TO EAST BORDER OF QUADRANGLE

Patton, $0.7 \mathrm{mi} . E$. of, along rd. to Oak Ridge, 50 ft . SW . of small concrete culvert, in raat on N. side of 48-in. black aak tree; copper nail and washer
606.91
(Continued in Perryville quadrangle; see line no. 2.)
5. FROM SOUTH BORDER OF QUADRANGLE NORTH TO POINT 5 MLLES NORTHWEST OF PATTON (by W. R. Broaddus in 1926 and 1927)
(Continued from Marquand quadrangle; see line no. 2.)
Stone's store, 90 ft . N. and 20 ft . W. of, 15 ft . W. of crosaroads, in root on E. side of 18-in. red oak tree; copper nail and washer
899.00

Stone's gtore, 1.3 ml . N. of, 0.8 ml . S. of J. S. Highway 61, 10 ft . W. of rd., near edge of timber, 65 ft . S. of field fence, in raat on E . side of $18-\mathrm{in}$. red oak tree; copper nall and washer
921.41
6. FROM PATTON NORTHWEST ABODT 8.1 MILES
(Continued f'rom Marquand quadrangle; see line na. 5.)
Patton, 1 mi. W. of, 30 ft . NE. of rd. forke, in root on F . side of l4-in. cherry
tree; iron nail and copper washer 690.67
Patton, 1.6 mi . W. of, on g. side of old Fredericktawn raad, in hallaw, in top of head wall of concrete culvert; chiseled square
Patton, 2.8 mi . NW. af, NW. of U. S. Highway 61 at cross rd., in top of W. head wall of concrete culvert; chiseled square
Patton, 3.7 ml . NW. of, 40 ft . S. of U . S. Highway 61 , on top of ridge, in root on N. side of 16-in. post oak tree; copper nail and washer 893.20
Patton, 4.8 mi . NW. of, 30 ft . N. af U. S. Highmay 6l, 300 ft . SE. of J. E. Hanson's house, in raot on $S$. aide of $30-1 \mathrm{n}$. past oak tree; copper nail and washer 930.51
Patton, 5.8 mi . NW. of, on N. side of U. S. Highway 6l, 85 ft . E. of crass rd., in top of $N$. head wail of concrete. culvert; chiseled square
Patton, 7.1 ml . NW, of, on old Patton-Fredericktown road, 0.4 mi. E. of Mrs. B. E. Powell's house, 35 ft . S. of rd., in raot on N . side of $16-1 \mathrm{n}$. red oak tree;
copper nail and washer

## 7. FROM POINT 2.5 MILES SOUTHWEST OF HIGDON WEST TO WEST BORDER OF QUADRANGLE

Fredericktown, 3.9 mi . E. of, along Perrypille road, 15 ft . s. and 30 ft . W. of T-rd. N. at right angle turn in rd., in roat on N. side of 36 -in. post aak tree; copper nail and washer
Frederioktawn, 3 mi. E. of, along Perryville road, 1 ml . E. of W. J. Backler's house, in hollow; in top of S. head mall of concrete culvert; chiseled square 843.70
Fredericktown, 2 mi . E. of, along Perryville road, 250 ft . W. of $W$. J. Backler's house, 40 ft . N. and 20 ft . W. of dim T-rd. N., in root on S . side of $16-\mathrm{in}$. sycamore tree; copper hall and washer
Fredericktown, 3.8 ml . NE. of courthouse, on St . Mary raad, in Village Creek Valley, 400 ft . N. and 100 ft . W. of large brick house, 20 ft . N. af dim rd. farke $\mathrm{I}_{\mathrm{a}}$ in root on S. side af 18-in. locust tree; copper nail and washer
800.26
(Contimed in Knoblick quadrangle; see line no. 1.)

TIE BETWEEN U. S. C \& \& G. S. SEOOND-ORDER LINE AND U, S. G. S. THIRD-ORDER LINE AT PATTON

Patton, on W. side of Main Street, at SE. corner of Johnson Brothers' flour mill, in stane foundation wall; aluminum tablet stamped "Prim Trav Sta No 81907 Ma 605"
604.612
U. S. C. \& G. S. B. M. designated "W 139́ 1935"
683.683

TIE BETVEEN J. S, O. \& G. S. SECOND-ORDER LINE AND J. S. G. S. THIRD-ORDER LINE ABOUT 6 MILES NORTHWEST OF PATTON

Patton, 5.8 ml . NW. of, on N . side of $\mathrm{J} . \mathrm{S}$. Highway 61, 85 ft . E. of cross rd., In top of $N$. head wall of concrete culvert; chiseled square
J. S. C. \& G. S. B. H. deaignated "S 139 1935"

Madisan, St. Francols, and Ste. Genevieve Counties


1. FROM EAST BORDER OF QUADRANGLE SOUTHWEST BY WAY OF FREDERICKTOWN AND MILL CREEK TO SOUTH BORDER (by W. R. Broaddus in 1926)
(Continued from Higdon quadrangle; see line no. 7.)
Fredericktown, 2.8 mi . NE. of, on St. Marys road, in Village Creek Valley, 800 ft. Feet W. of R. Miller's house, 17 ft . St and 50 ft . E. of T-rd. N., in root on W. side of 10-1n. mulberry tree; copper nail and washer
Fredericktown, 2 mi . NE. of, 0.5 mi . E. of junction of Fredericktown-St. Marys road and U. S. Highway 61, on St. Marys road at crossing of Village Creek, in top of $S$. end of wall on W. side of concrete bridge; chiseled square
Fredericktown, 1.6 mi . NE. of, about 0.3 mi . N. of junction of U. S. Highways 61 and $67,26 \mathrm{ft}$. N, and 32 ft . E. of U. S. Highway 61 at St. Marys road, in SW. corner of Frank Budenholzer's yard. In concrete post; standard tablet stamped "l W R B 1926"
Reference mark, 22 ft. S. $45^{\circ} \mathrm{W}$. of tablet, in top of E. head wall of ooncrete oulvert; chiseled square
Fredericktom, Missouri Paoific R. R. station; S. rail
721.8

Frederioktow, at E. edge of platform on E. side of Missouri Pacific R. R. station, 1 ft. S. of N. brick pillar supporting an extended part of roof, in top of ooncrete base of iron railing; chiseled square
722.84

Fredericktoven, 25 ft . S. and 15 ft . W. of S . door of courthouse, 4 ft . N. of curbing, in concrete base of old cannon; standard tablet stamped "P T Sta No 11 S 1926"
Reference mark, 11 ft . S. of tablet, in top of street curbing; ohiseled square 742.67
Frederioktom, 0.2 mi. S. of courthouse, at NE. corner of Southern M. E. Church, In first step directly below cornerstone; chiseled square
Fredericktown, 0.9 mi . S. of courthouge, 15 ft . N. and 20 ft . E. of U. S. Highway 67 at driveway to cemetery, in top of concrete block; chlseled square 799.40
Fredericktown, 2.l mi. S. of courthouse, along U.S. Highway 67, 0.4 mi . N. of Mill Creek post office, on SW. slope of ridge, in top af W. head wall of concrete culvert; chiseled square
Fredericktown, 2.5 mi . S. of, 0.5 mi . S. of Mill Creek post office, in NW. oor. seo. 30, T. 33 N., R. 7 E., 100 ft. W. of intersection of French Mills road and U. S. Highway 67, between rd. forks, in concrete post; standard tablet stamped "P T Sta No $17 \mathrm{~S}^{\prime \prime} 1926^{\prime \prime}$
Reference mark, 9 ft . E. of tablet, in root on W. side of 20-1n. post oak tree; oopper nall and washer
750.86

Fredericktown, 4 mi. SW. of, along French Mills road, 1.2 mi. W. of U. S. Highway 67, 300 ft . SE . of old two-story house, in top of N . head mall of concrete culvert; chiseled square
788.53

Fredericktown, 5.2 ml . SW. of, along Frenoh Mills road, 2.2 mi . W. of U. S. Highway 67, 20 ft . N. and 25 ft . W. of lane S. to Dick Pippin's house, in front of Gus King's house, in root on SE. side of 16-1n. blaok oak tree; copper nail and washer 787.18
Fredericktown, 3 ml . S. and 4 ml . W. of, near cor. secs. $21,22,27$, and 28, T. 33 N. , R. $6 \mathrm{E} ., 700 \mathrm{ft}$. W. of ford aoross Mathews Creek, 25 ft . S . and 45 ft . W. of rd. forks, in sandstane ledge; standard tablet stamped "P. T No $18 \mathrm{~S} 1926^{\prime \prime}$
Reference mark, 67 ft. N. $45^{\circ} \mathrm{E}$. of tablet, in top of E . bead wall of concrete culvert; chiseled square
693.67

Fredericktown, 7.8 mi . SW. of, along French Mills road, 470 ft . SW. of Little Vine School, 30 ft. S. of oross lane, in root on $S$. side of l4-in. hickory tree; oopper nail and washer
Fredericktown, 8.4 mi . SW. of, along French kills road, 0.4 mi . W. of Little Vine School, 130 ft . W. of Faro road fork, 20 ft . N. of rd., in root on SW. side of 24-in. water oak tree; copper nail and washer
Fredericktown, 8.9 mi . SW. of, along French Mills road, 0.8 mi . Sw. of Littie Vine School, 50 ft . W. of first ford across Cedar Creek, in root on. SW. side of 24-in. red oak tree; copper nail and washer
662.69

Fredericktomn, 10.2 mi . SW. of, along French Mills road, in NE $\frac{1}{4}$ sec. 31, T. 33 N., R. $6 \mathrm{E} ., 24 \mathrm{ft} . \mathrm{N}$. and 10 ft . W. of rd. fork NE. to Sam La Plant's house, 2 ft. E. of N.-S. wire fence, in concrete post; standerd tablet atamped "P T Sta No 19 S 1926."
Reference mark, 36 ft . S. of tablet, in root on N . side of 20-1n. sycamore tree; oopper nail and washer

Fredericktown, 11 mi . SW. of, along French Mills road, 0.7 mi . NE. of Pord acrosa St. Francis River, 500 ft . N. of Cedar Valley Sohool, 60 ft . S. and 20 ft . W. of gate to barnyard with silo on Cedar Valley Farm, 7 ft . SE. of rd. in root on N . side of $14-1 n$. locust tree; copper nail and washer
Fredericktown, il. 7 mi . SW. of, along French Mills road, 200 ft . N. of E. end of ford aoross St. Francis River, 20 ft . E. of rd., in root on E. side of $16-\mathrm{in}$. sugar maple tree; copper nail and washer
St. Francis River, at ford on Fredericktown-French Mills road, surface of water on October 7, 1926 at $5 \mathrm{p} . \mathrm{m}$.
558.6

Fredericktawn, 11.8 mi. SW. of, alang French Mills road, on W. bank of St. Francis River, 35 ft . N. of $W$. end of ford, in root 4 ft . W. of $24-1 \mathrm{n}$. sycamore tree; copper nail and washer
562.75
(Continued in Coldwater quadrangle; see line no. 1.)

## 2. FROM MILL CREEK SOUTH TO SOUTH BORDER OF QUADRANGLE

Fredericktown, 4.1 mi . S. of, along U. S. Highway 67, 100 ft . N. of highway at lane to Jasper Bolken's house, in top of E. head wall of concrete culvert; chiseled square
(Continued in Coldvater quadrangle; see line no. 2.)
3. FROM WEST BORDER OF QUADRANGLE SOUTHEAST ALONG STATE HIGHWAY 70 TO FREDERICKTOWN (by F. C. Lentz in 1935)
(Continued from Middlebrook quadrangle; see line no. 4.)
T. 33 N., R. 5 E., NW $\frac{1}{4}$ sec. $3,250 \mathrm{ft}$. W. of entrance to farm, 20 ft . N. of State Highway 70, in top of head wall of. ooncrete culvert; chiseled square 7
T. 33 N., R. 5 E., NW ${ }_{4}$ sec. 2, 200 ft . S. of barn, 15 ft . N. of State Highway 70, in head wall of concrete oulvert; chiseled square
Fredericktown, 9 mi . W. of, along State Highway 70, 250 ft . W. of old house, 35 ft . N. of highway, lft. S. of wire fence, in root on s. side of 36-in. black oak tree; copper nail and washer
Fredericktown, 8 mi . W. of, along State Highway 7.0, 420 ft . S. and 140 ft . W. of quarter cor. between secs. 1 and $6, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{Rs} .5$ and $6 \mathrm{E} ., 1,000 \mathrm{ft}$. W. of residence of W. M. St. Clair, 36 ft . N. of ra., 12 ft . SE. of SE. corner of old house, in concrete post; standard tablet stamped "P T Sta No 8 S 1926".
754.761

Reference mark, 90 ft . SW. of tablet in 30-in. white oak tree; copper nail and washer
752.00

Fredericktown, 7 ml . W. of, along State Highway 70, sec. 5, T. 33 N., R. 6 E., 45 ft . $N$. and 20 ft . W. of highway at entrance to farm, in root on S . side of $12-\mathrm{in}$. white oak tree; copper nall and washer
Fredericktown, 6 mi . W. of, along. State Highway 70, at Hunter's store, 0.2 mi . N. of oor. secs. 4, 5, 8, and 9, T. 33 N., R. 6 E., 150 ft. W. of T-rd. S., $25 \mathrm{ft}$. . of highway, near wire fence, in conorete post; standard tablet stamped "P T No 9 S 1926".
Reference mark, 80 ft . NF. of tablet, in $30-\mathrm{in}$. maple tree; copper nall and washer
Fredericktown, 5 mi . W. of, along State Highway 70, in SE $\frac{1}{4}$ sec. 4,. T. 33 N., R. 6 E., 275 ft . N. of Oak Grove School, 35 ft . S. and 7 ft . W. of highway at rd. S., in top of abutment at NW. corner of small bridge; chiseled square
Fredericktown, 4 mi . W. of, along State Highway 70, in NE $\frac{1}{4}$ sec. 10, T. 33 N., R. 6 E., 20 ft . N. of highway, 15 ft . S. of wire fence, 9 ft . S. of İ-in. white oak tree, in top of granite boulder; chlseled square
Fredericktown, 5 mi . W. of, along State Highway 70, in NE $\frac{1}{4}$ sec. 11 , T. $33 \mathrm{~N} .$, R. 6 E., in top of abutment at NE. corner of bridge no. G-414; chiseled square 683.15
Fredericktown, 2 mi . W. of, along State Highway 70, in SE $\frac{1}{4}$ sec. $12, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R} .6 \mathrm{E}$., 420 ft . SW. of residence of G. W. Lampher; 18 ft . N. and 21 ft . W. of T-rd. N., in concrete culvert; standerd tablet stamped "P T Sta No 10 S 1926"
Note. -Tablet moved $37 \mathrm{ft} . \mathrm{N} .72^{\circ}{ }^{\circ} 5^{\prime} \mathrm{W}$. of above description. Elevation as given is correct.
Reference mark, 125 ft . SE. of tablet, in root of $40-\mathrm{in}$. white oak tree; copper nail and washer
Fredericktown, 1 mi. W. of, along State Highway 70, at bridge over Little St. Francis
River, in top of abutment at NE. corner; chiseled square 707.45
U. S. C. \& G. S. B. M. designated "R 56 1934" 714.070
U. S. C. \& G. S. B. M. designated "J 139 19.35" 725.563

## 4. FROM NORTHEAST CORNER OF QUADRANGLE SOUTH TO FREDERICKTOWN (Continued from Farmington quadrangle; see line no. 7.)

Avon, 2 mi . W. and $1 \mathrm{mi} . \mathrm{S}$. of, 20 ft . NFP. of rd., 20 ft . E. of wire fence, in root on E. side of $36-1 n$. black oak tree; copper nail and washer
Libertyville, about 1 mi . NE. of, 15 ft . W. of rd., 10 ft . E. of wire fence, in top of head wall of concrete culvert; chiseled square
T. 35 N., R. 7 E., NW ${ }^{\frac{1}{3}} \mathrm{NW} \frac{1}{4} \mathrm{sec} .28,800 \mathrm{ft}$. N. of residence of W. D. Miller, 12 ft . E. of rd., in head wall of concrete culvert, standard tablet stamped " 12 L 1935"
Reference mark, $390 \mathrm{ft} . \mathrm{S}$. of tablet, 75 ft . E. of rd., 20 ft . S. of $12-\mathrm{in}$. walnut tree, in sandstone ledge; chiseled square
Libertypille, $300 \mathrm{ft}, \mathrm{SE}$. of high school, 80 ft . W. of crossroads, 35 ft . NE. of rd., in root on S . side of $38-1 \mathrm{n}$. hickory tree; copper nail and washer $\quad$. 200 ft . N. of creek, 30 ft . NW. of rd., 6 ft . of wire 6
Libertyvilie, $i$ imi. S. of, 200 ft . N. of creek, 30 ft . NW. of rd., 6 ft . W. of wire fence, in root on E. side of 40-1n. white oak tree; copper nail and washer 851.08
Libertyville, $2 \mathrm{mi} . \mathrm{S}$. of, 300 ft . SE, of brick store building, 35 ft . E. of U. S. Highway 61 at rd. N., in head wall of concrete culvert; standard tablet stamped "13 L 1935"
Reference mark, $100 \mathrm{ft} . \mathrm{S}$. of tablet, 40 ft . E. of highway, in $10-1 \mathrm{n}$. white oak tree; copper nail and washer

Fredericktomn, 8 mi . N. of, 280 ft . SE. of Rock Creek School, 20 ft . S. and 35 ft . W. of U. S. Highway 61 at rd. W., in head wall of concrete culvert; chiseled square
Fredericktown, 7 mi . N. of, 35 ft . N. and 55 ft . E. of U . S. Highway 61 at dim rd. E., in root on W. side of 30 -in. black oak tree; copper nail and washer 939.27
Fredericktown, 6 mi . N. of, along U. S. Highway 61, at Madison-St. Francois county line, in abutment at NW. corner of bridge no. J-80; standard tablet stamped "14 L 1935"
Reference mark, 375 ft . S. of tablet; top of sandstone boulder; painted square 867.51
Fredericktom, about 5 mi . N. of, along $U$. S. Highway $61,0.5 \mathrm{mi}$. N. of Mine La Motte post office, 30 ft . W. of highway, in top of head wall of concrete culvert; chiseled square
Fredericktown, about 4 mi . N. of, along U. S. Highway 61, 500 ft . SE. of Mine La Motte School, in abutment at NW. corner of concrete bridge; chiseled square 795.52
Fredericktown, about 3 mi . N. of, along U. S. Highway 61; 250 ft . NE. of filling station, 55 ft . E. of highway; top of granite monument 872.61
Fredericktown, about 2 mi . N. of, along U. S. Highway 61, 100 ft . E. of old house,
40 ft . W. of highway, standard reference mark tablet stamped "15 L 1935 " 821.116
Fredericktown, about 1 mi. N. of, along $U$. S. Highway 61, 20 ft . W. of highway,
in 30-in. elm tree; copper nail and washer
5. SOUTH ALONG NORTH HALF OF WEST BORDER OF QUADRANGLE
(Continued from Farmington ouadrangle; see line no. 6.)

Doe Kun, 100 ft . N. of Mississippi River and Bonneterre R. R. depot, 40 ft. W. of R. R. track, in line with R. R. property post, in concrete post; standard tablet stamped "PT No $16 \mathrm{~S} 1926^{\circ}$
Doe Run Junction, $4 \mathrm{mi} . S . ~ o f, 280 \mathrm{ft}$. N. of Mississippi River and Bonneterre R. R., 17 ft . E. of rd., on E. side of $24-1 \mathrm{n}$. syoamore tree; copper nail and washer 877.50
Doe Run Junction, 5 mi . SE. of, 35 ft . E. of Mississippi River and Bonneterre R. R., 150 ft . N. of rail fence; top of granite boulder
846.06

Doe fun, about 3 mi . SE. of, in NE $\frac{1}{4} \mathrm{SE} \frac{1}{4} \mathrm{sec} .28, \mathrm{~T} .35 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} ., 275 \mathrm{ft}$. N. of residence of $H$. S. Jones, 10 ft . E. of rd., in top of E. head wall of concrete culvert; standard tablet stamped "6 L 1935"
839.298

Doe Run, ebout 3 mi . S. of, 600 ft . E. of farmhouse of Lloyd Deago, 50 ft. N. and 40 ft. E. of T-rd. E., 60 ft . S. and 40 ft . E. of T-rd. W., in granite boulder; standard tablet stamped "P T No 15 S 1926"
Reference mark, 80 ft . SW. of tablet, in 14-in. black oak tree; copper nail and washer
T. 35 N., R. 5 E., in $\operatorname{SE} \frac{1}{4}$ sec. $33,75 \mathrm{ft}$. S. and 20 ft . E. of rd. forks, on W. side of l2-irt. black oak tree; copper nail and washer
T. 34 N., R. 5 E., in NET sec. $4,75 \mathrm{ft}$. N. of T-rd. W., 10 Pt . W. of rd.; top of eranite boulder; painted'square
T. $34 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} .$, in $\mathrm{NE} \frac{1}{4} \mathrm{NE} \frac{1}{4} \sec .9,150 \mathrm{ft}$. S . of B. Bainter's residence, 10 ft . W. of rd., 10 ft . E. of fence line, in granite ledge; standard tablet stamped "8 L 1935"
Reference mark, 100 ft . S. of tablet, in 14 -in. hickory tree; copper nail and washer
T. 34 N., R. 5 E., in NE $\frac{1}{4} \sec .16,25 \mathrm{ft}$. W. of rd., 25 ft . NE. of creek, in $36-\mathrm{in}$.
water oak tree; copper nall and washer 736.10
 in $15-i n$. white oak tree; copper nail and washer
T. 34 N., R. 5 E., near center sec. $21,25 \mathrm{ft}$ : SE. of rd., in granite ledge; stendard tablet stamped "5 L 1935"
Reference mark, 115 ft . SW. of tablet, in $12-1 n$. white oak tree; copper nail and washer
(Continued in Middlebrook quadrangle; see line no. 6.)
For additional level lines along Missouri Pacific R. R. and U. S. Highway 67, refer to United States Coast and Geodetic Survey second-order Iines; Elvins to Taskee and Fredericktown to Delta.

## COLDWATER QUADRANGLE

(Latitude $37^{\circ} 15^{\prime}-37^{\circ} 3^{\circ}{ }^{\prime}$; longitude $90^{\circ} 15^{\prime}:-90^{\circ} 30^{\prime}$ )
Madison end Wayne Counties


1. IN NORTHWEST CORNER OF QUADRANGLS (by W. R. Broaddus in 1926)
(Continued from Knob Lick quadrangle; see line no. 1.)
French Mills, 3 mi . N. of post office along Fredericktown road, 1.3 mi . S. of ford Feet across St. Francis River, 20 ft . W. of rd., opposite Clarence Crow's house, in root on E. side of $24-1$. white oak tree; copper nail and washer
French Mills, 1.8 mi . N. of post office, along Fredericktown roed, 2 mi . S. of ford across St. Francis River, 450 ft . S. of dim rd. forks, 80 ft . W. of W . bank of river, 10 ft . W. of rd., in first bench of large granite boulder; standard tablet stamped "P T Sta No 20 S 1926"
Reference mark, 23 f.t. S. $10^{\circ}$ W. of tablet, in root on E. side of $10-\mathrm{in}$. hickory tree; copper nail and washer
560.427
561.12

French Milis, 0.3 mi . NE. of post office, 180 ft . N. of large field, 10 ft . W. of Fredericktown road, 65 ft . S. of dim rd. fork to ford across St. Francis River in root on NE. side of 20-in. red oak tree; copper nail and washer
French Mills, 0.3 mi . S. of post office, 15 ft . W. of rd., 75 ft . S. of lane W. to King School, in root on E. side of $20-1 \mathrm{n}$. red oak tree; copper nail and washer
610.53
(rontinued in Des Arc quadrangle; see line no. 7.)
2. FROM NORTH BORDER OF QUADRANGLE SOUTH ALONG U. S. HIGHWAY 67 TO FOINT NEAR CENTER, THENCE WEST TO WEST BORDER
(Continued from Knoblick quadrangle; see line no. 2.)
Fredericktown, 4.9 mi . S. of, along U. S. Highway $67,75 \mathrm{ft}$. W. of Ebenezer Church, 55 ft . E. of highway, in root on W. side of 14-1n. red oak tree; copper nail and washer
Fredericktown, 5.7.mi. S. of, along U. S. Highway 67, on top of high ridge, 135 ft . S. of county rd. W., in top of W. head wall of concrete culvert; chiseled square
990.19

Fredericktown, 6.3 mi . S. of, along U. S. Highway $67,60 \mathrm{ft}$. N. and 424 ft . W. of cor . secs. $5,6,7$, and 8, T. $32 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} ., 560 \mathrm{ft}$. N. of house of G. W. Berry, in N. end of E. Wing wall of concrete culvert; standard tablet stamped "P T Sta No 21 S 1926"
Reference mark, $625 \mathrm{ft} . \mathrm{S}$. of tablet, in top of E . head wall of concrete culvert; chiseled square
T. 32 N., R. 7 E., in $N \frac{1}{2}$ sec. 17 , on U. S. Highway 67, at crossing of Twelvemile Creek, in top of downstream head wall of NE. abutment of steel bridge; chiseled square
T. 32 N., R. 7 E., near line between secs. 27 and 20 , on U. S. Highway 67,1 mi. N. of Antioch Church, 430 ft . S. of highway at lane croesing, in top of E. head wall of concrete culvert; chiseled square
787.01

Antioch Church, in SW. cor. sec. 20, T. 32 N., R. 7 E., 48 ft. W. .of U. S. Highway 67 at junction of rd., 25 ft . S. and 55 ft . E. of SE. corner of church, in concrete post; standard tablet stamped "P T Sta No 22 S 1926"
Reference mark, $31 \mathrm{ft} . \mathrm{N} .40^{6} \mathrm{E}$. of tablet, in root on S. side of 24-in. white oak tree; copper nail and washer
791.44
T. 32 N., R. $7 \mathrm{E}$. , on line between secs. 29 and 30 , on U. S. Highway 67, 1 r!í. S. of Antioch Churoh, 180 ft . S. of Lloyd Whitener's house, on E. side of highvay, in top of head wall of concrete culvert; chiseled square
T. 32 N., R. 7 E., in $E_{2}^{2} \mathrm{sec} .31$, on U. S. Highway $67,0.2 \mathrm{mi}$. S. of $2 i$ on School, 270 ft. N. and 23 ft . W. of highway at rd. E., opposite P. C. Spain's house, in root on S. side of $30-1 \mathrm{n}$. black oak tree; copper nail and washer
Tps. 31 and 32 N., Rs. 6 and 7 E., about 0.4 mi . E. of cor. of, 140 ft . S. of township ine, 45 ft . E. of U. S. Highway 67, in NE. corner of front step of Zion Church; standard tablet stamped "P T Sta No 23 S 1926"
Reference mark, 76 ft . N. $30^{\circ} \mathrm{W}$. of tablet, in root on NW. side of $30-\mathrm{in}$. white oak tree; copper nail and washer
T. 31 N., R. 6 E., near center sec. 12, on U. S. Highway 67, 0.5 mi . S. of Twelvemile Store, on E. side of highway at crossing of small creek near old cemetery, in top of head wall of concrete culvert; chiseled square
Twelvemile, at original site of post office, in N sec, 14, T. $31 \mathrm{~N}, \mathrm{R}, 6 \mathrm{E}, 300$ pt NE. of W. W. Hinkle's Parmhouse, in SW. ond of SE. wing wall of concrete cuivert. standard tablet stamped "P T Stá No 24 S 1926 " 635.01
Reference mark, 149 ft . S. $30^{\circ}$ W. of tablet, E. of gate, in root of 14-in. white oak tree; copper nail and washer
.52
T. 31 N., R. 6 E., in E $\frac{1}{2}$ sec. 15, on U. S. Highway $67,5.2 \mathrm{mi}$. E. of Saco, 700 ft . SW. of Chubb Store, 27 ft . NW. of highway, 25 ft . NE. of Des Arc Road, in bench on SW. side of 15-in. walnut tree; copper nail and washer
606.43

Saco, 4 mi . E. of, along Des Arc Road, 0.4 mi . W. of J. L. Whitener's house, 130 ft . W. of small bungalow, at mouth of hollow, 25 lt . N. of rd., in root on s. side of 30 -in. white oak tree; copper nail and washer
593.91

Saco, 3.4 mi . E. of, along Des Arc Road, 100 ft . W. of rd. NW. near junction of Dry Creek and Twelvemile Creek, 250 ft. E. of ford at foot of hill, 7. ft. S. of rd.. in root on N. side of $14-$ in. sycamore tree; copper nail and washer 557.88
Saco, 2.2 mi . E. of, along Des Arc Road, 15 ft . S. of rd., $10 \mathrm{ft} . \mathrm{N}$. of front door of George. Whitener's house, inside of front gate, in W. edge of concrete step standard tablet stamped "P T Sta No 25 S 1926"
Reference mark, 430 ft . N. $40^{\circ}$ W. of tablet, 30 ft . N. of rd.; on E. side of gate, in root on SE. side of $36-i n$. black oak tree; copper nail and washer 557.18
Saco, $1.3 \mathrm{mi} . \mathrm{E}$. of, along Des Arc Road, 75 ft . NE. of rd. forks, 15 ft . S. of rd. in root on NW. side of 30-in. white oak tree; copper nail and washer 527.98
Saco, 0.3 mi . E. of, along Des Arc Road, 220 ft . W. of New Home Church, 15 ft . S. of rd. at dim rd. forks, in root on N. side of 15-in. sugar maple tree; copper nail and. washer
St. Francis River, 1.2 ml . W. of Saco, et ford; surface of water October 22, 1926 at 12 a. m .
Saco, 1.2 mi . W. of post office, 0.2 ml . W. of ford across St. Francis River, 400 ft . SE. of T. J. perry's house, 15 ft . N. of rd., near wire fence, in ledge; standard tablet stamped "P T Sta No 26 S 1926"
Reference mark, 44 ft . S. $70^{\circ} \mathrm{E}$. of tablet, in root on w . side of $16-\mathrm{in}$. white oak tree; copper nall and washer
Jewett, 3.6 mi . E. of post office, along Jewett-Saco road, 10 ft . N. and 50 ft . W. of rd. forks, 150 ft . E. of Vada Berry's house, in root on SW. side of 36-in. elm tree; copper nail and washer
528.51
jewett, 2.5 mi . E. of post office, along Jewett-Saco road, in drain at foot of N. slope of high hill, 25 ft . N . of rd. junction at turn in rd., in root on SW. side of 24-in. red oak tree; copper nail and washer
504. 46

Jewett, 1.1 mi . E. of post office, along Jewett-Saco road, 60 ft . W. and 20 ft . S. of rd. Sunction, in fence line, in root on $N$. side of $28-i n$. walnut tree; copper nail and washer
3. FROM POINT NEAR CENTER OF QUADRANGLE SOUTH ALONG U. S. HIGHWAY 67 TO SOUTH BORDER

Coldwater, 4.4 mi . N. of post office, along U. S. Highway 67, near foot of long hill, in top of E. head wall of concrete culvert; chiseled square
Coldwater, 3.8 mi . N. of post office, along U. S. Highway 67, on top of Pine Hill, 30 ft . S. of highway, 10 ft . E. of dim rd. S., in root on N : side of $8-\mathrm{in}$. black oak tree; copper nail and washer
846.98
black oak tree; copper nalland washer
Coldwater, 3 mi . N. of post office, along U. S. Highway 67, about 150 ft . SE. of hou
$\quad 12 \mathrm{ft}$. NW. of highway, in NE. end of NW. head wall of concrete culvert; standard tablet stamped "PT Sta No 78 S 1926"
Reference mark, $52 \mathrm{ft} . \mathrm{N} .45^{\circ} \mathrm{E}$. of tablet, in root on S . side of $15-\mathrm{in}$. oak tree; copper nail and washer
Coldwater, 2.2 mi . N: of post office, along U. S. Highway $\theta 7,150 \mathrm{ft}$. S. of cross rd., in top of w. head wall of concrete culvert; chiseled square
Coldwater, l.l mi. N. of post office, along U. S. Highway 67, about. 0.1 mi . S. of Madison-Wayne county line, at rd. junction, in W. head wall of concrete culvert; ohiseled square
539.89

Coldwater, 380 ft. N. of post office, at J . S . Highway 67 bridge across Cedar Creak, in top of W. guard wall of N. ebutment; chiseled square
501.74

Colowater, 0.7 mi . SW. of post office, along U. S. Highway 67, 90 ft . NE. of rd. junotion 30 ft . N. of highway, in top of W. end of bottom step in front of Methodist church; standard tablet stamped "P T Sta No 79 S 1926"
493.178

Reference mark, 46 ft . N. $70^{\circ} \mathrm{E}$. of tablet, in root on W. side of 10-in. cherry tree; copper nail and washer
Colowater, 1.7 mi . SW. of post office, along U. S. Highvay 67, about 0.3 ml . SW. of Willmore Creek, 600 ft . SW. of residence of Mr. Willmore, in W. head wall of concrete culvert; chiseled square
534.27

Coldwater, 2.4 mi . SW . of post office, along U. S. Highway 67 , at summit of high ridge 25 ft . W. of highway, in root on E. side of $12-\mathrm{in}$. red oak tree; copper nail and washer
747.54

Lodi, 1 mi . N, of past office, along U. S. Highway 67, on top of small hill, about 0.2 mi. N. of Will Carter's house, 15 ft . W. of highway, in bench on E. side of 16-in. post oak tree; copper nall and washer
Lodi, 285 ft . N. of post office, along U . S. Highway 67, 30 ft . S. and 13 ft . W. of Lodi Church, 30 ft . E. of highway, in concrete post; standard teblet stamped "P T Sta No 80 S 1926" (reported destroyed Jan. 26, 1935)
Reference mark, 260 ft . S. $30^{\circ} \mathrm{W}$. of tablet, 55 ft . W. of highway, in root on E. side of $30-1 n$. maple tree; copper nall and washer
(Continued in Greenville quadrangle; see.line no. 1.)
4. FROM EAST BORDER OF QUADRANGLE SOUTHWEST TO EUCKHORN, THENCE NORTHWEST TO TWELVEMILE (Continued fram Marquand quadrangle; see line no. 1.)

Buckhorn, 2.7 mi . NE. of post office, along Buckhorn-Marquand road, 150 ft . S. of J. W. Parkeris house, 35 ft. NW. of rd., in root on E. side of $15-1 n$. post oak tree; copper nail and washer
680.05

Buckhorn, 1.7 mi . NE. of post office, alang Buckhorn-Marquand road, 680 ft . W. of creek crossing, 70 ft . S. and 15 ft . W. of rd. forks, in root on E. side of 20-in. post oak tree; copper nail and washer
Buckhorn, 0.7 mi . N. of post office, along Buckhorn-Marquand road, on E. bank of creek 40 ft . N. of ford, 140 ft . W. and 70 ft . N. of Boyd Henson's house, in root on W. side of 30-in. post oak tree; copper nail and washer

Buckhorn, $1,000 \mathrm{ft}$. W. of post office, 16 ft . N. ond 33 ft . W. of front door of schoolhouse, near fence corner, on $S$. side of rd., in sandstone ledge; standard tablet stamped "P T Sta No 28 S $1926^{\prime \prime}$
Reference mark, $118 \mathrm{ft} . \mathrm{N} .45^{\circ}$ E. of tablet, in root on W, side of 20 m . black oak tree; copper nall and washer
Buckhorn, 1.1 mi . NW. of post office, 20 ft . N. and 30 ft . E. of rd. at private lane to Mrs. P. H. Barrett's house, in root on S. side of l8-in. red oak tree; copper nail and washer
Buckhorn, 2.3 ml . NW. of post office, 250 ft. S. of R. L. Hann's house, 80 ft . S. of old mill, 10 ft . S. and 36 ft . W. of T -rd. W., $22 \mathrm{ft} . \mathrm{W}$. of fence corner, in conorete post; standard tablet stamped "P T Sta No 27 S 1926"
Reference mark, 55 ft . N. $60^{\circ} \mathrm{E}$. of tablet, in root on N. aide of 24-in. post oak tree; copper nail and washer
Buokhorn, 3.4 mi . NW. of post office, 150 ft . N. of Charles Shoemaker's house, 15 ft. E. of rd., in root on NW. side of 12-1n. elm tree; copper nail and washer
693.31

Buokhorn, 4.6 mi . NW. of post office, 0.8 ml . SE. of U. S. Highway 67 , at summit of divide, 33 ft . NE. of rd., in root an S . side of $20-1 \mathrm{n}$. red oak tree; copper nail and washer

## 5. SPUR LINE NEAR NORTH BORDER OF QUADRANGLE

Fredericktown, 5.7 mi . S. of, along U. S. Highway 67, thence 1.2 mi . SW. along Dry Oreek road, 470 ft . NE. of steep hill, on $W$. side of rd., in top of W. head wall of ooncrete culvert; ch1seled square
995.19

Fredericktown, 5.7 mi . S. of, along U. S. Highway 67, thence 2 mi . SW. along Dry Creek road, about 0.8 mi . NE, of Central School, about 0.8 mi . S. of Mathews Mountain, on top of high ridge, 15 ft . S. of rd. at dim ridge ra., in grenite boulder; standerd tablet stamped "2 W R B 1926"
Reference mark, 13 ft . E. of tablet, in root on N . side of $12-1 \mathrm{n}$. red oak tree; copper nail and washer
6. IN NORTHWEST CORNER OF QUADRANGLE (by F. C. Lentz in 1936)
(Line continued from Knob Lick quadrangle, but last benchmark established is given in Middlebrook quadrangle; see line no. 6.)

French Mills, 3 mi . N. and 1 mi . W. of post office, at intersection of Dark Hollow and Rock Creek Hollow, 100 ft . N. of Little Rock Creek, 10 ft . S. of dim E.-W. rd., in 12-1n. white oak tree; copper nail and washer
686.65

For en additional level line along U. S. Highway 67, refer to United States Coast and Geodetic Survey second-order line, Elvins to Taskee.
(Latitude $37^{\circ} 0^{\text {GRE }}-37^{\circ} 15^{\prime}$; longitude $90^{\circ} 15^{\prime}-90^{\circ} 30^{\prime}$ )


1. FROM NORTH BORDER OF QUADRANGLE SOUTH, ABOUT 5 MILES, ALONG U. S. HIGHWAY 67, THENCE EAST ALONG STATE HIGHWAY 34 TO EAST BORDER (by W. R. Broaddus in 1926)
(Continued from Coldwater quadrangle; see line no. 3.)
Lodi, 1 mi. S. of post office, along U. S. Highway 67; 450 ft. SE. of T. W. Roach' $\frac{\text { Peet }}{\text { g }}$ house, 25 ft . E. of highway; in root on W. side of 48 -in. sycamore tree; copper nail and washer

Lodi, 1.7 mi . S. of post office, along U. S. Highway 67, at summit of high ridge, 30 ft. W. of highway, in root on NE. side of 24-in. red oak tree; copper nail and washer
Bounds, 1.8 mi . N. of post office, along U. S. Highway $67,500 \mathrm{ft}$. N. of house of L. A. Roach, at foot of S. slope of high hill, in N. end of E. head vall of concrete culvert; standard tablet stamped "P T Sta No 81 S 1926"
Reference mark, 55 ft . N. $30^{\circ} \mathrm{W}$. of tablet, 25 ft . W. of highway, in root on E . side of 14-in. post oak tree; copper nail and washer
Bounds, 1 mi . N. of post office, along U. S. Highway 67 , on top of small hill, 27 ft . W. of highway, 40 ft . S. of rd. W., 45 ft . SE. of SE. corner of small cemetery, in root on E. side of l5-in. black oak tree; copper nail and washer 571.23
Bounds, 200 ft . NE. of post office, along. U. S. Highway 67, in top of E. head wall of concrete culvert under highway; chiseled square
502.79

Bounds, 0.9 mi . S. of post office, along J. S. Highway $67,570 \mathrm{ft}$. N. of Montgomery Ohurch, $120 \mathrm{ft} . \mathrm{N}$. of T. M. Evans' house, 25 ft . W. of highway, in root on E. side of $30-i n$. red oak tree; copper nail and washer
Greenville, $6.5 \mathrm{mi} . \mathrm{N}$. of, along U. S. Highway 67, 130 ft . NW. of N. junction with State Highway $34,30 \mathrm{ft}$. N. of State Highvay 34, in $W$. point of triangle at Claude Montgomery's filiing station, standard tablet stamped "P T Sta No 73 S 1926" 454.212 (Reported destroyed, Jan. 26, 1935)
Reference mark, 43 ft . W. of tablet, in top of N . head wall of concrete culvert; ohiseled square
clubb, about 6.5 mi . W. of, along State Highway $34,0.4 \mathrm{mi}$. NE. of U. S. Highway 67, in top of SE. head wall of concrete culvert under highway; chiseled square 465.3
Clubb, 5.5 mi . W. of post office, along State Highway $34,130 \mathrm{ft}$. E. of junction of draing, at foot of long grade, at.fork of hollows, in top of W. head wall of ooncrete culvert; chiseled square
Clubb, 4.4 mi . W. of post office, along State Highway 34, on top of high hill, 270 ft . SW. of Ed. Meador's house, 25 ft . N. of highway, in root on S. side of 30-in. white oak tree; copper nail and washer
757.57
clubb, 3 mi . W. of post office, along State Highmay $34,50 \mathrm{ft}$. S. and 120 ft . W. of oor. secs. 4, 5, 8, and 9, T. 29 N., R. 6 E., 160 ft . NE. of house of Tom King, in W. end of $S$. wing wall of concrete culvert; standard tablet stamped "P T Sta No 72 S 1926"
Reference mark, $620 \mathrm{ft} . \mathrm{S} .80^{\circ} \mathrm{W}$. of tablet, in top of S . head wall of concrete culvert; chiseled square
Clubb, 2.4 mi . W. of post office, along State Highway 34 , on $N$. side of highway, 400 ft. SW. of White Hollow School, 30 ft . W. of junction of dim rd. S., in top of N . head wall of concrete culvert; chiseled square
Clubb, 1.3 mi . W. of post office, along State Highway 34, on N. side of highway, at crossing of dim N.-S. lane, in top of N. head wall of concrete culvert; chiseled square
Glubb, 250 ft . NW. of post office and store, 40 ft . N. of State Highway $34,80 \mathrm{ft}$. E. of Clubb School, 3 ft . E. of SE. corner of well platform, in concrete post; standard tablet stamped "P T Sta No 71 S 1926"
Reference mark, 250 ft . E. of tablet, in top of N . head wall of concrete culvert under highway; chiseled square
Olubb, 1 mi . E. of post office, along State Highway 34, 300 ft . S. of Albert Graham's house, 20 ft . N. of highway at cross rd., in top of N . head wall of concrete oulvert; chiseled square
Clubb, 1.5 mi . E. of post. office, along State Highway 34, at E. end of concrete way bridge over Bear Creek, in top of N. Wing wiall; chiseled square
Clubb, 2.6 mi . E. of post office, along State Highway $34,45 \mathrm{ft}$. S. of highway, at summit of high hill, in root on $N$. side of lo-in. hickory tree; copper nail and washer
Clubb, 3.5 mi . E. of post office, along state Highway 34, in SWis sec. 33, T. 30 N., R. 7 E. , in front of Lawson Ward's house, in E . end of S . wing wall of concrete oulvert; standard tablet stamped "P T Sta No 70 S 1926"
Reference mark, 985 ft . N. $50^{\circ} \mathrm{E}$. of tablet, in top of N. head wall of concrete culvert under highway; chiseled square
599.74
olubb, 4.4 mi . E. of post office, along state Highway $34,0.3 \mathrm{mi}$. W. of A. A. Montgomery's house, in top of S. head wall of concrete culvert, under highway; chiseled square
541.88

Clubb, 5.5 ml . E. of post office, along State Highway 34, 900 ft . SE. of Z. McGeers house, in fop of S . head wall of conorete culvert under highway; chiseled square
506.43
(Continued in Zalma quadrangle; see line no. 2.)
2. FROM SOUTH BORDER OF QUADRANGLE NORTH AND WEST TO GREENVILLE, THENGE NORTHEAST TO LOWNDES (by George W. Moore in 1931)
(Continued Prom Poplar Bluff quadrangle; see line. no. 8.)
Chaonia, $2.3 \mathrm{mi} . \mathrm{N}$. of, in SW. angle of secondary crossroads, at top of hill, in root on E. side of lz-in. blazed oak tree; copper nail and washer
Chaonia, 2.6 mf . N. of, at Hogan Flats, $26 \mathrm{ft}^{\prime}$. S. and 10 ft . E. of rd. fork E., i2 ft. S. and 1 ft . E. of fence corner, in concrete post; standard tablet stamped "20 M 1931"
Reference mark, 112 ft . N. of tablet, 90 ft . E. of small wooden bridge, in root on W. side of $10-1 n$. oak tree; copper nail and washer
402.77

Chaonla, 3.3 mi. . NE.. of, 110 ft . E. of rd. fork N., on E. bank of Hickory Flat Creek, on S. side of rd., in root on SE. side of $35-\mathrm{in}$. elm tree; copper nail and washer
Chaonia, 3.8 mi . NE. of, 55 ft . SW. of junction of dim rd. S., in root on S . side of $15-1 \mathrm{n}$. hickory tree; copper nail and washer
Chaonia, 4.6 mi . NE. of, 25 ft . N. of rd. forks, on w. side of rd., in root on SE. side of 18-in. elm tree; copper nail and washer
Chaonia, 5.3 mi . NE. of, 25 ft . E. of ford across Lost Creek, on s. side of rd., in fence corner, in root on NE. side of $27-1 n$. oak tree; copper nail and washer 357.66

Shook, $1.5 \mathrm{mi} . \mathrm{S}$. of: $0.4 \mathrm{mi} . \mathrm{N}$. of fard across Lost Creek, 13 ft . N. of junction of Chaonia and Greenville-Wappapello roads, in concrete post; standard tablet stamped "21 M 1931"
Reference mark, 80 ft . SW. of tablet, 25 ft . S . and 70 ft . W. of.rd. forks, in root on N . side of $10-1 \mathrm{n}$. oak tree; copper nall and washer
Shook, 0.6 ml . S. of, at foot of steep hill, 20 ft . E. of rd., in root on W . side of 23-in. hollow tree; copper nail and washer
hook, 350 ft . W. of post office, 45 ft . NE. of ford aoross amall creek, in root on SW. side of 11-in. oak tree; copper nail and washer
Shook, $i \mathrm{mi}$. NW. of, along Greenville-Wappapello road, 70 ft . W. of rd., on N . side of privete rd. W., 35 ft . W. of gate, in root on E. side of 10-in. wainut tree; copper nail and washer
Shook, 1.7 mi . NW. of, along Greenville-Wappapello road, 700 ft . SE. of Frank T Bennet's house, 24 ft . S. and 100 ft . E. of T-rd. S., 2 ft . N. of fence, in concrete post; standard tablet stamped "22 M 1931"
443.120
eference mark; 100 ft . W. of tablet, 12 ft . N. of T-rd. S., in root on E. side of l6-in. oak tree; copper nail and washer
444.36

Shook, 2.5 mi . NW. of, along Greenville-Wappapello road, 100 ft . N. of rd. forks, on E. side of rd., in bed of creek, in root on NW. side of 9-in. oak tree; copper nail and washer
Shook, 3.1 mi . NW. of, along Greenville-Wappapello road, 55 ft . E. of rd. fork NE., in SE, corner of triangle at rd. forks, in root on SW. side of ll-in. oak tree; oopper nail and washer
Shook, 3.9 mi . NW. of, along Greenville-Wappapelila road; 925 ft . SE. of ford across Lost Oreek, at small drain crossing, on NE. side of rd., in root on SW . side of $22-1 \mathrm{n}$. oak tree; copper nall and washer 484
Shook, 4.5 mi . NW. of, along Greenville-Wappapello road, 6.2 mi . SE. of Greenville,
23 ft . N. and 110 ft . W. of rd. fork NE. to Hickory Grove School, in concrete post; standard tablet stamped "23 M 1931"
Reference mark, 28 ft . E. of tablet, on N . side of rd., in root on NE. side of 12-in. hickory tree; copper nall and washer
Greenville; 5.4 mil . SE. of, along Greenville-Wapapello road, 80 ft . W. of large gate, 70 ft . E. of arain, 25 ft . N. of rd., in root on S. side of 24-1n. oak tree; copper nail and washer
543.10

Greenville, 4.4 mi . SE. of, along Greenville-Wappapello road, 25 ft . W. of small wooden bridge over creek, 180 ft . SW. of abandoned house, 8 ft . E. of rall fence corner, in root on NE. side of $39-i n$. oak tree; copper nail and washer 576.33
Greenvilie, 3.4 mi . SE. of courthouse, along Greenville-Wappapello road, on top of
ridge, 50 ft . N. of rd. forks, 30 ft . NW. of T-rd. S., in concrete post; standard tablet stamped "24 M 1931"
Reference mark, 17 ft . NE. of tablet, in root on E . side of 9-1n. oak tree; oopper nall and washer

Greenville, 2.1 mi . E. of, 280 ft . S. of junction of Greenville-Wappapello and Chaonia roads, in top of $S$. end of E. head wall of concrete culvert; chiseled square 447.64
Greenville, 1.6 mi. E. of, 160 ft . E. of A. L. Clayton's house, in top of N . head wall of concrete culvert; chiseled square
Greenville, 0.8 mi . E. of, in NW. corner of C. L. Joplin's yard, in NW. corner of large rock outcrop; U. S. E. D. aluminum tablet
Reference mark, 55 ft . W. of tablet, in top of N . end of concrete culvert under rd. to C. L. Joplin's barnyard; chiseled square
Greenville, 0.5 mi . E. of courthouse, 145 ft . E. of U . S. Highway 67 at cross rd., in top of center of $S$. head wall of concrete culvert under Greenville-Wappapello road; chiseled square
Greenville, at $S$. entrance to courthouse, in cement walk at foot of SW. corner of steps; standard tablet stamped "P T Sta No 83 S 1926" 380.931

Reference mark, 150 ft . E. of tablet, in top of center of concrete stop sign at street intersection; chiseled square
381.32

Greenville, 0.8 ml . NE. of, on Holliday Road, 100 ft . W. of ford, on S . side of rd., in root on NE. side of 22-in. sycamore tree; oopper nail and washer
Greenville, l.2 mi. NE. of, along Holliday Road, on NW. side of rd. forks, in root on $N$. side of $12-1 n$. oak tree; copper nall and washer
Greenville, 2 mi . NE. of, along Holliday Road, 50 ft . E. of crossroads, at W. end of footbridge over Holliday Creek, in root on W. side of 2l-in. maple tree; copper nail and washer
Greenville, 3 mi . NE. of, along Holliday Road, in top of SE. end of NE. concrete abutment of wooden bridge over Holliday Creek; chiseled square
467.65

Greenvilile, 3.9 ml . NE. of, along Holliday Road, 57 ft . W. of rd., in SE. corner of T. A. Allen's yard, in concrete post; standard tablet stamped "P T Sta No 94 S 1926"
Reference mark, 40 ft . N. of tablet, in root on NE. side of 2l-in. oak tree; copper nail and washer
Greentille, 4.8 mi . NE. of, along holiiday Road, 50 ft . NW. of rd. a.t crossing of pipe line, in root on $N$. side of 8-in. oak tree; copper nail and washer 585.24
Greenville, 5.9 mi . NE. of, along Holliday Road, 75 ft . N. and 35 ft . W. of rd. forks, on tap of ridge, in root on S. side of $25-i n$. oak tree; copper nail and washer
Greenville, 6.6 mi . NE. of, along Holliday Road, 60 ft . SW. of small wooden bridge over Holliday Creek, in root on NE. side of 16-in. oak tree; copper nail and washer
Greenville, 7.3 mi . NE. of, along Holliday Road, near center sec. 35, T. 29 N., R. 6 E., 140 ft . W. of rd. forks, 90 ft . E. of wooden culvert, 18 ft . S. of rd., in concrete post; standard tablet stamped "P T Sta No 93 S 1926"
Reference mark, 66 ft . W. of tablet, 60 ft . SW. of wooden bridge, in root on NE. side of $9-1 \mathrm{n}$. oak tree; copper nall and washer
Greenville, 8.3 mi . NE. of, along Lowndes-Greenville road, 50 ft . N. of rd. at drain crossing, on W. side of drain, in root on $N$. side of 19-in. oak tree; copper nail and washer
Greenville, 9.1 mi . NE. of, along Lowndes-Greenville road, 60 ft . NW, of T-rd. NW. in top of center of SW. head wall of concrete culvert; chiseled square $\quad 625.56$

Lowndes, 3 mi . W. of, along Lowndes-Greenville road, 60 ft . SW. of John Crite's residence, $22 \mathrm{ft} . \mathrm{N}$. of rd., in concrete post; standard tablet stamped "P T Sta No 92 S 1926"
621.464

Reference mark, 720 ft . W. of tablet, in top of center of S . head wall of conorete
 Lowndes, 2.2 mi. W. of, along Lowndes-Greenville road, 40 ft. N. of crossroads, at
Lowndes, 2 mi. E. of, along Lowndes-Greenvilie road, in top of $E$. end of N . head wall of concrete culvert; chiseled square
Lowndes, 1.5 mi . W. of, along Lowndes-Greenville road, 30 ft . E. of rd. fork S., in root on E. side of 19-1n. oak tree; copper nail and washer
Lowndes, 0.7 ml . W. of, along Lowndes-Greenville road, 40 ft . NW. of rd., at top of hill, in root on SE. side of 24-in. oak tree; copper nail and washer 598.25
Lowndes, 0.2 ml . W. of, along Lowndes-Greenville road, 90 ft . E. of junotion of rd. to Hiram, in top of W. end of S. head wall of concrete culvert; chiseled square
Lowndes, 375 ft . W. of post office, 50 ft . S. of rd., at front entrance to E. E. Dunn's yard, 2 ft . W. of concrete steps, in concrete post; standard tablet stamped " P T Sta No 91 S 1926".
460.366

Reference mark, 0.2 ml . E. of tablet, 155 ft . W. of triangle at rd. forks, in top of $W$. end of $S$. head wall of concrete culvert; chiseled square
428.10
3. NEAR CENTER OF EAST BORDER OF QDADRANGLE
(Continued from Zalma quadrangle; see line no. 5.)

Lowndes, 1 mi . SE. of, 130 ft . SE. of rd. farks, on NE. side of rd., at foot of hill, in root on S. side of ll-in. walnut tree; copper nail and washer
Lowndes, 2 mi. SE. of, on top of ridge, on E. side of rd., in root on NW. aide of $10-1 n$. oak tree; copper nall and washer
Lowndes, 2.6 ml . SE. of, 130 ft . SE. of ford acrose small creek, 65 ft . N. of fence corner, on SW. side of rd., in root on N. side of 26-in. oak tree; oopper nail and washer
(Continued in zalma quadrangle; see line no. 5.)

## 4. FROM WEST BORDER OF QUADRANGLE EAST TO POINT 1.5 MILES SOUTH OF BOUNDS <br> (Continued from Piedmont quadrangle; see line no. 4.)

Patterson, 4 mi . E. of; along State Highway 34, 0.8 mi . E. of St. Francis River, 660 ft. NW, of orosaroads, 180 ft . W. of rd. forks, in top of S . head wall of concrete culvert; chiseled square
396.08

Patterson, 4.9 mi . E. of, along State Highway 34, in NWI sec. 14, T. 29 N., R. 5 E., 35 ft . S. of highway, on E. side of cross rd., in root on N. side of 24-in. oak tree; copper nail and washer
5. FROM WEST BORDER OF QUADRANGLE EAST TO GREENVILLD
(Continued from Riedmont quadrangle; see line no. 3.)

Greenville, 3 mi . NW. of, 70 ft . NW. of NW. corner of Thomas Jones' house, in root on N. side of $14-i n$. walnut tree; copper nail and washer
Greenville, 2 mi. NW. of, in tap of SW. head wall of conerete culvert; chiseled square
 ft. E. of rd. corner from $N$. to E. at private rd. S., in root on S. side of 10-in. hickory tree; copper nail and washer
Greenville, 0.5 mi . NW. of, at NE. corner of approach to large bridge over St. Franois River, in top of retaining wall; chiseled square 364.20
6. FROM POINT ABOUT 1.5 MILES SOUTH OF BOUNDS SOUTH ALONG O. S: HIGHVAY 67 TO GREENV ILLE

Silva, 0.6 ml . N. of, along U. S. Highway 67, in top of E. guardrail at NE. corner of concrete bridge over Peters Branch Creak; chiseled square
Silva, 0.2 mi. S. of, along U. S. Highway 67, in top of E. guardrail at SE. end' of ooncrete bridge over Frazier Creek; chiseled square
Silve, 0.9 mi . S. of, along U. S. Highway $67,270 \rho \mathrm{t}$. SE. of junction of rd . E., in top of guardrail at NE. oorner of concrete bridge over Bounds Creek; chiseled square
399.16

Silva, 1.6 mi . S. of, along U. S. Highway 67 , at top of hill, 35 ft . W. of highway in root on E. side of $10-\mathrm{in}$. oak tree; copper nail and washer 452.44
Silva, 2.4 mi . S. of, along U. S. Highway 67, in top of N. end of W. head vall
of conorete culvert; chiseled square.
Greenville, 2.8 mi. NW. of, along $U$. S. Highay $67,3 \mathrm{mi}$. SE. of Silva, in W. wing wall of concrete zulvert; standard tablet stamped. "P T.Sta No 82 S 1926" 383.737
Reference mark, 230 ft . N. of tablet, at Riverside Tourist Camp, 35 ft . NE. of U. S. Highway 67, in top of concrete base of gasoline pump platform; chiseled square
Greenville, 2.1 mi . N. of, along U . S. Highway $67,35 \mathrm{ft}$. NW. of highway at cross rd., in top of $W$. head wall of concrete culvert under N.-S. rd.; chiseled square
Greenville, 1.3 mi. N. of, along U. S. Highway $67,230 \mathrm{ft}$. N. of highway, on $\mathrm{E} . \mathrm{gide}$ of private rd., on top of hill, in root on SW . Bide of $30-\mathrm{in}$. oak tree; copper nail and washer
Greenville, 0.4 ml . NE: of, along U. S. Highway 67, near foot of hill, in top of NW. head wall of concrete culvert; chiseled square

## 7. FROM GREENVILLE SOUTH TO SOUTH BORDER OF QUADRANGLE

Greenvilie, 0.4 mi. S. of, along U.S. Highway 67, at $N$. concrete approach to steel

Greenville, 0.5 mi . $S$. of, along U.S. Highway 67 , at S . abutment of S . concrete approach to steel bridge over St. Francis River, in top of E. parapet wall; chiseled square
Greenville, 1.5 mi . S. of, along old U.S. Highway $67,35 \mathrm{ft}$. NE, of highway at crose ing of private rds., in top of E . head wall of concrete culvert; chiseled square
Greenville, 2.5 mi . S. of, on old J.S. Highway 67, at function of rd. to Williamsvilie, in N. end of concrete culvert; standard tablet stamped "P T Sta No 84 S $1926^{\circ}$
Reference mark, 24 ft . NW. of tablet, in top of NW, head wall of concrete culvert; $\begin{array}{ll}\text { chiseled square } & 425.67\end{array}$
Greenville, 3.6 mi . SW. ef, elong U.S. Highway $67,125 \mathrm{ft}$. SW. of junction of old and new routes of highway, in top of $W$. head wail of concrete culvert; chiseled square
Greonvilie, 4 mi . SW. of, along U.S. Highway 67, 45 ft . SE. of junction of old and new routes of highway, in top of E. head wall of concrete culvert; chiseled square
Greenville, 4.8 ml . SW . of, in swis sec. $35, \mathrm{~T} .28 \mathrm{~N} ., \mathrm{R} .5$ E., at top of hill, 50 . 497.11 ft. SE. of rd. forks, in root on w. side of twin oak tree; copper nail and washer
Greenville, 5.3 ml . S: of, in NW. cor. sec. $1, \mathrm{~T} .27 \mathrm{~N} ., \mathrm{R} .6 \mathrm{E}$. , in top of S . end of W. head wall of concrete culvert; chiseled square
Greenville, 6 mi . S. of, 3.5 ml . N. of Taskee, in NE $\frac{1}{4}$ sec. 1, T. $27 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} ., 0.9 \mathrm{ml}$
N. of John Keele's residence, in N. end of concrete culvert; standard tabiet stamped ${ }^{\prime} \mathrm{F}$ T Sta No $85 \mathrm{~S} 1926^{\prime \prime}$
Reference mark, 21 ft . SW. cf tablet, in top of N . end of W . head wall of concrete culvert; chiseled square 538
Taskee, 2.6 mi . N. of, 220 ft. N. of John Keele's residence, at foot of hill, in top of N. end of E. head wail of concrete cülvert; chiseled square $\quad 478.12$
Taskee, 1.9 mi . N. of, 45 ft . E. of rd. forks, in root on NW. side of $12-\mathrm{in}$. white oak tree; copper nall and washer
481.69

Taskee, l. 1 mi. N. of, center sec. 7, T. 27 N., R. 6 E., 150 ft. N. of dim private rd. fork, 28 ft . NE. of rd., in root on $S$. side of $12-1 n_{\text {. }}$ locust tree; copper nail and washer

## (Continued in Poplar Bluff quadrangle; see line no. 9.)

8. FROM POTNT 2.5 MILES SOUTHWEST OF GREENVILLE WEST TO WEST BORDER. OF QUADRANGLE

Greenville, 3.5 mi . SW. of, 60 ft . E. of rd., in small clearing, in root on NW. side of 39-in. oak tree; copper nail and washer
484.05
(Continued in Piedmont quadrangle; see line no. 6.).
For an additional level line along U. S. Highway 67; refer to United States Coast and Geodetic Survey second-order line, EIving to Taskee.

POPLAR BLUFF QUADRANGLE
(Latitude $36^{\circ} 45^{\prime}-37^{\circ}$; longitude $90^{\circ} 15^{\prime}-90^{\circ} 30^{\prime}$ )
Butler, Stoddard, and Wayne Counties


1. EAST ALONG ST. LOUIS:SAN FRANCISCO R. R. IN NORTH PART OF QUADRANGLE (by E. C. Bibbee in 1914)
(Continued from Williamsville quadrangle; see line no. l.)
Williamsville, 3.4 mi . E. of, along St. Louls-San Francisco R. R., 50 ft . S. of track, opposite milepost $\mathrm{B}-198$; in root of black oak tree; copper nail
483.45

Williamsille, 3.6 mi . E. of, along St. Louis-San Francisco R. R., 5.5 telegraph poie spaces E. of milepost B-198, 60 ft . E. of Stevensons' flag stop, 53 ft . N. of track, 3 ft . N. and 3 ft . E. of E. gatepost, at lane leading to old sawmill, in sandstone post set with top 14 in . underground; standard tablet stamped "Mo $465^{n}$.

Williamsville, 4.2 mi . E. of, along St. Lolis-San Francisco R. R., 20 ft. E. of rd. crossing, at trestle no. B-198.2, in S. end of E. tie, 1 in. above tie; driftbolt
Taskee, 1.5 mi . W. of, along St. Lauis-San Francisco R. R., in base of 4 th telegraph pole W. of milepost B-197; spike
Taskee, 1.2 mi . W. of, along St. Louis-San Francisco R. R., 15 ft . N: of NE. corner of Clear Springs School, 2 ft . S. of fence; iron post stamped "Mo 404" 403.51
Taskee, 50 ft . W. of post office, 100 ft . N. of St. Louis-San Francisco R. R., in SW. corner of Morgan's yard; iron post stamped "Prim Trav Sta No 19 F 1924 Mo 394"
Taskee, 1 mi. E. of, along St. Lovis-San Francisco R. R., at W. end of trestle no. B-194.7, in N. end of first bent; driftpin
Taskee, $2 \mathrm{mi} . \mathrm{E}$. of, along St. Louis-San Francisco R. R., opposite 5 th telegraph pole E. of milepost $\mathrm{B}-194,5 \mathrm{ft}$. S. of track, in ledge of rocks; chiseled square 374.26

Ojitway, 0.5 mi . W. of, along St. Louis-San Francisco R. R., on W. end of trestle no. B-193.0, in S. end of first tie; driftbolt
$0 j 1$ bway, near St. Louis-San Francisoo R. R. station, 50 ft . S. of R. R., 25 ft . E. of post office, in field; iron post stamped "Prim Trav Sta No 18 F 1924 365" 364.819
$0 j i b w a y, 1.1 \mathrm{mi}$. E. of, along St. Louis-San Francisco R. R., 260 ft . W. of bridge no. B-191.4, 50 ft . S. of track, in root of 24-1n. sugar maple tree; copper nail
Ojibway, 2 mi. E. of, along St. Louis-San Francisco R. R., in base of second telegraph pole E. of trestle no. B-190.4; spike
Chaonia, 0.8 mi . W. of, along St. Louis-San Francisco R. R., 200 ft . N. of bridge no. 189.2, 6 ft . E. of track, in ledge of rocks in cut; chiseled square 366.24
Chaonia, 60 ft . N. of St. Louis-San Francisco R. R., 50 ft . E. of post office; at SW. corner of Dr. Holt's yard; iron post stamped "Prim Trav Sta No 17 F 1924 Mo 363 "
363.241

Chaonia, $0.8 \mathrm{mi} . E$. of, along St. Louls-San Francisco R. R., 40 ft . S. of track, opposite $W$. end of trestle no. B-187.5, in root of black gum tree; copper nail
Chaonia, 2 mi . E. of, along St. Louis-San Francisco R. R., on W. end of trestle no. B-186.4, in N. end of first tie; driftbolt
Chaonia, 2.9 mi . E. of, along St. Louis-San Francisco R. R., at $N$. side of bridge over St. Francis River, in concrete footing of E. abutment; chiseled square 354.66
Chaonia, 3.6 mi . E. of, 0.8 mi . E. of St. Louis-San Francisco R. R. bridge over St. Francis River, 60 ft . S. of R. R., 25 ft . E. of rd.; iron post stamped "Prim Trav Sta No 16 F 1924 Mo 352"
Wappapello, 1.6 mi . W. of, along St. Louis-San Francisoo R. R., 400 ft . W. of bridge no. 183.5 , 10 ft . S. of traok, in post; apike
Wappapello, 0.7 mi . W. of, along St. Louis-San Francisco R. R., 80 ft . W. of ra. crossing, $50 \mathrm{ft} . \mathrm{S}$. of track, in root of maple tree; copper nail 349.19
Wappapello, 200 ft . SW. of St. Louis-San Francisoo R. R. station, 75 ft . S. of R. R.,
75 ft . E. of loeding pen, 25 ft . W. of rd., 3 ft . S. of telephone pole; iron post stamped "Prim Trav Sta No 15 F 1924 Mo 350"
350.281
(Continued in Puxioo quadrangle; see line no. 1.)
2. FROM WAPPAPELLO EAST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO EAST BORDER OF QUADRANGLE (by M. J. Harden in 1931)

Wappapello, 0.6 mi . E. of, along St. Louis-San Francisco R. R., at NE. corner of bridge no. B-181.4, in E. end of guardtimber; driftbolt
349.93
(Continued in Puxico quadrangle; see line no. 2.)
3. FROM EAST BORDER OF QUADRAANGLE SOUTHWEST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO POPLAR BLUFF
(Continued from Puxico quadrangle; see line no. 2.)
St. Louis-San Francisco R. R., at tap of levee E. of St. Francis River 351.25 Dale, 0.9 mi . SW. of, along St. Louis-San Francisco F. R., at NW. corner of steel bridge no. Á-183.6 across St. Francis River, in angle iron connecting NW. end post to N. end floor beam; end rivet
345.94

Rombauer, 1.8 mi . NE. of, along St. Louis-San Francisco R. R., at NW. corner of bridge na. A-184.2, in W. end of N. guardtimber; driftbolt
Rombauer, 1.2 ml . NE. of, along St. Lovis-San Francisoo R. R., at SW. corner of bridge no. A-184.8, in $W$. end of $S$. guardtimber; driftbolt
Rombauer, 1 mi . NE. of, 42 ft . N. of $W$. end of St. Louis-San Francisco R. R. bridge no. A-185.1, 15 ft . W. of gate, 1 ft . N. of fence, in conorete post; standerd tablet stamped "2 H. 1931 "
Reference mark, on NW. corner of bridge, in W. end of N. guardtimber; driftbolt
Rombauer, at SE. oorner of concrete walk in front of post office; chiseled
square
Rombauer, 0.6 mi . SW. of, along St. Louis-San Francisoo R. R., at NW. corner of bridge no. A-186.7, in w. end of N. guardtimber; driftbolt
Rombauer, 1.4 mi . SW. of, along St. Louis-San Francisco R. R., at NW. corner of bridge no. A-187.5, in W. end of N. guardtimber; driftbolt
Sawyer, $0.5 \mathrm{mi} . \mathrm{E}$. of, 430 ft . E. of St. Louis-San Francisco R. R. bridge no. 188.4, $45 \mathrm{f} t$. N. of dim private rd. crossing, 1 ft . W. of gate post, 1 ft . inside of right-of-way fence, in concrete post; standard tablet stamped n3 H 1931"
325.364

Reference mark, at SE. corner of bridge, in E. end of S. guardtimber; driftbolt
Sawyer, along St. Louis-San Francisco R. R., 375 ft . W. of signpost, 50 ft. S. of
dim rd. crossing, in N. side of W. gatepost; spike
Sawyer, 0.5 mj . W. of, along St. LouismSan Francisco
no. 189.3 in F .
Poplar Bluff, 4.3 mi . NE. of, along St. Louis-San Francisco R. R., 70 ft . W. of rd.
orossing, $30 \mathrm{ft} . \mathrm{N}$. of track, in S. side of telephone pole; spike 327.36

Poplar Bluff, 3.6 mi . NE. of, along St. Louis-San Francisco R. R., at NW. corner of bridge no. A-191.3, in W. end of N. guardtimber; driftbolt
334.81

Poplar Bluff, 2.5 mi . NE. of, 240 ft . S. and 45 ft . W. of St. Louis-San Francisco
R. R. at rd. crossing, 45 ft . W: of T-rd. E. near E. edge of levee, in concrete post; standard tablet stamped "4 H 1931"
Reference mark, on top of levee, one pole W. of milesign A-192, on N. side of track, in S. side of telephone pole; spike
Poplar Bluff, 2 mi . NE. of, along St. Louis-San Francisco R. R., at SE. corner of bridge no. A-192.8, in E. end of S. guardtimber; secand driftbolt
Poplar Bluff, 1.3 ml . NE. of, along St. Louis-San Francisco R. R., 50 ft . W. of R. R. at U. S. Highway 60, in S. side of first transmission line pole W. of track; spike
Poplar Bluff, 0.6 mi . NE. of courthouse, on extreme NE. corner of St. Lovis-San Francisco R. R. bridge, in E. end of N. guardtimber; driftbolt
Poplar Bluff, at $S$. entrance to Butler County courthouse, on top of guard of lower step, in limestone block; standard tablet stamped "9 m 1931"

## 4. FROM WAPPAPELLO WEST TO POINT NEAR HENDRICKSON THENCE SOUTHEAST TO POPLAR BLUF'F

Wappapello, $0.6 \mathrm{mi} . S$. of, along rd. to Poplar Bluff, at SE. corner of steel bridge aoross St. Francis River, on top of E. end of S. floor beam; painted squere 356.9
Wappapello, 1 mi . S. of, along rd. to Poplar Bluff, 35 ft . N. and 55 ft . W. of rd. corner, in root of 18-in. black oak tree; copper nail and washer
Wappapelio, 1.7 ml . SW. of, along rd. to Poplar Bluff, 35 ft . S. and 15 ft . E. of T-rd. W., in root of $16-1 n$. white oak tree; copper nail and washer
478.53
T. 26 N., R. 7 E., $S E_{\frac{1}{4}}^{4}$ sec. $10,65 \mathrm{ft}$. S. and 70 ft . W. of rd. corner, in root of 9-1n. black oak tree; copper nail and washer
Little Brushy School, 1 mi . E. and 0.2 ml . N. of, 22 ft . W. of T-rd. E. 3 ft 487.64
fence corner, in ooncrete post; standard tablat stamped $1.5 \mathrm{H} 1931^{\prime \prime}$
Reference mark, 14 ft . W. of tablet, in root of $10-\mathrm{in}$. white oak tree; copper nail and washer
501.47
T. 26 N., R. 7 E., NE $\frac{1}{4}$ sec. $16,400 \mathrm{ft}$. W. of Little Brushy School, 60 ft . W. of T-rd. N., on S. side of rd., in root of 6 -in. white oak tree; copper nail and washer
T. 26 N., R. 7 E., near quarter cor. between secs. 16 and $17,65 \mathrm{ft}$. S. and 50 ft . W. of rd. forks, in root of 10-in. black oak tree; copper nail and washer 534.13
T. 26 N., R. 7 E., seos. 17, 18, 19, and 20, 28 ft . E. of T-rd. W. at cor. of, 3 ft . inside of fence corner, in concrete post; standard tablet stamped "6 H 1931 "
492.637

Reference mark, 11 ft . W. of tablet, in root of l2-in. white onk tree; copper nail and washer
494.03
T. $26 \mathrm{~N} .$, R. 7 E., near quarter cor . between secs. 18 and $19,32 \mathrm{ft}$. S . and $8 \mathrm{ft} . \mathrm{E}$. of rd. corner, in root of 27-in. black oak tree; copper nail and washer 527.74
T. $26 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} .$, near center $\mathrm{W}_{2}^{1} \mathrm{sec} .18$, on S . side of rd., 80 ft . N. of house, near curve in rd., in root of $30-1 \mathrm{n}$. black oak tree; copper nall and washer 527.83
T. 26 N., R. 6 E., at quarter cor. between secs. 13 and $18,36 \mathrm{ft}$. W. of T-rd. E. in root of 6-in. white oak tree; copper nail and washer
Smith Farm, 0.3 mi . N. of, 15 ft . E. of dim rd. forks, in root of 30-in. white
oak tree; oak tree; copper nail and washer
Bluewater School, 2.4 mi . E. of, 64 ft . N. and 20 ft . E. of Trid. W., in root of 26-1n. white oak tree; copper nall and washer
539.04

Bluewater School, 1.4 mi . E. of, 375 ft . E. of house, 18 ft . N. and 15 ft . E. of rd. forks, 25 ft . NE. of culvert, in conorete post; standard tablet atamped n7 H 1931"
394.82

Reference mark, 11 ft . E. of tablet, in root of $16-1 \mathrm{n}$. black oak tree; copper nall and washer
423.301

Bluewater Sohool, 0.8 ml . E. of, 30 ft . N. of dim rd. forks, 30 ft . N. and 22 ft E. of culvert, in root of 14 -in. white oak tree; copper nall and washer 442.08

Bluewater School, 125 ft . E. of SE . corner of, 25 ft . N. of rd., in root of $30-\mathrm{in}$. black oak tree; copper nail and washer
T. 26 N., R. 6 E., at quarter cor. between secs. 15 and $16,25 \mathrm{ft}$. N. and 27 ft . E. of T-rd. N., in ooncrete post; standard tablet stamped "8 H 1931 "
579.678

Reference mark, 53 ft . E. of tablet, in root of 6-in. hickory tree; copper nail and washer
583.73

Bluewater School, l.8 mi. W. of, at bottom of steep hill, in SW. oorner of wooden oulvert; copper nall and washer
493.56

Bluewater School, 2.4 mi . W. of, 15 ft . N. and 65 ft . E. of dim T-rd. N., 25 ft . W. of drain, in root of $10-1 n$. white oak tree; copper nail and washer 447.48

Bluewaver School. 3.2 ml . W. of, st top of hill, on N. side of rd., directly opposite Prame house of Jim moxiy, in root of 10-in. blaok oak tree; copper nail and washer
453.79

Hendrlakson, 2 ml . SE . af, $10 \mathrm{ft} . \mathrm{S}$. and 50 ft . E. of T-rd. N., in root of $10-\mathrm{in}$. hard maple tree; copper nail and washer
366.90

Hendrickeon, 2.5 mi . SE. of, 220 ft . N. of T-rd. E., in top at center of E. guard wall of conorete culvert; chiseled square 3
Hendriokson, 0.8 mi . SE. of, at top of ridge, 20 ft . W. of rd., in root of 8 -in. hickory tree; copper nail and washer
Hendrickson, 180 ft . W. of W. end of Missouri Pacific R. R. depot, 25 ft . E. of rd., 3 ft . SE. of fenoe post at NW. corner of depot yard, in conorete post; standard tablet stamped "2 M 1931"
370.763

Wilby, 1.2 mi . N. of, 175 ft . S. of house on E . side of $\mathrm{rd}$. , in top of abutment, at SW. corner of concrete culvert; chiseled square
Wilby, 650 ft . N. of garage, 105 ft . N. of U. S. Highway 67 at rd. junction, 5 ft W. of fence corner, in concrete post; standard tablet stamped "9 H 1931"

Reference mark, in NW. corner of concrete oulvert at Wilby garage; chiseled

Wilby, 1 mi. SE. of, on top of ridge, 50 ft . N. and 20 ft . E. of T-rd. N., in root of 18-in. white oak tree; oopper nail and washer
Oak Hill Sohool, 0.4 mi . N. of, 15 ft . N. and 20 ft . E. of dim T-ra. E., in root of forked elm tree; copper nail and washer
Oak Hill Sohool, 500 ft . SW. of, 25 ft . W. of rd. forks, in root of 8-in. black oak tree; copper nail and washer

Oak Hill School, 0.5 mi . S. of, at top of ridge, on w. side of rd., in root of 10-in. black oak tree; copper nail and washer
hillard, 1.1 mi . N. of, 300 ft . W. of house, in top of base of S . guardrail to concrete bridge across small stream; chiseled square
Hilliard, 22 ft . E. of J. M. Sliger's grocery store, 42 ft . W. and 30 ft . S. of Missouri Paoific R. R. ot rd. crossing, in concrete post; standard tablet stamped "10 H 1931"
Reference mark, 6 ft . N. and 7 ft . W. of tablet, in root of $26-1 \mathrm{n}$. boxelder tree copper nail and washer
copper nail and washer 3
Hilliard; 0.4 mi . W. of, in SW. corner of anchorplate on top of SW. pier of steel bridge across Black River, bolt head
$\qquad$

Hilliard, 1 mi. S. of, $60 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. of rd. forks, 20 ft . E. of gate, in root of 18-in. hickory tree; copper nall and washer
Marble Hill Sohool, about 1 ml . NW. of, near quarter cor. between secs. 21 and 22, T. 25 N., R. 6 E., at rd. corner, in root of triple elm tree; copper nail and washer
Marble Hill School, 0.2 mi . N. of, near center S 分 sec. 22, T. $25 \mathrm{~N} ., \mathrm{R} .6 \mathrm{E} ., 45 \mathrm{ft}$. E. and 15 ft . N. of T-rd. S., in concrete post; standard tablet stamped "ll H 1931"
Reference mark, $60 \mathrm{ft} . \mathrm{S}$. of tablet, 35 ft . S. and 18 ft . E. of T-rd. S., in root
of 20-ir. Wild cherry tree; copper nail and washer $\quad$ of St sec. $27, \mathrm{~T} .25 \mathrm{~N}$. ,
Poplar Bluff, 0.8 mi . N. of N. city limits of, in center of Se sec. 27, T. 25 N. R. 6 E., $45 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. of T-rd. E., in root of 8 -in. white oak tree; copper nail and washer
395.88

Poplar Bluff, in N. part of city, near center seo. 34, T. 25 N., R.. 6 E., 75 ft . N. and 25 ft . E. of crossroads, 10 ft . SW . of small restaurant, in root of 14-in. black aak tree; copper nail and washer
428.89

Poplar Bluff, at intersection of U. S. Highway 67 with main street, in NW. corner of triangular lot of National Refining Company's filling station, in base of station floodlight pole; chiseled square
5. FROM WEST BORDER OF QUADRANGLE SOUTHEAST ALONG MISSOURI PACIFIC R. R: TO HENDRICKSON THENCE SOUTH AND WEST TO WEST BORDER (by George W. Moore in 1931)
(Continued from Williamsville quadrangle; see line no. 3.)
Keeners, 1 mi . ge. of, along Misgouri Padific R. R., in top of W. corner of conerete base to semaphore signal no. 1502-D; chiseled square
378.40

Keeners, 1.8 mi . SE: of, along Missouri Pacific R. R., 0.7 mi . NW. of Hendrickson, 350 ft. SE. of SE. end of mooden trestle no. 168, in top of E. oorner of concrete base to semaphore signal; chiseled square 374.8
Hendrickson, 180 ft . W. of W. end of Missouri Paolfic R. R. depot, 25 ft . E. of. rd., 3 ft . SE. of Pence post at NW. corner of depot yard, in concrete post; standard tablet stamped "2 M 1931"
370.763

Reference mark, at $W$. edge of rd., 9 ft . N. of N . rail of main track of misaouri Pacific R. R., in top of NE. corner of concrete base of stop signal; chiseled squara
Hendrickson, $0.5 \mathrm{mi} . \mathrm{S}$. of, 50 ft . E. of rd. fork S., in top of SE. end of SE. concrete wing wall of iron bridge over Blaok River; chiseled square
Hendrickson, 1.3 mi . S. of, 25 ft . N. and 30 ft . W. of rd. corner, in root on E . side of l6-in. oak tree; copper nail and washer
Hendriokson, 2.3 mi . S. of, 40 ft . E. of T-rd. E., at N . edge of rd., in root on SW. side of 9-1n. walnut tree; copper nall and washer
Hendrickson, 2.8 mi . S. of, 10 ft. N. and 20 ft . W. of T-rd. E., in root on S . side of 10-in. oak tree; copper nall and washer
Hendrickson, 3.7 mi . S. of, 35 ft . S. and 40 ft . W. of rd. fark W., 12 ft . S. of fence corner, in concrete post; standard tablet stamped "3 M 1931 "
Reference mark, $35 \mathrm{ft} . \mathrm{N}$. and 14 ft . E. of tablet, in triangle of rd. forks, in root on N. side of 24-in. oak tree; copper nall and washer
Hendrickson, 3.7 ml . S. and 0.9 mi . W. of, 750 ft . E. of Harwell's house, 60 ft . N of ra., in $S$. side of lone ll-in. persimmon tree; spike
(Continued in Willamsville quadrangle; see line no. 3.)
6. EAST ALONG SOUTH BORDER OF QUADRANGLE
(Continued from Harviellquadrangle; see line no. 1.)
T. 24 N., R. 5 E., SW公 sec. 1 , directly S. of J. M. Wiell's house, at S. edge of rd., 35 ft . W. of creak, in root on N. side of $14-\mathrm{in}$. elm tree; copper nail and washer
369.10
T. 24 N., R. 6 E., 0.3 mi . N. af T-rd. E. at SW. cor. sec. 6, 26 ft . E. of T-rd. W.,

2 ft . E. of fence, in concrete post; standard tablet stamped i7 M1931" 465.025
Reference mark, 200 ft . S. of tablet, 90 ft . N. and 25 ft . E. of T-rd. E., in root on SE. side of 8-in. hickory tree; copper nail and washer
460.27
T. 24 N. 2 R. 6 E., near center SEt sec. 6, 23 ft. N. and 100 ft . W. of T-rd. N., 77 ft . W. of fenoe corner, in root on E. side of 24-in. oak tree; copper nail and washer
438.74
T. 24 N., R. 6 E., NEt sec. 5,30 ft. gE. of main rd. fork S., in root on $W$. side of 2z-in. oak tree; oopper nail and washer
371.99
T. 24 N., R. 6 E., center of NWi sec. $4,77 \mathrm{ft}$. W. and 28 ft . N. of J. S. Highway 60 at rd. W., 24 Pt . W. of fence corner, in conorete post; standard tablet stamped "8 M 1931"
Reference mark, 75 ft . NE. of tablet, 120 ft . W. and 35 ft . s . of rd. fork W., in ropt on T. side of 28-in: oak tree; copper nail and washer
Poplar Bluff, at T. edge of, on N. side of U. S. Highway 60, in top of W. end of
N. head wail of concrete oulvert; chiseled square 34

Poplar Bluff, at junction of U. S. H1 ghways 60 and 67 , at SW. corner of Ninth and
Maude Streets, in N. edge of sidewalk to W.; ohiseled square
Poplar Bluff, at $S$. entrance to Butler County courthouse, on top of guard of lower

Reference mark, 84 ft . E. of tablet, in SE. corner of courthouse yard in limestone block on top of guard; chiseled square

Black River, center at $N$. side of bridge over, in top of wooden guarorail; oopper nail and washer
343.01

Poplar Bluff, 1.2 .mi. NE. of, 300 ft . NE. of NE, end of St. Louis-San Francisco R. R. wooden trestle, at NW. edge of U. S. Highway 60, in top of NE: end of NW. bead wall of concrete culvert; chiseled square (U.S.C.E. B. M.)

Note. - Elevations for balance of this line have preliminary adjustment.
Tps. 24 and 25 N., Rs. 6 and 7 E., about 0.1 mi. W. of cor. of, along U. S. Highway 60, 712 ft . W. of bridge over Lievee ditch, on floor at corner of S . end of large oulvert; chiseled square
Tps. 24 and $25 \mathrm{~N} ., \mathrm{Rs} .6$ and 7 E ., near cor. of, on U. S. Highway 60 , at top of SW corner of $N$. parapet wall of $W$. abutment of bridge no. G-276 over Levee ditch; chiseled square (U.S.C.E. B. M.)
342.03
T. 24 N., R. 7 E., near N. quarter cor. sec. 6, 20 ft . S. of U. S. Highway 60 , in top at $N$. end of E. head wall of concrete culvert under rd. S.; chiseled square (U. S. C.E. B. M.).
T. 24 N., R. 7 E., secs. 5 and $6,55 \mathrm{ft}$. W. and 37 ft . S. of U. S. Highway 60 at rd. S. at N. cor of, 30 ft . W. and 1 ft . S. of fence corner, 85 ft . W. of gasoline pump, in concrete post; standard tablet stamped "10 M 1931 "
Reference mark, in SE. angle of T-rd. S., in top of NW. corner of concrete foundation for gasoline pump; chiseled square
329.54
T. 24 N., R. 7 E., in NE $\frac{1}{4}$ sec. $5,840 \mathrm{ft}$. W. of T-rd. N., in top of E. end of S . head wall of concrete culvert under U. S. Highway 60 ; chiseled square (U. S. C. E. B. M.)
T. 24 N., R. 7 E., NE. cor. sec. $5,390 \mathrm{ft}$. E. of T-rd. N., in top of N. end of W. head wall of concrete culvert under T-rd. S.; chiseled square Highway 60 from W. to NE., 75 ft . W. of concrete culvert, 6 ft . S. of pavement; iron post stamped "U SED P BM 1 HO 6"
322.895
T. 25 N., R. 7 E., 0.2 ml . N. of S. cor. secs. 33 and 34 , in SE. oorner of N. parapet wall of E. abutment of U. S. Highway 60 bridge no. G-277 over ditch no. 1 ; ohiseled square
Junland Sohool, near quarter cor, between secs. 34 and 35, T. 25 N., R. 7 E., 18133.32 SW . of SW . corner of school, 37 ft . N. and 50 ft . E. of crossroads, in concrete post; standard tablet stamped n11 M 1931 n
Reference mark, about 200 ft . E. of Junland flagstop; 0.2 mi. W. of crossroads, in NE. corner of S . parapet wall of E. abutment of U. S. Highway 60 bridge no. G-278 over ditch no. 10; chiseled square (U. S.C.E. B. M.)
T. $25 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} .$, in S. part of NEt sec. $35,70 \mathrm{ft}$. N. and 55 ft . E. of T-rd. S. to Barron flagstop, in root on N. side of 14-in. oak tree; copper nail and washer
328.08
mi. N. of quarter cor. between secs. 35 and 36 , in top of S. parapet wall of E. abutment of U. S. Highway bridge no. G-279 over ditch no. 12; chiseled square (U. S. C. E. B. Ma)
324.90
(Continued in Ruxico quadrangle; see line no. 5.)

## 7. FROM EAST BORDER OF QUADRANGLE SOUTHWEST TO WAPPAPELLO <br> (Continued from Puxioo quadrangle; see line no. 3.)

Union School, 0.9 mi . S. of, 25 ft . S. of ford over small creek, 35 ft . E. of rd. forks, at E. edge of rd., in root on E. side of 28-in. maple tree; copper nail and washer
383.69

Wappapello, 1.8 mi . N. of, 1.8 mi . S. of Union School; 17 ft . SW. of farm rd. W., at sharp turn in rd. from NE. to S., in root on NE. side of 6-in. hickory tree; oopper nail and washer
354.77

Wappapello, 0.9 mi . NE. of, 10 ft . N. and 10 ft . E. of turn in rd. frome. to S., 7 ft . S. of fence, in root on SE. side of l7-in. wild cherry tree; copper nail and washer

346.08

## 8. FROM CHAONIA NORTH TO NORTH BORDER OF QUADRANGLE

Chaonia, $0.4 \mathrm{mi} . S$. of, 60 ft . S. of SE . edge of wooden bridge over St. Francis River, in root on NW. side of 21-in, sycamore tree with water gage attached; copper nail and washer (U. S. C. E. B. M.)
Chaonia, W. of, across St. Francis River, 50 ft . S . of wooden bridge over creek, at E, edge of rd., in fence corner, in roct on NW. side of 26-1n. black oak tree; copper nail and washer
 in root on SE. side of 22-in. elm tree; copper nail and washer
(Continued in Greenville quadrangle; see line no. 2.)
9. IN NORTHWEST CORNER OF QEADRANGLE
(Gontinued from Greenville quadrangle; see line no. 7.)
Taskee Station, 0.5 mi . N. of, 175 ft . N. and 35 ft . E. of rd. forks, in root on NW. side of $22-1 n$. sycamore tree; copper nail and washer

For an additional level ine along St. Louis-San Francisco R. R., in southeast quarter of quadrangle, refer to United States Coast and Geodetic Survey.first-order line, Cape Girardeau, Mo. to Hoxie, Ark. For additional lines along St. Louis-San Francisco R. R. in north part, missouri Pacific R. R. in southeast corner, and U. S. Highway 67 in northwest corner of quadrangle, refer to United states coast and Geodetic Survey seoond-order lines; Mingo to Hinter, sikeston to Poplar Bluff, and Elvins to Taskee.
(Latituae $36^{\circ} 30^{\prime}-36^{\circ} 45^{\prime}$; longitude $90^{\circ} 15^{\prime}-90^{\circ} 30^{\prime}$ )


1. IN NORTHWEST CORNER OF QUADRANGLE (by George W. Moore in 1931) (Continued from Acorn quadrangle; see line no. 2.)
T. 24 N., R. 5 E., near center sec. $11,60 \mathrm{ft}$. E. of N.-S. fence, 20 ft . N. of reet in root on SW. side of.20-in. oak tree; copper nail and washer 338.03
(Continued in Poplar Bluff quadrangle; see line no. 6.)
2. IN NORTHWEST CORNER OF QUADRANGLE (by B. D. Hargha in 1934) (Continued from Acorn quadrangle; see line no. 3.)

Lone Hill, 0.5 mi . E. and 2.8 mi . NE. of, $26 \mathrm{ft} . \mathrm{N}$. and 22 ft . E. of E. end of steel girder span bridge over Cane Creek, , $26 \mathrm{ft.N}$. and $20 \mathrm{ft.W}$. of T-rd. N., in root on $W$. gide of l2-in. elm tree; copper nail and washer
Poplar Bluff, 7.2 mf . SW. of, on County Route $\mathrm{M}, 35 \mathrm{ft}$. N. and 15 ft . W. of highway at rd. S. to Lone Hill, in root on E. side of 12-in. oak tree; copper nail and washer
Poplar Bluff, 6.3 mi . SW. of, on County Route $M, 0.2 \mathrm{mi}$. E. of Twin Springs School, 15 ft . S. of rd., in root on E. side of $30-\mathrm{in}$. oak tree; oopper nail and washer
Poplar Bluff, 5.4 mi . SW. of, on County Route M , 21 ft . S. and 40 ft . E. of crossroads, in top of W. end of $S$. concrete head wall of double concrete box culvert; chiseled square

37.2 .92

For an addtional level line along St. Louis-San Francisco R. R., refer to United States Coast and Geodetic Survey first-order line, Cape Girardeau, Mo. to Hoxie, Ark.

> ACORN QUADRANGLE (Latitude $36^{\circ} 30^{\prime}-36^{\circ} 45^{\prime} ;$ longitude $90^{\circ} 30^{\prime}-90^{\circ} 45^{\prime}$ ) Butler and Ripley Counties


1. FROM NAYLOR WESI' ALONG MISSOURI PACIFIC R. R. TO WEST BORDER OF QUAJRANGLE (second-order line by H. P. Jones in 1933-34)

Feet
U.S.C. \& G.S. B.M. designated "V 14 1932"
304.146

Naylor, 0.9 mi . W. of, along M1ssouri Pacific R.R.. in NW. corner of wooden trestle no. 1092; copper nail and washer
301.06

Naylor, 1.4 mi . W. of, along Missouri Pacific R.R., in NE. corner of bridge no. 1093 over Little Black River; copper nail and washer 305.36
Naylor, 2.4 ml . W. of, along Missouri Pacific R.R., 2.5 mi , E. of $0 x l y, 67 \mathrm{ft}$. N.
and 41 ft . W. of rdo crossing, in concrete post; standard tablet stamped " 4 J $1934^{11}$
310.777

Oxly, 1.4 mi . F. of, alcng Missouri Pacific R.R., 140 ft . W. of rd. crossing,
In NE. corner of wooden trestle no. 1099; copper nall and washer 360.18
Oxly, 1.1 mi . E: of, along Missouri Pacific R.R., in NE. corner of wooden trestle
no. 1100; copper nail and washer 337.2.2
Oxiy, 45 ft . N. end 9 ft . E. from NE. corner of Missouri Pacific R.R. stao, 35 ft . S. and 31 ft . E. from $T$ street N., in top and on SE. corner of concrete well curb; standard tablet stamped " 3 品 1934320 "
Oxly, 1.2 mi . t. of, along Missouri Pacific R.R., 15 ft . S. and 50 ft . E. from rd. crossing, in top of large flint rock; chiseled square 341.68
Pulaski, 2.2 mi . E. of, along Missouri Pacific R.R., 2.2 mi. W. of 0xly, 130 ft . W. of fourth pole $W_{\text {. }}$ of telegraph pole marked " $293 / 10^{n}, 65 \mathrm{ft}$. N. of track,

12 ft . N. of N . right-of-way fence, in root on S. side of 30 -in. black oak, tree; copper nail and washer
Pulaski, 0.9 mi. E. of, along Missouri Pacific R.R., in SW. comer of wooden trestle no. 1114; copper nail
Pulaski, 42 ft . N. and 36 ft . E. from ra, crossing Missouri Pacific R.R., 13 ft . E. of fence corner, in concrete post; standard tablet stamped "2 J 1934 $433^{\prime \prime}$
433.122
(Continued in Doniphan quadrangle; see line no. 1.)
2. SOUTH AND EAST ACROSS NORTHEAST CORNER OF QUADRANGLE (by Goorge W. Moore in 1931) (Continued from Williamsville quadrangle; see line no. 3.)
Bay Springs Church, in yard of, 75 ft . N. and 15 ft . E. of T-rd. N., 50 ft . W. of SW. corner of church, in root on E. side of 22-in. oak tree; copper nail and washer
516.87

Bay Springs Church, 0.9 mi . E. of, on NE. side of rd. at slight curve from Nw. to SE., in top of NW. end of NE. head wall of concrete culvert; chiseled square 401.33
T. $24 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} .$, in SE $\frac{1}{4} \mathrm{sec} .10$, 220 ft . N. of rd. forks, 28 ft . NW. of bend in rd. from E. to S., on E. bank of Cane Creek, opposite ford, in concrete post; standard tablet stamped "6 M 1931"
Reference mark, 142 ft . E. of tablet, on N . side of rd., in root on SE. side of 20-in. maple tree; copper nall and washer
323.06
(Continued in Harviell quadrangle; see line no. 1.)
3. EAST ALONG STATE HIGHWAY 14 (FORMERLY HIGHWAY 42) IN NORTH PART OF QUADRANGLE, THENCE NORTHEAST TO EAST BORDER (by B. D. Harsha in 1934)
(Continued from Doniphan quadrangle; see line no. 6.)
Doniphan, $5 \mathrm{mi} . \mathrm{E}$. of, along State Highway $14,30 \mathrm{ft}$. S. and 24 ft . W. of highway at rd. S., $2 \mathrm{ft} . \mathrm{S}$. and 8 ft . W. of fence corner, in concrete post; standard tablet'stamped "T T 62 B 193i"
476.561

Reference mark, 5 ft . N. and 35 ft . E. of tablet, in root on NW. side of $30-\mathrm{in}$. oak tree; copper nail and washer
475.12

Doniphan, 5.2 mi . E. of, along State Highway l4, top of second rivet head in outside course of rivets at $N$. end of $W$. span of steel girder bridge no. G-286 over creek; painted square
433.64

Doniphan, 6.2 mi . E. of, along State Highway $14,12 \mathrm{ft}$. S. and 84 ft . W. of NW. corner of Bill Penrod's filling station, 30 ft . S. of highway, in root on $S$. gide of 12-in. oak tree; copper nail and washer
542.92.

Doniphan, 7.1 mi. E. of, along State Highway $14,150 \mathrm{ft}$. E. of junction of trail N., 20 ft . N. and 42 ft . E. of highway at fence lines, in root on SW. side of $14-1 \mathrm{in}$. oak tree; copper nail and washer
542.30

Flatwoods, 1 mi . S. and 0.2 mi . W. of post office, 28 ft . S. and 31 ft . E. of State Highway 14 at cross rd., 14 ft . E . and 2 ft . N . of fence corner, in concrete post; standard tablet stamped "T T 63 B 1931"
513.450

Reference mark, 60 ft . N. and 55 ft . E. of tablet, in root on SE. side of 14-in. oak tree; copper nail and washer
Fairdealing, 3.9 mi . W. of, along State Highway 14, in S . end of E , ooncrete abutment of steel girder bridge no. 287 over Cypress Creek; chiseled square 445.17
Fairdealing, 3.8 mi . W. of, along State Highway 14 , at Ozark Store, 65 ft . S. and 50 ft. W. of highway at cross rd., in root on NW. side of 12-1n. oak tree; copper nail and washer

503:98
Fairdealing, 1.8 .mi. W. of, along State Highway $14,34 \mathrm{ft}$. S. and 32 ft . E. of highway at cross rd., 12 ft . E. and 2 ft . N. of fence corner, in concrete post; standard tablet stamped "T T 64 B 1931"
482.442.

Reference mark, 20 ft . N. and 20 ft . W. of tablet, in top of w. end of concrete head wall; chiseled square
483.62

Fairdealing, 0.7 mi . W. of, elong State Highway $14,36 \mathrm{ft}$. S. and 7 ft . W. of highway at rd. N., in root on NE. side of li-in. hiokory tree; copper nail and washer
Fairdealing, 0.4 mi . W. of, along State Highway 14, in top of NE. corner of N. head wall of concrete culvert; painted square 437.45

Fairdealing, 18 ft . S. and 70 ft . W. of State Highway 14 at crossing of Old Military Road, in root on N. side of 20-in. oak tree; copper nail and washer 463.08
Fairdealing, at E. limits of, 32 ft . S. and 14 ft . W. of State Highvay 14 at cross rd. S. to Naylor, in root on NW. side of 24 -in. oak tree; copper nail and washer 449.33

Fairdealing, 0.9 mi . E. of, along State Kighway 14, in top of E. end of N. head wall of concrete culvert; painted square
441.71

Fairdealing, 1.5 mi . E. of, along State Highway 14 , about $400 \mathrm{ft} . *$ E. of Stroud's general store, 27 ft . S. and 25 ft . W. of highray at Butier-Ripley county line, 4 ft . W. and 2 ft . N. of fence corner, in concrete post; standard tablet stamped "T T 65 B 1931"

Reference mark, $35 \mathrm{ft} . \mathrm{S}$. and 105 ft . E. of tablet, in root on NW. side of 10-in. oak tree; copper nail and washer 434.16

Fairdealing, 2.5 mi . E. of, along State Highway 14, in top of S . end of E. abutment of steal girder bridge no. J-148 over Little Black River; chiseled square 325.18
Fairdealing, 3.6 mi . E. of, elong State Highway $14,24 \mathrm{ft}$. S. and 67 ft . W. of highway at rd. N., in root on E. side of 24-1n. oak tree; copper nail and washer 411.65
Fairdealing, 4.6 ml . E. of, along state Hi ghway 14 ; 1 mi . W. of junction of U . S.
Highway $67,30 \mathrm{ft}$. S. and 31 ft . W. of highway at oross rd., 10 ft . W. and 2 ft .
N. of fence corner, in concrete post; standard tablet stamped "T T 66 B 1931" 379.801

Reference mark, 6 ft . S. and 21 ft . W. of tablet, in root on Ne. alde of 30-in. oak tree; copper nail and washer
Lone Hill, 1.5 ml . S. of, along County Raute $\mathrm{F}, 150 \mathrm{ft}$. S. and 20 ft . E. of highway at cross rd., in root on W. side of $20-1 \mathrm{n}$. oak tree; copper nail and washer 407.87
Lone Hill, $0.5 \mathrm{mi} . \mathrm{S}$. of, along County Route $\mathrm{F}, 11 . \mathrm{ft}$. N. and 15 ft . W. of highway at cross rd., in top at center of $N$. head wall of concrete culvert; iron pin 427.67
Lone Hill, 13 ft . S. and 55 ft . E. of crossroads, in root on N . aide or $40-\mathrm{in}$. oak tree; copper nail and washer
455.2.7

Lone Hill, 0.5 mi . E. of, 33 ft . N. and 25 ft . E. of T-rd. N., in concrete post; standard tablet stamped "I K 1934"
450.067

Lone Hill; 0.5 mi . E. and 0.1 mi . N. of, 21 ft. E. of rd., 18 ft . N. and 5 ft . W. of fence corner, in concrete post; standard U. S. C. \& G. S. reference mark tablet stamped "Berry 1930 No. $1^{\text {ni }}$,
Heference mark, 200 ft . N. of tablet, 15 ft . E. of rd. corner, in root on W. alde of $36-1 n$. oak tree; copper nail and washer
465.907

Whe Hill, 0.5 mi . E. and 0.9 mi . NE of, near R. Cox's residence, 7 rit. $\mathrm{Se}_{\mathrm{o}}$ of
rd., in root on N. side of 30-in. oak tree; copper nail and washer 415.49
468.16

Lone Hill, 0.5 mi . E. and 1.9 mi . NE. of, 18 ft . N. and 10 ft . W.. of turn in rd. from N. to E., at abrupt drop, in root on E. side of 30-1n. oak tree; copper nail and washer
385.45
(Cantinued in Harviell quadrangle; see line no. 2.)
4. IN NORTHWEST CORNER OF QUADRANGLE (by B. D. Harsha in 1934) (Continued from Doniphan quadrangle; see line no. 5.)
T. 24 N., R. 3 E., near cor. secs. $9,10,15$, and $16,40 \mathrm{ft}$. N. of rd., in root on SE. side of $10-1 n$. oak tree; copper nail and washer
432.18
T. 24 N., R. 3 E., near quarter cor. between secs. 9 and 10 , at ford acrose Little Black River, on N. bank of river, 50 ft . E. of croseroads, in root on W. side of 10-1n. elm tree; copper nail and washer
406.2 .7
5. WEST ALONG CENTRAL PART OF NORTH BORDER OF GUADRANGLE (by M. G. Handly in 1934)
(Continued from williambille quadrangle; see line no. 6.)
Oak Stalk Store, 3 mi . W. of E . of Butler-Ripley county line, 0.3 mi. S. of Beaver Dam Creek, 50 ft . W. of T-rd. N., 400 ft . NF. of house, in root on S. side of 36-in. oak tree; copper nall and washer
Oak Stalk Store, 3.9 mi . W. of, in sec. 9, T. $24 \mathrm{~N} ., \mathrm{R} .4 \mathrm{E} ., 15 \mathrm{ft}$. S. of rd.s. in root on $N$. side of $12-i n$. oak tree; copper nail and washer
541.86

Oak Stalk Store, 4.8 mi . W. of, near N. edge of sec. $17, \mathrm{~T} .24 \mathrm{~N} ., \mathrm{R} .4 \mathrm{E} ., 500 \mathrm{Pt}$
N. of dim crossroads, 10 ft . N. of rd., in concrete post; standard tablet

Reference mark, 25 f.t. E. of tablet, 25 ft . $N$. of rd., in root on S . side of 30-1n. oak tree; copper nail and washer
563.12

Oak Stalk Store, 5.8 mi . W. of, 20 ft . S . of rd., in root on N . side of 15 in . oak tree; copper nail and washer
Oak Stalk Store, 6.8 mi . SW. of, 250 ft . E. of drain head, $25 \mathrm{ft} . \mathrm{N} . \mathrm{of} \mathrm{rd.}$, root on W. side of 36-in. oak tree; copper nail and washer
598.95
(Continued in Williamspille quadrangle; see line no. 6.)
6. IN SOUTHWEST CORNER OF QUADRANGLE (by B. A. Barnes in 1935)
(Continued from Doniphan quadrangle; see line no. 9.)
T. 22 N., R. 3 E., in SWhet sec. 34, 14 ft. E. of rd., in root on W. side of 20-1n. gum tree; copper nail and washer
310.10

T-rd. S., 115 ft . N. of, in root on SE. side of l2-in. elm tree; crossed nails 332.50
T. 22 N., R. 3 E., near cor. secs. $26,27,34$, and $35,15 \mathrm{ft}$. N. and 20 ft . W. of crossroads, in root on S. side of 22-in. hlack oak, tree; copper nail and washer
298.40
T. 22 N., R. 3 E., near cor. secs. $25,26,35$, and $36,25 \mathrm{ft}$. E. and 5 ft . S. of turn in rd. from W. to S. , in root on $W$. side of $20-1 \mathrm{n}$. white oak tree; copper nail and washer
291.58

Telephone pole, 30 ft . N. of rd., 30 ft . W. of main line of st. Louis-San Francisoo R. R. at Sinsabaugh (Acorn post office)
291.8
U. S.C. \& G. S. B. M. designated MZ 14 1932" 289.468

## 7. FROM PULASKI SOUTH AND WEST INTO DONIPHAN QUADRANGLE

Pulaski, $0.4 \mathrm{mi} . \mathrm{g}$. of, $27 \mathrm{ft} . \mathrm{N}$. and 21 ft . W. of T-rd. W. at quarter cor. between secs. 28 and $33, T_{0} 23$ N., $R_{0} .3$ E., in corner of fences $N$. and $W_{.}$, in concrete post; standard tablet stamped "T T 1624 E R A 1935"
Top of ridge, 90 ft . N. and 60 ft . W. of junction of dim rd. E., in root on SE. side of $10-i n$. white oak tree; crosaed nalls
432.769
507.7
T. 23 N., R. 3 E., S. quarter cor. sec. $33,70 \mathrm{ft}$. S. and 45 ft . W. of County Route
$B$ at rd. N., in root on N. side of 32-in. black oak tree; copper nail and
washer
476.70
(Continued in Doniphan quadrangle; see line no.. 10.)

For additional level lines along St. Louis-San Francisco R. R. and Missouri Pacific R. R., refer to United States Coast and Geodetic Survey first-order line', Cape Girardeau, Mo. to Hoxie, Ark., and second-order line, Lilbourn to Naylor.

WILLIAMSVILLE QUADRANGLE
(Latitude $36^{\circ} 45^{\prime}-377^{\circ}$; longitude $90^{\circ} 30^{\prime}-90^{\circ} 45^{\prime}$ )
Butler, Carter, Ripley, and Wayne Caunties


1. EAST ALONG ST. IOUIS-SAN FRANCISCO R. R. (by E. C. Eibbee in 1914)
(Continued from Grandin quadrangle; see line no. 2.) Feet

Ellsinore, $120 \mathrm{ft} . \mathrm{S}$. and 75 ft . E. of St. Louis-San Francisco R. R. station, 20 ft . N. of rd., 30 ft . E. of N.-S. rd.; iron post stamped "Prim Trav Sta No 25 F 1924 Mo 710" $\qquad$
Ellsinore, 1.1 mi . E. of, along Sk. Louis-San Francisco R. R., in base of milepost

Ellsinare, 2.2 mi . E. of, along St, Lauis-San Francisco R. R., $4 \frac{2}{2}$ telegraph poles
E. of milepost $\mathrm{B}-214,5 \mathrm{ft}$. S. of track, in ledge of rock; chiseled square 807.53
Orchard Switch, 0.4 mi . W. of, along St. Louis-San Francisoo R. R., at switch, 70 ft . N. of track, in top of oak stump; copper nail
orohard Switch, 200 ft . E. of signboard, 100 ft . S. of St. Louis-San Francisco R. R. at E. end of siding, at NE. corner of W. N. Potter ${ }^{2}$ s yard; iron post stamped "Prim Trav Sta No $24 \mathrm{~F} 1924767{ }^{\circ}$
767.977

Carter-Fiayne oounty line
761.

Orchard Switch, 0.5 mi . E. of, along St. Louis-San Francisco R. R., 50 ft . W. of milepost $\mathrm{B}-212,20 \mathrm{ft}$. N. of track, 25 ft . S. of rd., in large granite rock; chiseled square 755.31
Upalika, 2.2 mi . W. of, along St. Louis-Sen Franoisco R. R., in base of milepost B-211; spike
Upalika, 1.3 mi . W. of, along St. Louis-San Francisco R. R., 70 ft . W. of milepost
B-210, $20 \mathrm{ft} . \mathrm{S}$. of track, on sandstone rack; highest point 742.18
Upalika, 0.4 mi . W. of, along St. Louis-San Francisco R. R., opposite second telegraph pole W. of milepost B-209, in cut, 5 ft . S. of track, in ledge; chiseled square
734.23

Upalika, acrass from past office, 80 ft . S. of St. Louis-San Francisco R. R., 25 ft . W. of rd., $2 \mathrm{ft} . \mathrm{E}$. of fence; iron post stamped nprim Trav.Sta No 23 F 1924 Mo 740"
739.861

Upalika, 1 mi.. E. of, along St. Louis-San Francisco R. R., opposite tenth telegraph pole E. of milepost $\mathrm{B}-208,5 \mathrm{ft}$. N. of track, in ledge; chiseled square 668
Upalika, 1.9 mi . E. of, along St. Louis-San Francisco R. R., seven telegraph poles E. of milepost B-207, 60 ft . N. of track, 5 ft . W. of rd., in root of blaok oak tree; copper naí
605.37

Doyle switch, 30 ft . W. of milepost B-206, at E. end of frog; highest point 541.25
Willemsiille, 3 mi . W. of, alang St. Louis-San Francisco R. R., 950 ft . W. of milepost $205,160 \mathrm{ft}$. E. of R. R. at rd. crossing, 60 ft . S. of track; iron post stamped ${ }^{n}$ Prim Trav Sta No 22 F 1924 Mo $467{ }^{\circ}$
467.466

Williamsifile, 1.7 mi . W. of, along St. Louis-San Francisco R. R., in W. head of S. end of treatle no. B-204; copper nail

Williamsville, 0.7 mi . W. of, along St. Lauis-San Francisco R. R., in base of first telegraph pole W. of milepost B-203i apike
Willamsville, 60 ft. SW. of St. Lauis-San Francisco and Missouri Pacific R. F. crossing, in NE. corner of hatel yard; iran post stamped "Prim Trav Sta No 21 F 1924 Mo 392
391.846

Milliamsville, at St. Lauis-San Francisco and Missouri Pacific R. R. crossing; top of rail
Williamsville, in front of St. Lauis-San Francisco R. R. station; top of rail
Williamsville, 1.1 mi . E. of, along St. Louis-San Francisco R. R., in S. ena of third bent from W. end of trestle no. B-201.3 under second-class crossing; iron pin
415.10

Williamsville, 2.3 mi . E. of, along St. Louis-San Francisco R. R., 340 ft . E. of trestle no. B-200.2, 55 ft . S. of track, near R. R. crossing, on N. side of rd., in large granite rock; chiseled square
526.94
2. FROM WILLIAMSVILIE NORTHWEST ALONG MISSOURI PACIFIC R. R. TO NORTH BORDER OF QUADRANGLE (by F. L. Whaley in 1925)

Williamsville, 60 ft. SW. of St. Louis-San Franciaco and Missouri Pacific R. R. crossing, in NE. corner of hotel yard; iron post stamped "Prim Trav Sta No 21 F 1924 Mo 392"
Reference mark, 121 ft . W. of tablet, in hotel yerd opposite Missouri pacific R. R .
atation, in root of 10-in. maple tree; copper nail and washer
Williamsville, 0.8 mi . W. of, along Missouri Pacific R. R., S. of track, at semaphore no. 1449 in NE. corner of concrete base; chiseled square 395.07
Williamsille, 1.5 mi . NW. of, along Missouri Pacific R. R., near milepost l44, E. of track, 40 ft . NE. of rd. at private rd., at gate, in root of walnut tree; copper nail and washer
399.54

Williamsville, 2.5 mi . NW. of, along Missouri Pacific R. R., 100 ft. N. of rd. crosaing, opposite T-rd. SW., in rock; standard tablet stamped "Prim Trav Sta No 52 F 19241925 W"
Reference mark, 232 ft . S. $60^{\circ}$ E. of tablet, 150 ft . S. of rd. crosing, at NE. corner of concrete culvert, in top of concrete head wall; chiseled square
399.82

Williamsville, 3.3 ml . NW. of, along Missouri Pacific R. R., 10 ft . SE. of semaphore no. 1423, 30 ft . SE. of milepost 142-10, 2 ft . W. of track, in wall in top of large granite rock; chiseled square
Williamsifile, 4.3 mi . NW. of, along Missouri Pacific R. R., on E. side of N . end of trestle bridge no. 148, in top of first bent; copper nail and washer 407.08
(Continued in Pledmont quadrangle; see line nc. 1.)
3. FROM WILLIAMSVILLE SOUTHEAST AND SOUTH ALONG EAST BORDER OF QUADRANGLE (by George W. Moore in 1931)

Williamsville, 0.9 mi . SE. of, along misaburi Pacific R. R., on S . side of track, in top of E. end of concrete culvert; chiseled square
Williamsville, 1.8 mi . SE. of, along Misoouri Pacific R. R., in top of W. end of S. head wall of concrete culvert; chiseled square
382.06

Williamsille, $3 \mathrm{mi} . \mathrm{SE}$. of, along Missouri Pacific R. R., 1.5 mi . NW. of Keener, in top of $E$. end of cross brace at $N$. pier of wooden trestle no. 164 ; copper nail and washer

383.11

Williamsville, 4 mi . SE. of, along Missouri Pacific R. R., 0.4 mi . NW. of Keener, 32 ft . E. of post on Butler-Wayne county line, 50 ft . E. of NE. rail of track, 10 ft . SE. of bank of small creek, 1 ft . W. of fence, in concrete post; atandard tablet staniped "1 M 1931" 378.566
Reference nark, 0.1 mi. SE. of tablet, at semaphore no. 1495, in top of E. corner of concrete base; chiseled square
Keener, 270 it. W. of Missouri Pacific R. R. at rd. crossing, at s. side of track, 2 ft . above ground, in top of 8-in. square, concrete milepost with copperplate stamped "hi P 150-7920+00", small copper bolt in chiseled square
380.12
(For balance in Poplar Blupf quadrangle, see line no. 5.)
Hendrickson, 3.7 mi . S. and 1.7 mi . W. of, 60 ft . SW. of rd. forkg, 40 ft . W. of Philip Martin's house, in root on $N$. side of l4-in. oak tree; copper nail and washer
530.86

Hendrickson, 3.7 mi . S. and 2.7 mi . W. of, 1 mi . W. of Philip Martin's house, at NW. edge of rd., in root. on E. aide of iz-ín. hickory tree; copper nail and washer
572.85

Cane Creek School, about 2 mi . N. of, 1.5 mi . W. of Philip Martin's house, on W. end of plat timbered ridge, 4 meters ( 13 ft. ) SW. of Ridge rd., 7.8 meters ( 26 ft. ) SE. of $16-i n$. oak tree, 7.6 meters ( 25 ft .) W. of 12 -in. oak tree, in top of square, concrete block; U.S.C.\& G. S. triangulation station tablet stamped "Martin"
572.347

Reference mark no. 1, NE. of station, 12 meters ( 39 ft. ) E. of ridge rd., in concrete post; standard U. S. C. \& G. S. reference mark tablet
567.465

Reference mark no. 2, S.-SE. of station, 16 meters ( 52 ft. ) E. of Ridge rd., in concrete post; standard U. S. C. \& G. S. reference mark tablet
566.850

Cane Creek School, 2 mi . N. of, opposite rd. NE. to Martin triangulation station, 125 ft. SE. of ford across creek, l2 ft. NW. of Burton's mall box, at NE. edge of rd., in ruot on NE. side of $12-i n$. ash tree; copper nail and washer
400.95

Cane Creek School, about 1 mi . N. of, 205 ft . S. of gate at entrance to Carl Kearbey's yard, 280 ft . N. of curve in rd. from N. to SW., 20 it. E. of rd., opposite large barn, in root on SW. side of 18-1n. oak tree; copper nail and washer
390.90

Oane Creek School, 75 ft . E. and 35 ft . N. of rd. at T-rd. E., 20 ft . S. of schoolhouse, in root on NW. side of 20-in. elm tree; copper nail and washer
Cane Creek School, 0.8 mi . S. of, 100 ft . E. oi NE. corner of old Methodist Church,
in top of NE. corner of NW. head wall of coricrete culvert; chiseled aquare
380.97
poplar Bluff, 8.5 mi . NW. of, slong U. S. Highway 60 , in top of SW. end of SE. concrete abutment of bridge over Cane Creek; standard tablet stamped "4 M 1931" 362.405
Reference mark no. l, 111 ft . NW. of tablet, in top of NE. end of NW. concrete abutment of bridge over Cane Creek; chiseled square
362.21

Reference mark no. 2, 15 in . NE. of tablet, in concrete curbing of bridge; chiseled crose
Cane Creek School, 2.6 mi . s. of, 135 ft . S. of rd. fork NE. at top of hill, at W. edge of rd., in root on E. side of 12-in. oak tree; copper nail and washer 514.90
Cane. Creek School, $3.5 \mathrm{mi} . \mathrm{S}$. of, 2.9 mi . N. of Bay Springs Church, 60 ft. W. of curve in rd. from NE. to S., in root on E. side of $18-1 n$. oak tree; copper nail and washer
385.17

Bay Springs Church, 2 mi . N. of, 0.3 mi . E. of bridge over Cane Creek, 55 ft . W. of mail boxes in triangle at rd. fork N., inside of fence at $N$. edge of rd., in concrete post; standard tablet stamped "5 M 1931"
Reference mark, 120 ft . E. op tullet, 65 ft . E. of mall boxes, 20 ft . N. of rd.
in root on N. side of $20-i n$. white dak tree; copper nail and washer
339.583
in root on N. slde of Ca . in. white oak tree; copper naid and was

Bay Springs Church, 1 mi . N. of, 0.2 mi . S. of ford across creek, at curve in rd. fron NE. to SE., 20 ft . E. of rd., in root on NW. side of 27-ir. oak tree; copper nail and washer
Bay Springs Ciuroh, 0.6 mi . N. of, 30 ft . NE. of rd. fork NE., at SE. edge of rd., in root on SE. side of $8-i n$. oak tree; copper nail and washer
(Continued in Acorn quadrangle; see line no. 2.)
4. FROM NEAR SOUTHEAST CORNER OF QUADRANGLE NORTHWEST ALONG U. S. HIGHWAY 60 TO ELLSINORE (by B. D. Harsha in 1934)

Poplar Bluff, 9.1 mi . NW. of, along U. S. Highway $60,29 \mathrm{ft}$. N. and 27 ft . W. of T-rd. N., in root on S. side of 18-in. oak tree; copper nail and washer 490.4
Poplar Bluff, 9.6 mi . NW. of, along U. S. Highway 60, in front of filling station at Pine Ridge Camp, 21 ft . S. end 30 ft . W. of T-rd. W., in top at N . end of concrete foundation of pump; chiseled square
oplar Bluff, 10.5 mi . NW. of, along
Highway 60, about $1,000 \mathrm{ft}$. SE, of I. M once
eference mark, $35 \mathrm{ft} . \mathrm{S}$. and 35 ft . W. of tablet, in root on N . side of 14 in . oak tree; copper nail and wesher
Poplar Bluff, 11.5 mi . NW. of, along U. S. Highway $60,18 \mathrm{ft}$. S. and 27 ft . W. of
rd. NE., in root on NE. side of $12-i n$. oak tree; copper nail and washer 574.49
Ellsinore, 16.1 mi . SE. of, along U. S. Highway 60 , 12.6 mi . NW. of Poplar Bluff, 34 ft. S. and 22 ft . W. of highway at rd. S., in concrete post; standard tablet stamped "T T 17 B 1932558 "
556.843

Reference mark, 7 ft . S. and 73 ft . W. of tablet, in root on NW. side of $10-\mathrm{in}$. pine tree; copper nail and washer
Ellsinore, 14.8 mi . SE. of, along U. S. Highway $60,350 \mathrm{ft}$. S. of T-rd. N., in top of $S$. end of concrete head wall of culvert; chiseled square
595.28

Ellsinore, 13.2 mi . SE. of, along U. S. Highway $60,200 \mathrm{ft}$. W. of M. A. Eudaley's stare, in top of $E$. end of concrete head mall of culvert; chiseled square
Ellsinore, 12.7 mi . SE. of, along U.S. Highway $60,30 \mathrm{ft}$. SW. of highway, 50 ft . N. and 70 ft . W. of NW. corner of Scott's filling station, in concrete post; standard tablet stamped "T T 16 B 1932 623"
Reference mark, $27 \mathrm{ft} . \mathrm{S}$, end 18 ft . W. of tablet, in root on NE. side of $30-\mathrm{in}$. oak tree; copper nail and washer
Ellsinore, 11.6 mi . SE. of, along U . S. Highway 60 , 35 ft . W. of highway at curve, in root on E. side of 30-in. oak tree; copper nail and washer 667.92
Ellsinore, 10 mi . SE. of, along U. S. Highway 60, 0.1 mi . N. of T-rd. W., in top a S. end of W. concrete head wall of clay drain pipe; chiseled square

Ellsinore, 9.6 mi . SE. of, along U. S. Highway $60,40 \mathrm{ft}$. N. and 20 ft . E. of highway at junction of dim rd. N., 25 ft . N. and 70 ft . W. of NW. corner of A. B. Shortis house, in concrete post; standard tablet stamped "T T 15 B 1932723 " 72.094
Ellsinore, 8.8 mi . SE. of, along U. S. Highway 60, in top of S . end of E. heaa viall of clay drain pipe; chiseled square
671.18

Ellsinore, 7.5 mi . SE. of, along $U$. S. Highway $60,30 \mathrm{ft}$. N. and 70 ft . W. of highway at Butler-Carter county line, in root on $S$. side of 12-in. hickory tree; copper nall and washer
725.88

Ellsinore, 6.8 ml . SE. of, along U. S. Highway $60,28 \mathrm{ft}$. N. and 43 ft . E. of highway at junction of $E$. fork of County Route $B$, in concrete post; standard tablet stamped "T T 72 B 1931 750"
Reference mark, 15 ft . N. and 15 ft . E. of tablet, in root on S . side of 24-in. oak tree; copper nail and washer
Ellsinore, 5.7 mi . SE. of, along U. S. Highway $60,25 \mathrm{ft}$. E. of highway at fences N . and $\mathrm{S} .$, in top of E . end of N . head wall of concrete culvert; chiseled square
Ellsinore, 5.4 mi . SE. of, along U. S. Highway $60,30 \mathrm{ft}$. N. and 10 ft . E. of rd. NE., in root on W. side of $16-1 n$. oak tree; copper nail
Ellsinore, 4.8 mi . SE. of, along $U$. S. Highway 60 , about 0.2 mi . NW. of Poverty RidgeOzark Handicraft Shop, 33 ft . N. of highway, in root on SW. side of $12-\mathrm{in}$. oak tree; copper nail and washer
Ellsinore, 3.4 mi . SE. of, along U. S. Highway $60,27 \mathrm{ft}$. S. and 29 ft . E. of highway at rd. S., $5 \mathrm{ft} . \mathrm{N}$. and 17 ft . E. of fence corner, in concrete post; standard tablet stamped "T T 73 B 1931 "
Reforence mark, 160 ft . W. of tablet, in root on $N$. side of $12-i n$. oak tree; copper nail and washer
771.201
777.51
in top of $S$. end of $E$. head wall of concrete culvert; chiseled square at rd. W. ${ }^{2} 10.51$
Ellsinore, 1 mi . SE. of, along U. S. Highway 60 , in top of $E$. ond of $N$. head wall of concrete culvert; chiseled square

## 5. FROM POINT NEAR CENTER OF WEST HALF OF QUADRANGLE SOUTHWEST TO SOUTHWEST CORNER

Thompson Chapel, 5 mi . NE. of, along County Route B, 1.2 mi . S. of U. S. Highway 60 , at highest point of rd., 40 f.t. W. of rd. at sharp curve io SW., in root on $E$. side of $30-i n$. oak tree; copper nail and washer
765.74

Thompson Chapel, 4.4 mi . NE. of, elong County Route B, 1.9 mi . SW. of U. S. Highway 60, 21 ft . N. and 43 ft . W. of rd. W., in root on E. side of $10-\mathrm{in}$. oak tree; notch
Thompson Chapel, 4.1 mi . NE. of, along County Route B, about 2.2 mi . SW. of U. S. Highway 60 , on top of $S W$. corner of $W$. head wall of concrete culvert; painted square
Thompson Chapel, 3.1 mi . NE. of, along County Route B, 3.1 mi . SW. of U. S. Highway $60,33 \mathrm{ft} . \mathrm{S}$. of rd. at crest, in root on N . side of 12-in. hickory tree; copper nail
Thompson Chapel, 2.8 mi . NE. of, along County Route B, 3.4 mi . SW. of U. S. Highway
60 , $66 \mathrm{ft} . \mathrm{S}$. and 15 ft . E. of county rd. at rd. SW. to Florence Japlin's mail
box; in root on N. side of l4-in. oak tree; copper nail and washer
705.42

Thompson Chapel, 1.3 mi . NE. of, in NEt seo. $10, \mathrm{~T} .25 \mathrm{~N} ., \mathrm{R} .3 \mathrm{E} ., 93 \mathrm{ft}$. S. and 40 ft. W. of County Route B at cross rd., 9 ft . S. and 3 .ft. W. of fence corner, in concrete post; standard tablet stamped "T T 70 B 1931 738".
Reference mark, 42 ft . S. and 27 ft . E. of tablet, in root on E . side of $36-\mathrm{in}$. oak tree; copper nail and washer
739.96

Thompson Chapel, along old Doniphan-Greenville road, 1.4 mi . S. of County Route $B$,
98 ft . W. of SW. corner of chapel, 35 ft . E. of rd., in root on W . side of 12 -in.
oak tree; copper nail and washer
Thompson Chapel, 1.1 mi. S. of, along ald Doniphan-Greenville road, 2.5 mi . S. of
County Route B, 20 ft . N. and 15 ft . W. of crosaroads, in root on SE. side of 20-in. oak tree; copper nail and washer
 22 ft . E. of rd., 4 ft . S. and 3 ft . E. . of NW. corner of schoolyard, in eoncrete post; standerd tablet stamped "T T 69 B 1931"
Reference mark, 7 ft . N. and 43 ft . W. of tablet, in root on E. side of 30-in. oak tree; copper nail and washer
Pine Valley School, 1.1 mi . SW. of, along old Doniphan-Greenville road, 50 ft . N. and 27 ft . W. of rd. at dim trail SW., in root on SE. side of l2-in. oak tree; copper nail and washer $\qquad$
Pine Valley.School, 2.1 mi . SW. of, along old Doniphan-Greenville road, 25 ft . W. of rd., in root on E. side of 14-1n. oak tree; copper nail and washer 473.81
T. $24 \mathrm{~N} ., \mathrm{R} .3 \mathrm{E} .$, about 0.2 mi . S. of cor..secs. $3,4,9$, and 10 , 15 ft . S. and 25 ft . E. of rd. forks, on N. side of Little Black River Valley, inside of fence corner
 oak tree; copper nail and washer

## 6. WEST ALONG SOUTH BORDER OF QUADRANGLE (by M. G. Handly in 2934)

Bay Springs School, 0.8 mi. NE. of, 100 ft . N. and 40 ft . W. of rd. forks W., in root on E. side of $30-1 \mathrm{n}$. white oaly tree; copper neil and washer $\qquad$
Bay Springs School, 0.4 mi . SW. of, $25 . \mathrm{ft}$. N. of rd., in root on S . gide of $30-\mathrm{in}$. white oak tree; copper nail and washer

$$
506.18
$$

. 24 N., R. 5 E, near quarter cor, between secs, 6 and $7,0.2 \mathrm{mi}$. of string Tom. $1,000 \mathrm{ft}$. E. of Resnick's Service Station, 50 ft . W. and 25 ft . N. of County Route $M$ at rd. N., 2 ft . N. of E. -T . fence, in concrete post; standard tablet
Reference mark, 15 ft . N. and 50 ft . W. of tablet, in root on S. side of 18-in. white oak tree; copper nall and washer
String Town, 0.8 mi . W. of, 200 ft . W. and 50 ft . S. of T-ird. N., in root on E. side of 28-1n. oak tree; oopper nail and washer
Oak Stalk Store, $0.8 \mathrm{mi} . \mathrm{W}$. of, 40 ft . N. of rd., in root on S . side of 24-in. white oak tree; copper nail and washer
Oak Stalk Stiore, 1.8 mi . W. of, in Shem. 3, T. $24 \mathrm{~N} ., \mathrm{R} .4$ E., 400 ft . E. of T-rd. N., 1 fit. S. of E.-W. fence, in conorete post; atanderd tablet
Reference mark, 80 ft . N. of tablet, in root on S. side of 36-in. black oak tree; oopper nail and washer
Oak Stalk Store, 2.4 ml . W. of; 50 ft . W. of Butler-Ripley county line, 600 ft . N. of Beaver Dam Creek, 50 ft . SW. of T-rd. S., in root on N. side of 24-in. gum tree; copper nail and washer
(For balance in Acorn quadrangle, see line no. 5.)
Oak Stalk Store, 7.8 mi. W. of, 5 mi. W. of Butler-Ripley county line, on ridge S. of Beaver Dam Creek, 15 ft . SE. of rd. forks, in triangle formed by dim T-rd. s., in concrete post; standard tablet

Reference mark, 50 ft . NW. of tablet, in root on S . side of 18 -in. oak tree; oopper nail and washer
T. $24 \mathrm{~N}_{0}, R_{\text {. }} 3$ E., in $S \frac{1}{2} . s e c .2,500 \mathrm{ft}$. E. of old house, 20 ft . N. of rd., in
root on W. side of $15-i n$. blaok oak tree; copper nail and washer
T. $24 \mathrm{~N} .$, R. $3 \mathrm{E} .$, in SE s sec. $3,40 \mathrm{ft}$. S. of rd., in root on W. side of $30-\mathrm{in}$. oak tree; copper nail and washer

For additional level lines along St. Louis-San Francisco R. R. and Missouri Pacific R. R., refer ta United States Coast and Geodetic Survey second-order lines; Mingo to Hunter and Riverside to Williameville.


1. FROM SOUTH BORDER OF QUADRANGLE NORTHWEST AND NORTH ALONG MISSOURI PACIFIC R. R. TO NORTH BORDER (by F. L. Whaley in 1925)
(Continued from Williamsvilie quadrangle; see line no. 2.)
Granite Bend, 250 ft . N. of Missouri Pacific R. R. station sign, 40 ft . W. of track, Feet $150 \mathrm{ft} . \mathrm{N}$. of ra. crossing, in limestone ledge; standard tablet stamped "Prim Trav Sta No 53 F 1924 W $1925{ }^{\prime \prime}$.
Reference mark, 92 ft . E. of tablet, $180 \mathrm{ft} . \mathrm{N}$. of station sign, 60 ft . N. of rd. crossing, in E. end of concrete culvert; chiseled square
Mill Spring, 4.1 mi . SE. of, along Missouri Pacific R. R., 360 ft . N. of Warrens Store, in $S$. end of E. side of concrete bridge over Eads Creek; chiseled square
417.72

Mill Spring, 3.1 mi. SE. of, along Missouri Pacific R. R., 300 ft . N. of telegraph pole no. 136-40, in SW. end of concrete bridge over private rd.; ohiseled square
Mili Spring, 2 mi. SE. of, on W. side of Misaouri Pacific R. R., in $S$. abutment of girder bridge no. 144; standard tablet etamped "Prim Trav Sta No 54 F 1924 W $1925{ }^{\prime \prime}$
Reference mark, N. $20^{\circ} \mathrm{E}$. of tablet, in E . end of N . abutment of girder bridge; chiseled square
Mill Spring, 1 mi. S. of, along Missouri Paoifio R. R., 100 ft. N. of telegraph pole no. 136-5, on E. side of track, in ilmestone cut, $10 \mathrm{ft} . \mathrm{S}$. of small cave opening, in top of limestone ledge 2 ft . above roadbed; chiseled square
Milı Spring, 750 ft . SE. of Missouri Pacific R. R. station, 20 ft . W. of Mill Spring, in limestone ledge; standard tablet stamped "Prim Trav sta No 55 F 1924 W 1925"
Reference mark, $60 \mathrm{ft} . \mathrm{S} .20^{\circ} \mathrm{T}$. of tablet, at SW . corner of bridge, in top of concrete; chíseled square
Leeper, 0.5 mi . SE. of, 80 ft . E. of Missouri Pacific R. R., 300 ft . N. of pole no. 133-30, on rd., in $S$. corner of W. end of small concrete culvert; chiseled square
Leoper, 250 ft . N. of Missouri Pacific R. R., in W. side of steps to Ozark Hotel; standard tablet stamped "Prim Trav Sta No 56 F 1924 W 1925"
Reference mark, 126 ft . S. $20^{\circ}$ E. of tablet, 200 ft . N. of R. R., 20 ft . S. of Missouri Southern R. R. office building, in root of $30-1 n$. elm tree; copper nail and washer
Leeper, 0.6 mi . N. of, along Missouri Pacific R. R., 20 ft . N. of N. end of trestle no. 137, opposite semaphore no. 1331-D, on E. side of track, in SW. corner of concrete foundation for wire leading to semaphore; bolt
Clearwater station, 0.2 mi . N. of, along Missouri Paoific R. R., at $N$. end of bridge over drain and dim rd., on E. side of track, in top of first bent; copper nail and washer
Piedmont, 3.8 mi . S. of, along Misasouri Pacifio R. R., 200 ft . N. of private rd. orossing, 200 f.t. S. of telegraph pole no. 130-25, in S. end of w. side of bridge; ohiseled square
Pisdmant, 3 mi . S. of, 30 ft . N. of concrete milepost no. 130 , on W. gide of Missouri Pacific R. R., in stone approach to bridge over McKenzie Creek; standard tablet atamped "Prim Trav Sta No 57. F 1924 W 1925"
460.734

Pledmont; 3 ml . S. of, 130 ft . N. of milepost no. 130 , on W. side of above described R. R. bridge, in top of wing well; standerd tablet (set by unknown party, found in 1931)
Reference mark, 112 ft . N. of tablet 57 F 1924, 12 ft . E. of other tablet (origin unknown), in N. end of E. side of N. conorete abutment of R. R. bridge; chiseled square
Piedmont, $2.1 \mathrm{mi} . \mathrm{S} . \mathrm{of}$, along Missouri Pacific R. R., SW. of rd. crossing, on

Pledmont, at NW. corner of American Hotel, in concrete porch; standard tablet stamped "Prim Trav Sta No 58 F 1924 W 1925"

Reference mark, 18 ft . SW. of tablet, in root of $10-1 \mathrm{n}$. elm tree; copper nail and washer
Pi edmont, 1.2 mi. N. of, along. Missouri Pacific R. R., on W. side of track, in SW. corner. of concrete base to semaphore no. 1263-6; chiseled square
500.80

Piedmont, 2 mi. N. of, along Missouri Pacific R. R., on W. side of track, in SW. corner of concrete foundation for wire leading to semaphore no. 12400 ; bolt
560.71

Piedmont, 3 mi. N. of, on W. side of Missouri Pacific R. R. track, 200 ft . E. of concrete house, in W. end of $S$. pier of steel bridge; standard tablet stamped "Prim Trav Sta No 59 F 1924 w 1925"
Reference mark, 79 ft . N. of tablet, at N . end of bridge no. 129, in NE. oorner of concrete abutment wall; chiseled square
Gads Hill, 1.8 mi . S. of, along Missouri Pacific R. R., on w. side of track, in concrete base at $S W$. corner of semaphore no. l233-D; chiseled square
634.05
$\qquad$
Gads Hill, 1.8 mi . S. of, along Missouri Pacific R. R., on E. side of right-of-way 150 ft . S . of pole marked "121-30\%; in base of telegraph pole; spike 740.
Gads Hill, 1.1 mi. S. of, along Missouri Pacific R. R., 23 ft . N. of telegraph pole no. 121-5, in S. corner of E. end of concrete bridge; chiseled square 785.09
Gads Hill, 250 ft . W. of Missouri Pacific R. R: station, $80 \mathrm{ft} . \mathrm{N}$. of store, 3 ft . E. of fence; standard tablet stamped "Prim Trav Sta No 60 F 1924 W 1925 F " 844.844

Reference mark, $119 \mathrm{ft} . \mathrm{N} .40^{\circ} \mathrm{E}$. of tablet, at T-rd. W., 40 ft . SW. of Mr. Fitz's house, in root of $36-i n$. black oak tree; copper nail and washer
Gads Hill, 0.9 mi . N. of, along Missouri Pacific R. R., in SE. corner of concrete foundation to semaphore no. 1201-D; chiseled square
777.88
(Continued in Des Arc quadrangle; see line no. 1.)
2. FROM WEST BORDER OF QUADRANGLE EAST TO GADS HILL
(Continued from Ruble quadrangle; see line no. 3.)

Gads Hill, 2.5 mi . W. of, 50 ft . NW. of corner of field, 5 ft . S. of rd., in root of 18-1n. shellbark hickory tree; copper nail and washer
Gads Hill, 2 mi. W. of, at top of divide, 80 ft . E. of crossroads, in root of 7-in. white oak tree; copper nail and washer
Gads Hill, l mi. W. of, at T-rd. W., 300 ft. N. of Beulah School, in SE. corner of concrete paved ford across smail drain; chiseled square.

## 3. FROM PIEDMONT EAST TO EAST BORDER OF QUADRANGLE (by George w. Moore in 1931)

Piedmont, in E. part. of, in top of S. parapet wall of E. abutment of bridge; ohiseled square
Piedmont, 1.2 mi . E. of, 200 ft . NW. of John Major's house, in top of N. head wall of concrete culvert; chiseled square
Piedmont, 1.9 mi . SE. of, in top of E. parapet wall of N . abutment; chiseled square
Piedmont, $2.7 \mathrm{mi} . \mathrm{SE}$. of, 50 ft . E. of T-rd. S., in top of N . head wall of ooncrete culvert; chiseled square
Piedmont, 3 mi . SE. of, at foot of hill, 28 ft . S. of Lake creek road, in concrete post; standard tablet stamped " 69 M 1931 ".
Reference mark, 21 ft . N. of tablet, in top of S . head wall of concrete culvert; chiseled square
Piedmont, 3.9 mj . E. of, 18 ft . N. and 120 ft . E. of $\mathrm{T}-\mathrm{rd} . \mathrm{S} .$, in root on SW . side of 14-in. white oak tree; copper nail and washer 8
Piedmont, 4.7 mi . E. of, 30 ft . N. and 80 ft . E. of T-rd. SE., in root on S . side of 12 -in. black oak tree; copper nail and washer
Pledmont, 5.2 mi . E. of, 440 ft . W. of T-rd. S., 25 ft . S. of rd., in root on N . side of ll-1n. oak tree; copper nail and washer
Pledmont, 6.1 mi . E. of, 25 ft . S. and 50 ft . E. of rd. forks, in root on NW. side of twin oak tree; copper nall and washer
Piedmont, 6.8 ml . E. of, at S. edge of rd., apposite abandoned T-rd. NE., in root on NW. side of 24-1n. oak tree; copper nail and washer
677.42

Piedmont, 7.8 mi . E. of, at N . edge of rd., in root on SE. side of 34-in. black oak tree; copper nall and washer
Patterson, 4 mi . S. of, 8 mi . E. of Pledmont, in SW $\frac{1}{4}$ sec. $36, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R} .4 \mathrm{E} ., 70 \mathrm{ft}$. N . and 25 ft . W. of T-rd. W., in concrete post; standard tablet stamped "70 M 1931"
639.295

Reference mark, 93 ft . N. of T-rd. W., in top of E. parapet wall of S . concrete abutment of wooden bridge; chiseled square
Patterson, 4.8 mi . S. of, lio ft. SE. of mail boxes in triangle formed by rd. fork SW., at SW. edge of rd., in root on NE. side of 14-in. oak tree; copper nail and washer
Patterson, 5.9 mi . S. of, at SW. edge of rd., 20 ft . SW. of fence corner of Earl. Kinder's farmyard, in root on SE. side of 17-in. oak tree; copper nail and washer 572.34

Patterson, 6.8 mi . S. of, at NE. edge of rd., in root on S. side of 30-in. oak tree; oopper nail and washer
Patterson, $7 \mathrm{mi} . \mathrm{S}$. of, 7 mi . W. of Greenville, 60 ft . NE. of rd. junction at ford, 6 ft . W. of fence corner, in root on $N$. side of l6-in. oak tree; copper nail and washer
527.84

Greenville, 6.4 mi . W. of, at top of hill, 20 ft . SE. of T-rd. NW., in root on N. side of $9-1 n$. white oak tree; copper nail and washer $\quad 100 \mathrm{ft}$. N. of rd. and
T. 28 N., R. 5 E., center sec. $8,5.2$ mi. W. of Greenville, 100 ft . N. of rd. and creek, on private rd. to W. Hughes' house, in root on SW. side of 20-in. catalpa tree; copper nail and washer
ac 4 mi W op areenville, at ra junction 469.61
T. 28 N., R. 5 E., in W. part sec. $9,4.7 \mathrm{mi}$. W. of Greenville, at rd. junction, 20 ft . S. and 60 ft . W. of T-rd. W., in root on N. stde of $20-1 \mathrm{n}$. oak tree; copper. nall and washer
463.81
T. $28 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} .$, in $\mathrm{NW} \frac{1}{4}$ sec. $9,4 \mathrm{ml}$. W. of Greenville, 375 ft . E. of T-rd. E., in fence at $S$. edge of rd., in root on $N$. side of lo-in. sycamore tree; copper nail and washer
410.54

## 4. FROM PIEDMONT NORTHEAST ALONG STATE HIGHWAY 34 TO EAST BORDER OF QUADRANGLE

Piedmont, in N. part of, at junction of State Highways 34 and $49,40 \mathrm{ft}$. E. of $\mathrm{T}-\mathrm{rd}$. NW., in top of $E$. parapet wall of $S$. abutment of small highway bridge; chiseled square
501.91

Pledmont, 1.2 mi . NE. of, along State Highway 34, on S . side of steel bridge over Mc. Kenzie Creek, in top of W. concrete pier; chiseled square

Piedmont, 2.2 mi . NE. of, along State Highway 34 , in SE $\frac{1}{4}$ sec. 24, T. 29 N., R. 3 E. in top of $N$. head wall of concrete culvert; chiseled square
Piedmont, 3 mi. NE. of, along State Highway 34, in NW $\frac{1}{4} \mathrm{sec}, 19, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R} .4$ E., 200 ft . E. of H. S. Smith's house, in E. ond of N. Wing wall of concrete culvert. standard tablet stamped "P T Sta No 77 S 1926"
Reference mark, 25 ft . SE. of tablet, in top of S . head wall of concrete culvert chiseled square
Piedmont, 3.8 mi . NE. of, at sharp curve in State Highway 34, in top of S . head wall of concrete culvert; chiseled square
Piedmont, 4.3 mi . NE. of, along State Highway 34, near center sec. 17, T. 29 N., R. 4 E., 60 ft . W. of rd. forks, in root on E. side of $19-\mathrm{in}$. walnut tree; copper nall and washer
563.68

Piedmont, 4.7 mi . NE. of, along State Highway 34, near center of $E \frac{1}{2}$ sec. $17, \mathrm{~T} .29 \mathrm{~N} .$, R. 4 E.,. on E. abutment of small steel bridge over Clark Creek, in top of S. parapet wall; chiseled square
536.11
piedmont, 5.6 mi . NE. of, along State Highway 34 , near N . quarter cor. sec. $16, \mathrm{~T} .29 \mathrm{~N}$. R. $4 \mathrm{E} ., 15 \mathrm{ft}$. S. of rd. forks, in top of E . head wall of concrete culvert; chiseled square
512.72

Piedmont, 6.2 mi . NE. of, along State Highway 34, 500 ft . E. of S. P. Holmea' store and filling station, in $W$. end of $S$. wing wall of concrete culvert; standard tablet stamped "P T Sta No 76 S 1926"
498.801

Reference mark, $26 \mathrm{ft} . \mathrm{N}$. and 10 ft . E. of tablet, in top of E. end of N. head wall of concrete oulvert; chiseled square
Piedmont, 7 mi. NE. of, elong State Highway 34, 155 ft . E. of T-rd. S., in top at E. end of $N$. wing wall of $E$. abutment of concrete bridge; chiseled square

Piedmont, 7.9 mi . NE. of, along State Highway 34, near s. quarter cor. sec. 11 , T. 29 N., R. $4 \mathrm{E} .$, in top at E. end of S . head wall of concrete culvert chiseled square
. 507.53
Patterson, 0.5 mi . W. of, at bend in State Highway 34, In W. end of S. wing wall of concrete culvert; standard tablet stamped "P T Sta:No 75 S 1926" $\qquad$
Reference mark, $26 \mathrm{ft} . \mathrm{N}$. of tablet, in tap of N . bead wall of concrete culvert; chiseled squar
453.01

Patterson, in W. part of, 80 ft . W. of T-rd. N. to Brunot, in top of S . head wall of concrete culvert; chiseled square
430.15

Patterson, 110 ft . W. of crossroads, in top of S . head wall of concrete culvert; chiseled square
atterson, 0.8 mi . E. of, along State Highway 34, on S. abutment of large steel bridge over Clark Creek, in top of $E$. parapet wall; chiseled square
Patterson, 1.4 ml . E. of, along State Highway $34,22 \mathrm{ft}$. S. and 18 ft . W. of T -rd.
N. to Sam A. Baker State Park, in root on NW. side of $24-1 \mathrm{n}$, white oak tree; copper nail and washer
Patterson, 1.9 mi . E. of, along State Highway 34, in top of SW . head wall of concrete culvert; chiseled.square
406.43

Patterson, 2.2 mi . E. of, along State Highway 34, 1 mi . W. of steel. bridge over St. Francis River, 0.2 mi . W. of J. E. Black's house, at curve in rd. at entrance to steep valley, in E. end of $N$. wing wall of concrete culvert; standard tablet stamped "P T Sta No $74 \mathrm{~S} 1926^{\circ}{ }^{\circ}$
Reference mark, 0.2 mi . SE, of tablet, 60 ft . E. and 18 ft . N. of T-rd. S. at SE. corner of J. E. Black's yard, in top of corner post of concrete retaining wall; chiseled square
Patterson, 3.2 mi. E. of, along State Highway 34, on W. abutment of steel girder bridge over St. Francis River, in top of $S$. parapet wall; chiseled square
Reference mark, 3.ft. N. of chiseled square, at SW. corner of bridge, in floor; ohiseled square
(Continued in Greenville quadrangle; see line no. 4.)

## 5. FROM PATTERSON NORTH TO NORTH BORDER OF QUADRANGLE

Concrete paved tord; chiseled square 417.26
Patterson, 1 mi. N. or, 20 ft . W. of rd., at $N$. side of gate, in root on E. side of 19-in. oak tree; copper nail and washer
474.11

Patterson, $1.7 \mathrm{mi} . N$. of, in NW $\frac{1}{4}$ sec. 12, T. $29 \mathrm{N.}, \mathrm{R}$.4 E., 550 ft . S. of crossroads, in top at $N$. end of W. head wall of concrete culvert; chiseled square
Patterson, 2.2 mi . N. of, near center of $W_{2}^{2}$ sec. 1, T. 29 N., R. 4 E., 45 ft . W. of rd., in center of C. E. Gustin's farmyard, in root on NE. side of 23-in. oak tree; copper nail and washer
Ratterson, 2.8 mi . N. of, in NWis sec. 1, T. $29 \mathrm{~N} ., \mathrm{R} .4 \mathrm{E} ., 620 \mathrm{ft}$. S. of T-rd. E. in top of $E$. head wall of concrete culvert; chiseled square
Patterson, 3.3 mi . N. of, in top at E. end of S . wing wall of W . concrete abutment of large wooden bridge over Camp Creek; chiseled square 50
Patterson, $4 \mathrm{mi} . \mathrm{N}$. of, 310 ft . N. of T-rd. E., in top of W. head wall of concrete culvert; chiseled square 54
Patterson, 4.7 mi . N. of, at foot of pass, 20 ft . W. of rd., inside fence, in root on $E$. side of $14-1 n$. oak tree; copper nail and washer
(Continued in Des Arc quadrangle; see line no. 8.)

## 6. FROM EAST BORDER OF QUADRANGLE WEST TO MILL SPRING (Continued from Greenville quadrangle; see line no. 8.)

Greenville, 4.5 mi . SW. of, 75 ft . NW. of Holliday Road, 0.2 mi . NE. of rd. fork N., in S. eide of 9-in. oak tree; copper nail and washer

Greenville, 5.5 mi . SW . of, 40 ft . E. of dim rd. forks, on SE . side of Holliday Road, in root on W. side of 13-in. oek tree; copper nail and washer
570.00 Greenville, 6 mi . SW. of, 80 ft. N. of Holliday Road, at E. edge of private rd. N.
over wooden bridge, in root on E. side of l2-in. white oak tree; copper nail and washer
Greenville, 7 mi . SW. of, along Holliday Road, at junction of Otter Creek road, 0.2 mi. S. of old sawmill town of Hubert, 66 ft . N. and 12 ft . E. of rd. forks, 9 ft . N . of fence corner, in concrete post; standard tablet stamped "P T Sta No 86 S 1926"
496.696

Reference mark, 105 ft . S. of tablet, in root on NW. side of 30-in. oak tree; copper nail and washer
501.28

Greenville, 7.7 ml . SW. of, on Greenville-Leeper road, near center sec. 31, T. 28 N., R. 5 E., 150 ft . S. of croseroads, at W. edge of rd. at center line of rd. W., in root on S. side of 24-in. sycamore tree; copper nail and washer
Greenville, 8.8 ml . SW. of, on Greenville-Leeper road, 25 ft . S. and 125 ft . W. of rd. NE., 25 ft . S. and 55 ft . E. of rd. S., in root on NE. side of 17-in. oak tree; copper nall and washer
Leeper, $8 \mathrm{mi} . E$. of, on $G r e e n v i l l e m L e p e r ~ r o a d, ~ 45 \mathrm{ft} . \mathrm{N}$. and 36 ft . W. of rd. forks, 150 ft . E. of J. A. Marler's house, in concrete post; standard tablet stamped "P T Sta No 87 S 1926"
528.923

Refer ence mark, 85 ft . SW. of tablet, 50 ft . W. of crossroads, on NW. edge of Greenville-Leeper road, in root on SE. side of l6-in. oak tree; copper nail and washer
527.58

Leeper, about 7 riti. E. of, on Greenville-Leeper road, about 1 mi . E. of Mt. Pleasant School, 22 ft . NW. of rd., in root on SE. side of 24-1n. oak tree; copper nail and washer
552.66

Leeper, about 6 mi . E. of, on Greenville-Leeper road, about 0.2 mi . E. of Mt. Pleasant
School, at $W$. edge of rd. fark S., 45 ft . N. and 20 ft . W. of fence corner, in root on NE. side of l2-in. walnut tree; copper nail and washer
Leeper, $5.5 \mathrm{mi} . \mathrm{E}$. of, near center sec. 27, T. $28 \mathrm{~N} ., \mathrm{R} .4 \mathrm{E} ., 350 \mathrm{ft}$. NW. of
T. J. Turnbolt's house, at junction of Greenville raad with rd. N. to Piedmont,

50 ft . SW. of rd. to otter Creek, in concrete post; standard tablet stamped "P T Sta No $88 \mathrm{~S} 1926^{\mathrm{m}}$
Reference mark, 115 ft . N. of tablet, in fence on $W$. edge of lane, in root on E. side of 19-in. mulberry tree; copper nail and washer
575.80

Leeper, about $5 \mathrm{mi} . \mathrm{E}$. of, on Greenville-Leeper road, at top of hill, on W. side of rd., in root on $S$. side of $10-1 n$. White oak tree; copper nail and washer 708.57
Leeper, about 4.5 ml . E. of, on Greenville-Leeper road, 140 ft . E. of rd. forks, 50 ft. NW. of old rd. forke, in root on $S$. side of l4-in. hiokory tree; copper nall and washer
Leeper, about 3.5 ml . E. of, on Greenville-Leeper road, 28 ft . S. of rd. fork SE. in root on NW. side of 8-in. pine tree; copper nail and washer
Leeper, ${ }^{3} \mathrm{ml}$. E. of, on Greenville-Leeper road, $200 \mathrm{ft} . \mathrm{N}$. and 150 ft . W. of cor. secs. 19, 20, 29, and 30, T. 28 N., R. 4 E., 120 ft. N. of Dan Blackwell's house, in concrete post; standerd tablet stamped "P T Sta No 89 S 1926n"
Reference mark, 65 ft . S. of tablet, in $N$. oorner of Dan Blackwell's yard, in root on NE'. side of 20-in. silver poplar tree; copper nail and washer
808.05

Leeper, about 2.7 mi . E. of, on Greenville-Leeper road, at top of hill, 35 ft . SW. of dim rd. fork S., in root on N. side of 7-in. oak tree; copper nail and washer
Leeper, about 2 mi. E. of, on Greenville-Leeper road, at foot of hill; ll ft. NW. of rd., in root on SE. Bide of 10-1n. oak tree; copper nail and washer 546.43
Leeper, about 1.5 mi . E. of, on Greenville-Leeper road, near center sec. 25, T. 28 N., R. $3 \mathrm{E} ., 65 \mathrm{ft}$. N. of rd. forks, in root on E. side of 26-in. sycamore tree; copper nail and washer
466.44

## 7. FROM PATTERSON SOUTH ABOOT 3 MILES

Patterson, 0.8 mi . S. of, near center of NWT sec. 19, T. 29 N., R. 5 E., 15 ft . N. and 25 ft . E. of T-rd. W., at T-fence E., in W. side of concrete base of corner fence post; chiseled square
 25 ft . E. of T-rd. W., 11 ft . W. of N. S. fence, in center of E. head mall of concrete culvert; chiseled square

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                    474.4
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Patterson, 1.6 mi . S. of, 0.3 mi . N. of cor. secs. 19, 24, 25, and 30, T. 29 N. ,
Re. 4 and 5 E., 50 ft . N. and 18 ft . E. of T-rd. E., at gate, in root on NE. side of 20-1n. oak tree; copper nail and washer
Patterson, 2.8 mi . S. of, near center of E $\frac{1}{2}$ sec. 25 , T. 29 N., R. $4 E .$, at foot of hill, 35 ft . E. of rd. forks, 20 ft . S . of main rd., in root on N . side of twin birch tree; copper nail and washer
542.12

## 8. SHORT TIE LINE IN SOUTHEAST QUARTER OF QUADRANGLE

T. 28 N., R. 5 E., in NEA sec. $19,8.3 \mathrm{mi}$. S. of Patterson, 25 ft . S. and 25 ft . E. of T-rd. E., in corner fence post; spike
504.36
T. 28 N., R. 5 E., near SE. cor. sec. $19,9.4 \mathrm{mi}$. S. of Patterson, 22 ft . S. and 24 ft . E. of private rd. E., at foot of hill, in root on $W$. side of ll-in. oak tree; copper nail and washer
547.42
9. LINE TO ESTABLISH ELLVATION ON U. S. G. S. GAGING STATION TABLET AT LEEPER (by F. C. Lentz in 1936)
U. S. C. \& G. S. B. M. designated "V 116 1935"
444.215

Leeper, 0.5 mi . W. and 0.5 mi . S. of, slong State Highway 34, in SE. abutment of bridge over Black River; U. S. G. S. gaging atation tablet
457.421

TIE BETNEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRD-ORDER LINE AT MILL SPRING
U. S. C. \& G. S. B. M. designated "U $1161935^{\text {" }}$
438.323

Mill Spring, 750 ft . SE. of Missouri Pacific R. R. station, 20 ft . W. of Mill Spring,
in limestone ledge; standard tablet stamped "Prim Trav Sta No 55 F 1924 W 1925"
430.575

TIE AT PLATOW BTWEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRD-ORDER LINE
U. S. C. \& G. S. B. M. designated MU 1391935 m
644.566

Piedmont, 3 mi . N. of, on W. side of Missouri Pacific R. R. track, 200 ft . E. of concrete house, in W. end of S. pier of steel bridge; standard tablet stamped "Prim Trav Sta No 59 F 1924 W 1925"

TIE AT GADS HILL BETWEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRDORDER LINE

Gads Hill, 250 ft . W. of Missouri Pacific R. R. station, 80 ft . N. of store, 3 ft E. of fence; standard tablet stamped "Prim Trav Sta No 60 F 1924 W 1925 " U. S. C. \& G. S. B. M. designated "R 139 1925"

For edditional level lines along Missouri Pacific R. R. and U. S. Highway 67, refer to U. S. C. \& G. S. second-order lines; Riverside to Williamsville and Elvins to Taskee.
(Latitude $37^{\circ} 15^{1}-37^{\circ} 3^{\prime}$; ; longitude $90^{\circ} 30^{\prime}-90^{\circ} 45$ r.)
Iron, Madison, Reynolds, and Wayne Counties


1. FROM SOUTH BORDER OF QUADRANGLE NORTH ALONG MISSOURI PACIFIC R. R. TO DES ARC (by F. L. Whaley in 1925)
(Continued from Piedmont quadrangle; see line no. 1.)
Gads Hill, 1.7 mi. N. of, along Missouri Pacific R. R., on E. side of track, in Feet NW. corner of concrete faundation block of semaphare no. 1186; chiseled square
Des arc, 2 mi . S. of, along Missouri Pacific R. R., on E. side of S. pier of bridge no. 123, in top of sandstone coping; chiseled square 632.28
Des Arc, $0.6 \mathrm{mi} . \mathrm{S}$. of, along Missouri Pacific R. R., 30 ft . S. of private rd. crossing, in base of second telegraph pole S. of pole marked "l16-25"; spike 584.82
2. FROM NORTH BORDER OF QUADRANGLE SOUTH ALONG MISSOURI PACIF'IC R. R. TO CHLORIDE (leveled twice by W. R. Broaddus and F. L. Whaley in 1925) (Continued from Middlebrook quadrangle; see line no. 2.)

Hogan, l mi. S. of, 230 ft . S. and 70 ft . W. of Misaouri Pacific R. R. at rd. croseing, in top of E. head wall of concrete culvert under highway; ohiseled square
Glover, 0.6 mi . N. of, 150 ft . W. of Missouri Pacific R. R., 40 ft . W. of rd.s
in ledge; standard tablet stamped "Prim Trav Sta No 67 F 1924 B 35 1925"
847.229

Reference mark, 90 ft . N . of tablet, in top of base to railing on $W$. side of concrete bridge; ohiseled square
844.68

Glover, in front of Miseauri. Pacifio R. R. station; top of rail
Glover, 100 f.t. SW. of Missouri Pacific R. R. station, in top of E. head wall 820.74
of concrete culvert under highway; chiseled square
Glover, 0.9 mi . S. of, 170 ft . SE. of Glover School, 60 ft . W. of Missouri Pacifio
R. R. at rd. orossing, in top of E. head wall of concrete culvert under highway;
R. R. at rd, orossing, in top of E. head wall of concrete culvert under highway;
chiseled square

Chloride, 240 ft . W. of Missouri Paoific R. R., 60 ft . W. of rd., in ledge; standard tablet stamped "Prim Trav Sta Na 66 F 1924'B 36 1925"
Reference mark, 88 ft . S. $50^{\circ} \mathrm{E}$. of tablet, in top of T . head wall of concrete culvert under highway; chiseled square

FROM CHLORIDF SOUTH ALONG MISSOURI PACIFIC R. R. TO DFRS ARC. (by W. R. Erogọdus in 1925)

Chloride, $0.8 \mathrm{mi} . S . c f, 260 \mathrm{t}$. SW. of Missouri Pacific R. R. at rci. crossing, in top of $N$. end of $E$. railing of concrete highway bridge; chiseled square
Chloride, 1.4 mi . S. of, in top of $W$. end of S . abutment of Missouri facific R. $R$ bridge over Big Creek; chiseled square
Sabula, 1.7 mi . N. of, 80 ft . W. of Misisouri Pacific R. R. at rd. crossing, in
root on N. side of $15-1 n$. sycamore tree; copper nail and washer
$723.1: \mathrm{C}$
Sabula, 0.7 mi . N. of, NW. of Missouri Pacific R. R. at rd. crossirg, in top of N. end of concrete culvert; chiseled square

Sabula, 75 ft . NW. of store and post office, 30 ft . N. and 40 ft . E. from Missomid Pacific R. R. at rd. crossing, in large rock; standard tablet, stamped "Prim Trav Sta No 65 F 1924 B $371925^{\prime \prime}$
Reference mark, 365 ft . N. of tablet, in top of $W$. end of S . ebutment of concrete
highway bridge; chiseled square
Sabula, in front of Missouri Pacific R. R. station; top of rajil
Sabula, 1 mi . S. of, 0.2 mi . S. of milepost $105,90 \mathrm{ft}$. E. of Missouri Pacific R. R. at rd. crossing, in root on NW. side of $16-i n$. hickory tree; copper nail and washer
Sabula, $2.3 \mathrm{mi} . \mathrm{S}$. of, on E. side of Missouri Pacific R. R., 200 ft . S. of milepost 106.15, in top of NE. end of E. head wall of cancrete culvert under R. R.; chiseled square
sabula, 2.5 mi . S. of, 1.2 mi . N. of Annapolis, 64 ft . 648.51
10 ft . S. of rd., 60 ft . N. of mill dam across Big Creek in root on N . side of $30-i n$. elm tree; copper nail and washer
Annapolis, in front of Missouri Pacific R. R. station; top of rail
Annapolis, at S. limits of, 220 ft . NE. of Missouri Pacific R. R.
639.50
632.6
large, in 1925"
629.065

Reference mark, 220 ft . SW. of tablet, in top of NE. corner of corcrete base of R. R. water tank; chiseled square

Annapolis, 1.8 mi . SE. of, on E. side of $N$. end of Missouri Pacific R. R. bridge over B18 Creek, in top of abutment; chiseled square
Annapolis, $2.6 \mathrm{mi} . \mathrm{SE}$. of, 130 ft . E. and 10 ft . 'S. of Missouri Pacific R. R. at rd. crossing, in root on $N$. side of 15-in. black oak tree; copper nail and washer 581.62
Vulcan, $1.5 \mathrm{mi} . \mathrm{N}$. of, 3.5 mi . S. of Annapolis, 60 ft . E. and 20 ft . S. of Missouri Pacific R. R. at rd. crossing, in root on NE. side of i2-in. sycamore tree; copper nail and washer
Vulcan, 150 ft . N. of Missouri Pacific R. R. station, on E. side of R. R., 30 ft . N. of rd. croseing, in large rock; standard tablet stamped "Prim Trav Sta No 63 F 1924 B 38 1925"
553.949

Reference mark, 20 ft . NE. of tablet, in root on $E$. side of $24-\mathrm{in}$. black oak tree; copper nail and washer
553.83

Vulcan, $l \mathrm{mi}$. S. of, on W. side of Missouri Pacific R. R., near milepost 113.23, in top of N . side' of concrete base of semaphore signal; chiseled squere $\quad 549.14$
Des Arc, 0.8 mi . N. of Missouri Pacific R. R. station, 25 ft . S. of rd. crossing, in top of NE. corner of concrete base of warning bell; chiseled square 534.69
Dea Arc, 1 ft . from SE. corner of bank, in concrete porch; standerd tablet stamped "Prim Trav Sta No 62 F 1924 W 1925"
Reference mark, 79 ft . SW. of tablet, at SE. corner of steps to A. K. Wallis' store, in concrete walk; chiseled square

## 3. FROM DES ARC EAST TO BRUNOT, THENCE NORTH TO JEVETT

Des Arc, $1.8 \mathrm{mi} . \mathrm{E}$. of, 20 ft . N. of rd., at top of hill, opposite house, in root on S. side of $24-i n$. locust tree; copper nail and washer
Des Arc, $2.5 \mathrm{mi} . E$. of, 75 ft . W. and 30 ft . N. of rd. at junction of lane S . to Charles Clifton's house, in root on SW. side of l4-in. black oak tree; copper nail and washer
Des $A r c, 3 \mathrm{mi}$. E. of, in SE. corner of concrete porch of Presbyterian Church; standard tablet stamped "Prim Trav Sta No 86 F 1924 B 39 1925"
588.895

Reference mark, 40 ft . S. $60^{\circ}$ W. of tablet, in root on E. side of $14-\mathrm{in}$. sugar maple tree; copper nail and washer
582.78

Brunot, 2 mf . W. of, 0.8 mi . E. of church, 30 ft . S . of rd., at top of hill, in root on N. side of '10-in. black oak tree; copper nail and washer
Brunot, 0.8 mi . W. of, 540 ft . NW. of W. M. Declue's house, 50 ft . SE. of rd., 120 ft . E. of drain crossing, in root on N. side of $12-i n$. black gum tree; copper nail and washer
575.97

Brunot, at NW. corner of crossraade, 10 ft . E. and 3 ft . N. of corner of fence around Russell's house, in ledge; standard tablet stamped "Prim Trav Sta No 85 F 1924 B 40 1925"
Reference mark, 40 ft . SW. of tablet, in root on W. side of 7 -in. lacust tree; copper nail and washer
Brunot, 1.3 mi . N. of, 150 ft . NW. of Peter S. Orphan's house, 15 ft . E. of BrunotJewett road, in root on W. side of 24 -in. post oak tree; copper nail and washer
Brunot, 2.1 mi . N. of, on W. side of Brunot-Jewett road, 12 ft . N. of rd. forks, in root on NE. side of 7-in. elm tree; copper nail and washer
549.35

Brunot, 3 mi . N. of, on $W$. side of Brunot-Jewett road, $100 . \mathrm{f}^{\prime} \mathrm{F}$. W . of old sawmill, $150 \mathrm{ft} . \mathrm{N}$. of Alcorn's house, in boulder; standard tablet stamped "Prim Trav Sta No 84 F 1924 B. 41 1925"
Referenqe mark, 28 ft . N. $30^{\circ} \mathrm{W}$. of tablet, in root on S . side of $3-\mathrm{in}$. sycamore tree; copper nail and washer
617.84

Brunot, 3.6 mi . N. of, 17 ft . W. of Brunot-Jewell road, at top of hill, in root on E. side of 20-ir. red oak tree; copper nail and washer
Jevett, 1.5 mi . S. of, 10 ft . E. of Jewett-Brunot road, at top of hill, in root on SW. side of $24-i n$. black oak tree; copper nail and washer
Jewett, $0.8 \mathrm{mi} . S$. of, 10 ft . W. of Jewett-Brunot road, 35 ft . N. of junction of dim rd., in root on $N$. side of 14-in. pine tree; copper nail and washer

Jewett, 200 ft . N . of post office, at T-rd. S., 10 ft . S. of fence, in ledge; standard tablet stamped "Prim Trav Sta No 83 F 1924 B 42 1925"
Reference merk, 12 ft . SE. of tablet, in root on W . side of l尺i-in. maple tree; copper nail and washer

## 4. FROM JEVETT VEST TO MINIMUM, THENCE NORTH ABOUT 6 MILES AND EAST TO POINT ASOUT 4

 MILES WEST OF FRENCH MILLSJewett, 0.5 mi . W. of post office, 25 ft . SE . of rd , forks, in root on W . side of $14-1 n$. sugar maple tree; copper nail and washer
574.83

Jevett, 1.6 mi . W. of post office, 350 ft . SW. of Blake's stare, 20 ft . SE . of rd . corner, 4 ft . from fence carner, in ledge; standard tablet stamped "Prim Trav Sta No 82 F 1924 B 43 1925"
Reference mark, 128 ft . W. of tablet, $10 \mathrm{ft} . \mathrm{S}$. of $\mathrm{rd}$. , in root on N . side of l2-in. black oak tree; copper nail and washer
648.50

Jewett, 2 mi . W. of, 10 ft . E. of rd., at top of hill, in root on S . side of $20-\mathrm{in}$. black oak tree; copper nail and washer 858.06
Minimum, 2.1 ml . E. of post office, 10 ft . S. of rd., et top of ridge, in root on N. side of 18-in. leaning post oak tree; uupper nail and washer
927.94

Minimum, l mi. E. of post office, 400 ft . W. of rd. forks, 30 it . W. of junction of double tracks of rd., in root on $N$. side of $16-i n$. sycamore tree; copper nail and washer
Minimum, $60 \mathrm{ft} . \mathrm{S}$. of post office, 40 ft . SW. of T-rd. W., in ledge; standard tablet stamped "Prim Trav Sta No 79 F 1924 B $441925{ }^{\mathrm{m}}$
690.22

Reference mark, 35 ft . S. $15^{\circ} \mathrm{E}$. of tablet, in root on N . side of $18-\mathrm{in}$. walnut
tree; copper nail and washer.
Minimum, lmi. N. of, 100 ft. S. of lane, on $W$. side of rd., in root on $N$. side of 7-in. walnut tree; copper nail and washer
658.91

Minimum, 2.2 mi . N. of, 90 ft . NE. of oreek crossing, 27 ft . E. of rd., in root on W. side of $36-1 n$. red oak tree; copper nail and washer
Minimum, 3 mi. N. of, 40 ft . E. of rd., near top of ridge, in granite boulder; standard tablet stamped "Prjm Trav Sta No 76 F 1924 B 45 1925"
Reference mark, 35 ft . N. $20^{\circ} \mathrm{E}$. of tablet, in root on SW . side of $16-\mathrm{in}$. post oak tree; copper nail and washer
Minimum, 4.3 mi . N. of, 950 ft . N. of summit of ridge, 20 ft . W. of rd., in root on SE. aide of 24-in. red oak tree; copper nail and washer
Minimum, 5.5 mi . N. of, 470 ft . W. of rd. forks, 90 ft . S. of rd., 300 ft . W. of
W. H. King's mail box, in limestone boulder; standard tablet stamped "Prim Trav Sta No 75 F 1924"
Reference mark, 11 ft .S. $30^{\circ}$ W. of tablet, in root on NW. side of $24-\mathrm{in}$. post oak tree; copper nail
Minimum, 5.4 mi . N. and 0.8 mi . E. of, 650 ft . W. of Oscar Young's house, 120 ft . W. and 20 ft . S. of T-rd. S., in root on NE. side of l4-in. walnut tree; copper nail and washer
710.67

Minimum, 5.4 mi . N. and 1.8 mi . E. of, 100 ft . SW. of creek crossing, 20 ft . NW. of rd., in root on SE side of 20-in. red oak tree; copper nail and washer 667,15
T. 32 N., R. 5 E., in NW $\frac{1}{4} \mathrm{sec} .19,75 \mathrm{ft}$. W. of blacksmith shop near mill dam, 80 ft . W. of T-rd. N., in ledge; standard tablet stamped "Prim Trav Sta No 77 F 1924"
Reference mark, 55 ft . N. $75^{\circ} \mathrm{S}$. of tablet, in root on S. side of 15 in . elm tree; copper nail and washer

## 5. FROM POINT NEAR CENTER OF NORTH HALF OF QUADRANGLE NORTH TO NORTH BORDER

Arcadia, 9.4 mi . SE. of, 100 ft . W. of Blus school, 30 ft . E. of rd., in root on W. side of 15-1ri. white oak tree; copper nei? and washer

Arcadia, 8.5 mi . SE. of, 80 ft . E. of rd., 238 ft . E. of house, in ledge; standard tablet stamped "Prim Trav Sta No 74 F 1924"
Reference mark; 107 ft . W. of tablet, in root on E. side of $30-1 \mathrm{n}$. cottonwood tree; copper nail and washer
749.31

Arcadia, 7.6 ml . SE. of, 1.2 mi . S. of Parker's stiore, 25 ft . E. of rd., at top of hill, in root on $W$. side of 14-in. white oak tree; copper nail and washer
Aroadia, 6.3 mi . SE. of, 45 ft . N. of Parker's store, 15 ft . W. of rd., in root on N. side of a 24-in. walnut tree; copper nail and washer
(Continued in Middlebrook quadrangle; see line no. 3.)
6. FROM NORTH BORDER OF QUADRANGLE SOUTHWEST TO CHLORIDE
(Continued from Middlebrook quadrangle; see line no. 3.)
Chloride, 3 mi . NE. of, 40 ft . W. of rd. forks, 40 ft . E. of house, in granite boulder; standard tablet stamped "Prim Trav Sta No 71 F 1924"
Reference mark, 46 ft . S , of tablet, in root on N . side of $20-\mathrm{in}$. red oak tree; copper nail and washer
Chloride, 2.3 mi . NE. of, 40 ft . W. of house, 10 ft . E. of rd., in root on w . side of 7 -in. plum tree; copper nail and washer
Chloride, 1.2 mi . NE. of, 30 ft . E. of rd., 90 ft . SW. of Sutton's blacksmith shop, in root on $N$. side of 14-in. walnut tree; copper nail and washer

## 7. FROM POINT NEAR CENTER OF NORTH HALF OF EAST BORDER OF QUADRANGLE WEST ABOUT 3

 MILES(Continued from Coldwater quadrangle; see line no. 1.)
French Mills, l mi. SW. of post office, 300 ft . N. of Ed Barry's house, 150 ft . E. of old mill, 30 ft . N. of rd., in ledge; standard tablet stamped "P T Sta No 78 F 1924"
Referenqe mark, 41 ft . N. $45^{\circ} \mathrm{E}$, of tablet, in root on E . side of i6-in. red oak tree; copper nail and washer

French Mills, 2.6 mi . SW. of post offioe, 70 ft . SW. of rd. forks, 20 ft . W. of rd. S. up hollow, in root on E. side of 36-in. hickory tree; copper nail and washer
Frencb Mills, 3.4 mi . Sw. of post office, 0.9 mi . below George Miller's grist mill, 25 ft . S. of rd. at produced center line of lane N. to Henry Miller's house, in root on NW. side of 18-in. locust tree; copper nail and washer
8. FROM SOUTH BORDER OF QUADRANGLE NORTH TO BRUNOT (by George W. Moore in 1931) (Continued from Piedmont quadrangle; see line no. 5.)

Patterson, $5.6 \mathrm{mi} . \mathrm{N}$. of, 70 ft . S: of private rd. W., in top of $N$. end of $W$. head wall of concrete culvert; chiseled square
Patterson, 6.6 mi . N. of, on W. side of ravine, at w. edge of rd., in root on
E. side of 9-in. oak tree; copper nall and washer

Patterson, 7.3 mi . N. qf, 300 ft . NW. of rd. forks, at W. edge of rd., in root on E. side of white oak tree; copper nail and washer
Brunot, 1.8 mi . S. of, 7.8 mi . N. of Patterson, on $N$. concrete abutment of large woaden bridge over Big Creek, in top of W. Wing wall; chiseled square 470.7
Brunot, 1.1 mi . S. of, 610 ft . S. of T-rd. E., in top at $N$. end of W. head wall of concrete culvert; chiseled square
Brunot, 0.4 mi . N. of crossroads at, in top of W . head wall of concrete culvert; ohiseled square

## 9. FROM ANNAPOLIS WEST TO WEST BORDER OF QUADRANGLE (by F. C. Lentz in 1936)

Annapolis, 0.5 mi . SW. of, in top of curb rail at SW . corner of concrete bridge; 628.17
ohiseled square
Annapolis, 1.5 mi . SW. of, at top of hill, 100 ft . SW. of rd. forks, in root on

Annapolis, 1.5 mi . SW. of, at top of hill, 100 ft . SW. of rd. forks, in root on N. side of triple white oak tree; copper nail and washer

Annapolis, 2.6 mi . SW. of, 420 ft . W. of pile of rocks at cor. secs. 20, 21, 28, and 29, T. 31 N., R. 3 E., 18 ft. S. and 30 ft . E. of T-rd. N., in ooncrete post; etanderd tablet stamped "T T 1606 E R A 1935"
Reference mark, 240.ft. NW. of tablet, in root of 14-in. sycamore tree; copper nail and washer
Annapolis, 1.5 mi . S. and 1.5 ml . W. of, in NWhisw seo. 20, T. $31 \mathrm{~N} ., \mathrm{R} .3 \mathrm{E} ., 60 \mathrm{ft}$. $E$. and 25 ft . N. of T-rd. N., in root on S. side of $12-i n$. white oak tree; oopper nall and washer
971.56
(Continued in Redford quadrangle; see line no. 7.)

TIE BETWEEN U. S. C. \& Ga S. SECOND-ORDER LIINE AND U. S. G. S. THIRD-ORDER LINE AT ANNAPOLIS


For additional level lines along Missouri Pacific R. R. and State Highway 2l, refer to United States Coast and Geodetic Survey second-prder lines; Riverside to Williamspille and Ohlman to Glover.

MIDDLEBROOK QUADRANGLE .
(Lat1tude $37^{\circ} 30^{\prime}-37^{\circ}{ }^{\circ} 45^{\prime}$; longitude $90^{\circ} 0^{\prime} 0^{\prime-90^{\circ}}{ }^{\circ} 5^{\circ}$ )
Iron, Madison, St. Francois, and Washington Counties


1. SOUTH ALONG NORTF PART CF WEST BORDFR OF QUADRANGLE (by M. J. Harden in 1924)
(Continued from Edgeril.j. quadrangle; see line no. 2.)
Belleview, 1.6 mi . N. of, 250 ft . W. of T-rd. W., on N. side of rd., at fence Feet corner, in concrete post; standard tablet stamped "H 1924 Mo $988^{\circ}$
987.203

Reference mark, 70 ft . S. of T-rd. W., in N. end of E. head wall of concrete culvert; chiseled square
Belleview, 1 mi . N. of, in SW. angle of T-rd. W., in S. end of W. head mall of ooncrete culvert; chiseled square
Belleview, in front of Range's store, in top of NE. corner of conorete porah; chiseled square

1,043.06
Belleview, 1 mi . SW. of, 200 ft . W. of farmhouse, on E. side of rd., in root of 24-in. black oak tree; copper nail and washer

1,068.67
(Continued in Edgehill quadrangle; see line no. 3.)
2. FROM WEST BORDER OF QUADRANGLE EAST TO HOGAN, THENCE ALONG MISSQURI PACIFIC R, R. TO SOLTH BORDER (leveled twice by W. R. Broaddus and F. L. Whaley in 1925)
(Continued from Edgehill quadrangle; see line no. 5.)
Pinkley, 5 mi . E. of past office, 1.3 mi . E. of Reynolds-Iron county line, 50 ft . N. of rd., 40 ft. SW . of house, on N . bank of creek, in root on E. side of 24-in. post oak tree; copper nail and washer
Hogan, 3.3 mi . NW. of, 0.4 mi . W. of John Pinkley's house, 50 ft . W. and 15 ft . N. of orossroads, on top of hill, in root on E. side of 5-in. black oak tree; copper nail and washer

1,352.02
Hogan, 3 ml . NW. of, 500 ft . N. of John Pinkley's house, 20 ft . S. of rd. forks, in root on E. side of ${ }^{i} 14$-in. post oak tree; copper nail and washer 1,268,45
Hogan, 2.5 mi . W. of, 300 ft . SE. of James Pappa's house, 70 ft . SE. of drain, 10 ft . E. of rd., In top of granite ledge; chiseled square
Hogan, $2 \mathrm{mi} . W$. of, 40 ft . N. of rd. forks, 20 ft . E . of rd., in granite boulder standard tablet stamped "Prim. Trav Sta No 69 F 1924 B 35 1925"
Referenoe mark, 6 ft . SW. of tablet, in root on SW. side of lo-in. black oak
tree; copper nail and washer tree; oopper nall and washer

1,267.463
Hogan, 1 mi . W. of, 15 ft . N. of rd., at junction of old route, at top of hill, In root on E. side of $12-1 \mathrm{n}$. black oak tree; copper nail and washer 1 ,
Hogan, 550 ft . SW. of Missouri Paoific R. R. depot, 500 ft . W. of R. R., 20 ft . S.
of E.-W. rd., 5 ft . N. of Pence, 170 ft . E. of State Highway $2 l$, in ledge; standard tablet Btamped "Prim Trav Sta No 68 F 1924 B 34 1925"
Reference mark, 204 ft . N. $70^{\circ} \mathrm{W}$. of tablet, in top of E. head wall of concrete oulvert under highway; chiseled square
904.80
(Continued in Des Arc quadrangle; see line no. 2.)
3. FROM SOUTH BORDER OF QUADRANGLE NORTHWBST TO POINT 3 MILAS SOUTHEAST OF ARCADIA, THENCE SOTHWEST TO SOTH BORDER (by W. R. Broaddus in 1925)
(Continuad from Des Arc quadrangle; see line no. 5.)
Arcadia, 6 mi . S. of, in NW. corner of concrete porch of schoolhouse; standard tablet stamped "Prim Trav Sta No 73 F 1924"
Reference mark, 242 ft . S. $25^{\circ} \mathrm{E}$. of tablet, 45 ft . SE . of rd. forks, in root on NW. 'side of $24-i n$. post oak tree; copper nail and washer
847.64

Arcadia, 5.3 ml . SE, of, 0.8 mi . NW. of schoolhaise, 150 ft . SW. of rd. at junction of lane to J. A. Smith's house, in root on W. side of 20-in. sugar maple tree; copper nail and washer
Arcadia, 4.2 mi . SE. of, 25 ft . N: of Marble Creek store, 90 ft . S. of rd. Porks, in root on NW. side of 24-in. White oak tree; copper nail and washer 973.35
Arcadia, 3.4 mi . SE. of, 0.4 mi . SE. of schoolhouse, 10 ft . W. of rd. forks, 12 ft . S. of fence corner, in root on NE, side of $10-1 n$. white oak tree; copper nall and washer
977.01

Arcadia, 3 mi . SE. of, 200 ft . E. of rd. forks, 4 ft . W. of NE. corner of schoolhouse, in atone foundation; standard tablet stamped "Prim Trav Sta No 72 F 1924" 1,008.550
Reference mark, 45 ft . N. $40^{\circ}$ E. of tablet, in root on NW. side of 24-1n. post oak tree; copper nail and washer
Aroadia, 4 mi . SW. of, 1 mi . SW. of school, 30 ft . S. of rd. forks, in root on NW. side of 8-in. tree; copper nail and washer

1,005.13

Arcadia, $4,8 \mathrm{ml}$. SW. of, 10 ft . NW. of rd. forks, in root on SW. side of $14-1 \mathrm{n}$. black oak tree; copper nail and washer
Aroadia, 5.5 mi . SW. of, 2.5 mi . SW. of school, 35 ft . W. of rd. forks, in root on N. side of 16-in. post oak tree; copper nail and washer 1,154.09
Chloride, 4 mi . NE. of, 15 ft . W. of rd., at top of hill, in root on s. side of 26-in. red oak tree; copper nall and washer $1,219.27$
(Continued in Des Arc quadrangle; see line no. 6.)
4. FBOM MIDDLE OF WEST BORDER OF QUADRANGLE EAST TO ARCADIA, THENCE EAST ALONG STATE HIGHTAY 70 TO EAST BORDER OF QUADRANGLE (by F. C. Lentz in 1935)
(Continued from Edgehill. quadrangle; see line no. 7.)
T. 34 N., R. 3 E., in SE这 sec. 32, at crest of hill, 10 ft. SW. of Munger-Ironton road, 9 ft . NW. of $15-1 \mathrm{n}$. water oak tree, in concrete post; standard tablet otamped "1 L 1935"
T. 33 N., R. 3 E., in N限 sec. 4, 250 ft . S. of A. W. Moyer'e house, 10 ft . N. of Munger-Ir ontion road, in root on S. side of $16-i n$. Water oak tree; copper nail and washer
T. 33 N., R. $3 . E$., in NE $\frac{1}{4}$ sec. 4, 150 ft . N. of Alfred Fryer's houge, 50 ft . S. of stouts Creek, 25 ft . N. of Munger-Ironton road, in root on S. side of 14-in. hard maple treie; copper nail and washer $1,136.11$
T. 33 N., R. 3 E., in NE $\frac{1}{4}$ seo. 3, 70 ft. S. of Munger-Irontion road, in top and 12. ft. S. of $N$. end of dam across Stouts Creek; standard tablet stamped ${ }^{2} 2 \mathrm{~L}$ 1935"
T. 33 N., R. 3 E., in NE $\frac{1}{4}$ sec. 2, 120 ft . SE. of Jake Sptizmiller's house, 20 ft. N. of Munger-Ironton road, 5 ft . E. of farm entrance, in root on SW . side of 14-in. white oak tree; copper nail and washer
Arcadia, $1.8 \mathrm{mi} . \mathrm{W}$. of, in $\mathrm{NW}_{4}^{1} \mathrm{sec} .6, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R} .4 \mathrm{E.} 35 \mathrm{ft} .$,S . and 10 ft . E. of junction of Munger-Ironton and Arcadia roads, in top of E. end of N. pier of steel bridge over Stouts Creek; standard tablet stamped "3 L 1935"
U. S. C. \& G. S. B. M. designated "A 130 1935"
U. S. C. \& G. S. B. M. designated "RV No 118"
Arcadia, 1 mi . E. of, along State Highway $70,500 \mathrm{ft}$. NW. of Baptist Home, 20 ft . N. of highway, in top of N. head wall of concrete culvert; chiseled square 905.05
Arcadia, 2.5 mi . E. of, along State Highway 70, at NW. corner of concrete bridge over Stouts Creek, in top of curb rail; chiseled square
857.28
Arcadia, 3.5 mi . E. of, along Stete Highway $70,175 \mathrm{ft}$. NW. of Lake Killarney, 300 ft . $N$. of $N$. end of rock guard rail. 20 ft . NW. of highway, in top of NW, head wall; ohiseled square
Arcadia, 4 mi . E. of, along State Highway 70, 250 ft . N. of Arcadia Lodge dining room, 20 ft . W. of highway, in head wall of concrete culvert; standard tablet stamped " 4 L. 1.935"
Reference mark, 200 ft . N. of tablet, in $12-i n$. water oak tree; copper nail and washer
Lake Killarney, lmi. E. of, along State Highway 70, in SE $\frac{1}{4} S W \frac{1}{4}$ sec. $36, \mathrm{~T} .34 \mathrm{~N}$. , R. $4 \mathrm{E} ., 200 \mathrm{ft}$. N . of junction of rd. $\mathrm{N}_{\mathrm{o}}, 20 \mathrm{ft}$. N. of highwiay, in top of concrete head wall; chiseled square
790.67
T. 34 N., R. 5 E., in SW年 sec. $31,85 \mathrm{ft}$. N. and 45 ft . E. of NE. corner of Roselle School, 30 ft . S . of State Highway 70, in root on N. side of $14-1 \mathrm{n}$. white oak tree; copper nail and washer
841.16
T. 34 N., R. 5 E., in SE $\frac{1}{4} \mathrm{sec} .31,60 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. of State Highway 70 at junction of rd.S., 55 ft . E. and 15 ft . N. of NE. corner of a rock store building, in NW. corner of concrete base of gasoline pump; chiseled square 806.84
Ironton, 6 mi . E. of, along State Highway 70, in NW. cor. sec. 4, T. 33 N., R. 5 E.,
0.2 ml . W. of bridge over St. Francis River, 120 ft . SE. of residence of F. J.
January, $42 \mathrm{ft} . \mathrm{N}$. of highway, $5 \mathrm{ft} . \mathrm{S}$. of wire fence, in conorete post;
standard tablet stamped "P T No 7 S 1926"
793.853
Reference mark, 200 ft . W. of tablet, in $12-\mathrm{in}$. tree; copper nail and washer
5. NEAR CENTER OF NORTH BORDER OF QUADRANGLE
(Continued from Bonne Terrequadrangle; see line no. 6.)
Bismarck, 1.8 mi. SE, of, on Missouri Pacific R. R., 15 ft . W. of track, 45 ft . W. of telegraph pole no. 77-6, in concrete head wall; chiseled square 9.56 .21
(Continued in Bonne Terrequadrangle; see line no. 6.)

## 6. FROM POINT NEAR CENTER OF EAST BORDER OF QUADHANGLE SOUTH TO SOUTHEAST CORNER (Continued from Kinob Lickquadrangle; see line no. 5.)

T. 34 N., R. 5 E., in NE $\frac{1}{4} N E \frac{2}{4} \sec .29,65 \mathrm{ft} . \mathrm{S}$. of Brewers Creek School, 25 ft . NE. of rd., in root of l2-in. white oak tree; copper nail and washer
796.28

Brewers Creek, at ford; surface of water Nov. 20, 1935 at 10:30 a. m .
T. $34 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} .$, in $\mathrm{NE} \frac{2}{4} \mathrm{NE} \frac{1}{4} \mathrm{sec} .32,30 \mathrm{ft}$. S. of rd. forks, in $30-\mathrm{in}$. white oak tree; copper nail and washer
T. 33 N., R. 5 E., in SE $\frac{1}{2} \mathrm{NE} \frac{1}{4} \mathrm{sec} .5,85 \mathrm{ft}$. N. and 40 ft . E. of rd. corner, in 720.07 S. side of $36-i n$. elm tree; copper nail and washer
T. 33 N., R. 5 E., in $N W \frac{1}{4} \mathrm{SW}^{\frac{1}{4}} \mathrm{sec} .4,200 \mathrm{ft}$. E. of Rock Creek, 30 ft . SW. of rd. in 12-in. sycamore tree; copper nail and washer
T. 33 N., R. 5 E., in SWh sec. $4,100 \mathrm{ft}$. W. of Rack Creek, 2 ft . S . of rall fence:
in SE. corner of large field, in root of l4-in. white oak tree; copper nail 769.34
T. $33 \mathrm{~N} ., \mathrm{R} .5 \mathrm{E} .$, in $\mathrm{SW} \frac{1}{4} \mathrm{~S} W_{\frac{1}{4}}$ sec. $9,200 \mathrm{ft}$. W. of house, 125 ft . W. of Rock Creek, 25 ft . W. of rd., 31 ft . N. of $14-1 \mathrm{n}$. pin oak tree, in top of granite boulder; standard teblet stamped "7 L 1935"
810.354

Reference mark, 31 ft . S. of tablet, in 14-in. pin oak tree; copper nail and washer
811.04
T. 33 N., R. 5 E., in SE $\frac{1}{4} \mathrm{NE} \frac{1}{4}$ sec. $17,50 \mathrm{ft}$. N. and 25 ft . E. of Frank Inman's house, 65 ft . S. of rd., in root of $14-1 \mathrm{n}$. wild oherry tree; copper nail and washer 874.88
T. $33 \mathrm{~N} .$, R. $5 \mathrm{E} .$, in $\mathrm{SE} \frac{1}{4} \mathrm{SE} \frac{1}{4} \mathrm{sec} .20,900 \mathrm{ft}$. E. of rd., 800 ft . E. of Herman Royer's house, in root of $30-1 n$. white oak tree; copper nail and washer
924.26
T. 33 N., R. 5 E., in SE $\frac{1}{4}$ sec. 29, $50 \mathrm{ft} . \mathrm{N}$. of Little Rock Creek, 5 ft . N. of rail fence, in root on E. side of $16-1 \mathrm{n}$. oak tree; copper nail and washer 874.99
 side of 30-in. white oak tree; copper nall and washer
814.77
(Continued in Knob Lickquadrangle but next benchmark established is in Coldwater quadrangle; see line no. 6.)
7. LINE TO DETEFMINE ELEVATION OF SUMMIT OF TAUM SAUK MOUNTAIN (by F. C. Lentz in 1937)
T. $33 \mathrm{~N} ., \mathrm{R} .3 \mathrm{E} .$, in NWhasec. $5,40 \mathrm{ft}$. SE. of $\mathrm{dim} \mathrm{rd}$. , in root on N. side of 24-in. hickory tree; copper nail and washer
T. 33 N., R. 3 E., in NW $\frac{1}{4} S W \frac{1}{4} s e c .5$, on low point in saddle between Wildcat and Taum Sauk Mountains, in root on S. side of l2-in. white-oak tree; copper nail and washer
Taum Sauk Mountain, in NE $\frac{1}{7} \mathrm{SE} \frac{1}{4} \mathrm{sec}$ : 5 , T. $33 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W}, 550 \mathrm{ft}$. NW. of and 7 ft . lower than highest point, 450 ft . N . of small clearing on site of old pond or deer lick, 50 ft . E. of old N.-S. trail at forks of ridge (W. fork leading to Wildcat Mountain), 30 ft . S . of $10-1 \mathrm{r}$. water-oak tree with painted triangle, 25 ft . $\mathrm{N}_{\mathrm{o}}$ of 8-in. white-oak tree with painted triangle, in top of granite outcrop (only permanent rock avallable); standard tablet stamped "2 L 1937 1765" $1,764 \cdot 703$

Reference mark, 40 ft. $N_{0}$ of tablet, on highest point of rock outcrop; painted square
$1,763.36$
Taum Sauk Mountain; summit (highest point in State)
1,7'72
TIE BETWEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRD-ORDER LINE AT HOGAN

Hogan, 550 ft . SW. of Missouri Pacific R. R. depot, 500 ft . W. of R. R., 20 ft . S. of $\mathrm{E} .-\mathrm{W} . \operatorname{rd.,~} 5 \mathrm{ft}$. N. of fence, 170 ft . E. of State Highway 2l, in ledge;
standard tablet stamped "Prim Trav Sta No 68 F 1924 B $341925{ }^{\prime \prime}$
Reference mark, 204 ft . N. $70^{\circ} \mathrm{W}$. of tablet, in top of E . bead wall of concrete culvert under highway; a chiseled square
U. S. C. \& G. S. B. M. designated "E 130 1935"

For additional level lines along Missouri Pacific R. R. and State Highways 21 and 32, refer to United States Coast and Geodetic Survey second-order lines; Riverside to Williamspille and Ste. Genevieve to Licking.

## EDGEHILLL QUADRANGLE <br> (Latitude $37^{\circ} 30^{\prime}-37^{\circ} 45^{\prime}$; longitude $90^{\circ} 45^{\prime}-91^{\circ}$ )

Iron, Reynolds, and Washington Counties


1. FROM NORTH BORDER OF QUADRANGLE SOUTHWEST TO POINT 2.3 MILES WEST OF SHEPARD POST OFFICE (leveled twice by M. J. Herden in 1924)
(Continued from Patosi quadrengle; see line na. 3.)
Belgrade, about 5 mi . SW. of, 600 ft . SW. of Matt Koupal's house, 15 ft . E. of Feet Big River, in ledgo; standard teblet
Belgrade, about 6 mi . SW. of, 650 ft . N. of Steven's store, in root of 30-in. gum tree; copper nall and washer

2. FROM POINT NEAR SHEPARD POST OFFICE EAST ALONG COUNTY ROADS AND STATE HIGHWAY 32 TO EAST BURDER OF' QUADRANGLE

Belgrade, about 8.2 mi . SW. of, at junction of Big River road with Ironton-Salem road, 27 ft . E. of gate on N. side of rd., inside fence, in concrete post; stenderd tablet stamped "H 1924 Mo 1121"
$1,119.913$
Reference mark no. 1 , in root of 12-in. white oak tree; copper nail and washer

1,121.20
Reference mark no. 2 , in root of 8-in. white oak tree; copper nail and washer
Shepard, 1 mi . W. of post office, 300 ft . N. of small farmhouse, on N. side of rd., in root of $12-i n$. black oak tree; copper nail and washer l,177.01
Shepard, 30 ft . E. of post office, near center of rd., in root of lo-in. cedar tree; copper nail and washer

1,179.44
Shepard, 1 mi. E. of post office, on top of hill, in NE. angle of T-rd. N., in concrete post; standard tablet stamped "H 1924 Mo 1370" 1 ", 368.832
Reference mark no. 1 , on N. side of rd., in root of 24-in. white oak tree; copper nail and washer
Reference mark no. 2, on $N$. side of rd., in root of lo-in. black oak tree; copper
nail and washer . of post office, on N . side of rd., in root of 20-in. white
Shepard, 1.5 mi. E. of post office, on $N$. side of rd., in root of 20-in. white
oak tree; copper nail and washer oak tree; copper nail and washer
hepard, 2.2 mi . E. of post office, on S . side of rd., in root of $18-1 \mathrm{n}$. black
oak tree; copper nail and washer 1, 1,244.82
Ceder Grove School, 1.7 mi . SW. of, along State Highway 32, at top of E. end of
N. guard wall of concrete culvert; chiseled square $1,016.12$

Cedar Grove School, about 0.8 mi . W. of, along State Highway 32, 200 ft . W. of Cedar Oreek, in NE: corner of Richard's front yard, in concrete post; standerd tablet stamped "H 1924 Mo 973"
972.121

Reference mark, 50 ft . N. of tablet, in top at $W$. end of s . guard wall of concrete oulvert; chiseled square
Cedar Grove Sohool, 200 ft . SW. of, at NE. corner of, in top of W. end of guard wall of concrete culvert; chiseled square
Dedar Grove Sohool, 0.5 mi . E. of, along State Highway 32, at NE. corner of rd.
N., in root of 30-in. walnut tree; copper nail and washer

Cedar Grove School, 1 mi. E. of, along State Highway 32, at SE. corner of oross rd., in root of $14-1 \mathrm{n}$. elm tree; copper nail and washer
Cedar Grove School, about 2.1 mi . E. of, along State Highway 32, near rd. forks, in top of E. guard wall of concrete culvert; chiseled square
979.19
(Continued in Middlebrook quadrangle; see line no. l.)
3. FROM EAST BORDER OF QUADRANGLE SOUTH AND SOUTHWEST TO PINRLEY AND SOUTH BORDER (Continued from Middlebrook quadrangle; see line no. 1.)

Belleview, 1.5 ml . SW. of, 500 ft . W. of William Moyer's farmhouse, 40 ft . N. of small branch, inside fence, in concrete post; standard tablet stamped nH 1924 Mo 1108"
Reference mark, 280 ft . SW. of tablet, on E . side of rd., in root of $10-\mathrm{in}$. walnut tree; copper nall and washer $1,111.4$
Belleview, 2.6 mi . SW. of, at SE . corner of rd. forks, in root of 8-in. hickory tree; copper nail and wesher

1,160.02
Belleview, 3.2 mi . SW. of, on E. side of rd. ta Munger, in root of $28-\mathrm{in}$. white oak tree; copper nail and washer
Belleview, about 4 ml . SW. of, on E. side of rd. to Munger, on top of h1ll, in $1,240.90$ raot of $8-i n$. pine tree; copper nail and washer
Munger, 3.0 mi . N. of, along rd. to Belleview, near foot of steep hill, 70 ft . N. of Mill Creek, on E. side of rd., in root of 18-in. hickory tree; copper nail and washer
unger, 2.5 mi . N. of, along rd. to Belleview, 75 ft . E. of Mill creek, at sw. corner
Munger, 2.5 mi . N. of, along rd. to Belleview, 75 ft . E. of Mill Creek, at SW. corner of dim rd. E., in concrete post; standard tablet stamped ${ }^{n} \mathrm{H} 1924$ Mo 1087 n 1,085.571
Reference mark, at $S E$. corner of dim rd. E., in root of 18-in. white oak stump; oopper nail and washer

1,085.93
Munger, 1.2 mf . NE. of post office, near center sec. 36, T. $34 \mathrm{~N} .$, R. 2 E., 900 ft . SW. of Savyer School, 50 ft . NW. of rd., 105. ft. N. of 15-1n. sycamore tree, in limestone post; aluminum tabiet stamped nPrim Trav Sta No 101907 Mo 1021":

1,019.904
Reference mark, in NE. corner of T-rd. N., in root of 20-in. post oak tree;
copper nail and washer
1,022.11
Munger, 0.8 mi . NE. of, along rd. to Belleview, at $S E$. corner of rd. E., in root of 10-in. maple tree; copper nail and washer
995.94

Sawyer's Mill (old site), I.5 mi. SE. of, along rd. to Valley Sawmill, on N. side of rd., in root of l6-in. elm tree; copper nail. and washer washer
Valley Sawmill, 1 ml . SE. of, along old log, trail to Taum Sauk Creek, on N. side of trail, in root of i8-1n. white oak tree; copper nall and washer $1,410.58$
Valley Sammill, 1.5 mi . SE. of, along old log trail to Taum Sauk Creek, on S. side of trail, in granite ledge; standard tablet stamped "H 1924 Mo 1469" 1,467.214
Reference mark no. 2 , on $S$. aide of trail, in granite ledge; chiseled square
Reference mark no. ' 2 , on $S$. side of trail, in root af 8-in. hickory tree; copper nail and washer
Valley Sawmill, 2 mi . SE. of, along old log trail to Taum Sauk Creek, on S. side Devil's Toil Gate, 0.2 ml . NE. of, along Taum Sauk oreek road, at NE. corner of T-rd. N., in top of granite ledge; chiseled. square
Devil's Toll Gate, 0.5 ml . SW. of, along Taim Sauk Creek road, on E. side of ra., in root of l2-in. blaok oak tree; copper naill and washer . of Tom Sauk creek,
Devils soll
Pinkley, 4 mi . NE. of post office, alongTaum Sauk Creek road, about 0.4 mi . E. of W. cor. secs. 12 and 13, T. 33 N., R. 2 E., 160 ft. S. of F. O. Barlow's house, on S. side of Taum Sauk Creek, 2 ft. above water, in limestone ledge; standard tablet stamped "H 1924 Mo 911"
909.250

Reference mark, 95 ft. SE. of house, in root of l2-in. maple tree; copper nall and washer
913.15

Pinkley, 3.2 mi . NE. of post office, along Taum Sauk Creek road, in NE sec. 14, T. 33 Ni , R. 2 E., at dim rd. N., on S. side of rd., in root of $14-\mathrm{in}$. hickory tree; copper nall and washer
880.40

Pinkley, 3 mi. NE. of post office, on W. bank of Taum Sauk Creek, on E. side of rd., opposite vacant farmhouse, in root of 15-in. white oak tree; copper nail and washer
Pinkley, 2 mi. NE. of post offioe, along Taum, Saluk Creek road, near ra. forks, in root of 6-in. hiokory trae: copper nail and washer
797.00

Pinkley, 0.8 mi . NE. of post office, along Taum Sauk Creek rd., in NWi $\frac{1}{4} \mathrm{SE} \frac{1}{4}$ sec. 27, T. 33 N., R. 2 E., in SE. corner of Feek's yard, in concrete post; standard tablet stamped "H 1924 Mo 960 "
Reference mark, 280 ft. E. of house, on 8 . side of rd., in root of 16-in. walnut tree; copper nail and washer
nkiey, 500 ft. Ș内. of post office, near center of NEt sec. 33, T. 33 N., R. 2 E.
near rd. forks, in root of 6-in. sycamore tree; oopper nail and washer 726.97
T. 33. N., R. 2 E, , near N. gixteenth cor, between seos. 28 and 29, at rd. forks, in root of 12-in. elm tree; oopper nail and washer
742.31
T. 33 N. . R. $2 \mathrm{E} .$, near SW. cor. sec. $20,2.5 \mathrm{mi}$. NW. of Pinkley, 30 ft . S. of Walker Branch, at rd. forks, in root of 6-in. aycamore tree; copper nail and washer 798.65
T. 33.N., R. 2 E., in SWis sec. 30, at top of hill, on N. side of rd., in concrete post; standard tablet stamped "H 1924 Mo 997 "
Reference mark, 20 ft . S. of tablet, in raot of 16-1n. white oak tree; copper nail and washer

## 4. FROM SOUTH BORDER OF QUADRANGLE NORTH ALONG WEST BORDER TO ENOUGH (Continued from Redford quadrangle; see line no. 1.)

T. 33 N., R. 1 E., near center of sec. 34, on W. bank of Long Branch, at rd. forks, in root of $30-1$ in. elm tree; copper nail and washer or long branch, at ra. forks, 733.57
Blaok, I mi. SE. of post office, in She sec. 27, T. 33 N., R. l E., at foot of hill, at rd. forks, in root of 8 -in. locust tree; oopper nail and washer 747.38
Blaok, 0.25 mi . W. of cor. secs. 21, 22, 27, and 28, T. 33 N., R. l E., 30 ft. W. of spring, in limestone ledge; standard tablet stamped "H 1924 Mo 764"
762.521

Reference mark, 300 ft . SE. of springhouse, in root on S . side of $40-\mathrm{in}$. burr oak tree; copper nail and washer
T. 33 N., R. 1 E., in NE $\frac{1}{4}$ sec. 21, near farmhouse, on $S$. side of rd., in root of 20-in. hard maple tree; copper nail and washer
781.44
T. 33 N., R. 1 E., in SWis sec. 16, at SW, corner of T-rd. W., in root of 20-1n. hard maple tree; copper nail and washer
825.32
T. 33 N., R. 1 E., near quarter cor. between secs. 8 and 17 , near farmhouse on W. side of rd., in concrete post; standard tablet stamped "H 1924 Mo 884". 883.210
Reference mark, 60 ft . SW. of tablet, in root of $20-1 \mathrm{n}$. white oak tree; copper nail and washer
T. 33 N., R. 1 E., in NW年. sec. B, at rd. forks, in SE. corner of farmhouse yard,
T. 33 N ., R. 1 E. , near center of SW s sec. 5 , at top of hill, on w. side of rdi, 150.83

Redmondrille, 2 mi . SE. of, at rd. forks, on E. side of rd., in root of l2-in. elm tree; oopper nail and washer
842.38

Redmondrille, 1.2 mi . SE. of, in SE $\frac{1}{4}$ nec. 32, T. $34 \mathrm{~N} ., \mathrm{R}$. 1 E., at T-lane to farmhouse, 6 ft . E. of SW. corner of yard, in concrete post; standard tablet stamped "H 1924 Mo 861"
Reference mark, 35 ft . N. of tablet, in root of $36-1 \mathrm{n}$. hard maple tree; copper nail and washer
858.50

Redmondville, in $S E \frac{1}{4}$ sec. $3 Q, T .34$ N., R. 1 E., at $S W$. corner of crossroade, in root of 24-in. walnut tree; copper nall and washer
Goodland, 0.5 mi . SE. of, at NW. oorner of dim rd. W., in root of 8-in. hard maple tree; copper nail and washer
Goodland, at $S$. end of T-lane N., in top of limestone post; aluminum tablet
stamped "Prim Trav Sta No 141907 Mo 948 "
948.633

Reference mark, in root of 16-in. walnut tree; copper nail and washer
(For balance in Boss quadrangle, see line no. 1.)
Goodland, 1.8 mi . N. of, 15 ft . SW. af vacant store building, on E. side of rd., in root of 10-in. maple tree; copper nail and washer of in root of $1,027.38$
Goodland, 2.5 mi. N. of, at dim rd. to house, on E. side of rd., in root of forked mulberry tree; copper nail and washer

I, 055.75
Goodland, about 3.2 mi . N. of, near quarter cor. between secs. 1 and $12, \mathrm{~T} .34 \mathrm{~N} .$, R. 1 W., at rd. forks, on $\mathrm{F}_{\text {, gide }}$ of rd., inside of fence, in concrete post; standard tablet stamped "H 1924 Mo 1093 m

1,092.024
Reference mark, at rá. fork, on E. side of rd., in root of black oak tree; copper nail and washer

1,091.37
Goodland, 4.5 mi . N. of, 400 ft . N. of farmhouse, on E. side of rd., in root of 10-in. elm tree; copper nall and washer

1,179.74
Goodland, 5.5 mi . N. of, near top of hill, at rd. forks, in roat of $12-1 \mathrm{n}$. black oak tree; copper nall and washer
T. 35 N., R. 1 E., in NE $\frac{1}{4} \mathrm{sec} .31$, at SE . corner of rd. junction, 70 ft . S. of farmhouse, in concrete post; standard tablet stamped "H 1924 Mo 1221"

1,220.340
Reference mark, 70 ft . SW. of farmhouse, on S . side of rd., in root of 18-in. white oak tree; copper nail and washer
Enough, 35 ft . NE. of post office, near center of rd., in root of 8-in. hickory tree; copper nall and washer $\quad$ nough, 0.8 mi . E. of post office, at rd. fork SW. to Redmondville, on N. side of Enough, 0.8 mi . E. of post office, at rd. fork SW. to Redmondiville, on N . side of rd., at top of bank, in root of forked white oak tree; copper nail and washer
5. FROM POINT NEAR PINKLEY EAST TO EAST BORDER OF QUADRANGLE (leveled twice by $W$. . Broaddus and F. L. Whaley in 1925)

Rinkley, 2 mi . E. of post office, 280 ft . E. of house, 15 ft . S. of rd., in root on N. side of 30-1n. black oak tree; copper nall and washer
Pinkley, 3.1 mi . E. of, 300 ft . S. of rdi, 60 ft . W. of Henry Swearingin's house, in root on SW. side of 8-in. walnut tree; copper nail and washer
864.04

Lesterville, 7 mi . NE. of, near rd. forks, 40 ft . E . of Iron-Reynolds county line, 15 ft . N. of fence corner, in large granite boulder; standard tablet stamped "Prim Trav Sta Na 70 F 1924 B 32 1924"
-Reference mark, 39 ft . S. of tablet, in root on E . side of $12-1 \mathrm{n}$. bleck oak trae; oopper nall and washer
895.04
(Continued in Middlebrook quadrangle; see line no. 2.)
6. FROM SOUTH BORDER OF QUADRANGLE NORTH TO BLACK (by George W. Moore in 1931)
(Continued from Redford quadrangle; see line no. 3.)
Black, 2.8 mi. SW. of, along old county ra., in $\operatorname{SE} \frac{1}{4} \operatorname{Sin} \frac{1}{4}$ sec. $32, T, 33 \mathrm{~N} ., \mathrm{R} .1$ E., 40 ft . N. and 20 ft . W. of rd. forks, in root on E. alde of i5-in. oak tree; copper nail and washer
Black, 1.7 mi . SW. of, along old county rd., in NWT seo. $33, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R} . \mathrm{J} . \mathrm{E} ., 40 \mathrm{ft}$. S. of ford, at W. end of gate, in root on NW. side of $20-1 n$. oak tree; copper nail and washer
820.25

43301 O-38-7

Black, 1 mi. SW. of, along old county rd., in SE $\frac{1}{4} \mathrm{sec} .28, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R} . \mathrm{l}$ E., 130 ft. SW. of ford, 20 ft . S. of rd., in root on NW. side of 22-in. oak tree; copper nail and washer
773.10

Black, 0.6 mi . SW. of, along old county rd., in NW $\frac{1}{4}$ sec. 27, T. 33 N., R. 1 E., 40 ft. S. and 30 ft . E. of rd. forks, on W. bank of creek, in root on N. side of 26-in. oak tree; copper nail and washer

## 7. FROM MUNGER EAST TO EAST BORDER OF QUADRANGLE (by F. C. Lentz in 1935)

Munger, l.2 mi. NE. of post office, near center sec. 36, T. 34 N., R. 2.E., 900 ft. SW. of Sawyer School, 50 ft . NW. of rd., 105 ft . N. of $15-\mathrm{in}$. sycamore tree; in limestone post; aluminum tablet stamped "Prim Trav Sta No 101907 Mo 1021"
Reference mark, 900 ft . NE. of tablet, in SW. corner of second step of Sawyer School; chiseled square

1,024.80
 East Fork of Black River, 15 ft . S. of Munger-Graniteville road, in root on N . side of 24-in. white oak tree; copper nail and washer 1,048.86
Munger, 3.5 mi . E. of post office, in SE $\frac{1}{4}$ sec. $31, \mathrm{~T}, 34 \mathrm{~N} ., \mathrm{R} .3 \mathrm{E} ., 10 \mathrm{ft}$. E. of rd., in root on E. ilde of l4-in. hickory tree; copper nail and washer 1,127.80
(Continued in Middlebrook quadrangle; see line.no. 4.)
8. LINE TO DETERMINE ELEVATION OF SUMMIT OF WILDCAT MCUNTAIN (Continued from Middlebrook quadrangle; see line no. 7.)
T. 33 N., R. 3 E., in NE sec. $6,5 \mathrm{ft}$. W. of trail, in root on sw. side of $12-1 \mathrm{n}$. white oak tree; copper nail and washer
 atandard tablet stamped "l L 1937 n .
Reference mark no. $l_{2} 48 \mathrm{ft}$. SW. of tablet, in, root on W. side of l5-in. white oak tree; copper nail and washer
Reference mark no. 2, 22 ft . E. of tablet, on highest point of large boulder; painted square
(Continued in Middlebrook quadrangle; see line no. 7.)

TIE AT BIXBY RETWEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRD ORDER LINE (by H. W. Gross, Jr., in 1936)
U. S. C. \& G. S. B. M. designated "Z $551934^{n \prime}$

Maxwells Mill, 0.2 mi . SE. of, near center NE, sec. 31 , T. 35 N., R. 1 E., 30 ft. W. and 25 ft . S. of abandoned. rd. S.; in concrete post; standard tablet stamped "H 1924 Mo 1221"

1,220.340
For an additional level line along State Highways 32 and 21 , refer to United States Coast and Geodetic Survey second-order line, Ste. Genevieve to Licking.

## REDFORD QUADRANGLE <br> (Latitude $37^{\circ} 15^{\prime}-37^{\circ} 30^{\prime}$; longitude $90^{\circ} 45^{\prime}-91^{\circ}$ )

## Iron and Reynolds County



1. NEAR CENTER OF NORTH BORDER OF QUADRANGLE (by M. J. Harden in 1924) (Continued from Edgehill quadrangle; see line no. 3.)
T. 32 N., R. 2 E., near center of NWP NWT sec. 31, on E. side of rd., in root of Feet 10-in. black oak tree; copper nail and washer
Tpe. 32 and 33 N., Rs. $i$ and 2 E., 800 ft . SW. of cor. of, 80 ft . NE. of T-rd., in sandstone post; aluminum tablet stamped "Prim Trav Sta. No 121907 Mo 762 H" 760.912

Reference mark， 700 ft ．SK，of tablet； 180 ft ．S⿴囗十 of T－rd．，in root of 30－in． white aak tree；copper nail and washer
Dobbins Sohool， 0.3 mi ．NW．of，near s．sixteenth oor．sec．1，T． $32 \mathrm{~N} ., \mathrm{R} .1 \mathrm{E} ., \mathrm{F}$ NW．of rd．forks，in root of 12－1n．sycamore tree；copper nail and washer 714.77
Dobbins School， 1.3 mi ．NW，of，on top of hill，on E．gide of rd．，in root of 30－in．white oak tree；copper nail and washer

yard，in concrete post；standerd tablet stamped＂H 1924 Yo 735＂ 733.031
Reference mark， 40 ft ．E．of tablet，in root of $12-\ln$ ．walnut tree；copper nall and washer
（Continued in Edgehill quadrangle；see line no．4．）
2．EAST ALONG SOUTH BORDER OF QUADRANGLE iby F．L．Whaley in 1925）
（Continued from Ruble quadrangle；see line no．2．）
Ellingtion，2．5 mi．NE．of，N．of rd．at mouth of Road Hollow， 200 ft ．W．of house， 5 ft．N．of fence，in limestone rack；standard tablet stamped MPrim Tray Sta No 90 F $1924^{\circ}$
Reference mark， 163 ft ．S． $40^{\circ} \mathrm{E}$ ．of tablet，in root on Ne．side of 18－in．post oak tree；copper nail and washer
626.66

Ellingt on， 3.6 mi ．Na．of，in SW．cor．sec． $23, \mathrm{~T} .30 \mathrm{~N} ., \mathrm{R} .1 \mathrm{E} .$, on S ．side of rd．at fence corner，in root of 10－in．white oak tree；copper nail and washer
707.57

Ellington， 5.8 mi ．NE．of，near NW．cor．sec．24，T． $30 \mathrm{~N}, \mathrm{R}$ R．le．，on N．side of rd．，in root of B－in．black oak tree；copper nail and washor
811.09

Elifngton， 6.8 mi．NE．of，near E．cor．secs． 13 and 24, T． 30 N．，R． 1 E．， 3 ft．N． of rd．，in root of $10-1 \mathrm{n}$ ．bickory tree；copper nail and washer 773.86
Redford， 3 mi ．SE．of， 30 ft ．No of rd．at mouth of Carpenter Hollom， 70 ft ．W．of Sinking Creek，in ledge；standard tablat stamped mprim Trav Sta No 89 F 1924 W 1925＂（reported destroyed）
Reference mark； 63 ft．SE．of tablet，in root，of lo－in．syoamore tree；copper nail and washer
623.551
622.49

Redford， 4 mi ．SE，of，on W．side of ra．， 4 ft ．N．of oorner of Edgar Johnson＇s
 3 ft ．E．of rd．，in root of 18－1n．black oak tree；copper nail and washer 589.04
Redford， 5.5 mi ．SE．of，at SW ．corner of rd．forks，in root of $18-1 \mathrm{n}$ ．black oak tree；copper nail and washer．NE，of rd．forks，on hillside $N$ ．of rd．， 4 ft ．NW．
Redford， 6.2 mi ．SE．of， 21 ft ．NE．of rd．farks，on hillside N．of rd．， 4 ft．NYF
of blazed oak tree，in limestone ledge；standard tablet stamped nprim Trav Sta No 88 F 1924 W 1925＂
Reference mark， 171 ft ．S． $52^{\circ}$ W．of tablet，at NW．corner of rd．forks，in root of 18－in．buckeye tree；copper nail and washer

$$
573.963
$$

（Oontinued in Ruble quadrangle；see line no．3．）

3．FROM WEST BORDER OF QUADRANGLE EAST AND NORTH TO CENTERVILIE，THENCE NORTH TO NORTH BORDER（by George W．Moore in 1931）
（Continued from Corridion quadrangle；see line no．2．）
T． 31 N．，R． 1 W．，in E 咅 sec． $1,60 \mathrm{ft}$ ． SW ．of ford， 12 ft ．NW．of rd．，in root on SE．side of 30 －in．oak tree；copper nail and washer
928.61

Centerville， 1.8 mi ．SW．of，along Brooks Hollow Road，near N．quarter cor．sec．6， T． 31 N．，R． 1 E．， 90 ft．S．and 20 ft ．W．from rd．forks， 18 ft ．NE．of gate，in fence line，in root on S．side of 13－in．oak tree；copper nail and washer 859.80
Centerville， 0.9 ml ．SW．of，along Brooks Hollow Road，in NW $\frac{1}{4}$ sec．32，T． 32 N. ， R． 1 E．， 40 ft ．NW．of rd．forks， 90 ft ．NW．of gates，in root on SE．side of 20－1n．oak tree；copper nail and masher
792.70

Centervilie，in courthouse yard， 90 ft ． F ．of F ．entrance to courthouse，in SW ． corner of concrete platform of well；chiseled squere
742.80

Centerville， 0.8 mf ．N．of，along State Highary 21，in NE $\frac{1}{4}$ sec．29，T． $32 \mathrm{~N} ., \mathrm{R} .1$ E．， in S．abutment of conorete highway bridge over West Fork，in top of W．parapet wall；standard tablet stamped＂139 M 1931＂
Reference mark， 25 ft ． $\mathrm{E}_{\text {．of }}$ tablet，on S ．abutment of concrete bridge，in top of
E．parapet wall；chiseled square，
749.119

Centerville， 1.2 mi ．N．of，along State Highway 21 ，in SEl sec．20，T． 32 N．，R． 1 E．， $55 \mathrm{ft} . \mathrm{N}$ ．of highway，in N ．head wall of concrete culvert under rd．W．；chiseled square
 and 10 ft ．W．from rd．forks，in E．bank of creek near ford，in root on SE．side of 15－in．sycamore tree；copper nail and washer 749.68
Centerville， 2.5 mi ．N．of，along old county rd．，near center of $\mathrm{s} \frac{1}{2}$ sec． 17 ，T． 32 N. ， R． 1 E．， 5 ft ．W．of rd．，in root 10 ft ．E．of 24 －in．oak tree；copper nail and washer
Centerville， 3.1 mi ．N．of，along county rd．，in NEL sec．17，T． $32 \mathrm{~N} ., \mathrm{R} .1 \mathrm{E} .$,
40 ft ．NE．of rd．forks，in root on NE．side of 24 －in．oak tree；copper nail
centerville， 3.8 mi ．N．of，along old county rd．，near center of E 解 sec．8，T． 32 N. ，
835.22

R． 1 E．， 75 ft．N．of rd．forks，in root on SW．side of 15－in．oak tree；copper
nail and washer 925.81
Centerville， 4.7 mf ．N．of，along old county rd．，near center of giz sec．5，T． 32 N.
R． 1 E．, 3.8 mf ．SW．of Black，on top of divide， 92 ft ． $\mathrm{E}_{\text {．of }}$ rd．，near center of triangle formed by three blazed trees，in top of large sandstone boulder； of triangle formed by three nilab $\mathrm{M} 1930^{\prime \prime}$
standard $\quad \mathrm{N}$ and 67 ft ．of tablet， 30 ft ． E ．of $\mathrm{rd}$. ．in root on
Reference mark， 64 ．No an tree；copper nail and washer
NW．aide of $16-1 n$ ．oal
（Continued in Edgehill quadrangle；see line no．6．）
4. FROM POINT 2.5 MILES NORTH OF CENTERVILLE NORTHWEST TO WEST BORDER OF QUADRANGLE (by H. W. Gross, Jr., in 1936)

Centerville, 2.5 mi . NW. of, on rd. to West Fork, 1.3 mi . NW. of State Highway 2l, 15 ft . S. and 35 ft . W. of junction of Bee Fork road, in root on W . side of 16-1n. walnut tree; copper nall and washer
Top of hill, 15 ft . N. of rd., in root on S. side of l8-in. black oak trea; orossed nails
orossed nails
822.5
denterville, 3.1 mi . NW. of, on rd. to West Fork, 25 ft . W. and 15 ft . S. of rd. forks, on N. bank of West Fork, near ford, in root on NE. side of twin 8-in. sycamore tree; copper nail and washer
T. 32 N., R. 1 W., in NEA sec. 24, 55 ft . S. and 3 ft . W. of S. corner of J. C. Laramore's house, 10 ft. . E. of rd: to West Fork, in concrete post; standard tablet stamped ${ }^{n} T$ T 370 CW A $1934^{n i}$
757.51
W. side of West Fork at ford, 12 ft . E. of rd., in root on E. side of li-in. sycamore tree; crossed nails
Rd. forks, in oenter of triangle, in root on S. side of ll-in. sycamore tree; crossed nails
780.4
(Continued in Corridon quadrangle; see line no. 5.)

## 5. NORTH THROUGH CENTER OF QUADRANGLE (by F. C. Lentz in 1936)

Redford, 6 mi. SE. of, 3 mi. W. of Riverside School, 200 ft . W. of rd., in concrete post; U. S. C. E. tablet stamped "Memphis Engineering District Trav Sta No 1-13"
568.411

Redford, 5 ml . SE. of, 1.2 mi . S. of schoolhouse, 100 ft . SE. of rd. forks, 100 ft . NW. of Sinking Creek, in root on NW. side of l2-in. sycamore tree; copper nall and washer
582.33
T. 30 N., R. 2 E., in NWI seo. 2l, in top of $S$. end of firat step to schoolhouse; ohiseled square
610.75
T. 30 N., R. 2 E., in NE $\frac{1}{2} N E \frac{1}{4} \mathrm{sec} .20$, about 0.3 ml . N. of schoolhouse, 35 ft . NE. of Parmhouse, 20 f 't. W. of rd., 10 ft . N. of picket pence, in root on E. side of 36-in. white oak tree; copper nail and washer
614.70

Redford, 3 mi . SE. of, at mouth of Carpenter Hollow, 150 ft . W. of Sinking Creek, 45 ft . E. of rd., in root on N . side of twin sugar maple tree; copper nail and washer
T. 30 N., R. 2 E., near center sec. 7, 275 ft . E. of Price's house, 50 ft . W. of Sinking Creek, 10 ft. E. of rd., in root on E. side of 26-in. muiberry tree; oopper nail and washer
643.52
T. 30 N., R. 2 E., in NE交S䐘 sec. 6, 80 ft . W. of Obe Neal's house, 20 ft . E. of rd. forks, in root on N. side of 26-in. gum tree; copper nail and washer
Low water bridge over sinking creek, 40 ft. $N$. of, in root on E. side of $10-1 n$. maple tree; nail
Redford, 1.2 mi. E. of, 100 ft . W. of house, 25 ft . E. of rd., in root on $W$. side of 30-in. black oak tree; oopper nail and washer
Redford, 200 ft . S. of J. H. Moffett's store, 30 ft . W. of rd., in limestone ledge; standerd tablet stampea "Prim Trav Sta No 91 F 1924". 695.497
Redford, 1 mi. N. of, 450 ft . W. of Richard Barnes' house, 400 ft . W. of rd., in root on $N$. side of $40-1 \mathrm{n}$. white oak tree; copper nail and washer
Redford, $2.2 \mathrm{ml} . \mathrm{N}$. of, 100 ft . SE. of SE. corner of Harrison Valley School, 100 ft . E. of rd., in root on $S$. side of $26-i n$. White oak tree; copper nail and washer
Redford, 3.2 mi . N. of, 0.2 mi . E. of J. C. Harrison's house, 20 ft . S. of rd., in ledge; standard tablet stamped "Prim Trav Sta No 92 F 1924"
839.189

Redford, 4.2 mL . N. of, 150 ft . N. of board fence at NE. corner of large field, 10 ft . W. of rd., in root on E. side of $13-i n$. white oak tree; copper nail and washer
889.35
T. 31 N., R. 1 E., in NWhathe seo. 12, at top of ridge, 10 ft . E. of rd., in root on W. side of $36-1 n$. white qak tree; copper nail and washer $1,022.30$
T. 31 N., R. 2 E., in NWhes sec. 6, 500 ft . E. of Charles Reed mill place, 50 ft . S. and 25 ft . W. of T-rd. W., in root on E. side of $15-\mathrm{in}$. white oak tree; copper nail and washer
Lesterville, 5.5 mi . SW, of, 500 ft . SE. of house, 20 ft . SE . of rd., in limestone boulder; standard tablet stamped "prim Trav Sta No 83 $F 1924{ }^{n}$.
763.907

Lesterville, 4 mi. SW. of, in Paola Valley, 700 ft . W. of Paola School, 50 ft . W. of entrance to G. O. Adams' farm, 15 ft . S. of rd., in root on E. side of 48-in. elm tree; copper nail and washer
698.30

Lestervilie, 3 m1. SE. of, 120 ft . K. of rd. fork up Paola Hollow, 40 ft . NW. of rd., at foot of hluff, in limestone ledge; standard tablet stamped nerim Trav Sta No 94 F 1934"
Reference mark, 100 ft . S. of tablet, in root on N . side of li-in. oak tree; copper nail and washer
677.376
copper nail and washer 6 wing wall of bridge over Black River; chiseled square River Lodge, in concrete 662.
square
U. S. C. \& G. S. B. Ms designated "G 116 1935"
680.228

Lesterville, 1 ft . W. of $W$. end of step to $A$. G. Shay's store, in concrete porch; standard tablet stamped "Prim Trar Sta No 95 F 1924" 711.563
U. S. C. \& G. S. B. M. designated "F 216 1935" 723.319
6. FROM SOUTH BORDER OF QUADRANGLE NORTH ALONG WEST BORDER TO STATE HIGHWAY 72, THENCE SOUTHEAST TO POINT NEAR CENTER
(Continued from Ruble quadrangle; see line no. 7.)
Ellington, 1.7 mi . N. of, in Dry Valley, 35 ft . SW. of rd. forks, in 12-in. white oak tree; copper nall and washer

Ellington, 2.8 mi . N. of, in NW ${ }^{\frac{1}{2} N E \frac{1}{4} \text { sec. } 20, ~ T . ~} 30$ N., R. le., in Dry Valley, 15 ft . NW. of old State Highway 21, in root of 26-in. white oak tree; copper nail and masher
741.64

Ellington, about 3.6 mi . N. of, in $\mathrm{SW} \mathrm{F}_{4}$ sec. $17, \mathrm{~T} .30 \mathrm{~N} ., \mathrm{R} .1 \mathrm{E} .$, in Dry Valley, 30 ft. S. of rd., in root of 24-in. bickory tree; copper nail and washer ${ }^{2} 7$
Ellington, about 4.8 mi . N. of, in NWI sec. $18, \mathrm{~T} .30 \mathrm{~N} .$, R. 1 E. in Dry Valle 50 ft . NE. of old State Highway 2l, in root of 30-in. white oak tree; copper nail and washer
795.90

Ellington, about 5.5 mi . N. of, in SWhec. $\mathrm{sec}, \mathrm{T}, 30 \mathrm{~N} .$, R. 1 E., 120 ft . W. of rd.; 30 ft . N. and 40 ft . E. of NW. corner of C. E. Stout 's house, in sandstane post; standard tablet stamped 117 L $2936^{\text {a }}$
Ellington, 6.8 mi . N. of, in Dry Valley, 1 mi . S. of Upper Dry Valley School, 25 ft. NE. of old State Highway 2l, in root of 12-in. white oak tree; copper nail and Washer
844.62

Ellington, about 7.8 mi. N. of, in NES sec. 1, T. 30 N., R. I W., on old State Highway $21,40 \mathrm{ft}$. S. of SE. oorner of Dry Valley Church, 25 ft . W. of rd., in root of 40-in. black oak tree; copper nail and washer
867.32

Rd. fork NW., in roat of 14-in. black oak tree; copper nail and pasher
Ellington, 9 mi. N. of, in Dry Valley, 1 mi . N. of Upper Dry Valley School, 15 ft.
NW. of rd., in root on SE. side of 14-in. white oak tree; copper nail and washer
919.09

Elifington, 8.3 mi. N. of, along State Highway 21, 15 ft . N. and 90 ft . W. of highway at rd. W., in root of $12-1 n$. white oak tree; oopper nail and washer 1,087.12 Woods rd. SE., in top of masonry head wall; ohiseled square
Ellingt on, 9.2 mi. N. of, along Stata Highway $21,85 \mathrm{ft}$. W. of highway, in top of head wall of concrete culvert; chiseled square

1,054.0
942.98

SE. corner of ooncrete bridge; ohiseled square
T-rd. W., in top of masonry head wall; ohiseled square
Ellington 12.2 ml . of along old State Highway $21,0.7 \mathrm{mi}$. W. of new state Highmay 21, 100 ft. . W. of Sinking Creek, 30 ft . NW. of rd., in root of $30-1 \mathrm{n}$. white oak tree; copper nail and washer
822.74

T-rd. W., in root of 24-in. black oak trae; nail
Reynolds, $8.1 \mathrm{mi} . \mathrm{E}$. and $2 \mathrm{mi} . \mathrm{S}$. of, 2 mi . S. of Stata Highway 72, in Sinking Creek Valley, $15 \mathrm{ft} . \mathrm{W}^{2}$ of rd.j in 36-in. white aak trae; copper nail and washer
Reynolds, 8.1 mi . E. and 1 ml . S. of, 1 mi . S. of State Highway 2l, 15 ft . E. of T-rd. W., in root on W. side of 30-in. white oak tree; copper nail and
860.74

## Washer

Rd. fork SW., 35 ft. S. of State Highway 72, in root of 14-1n: black oak tree; oopper nail and washer
900.41
U. S. C. \& G. S. B. M. designated mploll $1935{ }^{\text {ma }}$

1,109.9
Reference mark, 540 ft . E. of tablet, in root on N. side of 14-1n. black oak tree; oopper nail and washer

1,113.206
tree; copper nail and washer
U. S. \& G. S. B. M. designated "X 1151935 m
1,138.387 and 72, in sandstone bouldel. standard tablet atape
Reference mark, 250 ft. S. of tablet, in root of 12-in. black oak tree; copper
nail and washer
1,139.266
1,131.36
Centerville, 3.8 ml . S. or, 10 ong state 30 ft . . op 141.6 at rd. E., in root on E. side of 16-in. white oak tree; copper nail and washer

1,147.37
Redford 4.6 mi . N. and 1 mi . W. of, 50 ft . N. of ourve in ra., 15 ft . W. of fence oorner, in fence line, in root of $12-1 n$. black oak tree; copper nail and pasher
975.81

Redford, 4.6 mi . N. of, 1.3 mi . N. of J. C. Harrison's house, 10 ft . N. of rá. in root on S. side of l5-in. black oak trie; oopper nail and washer
Rd. fork NE., in root of 30-in. white oak tree; oopper nail and washer
Redford, 3.2 mi . N. of, 0.2 ml . E. of J. C. Harrison's house, 20 ft . S. of rd.. in ledge; standard tablet stamped "Prim Trav Sta No 92 F 1924"
839.189

## 7. FROM CENTER OF EAST BORDER OF QUADRANGLE WEST TO POINT NEAR MIDDLE <br> (Continued from Des Aro quadrangle; see line no. 9.)

Rd. forks, in root of twin, black oak tree; nail Foot of hill, 50 ft . E. of rd., in root on S. side of $30-\mathrm{in}$. white aak tree;
nall 865.2

Annapolis, 2 mi . S. and 2.5 mi . W. of, near center sec. 19, T. $31 \mathrm{~N} ., \mathrm{R} .3 \mathrm{E} ., 50 \mathrm{ft}$. E. of a gate, 25 Pt. N. of rd., in root on $S$. side of 14-ir. white oak tree; oopper nail and washer
Annapolis, 3 mi . W. and 2 mi . S. of, in Sme sec. 19, T. $31 \mathrm{~N} .$, R. $3 \mathrm{E},. 15 \mathrm{ft}$. S. of rd. forks, 5 ft . N. of triangular-blazed 18-in. water oak tree, in ooncrete post; standard tablet stamped "T T 1606 E R A 1935"
596.891

Annapolis, 4 mi . W. and 2 mi . S. of, 350 ft . W. of J. H. Ridder's house, 300 ft . N. of rd., in root on $S$ : side of 38 -in. sugar maple tree; copper nail and washer
GW. corner of large field, 100 ft . N : of river, in root on E. side of 24-in. White oak tree; oopper nail and washer
Black River, at mouth of Mayberry Hollow; surface of water February 24, 1936 at 3:30 p. m.
Redford, $6 \mathrm{mi} . \mathrm{E}$. and 2 mi : N. of, near mouth of Mayberry Hollow, 350 ft . SW. of Blaok River, 25 ft . N. of dim rd., in root on N. side of l2-in. sycamore tree; copper nall and masher
Redford, 5 mi . E. and 2. mi. N. of, in Mayberry Valley, 125 ft . SW. of Mayberry Schooi, 10 ft . S. of rd., in root on S. 日ide of 15-in. gum tree; oopper nail and washer
Redford, 4 ml . E. and $2 \mathrm{mi} . \mathrm{N}$. of, in Mayberry Valley, 1 mi . m . of Mayberry Sahool, $15 \mathrm{ft} . \mathrm{N}$. of rd., in root on N. side of 12-in. sycamore tree; oopper nail and washer
Redford, 3.5 mi . E. and 2 mi . N. of, in $\mathrm{Ne} \frac{2}{4} \mathrm{sec}, 28, \mathrm{~T}, 31 \mathrm{~N}, \mathrm{R}, 2 \mathrm{E}, 37$ it 348 rd. forks, 2 ft. N. of fenoe, in ooncrete post; standard tablet atamped $n T T T$. of 1604 ERA 1935"

Reference mark, 300 ft . N. of tablet, in root of l2-in. white oak tree; copper nail and washer
Redford, 3 mi . E. ana $2.5 \mathrm{mi} . \mathrm{N}$. of, in Wet Hollow, 10 ft . SW. of rd., in root on NE. side of 24-in. black oak tree; copper nail and washer
Redford, about 2.5 mi . N. and 2.5 mi . E. of, in NE $\frac{1}{4}$ sec. 20, T. $31 \mathrm{~N} ., \mathrm{R} .2 \mathrm{E} .$, in Wet Hollow, 10 ft . NE. of rd., in root on $N$. side of $16-i n$. black oak tree; oopper nail and washer
849.05

Redford, 3.2 mi . N. and 1.5 mi . E. of, in SE $\frac{1}{4} \mathrm{sec} .18, \mathrm{~T} .31 \mathrm{~N} ., \mathrm{R} .2 \mathrm{E}$. , on top of ridge, 15 ft . W. of crossroads, 35 ft . W. of triangular-blazed $10-\mathrm{in}$. white oak tree, in conorete post; standard tablet stamped "T T 1603 E R A 1935" 1,089.983
Redford, 2.2 mi . N. and 1.5 mi . E. of, 1.5 ml . E. of Harrison Valley Sohool, 50 ft . Sī. of rd. forks, in root on S. side of 24-in. White oak tree; copper nail and washer
Redford, $2.2 \mathrm{mi} . \mathrm{N}_{\mathrm{t}}$ and 0.6 ml . E. of, 0.6 mi . E. of Harrison Valley School, 200 ft . NE. of W. S. Hinoh's house, 30 f.t. E. of rd., in root on E. side of $30-1 \mathrm{n}$. white oak tree; copper nail and washer

TIE BETWEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRD-ORDER LINE AT JUNCTION OF STATE HIGHWAYS 21 AND 49, THREE MLLES NORTHWEST OF LESTERVILLE
T. 32 N., R. 1 E., near NE. oor. of NWhisprit sec. 2, in NE. corner of Alvin Goggins' yard, in concrete post; standard tablet stamped "H 1924 Mo 735 m.
Reference mark, 40 ft . E. of tablet, in root of $12-i n$. walnut tree; copper nail and washer
U. S. C. \& G. S, B B. M. designaced "D 1161935 "
710.304

For an additional level line along State Highway 2l, refer to United States coast and Geodetio Survey second-order line, Ohlman to Glover.

RUBLE QUADRANGLE
(Latitude $37^{\circ}-37^{\circ} 15^{\prime}$; longitude $90^{\circ} 45^{1-}-91^{\circ}$ )
Carter, Reynolds, and Wayne Counties


1. FROM POINT NEAR CENTEK OF WEST BORDER OF QUADRANGLE NORTH TO ELLINGTON, THENCE WEST TO WEST BORDER (by M. J. Harden in 1924).
(Continued from Cardareva quadrangle; see line no. 4.)
0ld sawmill, 800 ft . N. of, about 500 ft . S. of cemetery, 40 ft . S. of T-rd. E., in stone póst; standard tablet stamped "Prim Trav Sta No 40 F 1924 Mo 635 m $\qquad$
Reference mark, 600 ft . N. of old sawmill, at T-rd. E., in root of forked burr oak tree; copper nail and washer
Pine Valley School, 2 mi . S. of, on E. eide of rd., in root of 10-in. white oak tree; copper nail and washer
Pine Valley School, 1.3 mi . S. of, at dim rd. E., 16 ft . N. of Christin's yard, in root of $14-i n$. persimmon tree; copper nail and washer
Pine Valley School, 800 ft . S. of, 80 ft . SW . of rd . forks, in large rock; standard tablet stamped "Prim Trav Sta No 41 F 1924 Mo 753"
Reference mark, 35 ft . SW. of tablet, in root of l2-in. white oak tree; copper nail and washer
Oyrus Smith's house, 0.6 mi . N. of, 60 ft . S. of State Highway 21 at old county rd., in root of lo-in. black oak tree; copper nail and washer
dyrus Smith's house, 1.5 mi . N. of, SW. of dim rd. W., in root of 6-in. white oak tree; copper nail and washer
Orossroads, in root of 6-in. black oak tree; copper nail and pasher
Elilington, 6 ml . S. of, 150 ft . S. of Missouri Southern R. R. at rd. crossing, in ooncrete culvert; standerd tablet stamped "Prim Trav Sta No 42 F 1924 Ma 909 " 908.705
Reference mark, 50 ft. W. of crossing, in root of $60-1 n$. pine tree; copper nall and washer
West Doubling Spur, 100 ft . SE. of, on E. side of Missouri Southern R. R., in root of 20-in. white oak tree; copper nail and washer
West Doubling Spur, 0.4 mi . NE. of, 150 ft . SW. of Missouri Southern R. R. at rd. crossing, in root of $20-1 n$. white oak tree; copper nail and washer

Missouri Southern R. R. at rd. crossing; top of W. rail 838.2
Ellington, 3 mi . S. of, 10 ft . N. and 20 ft . W. of Missouri Southern R. R. at rd. crossing, in concrete culvert; standard tablet stamped "prim trav sta No 43 F 1924 Mo 801"
Reference mark, 4 ft . E. of R. R. track, in top of N. guard wail of concrete
culvert; chiseled square
Ellington, 2. mi. S. of, 15 ft . E. of Missouri Soutbern R. R. at rd. crossing, in
800.930 forked wild cherry tree, 12 in. above ground; copper nail and washer
802.04
763.45

Ellington, 1.1 mi . S. of, in top of abutment at NE. corner of Missouri Southern R. R. bridge; copper nail and washer

Ellington, in concrete porch of J. F. Shy's store; standard tablet stamped "Prim Trav Sta No 44 F 1924 Mo $667 \mathrm{\prime} \mathrm{\prime}$
Ellington, 210 ft . S. and 600 ft . W. of Missouri Southern R. R. station, 20 ft . S. of public rd.; iron post stamped "Prim Trav Sta No 561913 Mo $675^{n}$. Elevation
Note.-Above described monument moved 15 ft . S . of above description. Elevation as given is correct.
Elifington, 1 mi . W. of, near rd. forks, 60 ft . S . of rd., in root of forked walnut tree; copper nail and washer 679.56
Ellington, 1.6 mi . W. of, opposite T-rd. S., in root of l4-in. white oak tree; copper nail and washer
(Continued in Cardareva quadrangle; see line no. 6.)
2. FROM ELLINGTON NORTHFAST TO NORTH BORDER OF' QUADRANGLE (by W. R. Broaddus in 1925)

Ellington, 1.2 mi . NE. of, 770 ft . W. of rd. Junction, $10 \mathrm{ft} . \mathrm{S}$. of rd., at mouth of ravine, on bank of creek, in root on S. side of $7-1 \mathrm{n}$. white oak tree; copper naid and washer
645.32

Ellington, 2.3 mi . NE. of, 90 ft . S. of H. E. Helvey's house, 20 ft . S. of rd.s in root on S. side of 14-in. walnut tree; copper nail and washer
647.88
(Continued in Redford quadrangle; see line no. 2.),

## 3. IN NORTHEAST CORNER OF QUADRANGLE (by F. L. Whaley in 1925) (Continued from Redford quadrangle; see line no. 2.),

Redford, 7.5 mi . SE. of, near SW. cor. sec. $26, \mathrm{~T} .30 \mathrm{~N} ., \mathrm{R} .2 \mathrm{E} \cdot \mathrm{j}$ about 60 ft . S. of Mr. Johnson's house, on E. side of rd., in root of 14-1n. black oak tree; copper nall and washer
Riverside School, 17 mi . W. of, on S . side of rd. opposite T-rd. N.; on top of large limestone boulder; painted circle 40-in. elf: tree; copper nail and washer
Riverside School, 500 ft . N. of, 200 ft . E. of T-rd. W., 130 ft . NE. of house, in top of limestone ledge; standard tablet stamped "Prim Trav Sta No 87 F 1924 W 1925"
Reference mark, 92 ft . N. $40^{\circ} \mathrm{W}$. of tablet, 3 ft . E. of rd., in root of $36-\mathrm{in}$. walnut tree; copper nail and washer
Riverside School, 1 mi . E. of, 100 ft . W. of dim rd. junction, 100 ft . E. of house on N . side of rd., in root of forked white oak tree; copper nail and vasher 573.13
(Continued in Pledmont quadrangle; see line no. 2.);

## 4. NEAR CENTER OF SOUTH BORDER OF QUADRANGLE (by L. V. Johnson in 1932.)

(Continued from Grandin quadrangle; see line no. 6.)
U. S. Highway 60 and stete Highway 21, 3.3 mi. SE. of. N. junction of, 60 ft . SW. of R. B. Nelson's mail kox, 15 ft . S. and 45 ft . W. of highway at junction of dim rd: E., in root on S. side of 8-in. oak tree; copper nail and washer
Van Buren, 10.6 mi . E. of along U. S. Highway $60,2.6 \mathrm{mi}$. S. of junction of 60 and Stete Highway 21, 40 ft . N. and 45 ft . W. of highway at junction of rd. W., in limestone boulder; standard tablet stamped n.T T 12 B 1932m 879.397
Reference mark, 80 ft . E. of tablet, 5 ft . N. and 37 ft . E. of highway at junction of rd. W., in root on SW. side of 6-in. oak tree; copper nail and washer 878.32.
Ohilton, $7.1 \mathrm{mi} . \mathrm{N}$. of, along Eldrigh Valley road, 1 mi . SW. of U. S. Highway 60,
6 ft . E. of rd., in root on E. side of 8 -in. triangular-blazed oak tree; copper nail and washer
(Continued in Grandin quadrangle; see line no, 7.)
5. FROM ELLINGTON SOUTHEAST TO POINT NEAR CENTER OF SOUTR HALF OF EAST BORDER OF QUADRANGLE (by F. C. Lentz in 1936)
U. S. C. \& G. S. B. M. designated "S 114 1935"

State Highway 21 at rd. S. near S. oity limits of Ellington, in top of rock retaining wall; chiseled square
Ellington, $1.3 \mathrm{mi} . \mathrm{SE}$. of, 40 ft . N. of State Highway 21 , in root on S . side of 14-1n. White oak tree; copper nail and washer
Ellington, 2.3 mi . SE. of, 30 ft . E. of Stete Highway 21 , in root on W. side of 16-1n. white oak tree; copper nail and washer
Elilngton, 3 mi . SE. of, in Doe Fun Valley, 30 ft . S. of rd., in root on S . side of $30-1 n$. white oak tree; copper nail and washer
Ellington, 3.7 mi . SE. of, in Doe Run Valley, 83 ft . N. of rd., $27 \mathrm{ft} . \mathrm{s}$. and 20 ft . E. of SE, corner of Lee Webb's house, in concrete post; standard tablet stamped "T T 5 B 1932"
Reference mark, 80 ft . SW. of tablet, in root of $38-\mathrm{in}$. black oak tree; copper nail and washer

Elilngton, 5 mi. SE. of, along Piedmont road, 1 mi. W. of Upper Doe Run School, 35 ft. S. of rd., at fence corner, in root on $N$. side of 20-in. black oak tree; copper nail and washer
Ellington, 6 ml . SE . of, along Piedmont rad, in Doe Run Valley, 125 Pt . N. of Upper Doe Run School, 20 ft . N. and 45 ft . E. of rd. forks; in 38-in. black oak tree; copper nail and washer
Ellington, 7 mi. SE. of, along Piedmont road, 2.8 mi . NW. of Lower Doe Run Schoal 30 ft . S. and 35 ft . W. of rd. corner, 35 ft . N. and 15 ft . E. of N. corner of Z: W. Larken's house, inside yard fence, in concrete post; standard tablet stamped "T T 4 B 1932"
Ellington, 8 mi . SE. of, along Pledmont raad, 2 mi . NW. of Lower Doe Run Sohool, 65 ft. W. of old barn, 50 ft . N. of rd., in raot on E . side of l4-in. hickory tree; oopper nall and washer
677.46

Ellington, 9 mi . SE. of, along Pledmont road, 1 mi . NW. of Lower Doe Run School, 60 ft . S. and 45 ft . W. of rd. corner, in root on E. side of $36-\mathrm{in}$. elm tree; copper nail and washer
637.06

Ellington, 10 mi. SE. of, along Pledmont road, 200 ft . SE. of rd. forks, 100 ft . SW. of Lower Doe fun School, in root on S. side of 24-in. black oak tree; copper nail and washer
Ellington, 10.5 mi . SE. of, along Piedmont roed, 0.7 mi . E. of Lower Doe Run School, 20 ft . N. and 90 ft . E. of rd. forks, 20 ft . N. of rd. at curve, in conorete post; standard tablet stamped.nT T 3 B 1932"
Reference mark, 90 ft . NE. of tablet, in root on S. side of 30-in. white oak tree oopper nall and washer $\quad 745.95$
Ellingtion, 11.5 mi . SE . of, 12 mi . W. of Piedmont, on Ellington-Piedmont road, 1.7 mi . E. of Lower Doe Run School, 30 ft . S. of rd., in root on N. side of 14-in. hickory tree; copper nall and washer
ellington, 12.5 mi . SE. of, 11 mi . W. of Pledmont, on Ellington-Piedmont road, in Logan Creek Valley, 2.7 mi . E. of Lower Doe Run School, 250 ft . E. of Ed. Thurman's farmhouse, 75 ft . NE. of T-rd.; in root on W. side of $50-\mathrm{in}$. pin oak tree; oopper nail and washer
Ellington, 13.5 mi . SE . of, 10 mi . W. of Piedmont, on Elilngton-Pledmont road, in Logan Creek Valley, 100 ft . N. of curve in rd., in l4-in. elm tree; copper nall and washer
Piedmont, 9.1 ml . W. of, along Ellington road, in Logan Creek Valley, 30 ft . S. of rd. at junction of rd. Prom Logan Creek School, 25 ft . N. and 55 ft . E. of NE. corner of Carter mill building, in concrete post; standard tablett stamped "T T 2 B 1932"
Piedmont, 7.6 ml . W. of, along Ellington road, 700 ft . W. of W. end of low water bridge over Black River, 20 ft . SW. of rd., opposite fence corner, in root of 18-1n. elm tree; copper nail and washer
Riedmont, 6.4 mi . W. of, 17.1 mi . SE. of Ellington, 32 ft . N. of rd., 30 ft . SE. of Zimki Clark's house, at SE. corner of yard, in concrete post; standard tablet stamped "T T 1 B 1932"
476.336

Piedmont, 7 mi . SW. of, in Webb Valley, 0.8 mi . SW. of Black River, 190 ft . E. of rd., 100 ft . S. of barn, in root on W. side of 50-in. black oak tree; copper nail and washer
3.18

Ellington, 0.7 mi . N. of, in Dry Valley, 0.3 ml . W. of State Highway $21,15 \mathrm{ft}$. N. of rd., in root on $S$. side of $24-1 n$. white oak tree; copper nail and washer 662.86
(Continued in Redford quadrangle; see line no. 6.)

TIE BETWEEN U. S. C. \& G. S. SECOND-ORDER LINE AND U. S. G. S. THIRD-ORDER LINE AT ELLINGTON

Ellington, in concrete porch of J. F. Shy's store; standard tablet stamped "Prim Trav Sta No 44 F 1924 MO 667 "
Ellington, 210 ft . S. and 600 ft . W. of Missouri Southern R. R. station, 20 ft . S. of public rd., iron post stamped "Prim Trav Sta No 561913 Mo 675"'

Note.-Above described monument moved 15 ft . S . of above description. Elevation as given is correct.
U. S. C. \& G. S. B. M. designated "S 114 1935"

For an additional level line along Missouri Southern R. R. and U. S. Highway 60, refer to United States Coast and Geodetic Survey second-order line, Van Buren to Stone Hill.


Carter and Ripley Counties


1. FROM SOUTH BORDER OF QUADRANGLE NORTH ALONG STATE HIGHWAY 21 TO HUNTER, THENCE NORTHWEST ALONG ST. IOUIS-SAN FRANCISCO R. R. TO WEST. BORDER (second-order line by H. P. Jones in 1933)
(Continued from Doniphan quadrangle; see line no. 3.)
Grandin, 5.6 mi . S. of, along State Highway $21,1.6 \mathrm{mi}$. N. of bridge over Littile Feet Black River, in W. head wall of conorete culvert; chiseled square 649.35
Grandin, 4.6 ml . S. of, along State Highway 21, 2.7 ml . N. of bridge over Little Black River, 30 ft . S. and 35 ft . W. of highway at dim cross rd., at top of hill, in root on E. side of 8-in. black oak tree; oopper nail and washer
Grandin, 3.6.mi. S. of, along State Highway 21, 340 ft . N. of highway at dim rd. E., 35 ft . E. of highway, in root on W. Bide of 36-in. post oak tree; copper nail and washer.
Grandin, 2.7 mi . S. of, along State Highway 2l, 160 ft . N. of highway at timber rd. W. and lane E., 15 ft . S. of fence corner at NW. corner of field, on S. side of woods, in concrete post; standard tablet atamped "T T 57 B 1931713 m . 712.929
Grandin, 1.5 mi . S. of, along State Highway $21,12 \mathrm{ft}$. S. and 20 ft . E. of highway at oross rd., at Carter-Ripley county line, in $S$. head wall of conorete culvert; chiseled square
Grandin, $1.1 \mathrm{mi} . \mathrm{S}$. of, along State Highway 21, 60 ft . S. and 50 ft . W. of highway at dim E.-W. crass rd., in root on S. Bide of 10-in. black oak tree; copper nail and washer
Grandin, 61 ft . S. and 30 ft . W. of State Highway 21 at crossing of St. Louis-San Francisco R. R., $310 \mathrm{ft} . \mathrm{S}$. of highway bridge over Little Black River, $63 \mathrm{ft} . \mathrm{N}$. and 30 ft . W. of crossroads, in concrete post; standard tablet stamped "T T 56 B 1931 586"
Grandin, 1.3 ml . N. of, along State Highway $21,160 \mathrm{ft}$. S . of highway at rd. W., near conter of $\vec{E}$. head wall of concrete culvert; chiseled square
Hunter, 2.1 mi . S. of, along State Highway 21, at foot of hili, 51 ft . N. and 37 ft , W. of highway at E.-W. oross rd., 9 ft . N. and 2 ft . E, of fence corner, in concrete post; standard tablet stamped "T T 55 B 1931 649"
648.701

Hunter, 0.7 mi . S. of, along State Highway $21,60 \mathrm{ft}$. S. and $55 . \mathrm{ft}$. E. of highway at rd. SE., in top of large flint rook; ohiseled square
Hunter, at E. edge of, along State Highway 21, in E. end of $S$. abutment of concrete bridge over Little Black River; ohiseled square
697.26

Hunter, 0.5 mi . Ni of, 100 ft . W. of St. LouismSan Francisco R. R., 30 ft . W. of gate, 2.ft. S. of N. line of public rd.; iron post stamped mprim Trav sta No 28 F $1924735^{n}$

Hunter, 2.8 mi . W. of, along St. Louis-San Francisco R. R., directly opposite telegraph pole no. 366-10, in cut, 8 ft . S. of track, in ledge of rock; chiseled square
542.94

Chilton, 3 mi . E. of, 350 ft . E. of St. Louis-San Francisco R. R. at rd. crossing, 11 ft . N. of track, 100 ft . N. of rd., at E . end of R. R. cut, in ledge; standard tablet stamped "Prim Trav Sta No 29 F $1924471 "$ 470.831

Chilton, 2.4 mi. E. of, along St. Louis-San Francisco R. R., at SE. corner of wooden trestie no. 364-8, in wooden bulkhead; copper nail and washer 448.76
Chilton, 2.3 mi . E. of, elong St. Louis-San Francisco R. R., 35 ft . W. of telegraph pole no. $364-25,65 \mathrm{ft}$. S. of track, in root of $30-1 \mathrm{n}$. black oak tree; copper nail and washer
439.81

Chilton, 1.1 mi . E. of, along St. Louis-San Francisco R. R., opposite second telegraph pole E. of pole no. $363-15,8 \mathrm{ft}$. N. of track, in sandstone ledge; chiseled square
Chilton, 13 ft . S. of SW . corner of post office, 55 ft . N. of St. Louis-San Francisco R. R., in concrete post; standard tablet stamped "19 J 1932" 431.450

Chilton, 0.9 mi . W. of, along St. Louis-San Francisco R. R., in SE. corner of wooden trestle no. 361.6; copper nail and washer
437.14

Chilton, 1.7 ml . W. of, along St. Louis-San Francisco R. R., 400 ft . E. of trestle no. $360.7,10 \mathrm{ft} . \mathrm{S}$. of track, in large sandstone rock; chiseled square 443.23
Short, 1.1 mi . E. of, along St. Louis-San Francisco R. R., 120 ft . E. of telegraph pole no. $359-25$, at E. end of cut, 8 ft . S. of track, in large flint rock; ohiseled square
448.30

Short, $1 \mathrm{mi} . E$. of, elong St. Louis-San Francisco R. R., 60 ft . W. of second telegraph pole W. of pole no. $359-25$, 11 ft . S. of S. rail, on large rock; highest point
Short, 0.2 mi . E. of, in S. end of W. stone abutment of bridge no. 358.7; chiseled square
Short, 0.2 mi . W. of St. Louis-San Francisco R. R. station, near rd. crossing, 50 ft. S. of track, 1 ft . N. of fence; iron post stamped "Prim Trav Sta 31 F 1924 Mo 459 "
Ohicopqe, $3.1 \mathrm{mi} . \mathrm{SE}$. of, along St. Louis-San Francisco R. R., directly opposite milepost no. 358 , 5 ft . N. of track, in ledge of rock; chiseled square
456.68

Bie Spring, at, about 3.6 mi . SE. of Chicopee, about 4 ft . above water, in limestone ledge; standard tablet stamped "l2 J 1933 473" 437.020
Chicopee, 2.7 mi . SE. of, along St, Louls-San Firancisco R. R., in NW. corner of bridge no. 357.6 over Current River; copper hail and washer
457.74

Chicopee, 1.9 mi . SE. of, along St. Louis-San Francisco R. R., 70 ft . W. of milepost no. $356+25,8 \mathrm{ft}$. S. of track, in sandstone ledge; ch1seled square 461.43
(Continued in Van Buren quadrangle; see line no. 1.)
2. FROM HUNTER EAST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO EAST BORDER OF QUADRANGLE (by E. C. Bibbee in 1914)
(West part of line was duplicated and is included in second-order line by H. P. Jones in 1933)

Hunter, 0.9 mi . E. of, along St. Louis-San Francisco R. R. at E. end of trestle no. 223.6, in N. end of first tie; spike
Hunter, 1.8 ml . E. of, along St. Louis-San Franciaco R. R., 8 ft . N. of track, in SE. corner of foundation of water tank; copper nail
Grandin Junction, 0.4 mi . W. of, opposite point where old Grandin Tramroad crosses St. Louis-San Francisco R. R., in base of telegraph braoe; spike 868.6
Grandin Junction, 140 ft . SE. of St. Louis-San Francisco R. R. station sign, 80 ft . E. of track, 3 ft . from SW. corner of grocery store; iron post stamped "Prim Trav Sta No 27 F 1924 Mo 876"
Grandin Junction, $0.9 \mathrm{ml}$. . E. of, along St. Louis-San Francisco R. R., 12 ft . N. of track, at E. end af laree pond, in large granite rack; chiseled square
Grandin Junction, 2.3 mi . E. of, along St. Louis-San Francisco R. R., 80 ft . N. of track, 25 ft . N. of rd., in root of black oak tree; copper nail and washer 831.28
Ellsinore, 1.8 mi . W. of, 120 ft . S. of St. Louis-San Francisco R. R., on W. side of Military Road, 45 ft . S. and 10 ft . W. of fence corner at rd. crossing; iron post atamped "Prim Trav Sta No 26 F 1924 Mo 779"
Ellainore, 0.6 mi . S. op, along St. Louis-San Francisco R, R., in NE. corner of small trestle; first driftbolt
(Continued in Williamsville quadrangle; see line no. 1.)
3. NEAR SOUTHWEST CORNER OF QUADRANGLE (leveled twice by w. R. Broaddus in 1925-26) (Continued from Van Buren quadrangle; see line no. 3.)

Short, 0.3 ml . S. of, near center sec. 30, T. $25 \mathrm{~N} ., \mathrm{R}$. $1 \mathrm{E} ., 55 \mathrm{ft}$. W. of rd., on s. side of large spring, in ledge;. standard tablet stamped" "B 82 1925"

Reference mark, 67 ft . S. 35 degrees $E$. of tablet, in root on W. side of 20-in. white oak tree; copper nall and washer
(Continued in Van Buren quadrangle; see line no. 3.)
4. FROM WEST BORDER OF QUADRANGLE NORTHEAST TO HON'RER. (Continued from Van Buren quadrangle; see line no. 3.)
Short, $2.5 \mathrm{mi} . \mathrm{N}_{\mathrm{c}}$ and 2.3 mi . E. of post office, on top of ridge, 30 ft . E. of $r d$. junction, in root on N. side of 20-in. red oak tree; copper nail and washer
775.70

Hunter, 9.5 mi . SW. of, l.4.mi. W. of Jed Smith School, 370 ft . E. of junction of dim rd., $10 \mathrm{ft} . \mathrm{S}$. of Hunter-Short road, in root on N. side of $12-1 \mathrm{n}$. hickory tree; copper nail and washer
Jed Smith Sohool, 44 ft . N. and 210 ft . W. of, 7.2 mt . SW. of Hunter, 50 ft . W.
of Hunter-Short road, in limestone rock; standard tablet stamped "B 84 1925" 564.57 .2

Reference mark, 22 ft . N. of tablet, in root on E. side of $18-1 \mathrm{n}$. post oak tree; copper nall and washer
564.48

Hunter, 6.6 mi . SW. of, 160 ft . SE. of W. W. Shockley's house, 80 ft . E. and 30 ft . N. of rd. corner, in root on W. side of l8-in. hickory tree; copper nail and washer
Hunter, 5.6 mi . SW. of, on W. side of Current River Valley, on E. side of oreek, at foot af bluff, 70 ft . N of corner of rock fence, in root on E. aide of 24-in. maple tree; iron nail and copper washer
400.33

Hunter, 4.6 mi. SW. of, 0.8 mi. S. of Hunter Ferry, $780 \mathrm{ft} . \mathrm{S}$. of rd. junction, 90 ft . S. of creek crossing, 30 ft . W. of and $10 . \mathrm{ft}$. above rd., in limestone ledge; standard tablet stamped "B 85 1925"
Reference mark, 60 ft . SE. of tablet, on E. side of rd., in root on w. side of large ash tree; copper nail and washer lare ash tree, coppor nail and washer
Hunter, 3.8 mi . W. of, on S. side of W. landing of Hunter Ferry, 9 ft . above water,
in root on S. side of $14-1 n$. elm tree; copper nail and wesher
Hunter, 2.6 mi . W. of, in line with dim rd. S., 20 ft . N. of ferry rd., in root on SW. side of laree stump; copper nail and washer
Hunter, 1.7 mi . W. of, $17 \mathrm{ft} . \mathrm{N}$. and 10 ft . above rd., in line with E. side of J. H. Bacon's house, in limestons ledge; standard tablet stamped "B 861925

Reference mark, 245 ft . N. $60^{\circ}$ E. of tablet, 45 ft . N. of rd., in root on W. side of 20-in, post oak tree; copper nail and washer
Hunter, 0.5 mi . W. of, $40 \mathrm{ft} . \mathrm{N}$. and 25 ft . W. of T-rd. N., in root on W. side of 12-in. pine tree; copper nail and washer

## 5. FROM HUNTER NORTH 2 MILES

Hunter, $1.7 \mathrm{mi} . N$. of, $50 \mathrm{ft} . \mathrm{SW}$. of St. Louis-San Francisco R. R., opposite telegraph pole no. 367-10, an SE. side of ravine, in raot on N. side of 18-in. white oak tree; copper nail and washer
649.23
6. FROM JUNCTION NOR'HWEST ALONG O. S. HIGHWAY 60 TO NORTH BOKDER OF QUADRANGLE (by L. V. Johnson in 1932)
U. S. C. \& G. S. Tri. Sta. and B. M. designated "Junction 1930"
894.601
U. S. Highway 60 and State Highway $21,0.8 \mathrm{mi}$. NW, of S . junction of, 90 f. N. and 36 ft . W. of Highway 60 at junction of rd. N., in root on SE. side of 8-in. pine tree; copper nail and washer
U. S. Highway 60 and State Highway 2l, 1.7 mi . NW, of S. junction of, 80 ft. S. of SW. corner of Crites' place, $18 \mathrm{ft} . \mathrm{SE}$. of SE. corner of blacksmith shop, 40 ft . W. of Highway 60 , in root on $\dot{N}$. idide of $12-1 n$. oak tree; copper nail and washer
883.21
J. S. Highway 60 and State Highway 21, 2.7 mi . NW, of S. junction of, 55 ft . N. and 50 ft . W. of Highway 60 at cross rd., in root on W. side of $10-\mathrm{in}$, aak tree; copper nail and washer
891.45
0. S. Highway 60 and State Highway 21, 3.3 ml . NW. of S . junction of, on top of hili, 115 ft . E. of crossroads, 35 ft . N: of Highway 60 , in concrete post; standard tablet stamped "T T 14 B 1932"
Reference mark, 75 ft . E. of tablet, 55 ft . N . and 33 ft . E. of crossroads, in root on SW. side of 15-in. oak tree; copper nail and washer
U. S. Highway 60 and State Highway 21, 4.4 mi . NW of S. junction of, 55 ft . N. of Highway 60, about 1,000 ft. E. of curve in highway from W. to NW., in root on S. side of triangular-blazed 18'1n. oak tree; copper nail and washer
U. S. Highway 60 and State Highway $21,5.4$ mi. NW. of S. junction of, 50 ft . W. and 5 ft . S. of Highway 60 at junction of dim rd. W., 10 ft . S. and 3 ft . W. of corner of fences $N$. and $W$., in root on $N$. side of smail oak tree; copper nail and washer
U. S. Highway 60 and Stare Highway 21, 6.1 mi . NW. of S. junction of, 0.6 mi . SE. of C. E. Hedgepeth's general store, 75 ft . E. of Highway 60 at junction of dim rd. N., in $N$. head wall of concrete culvert; chiseled square
U. S. Highway 60 and State Highway 21, 6.7 mi . NW. of S. junction of, 30 ft . N. of Highway $60,65 \mathrm{ft}$. S. and 15 ft . W. of SW . corner of C. E. Hedgepeth's general store, in concrete post; standard tablet stamped ${ }^{\prime} T$ T 13 B 1932"
Reference mark, 45 ft . E. of tablet, in root on E. side of 15-in. oak tree; oopper nail and washer
861.54
U. S. Highway 60 and State Highway 21, 4.6 mi . SE. of N . junction of, 0.7 . mi. NW. of 0 . E. Hedgepeth's general store, 85 ft . E. and 45 ft . S . of Highmay 60 at private rd. N., in root on NE. side of triangular-blazed 12-in. oak tree; copper nail and washer
889.26

Ohilton, about 6 mi . NE. of, 4 mi . SE. of N. Junction of V . S. Highway 60 and State Highway 2l, $120 \mathrm{ft} . \mathrm{S}$. (f E.) and 25 ft . S. of Highway 60 at junction of rds. NE. and SW., In root on E. side of 12-in. oak tree; copper nail and washer 869.9
(continued in Ruble quadrangle; see line no. 4.)

## 7. FROM NORTH BORDER OF QUADRANGLE SOUTH TO CHILTON <br> (Continued from Ruble quadrangle; see line no. 4.)

Chilton, 6.3 ml . N. of, along Eldrigh Valley road, 12 ft . E. and 5 ft . N. of rd., at gate to Ray Danielg' farm, in root on N. side of 20-in. oak tree; copper nail and washer
672.32

Chilton, 5.4 mi . N. of, along Eldrigh Valley road, 0.8 mi. N. of Eldrigh Valley Sohool, 2.7 mi . SW. of junction of U. S. Highway. $60,70 \mathrm{ft}$. W. and 12 ft . S. of SW . corner of Bentley Bone's house, 17 ft . E. of rd., 7 ft . S. of gate, in granite rock; standard tablet stamped "17 J 1932"
647.398

Chilton, 4.6 mi . N. of, along Eldrigh Valley road, 65 ft . E. and 20 ft . S . of SE . corner of Eldrigh Vailey School, 15 ft . W. of rd., in root on W . side of $12-1 \mathrm{n}$. hickory tree; copper nail and washer
605.30

Chilton, 3.6 mi. N. of, along Eldrigh Valley road, 1 mi. S. of Eldrigh Valley School, about 160 ft . SE. of John Pitman's house, 5 ft . W. of rd., in roat on E. side of large oak tree; copper nall and washer

Ohilton, 2.7 mi . NW. of, along Eldrigh Valley road, lo.ft. S. of NE. corner of L. E. Jordin's farmyard, $48^{\prime} \mathrm{ft}$. W. of rd., in concrete post; standard tablet stamped "18 J 1932"
531.937

Reference mark, 20 ft . E. of tablet, in root on SE. side of 20-in. oak tree; copper nail and washer
Ohilton, 1.7 mi . N. of, along Eldrigh Valley road, 0.4 mi . NW. of junction of rd.
NE. to U. S. Highway 60, 50 ft . E. and 30 ft . S. of junction of private rd. W.
through gate, $6 \cdot f t$. S. of rd., in root on NW. side of triple sycamore tree;
copper nail and washer
493.68

Ohiltan, 1.3 mi . N. of, 45 ft . N. and 10 ft . W. of junction of Eldrigh Valley road and rd. NE. to U. S. Highway 60, in root on S. side of 12-in. oak tree; copper nail and washer

480.50

(Balance of line is included in second-order line by H. P. Jones)
8. FROM MIDDLE OF WEST BORDER OF QUADRANGLE SODTHEAST TO POINT 7.2 MILES SOUTHWEST OF HONTER (by B. A'. Barnes in 1936)

> (Continued from Van Buren quadrangle; see line no. 6.)

Eastmood, 4.6 mi . SE. of, olong Eastmood-Hunter road, in SW. cor. sec. 31, T. 25 N., R. I E., 14 ft . S. of rd., in root on N. side of triangular-blazed, l4-in. black oak tree; copper nail and washer
Eastmood, 5.5 ml . SE. of, along Eastmood-Hunter road, 1.4 mi . NW. of Jed Smith School, in front of house, 25 ft . S. of rd., in root on NE. side of 22-in. black oak tree; copper nall and washer
Jed Smith Sohool, 0.6 mi . NW. of, near center of sec. 4, T. 25 N., R. 1 E., at top of ridge, 16 ft . $S$. of Hunter-Eastwood road, in root on NE. side of 16-in. white oak tree; copper nall and washer
673.71

For an additional level line along St. Louis-San Francisco R. R., refer to United States Ooast and Geodetic Survey second-order line, Mingo to Hunter.
(Latitude $36^{\circ} 30^{\text {DONIPHAN }}-36^{\circ} 45^{\prime}$; langitude $90^{\circ} 45^{\prime}:-91^{\circ}$ )
Ripley County


1. FROM EAST BORDER OF GUADRANGLE WEST ALONG MISSOURI PACIFIC R. R. TO DONIPHAN (second-arder line by H. P. Jones in 1933-34)
(Continued from Acorn quadrangle; see line no. 1.)
Doniphan, 3.8 mi . E. of, along Missouri Pacific R. R., 255 ft . E. of rd. crossing Feet
in SW. corner of wooden trestle no. 1120; copper nail and washer 460.78
Doniphan, about 2.7 mi . E. of, at Owenmont, along Missouri Pacific R. R., 50 ft. N. and 36 ft . E. of rd. crossing, 11 ft . E. of fence corner, in concrete post; standard tablet stamped "1 J 1934504 "'
Doniphan, 1.9 mi . E. of, along Missouri Pacific R. R., in Sw. corner of wooden trestle no. 1124; copper nail and washer
Doniphan, 0.9 mi . E. of, along Missouri Pacific R. R., 50 ft . S. and 90 ft . E. of rd orossing, 25 ft . N. of rd., in root on SW . side of $36-1 \mathrm{n}$. sycamore tree; copper
nail and washer
Doniphan, at Missouri Pacific R. R. atation, at E. end of entrance to waiting
at end of bridge on State Highways
14 and 21 over Current River; standard U. S. G. S. gaging atation tablet 363.210
2. FROM DONIPHAN WEST 3.7 MILES, ALONG STATE HIGHWAY 14, THENCE NORTH TO HARGUS EDDY DAM SITE (second-arder line by H. B. Jones in 1933)

Doniphan, 0.7 mi . W. of, along State Highway 14, from Current River bridge, 20 ft . N. and 45 ft . E. of junction of State H1ghways 14 and 21 , in E . end of N . head wall of concrete culvert; chiseled square

Doniphan, 1.7 mi. W. of; along State Highway 14, from Current River bridge, 25 it. E. of highway, ebout 65 ft . W. of NW. corner of house, in roat on N . side of 20-in. post oak tree; copper nall and washer
Doniphan, 2.7 mi . W. of, along State Highway 42, from Current River bridge, 25 ft. S. and 25 ft . E. of highmay at rd. N., in top of S . head wall of concrete cuivert; standard tablet stamped "13 J 1933 455"
455.121
T. 23 N., R. 2 E., near center sec. $17,1 \mathrm{mi}$. N. of State Highway 14, on old BennettDoniphan road, il ft. W. of rd., in root on E. side of 36-in. post oak tree; copper nall and washer
T. 23 N., R. 2. E., in NE $\frac{1}{2}$ sec. $18,1.8 \mathrm{mi}$. N. of State Highway 14 , on old BennettDoniphan road, 30 ft . S. of iron culvert, 13 ft . E. of rd.; in root on E. side T. 23 N ., R. 2 E . E . in tree; copper nail and washer
551.26
$\qquad$
 Doniphan road, 55 ft . N. and 45 ft . W. of croseroads, 18 ft . E. of rd.a in sandstone rock; standard tablet stamped "14 J 1933579 m
T. 23 N., R. 1 E., in NER sec. $12,3.4 \mathrm{mi}$. NW, of State Highway 14, on old BennettDoniphan road, 25 ft . E. of dim rd. fork $\mathrm{SW} ., \mathrm{f} 12 \mathrm{ft}$. N. of rd., in root on W. side of 24-in. elm tree; copper nail and washer
T. 23 N., R. I E., in SE Doniphan road, 75 ft . N. of T-rd. E., 30 ft . E. of rd., in root on N . side of 12-in. bickory tree; copper nail and masher

549 . 16
T. 23 N., $R_{0} 2 \mathrm{E}_{0}$, in SEt sec. 6, on Wells Creek road, 95 ft . E. of ford across Weils Creek, 12 ft. E. of rd., in root on W. side of lí-in. walnut tree; copper nail and washer
T. $23 \mathrm{~N} .$, R. 2 E., in NWS seo. $5,7 \mathrm{mi}$. NW. of Doniphan, 0.8 mi . N. of mouth of Welis Creek, on W. bluff of Current River, 120 ft . above water, in laree granite boulder; standard tablet stamped ${ }^{5} 5$ B 1926"
462.320
T. 23 N., R. 2 E., in NWH seo. 5, at Hargus Eddy dam site, 0.8 mi . N. of mouth of Wells Creek, 43 ft . W. of bank of Current River, about 100 ft . S. of trail at foot of bluff, in sandstone outcrop; standard tablet stamped mi5 J 1933"
3. FROM DONIPHAN NORTHEAST AND NORTH, ALONG STATE HIGHWAY 21, TO NORTH BORDER OF QUADRANGLE

Doniphan, at $N$. limits of, 30 ft . N. and 20 ft . E. of junction of State Highways 14 and 21 with County Route $B$, in W. end of N. head wall of concrete culvert; chiseled square
466.98

Doniphan, 0.8 mi . E. of, 1.3 mi . W. of junction of Stata Highways 14 and $21,50 \mathrm{ft}$. SE. of highway at tile culvert, in roat on N. side of lo-in. blaok oak tree; copper nail and washer
Doniphan, 2 mi . NE. of, 25 ft . N. and 65 ft . E. of junction of State Highways 14 and 21, 7 ft . E. of fence corner, in concrete post; standard tablet stamped "T T 61 B 1931 558"
Doniphan, 2.7 mi . NE. of, along State Highway $21,0.7 \mathrm{mi}$. N. of junction of State Highway 14, in W. head wall of concrete culvert; chiseled square
Doniphan, 3.8 mi . NE. of, alang State Highway $21,50 \mathrm{ft}$. W. of SW . corner of Oak Grove School, 150 ft . N. of junction of rd. E., 35 ft . E. of highway, in root on SW. side of 24-in. post oak tree; copper nail and washer
581.62

Doniphan, 4.5 mi . NE. of, along State Highway $21,0.7 \mathrm{mi}$. N. af Oak Grove school, about 80 ft . S. of Emmon's store, 31 ft . S. and 34 ft . E. of highway at rd. E., in concrete post; standard tablet stamped nT T 60 B 1931559 n
558.254

Doniphan; 5.4 mi . NE. of, along State Highway $21,0.8 \mathrm{mi}$. N. of Emmon's store, $15 \mathrm{f}^{\prime} \mathrm{t}$. N. and 20 ft. W. of highway at cross rd.g in $N$. bead wall of concrete culvert; chiseled square
; 623.62
Doniphan, 6.9 ml . NE. of, along State Highway $21,35 \mathrm{ft}$. S . and 35 ft . E. of highway at cross rd. In Otto Poke's front yard, in concrete post; standard tablet stemped "T T 59 B 1931"
617.971

Doniphan, 7.8 mi. N. of, along State Highway 21, 1.7 mi. S. of highway bridge over Iittle Black River, 375 ft . SE. of crossing of E.-W. rd., in W. head vall of concrete culvert; ohiseled square
Doniphan, 8.6 mi . N. of, along State Highriay 21, 0.9 mi . S. of highway bridge over Little Black River, in W. head wall of concrete culvert; chiseled square
Doniphan, 9.5 mi . N. of, along State Highray 21 , in $\mathbb{W}$. end of N . abutment of highway bridge over Little Black River; chiseled square
Doniphan, 10.1 mi. N. of, 0.4 mi. NW. of State Highway 21 bridge over Little Black River, 68 ft . W. of highmay, 90 ft . N. of John Grove's house, 7 ft . E. of $20-\mathrm{in}$. oak tree; in concrete post; standard tablet stamped "T T 58 B. 1931 634" 633.300
(Continued in Grandin quadrangle; see line no. 1.)
4. FROM BENNETT SOUTHEAST ABOOT 11 MILES TO HARGUS EDDY DAM SITE (by W. R. Broaddus in 1925-26)

Bennett, 1 mi . SE. of, 170 ft . E. of Jenk Mount's house, 10 ft . N. of rd., in root on S. side of $30-1 \mathrm{n}$. white aak tree; copper nail and washer
439.29

Bennett, 2.2 mi . SE. of, 50 ft . W. of ra. junction, on S. bank of Buffalo creek, $12 \mathrm{ft}$. . N. of fence, in rock ledge; standard tablet stamped "2 B 1926"
413.961

Reference mark, 90 ft . SE. of tablet, 30 ft . K. of rd.g in root on N . side of 24-in. sycamore tree; copper nail and washer
403.70

Bennett, 4.5 mi . SE. of, 1 mi . E. of Buffalo School, on S. side of Buffalo Creak Valley, at junction of hollow, 10 ft . s . of rd. junction, in root on N. side of 18-in. white aak tree; copper nail and washer
385.08

Bennett, 5.5 mi . SE. of, 0.4 mi . S. of Buffalo Creek at ford, 80 ft . E. of rd. at ravine junction, at foot of hill, in top of boulder; standard tablet stamped "3 B 1925"
412.762

Bennett, 6.1 mi . SE. of, 1 mi . S. of Buffalo Creek, on top of divide between Buffalo and Compton Creeks, on W. side of rd., in root on SE. side of 12-in. hickory tree; copper nail and washer
710.64

Bennett, 7.3 ml . SE. of, 300 ft . W: of G. W. Farmer's house, on S . bank of Comption Creak, 10 ft . NW. of rd., in root on N . side of 20-in. sygamore tree; copper nail and washer


## 5. IN NORTHEAST CORNER OF QUADRANGLE (by B. D. Harsha in 1934)

T. $24 \mathrm{~N} ., \mathrm{Rs} .2$ and $3 \mathrm{E} .$, cor. secs. $19,24,25$, and $30,34 \mathrm{ft}$. S : and 37 ft . E. of Thrd. S., in root on E. side of l8-in. black oak tree; copper nail and washer
599.33
T. $24 \mathrm{~N} \cdot$, R. $3 \mathrm{E} .$, near quarter car. between secs, 19 and $30,7 \mathrm{ft}$. W. and 35 ft . S. of rd. at fence s., 6 ft . N. and 6 ft . W. of fence corner, in root on E. side of 14-in. elm tree; copper nail and washer
T. 24 N., R. 3 E., in NW. cor: seo. 29, 50 ft . S. and 15 ft . E. of crassroads, in root on N. side of 22-1n. oak tree; copper nail and washer
565.10
T. $24 \mathrm{~N} .$, R. $3 \mathrm{E} . ;$ in $\mathrm{NW} \frac{1}{4} \mathrm{SW} \mathrm{W}_{\frac{1}{4}} \mathrm{sec} .20$, $25 \mathrm{ft} . \mathrm{S}$. of SE. corner of Elizabeth M. E. Ohurch, 25 ft . N. and 21 ft . $W$. of crossroads, in root on E. aide of $36-1 \mathrm{n}$. oak tree; copper nail and washer
536.34
T. 24 N., R. 3 E., near quarter oor, between secs. 17 and $20,9.6 \mathrm{mi}$. NE. of Doniphan, on old Greenvilie road, 30 ft . W. of rd., 6 ft . N. of line of N. face of Bellview Baptist Church, 9 ft . N. of center of gate to cemetery, 9 ft . N. of black oak tree; in concrete post; standard tablet stamped "T T 67 B 1931".
Reference mark, 63 ft . $N$. and 55 ft . E. of tablet, in root on N . side of 18-1n. oak tree; copper nail and washer
T. $24 \mathrm{~N} .$, R. 3 E., about 0.2 ml . N. of cor. secs. $16,17,20$, and $21,55 \mathrm{ft}$. N. and 15 ft . E. of rd. forks, in root on E. side of 12 -in. oak tree; copper nail and washer
T. $24 \mathrm{~N} .$, R. $3 \mathrm{E} ., 0.2 \mathrm{mi}$. W. of center sec. $16,35 \mathrm{ft}$. N. and 16 ft . W. of croseroads, in root on $W$. side of $10-1 n$. oak tree; copper nail and washer 475.48
(Continued in Acorn quadrangle; see line no. 4.)
6. FROM POINT 2 MILES NORTHEAST OF DONIPHAN, NORTHEAST TO EAST BORDER OF QUADRANGLE

Doniphan, 2.7 mi . NE. of, along State Highway 14, 0.7 mi . E. of junction with State Highway 21, 40 ft . E. of highway at rd. S., on top of 7 . end of S . oonorete head wall; painted square
Doniphan, 3.2 mi. NE. of, along State Highway $14,55 \mathrm{ft}$. g . and 150 ft . W. of highway at cross rd.g. in top of E. end of S. concrete hesd wall; chiseled square of concrete bridge no. F-700; chiseled square
466.09
(Continued in Acorn quadrangle; see line no. 3.)
7. SOUTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE (by B. A. Barnes in 1935)

Thrd. E., on W. side of, in root of 30-in. oak tree; iron nail
513.8
T. $24 \mathrm{~N} .$, , R. l. E., in NW $\frac{1}{2}$ sec. $28,30 \mathrm{ft}$. N. of rd. fork NE., $21 \mathrm{ft}$. . E. of Bennett-

Doniphan road, in root of 18-in. black oak tree; copper nail and washer 460.67
Rd. forks, in root on SE. side of 8-in. oak.tree; ir on nail
460.2
ha. Yorks, in root on sio bide of olin. oak.tree; ir on nail
460.

Rd. forks, in root of 8-1n. pine tree; iron nall
676.3

Rd. fork NE., in root of $15-1 n$. oak tree; iron nail
702.1
T. 23 N., R. 1 E., in NW $\frac{1}{4}$ sec. 4, 2.9 mi . N. of State Highway 14, along Briar CraekBennett road, in triangle formed by junction of rd. W., 33 ft . W. of rd., 35 ft . N. of small creek, in ooncrete post; standard tablet stamped "T T 1622 ERA 1935"
T-rd. E., in root of $24-1 n$. White oak tree; crossed iron nails
T. 23 N., R. l E., in SEA $\mathrm{NE}_{\frac{1}{4}}$ sec. 8 , on top of hill, 40 ft . W. of rd., in root on

SE. side of 24-in. white oak tree; copper nail and washer 763.74
T-rd. E., in root on NW. side of 26-in. black oak tree; crossed iron nails 792.3
T-rd. E., 40 ft . S. and 70 ft . E. of, in root of $14-1 \mathrm{n}$. black oak tree; crossed iran nails
T. 23 N., R. 1 E., in SEANEt sec. $17,0.3 \mathrm{mi}$. W. of Briar Oreek post office, 25 ft
E. and 30 ft . N. of junction of State Highway 14 and Briar creek-Bennett road,
in root on NE. side of 16-in. blaok oak tree; copper nail and washer
U. S. C. \& G. S. B. M. designated n.X $671934^{\mathrm{mi}}$
$\qquad$
State Highway 14 at rd. N., 50 ft . E . of, in top at center of N . head wall of ooncrete culvert; chiseled square

$$
700 .
$$

. 23 N., R. 1 E., in NE seo $18,20 \mathrm{ft}$. N. and 45 ft . E. of State Highway 14 at orase
rd., in root on SE. side of 30-in. black oak tree; copper nail and wesher 746.46
(Continued in Gatewood quadrangle see line no. 4.)

## 8. SOUTH ALONG SOUTH PART OF WEST BORDER OF QUADRANGLE <br> (oontinued from G'atewood quadrankle; see line no. 4.)

T. 22 N., R. 1.E., near quarter cor. between secs. 5 and 6, 60 ft . E. of rd. corner from E. to S., 15 ft . N. of dim lane E., at top of ridge, in root of 28-in. black oak tree; copper nail and washer

Ponder, 0.3 mi. W. of, in $S W \frac{1}{4} S W \frac{1}{4}$ sec. $5, \mathrm{~T} .22 \mathrm{~N} ., \mathrm{R} . \mathrm{l}$ F., 110 ft . W. of junction
of Bardley-Ponder and Gatewood-Pander roads, 200 ft . E. of church, in concrete post; standard tablet stamped "T T 1629 E R'A 1935 "
(For balance in Gatewood quadrangle, see line no. 4.)
Ponder, 1 mi. W. and $2 \mathrm{mi} . S .0 f$, along Gatewood-Ponder and Bell View wagon roads, in sec. 17, T. $22 \mathrm{~N} ., \mathrm{R} .1 \mathrm{E.}$,30 ft . N. of rd., $33 \mathrm{ft} . \mathrm{S}$. and $35 \mathrm{ft} . \mathrm{W}$. of SW. oorner of schoolhouse, in concrete post; standerd tablet stamped "T T 1630 E R A 1935"'
Top of ateep hill, 40 ft . E. of rd., in root on NW. side of $26-\mathrm{in}$. black oak tree;

T. 22.N., R. l E., in SW $W_{4} S W_{1}$ sec. 20 , 120 ft . S. and 50 ft . E. of ford, in root on W. side of 24-in. sycamore tree; copper nail and washer
orosiroads, 60 ft . N. end 30 ft . E. of, in root on W. side of $22-1 \mathrm{n}$. elm tree; crossed iron nails
Rd. forks, 60 ft . W. of, on E. side of i8-in. white oak tree; crossed iron nails
537.7

Ponder, 5.8 mi . SW . of, elong Gatewood-Ponder and Bell View wagon roads, in SWhath sec. 29, T. 22 N., R. 1 E., near E.-W. Bec. line, 23 it. N. and 26 it. E. of crossroeds, in concrete post; standard tablet stamped "T T 1632 E R A 1935" 478.576
Reference mark, 90 ft . S. of tablet, 30 ft . E. of rd., in root on NW. side of 20-in. white oak tree; copper nail and washer
478.01
(Continued in Gatewood quadrangle; see line no. 6.)
9. EAST ALONG SOUTH BORDER OF QUADRANGLE INCLUDING THAT PART OF THE LINE IN REYNO QUADRANGLE (ARK. -MO.)

Top of hill, 15 ft . W. of rd. forks, in root on $N$. gide of $30-1 \mathrm{n}$. black oak tree; crassed iron nafle
T. 22 N., R. 1 E., in $\operatorname{sw\frac {1}{4}} \sec .28,15 \mathrm{ft}$. N. of rd., in root on S . aide of triangu-lar-blazed 24-in. white oak tree; copper nall and washer
T-rd. W., 120 ft . N. and 20.ft. W. of, in root on W. side of l6-in. black oak tree; crossed iron nails
T. 22 N., R. 1 E., in NW $\frac{1}{4}$ sec. $33,50 \mathrm{ft}$. S. and 40 ft . W. of crossroads, in root on S. side of 22-in. white oak tree; copper nall and washer
440.0

Rd. forks, 30 ft . W. of, in root on $S$. side of $10-1 \mathrm{n}$. elm tree; crossed iron naila
T. 22 N., R. 1 E., near center of $\operatorname{sW} \frac{1}{4} \sec .34,10 \mathrm{ft}$. N. of T-rd. S., in root on N. side of $22-i n$. black oak tree; copper nail and washer

Top of ridge, $10 \mathrm{ft} . \mathrm{S}$. of rd., in raot on NE. side of $16-1 \mathrm{n}$. white oak tree; orossed iron nails
T. 22 N., R. l E., in NE $\mathrm{N}^{2}$ sec. $34,220 \mathrm{ft}$. E. and 50 ft . N. of ford across Fourch oreek, 110 ft . TV. and 30 ft . S. of SW. corner of Sugar Tree School, in root on 3. side of 24-in. black oak tree; copper nail and washer

T-rd. W., in triangle at, in root on SE. side of $22-1 n$. white oak tree; crossed iron nalls
T. 22 N., R. 1 E., in $S E \frac{1}{4} N E \frac{1}{4} \mathrm{sec} .27,65 \mathrm{ft}$. E. and 10 ft . S. of ra. at junction of lane E., in root on W. side of 10 -in. black aak tree; copper nail and washer 461.85
T-rd. S., 20 ft . N. and 15 ft . E. of, in root on S . side of 10 -in. black oak tree; orossed iron nails 2.5 ml . W. of, in SEt sec. $22, \mathrm{~T} .22 \mathrm{~N}$, , R. $1 \mathrm{E.} 25 \mathrm{ft} .$,N .
 tablet stamped "T T 1633 E R A 1935" tablet stamped "T T 1633 E R A 1935"
T-rd. N., 50 ft . S . of, at top of hill, in root on NE. side of 32-1n. black oak tree; crossed iron nails
2L N., R. 1 E., cor. secs. 23, 24, 25, and $26,85 \mathrm{ft.E}$. and 50 ft . N. of crossroads, in root on SE. side of $20-1 \mathrm{n}$. black oak tree; copper nail and washer 511.77
Crossroads, $18 \mathrm{ft} . \mathrm{S}$. and 12 ft . E. of, in root on N . side of $12-\mathrm{in}$. hickory tree; crossed iron nails
T. $22 \mathrm{~N} ., \mathrm{Rs}, 1$ and $2 \mathrm{E} .$, cor. seos. $19,24,25$, and $30,85 \mathrm{ft}$. E. and 21 ft . S. of junction of rd. E. from crossroads, in root on NE. side of 20 -in. black oak tree; oopper nall and washer
State Highway 21 at gross rdi, 60 ft . W. and 20 ft . $N$. of, in root on $S$. side of 20-1n. black oak tree; crossed iran nails
U. S. C. \& G. S. B. K. designated "L 67 1934"

Top of ridge, 30 ft . N . of rd., in root on N. side of 14-in. black oak tree; crossed iron nails
T. 22 N., R. 2 E., quarter cor, between secs. 29 and $30,25 \mathrm{ft}$. E. and 40 ft . S. of rd. at N.-S. fences, in root on N. side of 12-in. white oak tree; copper nail and washer
Tra. S., $30 \mathrm{ft} . \mathrm{S}$. and 10 ft . E. of, at top of hill, in root on NW. aide of 24-in. blaok oak tree; crossed iron nails T-rd. W., at entrance to Dismane School, in NE. corner of battom step; chisele square
362.11

- Poynor, 2.mi. E. and 0.5 mi . S. of, in NWh NWhe sec. 33, T. 22 N., R. 2 E., 25 ft . E. of N.-S. rd., 81 ft . S. of fence E., N. of old church, in conorete post; standard tablet stamped "T T 1623 ER A 1935"
In valley, 33 ft . E. and 40 ft . S. of fence corner, 30 ft . S. of abandoned rd.g in root on NW. side of 12-in. black oak tree; crossed ir on nails
T. 22 N., R. 2 E., cor. secs. $27,28,33$, and $34,45 \mathrm{ft} . \cdot \mathrm{N}$. and 60 ft . E. of croseroad in root on W. side of 10-in. hickory tree; copper nail and washer 385.68
Top of hill, 15 ft . S. of rd., in root on $W$. side of $12-\mathrm{in}$. oak tree, in fence corner; crossed iron neils
367.2
T. $22 \mathrm{~N} ., \mathrm{R} .2 \mathrm{E} .$, oor. secs. $26,27,34$, and $35,36 \mathrm{ft} . \mathrm{N}$. and 33 ft . E. of County Route $A$ at cross rd.., in root on SW. side of $24-1 \mathrm{n}$. black oak tree; copper nail and washer
T. 22 N., R. 2 E., sece. 26 and $35,124 \mathrm{ft}$. W. and 20 ft . S. of T-rd. W. at E. Bixteenth cor. between, in concrete post; standard tablet stamped "T T 1634 E R A 1935"
T. 22 N., R. 2 E., in NEl sec. $36,60 \mathrm{ft}$. W. of Current River, on right bank opposite lower point of island, in root on NW. side of 8 -in. ash tree; copper rail and washer
297.60

Current River, on left bank of, opposite above described benchmark, in root on NE. side of 24-in. elm tree; crossed iron najls 295.7
House, in front of, 10 ft . S. of ri., in ruct on N . side of $12-\mathrm{in}$. hickory tree; orcssed iron nasis
371.2
T. 22 N., R. 3 E., near center of NWh sec. $31,65 \mathrm{ft}$. . E. and 15 ft . S. of rd. cormer from E. to N., in front of house, in root on NW. side of 16-in. hickory tree; copper nail and wasber
372.34

Doniphar, 9.7 mi . SE. of, along County Routes $B$ and $E$, near center NWh sec. 32 , T. 22 N., R. 3 E., 146 ft. S. and 24 ft . E. of Route E at ra. W., in concrete post; standard tablet stamped "T T 1627 ER A 1935"
383.911

Reference mark, 215 ft . S. of tablet, in root on E. side of $28-\mathrm{in}$. black oak tree; copper nail and washer
380.78

Current View, 0.2 mi . S. of, along County Route E, at Mo.-Ark. State line, 27 ft . S. and $12 \mathrm{ft}$. . . of cross rd., in center of $E$. head wall of concrete culvert; chiseled square
326.65

Rd., 15 ft . S. of, $6 \mathrm{ft} . \mathrm{NE}$. of NE . corner of garage, in roct on N . side of l2-in. walnut iree; crossed iron nails
Currert View, 0.2 mi . S. and 0.8 mi . E. of, 70 ft . S. and 40 ft . W. of T-rd. W., In root on NE. side of $14-i n$. black oak tree; copper nail and washer
T. 22 N., R. 3 E., near querter cor. between secs. 32 and $33,33 \mathrm{ft}$. N. and 30 ft .
T. 22 N., R. 3 E., neer querter cor. between secs. 32 and $33,33 \mathrm{ft}$. N. and 30
E. of T-rd. E., in root on SE. side of J.O-in. black oak tree; copper nail and washer
336.93
336.72
T. 22 N., R. 3 E., quarter cor. between $\operatorname{secs} .33$ and $34,60 \mathrm{ft}$. N. and 40 ft . W. of crossroads, in root on E. side of twin 8 -in. white oak tree; copper nail and washer
345.34
(Continued in Acorr quadrangle; see line no. 6.)
10. SOUIT. AJGNG SOUTH PART OF EAST BCHDER OF QUADHAJGLE
(Continued from Acorn quadrangle; see line no. 7.)
Top of ridee, 75 ft . W. and 3 ft . S . of County Route B at dim cross rd., iri root on NE. side of 24-in. post oak tree; crossed iron nails
Doniphall, 4 mi . E. of, alone County Route $B$, in SW $\frac{1}{4}$ SWa sec. 32, T. 23 N., R. 3 E., 32 ft . N. and 216 ft . E. of Route $B$ at fence S . at N. cor. secs. 5 and $\mathrm{C}, \mathrm{T} .22 \mathrm{~N}$. , R.. 3 E., $32 \mathrm{ft} . \mathrm{N}$, of junction of Routes $B$ and $E$, in concrete post; stendard tablet stamped "T T 1625 ER A 1935"
In valley, in $S$. end of $E$. head wall of concrete culvert; chiseled square
T. 22 N., R. 3 E., in SE $\mathrm{S}_{4} \frac{1}{2} \sec .5,50 \mathrm{ft}$. W. and 20 ft . S. of County Route E at
lane $W$., on top of hill, in root on S. side of 30 -in. black oak tree; copper naij and waster
T-rd. W., 35 ft . N. and 50 ft . W. of, in root on SE. side of $8-\mathrm{in}$. black oak tree; crossed ir on nails
489.7

Top of ridge, 35 ft . E. and 55 ft . N. of County Route E at lane E., in root on SW. side of 10-in. hickory tree; crossed iron nails
Doniphar, $6.8 \mathrm{mi} . S E$. of, along County Routes $B$ and $E, 29 \mathrm{ft}$. W. of Route $E$ at rd. E. at center sec. 17, T. 22 N., R. 3 E., in concrete post; standerd tablet stamped "T T 1626 E R A 1935"
482.317

County Route E at ra. W., 75 ft . S. and 25 ft . W. of, in root on NE. side of l2-in. black oak tree; crossed iron nails
T. $22 \mathrm{~N} .$, R. 3 E., in SE $\mathrm{S}_{4}^{2} \mathrm{sec} .20,40 \mathrm{ft} . \mathrm{S}$. and 40 ft . E. of County Route E at dim cross rd., in root on NE. side of l2-in. black ock tree; copper nail and washer
Oounty Route E at rd. E., 120 ft . S , and 36 ft . W. of, in root on E. side of 8-in. black oak tree; crossed iron nails
428.58
452. 2
. 22 N., R. 3 E., near center sec. $29 ; 40 \mathrm{ft} . \mathrm{N}$. and 90 it . W. of junction of County Routes $E$ and $N$, in root on E. side of $24-i n$. white oal: tree; copper nail and washer
423.00

## 11. WEST THHOUGH NORTH PAR'T GF GUADHANGLE:

Tup of ridge, 40 ft . S. of ra., in root on $N$. side of 8 -in. post oak tree; crossed iron nails
T. 24 N., R. 2 E., near center sec. $23,24 \mathrm{ft} . \mathrm{S}$. and 30 ft . E. of junction of state Highway 21 and E.-W. rd., in root on N. side of 12-in. black oak tree; copper nail and washer
651.10
T. 24 N., R. 2 E., quarter cor. between secs. 22 and $23,45 \mathrm{ft}$. W. and 28 ft . S. of crossroads, in root on N. side of $36-i n$. black oak tree; copper nail and washer
Doniphan, $10.5 \mathrm{mi} . \mathrm{N}$. of, by rd., in $\mathrm{SW}_{4}^{\frac{1}{4} \mathrm{sec} .} 22, \mathrm{~T} .24 \mathrm{~N} .$, R. 2 W., 0.8 mi . W. of John F. Erooks' house, 72 ft . S. of rd. at blazed tree and point where rd. descende slightly to NW., in concrete post; staridard U. S. C. \& G. S. triangulation station tablet designated "Erooks 1930"
Reference mark no. l, 33 ft . NE. of rd., 112 ft . S. of station, in concrete; standard U. S. C. \& G. S. reference mark tablet
Reference mark no. 2, 10 ft . N. of rd. at curve, 120 ft . W. of station, in concrete post; standard U. S. C. \& G. S. reference mark tablet
slope, about half way dovir, in root on N. side of triangularablazed 12-in. oak tree; crossed iron najls
T. 24 N., R. 2 E., in NW $\frac{1}{4} \mathrm{SE}_{4}^{\frac{1}{4}} \mathrm{sec} .21,105 \mathrm{ft}$. SW. of ra. forks, 35 ft . W. of rd., in root on ND. side of le-in. white oak tree; copper nail and washer
Rd. forks, 15 ft . S. of, in root on NW. side of $12-i n$. oak tree; crossed iron najis
T. 24 N., R. 2 E., in SE $\frac{1}{4}$ sec. $17,52 \mathrm{ft}$. SW. of junction of rd. from SE . to SW . and ird. E., in root on NE. sicie of 14-in. black oak tree; copper nail and washer e89. 66
Junction of ris. N., W., and S., 20 ft . N. and 10 ft . W. of, in root on w. side of J.O-in. black oak tree; crossed iron nails.
T. 24 N., R. 2 E., in SE $\frac{1}{4} \mathrm{sec} .18,40 \mathrm{ft}$. NE. and 15 ft . N. of ra. fork NE., in root on S. side of $22-1 n$. black oak tree; copper nail and washer
Spring branch, $45 \mathrm{ft} . \mathrm{SE}$. of, $15 \mathrm{ft} . \mathrm{S}$. of rd., in root on NE. gide of lo-in. post oak tree; crossed iron nails
T. $24 \mathrm{~N} .$, R. 2. E., in NW $\frac{1}{3} \mathrm{sec} .19$, on top of ridge, $145 \mathrm{ft} . \mathrm{S}$. of trail, in root on SW. side of 20-in. White oak tree; copper nail and washer. 24 . cor. of, about
T. $24 \mathrm{~N} ., \mathrm{R}$. $1 \mathrm{E} ., \mathrm{sec} .24$, about 0.2 mi . W. and 270 ft . S. of NE. cor. of, obout 200 ft . S. of ridgerd. at saddle between two prominent hills, 47 ft . ft. W. of triangular-blazed $24-1 \mathrm{n}$. post oak tree, 8 ft . S. of $10-\mathrm{in}$. pine tree in top of l8-in. square sandstone; steaderd tablet stamped "T T 1 G-1936" 549.092
T. 24 N., R. 1 E., in NE. cor. sec. $24,25 \mathrm{ft}$. S. and 30 ft . E. of trail at junction of drair from NE. With N.-S. hollow, in roct of $1.4-$ in. white oak tree; crossed iron nails
T. $24 \mathrm{~N} ., \mathrm{R}$. $1 \mathrm{E} .$, in $\mathrm{NW} \frac{1}{4} \mathrm{NW} \frac{1}{4} \mathrm{sec} .24$, on top of ridge, $10 \mathrm{ft}$. . of rd. N., 125 ft . N. of rd. NE., in root on SE. gide of RC-in. white oak tree; copper rail and washer
T. $24 N_{0}, R_{0} 1 \mathrm{E} .$, in $N E \frac{1}{4} \mathrm{sec} .23,35 \mathrm{ft}$. E. of left bank of Current River, in ront on NW. side of leaning 22-in. cottonwocd tree; copper nail and washer
Opposite above described benchmark, on right bark of current River, in root on SW. side of 30-in. elm tree; crnesed iron nails
T. $24 \mathrm{~N} .$, R. 1 E., in SEd $\mathrm{NE}_{\frac{1}{4}}$ sec. $22,40 \mathrm{ft}$. N. of T-rd. S., in root on SE. side of 18-in. white oak tree; copper nail and washer

For additional level lines along State Highways 21 and 14 , refer to United Stater Coast and Geodetic Survey second-order lines; Pocahortas, Ark. to Doniphan, Mo., and Doniphan to Alton.

GATEWOOD QUADRANGLE (Latitude $36^{\circ} 30^{\prime}-36^{\circ} 45^{\prime}$; longitude $91^{\circ}-91^{\circ} 15^{\prime}$ )..$~$<br>Oregon and Ripley Counties



1. FROM NORTH BORDER OF QUADRANGLE SOUTH AND EAST TO BENNETT', THPNCE NORTH TO NOFTH BORDFR (by W. R. Broaddus in 1925)
(Continued fron Van Buren quadrangle; see dire no. 2.)
Pine, 1.4 mi . W. ond 1.7 mi . N. of, 6.5 mi . SE. of Wilderness, 90 ft . S. and $20 \mathrm{ft} \frac{\mathrm{Fe} \text {. } \mathrm{W} \text {. } . ~}{\text {. }}$ of rd. junction, near oregon-Ripley county line, in root on s. side of 6-in. black oak tree; iron nail and copper washer
808.05

Pine, 1.4 mi . W. and $0.8 \mathrm{mi} . N$. of, $800 \mathrm{ft} . \mathrm{S}$. of T-rd. W., 15 ft . W. of rd., in root on NE. side of $12-i n$. red oak tree; iron hall and copper washer
803.39

Pine, 1.4 mi . W. of, on Oregon-Ripley county line, 20 ft . N. and 17 ft . W. of $\mathrm{T}-\mathrm{rd}$, E., 173 ft . N. ond 17 ft . W. of T-rd. W., in stone post; standard tailet stemped "77 B 1925"
758.076

Reference mark, 141 ft . S. of tablet, in root on SW. side of 24-iri. pine tree; copper nail and washer
758.63

Eine, l, 000 ft . W. of post office, 15 ft . S. and 15 ft . W. of ra. junction, on top of hijl, in root on N . side of laree forked black oak tree; copper nail and washer
Pine, $0.4 \mathrm{mi} . E$. of post office, opposite Albert Wilson's house, $15 \mathrm{ft} . \mathrm{N}$. of rd., irr root on $S$. side of $24-1 n$. red oak tree; iron nail and copper washer 723.07
Pine, 0.7 mi . E. and 0.3 mi . S. of post office, 250 ft . N. ond 365 ft . W. of T-rd. E.g 32 ft . N. and 22 ft . E. of A. L. Spriee's barn, in rock outcrop; stendard tablet stamped "78 B 1925"
Reference mark, 375 ft . E. and 245 ft . S. of tablet, 12 ft . E. and 8 ft . N. of T-rd. E., in root on SW. side of $12-i n$, oak tree; iron nail and copper washer 751.52

Pine, 1.5 mi . E. and 0.2 mi . S. of, 15 ft . N. of Bennett-Pine road at junction of rd. NW., in root on SW. side of 30-1r., post oak tree; copper nall and vashe: 739.82
Fine, 2.2 mil . E. and 0.2 mi . S. of, 1.5 ft . S. and 40 ft . W. of Bennett-pine road at forks, in root on NW. side of 15-in. blackjack oak tree; iron nail and copper washer
Pine, 3 mi . E. of, 600 ft . E. of point where Bennett-Pine road leaves creek valley. 240 ft . SW. of creek crossing, 34 ft . S. of rd., in top of granite boulder; standard tablet stamped "79 B 1925"

Reference mark, 48 ft . N. of tablet, in root on S. side of triangular-blazed 18-in. post oal tree; iron nail and washer
Bennett, 2.6 mi . W. of, 4.1 mi . E. of Piree, 200 ft . s . of creek crossing, 10 ft . W. of Bennett-Pine road, at bend in creek valley from W. to S., in root on NE. side of 24-in. white oak tree; copper nail and washer
528.36

Bennett, 1.1 mi . W. of, 80 ft . W. of rd. forks, in root on N. side of forked post oak tree; iron nail and copper washer
482.28

Bennett, in concrete porch in front of W. O. Robert's general store; standard tatiet stamped "80 B 1925"
451.606

Reference mark, 140 ft . W. of tablet, in concrete steps of Baptist Church; chiseled square
450.16

Bennett, 0.8 mi . N. of, 10 ft . N. of rd. junction on top of ridge, in root on W. side of forked red oak tree; copper nail and washer
705.75

Bennett, 1.8 mi . NW. of, on top of ridge, 10 ft . NE. of rd., in root on SW . side of 30-in. post oak tree; iron nail and copper washer
748.86
(Continued in Van Buren quadrangle; see line no. 3.)
2. SOUTH ALONG WEST BORDER OF QUADRANGLE INCLUDING THAT PART OF THE LINE IN COUCH QUADRANGLE (by C. E. Reick in 1932)
T. 24 N., R. 3 W., 230 ft . W. of E. line of sec. 26 , or. S. side of rd., in root of 30-in. white oak tree; copper nail and washer
T. $24 \mathrm{~N} ., \mathrm{R}$. $2 \mathrm{~W} .$, in sec. $30,80 \mathrm{ft}$. NW. of crossroads, in root of $20-\mathrm{in}$. oak tree; copper nail
T. 24 N., R. $2 \mathrm{~W} .$, about 700 ft . E. of W. cor. secs. 30 and $31,27 \mathrm{ft}$. N. and 31 ft . E. of rd. corner, 4 ft . W. of triangular-blazed pine tree, in concrete post; standard teblet stamped "T T 88 B 1932"
Reference mark, 350 ft . N. of tablet, on W. side of rd., in ledge; chiseled
T. 24 N., R. 2 W., in sec. 31 , on W. side of rd., at W. M. Farris' mail box, in
694.134 root of 20-in. oak tree; copper nail
Morgan School, near center of STh sec. 6, T. 23 N., R. 2 W., 6 ft . W. of W. door of schoolhouse, in concrete porch; standard tablet stamped "T T 89 B 1932" 669.159
Reference mark, $60 \mathrm{ft} . W$. of tablet, in root of 18 -in. oak tree; copper nail
T. 23 N., R. 3 W., in NE $\frac{1}{4}$ sec. $12,80 \mathrm{ft}$. N. of rd. forks, on $W$. side of rd., in root of 24-in. oak tree; copper nail
T. 23 N., R. 3 W., in sec. 12, at stream crossing, on w. side of rd., in root of 20~in. oak tree; copper nail
T. $23 \mathrm{~N} .$, R. 3 W. , in sec. $13,40 \mathrm{ft}$. SE. of rd. forks, in root of $24-\mathrm{in}$. oak tree;
 of State Highway 42 at cross rd., in concrete post; standard tablet stamped "T T 90 B 1932"
$\qquad$
Reference mark, $80 \mathrm{ft} . \mathrm{S}$. of tablet, in root of $30-\mathrm{in}$. oak tree; copper nail
Jobe, 3.9 mi . N. of, 50 ft . W. of rd., on summit of ridge, in root of $36-\mathrm{in}$. oak tree; copper nail
731.38

Jobe, 2.9 mi . N. of, in sec. 25, T. $23 \mathrm{~N} ., \mathrm{R} .3 \mathrm{w} ., 10 \mathrm{ft}$. E. of rd., 200 ft . S. of T-rd. E., in root of $24-i n$. oak tree; copper nail
666.97

Jobe, $1.3 \mathrm{mi} . \mathrm{N}$. of, near S. querter cor. sec. 36 , T. $23 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 400 \mathrm{ft} . \mathrm{N}$. of Dry Creek fork, 25 ft . N. and 30 ft . E. of junction of rd. E., $7 \mathrm{ft} . \mathrm{N}$. of fence corner, in concrete post; standard tablet stamped "T T 91 B 1932"
489.337

Reference mark, 110 ft . S. of tablet, in root of $20-1 \mathrm{n}$. oak tree; copper nail 478.87
Jobe, 0.6 mi . N. of, on summit, 30 ft . E. of rd., 100 ft . SW. of house, in root of 24-in. cak tree; copper nail

581,81
Jobe, 75 ft . NE. of crossroads, in root. of $20-\mathrm{in}$. elm tree; copper nail
460.67.

Jobe, $1 \mathrm{mi} . \mathrm{S}$. of, 500 ft . N. of ford, on W. side of rd., in root of 24-in. oak tree; copper nail
Jobe, $2 \mathrm{mi} . \mathrm{S}_{\mathrm{o}}$ of, $31 \mathrm{ft} . \mathrm{S}$. and 22 ft . W. of crossroads at cor. secs. 13, 14, 23, and 24, T. 22 N., R. $3 \mathrm{~W} ., 20 \mathrm{ft} . \mathrm{S}$. of fence corner, in concrete post; standard tablet stamped "T T 92 B 1932"
559.139

Reference mark, 490 ft . S. of tablet, in root of $20-1 \mathrm{n}$. oak tree; copper nail 558.68
T. 22 N., R. $3 \mathrm{~W} .$, in $\mathrm{SW} \frac{1}{4} \mathrm{sec} .22,40 \mathrm{ft}$. SE. of crossroads, in root of $15-\mathrm{in}$. oak tree; copper nail
T. 22 N., R. 3 W., in sec. 25, on summit, 100 ft . NE. of rd. fork W., in root of l5-in. oak tree; copper nail
Myrtie, 1 mi. NE. of, 442 ft . N. and 40 ft . E. of quarter cor. between secs. 35 and 36 , T. 22 N., R. $3 \mathrm{~W} ., 25 \mathrm{ft}$. N. and 40 ft . E. of T-rd. N., in concrete post; standard tablet stamped "T T 93 B 1932 "
543.372

Reference mark, 330 ft . SW. of tablet, in root of $18-1 \mathrm{n}$. oak tree; nail 545.29

Myrtle, in front porch of John M. Crass' general store, W. of front door; standerd tablet stamped "T T 94 B 1932"
566.377.

Reference mark, 240 ft . W. of tablet, in concrete base of tank; chiseled square
560.70

## 3. FROM POINT NEAR WEST BORDER OF CUADRANGLE EAST TO POINT NEAR PINE

T. 24 N.; R. 2 W., 900 ft. SE. of NW. cor. sec. $29,0.8$ mi. W. of Eleven Point River, on S. side of old Alton-Bardley road, in root of 15-in. oak tree; copper nail
T. 24 N., R. 2 W., in NW $\frac{1}{4}$ sec. 29, on E. bank of Eleven Point River, at boat land-
ing near old ford, in root of l5-in. sycamore tree; copper nail 446.42
Eleven Point River, at old ford; surface of water April 25, 1932
T. 24 N., R. 2 W., in NE $\frac{1}{2}$ sec. 29, at top of steep grade W. to river ford on E.
side of rd., in root of 20-in. hickory tree; copper nail
T. $24 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 500 \mathrm{ft}$. SE. of cor. secs. $20,21,28$, and $29,70 \mathrm{ft} . \mathrm{S}$. of rd., in ledge; standard tablet stamped "10 R 1932"
738.785

Reference mark, 50 ft . NE. of teblet, in boulder; chiseled square
T. 24 N., R. 2 W., in NWI $\sec .27$, on S. side of old Alton-Bardley road, in root
of $30-i n$. oak tree; copper nail
T. $24 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} .$, in $\mathrm{NW} \frac{1}{4} \mathrm{sec} .25,100 \mathrm{ft}$. N. of school, on S . edge of rd., in root of $15-i n$. oak tree; copper nail
773.94

## 4. SOUTH ALONG EAST BORDER OF QUADRANGLE: (by B. A. Barnes in 1935) (Cortinued from Doniphan quadrangle; see line no. 7.)

Rd. forks, 15 ft . E. of, 130 ft . S. of creek, in root on $N$. side of $16-\mathrm{in}$. black oak tree; crossed iron nails
T-rd. W., 30 ft. W. and 10 ft . S. of, in root on E . side of 24-in. black oak: tree; crossed iron nails
651.6

Briar Creek, 1.8 mi. W. of, along State Highway 14 and 1 mi. S. of, along graded rd. in SE $\frac{1}{4}$ sec. 19, T. $23 \mathrm{~N} ., \mathrm{R}$. 1 E., 30 ft . S. of S. side of Billey McKinney's house, 12 ft . W. of rd., 2 ft . E. of fence, in concrete post; standard tablet stamped " 7 T 1628 E R A 1935"
Rd. forks, 40 ft . N. of, 30 ft . S. of creek branch, in root on $W$. side of $26-\mathrm{in}$. black oak tree; crossed iron nails
T. 23 N., R. 1 E., in NW $\frac{1}{4} \mathrm{sec} .31,15 \mathrm{ft}$. E. of rd. forks, on top of ridge, in roct on SW. side of $26-i n$. black oak tree; copper nail and washer

688:60
Fence corner, in root on SE. side of lo-in. white oak tree; crossed iron nails 628.2
T. $23 \mathrm{N.}, \mathrm{R} 1 \mathrm{E} .,$. near center sec. $31,90 \mathrm{ft}$. N . and 45 ft . E. of Bardley-Ponder road, at junction of rd. N., 60 ft . W. of house, 15 ft . E. of rd., in root on $W$. side of 22-in. white oak tree; copper nail and washer
553.58

West Fork Fourche Creek, $120 \mathrm{ft} . \mathrm{S}$. and 7.0 ft . W. of ford across, in root on E . side of $30-i n$. cottonwood tree; crossed iron nails
(For balance in Daniphan quadrangle, see line no. 8.)
T-rd. S., 50 ft . S. and 130 ft . E. of, in root on N , side of 28 -in. black oak tree; crossed iron nails
T. 22 N., R. 1 E., in NE $\frac{1}{4} S E \frac{1}{4}$ sec. $7,35 \mathrm{ft}$. W. of rd., in root on SE. side of 8 -in. twin black oak tree; copper nail and washer
T-rd. W., 30 ft . W. and 20 ft . S. of, in root on SE, side of $32-\mathrm{in}$. black oak tree; crossed iron nails
612.34
T. 22 N., R. 1 E., near center of $\mathrm{NE}_{4}^{\frac{1}{4}} \mathrm{sec} .18,130 \mathrm{ft} . \mathrm{S}$. and 35 ft . W. of rd. fork W., in root on NE. side of 28-in. black oak tree; copper nail and washer
616.52
(Continued in Doniphan quadrangle; see line no. 8.)
5. FROM POINT NEAR CENTER OF GUADRANGLE SOUTF AND EAST TO EAST BORDER (by B. A. Barnes in 1936)
U. S. C. \& G. S. B. M. designated "D 68 1934"
709.169
U. S. C. \& G. S. B. M. designated "E 68 1934"
660.812

In valley, 35 ft . W. and 50 ft . S. of rd. at lane SE., in root on E. side of 28-in. black oak tree; crossed iron nails
544.8

Gatewood, 7.4 mi . NW. of, along Gatewood-Riverton road, in NE $\frac{1}{4} \mathrm{sec} .23, \mathrm{~T} .23 \mathrm{~N}$. ,
R. 2 W., 24 ft . W. of rd. at lane E., 8 ft . E. of fence, in root on E. side of 26-1n. black oak tree; oopper nail and washer
503.91

Gatewood, 6.4 mi . NW. of, along Gatewood-Riverton road, in SE $\frac{1}{4} \mathrm{sec} .23, \mathrm{~T} .23 \mathrm{~N} .$, R. $2 \mathrm{~W} ., 12 \mathrm{ft} . \mathrm{E}$. and 50 ft . N. of rd. at dini lane E:, in root on W. side of triangular-blazed $20-i n$. black oak tree; copper nail and washer
Top of ridge, $25 \mathrm{ft} . \mathrm{N}$. of rd., 10 ft . S. of fence, in root on S . side of 2-in. black oak tree; crossed iron nalls
647.7

Gatewood, 5.4 mi . NW. of, along Gatewood-Riverton road, 370 ft . S. and 45 ft . W. of stone at E. sixteenth cor. between secs. 26 and $35, \mathrm{~T} .23 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 35 \mathrm{ft}$. W. of rd., 68 ft . S. and 33 ft . E. of house on Brock ranch, known as Boyd's, 2 ft . N. of fence, in concrete post; standard tablet stamped "T T 3 G 1936"

Hurricane Creek, $75 \mathrm{ft} . \mathrm{N}$. of right bank of, 70 ft . W. of rd., in root on S . side of $16-i n$, black oak tree; crossed iron nails
Gatewood, 4.5 mi . NW. of, along Gatewood-Riverton rocd, 30 ft . S. and 100 ft . E. of junction of lane E., in root on N. side of triangular-clazed 18-in. black oak tree; copper nail and washer
Gatewood, 3.9 mi . NW. of, along Gatewood-Riverton road, 15 ft . W. and 35 ft . N. of juriction E. of triangle formed by rds. E., S., and NW., in root on S. side of triancular-blazed 30-in. black oak tree; copper nail and washer
Oregon-Ripley county line, 10 ft . N. of rd., in root on S . side of 14-in. black oak tree; crossed iron nails
Gatewood, 2.4 mi. NW. of, in NWhes sec. 6, T. 22 N., R. 1 W., on SW. slope of prominent ridge and about 300 ft . from summit, 66 ft . N. of r.d. in front of triangular-blazed 18-in. black oak tree, in top of large boulder; standard tablet stamped TT T 2 G 1936"
717.467

Opposite house, 40 ft . W. of rd., in root on E. siae of $28-\mathrm{in}$. black oak tree; orossed iron nails
Gatewood, 1.2 mi . NW. of, 40 ft . NE. of rd. at spring branch,, in root on SW. side of $18-i n$. white oak tree; copper nail and washer
Rd. fork N., 30 ft . E. of junction of, in root on NW. side of twin 8 -in. black oak tree; crossed iron nails
Gatewood, in NE $\frac{1}{4} \mathrm{NE} \frac{2}{4}$ sec. 8, T. $22 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} ., 80 \mathrm{ft}$. S. and 90 ft . W. of sw. corner of main part of post office building, 25 ft . S. and 15 ft . E. of rd. forks, in concrete post; standard tablet stamped "T T 1636 E R A 1935"
Top of ridge, $40 \mathrm{ft} . \mathrm{N}$. and 130 ft . E. of T-rd. S., in root on SE. side of 30-in. black oak tree; crossed iron nails
Getewood, 1.3 mi . E. of, 35 ft . N. and 85 ft . E. of small wooden bridge, in root on SW. side of $26-i n$. white oak tree; copper nail and vasher
T - C . S., 35 ft . N. and 9 ft . E. of, in root on NW. side of 28 -in. white oak tree; crossed iron nails
tree, crossed iron nails
Gatewood, 2.4 mi . E. of, 35 ft . N. of rd., 130 ft . SW. of SW . corner of house, in root on NW. side of 24-in, white oak tree; copper nail and washer

Gatewood, 3.8 mi . E. of, along Gatewood-Ponder road, 125 ft . N. and 235 ft . W. of iron pipe at quarter cor. between secs. 2 and 11, T. 22 N., R. 1 W., 50 ft . N. and 10 ft . W. of T-rd. S., 1 ft . S. of fence, in concrete post; standard tablet stamped "T T 1635 E R A 1935"
Rd. fork $S ., 35 \mathrm{ft}$. E. and 20 ft . S . of, in roat on S . side of leaning l4-in. white oak tree; crossed iron nails
Gatewood, 5.2 ml . E. of, 1.9 mi . W. of Ponder, $20 \mathrm{ft} . \mathrm{S}$. of rd., 30 ft . W. of lan
S., in root on $N$. side of l6-in. black oak tree; copper nail and washer
60. 4
6. WEST ALONG SOUTH BORDER INCLUDING THAT PAKT OF THE LINE IN ELM STORE QUADRANGLE (MO.-ARK.): (Continued from Doniphan quadrangle; see line no. 8.)
T. $22 \mathrm{~N} ., \mathrm{R} .1$ E., W. sixteenth cor. between secs. 30 and $31,120 \mathrm{ft}$. W. and 36 ft . N. of rd. fork N., in root on SE. side of 10-in. black oak tree; copper nail and washer
T-rd. W., 12 ft . S. and 18 ft . E. of, at gate post, in root on E. side of $12-\mathrm{in}$. white oak tree; crossed iron nails
439.5
T. 22 N., R. $1 \mathrm{~W} .$, in $\mathrm{SW}_{\frac{1}{4} S E} \mathrm{~L}$ sec. 36 , on ridge, 40 ft . NW. of rd. fork NE., in root on E. side of $26-1 \mathrm{n}$. black oak tree; copper nail and washer
Rd. fork NW., 60 ft . W. and 18 ft . N. of, in root on SW . side of $14-\mathrm{in}$. black oak tree; crossed iron nalls
T. 21 N., R. I W., in SEd $\mathrm{SE}_{\frac{1}{4}}$ sec. 2, 110 ft . NE. of ford across spring branch, 15 ft. NW. of rd., in root on S. side of 12-1n. elm tree; copper nail and washer 512.02 Warm Springs, Ark., about 1 mi . N. of, 12 ft . E. of picket fence corner at W. sixteenth cor. sec. 2, T. 21 N., R. 1 W., 26 ft . E. of rd., 16 ft . E. of iron pin on Mo.-Ark. State line, in concrete post; standard tablet stamped iT T 4 G $1936^{n}{ }^{\text {p }}$
569.728

Mo.-Ark. State ine, 14 ft . N. of fence, 300 ft . W. of lane through field, in root on SW. side of 12-1n. post oak tree; crossed iron nails
509.5
T. 21 N.; R. 1 W., in $S W \frac{1}{4} S_{W}^{\frac{1}{4}}$ sec. $3,24 \mathrm{ft}$. N. and 20 ft . W. of rd. junction, 210 ft . N. of J. G. Landry's house, in root on $N$. side of $28-1 n$. black oak tree; copper nail and washer
T. 21 N., R. 1 W., in SWisw isec. $4,32 \mathrm{ft}$. SW. of rd. fork W., 8 ft . N. of main rd., in root on S. side of triangular-blazed 13-in. white oak tree; copper nail and washer
526.63

Tucker, 4.2 mi . SW. of, by rd., 51 ft . W. of iron pin on Mo.-Ark. State line at E. sixteenth cor. sec. 5, T. 21 N., R. 1 W., $11 \mathrm{ft}. \mathrm{~N}_{\text {. }}$ and 25 ft . W. of NW. corner of Amen Yarger's house, in concrete post; standard tablet stamped "T T 5 G $1936^{\text {² }}$
563.834
 rd., in roat on E. side of triangular-blazed 21-in. black oak tree; oopper nail and washer
 root on N. side of l4-in: black oak tree; copper nail and washer 621.96

Rd. forks, 70 ft . SE. of, 40 ft . E. of spring branch, 12 ft . N. of rd., in root on SW. side of 12-in. white oak tree; crossed fron nails
 in root on S. oide op 14-in. black oak tree; copper naij and washer $\quad 498$.
T. 22 N., R. 2 W., 437 ft . N. and 420 ft . W. of iron pin at S. aixteenth cor. on E . side of sec. $36,22 \mathrm{ft}$. N. and 420 ft . W. of rd. corner from S. to W. 105 ft . S. of SE. corner of L. A. Read's house; in limestone ledge; standard tablet atamped "T T 6 G 1936 " 10 fill crest, 10 . of rd., in roat on f . side of 30-in. white
Top of ridge, at hill cirest, 10 ft . N. of rd., in root on S. side of 30-in. white oak tree; crossediron nails 18.055
T. 22 N., R. 2 W., in SW. cor. sec. $36,23 \mathrm{ft}$. W. of NW. corner of Griswold store, $56 \mathrm{ft}$.S . and 170 ft . E. of T-rd. E., in root on N. side of l5-in. walnut tree; copper nall and washer
Top of ridge, 15 ft . S. of rd., in root on N. gide of 38-in. black oak tree; crossed iron nails
T. 22 N., R. 2 W., in $\sin \frac{1}{2} S W \frac{1}{4}$ sec. 35, 108 ft . E. and 45 ft . S. of T-rd. S., in root on NW. side of $36-1 \mathrm{n}$. elm tree; copper riail and washer
 R. $2 \mathrm{~W} ., 33 \mathrm{ft}$. N. of E. landing of ferry across Eleven Point River, 167 ft . S. and 29 ft . W. of S. L. Huddleston's house, in concrete post; U. S. C. E. tablet stamped "Memphis Engineer District WV 15 1935*:
Reference mark, 42 ft . S. of tablet; in root on N . side of blazed $27-\mathrm{in}$. white oak tree; copper nail and washer
396.18
T. 22 N., R. 2 W., in $S_{2}^{2}$ sec. $34,27 \mathrm{ft}$. 3 . of rd., 171 ft . W. of W. landing of ferry across Eleven Point River, in root on SE. side of 36-in. black oak tree; copper nail and washer
T. 22 N., R. 2 W., S. sixteenth cor. between secs. 33 and $34,70 \mathrm{ft}$. E. and 21 ft . N. of T-rd. S., in root on S. aide of 14-in. black oak tree; copper nail and washer
422.57

Peace Valley schoolyard, in root on NE. side of $34-1 n$. black. oak tree; copper nail and washer
Myrtle, 3 mi. E. of, along County Route $\mathrm{H}, 26 \mathrm{ft}$. N. and 42 ft . W. of highway on curve at rd: E. and fence N., 0.2 mi . N. of S. cor. secs. 31 and $32, \mathrm{~T} .22 \mathrm{~N} ., \mathrm{R} .2$ W., 2 ft . S. and 26 ft . E. of fence corner, in concrete post; standard tablet atamped "T T 7 G 1936"
Schoolhouse, 126 ft . N. of NW. corner of, 51 ft . S. of rd., in root on N . side of 24-in. white oak tree; crossed iron nails
T. 21 N., Rs. 2 and 3 W., S. sixteenth cor. between secs. 31 and $36,14 \mathrm{ft}$. E. and 42 ft . N. of County Route H at junction of rd. NE., in root on SW. side of
l6-in. Walnut tree; copper nail and washer orassed iron nails

## VAN BDREN QUADRANGLE

(Latitude $36^{\circ} 4^{\prime}-37^{\circ}$; longitude 910-91015')
Carter, Oregon, Ripley, and Shannon Counties


1. FROM EAST BORDER OF QUADRANGLE WEST ALONG ST. LOUIS-SAN FRANCISCO R. R. TO WEST BORDER (second-order line by H. P. Jones in 1933)
(Continued from Grandin quadrangle; see line no. 1.)
Chicopee, 0.6 mi . SE. of, along St. Louis-San Francisco R. R., in SW. corner of wooden trestle no. 355.4 ; copper nail and washer
Ohicopee, 215 ft . S. of St . Louis-San Francisco R. R. station, $40 \mathrm{ft} . \mathrm{N}$. and 45 ft . W. of ra. crossing, in root on $E$. side of $36-i n$. black oak tree; copper nail and washer
Van Buren, in SW. corner of courthouse yard; iron post stamped "Prim Trav Sta No 32 F 1924 Mo 475 "
Van Buren, at S. limits of, on U. S. Highway 60 , on E. end of S. abutment of bridge; standard U.S. G. S. gaging station tablet
Van Buren, 1.3 mi . W. of, along St. Louis-San Francisco R. R., in SE. corner of wooden trestle no. 353.2.; copper nail and washer
Van Buren, 1.9 mi . W. of, 3 mi . E. of Cumnings, 250 ft . W. of St. Louis-San Francisco R. R., $78 \mathrm{ft} . \mathrm{S} .15^{\circ} \mathrm{E}$. of rd. forks; iron post stamped "Prim Trav Sta No 33 F 1924 Mo 470" (Description and elevation of new location established November 27, 1933)

Cummings, $2.1 \mathrm{mi} . E$. of, along St. Louis-San Francisco R. R., 100 ft . W. of milepost no. $352,55 \mathrm{ft} . \mathrm{N}$. of track, 10 ft . N. of rd., in rooṭ of elm tree; copper nail and washer
Cummings, 1.3 mi . E. of, along St. Louis-San Francisco R. R., in S . end of W . header of trestle no. 351.2 ; copper nail and washer
Cummings, 90 ft . N. of St. Louis-San Francisco R. R., 100 ft . E. of abandoried store building, 7 ft . E. of SE. corner of ice house, in limestone ledge; standard tablet stamped "Prim Trav Sta No 34 F $1924 \mathrm{Mo} 520 "$
Cummings, 0.8 ml . W. of, along St. Louis-San Francisco R. R., 60 ft . W. of track, 100 ft . SW. of rd. crossing, 5 ft . S. of right-of-way, in root of hickory tree; copper nail and wesher
Cummings, 1.4 mi . W. of, along St. Louis-San Francisco R. R., 75 ft . N. of rd., at W. end of large cut, 8 ft . N. of track, in limestone ledge; chiseled square 572.28

Cummings, 2.5 mi. W. of, $25 \mathrm{ft} . \mathrm{N}$. of rd., 70 ft . SW. of Gearge Whittiger's house; iron post stamped "Prim Trav Sta No 35 F 1924 Mo 562"
Fremont, 3.4 mi . E. of, alone St. Louis-San Francisco R. R., in S. end of W. header of wooden trestle no. 347.2 ; copper nail and washer
Fremont, 2.6 mi . E. of, along St. Louls-San Francisco R. R., in S. end of w. header of wooden trestle no. 346.4; copper nail and washer
Fremont, 1.6 mi. E. of, along St. Louis-San Francisca R. R., $100 \mathrm{ft} . \mathrm{S}$. and 30 ft . E . of rd . crossing, $55 \mathrm{ft} . \mathrm{N}$. and 30 ft . W. of T-rd. N., in N. head wall of concrete culvert; chiseled square
580.54

Fremont, 0.9 mi . E. of, along St. Louls-San Francisco R. R., 70 ft . N. and 30 ft . E. of ra.crossing, 50 ft . S. and 30 ft . E. of T-rd. S., in root on SW. side of l2-in. hackberry tree; copper nail and washer
Fremont, in E. end of doorsill at entrance to Fremont State Bank; standard tablet stamped "Prim Trav Sta No 36 F 1924 Mo 621 "
Reference mark, at SW. corner of State Eank Bullding, in concrete sidewalk; chiseled square
Fremont, 0.8 mi . W. of, along St. Louismsan Francisco R. R., 200 ft . E. of milepost no. 343, in NE. corner of $N$, end of stone box culvert; chiseled squere 669.47
Fremont, 1.9 mi . W. of, along St. Louis-San Francisco R..R., 8 ft. N. of rail opposite third telegraph pole $E$. of pole no. 342, laree flint rock; highest point 755.32
Fremont, 2.9 mi. W. of, 4 mi . E. of Low Wossie, 300 ft . W. of Tard. N., 60 ft . W. of milepost no. 341, 40 ft. N. of St. Louis-San Francisco. R. R. at public rd. croseing; iron post stamped "Prim Trav Sta No 37 F 1924 Mo 735"
735.673

Low Wossie, 2.2 mi . E. of, alang St. Louis-San Francisca R. R., in S. end of W. header of wooden trestle no. 339.7; copper nail and washer
Low Wossie, 1.9 mi . E. of, along St. Louis-San Francisco R. R., in S. end of W. header of trestle na. 338.8; copper nail and wesher
now Wossie, l mi. E. of, along St. Louis-San Francisco R. R., 90 it. N. of track, directly opposite rd. crossing under trestle, on N. property line of rd., in root of black oak tree; copper nail and washer
2. FROM WEST BORDER OF QUADRANGLE EAST TO WILDERNESS, THENCE SOJTHEAST TO SOUTH BOHDER INCLUDING PART OF THE LINE IN BANDYVILLE UUADRANGLF: (by W. R. Broaddus ín 1925)

Turners Mill, 0.3 mi . E. of, 5 mi . W. of Wilderness, 150 ft . NV. of Surprise Schools at foot of N . bluff of Eleven Point River Valley, 20 ft . N . and 10 ft . above rd., In top of limestone ledge, 5 in . N. of face, standard tablet stamped "72 B 1925"
Reference mark, 175 ft . S. $70^{\circ} \mathrm{E}$. of tablet, 22 ft . N. and 8 ft . E. of schoolhouse, in root on S. side of 8-in. red oak tree; copper nail and washer 515.46
Turners Mill, l mi. NE. of, at sawmill camp, 40 ft . N. of rd., at foot of hill, in root on SE. side of l5-in. red oak tree; copper nail and washer
Wilderness, 3.4 mi . W. of, at top of River Hill, 15 ft . SW. of Surprise-wilderness road, in root on NW. side of 20-in. black oak tree; copper niail and wesher 813.9
Wilderness, 2.9 mil . W. of, 67 ft . SW. of junction of Surprise-Wilderness and Alton
roads, 22 ft . NW. of rd . to Surprise, in top of boulder; standard tablet stamped "73 B 1925"
Reference mark, 50 ft . N. $70^{\circ} \mathrm{E}$. of tablet, 15 ft . W. of rd. forks, in root on S. side of $20-1 n$. red oak tree; copper nail and washer
828.50

Wilderness, 1.8 mi . W. of, 15 ft . S . of rd., opposite $G$. W. Loue's house, in root on E. side of 24-in. post oak tree; copper nail and wesher
Wilderness, 1.1 ml . W. of, 17 ft . W. and 13 ft . N. of T-rd., in root on SE. side of 14-in. black oak tree; copper nail and westier
Wilderness, 0.4 mi . W. of, 20 ft . N. of T-rd. S., in raot on $\mathrm{S} . \mathrm{s}$. side of 15 in . red oak tree; copper nail end washer
Wilderness, 0.2 mi . E. of post office, 20 ft . S . and 10 ft . W. of junction of AltonFremont and Pine roads, in concrete post; standard tablet stamped "74 B 1925"
Reference mark, 105 ft . E. of tablet, in root on $N$. side of $15-\mathrm{in}$. hickory tree; oopper nail ard washer
840.20

Wilderness, 1.4 mi . SE. of post office, on S . side of Pine-Wilderness road, 40 ft . SE. of drain crossing, in root on W. side and 18 in . fromi 20-in. white oak tree; copper nall and washer
Wilderness, 2.2 mi . SE. of post office, 7 ft . N. of Pine-Wilderness road, at rd. junction, on top of ridge, in root of 4-in. post oak tree; copper nail and washer
862.89

Wilderness, 3.1 mi . SE. of post office, 125 ft . NW, of Pine-Wilderness road at small creek croseing, 55 ft . NW, of old tramway, ll ft . S. of triangular-blazed 7-in. red oak tree, 4 ft . S. of large triangular-shaped boulder, in rock outcrop; standard tablet stamped "75 B 1925" 795.709
Reference mark, 49 ft . S . $25^{\circ} \mathrm{E}$. of tablet, in root on W. side of $24-\mathrm{in}$. black oak tree; copper nail and vasher in root on SW. side of 12-in. post oak tree; iron nail and copper vasher 909.88
Wilderness, 5 mi . SE. of, 0.5 mi . S. of old site of Camp Five, 20 ft . N. of PineWilderness road, at rd. junction, in root on S. side of 24-in. black oak tree; iron nail and copper washer
Wilderness, 5.6 mi . SE. of, 1.4 mi . 846.28 W. and 2.5 mi . N. of Pine, 258 ft . NW. of junction roads, 8 ft. W. of Pine-Wilderness road, in top of
(Given elevation is doubtful since tablet was replaced by another stamped nil C 1933")
Reference mark, $188 \mathrm{ft} . \mathrm{S} .20^{\circ} \mathrm{E}$. of tablet, in root of l2-in. black oak tree; iron nail and copper washer
774.05
(Continued in Gatewood quadrangle; see line no. 1.)

## 3. NORTH ALONG SOUTH PARY OF EAST BORDER OF QUADRANGLE (leveled twice) <br> (Continued from Gateplood quadrangle; see line no. 1.)

Bennett, 2.5 mi . NW. of, in NE, $\frac{1}{4}$ sec. $12, \mathrm{~T} .24 \mathrm{~N} ., \mathrm{R} .1 \mathrm{w}$, on top of divide betreen Buffalo and Littie Barren Creeks, 190 ft . S. of rd. forks, 45 ft . W. of rd. SE. in top of granite boulder; standard tablet stamped "81 B 1925" ${ }^{\circ}{ }^{\circ}{ }^{7}$ $\begin{aligned} & \text { Reference nark, } 168 \mathrm{ft} . \mathrm{N} . 30^{\circ} \mathrm{W} \text {. of tablet, } 60 \mathrm{ft} \text {. SW. of rd. forks, in root on } \\ & \text { E. side of } 16-1 \mathrm{n} \text {. post oak tree; iron nalil and copper washer }\end{aligned}$
Bennett, $3.1 \mathrm{mi}, \mathrm{N}$. of, 0.7 ml . S. of Little Barren Creek, on N . side of rd., 430 ft. above field, in raot on S. side of 20-in. post oak tree; iron nail and copper washer
Bennett, 3.8 mi . N. of, 120 ft . E. of rd. forks, 150 ft . E. of crossing of Little Barren Creek, $10 \mathrm{ft} . \mathrm{S}$. of rd., in root on N . side of $12-\mathrm{in}$. red oak tree; iron nail and copper vasher
556.44

Bennett, 4.8 mi . N. of, on top of divide between Little and Big Barren Creeks, N. of crossing of Little Barren Creek, 100 ft . N. of rd. forks, 10 ft . W. of rd., in root on W. side of $20-1 n$. red oak tree; copper nail and washer
738.75
(For balance in Grandin quadrangle, see line no. 3.)
Short, $0.9 \mathrm{mi} . \mathrm{N}$. of post office, 10 ft . W. of rd. junction W., in root on E. side of 8-in. hickory tree; copper nail and washer
457.80

Short, 1.8 mi . N. of post office, in Big Barren Creek Valley, 50 ft . S. of junction of tinber rd. E., 500 ft . N. of Carter-Ripley county line, in root on N . side of large forked red oak tree; copper nail and washer
460.08

Short, 2.5 mi . N. of post office, 0.9 mi . N. of Carter-Ripley county line, 330 ft . E. of rd. junction, 60 ft . N. of rd., on E. bank of Big Barren Creek, at foot of hill, 5 ft . W. of large boulder, in limestone ledge; standard tablet stamped " 83 B 1925"
478.589

Reference mark, 42 ft . S. $60^{\circ} \mathrm{W}$. of tablet, 25 ft . N. of rd., in bench on N . side of 12-in. hickory tree; copper nail and washer
Short, 2.5 mi . N. and 1 mi . E. of post office, 20 ft . s . of rd., on t op of ridge, in root on $N$. side of $20-1 \mathrm{n}$. red oak tree; copper nail and washer

## 4. FROM FREMONT SOUTH TO WILIEERNESS

Fremont, 0.5 ml . SW. of, 10 ft . E. of Fremont-wilderness road, $100 \mathrm{ft} . \mathrm{S}$. of rd. forks, in root on W. side of 30-in. post oak tree; copper nail and washer 633.94
Fremont, $2 \mathrm{mi} . \mathrm{SW}$. of, 20 ft . W. of Fremont-Wilderness road, $70 \mathrm{ft} . \mathrm{S}$. of lane W. to farmhouse, in root on E. side of $24-1 n$. oak tree; copper nail and washer ro3.19
Fremont, 2.8 mi . SW. of, 0.5 mi . S. of house, 25 ft . W. of Fremont-Wilderness road at dim rd. junction, 10 ft . S. of rail fence at upper end of field, in concrete post; standard tablet stamped "89 B 1925"
762.709

Reference mark, 120 ft . S. $30^{\circ}$ E. of tablet, 20 ft . W. of rd., in root on E . side of tree; copper nail and washer
Fremont, 3.7 mi . S. of, 20 ft . W. of Fremont-Wilderness road, 450 ft . S. of top of ridge, in root on E . side of $24-i n$. red oak tree; copper nail and washer
remont, 4.8 mi . S . of, on N . side of Fremont-Wilderness road, on top of ridge,
Fremont, 4.8 mi . S. of, on $N$. side of Fremont-Wilderness road, on top of ridge,
in root on $S$. side of 24-in. black oak tree; copper nail and washer
933.37
983.20

Fremont, $5.5 \mathrm{mi} . \mathrm{S}$. of, $410 \mathrm{ft} . \mathrm{S}$. of junction of rd. W., 8 ft . W. of Fremont-wildernese road, on top of ridge, in concrete post; standard tablet stamped "90 B 1925".
Reference mark, 30 ft . $\mathrm{N} .70^{\circ} \mathrm{E}$. of tablet, in root on W . side of $16-1 \mathrm{n}$. black oak tree; copper nail and washer

1,000. 93
Fremont, $6.6 \mathrm{mi} . \mathrm{S}$. of, 30 ft . W. of Fremont-Wilderness road, 850 ft . N . of rd. junotion on top of ridge, in root on E. side of 20-1n. red oak tree; copper nail and washer
931.28

Fremont, 7.5 mi . S. of, on W. side of Fremont-Wilderness road, 50 ft . N. of rd. leading to Abrams' sawmili, in Cotton Fond Hollow, 0.5 mi . S. of crossing of Big Barren Creek, in root on W. side of 18-in. post oak tree; copper nail and washer 611.49
Fremont, $8.4 \mathrm{ml} . \mathrm{S}$. of, about 5 mi . N. of Wilderness, $1.4 \mathrm{mi} . \mathrm{S}$. of crossing of Big Barren Creek, 15 ft . W. of Fremont-Wilderness roed, at junction of rd. SW., in concrete post; standard tablet stamped "91 B 1925"
Reference mark, 12 ft . S. $45^{\circ} \mathrm{W}$. of tablet, in root on N. side of 8 -in. white oak tree; copper nail and washer
855.26

Fremont, 9.5 mi . S. of, 40 ft . E. of Fremont-Wilderness road, at junction of rd. NE., in root on N. side of 16-1n. post oak tree; copper nail and washer
966.48

Fremont, 10.6 mi . S. of, 20 ft . E. of Fremont-Wilderness road, 320 ft . S. of point where rd. leaves old tramway roadbed, 100 ft . S . of junction of dim rd., in root on W. side of 24-in. black oak tree; copper nall and washer
Wilderness, 1.8 mi . N. of; 115 ft . W. of rd . N. from crossroads, 45 ft . s . of E.-W. rd., in concrete post; standard tablet stamped "l Bl926" 92
Reference mark, $63 \mathrm{ft:} \mathrm{E} .\mathrm{of} \mathrm{tablet} ,\mathrm{in} \mathrm{root} \mathrm{on} \mathrm{NW} \mathrm{side} \mathrm{of} 15-.1 n$. black oak tree;
copper nail and washer
926.0
Wilderness, 0.5 mi . N. of, 25 ft . W. and 10 ft . S. of T-rd. S., in root on E. side of $16-1$. red oak tree; copper nail and washer

## 5. EAST THRODGH CENTER OF QUADKANGLE (by B. A. Barnes in 1935)

T. 25 N., R. 3 W., in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. $2,31 \mathrm{ft} . \mathrm{N}$. and 147 ft . E. of junction of trail N., in root on SW. gide of l4-in. black oak tree; copper nail and washer $\cdot 975.73$ Rd. fork S., 27 ft . E. and 32 ft . N. of, in root on N . side of $10-\mathrm{in}$. black oak tree; crossed iron nails
T. 25 N., R. 3 W., near center sec. $1,11 \mathrm{mi}$. SW. of Fremont, by rd., 0.6 mi. W. of ola tramroed, on timbered hill, 330 ft . W. of rd. forks, 40 ft . S. of rd., in concrete post; standard U. S. C. \& G. S. tríngulation station tablet designated "Tram 1930".
Reference mark no. $1,89 \mathrm{ft}$. N. of station, in concrete post; standard U. S. C. \& G. S. reference mark tablet
\& G. S. reference mark tablet
\& G. S. reference mark tablet
1,026.370
T. 25 N., R. 2 W., in NWis. sec. $6,40 \mathrm{ft}$. N. and 280 ft . W. of T-rd. W., in root on S. side of 40-in. black oak tree; copper nail and washer 1
P-rd. S., 27 ft . W. and 30 ft . N. of, in root on SE. oide of l4-in. pine tree; orossed iron nails
996.9 30 ft . N. of rd. fork S., in root on SE. side of 16-1n. black oak tree; copper nail and washer
Rd. fork S., 30 ft . S. and 30 ft . W. of, in root on N . side of $12-\mathrm{in}$. hickory tree; crassed iron nails
In center of W. head tiall of concrete culvert; chiseled square
. 20 N., R. $2 \mathrm{~W} \cdot, \mathrm{in} \mathrm{NE}_{4} \mathrm{NE}_{4}$ sec. $5,15 \mathrm{Pt}$. N. and 48 Pt . E. of T-rd. E., in
root on S. side of l4-in. black oak tree; copper nail and washer
817.7
or of rd., 31 it. S. of, in root on NE. side af $2 z-1 \mathrm{n}$. black oak tree; crossed iron nails
824.91
. $25 \mathrm{~N} ., \mathrm{R}$. 2 W. in NE $\frac{1}{4} \mathrm{NE} \frac{1}{4} \mathrm{sec} .4,0.3 \mathrm{ml}$. E. of Pine Grove School, on top 787.5
24 ft . S . of fl , 1 ln . washer
Hill, in front yard of house, 32 ft . S. of rd., in root on N. side of $16-\mathrm{in}$.
W. of T-rd. S., 44 ft . N. of rail fonce, in secs, 34 and $35,38 \mathrm{ft}$. N. and 28 ft . stamped "T T 1619 E R A 1935 "
Top of ridge, 12 ft . W. and $21 \mathrm{ft}. \mathrm{S}$.of rd . fork $\mathrm{S} .$, in root on NE . side of $8-1 \mathrm{n}$. white oak tree; crossed iron nails 789.
 E. of rd., in root on S. side of 10-in. white oak tree; copper nail and washer

in root on SW, side of leaning $20-1 \mathrm{n}$. white oak tree; copper nail and washer 665.22
T. $25 \mathrm{N},. \mathrm{R} .2 \mathrm{~W} .$, in NE $\frac{1}{4} \mathrm{SW} \frac{1}{4} \mathrm{sec} .1,75 \mathrm{ft}$. W. of rd. corner from NW. to E., about 350 ft . N. of Albert Brawley's house, 14 ft . N. and 2 ft . E. of fence corner, In concrete post; standard tablet stamped "T T 1620 E R A 1935"
on NE. side of 14-in. hickory tree; crossed iron nails
T. 25 N., R. 2 W., in SWlats sec. 6, 141 f.t. NW. of ford across Big Barren Creeli, 15 ft . N. of ra., in rout cn W. side of $20-i r$. while oak tree; copper nail. and washer
616.14

Big Barren Creek, $100 \mathrm{ft} . \mathrm{S}$. of ford across, 24 ft . E. of rd., in triengle formed by T-rd. E., in root on NE. side of 2l-in. white oak tree; crossed iron nails
 block in scroolyard, 6 ft . N. and 6 ft . E. of NE. corner of schoolhouse; chiseled squere
648.65
 S., 2 ft . S. and 18 ft . W. of fence correr, in concrete post; standard tablet stamped "T T 1621 E R A 1935"
591.373
 root on S. side of 20-in. white oak tree; copper nail and washer
T. 25 N., R. 1 W.g. In $S E \frac{1}{4} S E \frac{1}{4}$ sec. $4,45 \mathrm{ft}^{\prime}$. W. of ford across Big Barren Creek, 17 t . S. of rd., in root on SE. side of lowir. white oak tree; copper nail and wesher
540.26
T. 25 N., R. 1 W., about 0.1 mi . S. of quarter cor. between secs. 9 and 10 , 27 ft . S . and 24 ft . W. of $\mathrm{T}-\mathrm{rd}$. N., in root on SW . side of li-ir. black oak tree; copper nail and washer
T. 25 N., R. 1 W., in SWidNE sec. $10,66 \mathrm{ft}$. S. of SW . corner of house, 30 ft . N. of rd., in root on $S E$. side of $20-i n$. black oak tree; copper nail and wasber 511.90
 rd. forks, 16 ft . S. and 27 ft . E. of SE . corner of schoolhouse, in concrete post; standard tablet stamped "T T 1631 E R A 1935"
ind. fork $S W$., 40 ft . W. and 24 ft . S. of, in root on NE. side of j.8-in. black: oal tree; crossed iron nails

## 6. IN NORTHEAST QUARTER OF QUADRANGLE

Van Buren, 5.3 mi . W. of, elong U. S. Hi chway 60, in NEl sec. 5, T. 26 N., R. 1 W., $95 \mathrm{ft} . \mathrm{S}$. and 60 it . W. of jur:ction of liehway end rd. S . to Lewis Cave, 95 ft . $S$. of W. end of righway bridge, ir concrete post; standard tablet stamped "T T 1615 ER A 1935"
Rd. fork W., 72 ft. W. and $12 f t$. N. of, ir: root on SW. side of 8-ir:. pire tree; crossed iron nails
$624 \times 2$
T. 26 N., R. 1 W., in NE $\frac{1}{4} N E_{4}^{2} \sec .8,1 \mathrm{mi}$. S. of junction of U. S. Hichway 60 and County Route $C$, at hill top, 44 ft . W. of hiferway, about 250 ft . NW. of junction of trall S., ir root on NE. side of 22-in. white oak tree; copper najl and washer

Top of ridge, 45 ft . S. of county Route C , in root on NE . side of le-in. black
cak tree; crossed tron rails
822. 6
T. 26 N., R. 1 W., in SE $\frac{1}{4} S W \frac{\lambda}{4}$ sec. 9, 2 mi . S. of junction of U. S. Highway 60 and courity Route $C$, at top of ridge, 72 ft . E. and 52 ft . N. of tighmay at junction of rad. N., in root on $S$. side of 14-in. black oak tree; copper riail and vasher . 899.27

Top of hill, 44 ft . N. and 21 ft . E. of Ccunty Route C at junction of dim trail N., in reot on $S W$. side of 22-in. white oak tree; crossed iron nails 927.
T. 26 N., R. 1 W., in SE $\frac{1}{4} \operatorname{Sed} \sec .16,3 \mathrm{mi}$. S. of junction of U . S. Highway 60 and County Route $C, 65 \mathrm{ft} . \mathrm{E}$. and 72 ft . N. of highway at junction of rd. E., in root on W. side of 26-in. while oak tree; copper nai] and washer
903.95

Rd. at curve, 55 ft . E. of, in root on W. side of $16-1 \mathrm{n}$. black oak tree; crossed iron nails
T. 26 N., R. $1 \mathrm{~W} ., 1 \mathrm{n} \mathrm{NE} \frac{1}{4} \mathrm{SE} \frac{1}{4} \mathrm{sec} .21,4.5 \mathrm{mi}$. S. of junction of U. S. Highway 60 and County Route $C, 45 \mathrm{ft}$. E. of rd., in root on $W$. side of 14-1n. black oak tree; copper nail and washer
Eastwood, 2.3 mi . W. of, elong old rd., 4.8 mi . S. of junction of U. S. Hiethway 60 and County Route C, in SE sec. 2l, T. $26 \mathrm{~N}, \mathrm{R}$ R. 1 W., 25 ft . N. and 75 Ft . E. of junction of County Route $C$ and olc Eastwood road, 15 ft . W. of triangular-blazed 14-in. white oak tree; in concrete post; standard tablet stumped "T T 1616 E R A 1935"
938.393

Rd. fork SE., $12 \mathrm{ft} . \mathrm{S}$. and 6 ft . W. of, in root on NE. side of 8-in. black oak tree; crossed iron nails
Eastwood, 1.3 mi . W. of, elone old rd., 14 ft . S . of ra., 36 ft . E. of rd. corner, in root on N. side of $10-i n$. black oak tree, in fence corner, copper nail end washer
Crossroads, 16 ft . E, and 21 ft . S. of, in root on NW. side of 20-in. white oak tree; crossed iron nails
925.72

Eastwood, 0.5 mi . S. and 0.5 mi . E. of, cor. secs. 23, 24, 25, and 26, T. $26 \mathrm{~N} .$, 28 ft . N. and 9 ft . E. of crossroads, in root on SW. side of 22-in. white oak tree; copper nail and vasher
Crossroads, $45 \mathrm{ft} . \mathrm{S}$. and 22 ft . W. of, in root on SE. side of 20-in. black oak tree; crossed 1 ron nails
Eastwood, 1.9 ml . SE . of, 18 ft . N. of rd., at top of hill, in root on N . side of lo-in. black oak tree; copper nail and washer
adde of ridge, 20 ft . E. of rd., in root on E . side of 10-1r. black oak tree; Saddle of ridge, 20 f
crossed iron nails
848.8

Eastwoad, 3.2 mi . SE. of, at top of long hill, 28 ft . W. of rd. at sharp curve, in root on E. side of l2-in. black oak tree; copper nail and washer 819.21
 44 ft . W. of Barren Creek road and dim cross rd., at foot of liong hill, in concrete post; standard tablet stamped "T T 1617 ER A 1935"


1. FROM SOUTH BURDEF OF QUADRANGLE NORTH AND EAST TO CURRENT RIVER (second-arder line by H. P. Jones in 1933)
T. 2.7 N., R. J. W., in NW $\frac{1}{4}$ sec. 22, about 1 mi. N. of St. Louis-San Francisco R. R. Feet elong rd. to House Creek, 7 ft . E. of rd., in root on NW. sice of 22-in. post oak tree; copper nail and wesher
T. 27 N., R. 1 W., in $S E \frac{1}{4}$ sec. 16 , along rd. to House creek, 135 ft . W. of dim rd. fork N., 10 ft . N. of rd., in root on E. side of $15-\mathrm{in}$. post oak tree; copper nail and washer
784.98
 end of laree sandstone rock; standard tablet stemped "10 J 1933" 589.668
T. 27 N., R. 1 W., in SE $\frac{1}{4} \sec .9,15 \mathrm{ft}$. N. and 20 ft . W. of rd. forks, 85 ft . SW. of SW. corner of H. F. Sanders' house, in root on NE. side of twin oak tree; copper nail and washer 7.12.07
T. 27 N., R. 1 W., in $S_{2} \frac{1}{4}$ sec. $4,63 \mathrm{ft}$. E. (domnstream) of mouth of spring branch, on W. bank of Current River, at foot of bluff helow mouth of mill creek, in rock ledge; standard tablet stamped "ll J 1933"
470.678
2. FROM FOINT NEAR GENTER OF WEST BORDER OF QUADRANGLE EAST AND NORTH TO BLAIR CREEK DAM SITE
T. 2.9 N., R. 3 W., in NW $\frac{1}{4}$ sec. $35,8 \mathrm{mi}$. E. of Eminence, 5 mi . W. of Powder Mill ford, along County Route $\mathrm{C}, 58 \mathrm{ft}$. E. of highvay, at rd. S., in root on W. side of 11-1n. oak tree; copper nail and washer
T. $29 \mathrm{~N} ., \mathrm{R}^{2} 3 \mathrm{~W}$. , in $\mathrm{SW} \mathrm{F}^{\frac{1}{4}} \sec .25,4.5 \mathrm{ml}$. W. of Powder Mill ford, along county Route C, about 200 ft . E. of top of hill, 40 ft . N. of highway, in root on S. side of 18-1r. oak tree; copper neil and wesher 1,083.57
T. 29 N., R. 3 W.g in SEs sec. $25,4 \mathrm{mi}$. SW. of Povider Mill ford, along County Route $\mathrm{C}, 36 \mathrm{ft} . \mathrm{N} .45^{\circ} \mathrm{W}$. of lifhway at rd. N., 10 ft . N. of mail bax, in inmestone post; stendard tieblet stemped "7 J 1933987 "
986.837
T. 29 N., R. 2 W., near line between secs. 19 and 30 , about 2.5 mi . SW. of Powder Mill. ford, along county Route $C, 95 \mathrm{ft}$. W. of highway, at. iron pipe culvert, in root on N. side of 14-in. hickory tree; copper nail and vaster
965.87

Fovder Mill ford, 1.5 mi . SW. of, aldne County Route C , in NWh sec. $20, \mathrm{~T} .29 \mathrm{~N}$. , R. 2 W., 40 f.t. W. of highway at rd. N., in root on S. side of $16-i n$. oak tree; copper nail and wesher $\qquad$
Povder Mill ford, 0.8 mj . SW. of, along County Route C , in NE1 sec. $20, \mathrm{~T}$. 29 N. , R. 2 W., on N. aide of highway at top of steep hill, 21 ft. N. of triangularblazed $12-1 n$. oak tree, in limestore post set flush with ground; standard tablet stamped "8 J 1933898 m
897.566

Powder Mill ford, ebout 0.5 mi . W. of, along rd. to Williams ford, in SEt sec. lif, T. 29 N., R. $2 \mathrm{~W} ., 15 \mathrm{ft}$. S. of rd. forks, in root on N . side of $20-\mathrm{in}$. oak tree; copper nail and washer
T. 29 N., R. 2 W., in NWis sec. $17,26 \mathrm{ft}$. N. and 35 ft . W. of rd. at lane N., in top of limestone boulder; chiseled square 617
T. 29 N., R. 2 W., near center sec. $18,700 \mathrm{ft}$. NE. (downstream) of mouth of Blair Creek, 47 ft .11. of $\%$. bank of Current River, $11 \mathrm{ft} . \mathrm{S}$. of rd., 4 ft . NE, of triangu-lar-blazed 20-in. oak. tree; in top of grarite bqulder buried flush with grouna; standard tablet stamped "9 J 1933 570"
569.609
3. NEAR CENTER OF HEST BOKDE: H OF QUADRANGLE (by E. C. Bibbee in 1914)

Shawnee, 1 mi . SE. of, 100 ft . S. of Reed School, in root of black oak tree; copper najl
Flip, 0.8 mi . N. of post office, 200 ft . S. of divide on hill, 20 ft . W. of rd., in root of black oak tree; copper nail
Flip post office, in foundation at the SW. corner of building, standard tablet stamped "Mo 860"

4．NORTH ALONG SOUTH HALF OF BAST BORDER OF QUADRAMGLE（by M．J．Harden in 1924）
Van Buren， 0.8 mi ．N．of，at rd．forks，in fence line on w．side of rd．，in root of $6-1 n$ ．hickory tree；copper nail ard washer
Van Buren，2．mi．N．of，on W．side of rd．，in root of $20-\mathrm{in}$ ．gum tree；copper nail and washer
Van Buren， $2.5 \mathrm{mi} . \mathrm{N}$ ．of， 340 ft ．S．of rd．forks， 100 ft ．E．of rd．，on top of ridge， in large rock；s．tanderd teblet．stemped＂Prim Trav Sta No 38 F 1924 790＂
Reference mark， 39 ft ．W．of tablet， 60 ft ．E．of rd．，in root of $10-1 \mathrm{n}$. bleck

## oak tree；copper nail and wesher

Van Buren， 3.8 mi ．N．of， 150 ft ．N．of rd，forks，on E ．side of rd．，in root
of 12 －in．white oak tree；copper nail and washer
Van Buren， 4.7 mi ．N．of，on SE．side of junction of dim ra．E．，in root of lo－in． black oak tree；copper najl and washer $\qquad$
Clear Spring School， $280 \mathrm{ft} . \mathrm{S}$ ．of， 100 ft ．W．of rd．， 30 ．f．N．of Chilton＇s yard fence，in limestone ledge；standard tablet stamped＂Prim Trav Sta No ． 39 F 1924 Mo 555\％．
555.487

Reference mark， 37 ft ．N．of tablet， 240 ft ．S．of Clear Spring School， 100 ft ．W． of rd．，in root of $20-i n$ ．locust tree；copper nejl snd wesher 555.60
Clear Spring School， 0.9 mi ．N．of，at junction of dim rd．E．， 150 ft ．SW．of small house on hillside，in fence line，in root of $24-i n$ ．white oak tree；copper neil and washer
571.13
olear Spring School， 2 mi ．N．of，on E ．side of ri．， 150 rt ．S．of barn，in root of 12－in．walnut tree；copper nail and washer
Clear Spring School， 3 mi ．N．of，on $W$ ．side of $\mathrm{rd},. 80 \mathrm{ft}$ ．SE．of house，in root of l2－in．white oak tree；copper nail and washer
625.66
（Continued in Ruble quadrangle；see line no．J．）

## 5．WEST THROUGH CENTER OF QUADRANGLE

Pine Valley Schcol， 0.6 mi ．W．of，at rd．forks，in root of $10-1 \mathrm{n}$ ．white oak tree；copper nail and washer
756.01

Pine Valley School， 1.3 mi ．W．of，at rd．forks，in root of $16-1 \mathrm{n}$ ．white oak tree；copper naj 3 and washer
T． 28 N．，R． 1 W．，in NW $\frac{1}{4} N W \frac{2}{4}$ sec． $1,1.5 \mathrm{mi}$ ．W．of Pirie Valley School，on top of divide between Pine Valley and Little Paint Rock Creek， 30 ft ．W．of rd．crossing，in laree rock；standard tablet stamped＂Prim Trav Sta No 45 F 1924 Mo 892＂ 892.074
Reference mark，in NE．angle of crossroads，in root of 10－in．white oak tree； copper nail and washer
Pine Valley School， 2 mi．W．of，on N．side of rd．， 35 ft ．NE．of blacksmith shop， in root of lo－in．white oak tree；copper nail and washer
Pine Valley School， 2.6 mi ．W．of，at rd．forks，on W．side of ro．，in root of 8－in．white oak tree；copper nail and washer
Eine Valley School， 3.2 mi ．W．of，at ra．forks，on $N$ ．side of rd．，in root of 12－in．hickory tree；copper nail and washer
Paint Rock School， 0.2 mi ．E．of，at ru．forks，on N ．side of rd．，in root of J．2－irl．white oal：tree；copper nail and washer
Paint Rock Creek，at edge of，near ra．forks，in root of G－in．walnut tree； copper nail and washer
Raint Rock School， 0.6 mi ．W．of，near ro．forks，in root of 8 －in．elm tree； oopper nail and washer
T． 28 N．，R． 1 W．，in NW⿳⺈⿴囗十一 sec． $4,200 \mathrm{ft}$ ．N．of mouth of Paint Rock Creek， 10 ft ．N． of rd．，in limestone ledge；standard teblet stemped＂Prim Trav Sta No 46 F 1924 Mo 532＂

1924 Mo $532 ", ~$
Reference mark， 300 ft．N．of mouth of Paint Rock Creek，on N．side of rd．，in
root of $14-1 n$ ．hickory tree；copper naj．and washer
Mouth of Paint Rock Creek， 0.4 mi ．W．of，opposite house，in root of $10-\mathrm{in}$ ．hard
 black oak tree；copper nail and washer＇
Beal， 1.2 mi ．NE，of on on N ．side of ra．，on top of ridge，in root of $6-\mathrm{in}$ ．elm tree；copper riail and washer
Beal， 1 mi ．NE．of，at rd．forks，on N ．side of rd．，in root of 14－in．elm tree； oopper nail and wesher
eal， 0.5 mi ．N．of on N ．side of rd ．forks，in root of 8 －in．black oak tree； Beal， 0.5 mi．N．of on N ．
Beal， 200 ft ．SW．of post office， 30 ft ．S．of picket fence，in laree boulder； standard tablet staniped＂Prim Trav Sta No 47 F 1924 Mo 559＂
Reference mark， 200 ft ．SW．of post office，in root of $36-\mathrm{in}$ ．white oak tree； copper rail．and vasher
Beal， 0.8 mi ．SE．of，on top of ridge，on w．side of rd．，in root of $3.2-i n$ ．white oak tree；copper nail and washer 87
Beal， $0.9 \mathrm{mi} . \operatorname{SE}$ ．of；at rd．forks，in root of $\mathrm{J} .2-\mathrm{in}$ ．white oak tree；copper nail
and washer 1.5 mi ．SE．of on top of rjoge，iri root of $\epsilon$－in．hickory tree；copper nail
Beal，l．5 mi．SE．of on top of rjoge，iri root of 6 －in．hickory tree；copper nail 86
Beal， $1.8 \mathrm{mi} . \mathrm{S}_{\text {．}}$ of， 40 ft ．E．of rd．，in sandsto： e ledge；standerd teblet stamped ＂H 1924 Mo 890＂
Feference mark， 35 ft ．W．of tablet，in root of $12-1 \mathrm{n}$ ．white oak tree；copper nail and wesher
Beal， 2.2 mi ．S．of，on $E$ ．side of rd．，in root of $6-1 \mathrm{n}$ ．bickory tree；copper nai］ and viasher
Beal， 2.9 mi ．SW．of， 300 ft ．N．of eate，in root of $14-\mathrm{in}$ ．black cak tree；copper nail and washer
Junction of Black Oak Hollow and Rogers Creek， 1.5 mi ．E．of，near dir．rd．forks，on N．side of rd．，in root of $12-1 \mathrm{n}$ ．black oak tree；copper naill and washer 965.81
Junction of Black Oak Hollow and Rogers Creek， 0.9 mí．E．of，on N．side of rd．， in root of $6-1 \mathrm{n}$ ．hickory tree；copper naij and washer
T． $28 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W}$. ，in SW2 $\mathrm{sec} .23,300 \mathrm{ft}$ ．NE．of junction of Black Oak Hollow and Rogers Creek， $20 \mathrm{ft} . \mathrm{N}$ ．of rd．，in large boulder；stardard tablet stamped＂Prim Trav Sta No 48 F 1924 Mo 678＂

Reference mark, $15 \mathrm{ft} . \mathrm{S}$. of tablet, in root of 12-in. hickory tree; copper nail and washer
T. 28 N., R. 2 W., in SE $\frac{1}{4}$ sec. $22,60 \mathrm{ft}$. W. of Rogers Creek, on N. side of rd., in root of $6-1 n$. White oak tree; copper nail and vasher $\qquad$
T. $28 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} .$, in $\mathrm{SW} \mathrm{W}^{\frac{1}{4}}$ seo. $22,1 \mathrm{mi}$. NE. of Mr. Osborne's house, on N . side of rd., in root of 6-in. white oak tree; copper nall and washer 717.92
T. 28 N., R. $2 \mathrm{~W} .$, in $\mathrm{SE} \frac{1}{4} \mathrm{sec} .21,0.5 \mathrm{mi}$. NE. of Mr . Osborne's house, 30 ft . NW. of rd. forks, in large rock; standard tablet stamped "Prim Trav Sta No 49 F 1924 Mo 743"
Reference mark, 30 ft . SE. of tablet, in root of lo-in. bickory tree; copper nail

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and washer

Rocky Creek Falls, 2.3 mi . E. of, 20 ft . NE. of rd. forks, in root of \(12-\mathrm{in}\).
white oak tree; copper nail and washer.
805.12

Rocky Creek Falls, 1.6 ml . SE. of, 20 ft . s . of rd. forks, on divide between Racky Creek and Rogers Creek, in root of 6-in. black jack oak tree; oopper nail and washer
909.32

Rocky Creek Falls, 0.8 mi . E. of, on N . side of rd., in root of \(12-\mathrm{in}\). white oak tree; copper neil and washer
Rocky Creek Falls, 300 ft . NE. of, \(15 \mathrm{ft} . \mathrm{S}\). of rd., in laree boulder; standard Rocky Creek Falls, 300 ft . NE. of, 15 ft . S. of rd.,
tablet stamped
Reference mark, 16 ft . SW. of tablet, in root of lo-in. white oak tree; copper nail and washer
Rocky Creek Falls, 0.1 mi . W. of, at ra. forks, in root of 8 -in. white oalk tree; copper nail and washer
735.50

Rocky Creek Falls, 0.9 mi . SW. of, at rd. forks, on S . side of rd., in root of
10-in. white oak tree; copper nall and washer
780.01
808.54

Rocky Creek Falls, 2.6 mi . W. of, 40 ft . S. of rd., in root of \(10-\mathrm{in}\). white ak tree; copper nail and washer
Rocky Creek Falls, 2.3 mi . W. of, 150 ft . SE. of E. Dillard's house, in sw. angle of T-rd. S., in root of l2-in. black jacki oak tree; copper nail and washer 845.54
Shawnee, about 3 mi . S. of post office, 180 ft . W. of J. G. Jones' house, 140 ft . N. of rd., in large granite boulder; standard tallet stamped "Frim Trav Sta No 51845.677
\(F 1924\) Mo \(846 "\)
Reference mark; 60 ft . N. of tablet, 12 ft . NW. of well, in root of \(20-\mathrm{in}\). white oak tree; copper nail and wesher
Shawnee, 2.2 mi . S. of post office, \(150 \mathrm{ft} . \mathrm{S}\). of rd. forks, on E . side of rd., in root of 14-1n. white oak tree; capper nail and washer
Shawnee, 1.2 mi . S. of post office, 56 ft . NW. of Reed School, 8 ft . inside of W. board fence, in root of 8 -in. hickory tree; copper nail and washer
816.45

\section*{6. WEST ALONG NORTH BORDER OF QUADRANGLE}
(Continued from Ruble quadrangle; see line no. 1.)
Ellington, 2.2 mi . W. of, 60 ft . N. of T-rd. W., on W. side of rd., in root of 10-1n. hickory tree; copper nail and washer
694.29

Ellington, 2.7 mi . W. of, 200 ft . W. of Logan Creek, at rd. forks, in root of 10-in. white oak tree; copper nail and washer
Exchange, 0.6 mi . E. of, 20 ft . S. of rd. forks, 3 ft . E. of gate, outside of fence, in large rock; standard tablet stamped "H 1924 Mo 703 "
Reference mark no. 1 , on S . side of rd., at rd. forks, in root of 28 in . elm tree; copper nail and washer
Reference mark no. 2, 180 ft . E. of rd. forks, on S . side of rd., in root of 18-in. hickory tree; copper nail and washer
robe hin. hickory tree; copper nail and washer
Exchange, 0.6 mi . W. of, in SW . angle of T-rd. S., in root of lo-in. black oak tree; copper nail and washer
Exchange, 1.2 mi . W. of, \(600 \mathrm{ft} . \mathrm{S}\). of farmhouse, near rd . forks, in root of 16 -i28.79 lacust tree; copper nail and washer
-1n.
Exchange, 2.3 mi . W. of, at junction of lane to house, in root of forked, black oak tree; copper nail' and washer
756.27
sloan School, 0.6 ml . NE. of, 20 ft . W. of rd., in limestone cliff; standard tablet stamped "H 1924 Mo 748 "
eference mark no. \(1,40 \mathrm{ft}\). E. of tablet, in root of 6 -in. white oak tree; copper
Reference mark no. 1, 40 ft . E. of tablet, in root of \(6-\mathrm{in}\). white oak tree; copper
nail and washer
Reference mark no. \(2,20 \mathrm{ft}\). W. of rd., in limestone ledge; chiseled square
7477.88
Sloan School, 0.6 mi . NW. of, at T-rd. W., in root of \(10-\mathrm{in}\). pine tree; copper nail and washer
Sloan School, 1 mi . NW. of, in NE, angle of junction of lane to house, in root of
\(36-1 \mathrm{n}\). black oak tree; copper nail and washer
831.29
T. 30 N., R. 2 W., 0.2 mi . W. and 490 ft . N. of SE . cor, sec. \(36,44 \mathrm{ft}\). N. 350 E . of NE. corner of Mr. George's house, at corner of yard fence; iron post stamped "Prim Trav Sta No 551913 Mo 811"
810.491

Reference mark; ll ft. E. of tablet, in root of lo-in. black oak tree; copper nail and washer
T. \(30 \mathrm{~N} ., \mathrm{R}_{\mathrm{C}} 2 \mathrm{~W}\). , in \(\mathrm{sw} \frac{1}{4} \mathrm{sec} .36,0.6 \mathrm{mi}\). W. of Mr . Bohn George's house, at rd. forks, in root of \(10-i n\), black oak tree; copper nail and washer 846.76
T. 30 N., R. 2 W., near S. cor. secs. 35 and \(36,0.9 \mathrm{mi}\). W. of Mr. Born George's house, on top of hill, at rd. forks, in root of l2-in. white oak tree; copper nail and washer \(1,021.97\)
T. 29 N., R. 2 W., about 0.3 mi . SW. of NE. cor. sec. 2, 1.4 mi . W. of Mr. Bohn George's house, 15 ft . N. of rd. forks, in root of B-in. black oak tree; copper nail and washer

1,040.61
T. \(29 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} .\), about 0.3 mi . S. of N . cor. secs. 2 and \(3,2.3 \mathrm{mi}\). W. of Mr . Bohn George's house, on \(S\). side of rd., in root of 20 -in. white oak tree; copper nail and washer

1,074. 36
T. 29 N., R. \(2 . W ., 0.4 \mathrm{mi}\). S. of N. quarter cor. sec. \(3,150 \mathrm{ft}\). SW. of Carr Creek, 10 ft . E. of rd., in large boulder; stendard tablet stamped "H 1924 Mo No 1005"
.eference mark, 25 ft . E. of tablet, in root of 8 -in. white oak tree; copper nail and washer
T. \(29 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 0.3 \mathrm{mi}\). SW. of NE. cor. sec. 4, 3.4 mi . W. of Mr. Bohn George's house, 400 ft . N. of field, at rd. forks, in root of \(10-1 \mathrm{n}\). black oak tree; copper nail and washer

1,126. 24
T. 30 N., R. 2 W., in \(S W \frac{1}{4} S^{\frac{2}{4}}\) sec. \(33,3.8 \mathrm{mi}\). W. of Mr . Bohn George's house, on top of W. end of ridge between Carr Creek and Blair Creek, in root of 10-in. black oak tree; copper nail and washer
Williams' store, 150 ft . W. of, in root of \(10-\mathrm{in}\). hard maple tree; oopper nail and washer
726.07

Poplar School, 800 ft . S. of, on E. side of rd., in root of 6-in. blaok oak tree; copper nail and washer 716.96
Tps. 29 and 30 N. , Rs. 2 and 3 W. , about 0.3 mi . S. of cor. of, 500 ft . N. \(40^{\circ} \mathrm{E}\). of J. P. Knuckle's house, 8 ft. W. of rd., l ft. W. of fence; iron post stamped "Prim Trav Sta No 541913 Mo 717"
Reference mark, 110 ft . S. of post, on \(E\). side of rd., in root of \(30-\mathrm{in}\). white oak tree; copper nall and washer
716.14

Mouth of Sugarcamp Creek, 20 ft . S. of, on E. side of rd., in root of lo-in. elm tree; copper nail and washer
687.07

Simpson School, 1.5 mi . N. of, 300 ft . W. of house, 30 ft . W. of rd., in root of 30-in. elm tree; copper nall and washer
Simpson School, 0.4 mi . N. of, 20 ft . W. of Blair Creek, in root of \(36-\mathrm{in}\). elm tree; copper nail and washer
Simpson Sohool, in SW. corner of concrete steps; standard tablet stamped "H 1924 Mo 645"
Reference mark, 51 ft . SW. of schoolhouse, in root of \(26-1 n^{\prime}\). black aak tree; coppe nail and washer of laree sycamore tree; copper nail and washer
619.03

Simpson School, 1.3 mi . S. of, 20 ft . E. of ra., near top of rjage between Blair Creek and Current River, in root of \(30-1 n\). White oak tree; copper nail and washer 827.69
Simpson School, 1.8 mi . S. of, 20 ft . N. of dim rd. W., in root of 8 -in. white oak tree; copper nail and washer 727
T. 29 N., R. 3 W., near center sec. 14 , at rd . forks, 70 ft . NE. of sign "Eminence \(\varepsilon\) miles Centerville 28 miles", in laree rock; standard tablet stamped "H 1924 Mo 604"'
Reference mark, 70 f.t. SW. of tablet, in raot of \(36-i r i\). oak tree; copper nail and washer
598.50
(Latitude \(37^{\circ} 15^{\prime}-37^{\circ} 30^{\prime} ;\) iangín tude \(91^{\circ}-91^{\circ} 15^{\prime}\) )
Dent, Reynolds, and Shannon Counties

1. NEAR CENTER OF SOUTH BORDEF OF QUADRANGLE (by M. J. Harden in 1924)
(Continued from Cardareva quadrangle; see line no. 6.)
 Reference mark no. l, \(20 \mathrm{ft} . \mathrm{S}\). of rd. forks, in root of 8 -in. white oak tree; copper nail and washer
Reference mark no. 2, 40 ft . S. of rd. forke, in root of \(12-1 n\). black oak tree; copper nail and washer
765.50
(Continued in Cardareva quadrangle; see line no. 6.)
2. FROM SOUTH BORDER OF QUADRANGLE NOHTH TO CENTER, THENCE NORTHEAST TO EAST BORDER (by George W. Moore in 1931).
T. 30 N., R. 2 W., near center of NEt sec. \(36,175 \mathrm{ft}\). N. and 22 ft . W. of W. rd. corner near John Beck's farm, in root on NE. side of \(25-1 n\). hickory tree; copper nail and washer
T. \(30 \mathrm{~N} .\), R. 2 W , near center sec. \(25,0.2 \mathrm{mi}\). E. of Lone Cedar School, 110 ft . S. of rd., in root on SW., side of 54-ir. elm tree; copper nail and washer 811.6
T. 30 N., R. 2 W., in S. part of \(S W \frac{1}{4}\) sec. 24 , NW. of rd., 26 ft . E. of fence corner, in root on W. side of \(15-1 \mathrm{n}\). oak tree; copper nail and washer
T. 30 N., R. 2 W., near center sec. \(24,60 \mathrm{ft} . \mathrm{N}\). and 30 ft . E. of ford, 30 ft . N. and 40 ft . E. of fence corner, in root on SW. side of \(26-\mathrm{ik}\). oak tree; copper nail and washer
851.10

Dagonia, 2.8 mi . S. of, rear center NWT sec. 24, T. \(30 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} .\), in rd. jog around James Mooney's house, \(26 \mathrm{ft} . \mathrm{S}\). of front gate, at \(W\). edge of concrete walk,
7 ft . N. of step; stendard tablet etemped "133 M 1931"
854.583

Reference mark, 47 ft . N. and 85 ft . E. of tablet, 25 ft . N. and 85 ft . E. of James Mooney's mail box, 10 ft . N. of ri., in root on SW. side of 26 -in. oak tree; oopper nail and washer
T. 30 N., R. 2 W., in \(S E \frac{1}{4}\) sec. \(14,100 \mathrm{ft}\). W. of ra. forks, in fence line, in root on E. side of l6-in. walnut tree; copper nail and washer
869.38
T. 30 N., R. \(2 \mathrm{~W} .\), , in \(\mathrm{SE}_{\frac{1}{4}} \mathrm{sec}\). \(11,60 \mathrm{ft}\). N. of NE. corner of abandoned store building, 120 ft . NW. of rd. forks, in root on SW. side of 20-in. oak tree; copper nail and washer
Dagonia, 120 ft . E. of SE. corner of school, in S. part of SET sec. 2, T. \(30 \mathrm{~N} . \mathrm{s}\) R. 2 W., 30 ft . E. of rd., in root on SW. side of \(26-i n\). walnut tree; copper nail and washer
890.53

Dagonia, 0.5 mi . N. of, near center of Et sec. 2, T. \(30 \mathrm{~N} ., \mathrm{R}\). \(2 \mathrm{~W} ., 42 \mathrm{ft}\). W. of rd. fork NW.; 28 ft . N. of ford, in concrete post; standard tetiet stamped "134 M 1931"
Reference mark, 78 ft . E. of tablet, 36 ft . E. of rd. forks, in root on w. side of 14-in. hickory tree; copper nail and wesher
899.80
T. 31 N., R. 2 W., in NW \(\frac{1}{4} S^{\frac{1}{4}}\) sec. \(36,25 \mathrm{ft}\). N. and 50 ft . E. of NE. corner of abandoned store building at \(J\). \(E\). Weems' farm, 30 ft . SW. of junction with private rd.,
in root on \(S\). side of 22-in. elm tree; copper nail and washer 922.
T. \(31 \mathrm{~N} ., \mathrm{R}\). 2 W ., in E. part of SEs sec. 26 , 50 ft . SE. of rd. in front of Luther Beck's house, on edge of creekbank, in root on W. side of 22-in. twin oak tree; i copper nall and washer
Dagonia, 3.3 mi . N. of, in \(\mathrm{SE}_{\frac{1}{4}} \mathrm{sec}, 23, \mathrm{~T} .31 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W}, \mathrm{~s}, 65 \mathrm{ft}\). S. and 100 ft . W. of NE. vertex of rd. forks, 50 ft . S. of T-rd. W., near R. E. Patterson's house, In concrete post; standard tablet stamped "135 M 1931".
Reference mark, 15 ft . SW . of tablet, 120 ft . N. of S . vertex of triangle of rd. forks, in root on E. side of 24-in. walnut tree; copper nail and washer 965.84
T. 31 N., R. 2 W., near S. quarter cor. sec. \(13,90 \mathrm{ft}\). E. of SE. corner of Radford School, 20 ft . E. of rd., in root on N. side of 36-in. oak tree; copper nail. and washer
990.81
T. 31 N., R. 2 W., in \(N E \frac{2}{4}\) sec. 13,40 ft. S. of E.-W. rd., in \(\mathrm{S}_{\mathrm{F}}\) corner of triangle,
in root on E. side of 30-in. oak tree; copper nail and washer 1,019.20
T. 31 N., R. 1 W., in Et sec. \(18,25 \mathrm{ft}\). S. of rd., on N. bank :of creek, in root on N. side of l6-in. oak tree; copper nail and washer in 1,088.87
oorridon, 60 ft . NW. of Missouri Southern R. R. station, in SWi \(\frac{1}{4}\) NE \(\frac{1}{4}\) sec. 17, T. 31 N. , R. 1 W., 28 ft. S. and 33 ft . W. of rd. crossing, \(28 \mathrm{ft} . \mathrm{S}\). and 12 ft . E. of T-rd. N., in concrete post; standard tablet stemped "136 M 1931"
\(1,214.698\)
Reference mark, \(66 \mathrm{ft} . \mathrm{S}\). and 12 ft . W. of tablet, \(33 \mathrm{ft} . \mathrm{SE}\). of SE . corner of Geo. M. Martin's flour and feed store, in root on NW. side of 23-in. oak tree; copper nail and washer
\(1,209,86\)
T. 31 N., R. 1 W., near center sec. \(8,300 \mathrm{ft}\). N. and 100 ft . E. of Reynolds School, 30 f.t. W. of Missouri Southern R. R. track, in root on NE. side of 18-in. oak tree; copper nail and washer

1,238.14
Reynolds, 50 ft . \(\mathrm{S}_{\text {. of }} \mathrm{SE}\). corner of Missouri Southern R. R. station, near N. quarter cor. sec. 8, T. 31 N., R. 1 W., 30 ft . N. and 32 ft . E. of R. R. at rd. croseing, in root on W. side of 18-in. oak tree; copper nail and washer \(1,252.23\)
Reynolds, \(70 \mathrm{ft} . \mathrm{S}\). and 70 ft . W. of upper ra. forks into town of, in SWlatsele sec. 5, T. 31 N., R. 1 W., 24 ft . SE. of rd., in root on N. side of \(22-i n\). oak tree; copper nail and washer
Reynolds, about 1 mi. NE, of, in S . part of NWil sec. 4, T. 31 N., R. \(1 \mathrm{~W} ., 0.1 \mathrm{mi}\). SW. of rd. forks, 40 ft . SE. of State Highway 72, in root on N. side of \(12-1 \mathrm{n}\). oak tree; copper nail and washer \(\quad 1,175.49\)
Reynolds, 2 mi. NE. of, on State Highway 72 , near N. cor. secs. 3 and 4 , T. \(31 . N\). , R. 1 W., \(68 \mathrm{ft} . \mathrm{N}\). of highway, in concrete post; standard tablet stamped " 137 M \(1931 "\) " mark, 10 ft . N. of tablet, in root on SW. side of \(23-1 n\). oak tree;
Reference mark, 10 ft . N. of tablet, in root on SW. side of 23 -in. oak tree; copper nail. and wesher

1,173.865
. Of, along state Highway 72, near center of SA sec. 34, T. \(32 \mathrm{~N} \cdot \boldsymbol{2}\) R. l W., \(90 \mathrm{ft} . \mathrm{N}\). and 55 ft . W. of \(\mathrm{T}-\mathrm{rd} . \mathrm{N} ., 20 \mathrm{ft}\). NW. of old rd., in root on SE. side of 14-1n. oak tree; copper nail and washer \(1,191.14\)
Reynolds, about 3.3 ml . NE. of, in W. part of SWhis sec. 35, T. \(32 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} ., 25 \mathrm{ft}\). N. and 65 ft . W. of T-rd. N., 30 ft . N. of State Highway 72, in root on s. side of \(12-i n\). oak tree; copper nail and washer
Reynolds, 4.2 mi. NE. of, in S. part of \(\operatorname{SE\frac {1}{6}} \mathrm{sec} .35\), T. \(32 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} ., 155 \mathrm{ft}\). N. and 40 ft . W. of junction of rd. E., 30 ft . W. of State Highway 72, in root on NE. side of l8-in. oak tree; copper nail and washer 1,191.86
Reynolds, about 4.7 mi . NE. of, 3.8 mi . SW. of Centerville, along State Highmay 72 , in NWh sec. 1, T. 31 N, , R. ? W., \(25 \mathrm{ft} . \mathrm{N}\). and 70 ft . E. of junction of rd. S., in root on S. side of lo-1n. oak tree; capper nail and washer 1,150.06
Reynolds, 5.1 mi . NE. of, 3.3 mi . SW. of Centerville, along Brooks Hollow road, in W. part of SE \(\frac{2}{2}\) sec. 1, T. 31 N., R. 1 W., 50 ft . S. of State Highway 72 at Brooks
Hollow road, in conorete post; standard tablet stamped \({ }^{n} 138 \mathrm{M} 1931 \mathrm{ln} \quad \mathrm{l}, 069.053\)
Reference mark, 118 ft . NW. of tablet, 30 ft . N. and 70 ft . W. of crossroads, in \(N\). end of W. bead wall of concrete culvert under highway; chiseled square \(1,065.75\)
(Continued in Redford quadrangle; see line no. 3.)
3. EAST TO STATE HIGHWAY 72. INCLUDING PART OF THE LINE IN SINKIN QUADRANGLE (by Charles E. Hunter in 1936)
T. 31 N., R. \(3 \mathrm{~W} .\), in \(\mathrm{NE} \frac{1}{4}\) sec. \(4,0.5 \mathrm{mi}\). S. of Dent-Shannon county line, 25 ft . S. of forks of logging rds., on top of E.-W. ridge, in concrete post; standerd tablet stamped "T T 1612 E R A 1935"

1,264.930
Graded rd. at old rd. W., 40 ft . N. and 60 ft . W. of, in root on S . side of 14 -in. white oak tree; lead-headed nail
T. 31 N., R. 3 W., in NE \(\frac{1}{4}\) sec. \(3,30 \mathrm{ft}\). E. of graded rd. on top of ridge, in root on \(N\). side of l2-in. black oak tree; oopper nail and washer \(\quad 1,299.86\) T. 31 N., R. 3 W., near center of NWI sec. 2, \(15 \mathrm{ft} . \mathrm{S}\). and 25 ft . E. of graded rd. at rd. fork S., opposite J. S. Forest Service lookout tower , in root on E. side of 6-in. black oak tree; copper nail and washer

1,322.87
Bunker, 3.9 mi . S. of, in NE \(\frac{1}{4}\) sec. 35 , T. \(32 \mathrm{~N} ., \mathrm{R}\). 3 W. , at old lumber camp site in small olearing, 30 ft . N. and 40 ft . W. of dim T-rd. E., in concrete post; standard tablet stamped "T T 1613 E R A 1935 "
T. 32 N., R. 3 W.; in NW sec. \(36,100 \mathrm{ft}\). N. and 50 ft . E. of crossroads, in root
on E. side of 14-in. white oak tree; copper nail and vasher
Old rd. at top of hill, 70 ft . E. of, in root on SE. side of \(10-\mathrm{in}\). white oak tree; lead-headed nail

1,346.6
T. 32 N., R. 2 W., in SW sec. \(30,65 \mathrm{ft} . \mathrm{S}\). and 7 ft . W. of old Big Creek road at rd. fork NW., in root on W. side of 14-in. post oak tree; copper nail and washer

1,212.83
 N. and 24 ft. W. of rd. at rail fence W. on approximate Shannon-Reynolds caunty line, \(42 \mathrm{ft} . \mathrm{S}\). of triangular-blazed \(30-\mathrm{in}\). black oak tree, in concrete post; standard tablet stamped "T T 1614 E R A 1935"
Rd. fork W., 60 ft . S. and 45 ft . E. of, in root on \(W\). side of \(12-\mathrm{in}\). white oak tree; lead-headed nail

1,144.3
T. 32 N., R. \(2 \mathrm{~W} .\), in \(N E \frac{1}{4} S^{\frac{1}{4}}\) sec. \(29,60 \mathrm{ft}\). S. and 10 ft . E. of rd. at drain, in vailey at mouth of ravine, in root on E. side of l2-in. white oak tree; copper nail and washer

1,236.77
Miseouri Southern R. R. at rd. crossing, 85 ft . S. and 200 ft . W. of, 20 ft . S. of rd. forks, in root on N . side of \(30-1 n\). white oak tree; lead-headed nail \(1,352.1\)
U, S. C. \& G. S. B. M. designated "F 115 1935"
1,314.171
4. SOUTH ALONG WEST BORDER OF QUADRANGLE INCLUDING THAT PORTION OF THE LINE IN SINKIN QUADRANGLE
T. 31 N., R. 3 W., in \(N E \frac{1}{4}\) sec. 9, 30 ft . W. and 10 ft . N. of graded rd. at rd. fork S., in root on N. side of \(10-1 \mathrm{n}\). white oak tree; copper nail and washer \(\quad \mathrm{l}, 248.84\)

Top of ridge, 10 ft . E. of rd., in root on E. side of \(10-1 \mathrm{n}\). white oak tree; lead-headed nail

1;235.6
T. 31 N., R. \(3 \mathrm{~W} .\), near oor. secs. \(9,10,25\), and \(16,25 \mathrm{ft}\). N. and 20 ft . E. of rd. fork approximately 50 ft . NW: of Mill Creek, in root on W. side of 8-in. black oak tree; copper nail and washer
 520 ft . E. of Conway's house, 12 ft . N. and 100 ft . E. of rd. fork W., 4 ft . S. and \(15 \mathrm{ft}\). . E. of rail fence corner, in concrete post; standard tablet stamped "T T 11 J J 1936.m
Reference mark no. ly on right bank of Mill creek, at rd. fork NW., in root on N. side of \(24-i n\). sycamore tree; copper nail and washer
925.49

Reference mark no. 2, 15 ft . E. and 20 ft . S. of rd. at ford across mill Creek, in root on N. side of 6-in. maple tree; copper nail and washer
926.43

Rd. fork SW., 45 ft . S. of, in front of small house, on left bank of Mill Creek, in root on \(N\). aide of li-in. walnut tree; lead-headed nail
909.0

Ratg 1.5 mi. W. of, in SWh and Mill Creek, \(45 \mathrm{ft} . \mathrm{N}\). and 15 ft . W. of rd. junction, 3 ft . N. and 10 ft . W. of fence corner, in concrete post; standard tablet stamped "T T 12 J J 1936"
Reference mark no. \(1,40 \mathrm{ft}\). N. and 30 ft . W. of T-rd. N. at ford, in root at orotch of \(12-1 \mathrm{n}\). twin maple tree; copper nail and washer
881.489

Reference mark no. 2, S. aoross rd. from reference mark no. 1 , in root on \(N\). side of 12-in. elm tree; copper nail and washer
880.17
878.11

Rat, 0.5 mi . W. of post office, in SEs sec. 22, T. \(31 \mathrm{Ni}, \mathrm{R} .3 \mathrm{~W} ., 30 \mathrm{ft}\). S. and 85 ft . W. of rd. forks near log barn, in root on \(N\). Bide of 8-1n. butternut tree; copper nail and washer
Rat, about 800 ft . N. of post office, near center sec. 23 , T. \(31 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 15 \mathrm{ft}\). N. and 80 ft . E. of T-rd. S., in root on SE. side of 22-in. black oak tree; copper nail and washer
918.47

Rat, 0.8 mi . SE. of post office, along rd. to Midridge in NE \(\frac{1}{4} \mathrm{sec} .26, \mathrm{~T} .31 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} . \mathrm{s}\) 90 ft . S. and 30 ft . E. of rd. fork \(W\)., in root on N . side of \(12-1 \mathrm{n}\). white oak tree; copper nail and washer
Rd. fork W., 20 ft . N. and 60 ft . W. of, in root on NE. side of \(20-\mathrm{in}\). white oak tree; lead-headed nail 1,246
Rd. forks on top of ridge, 20 ft . N. and 15 ft . E. of, in root on S. side of 6-in. black oak tree; leadmbeaded nail

1,274.0
 R. \(3 \mathrm{~W} ., 26 \mathrm{ft} . \mathrm{S}\). and 22 ft . W. of R. R. at crassing of Rat-midridge road, l 2 ft . S. and 2 ft . W.: of fence corner, in concrete post; standard tablet stamped r.T T 16 J J 1936"

Turd. near R. R. crossing, 120 ft . N. and 120 ft . W. of, in old field, in raot on SE. side of 10-in. Walnut tree; lead-headed nail

1,249.3
crossrads, 35 ft . N. and 15 ft . W. of, in root on E. side of 6-in. black oak tree; lead-headed nail

1,236.2
Midridge, in NWh \({ }^{\frac{1}{4}} \mathrm{SE} \frac{1}{4} \mathrm{sec} .36\), T. \(31 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} \cdot, 60 \mathrm{ft}\). N. and 5 ft . E. of NW. oorner of schoolhouse, in root on W. side of 20 -in. black gum tree; copper nail and washer
Midridge, 1.4 mi . S. of, in SE \(\frac{2}{4}\) sec. \(1, \mathrm{~T} .30 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 25 \mathrm{ft}\). N. and 5 ft . E. of rd. forks, in root on \(W\). side of l2-in. white aak tree; copper nail and washer
Midridge, about 2.5 mi . S. of, in SWhes sec. 7, T. \(30 \mathrm{~N} ., \mathrm{R}\). \(2 \mathrm{~W} ., 8 \mathrm{ft}\). E. of rd., on top of knob at end of ridge, in root on W. side of 14-in. White oak tree; copper nall and washer
Midridge, 3.6 mi . S. of, in \(\mathrm{NW} \frac{1}{2} \mathrm{SW} \frac{1}{2}\) seo. 18, T. \(30 \mathrm{~N} ., \mathrm{R} .2\). W., at junction of biair Creek and Laxton Creek, 80 ft . S. and 160 ft . W. of rd . forks, 55 ft . S. and 11 ft . E. of Sherd Phillips' house, in concrete post; standard tablet stamped "T T 17 J J 1936"
T. 30 N., R. 3 W., in NET \(\frac{1}{4}\) sec. 24, 110 ft . N. and 40 ft . E. of ford across Blair Creek, at mouth of hollow, in root on W. side of 12-in. white oak tree; copper nail and washer
T. \(30 \mathrm{Ne}, \mathrm{R} .3 \mathrm{~W} \cdot\), in \(\mathrm{SE} \frac{1}{4}\) sec. \(24,20 \mathrm{ft}\). E. of rd. forks near farmhouse, in fence corner, in root on \(N\). side of \(20-i n\). walnut tree; copper nail and washer 791.0
T. \(30 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} .\), in \(\mathrm{NE} \frac{1}{4} \mathrm{SE} \frac{1}{4} \mathrm{sec} .25,15 \mathrm{ft} . \mathrm{S}\). and 15 ft . W. of rd. forks on left bank of Blair Creek, approximately 200 ft . S. of small farmhouse, in root on W. side of 16-in. maple tree; copper nail and washer
 40 ft . W. of ford aoross Blair Creek, in root on N . side of 18 -in. sycamore tree; copper nail and washer

\section*{5. WEST ALONG NORTH BORDER OF QUADRANGLE (by H. W. Gross, Jr. in 1936) (Continued from Redford quadrangle; see line no. 4.)}

Centerville, 4.5 mi . NW. of, along rd. to West Fork, 60 ft . N. and 120 ft . W. of NW. corner of Gladdendale School, 25 ft . N. and 15 ft . E. of center of triancle at rd. forks, in root on S. side of 24-in. elm tree; copper nail and washer 789.17
Centerville, 5.4 mf . NW. of, along rd. to West Fork, 25 ft . S. and 45 ft . E. of intersection of U. S. Forest Service road, in root on W. side of l4-in. black oak tree; copper nail and washer
989.64
denterville, 6 mi . NW. of, along rd, to West Fork, about 350 ft . NW. of ford, about 350 ft . NE. of log house, 250 ft . SE. of large cave in bluff on N . bank of river, 12 ft . NE. of road, in root on SW. side of \(30-i n\). red oak tree; copper nail and washer.
Qenterville, 7.2 mi . NW. of, along rd. to West Fork, in NE \(\frac{1}{4} N E \frac{1}{4}\) sec. \(10, \mathrm{~T} .32 \mathrm{~N} ., \mathrm{g}\) R. \(1 \mathrm{~W} ., 50 \mathrm{ft}\). S. and 172 ft . W. of SW . corner of 0 . J. Cook's house, \(12 \mathrm{ft} . \mathrm{S}\). of rd., in concrete post; standard tablet stamped "T T 369 C W A 1934" 823.777
denterville, 8.2 mi. NW. of, along rd. to West Fork, about 500 ft . NE. of Silver Lake School, 20 ft . N. of N. bank of West Fork of Black River, 7 ft . SW. of rd., at mouth of small creek, in root on NW. side of lo-in. sycamore tree; copper nail and washer
centerville, 9.2 mi : NW. of, along rd. to West Fork, about \(300 \mathrm{ft}, \mathrm{S}\). of ford, 200 ft . E. of channel of West Fork of Black River, 25 ft . E. of ri., at bottom of alope of upper bank of river, in root on NW. side of \(11-1 n\). sycamore tree; copper nall and washer
842.96

Ford, \(60 \mathrm{ft} . \mathrm{S}\). of, 10 ft . S. of West Fork road, in root on N . side of 26-in. gum tree; crossed iron nails
Centerville, 10.4 mi . NW. of, along rd. t. West Fork, in NE \(\frac{1}{4} N E \frac{1}{4}\) sec. \(5, \mathrm{~T} .32 \mathrm{~N} .\), R. \(]\) W., about 200 ft . N. of E. bank of West Fork of Black River at present ford, 8. ft. N. and 100 ft . W. of SW . corner af N . house on Cleve Barton's farm, 5 ft . NW. of wire fence, in concrete post; standerd tablet stamped "T T 368 C W A 1934"
Rd. near ford, 20 ft . E. of, 3.5 ft . W. of W. bank of rjver, in root on E. side of \(16-1 n\). hard maple tree; crossed iron nails
Centerville, 11.6 mi . NW. of, olong rd. to West Fork, about 300 ft . E. of center of West Fork of Black River at ford, 40 ft . N. and 45 ft . E. of rd, at rd. NE., in root on S. side of 18-in. elm tree; copper nail and washer
Rd. et dim rd. NE., 20 ft . N. of, in root on W. side of \(16-i n\). gum iree; crossed iron nails
897.2
denterville, 12.6 mi . NW. of, 3.4 ml . NE. of West Fork post office, 30 ft . N: and 100 ft . W. of mouth of mill Creek, 20 ft . S. and 50 ft . W. of rd. fork N., in root on SE. side of \(16-1 \mathrm{n}\). gum tree; copper nail and washer
West Fark, 1 mi. E. of past office, near center sec. \(6, \mathrm{~T} .32 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} ., \mathrm{l}, \mathrm{ft}\). N. and 20 ft . E. of SE . corner of board fence around sutterfield schoolyard, 20 ft . NW. of rd., in concrete post; standard teblet stemped "T T 367 C W A 1934" 903.259
West Fork, 0.2 mi . E. of post office, about 230 ft . NE of center of West Fork of Black River at County Route \(J\), \(20 \mathrm{ft} . \mathrm{N}\). and 50 ft . E. of center of triangle at rd. forks, in root on SW. side of \(32-1 \mathrm{n}\). elm tree; copper nail. and washer.
Baptist Church, 33 ft . S. and 30 ft . E. of SW . corner of, at junction of Toms creek and West Fork roads; crossed iron nails
West Fork, 0.8 mi . NW. of post office, about 0.2 mi . NW. of ford across West Fork of Black River, 65 ft . N. of N . corner of farm house, 75 ft . S. and 80 ft . E. of produced corner of rd. SE. and SW., 3 ft . E. of fence, in root on NE. side of 18-in. hickory tree; copper nail and washer
West Fork, 1.6 mi . NW. of post office, near center of N \(\frac{1}{2}\) sec. 6, T. 32 N., R. 2 W., 20 ft . N. and 9 ft . W. of Weat Fork rd. at ferice N. , 9 ft . W. of fence corner at SE. corner of apple orchard, in concrete post; standard tablet stamped "T T 366 C W A 1934"
937.137
(Continued in Boss quadrangle; see line no. 4.)
For additional level lines along Missouri Southern R. R., State Highway 72, and State Highway 2l, refer to United States Coast and Geodetic Survey second-arder lines; Van Buren to Stone Hill and Ohlman to Glover.

Crawford, Dent, Iron, Reynolds, and Washington Counties

1. NEAR CENRER OF EASV BORDEH OF ULIADRANGLE (by M. J. Harden in 1924)
(Continued from Edgehill quadrangle; see line no. 4.)

Goodland, 1 mi. NW. of, at SE. corner of junction of lane to Goodland School, in Feet root of 12-ir. hard maple tree; copper nail and washer
985.43
(Continued in Edgehill quadrangle; see line no. 4.)

\section*{2. IN NORTHWEST CORNEH OF QUADRANGLE (by J. M. Laws on in 1933) \\ (Continued from. Berryman quadrangle; see line no. 4.)}

Dillard, 1 mi . NW. of, in SW年 sec. 13, T. \(35 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 90 \mathrm{ft}\). S. of junction of State Highway 49 and Dillard-Cherryville road, in concrete post; standard tablet stamped "P T Sta No 118 S 1926"

1,093.119
Reference mark, 40 ft. W. of tablet, in root of small rickory tree; copper nail and washer
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                                    1,093.26
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\section*{3. NORTH ALONG WEST BORDER OF QJADRANGLE (by Cornish Beck in 1935)}

Bunker, 4.5 mi . NW. of, in SE \(\frac{1}{4} \mathrm{SE} \frac{\mathrm{l}}{4}\) sec. \(34, \mathrm{~T}, 33 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 45 \mathrm{ft}\). N. and 27 ft . W7. of Junction of state Highway 72 and ra. to crossville Church, in coricrete post; standard tablet stamped "361 CW A. 1934"
Bunker, 4.9 mi . NW. of, about 100 ft . N. of top of ridge, 12 ft . E. of rd. forks, in root on W.-side of \(18-1 n\). water oak tree; copper nail and washer \(\quad 1,270.58\)
Bunker, 6 mi . NW. of, in NE \(\frac{1}{4}\) sec. \(26, \mathrm{~T}, 33 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} . ; 940 \mathrm{ft}\). E. of Crossville Church, 6 ft . N. and 32 ft . E. of rd. forks, 80 ft . S . and 60 ft . W. of T. E. Baker's house, in concrete post; standard teblet stemped "T T 362 C WA 1934"
T. 33 N., R. 3 W. , in \(\mathrm{W}_{2}\) sec. 23 , on Howes Mill-West Fork raad at fence W., in root on B . side of \(42-\mathrm{in}\). elm tree; copper neil and washer 1 ,
T. \(33 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., \mathrm{SW} \mathrm{S}^{2} \mathrm{~s}\) sec. 15 , about 40 ft . E. of West Fork Creek, 7 ft . W. of rd.g in root on E. side of 24-1n. white oel tree; copper riail and washer 1,125.21
Marcoot, 0.8 mi . NE. of, at fuot of hill, 10 ft . N. of rd., in root on S. side of
16-in. white oak tree; copper nail and washer l,234.93
Marcoot, 1 ml . NE. of, in SEs sec. \(10, \mathrm{~T} .33 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 410 \mathrm{ft}\). E. of dim crossroads, 30 ft . N. of E.-W. ra., in concrete post; standard tablet stamped "T T 374 O W A 1934.

1,297.252
T. 33 N., R. 3 W., about 540 ft . E. of quarter cor. ketween secs. 3 and \(10,25 \mathrm{ft}\). S. of new U. S. Forest Service road at rd. S., in root on W. side of 14-in. post oak tree; copper nail and washer
T. 33 N., R. 3 W., in NW \(\frac{1}{4}\) sec. 2, 60 ft . N. and 6 ft . E. of O . S. Forest Service road at dim rd. N. to Boss, in root on S. side of \(16-1 \mathrm{n}\). post oak tree; copper nail and washer
T. 34 N., R. 3 W., in NEA sec. 35 , 10 ft . N. and 10 ft . W. of crossroads, in root on S. side of 16-in. post oak tree; copper nail and washer 1,415.07
Boss, 3 mi . SW. of, 1.5 mi . S. of State Highway 32 , along ridge rd. to Marcoot, near center sec. 25, T. \(34 \mathrm{~N} .\), R. \(3 \mathrm{~W} .\), near center of triangle formed by junction of three rds., in concrete post; standard tablet stamped "T T 373 C W A 1934 m 1, 314.915
T. 34 N., R. 3 W., near center sec. \(24,50 \mathrm{ft} . \mathrm{S}\). and 10 ft . W. of rd. junction SW., \(60 \mathrm{ft} . \mathrm{N}\). of dim rd. junction E., \(50 \mathrm{ft} . \mathrm{S}\). and \(30 \mathrm{ft} . \mathrm{W}\). of rail fence corner, In root on E. side of 20-in. water oak tree; copper neil and wesher \(1,296.25\)
T. 34 N., R. 3 W., about 930 ft . S. and 200 ft . W. of quarter cor. between secs. 13 and 24 , on abandoned seement of State Highway 32, near curve at T-rd. S., at brush arbor, in root on N. 日ide of 14-in. white oak tree; copper nail and washer
U. S. C. \& G. S. B. M. designated "F 52 1934"

1,246.78
1,121.914
U. S. C. \&. G. S. B. M. designated "E 52 1934"

1,069.480
Boss, near the town of, in Nosec. \(18, \mathrm{~T} .34 \mathrm{~N} ., \mathrm{R} .2 \mathrm{w} ., 100 \mathrm{ft}\). S. and 150 ft . E. of State Highway 32 bridge no. J- 573 over Huzzah creek, in concrete post; standard tablet stamped "T T 372 C W A 1934"

2,020.368
T. 34 N., R. 2. W., about 100 ft . N. and 100 ft . W. of S. sixteenth cor. between sece. 5 and 6 , about 100 ft . W. of Huzzah Creek, 75 ft . E. of small house, in root on W. side of 16-in. gum tree; copper nail and washer
984.59
T. 34 N., R. \(2 \mathrm{~W} .\), in \(N \frac{1}{3}\) sec. 6 , about 100 ft . N. of Hazzah Creek at ford, 5 ft . N. of old county rd., 25 ft . W. of board fence corner, in root on S . aide of 34-1n. elm tree; copper nail and washer
960.95
T. 34 N., R. 2 W., in NE \(\frac{1}{4}\) sec. 6 , about 300 ft . S . of turn in county rd., 160 ft . N. of fence, 60 ft . S. of creek, in root of \(26-1 \mathrm{n}\). eycamore tree; copper hail and washer
Dillard, 3.5 mi . S. of, along old Dillard-Boss road, in sec. \(36, \mathrm{~T} .35 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} . \mathrm{g}\) 100 ft . NW. of Huzzah Creek, 75 ft . SE. of right-of-way of new rd., 50 ft . W. of junction of rd. E. to farmhouse, on hillside, in concrete post; standard tablet stamped "T T 371 C W A 1934"
Dillard, 1.5 mi . S. of, in Not sec. \(25, \mathrm{~T} .35 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~m} ., 20 \mathrm{ft} . \mathrm{N}\). and \(20 \mathrm{ft} . \mathrm{E}\). of NE. corner of mill, on limestone ledge; painted crose
Dillard, \(0.3 \mathrm{mi} . \mathrm{S}_{0}\) of, in sec. 24, T. \(35 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} ., 10 \mathrm{ft} . \mathrm{N}\). and 90 ft . E. of Dillard-Boss road at rd. E. to ford, in root on W. side of 28-in. elm tree; copper nail and. washer
4. FROM POINT NEAR CENTER OF SOUTH BORDER OF QUADRANGLE WEST TO POINT NEAR SOUTHWEST CORNER (by H. W. Gross, Jr.; in 1936)
(Contimed from Corridon quadrangle; see line no. 5.)
West Fork, 2.2 mi . NW. of post office, 160 ft . N. and 20 f.t. E. of S . cor. secs. 34 and 35, T. 33 N., R. 2 W., 50 ft. N. and 20 ft . E. of Bills Creek road at West Fork road, in concrete post; standard tablet stamped "T T 365 C W A 1934"
Rd. forks, 25 ft . S. and 25 ft . W. of, in root on \(N\). side of twin \(15-1 \mathrm{n}\). white oak tree; crossed iron nails
950.588
947.7

Greeley, 2.2 mi . SE. of post office, 0.2 mi . N. of S. cor. secs. 33 and \(34, \mathrm{~T}, 33 \mathrm{~N} ., \mathrm{s}\) R. 2 W., 20 1t. S. of Greeley-West Forkroad, 3 ft . S. and 4 ft. E. of fence corner, in conorete post; standard tablet stamped "T T 364 C W A 1934 ":
Rd. forks, 20 ft . N. and 10 ft . W. of, in root on E . side of \(12-\mathrm{in}\). sycamore tree; crossed ir on nails
959.528

Ford, 300 ft . S. of, near' Smith's farmhouse, 80 ft . W. of rd., in root on E . side of \(16-1 \mathrm{n}\). walmut tree; crossed iron nails
959.3
968.0

Greeley, 1.3 mi . SE. of post office, 50 ft . N. and 60 ft . W. of West Fork road at dim rd. N., 50 ft . N. of N. bank of West Fark of Black River at bend S., 50 ft . S. of barn, in root on \(S\). side of 30 -in. white oak tree; copper, nail and washer 977.93
Rd. at fence N., 15 ft . N. of, in root on s. side of limin. sycamore tree; crossed iron nails
T-rd. S., 18 ft . G. and 35 ft . E. of, in root on NW. side of twin \(16-1 \mathrm{n}\). red oak tree; crossed iron nalls 1,072.1
Greeley, 600 ft . NW. of post affice, in NWI sec. \(32, \mathrm{~T}, 33 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W}, \mathrm{i} 200 \mathrm{ft}\). W. and 50 ft . S. of schoolhouse, 40 ft . S. and 30 ft . W . of rd. forks, 12 ft . W . and 3 ft . N. of NE. corner of cemetery, in concrete post; standard tablet stamped "T T 363 C WA 1934"

1,011.934
Greeley, 0.8 mi . W. of post office, about 300 ft . SE. of Henpeck Creek at crassing, \(25 \mathrm{ft} . \mathrm{S}\). and 10 ft . E. of rd. farks, 12 ft . E. of rd. at culvert, in root on SW. side of \(16-1 n\), walmut tree; copper nall and washer
Ford, 200 ft . NE. of, 25 ft . W. of rd., in root on NE . side of 30 m . black oak tree; orossed iron nails
Greeley, 1.5 ml . NW. of post office, about 350 ft . E. of J. D. Moore's house, 105 ft . E. and 20 pt . N. of rd. at wooden bridge over smali creek, 20 ft . S . of rd., in root on NW. side of 20-1n. black oak tree; oopper nail and washer Wooden bridge, 15 ft . S. and 10 ft . W. of, in root on N . side of \(20-\mathrm{in}\). white oak tree; crossed iron nails
oak tree
reeley, 2.4 ml . NW. of post office, about 400 ft . E. of amall creek, 45 ft . S. and Bft. W. of rd. forks, in fence line, in root on \(N\). alde of li-in. white aak tree; copper nail and pasher

1, 089.28
Ford across Weat Fork of Black River, 80 ft . S. and 40 ft . W. of, in root on g . side of 36-in. elm tree; crassed iron nails
Junction of dim rd. NW., 15 ft . W. of, in raot on SE. side of 18-in. white qak tree; crossed iron nails
5. FROM POINT NEAR CENTER OF SOUTH BORDER OF QUADRANGLE NORTHEAST TO EAST BORDER

Weat Fork, 2 mi . NE. of post office, 0.5 mi . N. of mouth of Mill areek, about 400 ft . E. of mouth of Whif Branch, 30 ft . E. of ra.; 12 ft . S. of spring, in root on W. side of 28-in. water oak tree; copper nail and washer

Weat Fork, 2.4 mi . NE. of post qfice, in NW女 sec. 31, T. \(33 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} ., 200 \mathrm{ft}\). SW. of earthen dam, 60 ft . N. of NW. corner af small frame house on Wm. Seever's property, 20 ft. SW. of rd., in concrete post; standard tablet stamped 44 G 1936"
943.110

West Fork, 3.1 mi . NG. of post office, 250 ft . W. of Mill creek Spring, about 200 ft. NW. of Wm. Seever's house, 45 ft . W. of rd. at drain, in root on SE. side of 12-in. walnut tree; copper nilil and washer

1,028. 25
Rd. at top of ridge, 22 ft. NW. of, in N. side of 16-in. black oak tree; crossed iron nails

1,251.2
West Fork, 4.2 mi . NE. of post office, 3.2 mi . Sm . of Cates, 400 ft . E. of U. S. Forest Service road at junction of rd. SW. to West Fork, 38 ft . E. and 30 ft . N. of junction of rd. NE. to Oates, 33 ft . N o of rd. at drain, in concrete post; standard tablet stamped "5 G 1936"

1,303.809
Dim rd. NW., 40 ft . W. and 20 ft . S. of, in root on N . side of li-in. water oak tree; crossed iron nails
\(1,114.1\)
Oates, 2.2 mi . S. of, about 400 ft . NW. of I. S. Volner's house, 85 ft . W. of rd. forks S., at fork of prominent drains from S. and W., 8 ft . N. of rd., in root on S. side of 20-in. water oak tree; copper nail and washer

1,076.93
Dim rd. W., 10 ft . N. and \(4 \mathrm{ft}, \mathrm{E}\). of, in root on W. side of l2-in. Wild cherry tree; crossed iron nails

1,056. 6
Oates, 1 mi . SE. of, 170 ft . N. and 30 ft . E. of Vernia Smith's hause, 14 ft . W. of rd. forks, in root on E. side of 22-in. elm tree; copper nail and washer 996.33
43301 O-38-0

Dry Fork crossing, \(100 \mathrm{ft} . \mathrm{s}\). and 25 ft . W. of, in root on E. side of \(26-\mathrm{in}\). white oak tree; crossed iron nails
ates, in village of, 110 ft . W. and 12 ft . S. of T-rd. S., 3 ft . S. and 3 ft . E. of the NE. corner of Sutterfield's store, in concrete post; standerd tablet stamped "6 G 1936"
Reference mark, 75 ft . W. and 35 ft . N. of tablet, in root on E. Bide of \(10-1 \mathrm{n}\). aycamore tree; copper nail and washer
Oates, 1 mi . N. of, at crest of ridge between Brushy and Strother Creeks, 15 ft . W. of present rd.g 15 ft . E. of old rd., in root. on E. side of l2-in. white oak tree; copper nail and washer
Oates, 2.1 mi . N. of, 0.1 ml . S. of Y. A. Asher's house, 110 ft . S. of Strother Creek at ford, in triangle formed by rd. forks, 12 ft . W. of rd. S. to oates, in root on W. side of l6-in. black oak tree; copper nail and washer
Qates, 2.5 mi . NE. of, in N2. sec. 4, T. \(33 \mathrm{~N} ., \mathrm{R}\). 1 W. , about 700 ft . NW. of Thomas Trolinger's house, 12 ft . N. and 2 ft . E. of ra. at fence N., in sw. corner of pasture, 3 ft . N. and 2 ft . E. of corner of fence, in concrete post; standard tablet stamped 17 G-1936"
Junction of rd. NW., 20 ft. W. of, in root on W. side of \(15-1 n\). sycamore tree; orqssed iron nails
970.4

Oates, 3.5 mi . NE. of, 75 ft . W. and 40 ft . S . of SW . corner of H . T. Lowe's house, 35 ft . W. of rd., in root on SE. side of 14-1n. elm tree; copper nail and washer
Oates, 4.4 mi . NE. of, \(110 \mathrm{ft} . \mathrm{S}\). and 35 ft . E. of SE. corner of Hawk Schools 40 ft . W. and 20 ft . N. of NW. corner of A. L. Nelson and Son's store, 20 ft . W. of \(T-r d . E\). , in root on \(E\). side of 26-in. elm tree; copper nail and washer
Ford across creek, 110 ft . S. and 50 ft . W. of, in root on SE. side of \(22-\mathrm{in}\). red oak tree; crossed iron nails
Oates, 5.5 mi . NE. of; \(2.1 \mathrm{mi} . \mathrm{SW}\). of Goodland, in NE 80 ft . S. and 70 ft . E. of S. corner of smali farmhouse, 5 ft . N. and 50 ft . E. of T-rd. NE., in concrete post; standard teblet stamped n 8 G 1936"
Goodiand, 1.6 mi . SW. of post office near center sec. 26, T. \(34 \mathrm{~N} ., \mathrm{R}\). \(1 \mathrm{~W} ., 65\) f.t. E. and 15 ft . N. of State Highway 49 at Goodland-Oates road, in root on NW. aide of l2-in. white oak tree; copper nail and washer
Goodland, 0.4 mi . W. of post office, 125 ft . E. and 50 ft . N. of ford, 100 ft . W. and 33 ft . S. of rd. forks, in root on \(S\). side of 32-in. water ouk tree; copper nail and washer
956.08

\section*{6. FROM EAST END NORTHVEST TO NORTH BORDER OF QUADRANGLE}
U. S. C. \& G. S. B. M. designated "A 56 1934" \(\quad\) 1,364.102

East End, 1.3 mi . E. oi, 7 ml . E. of Bixby, 60 ft . W. and 48 ft . S. of State Highway 32 at Goodland-Goodwater road, in NW. head wall of concrete culvert; chiseled square
,322.95
Top of hill, 20 ft . NE. of rd., in root on SW . side of \(8-\mathrm{in}\). red oak tree; crossed iron nails
1.316 .0

East End, 2.4 mi . NE. of, along Goodland-Goodwater road, 1.1 mi . NW. of State Highway 32, 110 ft . E. and 20 ft . N. of E. corner of 0 . A. Crocker's house, 40 ft . N. of rd. at spring drain, in root on SW. side of \(12-i n\). persimmon tree; copper nail and washer

1,121. 55
East End, 1.6 ml . N. of, 130 ft . E. and 115 ft . N . of s . cor. secs. 33 and \(34, \mathrm{~T} .35 \mathrm{~N}\). , R. 1 W., 45 ft . N. and 53 ft . W. of East End-Goodwater road at junction of rd. SE. to coodiand, in root on E. side of \(10-1 n\). maple tree; copper nail and washer
East End, 2.4 mi . N. of, 0.1 ml . N. of Ida Mayberry's house, 150 ft . NW. of rd. fork NE., 30 ft . S. and 60 ft . E. of ra. fork W., 20 ft . E. of rd., in root on SW . side of twin li-in. ash tree; copper nail and washer

1,050.2.4
East End, 3 mi . N. of, 0.8 mi . E. of Goodvater, 60 ft . S. and 30 ft . W. of SW. corner of Hickory Grove School, 50 ft . N. and 25 ft . E. of East End-Courtois road at croés rd., in root on SW, side of \(16-1 \mathrm{n}\). e1m tree; copper nail and washer
East End, 4 mi . N. of, in SE \(\frac{1}{4}\) sec. 17, T. 35 N., R. 1 W., 70 ft . E. and 30 ft . N. of rd. at Warren Hollow Creek, in root on N. side of is-in. sycamore tree; copper nail and washer
East End, 5.4 mi . NW. of, 40 ft . E. and 6 ft . S. of rd. fork SW., in root on SW. side of 30-in. white oak tree; copper nall and washer
East End, 6.5 mi . NW. of, 250 ft . N. of rd. at apring drain, 35 ft . N. and 25 ft . W. of rd. fork NE., in root on E. side of \(16-1 n\). white aak tree; copper nall and Washer
944.57
(Continued in Berryman quadrangle; see line no. 10.)
7. IN NORTHWEST CORNEH OF QUADRANGLE
(Continued from Berryman quadrangle; see line no. 11.)
Dillard, l.l mi. N. of post office, near center sec. 13 , T. 35 N., R. 3 W., 45 ft. E. and 30 ft . S. of State Highway 49 at rd. NE., in root on W. side of 15-in. red oak tree; copper nail and washer
i., 053.84

For additional level lines along State H1ghways 32 and 72 , refer to United States Coast and Geodetic Survey second-order lines; Ste. Genevieve to Lioking and Van Buren to Stone Hill.

Crawford and Washington Counties

1. NEAR CENTER OF SOUTH HALF OF EAST BORDER OF QUADRANGLE (by D. V. Vandiver in 1903) (Continued from Rotosi quadrangle; see line no. 2.)

(continued in Potosi quadrangle; see line no. 2.)
2. IN NORTHWEST CORNER OF QUADRANGLE (Leveled twice by L. V. Johnson in 1932) - BL:

Scotia, 3.3 mi . SW. of, along Steelville road, about 250 ft . SW. of Guy Bromn's farmhouse, 28 ft . S. and 16 ft . E. of rd . fork \(\mathrm{SE} ., 45 \mathrm{ft} . \mathrm{SW}\). of Brovin's mall box, in root on SE. side of smail oak tree; copper nail and washer

\section*{3. EAST THROUGH CENTER OF QUADRANGIE}

Westover, 2 mi . W. of, along Westover-Steelville road, near center sec. 15, T. 37 N., R. \(3 \mathrm{~W} ., 36 \mathrm{ft}\). S. and 40 ft . W. of crossroads, in concrete post; standard teblet stamped "P T Sta No lio S 1926"
Reference mark, 17 ft . N. and 9 ft . W. of crossroads, in root on S . side of 18 -in. oak tree; copper nail and washer
943.95

Westover, 80 ft . E. of junction of westover-Huzzah road with rd. SE. to Westover fisheries, 100 ft . SW. of ford across creek, in root on NW. side of \(36-\mathrm{in}\). oak tree; copper nail and washer
Westover, 0.8 mi . SE. of, along rd. to Huzzah, 25 ft . N. and 37 ft . W. of rd. fork NW., in root on SW. side of 24-in. oak tree; copper nail and washer 899.55
Westover, 1.6 mi . SE. of, along rd. to Huzzah, \(38 . \mathrm{ft}\). S. and 18 ft . W. of rd. fork S., 50 ft . W. of W. H. Farrar's mail box, in root on W. side of 6-in. oak tree; copper nail and wesher
Westover 2 mi . SE. of; along rd. to Huzzah, 25 ft . S. and 45 ft . W. of main rd., at rd. forks NE. and SW., 16 ft . E. of J. B. Trask's mail bos, in root on W. side of 15-in. oak tree; copper nail and washer
948.48

Huzzah, about 1 ml . NW. of post office, \(1,000 \mathrm{ft} . \mathrm{S}\). and 800 ft . E. of quarter cor between secs. 17 and 18, T. 37 N., R. 2 W., 80 ft . N. of Willie Brickey's house, on billside, in concrete post; standerd teblet stamped "P T Sta 127 S 1926" 736.681
Reference mark, 260 ft . E. of tabletz about 70 ft . S . of barn, in root on. N. aide of large locust tree; copper nail ond washer 714.26
Huzzah, 0.5 mi . NW. of, along rd. to Westover, \(325 \mathrm{gt}\). NW. of ford across Huzzah Creok, 15 ft . W. of main rd. at junction of dim rd. S., in fence line, in root on NE. side of large elm tree; copper nail and washer
Huzzah, about 250 ft . NW. of post office, 110 ft . W. and 30 ft . S. of gate at front entrance to yard of D. McInnis, about 50 ft . N. of barn, in root on NE. gide of 30-in. locust tree; copper nail and washer 744 .
Huzzah, 0.5 mí. S. of post office, in NE. corner of concrete step to Huzzah Echool; atandard tablet stamped "P T Sta. 128 S 1926" 735.322
Huzzah, 1.6 mi . SE. of post office, along rd. to Palmer, 0.9 mi . S. of Huzzah Schoul 35 ft . W. and 25 ft . S. of junction with private rd. W., in root on SE. side of 15-1n. sycamore tree; copper nail and washer
Huzazh, 2.5 mi . SE. of post office, about 200 ft . SE. of junction of Huzzah-Davisville and Huzzah-Palmer roads, about 250 ft . NW. of old store building, 50 ft . N. of old barn, in root on NW. side of 30-in. oak tree; copper nail and washer
771.99

Huzzah, 3.2 mi. SE. of post office, along rd. to Palmer, 0.7 mi . E. of Huzzah-Davisville road, 105 ft . S. of S . corner of \(F\). L. Power's house, 12 ft . N. of rd., in root on NE. side of 15-in. oak tree; copper nail and washer
973.26

Huzzah, 4.2 mi . SE. of post office, along rd. to Palmer, 1.7 mi . E. of Huzzah-Davisville road, l ml . E. of F. L. Powers' house, 6 ft . N. of rd., in root on E. side of triangular-blazed 18-in. oak tree; copper nail and washer

Brazil, about 2.5 mi . W. of post office, along Huzzah-Brazil road, in SEA sec. 2, T. 36 N., R. 2 W., O.2. mi. NW. of Walter Caringer's house, \(65 \mathrm{ft} . \mathrm{E}\). of rd. forks, between rds., in concrete post; standard tablet stamped "P T Sta 129 S 1926"
Huzzah, 5.4 mi . SE. of post office, along rd. to Palmer, 3 mi. SE. of Huzzah-Davisville road, 11 ft . N. of rd. forks, in root on SW. side of triangular-blazed 36-in. oak tree; copper nail and washer
\(1,110.58\)
Huzzah, 6.2 mi . SE. of post office, along rd. to Palmer, at foot of large hill, 30 ft . S. and 76 ft . E. of gate in picket fence around W. J. Martin's yard, 17 ft . N. of rd., in roat on \(N\). side of 24-1n. walnut tree; copper nail. and washer \(\qquad\)
Brazil, about 1.2 mi . W. of, on Palmer-Huzzah road, 0.5 mi . S. of Courtois Creek, 350 ft . N. of Mrs. F. P. Crumps' house, 15 ft . W. of rd., in root on E. side of 36-in. elm tree; copper nail and washer
812.82

Braźil, 0.8 mi . N. of, álong creek rd., 90 ft . E. of junction of Huzzah-Palmer roed and rd. S. to Brazil, on W. bank of creek, about 3 ft . above water level, in root on S.e side of trianguler-blazed 18-in. elm tree; copper nail and washer 787.57.
Mallow School, 0.7 mi . NW. of, 230 ft . SE, of ford acrose creek: 30 ft . E. and 10 ft . S. of S. corner of triangle formed by junction of Palmer-Berryman road with rd. SW. to Huzzah, in root on W. side of triangular-blazed 40-in. oak tree; copper nail and washer
786.06

Mallow School, 500 ft . E. of quarter cor, between secs. 4 and 5, T. 36 N., R. I W., \(2 l \mathrm{ft}\). S. of SE . corner of schoolhouse, 9 ft . W. of large walnut tree; in ooncrete post; standard tablet stamped "P T Sta 130 S 1926"
Reference mark, 10 ft . E. of tablet, in root on SE. side of large walnut tree; copper nail and washer
831.02

Mallow School, 1 mi . SE. of, along rd. to Berryman, \(15 \mathrm{ft} . \mathrm{s}\). and 15 ft . W. of junction with private rd. W. through gate, in root on E. side of \(15-1 n\). walnut tree; copper nail and washer
814.64

Palmer, 1.9 mi . W. of, along rd. to Berryman, 50 ft . N. and 50 ft . W. of NW. corner post of picket fence around large white farmhouse, 10 ft . N. of rd. forks, in root on E. side of lo-in. sycamore tree; copper nall and washer
Palmer, 0.9 mi . W. of, along rd. to Berryman, at \(W\). foot of hill, \(18 \mathrm{ft} . \mathrm{N}\). and 10 ft . W. of dim rd. fork NW., in root on SW. side of triangular-blazed i2-in. oak tree; copper nail and washer
880.00

\section*{4. IN SOUTHWEST CORNER OF QUADRANGLE (by J. M. Lawson in 1933)}

Sligo, 9.1 mi . E. af, about 3.5 mi . NW. of Dillard, 0.9 mi . W. of Cherryville-Dillard road, 30 ft . N. of rd., in root on \(S\). side of \(24-i n\). oak tree; copper nail and washer

1,350.16
Sligo, 9.6 mi . E. of, about 3 mi . NW. of Dillard, 0.4 mi . W. of Cherryville-Dillard road, in corner of dim rd. forks, in trunk of 7-in. hickory tree; spike \(1,171.89\)
Sligo, 10 mi . E. of, 2.1 mi . NW. of Dillard along Cherryville-Dillard road, 90 ft . W. of rd. fork \(S W ., 8 \mathrm{ft}\). N. of \(\mathrm{rd.g}\) on \(N\). end of iron pipe culvert; painted square
\(1,154.29\)

\section*{(Continued in Boss quadrangle; see line no. 2.)}

\section*{5. NORTH AND WEST IN SOOTHWEST CORNER OF QUADRANGLE}

Dillard, \(3 \mathrm{mi} . \mathrm{N} .0 \mathrm{f}\), along old Cherryville-Dillard road, \(25 \mathrm{ft} . \mathrm{S}\). and 12 ft . W. of 1 ron culvert, at slight angle in rd., in root on NE. side of 15-in. oak tree; copper nail and washer
\(1,175.99\)
Dillard, 4 mi . N. of, along old Cherryville-Dillard road, 40 ft . S. and 20 ft . E. of dim rd. fork SW., in root on W. side of \(1 z-1 \mathrm{n}\). oak tree; copper nail and washer

1,122. 35
Dillard, \(4.6 \mathrm{mi} . \mathrm{N}\). of, along old Cherryville-Dillard road, in center of E . head wall of concrete box eulvert over deep, narrow creek, standard tablet stamped "No 3 L 1933 1081"

1,080.525
Reference mark, in top of \(S\). oorner of head wall; chiseled square
1,080.52

\section*{6. NEAR CENTER OF WEST BORDER OF QUADRANGLE}

Cherryville, 4.2 mi . N. of, along Cherryville-Westover road, 1.8 mi . S. of SteelvilleWestover road, 20 ft. W. of rd. fark \(S\). at angle in main rd. from W. to N., in root on E. side of 20-in. oak tree; nail and washer
977.64

Cherryville, 5 mi . N. of, alone Cherryville-Weatover road, 1 mi . S. of SteelvilleWestover road, \(20 \mathrm{ft} . \mathrm{N}_{\text {. }}\) and 20 ft . W. of dim rd. fork SE., 50 ft . S. of fence oorner near T-rd. W., in root on E. side of 17-in. oak tree; copper nail and washer
Westover, 2.0 mi . W. of, along Steelville-Westover road, near center sec. 15, T. 37 N., R. \(3 \mathrm{~W} ., 36 \mathrm{ft} . \mathrm{S}\). and 40 ft . W. of crossroads, in concrete post; standard tablet stamped "P T Sta No 110 S 1926n:

\section*{7. SOUTHEAST ACROSS NORTHEAST CORNER OF QUADRANGLE (by F. S. Kuehnel in 1934)}
T. 38 N., R. 1 W., at approximate center sec. \(20,40 \mathrm{ft}\). W. of junction of old ScotiaUndine road, in root on S. side of 15-in. oak tree; copper nat1 and washer 1;063.51
T. 38 N., R. 1 W., in SWidese sec. 21, 310 ft . E. of rd., 24 ft . S. and 6 ft . E. of SW. corner of former post office building in Undine, in lot of John. W. Isgrig, in concrete post; standard tablet stamped "P T Sta 126 S 1926"
870.540

Reference mark, 40 ft . N. of tablet, in root on SE. side of 15-in. walnut tree; oopper nail and washer.
871.81
T. 38 N., R. 1 W., in SS sec. \(27,100 \mathrm{ft}\). N. of main gate to E. Kimberlin's place, in root on N. side of \(36-1 n\). elm tree; copper nail and washer 919.70
Undine, 2.2 mi . SE. of, along Undine-Floyd road, 60 ft . N. and 25 ft . E. of rd. fork
E., at old sawmill site, in root on SW. side of 30-in. oak tree; copper nall and washer
983.2 .5
8. FROM FOINT NEAR CENTER OF QUADRANGLE NORTH TO NORTH BORDER (by L. E. Grafft in 1934)

Berryman, about \(3.5 \mathrm{mi} . \mathrm{S} . \operatorname{of}\), near NE. cor. sec. \(1, \mathrm{~T} .36 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 0.3 \mathrm{mi}\). E. of Crawford-Washington county line, 12 ft . E. of Berryman-Palmer road, in root on E. sfde of \(14-1 n\). black oak tree; copper nail and washer \(1,068.35\)
 E. of Crawford-Washington county line, 90 ft . N. and 70 ft . E. of Berryman-Palner road, in root on \(W\). side of \(18-1 n\). white oak tree; copper nail and washer 958.52
Berryman, 1.5 m1. SE. of, near E. quarter cor. sec. \(25, \mathrm{~T}, 37 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 33 \mathrm{ft} . \mathrm{S}\). and 24 ft . E. of junction of Berryman-Palmer road, and rd. NE., in concrete post; standard tablet
Reference mark, 220 ft. NW. of tablet, on E. side of main rd., in root of 36-in. white oak tree; copper nall and washer
767.36

Berryman, 1 mi. S. of, in SEl sec. 24, T. 37 N., R. 2 W., 500 ft . E. of CrawfordWashington county line, 9 ft . N. thence 11 ft . E. of Berryman-Palmer road, in root of 72-in. elm tree; copper nail and washer
Berryman, 0.5 mi . W. of, in SEs sec. \(14, \mathrm{~T} .37 \mathrm{~N} ., \mathrm{R}\). \(2 \mathrm{~W} ., 400 \mathrm{ft}\). N. of State Highvay 8, 172 ft . E. of slight jog in county rd., in root on W. side of \(30-\mathrm{in}\). elm tree; copper nail and washer
746.78

Berryman, 0.8 四. NW. of, in NEt sec. 14, T. 37 N., R. 2 W., 115 ft . NE. of NE. oorner of Berryman school, in top of concrete post; standard tablet
Reference mark, 105 ft . SW. of tablet, in root of 22-in. white oak tree; copper nail and washer
 side of Billys Branch, in root of 14-in. oak tree; copper nail and washer 743.40
Berryman, 2.8 mi . N. of, near center sec. 1, T. \(37 \mathrm{~N} .\), R. \(2 \mathrm{~W} ., 30 \mathrm{ft}\). S. and 34 ft . E. of crossroads, in concrete post; standard tablet 969.534

Reference mark, 80 ft . NW. of tablet, in stump; nall
968.10

Berryman, \(3 \mathrm{mi} . \mathrm{N}\). of, in \(\mathrm{SE}_{4} \frac{1}{4} \mathrm{sec} .36, \mathrm{~T} .38 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 20 \mathrm{ft}\). S. of main rd., in root of \(16-1 n\). oak tree; copper nail and wásher \(1,087.70\)
Berryman, 3.8 mi . N. of, in NW sec. 31 , T. \(38 \mathrm{~N} ., \mathrm{R}\). 1 W. , in triangle formed by rd. forks, 81 ft . SE. of the NW. corner, 43 ft . S. of rd. E. and 14 ft . E. of main rd., in root of \(22-i n\). black oak tree; copper nail and washer 1,067.53
Berryman, \(5 \mathrm{mi} . \mathrm{N}\). of, in \(\mathrm{SE}_{\frac{1}{4}}\) sec. \(24, \mathrm{~T} .38 \mathrm{~N} ., \mathrm{R}\). 2.W., in triangle formed by rd. forks, 90 itt. SE . of N . corner, \(20^{\circ} \mathrm{ft}\). E. of main rd., and 20 ft . W. of rd. N., In concrete post; standard teblet \(1,113.42\)
Reference mark, 130 ft . NW. of tablet, in root of \(22-1 \mathrm{n}\). oak tree; copper nail and washer
\(1,113,60\)
9. NORTH IN SOOTHWEST CORNER OF QUADRANGLE TO DILLARD TRIANGOLATION STATION (by B. A. Barnes in 1934)

Dillard, about \(1.6 \mathrm{mi} . \mathrm{NW}\). of, along State Highway 49, near N . quarter cor. sec. 13 , T. 35 N., R. 3 W., in bridge over Rock Branch; chiseled square 909.94

Dillard, about 2.7 mi . NW. of, along State Highway 49, near N. sixteenth cor between secs. 11 and 12, T. 35 N., R. 3 W., 75 ft . N. and 15 ft . W. of highway at fence, in root of 12-1n. oak tree; copper nail and washer \(\quad 1,132.49\)
Dillard, 3.8 mi . NW. of, elong State Highway 49, in S \(\frac{1}{2}\) sec. 2, T. \(35 \mathrm{~N} ., \mathrm{R} .3 \mathrm{~W} .\), at top of hill covered with small timber, on S. sice of highway, in concrete post; standard U. S. C̣. \& G. S. triangulation station designated "Dillard" \(1,343,836\)
10. FROM.COURTOIS EAST TO EAST BORDER OF QUADRANGLE (by H. W. Gross, Jr., in 1936)
(Continued from Bass quadrangle; see line no. 6.)
Courtois, 0.5 mi . S. of post office, 105 ft . W. and 70 ft . S. of Ward Payne's house, 40 ft . W. and 30 ft . N. of rd. fork, in root on N . side of \(14-\mathrm{in}\). white oak tree; copper natl and washer
Junction of rd. SE., \(50 \mathrm{ft} . \mathrm{W}\). and 25 ft . S . of, in root on N . side of ll-in. red oak tree; crossed iron nails
oourtois, 1.6 mi . E. of post office, 375 ft . S. of cor. secs. 4, 5, 8, and 9, T. 35 N ., R. 1 W., on divide between Courtois and Cub Creeks, 250 ft . N. and 10 ft . E. of junction of dim rd. NE., in root on NE. side of twin 8-in. red oak tree; copper nail and washer
W. J. Turnbough's house, 20 ft . W. of rd., in root on SW. side of \(15-1 \mathrm{n}\). white oak tree; crossed iran nails
oourtois, 2.6 mi . NE. of post office, in NWis sec. 4, T. \(35 \mathrm{~N}, \mathrm{R}\) R. \(1 \mathrm{~W} ., 280 \mathrm{ft} . \mathrm{N}\). and 80 ft . E. of NE. corner of L. J. Turnboughs' house, about 300 ft . W. of small cemetery, 180 ft . S. of Cub Creek, 15 ft . NW. of rd., in root on SE. side of 36-in. maple tree; copper nail and washer
Rd. forks, 55 ft . S. and 10 ft . W. of, in root on N . side of \(12-1 \mathrm{n}\). maple tree; crossed ir on nails
Quaker, 2.4 mi . W. of post office, about. 0.2 mi . N. of W. 0 . Gillam's house, 35 ft . W. and 10 ft . S. of rd. at T-lane S., in root on E. side of \(11-1 \mathrm{n}\). walnut tree; copper nail and washer
Guaker, 1.7 mi . W. of fost office, 0.5 mi . W. of Barr's store, 90 ft . W. of ford across Cub Creek, 7 ft . S. of rd. at dim rd. NW., in root on S : side of \(20-\mathrm{in}\). sycemore tree; copper nail and washer
Rd. fork SE., 25 ft . E. of, near NW. corner of cultivated field, in root on SE. side of l2-in. post oak tree; crossed iron nails
Palmer, 3.5 mi . SW. of, at crossroads, in flint and limestone boulder; aluminum tablet stamped "Prim Trav Sta No 3941164 Adj 1903 ". 10 . post oak tre ;
Reference mark, 35 ft . N. of tablet, in root on \(W\). side of \(10-\mathrm{in}\). post oak tree; copper nail and washer

\section*{11. FROM COORTOIS WEST AND SOUTH TO SOU'TH BORDER OF QUADRANGLE}

Courtols, 300 ft . NW. of post office, 100 ft . S. and 140 ft . W. of cor. secs. 5, 6, 7, and \(8, \mathrm{~T} .35 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} ., 150 \mathrm{ft}\). N. and 60 ft . E. of G. D. Evans' house, 22 ft . W. of NW. corner of barn. in concrete post; standard tablet stamped "P T Sta 121 S. 1926 900"

Reference mark, 139 ft . NW. of tablet, in roct on \(W\) : aide of 30-in. white oak tree; copper nail and washer
T. \(35 \mathrm{~N} ., \mathrm{R} .1 \mathrm{~W} .\), in \(\mathrm{SW}_{\frac{1}{4}}\) sec. \(6,15 \mathrm{ft}\). N. of rd. forks, in root on W. side of 24-in. red oak tree; copper nail and wesher 1,137.95
Junction of dim rd. SE., 50 ft . W. and 35 ft . N. of; in root on s . side of 24 in .
white oak tree; copper nail and washer \(1,292.6\)
Rd. at rail t'ence \(\mathrm{N}_{\mathrm{H}}, 40 \mathrm{ft}\). N. and 35 ft . E. of, in root on S . side of l2-in. hickory tree; copper nail and washer 1,271.7
Courtois, 2.l mi. W. of post office, in \(N W \frac{1}{4} \mathrm{NW}_{4}^{\frac{1}{4}}\) sec. 12, T. 35 N., R. 2 W., 150 ft .
S. \(30^{\circ} \mathrm{W}\). of rd. forks, \(1,000 \mathrm{ft}\). S. \(35^{\circ} \mathrm{W}\). of U. S. Forest Service lookout
tower, in root on NW. side of 15-in. hickory tree; copper nail and washer 1,278.65
Czar Methodist Church, in SWh sec. 11, T. \(35 \mathrm{~N} ., \mathrm{R}\). \(2 \mathrm{~W} ., 600 \mathrm{ft}\). E. of rd. forks,
\[
\text { Ir: concrete step; chiseled square } \quad 1,158.27
\]
T. 35 N., R. 2 W., in \(S W_{4} \sec .2,40 \mathrm{ft}\). N. and \(18 \mathrm{ft} . \mathrm{E}\). of Wesley Thomas' house, on Davisville-Goodwater road, in root on w. side of l2-in. black walnut tree; copper nail and washer

1,098.17
T. 35 N., R. 2 W., in \(\mathrm{SE}_{4}^{2}\) sec. 3 , 21 ft . NE. of old steelville-Centerville road, 27 ft . N. and 15 ft . W. of R. S. Barris garage, in concrete post; standard tablet stamped "P T 120 S 1926"

1,048.659
Reference mark, 40 ft . N., in root of \(14-1 \mathrm{n}\). oak stump; copper nail and washer
Junction of rd. N. down Shoal Creek, \(55 \mathrm{ft} . \mathrm{N}\). and 35 ft . W. of, in root on W. side of 18-in. elm tree; crossed iron nails
\[
1,002.8
\]
S. side of rd., in 3-in. oak tree; crossed iron nails 1,045.6

Davieville, 3.7 mi . SE. of, 0.4 mi . NW. of M. F. Barr's store, at top of long hill
descending SE. to Shoal Creek, 30 ft . W. and 15 ft . S. of Davisville-Vibrunum road, at dim rd. SW., in root on N. side of 14-in. white oak tree; copper nail and washer
\(1,170.29\)
Rd. fork, 10 ft . W. of, in root on SW. side of \(10-\mathrm{in}\). white oak tree; crossed iron nails

1,179.7
Davisville, 5 mi . SE. of, 0.2 mi . N. of quarter cor. between secs. 9 and \(10, \mathrm{~T} .35 \mathrm{~N} .\), R. 2 W., 77 ft . W. and 15 ft . S. of the SW . cormer of Chester Worley's house, 66 ft . E. of rd., in root on NW. side of 16 -in. white oak tree; copper nail and washer
\(1,18,3,15\)
Dillard, 6 mi. NE. of post office, in NWhe \(\frac{1}{4} \frac{1}{4}\) sec. 16, T. 35 N., R. 2 W., 20 ft . S. and 90 ft . W. of Mill Rock Creek ford, \(400 \mathrm{ft} . \mathrm{S}\). \(20^{\circ} \mathrm{E}\). of Tom Turnboughs' house, 80 ft . W. of rail fence corner, in concrete post; standard tablet stamped "P T il9 S 1926 "
Reference mark, 20 ft . NE. of tablet, in root on \(W\). side of lo-in. walnut tree; oopper nail and washer
Dillard, 5.5 mi . Ne. of post office, 0.6 mi . W. of Tom Turnboughts house, about 0.2 mi . E. of Andy Coleman's house, 70 ft . N. of Mill Rock Creek, 21 ft . SE. of rd., in root on SE. side of 21-1.n. water oak tree; copper nail and washer 899.47
Junction of dim rd. SW., \(60 \mathrm{ft}, \mathrm{E}\). of, in root on E. side of \(30-\mathrm{in}\). white oak tree; crossed iron nails
Dillard, 4.3 ml . NE. of post office, near center sec. 8, T. \(35 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., \mathrm{in}\) N. Huzah of top step at Seller School; chiseled square 150 ft . E. and 75 it . N. of, in root on sw . side of \(15-\mathrm{in}\).

Dillard, 3.5 mi . NE. of post office, 2.5 mi . E. of State. Highway 49 , about 0.2 mi . W. of ford across Huzzah Creek, 150 ft . E . of rd . corner from NE. to \(\mathrm{SE} ., 60 \mathrm{ft}\). N. of rd. fork up Barn Hallow, in trunk on SW. aide of l5-in. elm tree; copper nail and washer

Dillard, 1.8 mi . NE. of poat office, in sec. \(18, \mathrm{~T} .35 \mathrm{~N} ., \mathrm{R} .2 \mathrm{~W} ., 150 \mathrm{t}\). E. and 60 it. N. of ole Doms farmhouse, \(70 \mathrm{ft} . \mathrm{S}\). of county rd. at. garden fence sW. , in root on SE. side of lo-in. jocust tree; copper nail and washer
888.00
(Contfnued in Boss quadrangle; see line no. 7.)
For an additional level line along State Highway 8 ; refer to United States Coast and Geodetic Survey second-order line, Steelville to Mineral Point.

1. FROM POTOSI NORTHWEST TO POINT NEAR NORTH BORDER OF QOADRANGLE, THENCE WEST TO LIT'TLE PILOI ENOB, THENCE SOUTHEAST TO BELGRADE, THENCE EAST TO CALEDONIA, THENCE NORTH TO POTOSI (by D. V. Vandiver in 1903)
Potosi, in S. foundation of courthouse, 5 ft . W. of front door, 4 ft . above Feet ground; alumirum tablet stamped "1903 904 Adj" 904.057

Pleasant Hill (Grove) Church, in SE. corner of foundation stone, 2 ft . above ground; aluminum tablet stamped "1903 816 Adj"
Latty, \(1.4 \mathrm{mi} .{ }^{\prime} \mathrm{SW}\). of, l,000 ft. W. of Fourche a Renault Creek, 54 ft . W. of springhouse, opposite Bill Lewis' house, in ledge of natural stone; alumirium tablet stamped "Prim Trav Sta No 79 1913 790"
790.034

Floyd, 2.5 mi . NW. of, 1 mi . SW. of Little Pilot Knob, on N. side of rd., in large

Floyd, 4 ft . W. of corner of Earle's front porch, in E. foundation stone; aluminum tablet stamped "1903 877 Adj"
877.364

Shirley, 300 ft . SW. of store, 150 ft . E. of Berryman road, at NW. corner of barn, in natural sandstone boulder; aluminum tablet stamped "1903941 Adj" 940.815
Potosi, 8 mi . SW. of \(1,500 \mathrm{ft}\). E. of lead company's. barn, 300 ft . N. of Baptist Church, 400 ft . W. of Gibson's house, 100 it . W. of rd., in limestone ledge; aluminum tablet stamped "1903 1004 Adj"

1,004.064
Belgrade, 3 mi . N. of, 100 ft . NW. of ford across North Fork of Clear Creek, 80 ft . NE. of Johnson's house; iron post stamped "1903 912 Adj" 912.488
Belgrade, 1.5 ml . E. of on E . bank of small branch, in large porphyry boulder; aluminum tablet stamped "1903 923 Adj"
Caledonia, at front entrance to Methodist.Church, in S. sandstone step; aluminum tablet stamped "Prim Trav Sta No 5401903923 Adj"
Caledonia, 3 mi . N. of, 300 ft . E. of intersection of Belgrade-Irondale and CaledoniaPotosi roads, 200 ft . W. of Newcomb's shop, in limestone ledge; aluminum tablet stamped "1903 821 Adj"
Potosi, 5 mi . S. of, l, 000 ft . S. of Pine Hill, \(3 \mathrm{ft} . \mathrm{W}\). of rd., in sandstone boulder; aluminum taklet stamped "1903 1110 Adj"
2. FROM FJOYD SODTH BY WAY OF PALMER TO POINT NEAR SOUTHWEST CORNER OF QUADRANGLE, THENCE EAST TO BELGRADE

Levy, 1 mi. E. of, in SW. corner of foundation stone of Lost Creek Baptist Church, 2 ft. above ground; aluminum tablet stamped " 1903924 Adj"
Palmer, 4 mi . N. of, at fork of two trails, in sandstone boulder; aluminum tablet stamped "Prim Trav Sta No 2971903 Adji"
Ealmer, in SW. corner of foundation stone of post office, 5 ft . above ground;
900.772
(For balance in Berryman quadrangle, see line no. J..)
Sunlight, 4 mi . W. of, near Crystal Blossom store, 500 ft . E. of house, 7 ft . above
spring; aluminum tablet stamped "1903 1021 Adj" \(1,021.229\)
Sunlight, 0.3 mi . S. of, 300 ft . S. of Brock Creek, in SE, corner of stone foundation of Ramsey Grove Church; aluminum tablet stamped "1903 988 Adj" 988.729
Belgrade, 1.5 mi . W. of, 500 it . S. of H. E. Johns on's house, on E. bank of creek, in rock ledge; aluminum tablet stamped "Prim Trav Sta No 4981903904 Adj" 904.218
3. FROM POINT BETWEEN SUNLIGHT AND BELGFADE SOUTHWEST TO SOUTH BOHDER OF QUADRANGLE (leveled twice by M. J. Harden in 1924)

Belgrade, 1.5 ml . W. of, on \(S\). side of Brock Creek, in rock ledge 2 ft . above water; aluminum tablet stamped "1903 904 Adj"
Belgrade, 1.5 mi . W. end 1.8 mi . SW. of, 500 ft . s . of rd. junction, 70 ft . E. of Big River, in root of \(10-1 n\). elm tree; copper nail and washer
4. FROM NORTHWEST CORNER OF QUADRANGLE SOUTHEAST TO FLOYD (by F. S. Kuehnel in 1934) (Continued from Berryman quadrangle; see line no. 7.)

Floyd, 2.5 mi . NW. of, 1 mi . SW. of Little Pilot Knob, on N. aide of rd., in large boulder; aluminum tablet stamped "Prim Trav Sta No 16719031243 Adj" 1,243.018 Reference mark, 20 ft . SE. of tablet, in root on N . side of l2-in. hickory tree; copper nail and washer

1,242.81

\section*{5. WEST ALONG NORTH BORDER OF QUADRANGLE (by C. P. Thompson in 1935)}
T. 38 N., R. 2 E., near center of SEl sec. \(20,15 \mathrm{ft}\). W. of intersection of rd. E., in root on E. side of 20-in. oak tree; copper nail and washer \(89 . \quad 39.79\) potosi, 7 mi . NW. of, by rd., near quarter cor. between secs. 29 and 30, T. 38 N ., R. 2 E., 450 ft . NW. of Pleasant Hill Christian Church, 65 ft . W. of crossroads, \(2 \mathrm{ft} . \mathrm{N}\), and 10 ft . W, of \(20-\mathrm{In}\), oak tree at fence corner, in concrete post; standard tablet stamped "T T 1711 E R A 1935 815"
815.378

Pleasant Hill Church, 1 mi. W. of, near W. quarter cor. sec. 30 , T. 38 N., R. 1 E., 20 ft . S. and 15 ft . E. of rd. corner from E. to S., in root on SW. side of 20-in. maple tree; copper nail and washer
T. 38 N., R. 1 E., near center of \(\mathrm{N} \frac{1}{2} \mathrm{sec} .36,18 \mathrm{ft}\). E. and 15 ft . S. of cross rd.g. on top of ridge, in root on W. side of 26-in. black oak tree; copper nail and washer

1,027.63
Latty, about 0.5 mi . SE: of old location, near center of E \(\frac{1}{2}\) sec. 35 , T. 38 N., R. \(\frac{1}{2}\) E., 95 ft . E. of Little Fourche a Renault Creek and N.-S. rd., 44 ft . S. of rd., 8 ft . E. of gate to William Atkins ' yard, in concrete post; standard tablet stamped "T T 1712 E R A 1935 810"
T. 38 N., R. 1 E., near center NE farmhouse, 18 ft . S. of rd., in root on N. side of 26-in. oak tree; copper nail and washer

\author{
788.41
}

\section*{6. FROM NORTH BORDEH OF QUADRANGLE SOUTH TO LATTY (by A. R. Friend in 1937)}

Latty, about 1.3 mi . N. of, 40 ft . s . and 40 ft . W. of ford across Little Fourche a Renault, in root on N. side of 36-in. sycamore tree; copper natl and washer 730.93 Latty, at site of.old post office, 150 ft . W. of Little Fourche a Renault; 10 ft . E. of rd., in root of lo-in. walnut tree in fence line; copper nail and washer
794.25

For additional level lines along State Highways 8 and 32 , refer to United States Coast and Geodetic Survey second-order lines; Steelville to Mineral Paint and Ste. Genevieve to Licking.

\section*{BONNE TEERRE QUADRANGLE}
(Latitude \(37^{\circ} 45^{\prime}-38^{\circ}\); longitude \(90^{\circ} 30^{\prime}-90^{\circ} 45^{\prime}\) )
St. Francois and Washington Counties

1. FROM NORTH BORDER OF QUADRANGLE SOUTH ALONG MISSISSIPPI RIVER \& BONNE TERRRE R. R. TO ELVINS (a single run line by D. V. Vandiver in 1903)

\section*{Feet}

Silver Springs, 300 ft . N. of Mississippi River soBonne Terre R. R. station, in NW. 824.794 stone abutment of trestie no. 38; aluminum tablet stamped "824"
Bonne Terre, on \(9 E\). oorner of plactform at Mississippi River \& Bonneterre R. R. station
Bonne Terre, in E. face of foundation at SE. corner of Mississippi River \& Bonne R. R. starion; standard tablet stamped re829"

Bonne Terre, in foundation in front of Farmers \& Miners Bank; aluminum tablet atamped "824"
Elvins, in foundation at SE . corner of white building 40 ft . W. of Mississippi River \& Bonne Terre R. R.; aluminum tablet stamped "765"
2. FROM BONNE TERRE WEST TO HOPEWELL, THENCE SOUIHEAST ALONG MISSOURI PACIFIC R. R. TO BISMARCK.
Bonne Terre, 3.5 mi . W. of, along Chat raad, 300 ft . N. of spring, 100 ft . from fork, in ledge of stone at forks; standerd tablet stamped "905"
905.916

Hopeweil, 600 .ft. W. of Missouri Pacific R. R., 300 ft . S. of post office, in stone foundation surrounding big spring; aluminum tablet stamped "858" . 858.054
Irondale, in stone column at right of entrance to Irondale Bank; aluminum tablet stamped "810"
810.379

Bismarck, 100 ft. NE. of main track of Missouri Pacific R. R., at NW. corner of Bismarck Hotel building, in brick wall, 2 ft . above sidewalk; aluminum tablet stamped "1028"
\(1,028.948\)
3. FROM BONNE TERRE NORTHWEST TO CADET, THENCE SOUTHWEST ALONG MISSOURI PACIFIC R. R. TO MINEKAL POINT

Bonneterre, 6.5 mi . W. of, on E. side of Three Hill Creek, 30 ft . above ford, 4 ft . above water, in ledge; standard tablet stamped "678"
Mineral Point, 600 ft . S. of Missouri Pacific R. R. station, in SE. stone abutment of bridge over Mill Creek; standard tablet stamped "854" 854.153

\section*{4. FROM IRONDALE SOUTHWEST}

Irondale, 4.5 mi . SW. of, on top of hill, 90 ft . SW . of rd. forks, in flint stone; standard tablet stamped "1104"

1,104,674

\section*{5. IN NORTHWEST CORNER OF QUADRANGLE (by George W. Moore in 1930)}

Old Mines, 2.8 mi . SE. of post office, 930 ft . E. of National Pigment Co. R. R. at rd. crossing, 65 ft . W. of \(\mathrm{T}-\mathrm{rd} . \mathrm{S} .\), in top of N . head wall of concrete culvert; \(\begin{array}{ll}\text { ohiseled square } & 874.58\end{array}\)
Cadet, 1.1 mi. W. of, 93 ft . E. and 21 tt . N. of crossroads, 20 ft . N. of fence oorner, in concrete post; standerd tablet stamped "T T 19 L 1930"
Cadet, 0.4 mi . W. of 370 ft . E. of T-rd. N., in top of N . head wall of concrete culvert; chiseled square
861.7.0

Cadet, 115 ft . W. of semaphore at Missouri Pacific R. R. gtation, 45 ft . W. of rd. crossing, in top of \(N\). head wall of concrete culvert; chiseled square 803.56
Cadet, 0.9 mi . SE. of, at junction of Cadet, Banneterre, and old Selmo roads, 23 ft. S. and 95 ft. E. of T-rd. SE., in root on N. side of 12-1n. oak tree; copper nail and washer
875.68

Qadet, 1.8 mi . E. of, on Old Selmo road, 90 ft . S. of ford across mill Creek, at E. edge of rd., in root on SW. side of \(36-i n\). maple tree; copper nail and washer
Cadet, \(2.5 \mathrm{mi} . \mathrm{E}\). of, 0.6 mi . E. of crossing of Mill Creek, 62 ft . E. and 8 ft . S . of center of triangle at rd. fork N., \(10 \mathrm{ft} . \mathrm{N}\). of rd. E., 14 ft . E. of angle in rail fence, in concrete post; standard tablet stamped "T T 20 L 1930"
Reference mark, 50 ft . NW. of tablet, 6 ft . E. of rall fence, in root on NE.
side of 10 in. oak tree; copper nail and washer
852.887
849.85
bridge over Big River, 105 ft . E. of T-rd. NE., \(70 \mathrm{ft} . \mathrm{E}\). of fence corner, at N . edge of rd., in fence line, in root on NW. side of 16-1n. oak tree; copper nail and washer
797.19

Float bridge over Big River, about 0.6 mi . SW. of, 170 ft . E. of large wooden gate acrose rd., 12 ft . N. of rd., in root on \(S\). side of 8-1n. oak tree; copper nail and washer
771.59
6. FROM BISMARCK EAST ALONG MISSOURI PACIFIC R. R. TO EAST BORDER OF QUADRANGLE (by F. C. Lente in 1935)
J. S. C. \& G. S. B. M. designated "O 55 1934"

1,026.927
Bismarck, 1 mi. E. and 1 mi . S. of, along Missouri Pacific R. R., 190 ft . S. of rd. crossing, 15 ft . E. of rd.s in head wall of concrete culvert; chiseled square
(For balance in Middebrook quadrangle, see line no. 5.)
Bismarck, 3.5 mi . E. of, along Missouri Pacific R. R., 100 ft . E. of milepost no. 79-2, 16 ft . NW. of track, in granite ledge; atandard tablet stamped ng L 1935". 934.704

Bismarck, 4.4 mi . E. of, along Missouri Pacific R. F., 15 ft . S. of track, in top of concrete milepost no. 80; copper rod
931.89

Bismarck, 5.4 mi . E. af, along Missouri Pacific R. R., 150 ft . S. of milepost no. 81-0, 50 ft . SE . of track, at private rd. crossing, in root on N . side of \(30-\mathrm{in}\). white oak tree; copper nail and washer
921.30

Bismarck, 6.3 mi . E. of, along Missouri Pacific R. R., 100 ft . N. of Big River, 100 ft . E. of milepost no. \(82-3,10 \mathrm{ft}\). N. of track, on grani.te ledge; painted square
(Continued in Farmington quadrangle; see line no. 6.)
For additional level lines along Missouri Pacific R. R., Missouri-Illinois R. R., and State Highway 32, refer to United States Coast and Geodetic Survey second-order lines; Riverside to Wilicameville, Elvins to Taskee, Steolville to Mineral Point, and Ste. Generiere to Licking.

FARMINGTON QDADRANGLE
(Latitude \(3.7^{\circ} 45^{\prime}-38^{\circ}\); longitude \(90^{\circ} 15^{\prime}-90^{\circ} 30^{\prime}\) )
St. Francois and Ste. Genevieve Counties

1. EAST ALONG MISSOURI-ILLLNOIS R. R., BY WAY OF FARMINGTON JUNCTION, TO EAST BORDER OF QUADRANGLE (by D. V. Vandiver in 1903)


\section*{2. FROM FOINT NEAR JONCA SOUTHWEST TO FARMINGTON}

Jonce Creek, 1.5 mi. Sw. of missouri-Illinois R. R. at crossing of Plank Road, in NE. corner of stone abutment of iron bridge; aluminum tablet stamped "760" 76 Valley Forge, in NE. corner of stone abutment of bridge over Wolf Creek; standard tablet stamped "853" 853
Farmington, at W. side of entrance on S . side of courthouse, 2 ft . above ground 853.204 in foundation; aluminum tablet stamped \(\mathrm{n} .917{ }^{\circ}\)
917.901

\section*{3. FROM POINT 2 MILES SOUTHWEST OF SPROTT NORTHWEST TO JAYDEE}

Salem Church, in SW. corner of stone foundation; standard tablet stamped "834" 834.365
Jaydee, opposite post ofrice, in SE. corner of foundation of N. Chatman's house; standard tablet stamped "Prim Trav Sta No 60804 "
804.750

\section*{4. IN VICINITY OF FICKLE}

Plokle, \(0.9 \mathrm{mi} . E .0 f\), in NE. corner of Oak Grove School; standard tablet stamped "1053n \(1,053.107\)

\section*{5. FROM LAWRENCETON WEST TO FOINT 2 MILES NORTHWEST OF FRENCH VILLAGE}

Lawrenceton, 250 ft . \(\dot{\text { W }}\). of church, \(100 \mathrm{ft} . \mathrm{N}\). of rd., in small branch, in limestone ledge; aluminum tablet atamped "1903 561 Adj"
French Village, in foundation at SE. corner of springhouse; standard tablet atamped "898"
French Village, 1 mi . NW. of, 0.5 mi . S. of little log schoolrouse, on limestone ledge; painted point
Frenoh Village, 2 四i. NW. of, 100 ft . S. of rd . fork, on E. side of rd., on rock; painted point

\section*{6. IN SOUTHWEST CORNER OF QUADRANGLE (by F. C. Lentz in 1935) (Continued from Bonne Terrequadrangle; see line no. 6.)}

Bismarck, 7.3 mi . E. of, along Missouri Pacific R. R., 50 ft . S. and 75 ft . E. of rd. crossing, 25 ft . NE. of NE. corner of old house, in raot of 30-in. elm tree; copper nail and washer
U. S. C. \& G. S. B. M. designated "Y 54 1934"
U. S. C. \& G. S. B. M. designated "Z 54 1935"
U. S. C. \& G. S. B. M. designated "R 58 1934"
885.543

Doe Run Junction, 1 ml . SE. of, 50 ft . W. of Mississippi River \& Bonneterre R. R., 350 ft . W. of County Route \(W\), in S. side of \(14-1 \mathrm{n}\). black oak tree; capper nail and washer
932.93
(Continued in Knob Lick quadrangle; see line no. 5.)
7. FROM DE LASSUS EAST, BY WAY OF FARMINGTON, TO SOTJTHEAST CORNER OF QUADRANGLE.
U. S. C. \& G. S. B. M. designated "E 56 1934"

Reference mark, 90 ft. S. of tablet, in \(36-1 n\). black oak tree; oopper nail and washer

0
889.38

De Lassus, 0.7 mi . NE. of, along electric R. R., at County Route \(\mathrm{W}, 45 \mathrm{ft}\). SE. of highway, 50 ft . NW. of track, in root on E. side of \(15-1 \mathrm{n}\). white oak tree; copper nall and washer
Farmington, at \(W\). limits of, near entrance to State Hospital, 100 ft . E. of electric R. R. track, in root on N. side of \(50-i n\). water oak tree; copper nail and washer
Farmington, at \(W\). side of entrance on \(S\). side of courthouse, 2 ft . above ground, in foundation; alumimum tablet stamped "917"
Reference mark, W. of tablet, in SW. corner of concrete base of flagpole; painted square
916.07

Farmington, 1 mi . E. of, 30 ft . N. and 10 ft . W. of intersection of U. S. Highway 61 and State Highway \(32,20 \mathrm{ft}\). S. of fence, in top of rock head wall; chiseled square
Farmington, 1 mi. S. and \(1 \mathrm{mi} . \mathrm{E} .0 \mathrm{f}, 100 \mathrm{ft}\). N. and 25 ft . E. of T-rd. E., in root on W. side of 40-in. black oak tree; copper nail and washer 857.27
T. \(35 \mathrm{~N} ., \mathrm{R} .6 \mathrm{E} .\), near center sec. \(4,15 \mathrm{ft} . \mathrm{S}\). of rd., 50 ft . NE. of NE. corner of Westmyer's residence, in root on N. side of 40-in. white oak tree; copper nail and washer
\(\qquad\)
 of fence, in sandstone post; standard tablet stamped "10 L 1935" 899.665
Reference mark, 50 ft . E. of tablet, in S . head wall of concrete culvert; chiseled aquare 900.99
T. 35 N., R. 6 E. , in NWherem sec. 2, 20 ft . S. and 85 ft . E. of T-rd. N., in 3-1n. black oak tree; copper nail and washer
T. \(35 \mathrm{~N} .\), R. \(6 \mathrm{E} .\), near quarter cor. betmean secs, 1 and \(2,26 \mathrm{ft}\). S . of rd., 4 ft . B. of fence, in root on N. side of 38-in. black oak tree; copper nail and washer
900.02
T. \(35 \mathrm{~N} .\), R. 6 E., in SEl sec. \(1,75 \mathrm{ft}\). S. of T-rd. N., 50 ft . S. of E. -W . fence, 27 ft . W. of \(\mathrm{N} .-\mathrm{S}\). fence, in sandstone ledge; standard tablet stamped "il L 1935"
T. 35 N., R. 7 E., sec. 6, 25 ft . N. of rd., 15 ft . S. of fence, in \(14-\mathrm{in}\). white oak tree; copper nail and washer \(1,054.58\)
T. \(35 \mathrm{~N} ., \mathrm{R} .7 \mathrm{E} ., \mathrm{sec} .5,100 \mathrm{ft}\). N. of schoolhouse, 110 ft . s. of E.w. rd., 70 ft . E. of N.-S'. rd., in root on N. side of 24-in. white oak tree; copper nail and washer
T. 35 N., R. 7 E., in SWh aeo. 4, (actually in land grant), 80 ft . NE. of NE. corner of E. S. Harter's barn, 20 ft . S. of T-rd. N., in root on NW. aide of 30-1n. white oak tree; oopper nail and washer
\(A v o n, 2 \mathrm{mi}\). W. of, just E. of Avan-Farmington raad at N.-S. oross rd., \(10 \mathrm{ft} . \mathrm{E}\). of honey locust tree; iron post stamped "Prim Trav sta No 41907 Misaourí" 988.779
Reference mark, 80 ft . N. of post, in second step of store building; chiseled square
(Contimued in Knob Lick quadrangle; see line no. 4.)
For additional level lines along Missouri-Illinois R. R. and Missouri Pacific R. R., refer to United States Caast and Geodetic Survey second-order lines; Ste. Genevieve to Licking and Elvins to Taskee.
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WEINGARTEN QUADRANGLE 4
(Latitude $37^{\circ} 45^{\prime}-38^{\circ}$; longitude $90^{\circ}-90^{\circ} 15^{\prime}$ )

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Perry and Ste. Genevieve Counties


Most of the leveling was done in 1907 by Edward Bandil. Additional leveling was done In 1913 by R. G. Clinite and G. W. Lucas.

\footnotetext{
* Part of this quadrangle lies in Illinois.
}
1. FROM STE. GENEVIEVE WEST TO POINT 5.5 NILES WEST OF ZELL, THENCE SOUTH TO WEINGARTEN.

Feot
U. S. C. \& G. S. B. M. designated "33"
400.734

Ste. Genevieve, 3.9 mi . W. of, 300 ft . E. of rd. forks, 100 ft . S. of rd. across creek, in ledge forming \(S\). bank of creek; aluminum tablet stamped "476"
Zell, 500 ft . N. of, at first ra. intersection, in rock between two trees; aluminum tablet stamped "614"
Zell, 2.7 mi . NW. of, on top of hill, 15 ft . N. of rd., 3 ft . S. of fence, in sandstone ledge; aluminum tablet stamped "607"
Weingarten, 5 mi . N. of, 300 ft . S. of T-rd., 20 ft . E. of fence, 5 ft . W. of rd., in ledge; aluminum tablet stamped "587"
609.301
, 20 ft. E. af oak at SE. fence carner; 1ron post staniped "767"
769.728

Weingarten, in SW. corner of concrete foundation of Missouri-Illinois R. R. water tank; aluminum tablet stamped "833"
833.698

\section*{. FROM WEINGARTEN NORTHWEST}

Weingarten, 4.5 mi . NW. of, along rd. to Lawrenceton, at S . side of Hickory Creek ford, 200 ft . SW . of old sammill, 50 ft . S. of rd., in limestone bluff; standard tablet stamped "503"
504.079
3. FROM WEINGARTEN EAST TO TIVEH AUX VASES, THENCE SOUTHWEST TO COFFUAN, THENCE EAST TO MINNITH, IHENCE NORTHEAST TO EAST BORDER OF QUADRANGLE

Weingarten, 2.4 mi . E. of, 0.1 mi . Prom Brischle's house, 30 ft . s . of curve in rd. to S., in ledge of rock on opposite side of creek from rd.; aluminum tablet stamped "606"
River Aux Vases, 0.8 mi . N. of, along rd. from Weingarten, 15 ft . s . of rd., in front of church, in ledge; aluminum teblet stamped "475".
River Aux Vases, 3.3 mi . 3 . of, along rd. to Coffman, 0.2 mi . NE. of houge and old blacksmith shop, at intersection of rd. fram SW., in large rack; aluminum tablet stamped "886"
885.200

River Aux Vases, 5.2 mi . S. of; along rd. to Caffman, on N . side of rd., 0.4 mi . N. of house on N. side of hill, 200 ft. from intersection of rd. NW., 60 ft . from intersection of rd. SE.; aluminum tablet stamped. "947"
Ooffman, 0.5 mi . NE. of, at foot of hill, 33 ft . N. of rd., \(15 \mathrm{ft} . \mathrm{s}\). of fence; in ledge; aluminum tablet stamped "715"
Coffman, 3.2 mi . E. of, 250 ft . NE. of Saline Valley R. R. at ra. croseing, 60 ft . N. of rd., in ledge; aluminum tablet stamped \(4558^{n}\). 563

Coffman, 7.1 mj . E. of, 180 ft . NW. of Saline Valley R. R. at rd. crossing, 100 ft .

Minnith, \(960 \mathrm{ft} . \mathrm{S} .0 \mathrm{f}, \mathrm{g} 2 \mathrm{ft}\). E. of Saline Valley R. R. track, 4 ft . fron cedar tree, in ledge; aluminum tablet stamped "437n
Minnith, 1.2 ml . NE. of, across rd. from Sallne Valley R. R. trestle over rd. NW., 18 ft . SE. of rd. to St. Marys, 300 ft . S. of rd. curve to E., 8 ft . S. of large oak tree; aluminum tablet stamped " \(416^{n}\)
St. Marys, 6 mi . SW. of, on N . side of rd., near valley N . from rd., in ledge; aluminum tablet stamped "482"
(Continued in Chester quadrangle; see line no. 1.)

\section*{4. FROM SALINE VALLEY SOUTH TO POINT NEAR ULAM}

Ulam, near old site of post office, W. of St. Narys-Farmington road at rd. S. to Fredericktom; iron post gtamped "Prim Trav Sta No 31907 Missouri"

\section*{5. AT STE. GENEVIETE}

Ste. Genevieve, near center of E . side of courthouse yard, 3 ft . inside of iron
fence; 1ron post stamped "401"
6. FROM NORTH BORDER OF QUADRANGLE SODTH TO POINT 2.5 MILES NORTHWEST OF ZELL

Bloomsdale, 0.8 mi . S. of, on S . side of creek, \(5 \mathrm{ft} . \mathrm{S}\). of telephone pole; top of large rook
Bloomedale, 2.1 ml . S. of, at turn in rd. to W., 700 ft . g . of one-story house, on \(E\). side of rd.g in root of 30-in. oak tree; spike
For an additional level line along Misaissippi River, refer to. United States coast and Geodetic Survay Pirst-arder line, St. Louisa Mo. to Cairo, Ill. For an additional line along Missouri-Illinois. R. R., refer to United States Coast and Geodetic Survey seoondorder line, Ste. Genevieve to Lioking.

\title{
CHESTER OUADRANGLE\% \\ (Latitude \(37^{\circ} 45^{\prime}-38^{\circ}\); longitude \(89^{\circ} 45^{\prime}-90^{\circ}\) )
}

Perry and Ste. Genevieve dounties

T. 36 N.

Most of the leveling was done in 1907 by Edvard Bandil. Additional leveling was done in 1913 by R. G. Clinite and G. W. Lucas.

\section*{1. FROM WEST BORDER OF QUADRANGLE NORTHEAST TO ST. MARYS \\ (Continued from Weingarten quadrangle; see line no. 3.)}

St. Marys, 4.5 mi . from, halfway between bottom and top of hill, about 30 ft. S . of feet rd., near edge of bluff. 11 ft . SW. of large tree, in ledge; aluminum tablet stamped "466"
U. S.C. \& G. S. B. M. designated "35"
U. S. C. \& G. S. B. M. designated "36"
2. FROM ST. MARYS SOUTHWEST TO GIBONEY, THENCE EAST ALONG CAPE GIRARDEAD NORTHERN R. R. AND ROADS TO EAST BORDER OF QUADRANGLE, THENCE NORTHWEST ALONG ST. LOOIS-SAN FRANCISCO R. R. TO ST. MAFYS.

St. Marys, \(1.4 \mathrm{mi} . \mathrm{g}\). of, along rd. following St. Lawrence Creek, at intersection of Old Lead road, 300 ft. s . of bridge, in base of SW . corner post; copper nail 399.28 St. Marys, 2.9 mi . SW. of, at intersection of Old Lead road and Perryvilie Road, about 500 ft . NW. of brick house, \(S\). of intersection, inside of wire fence, in top of oak stump; copper nail
605.04

St. Marys; 3.3 mi . SW. of, at Intersection of perryville and Mine La Motte Roads, 250 ft. Wo of house, in triangle formed by intersection of rds.; iron past stamped "Mo: 592"
St. Marys, 4.8 mi . gW . of, near rd. forks, 100 ft . E. of Big Saline Creek, at bottom of Rocky Hill, in root of 24-1n. oak tree; copper nail
St. Marys, 5.6 mi. SW. of, S. of T-ird. N., in root of lone oak tree; copper nall 420.8 T
St. Marys, 6.3 mi . SW. of; about 1 mi . W. of Lead station, along Cape Girardeau Northern R. R. at rd. crossing, 60 ft . \(N\). of track, 30 ft . E. of rd.; iron post stamped "Mo 404"
Giboney, on Cape Girardeau Northern R. R., N. of rd. crossing, E. of rd.g in base of warning post; copper nail
Giboney, 0.9 mi . E. of, along Cape Girardeau Northern R. R., gear rd. crossing, 40 it. N. of track, 10 ft . D. of rd.; in root of \(15-1 \mathrm{n}\). oak tree; copper nail 542.44

Giboney, 2.3 mi E. of, along Cape Girardeau Northern R. R.; near rd. crossing, 40 ft . N. of track, 60 ft. W. of rd., 15 ft . E. of lone oak tree; iron post stamped nMo 565"
Giboney, 3.6 mi . E. of, along Cape Girardeau Narthern R. R. pear rd. orosaing, 10 ft. E. of rd., 5 it. N. of traok, In top of 6-by 8-in. post; copper nail 579.72

Saline Junction, 0.9 mi . W, of, along Cape Girardean Northern \(R\). R. near rd. croseing.
100 ft. E. of derall switoh, in base of varning post; copper nail 512.96
Saline Junction, along Cape Girardeau Northern R. R.g. at E. ond of triangle formed in switch post; by tracks, in switch past; spike
Saline Junction, 0.3 mi . SE. of, along Cape Girardeau Northern R. R. near rd. orossing. \(50 \mathrm{ft} . \mathrm{E} .0 f\) track, 20 ft . N. of rd.a near right-of-way fence; iron post stamped "Mo 521"
- Saline Junction, 0.7 mi . NE. of, about 0.3 mi . ND. of Tucker gohool, at intersection of Sereno and Perryville-Lithum roads; in root of 18-in. oak tree; spike
Sereno, about 1 mi . W. of, at rd. forks, on top of hill, 300 ft . W. of house, in root of \(18-1 n\). oak tree; copper nail
Serenc, in SE. corner of iot owned by Catholic church, 150 ft. N. of blacksmith shop, 100 ft . W. of store; iron post stamped nMo 622 \({ }^{\text {m }}\)
Sereno, about 1 mi . SE. of, 150 ft . W. of rd. forks, at turn in rd., in root of blazed 20-in. oak tree; spike.
Sereno, 1.4 mi . SE, of, at Turd. S., 600 ft . N. of house, in robt af \(30-\mathrm{in}\). oak tree; copper nail
Sereno, 2.4 ml . SE. of, at T-rd. W., 500 ft . E. of Mr. Manning's house, 150 ft. N. of fork of nem Allens Landing road, in root of 15-in. oak tree; copper nail 516.7 .3

Sereno, 2.8 mi . SE. of, at rd. forks, 200 ft . S. of Huber Branch, in root of 24-in. oak tree; copper nail
Perryville, 5 mi , NE. of, 4.4 mi . SE, of Sereno, on old Allens Landing road, at rd.
forks, \(100 \mathrm{ft.S}\). of house, on S. side of rd.; iron post stamped "M0 588" 587.256
Perryville, 6 mi . NE. of, on old Allens Landing road, 300 ft . E. of bie red barn on J. J. Klump's farm, 20 ft. E. of wooden gate, N. of rd., in root of persimmon tree; copper nail
Perryville, 7.4 mi . NE. of, on Allens Landing road, ot rd. forks, on top of bie hill, 100 ft . N. of laree house, 150 ft . NE. of old store building, 10 ft . N. of rd.g. in root of small oak tree; copper nail.
Menfro, 2 mi . NW. of, along St. Louis-San Francisco R. R. at rd. crossing; near T-rd. SE., 75 ft . W. of track, 20 ft . N. of rd. fork; iron post stamped "MO 363 ll . 362.156
Menfro, 2.6 mi . NW. of, along St. Louis-San Francisca R. R., in E. guarórail at N. end of bridge no. 85.8; bolt

Menfro, 3.8 mi . NW. of, along St. Louis-San Francisco R. R., at rd. crossing, 150 ft . W. of house, in NE, cattle guard; copper nail
Menfro, 5.1 mi . NW. of, along St. Louis-San Francisco R. R., at underpass, W. of track, just outside of right-of-way N. of rd.; iron post stamped "Mo 363".
Menfro, 6.5 mi . NW. of, along St. Louis-San Francisco R. R., near rd. crossịng, in SW. corner of wocden abutment of bridge no. 81.9 ; copper nail
Mc Bride, along St. Louis-San Francisco R. R., at rd. crossing, 100 ft . S. of station, \(N\). of rd.; near W. right-of-way fence; iron post atamped "Mo 370"
Mc Bride, 1.9 mi . NW. of, along St. Louis-San Francisco R. R., at rd. croseing, 20 ft. N. of rd., 7 ft . E. of track, in top of 6-by 6-in. post, 2 ft. above ground; copper nail
Mc Bride, 2.6 mi . NW. of, along St. Louis-San Francisco R. R., at rd. croseing, near milepost no. 78 , near W. end of Marie siding, 20 ft . N. of rd., 7 ft. E. of track, in 6-by 6-in. post; oopper nail
Mc Bride, 3.7 mi. NW. of, along St. Louis-San Francisco R. R., in W. guardrail at \(S\). end of bridge no. 76; bolt
Perryville Junction, along St. Louis-San Francisco R. R., 100 ft . W. of station, under 24-in. elm tree; iron post stamped "Mo 374"
Perryville Junction, 0.7 ml . NW, of, along St. Louis-San Francisco R. R., near rd. crossing, 15 ft . W. of track, 5 ft . S. of rd., in base of warning post; copper nail

For an additional level line along Mississippi River, refer to United States Coast and Geodetic Survey rirst-order line, St, Louis, Mo. to Cairo, Ill. For an additional line along State Highway \(51 ;\) refer to United States Coast and Geodetic Survey second-order line, Fredericktown to Claryville.
-
(Latitude \(37^{\circ} 45^{\prime}-38^{\circ}\); longitude \(89^{\circ} 30^{\prime}-89^{\circ} 45^{\prime}\) )
Perry county

1. IN SW THWEST CORNER OF QUADRANGLE EAST TO GRAND EDDY (by R. T. Gale in 1921) (Continued from Altenburg quadrangle; see line no. 4.)
Crosstown, 1.5 mi . E. of, along rd. to Grand Eddy, on top of high ridge, in fence Feet
line, in root of black oak tree; copper nail and washer Crosstown, \(2.1 \mathrm{mi} . \mathrm{E} . \operatorname{of}\), along rd. to Grand Eddy, NW. of junction with rd. to
Red Rock, in root of black oak tree; copper nail and washer
553.11 U. S. C. E. B. M. designated "42"

For an additional level line along Misgissippi River, refer to United Statea coast and Geodetic Survey first-order line, St. Louis, Mo. to Cairo, Ill.

\footnotetext{
* Part of this quadrangle lies in Illinois.
}```


[^0]:    *For the results of spirit leveling in Missouri previously published see Triangulation and spirit leveling-Missouri: U.S. Geol. Survey 18th Ann. Rept., pt. 1, pp. 333-337, 1897; Triangulation and spirit leveling-Missouri-Ililinois: T. S. Geol. Survey 20th Ann. Rept., pt. 1, pp. l112-413, 1899; Triangulation, prinary traverse, and spirit leveling-Missouri: U.S. Geol. Survey 2lst Ann. Rept., pt. 1, pp. 474-475, 1900; Results of spirit leveling, fiscal year 1900-1901-Missouri, Missouri-Kansas: U.S. Geol. Survey Bull. 185, pp. 107-113, 1901; Results of spirit leveling in Missouri, 1896 to 1919, inclusive: J.S. Geol. Survey Buil. 459 , $48 \mathrm{pp}$. , 1911; Results of spirit leveling in Missouri, 1896 to 1914, inclusive: U.S. Geol. Survey Buil. $568,219 \mathrm{pp.}$, 1915.
    "See Avers, H.G., Manual of first-order leveling; U.S. Coast and Geodetic Survey Special Pub. $140,1929$.

[^1]:    *See Jones, E.L., Hypsometry--Use of mean sea level as the datum for elevations: U.S. Coast and Geodétic Survey Special Pub。 li, 1917. Manual of tide observations: U.S. Coast and Geodetic Survey Special Pub. 196, 1935.

[^2]:    * Fart of this quadrangle lies in Illinois.

[^3]:    FIt was reported in 1937 that this benchnark was covered by a fill, which at that time did not exceed 0.5 ft . in depth.

[^4]:    * Part of this quadrangle lies in Illinois.

[^5]:    is Part of this quadrangle lies in Illinoia.

[^6]:    Altenburg; 1 mi. W. of, along rd. to Frohna, in SWis sec, 21, T. 34 N., R. 13 E. 75 ft. W. of rd. forks; 10 ft. inside fence, in root on SE. side of 30-in. black oak tree; copper nail and washer
    Altenburg, in W. edge of walk to school, 2 ft outside of fence; chiseled

[^7]:    687:28

