## UNITED STATES DEPARTMENT OF THE INTERIOR

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GEOLOGICAL SURVEY W. C. Mendenhall, Director

Bulletin 898-D

# SPIRIT LEVELING IN MISSOURI <br> Part 4. NORTHWESTERN MISSOURI <br> 1896-1937 

J. G. STAACK

Chief Topographic Engineer

Prepared in cooperation with the
STATE OF MISSOURI
GEOLOGICAL SURVEY AND WATER RESOURCES
H. A. Buehler, Director


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## PART 4. NORTHWESTERN 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 in Missouri by the Geological Survey, United States Department of the Interior, including those heretofore published. Each 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, southwestern, central, east-central, south-central, and westcentral 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 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 Emergency 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 furnished equipment and supervision as its share of the cooperation.

Classification of leveling.-Spirit leveling is classified according to the degree of refinement in the instmanents 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. Closures 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 instmuments, 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 adjusted 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 fundamental references for elevations detormined 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 function 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 results 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 alons 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 afe less formal in design and are placed between the principal benchmarks. Some of the supplementary benchmarks in common 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 "U. 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 $a . \quad C$, 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 first-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. In June 1938 a fleld party was organized and charged with the responsibility of stamping flgures of elevation, to the nearest foot, on the permanent benchmarks established in the State by the Geological Survey. Thus, these figures may appear stamped on the tablets in addition to the identifying letters and numbers quoted in the printed descriptions. 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, Geological Survey, United States Department of the Interior, 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 selected 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 project 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 直 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 diam-
eter 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 ${ }^{\prime \prime} \mathrm{J} S G \mathrm{~S}^{\prime \prime}$, 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 le 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 ${ }^{n} J S G S$ $G$ 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 structures, 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 desoribed 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 highray or other improvements will render a public service by commanicating the facts to the Director, Geological Survey., United States Department of the Interior, 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 reFised description of the marls, 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 higheat and lowest tides, nor 1 s it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. Mean sea level is the average height of the water all gtages of the tide belng 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 must extend over several jears. At ocean stations the halftide level and the mean sea level usually differ but little. It is assumed that there 1s no difference between the mean sea levels determined from observations made in the Atlantic Ocean, the Guif of Mexico, and the Paciflc Ocean.*

Location of the ares, Northwestern Missouri, as the term is used in this bulletin and as the subject of part 4 of the bulletin, is that section of the State lying north of latitude $39^{\circ} 30^{\prime}$ and west of longitude $93^{\circ} 15^{\prime \prime}$ (See fig.7.)

[^1]Index map, -The accompanying index map of northwestern Missouri (fig. 8) shows the relative position of the quadrangle areas which make up this section. A quadrangle is the unit of topographic survey adopted by the Geological Survey for dividing the area of the United States. All the quadrangles referred to in insting the resulta of leveling in northwestern Missouri measure 15 minutes in latitude by 15 minutes in longitude. With the name of each 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.


Figure 7.-Outline map of Missouri showing the names and relative position of the eight sections covered by the parts of Bulletin 898, on apirit leveling in the State. The shaded portion represents the section designated as northwestern Missouri.

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

Figure 8.-Index mad of northwestern Missouri showing the quadrangles into which this section of the State has been divided.

Diagrams of guadrangles showing routes of loveling.- 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 quadrangie. To aid in identifying these routes, the boundaries of the townships 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 ilines 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 benchmariks along that route. The heavy dashed lines represent the first-order leveling of the United States Coast and Geodetic Survey.

Personnel. -The leveling of the United Statea Geological Survey in nortivestern 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 ine 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 in the Washington office mainly by V. S. Benfell, computer. The revision, correlation, and compilation of the descriptions of benchmarks was done in the field office at Rolla, Mo., by employees of the Works Progress Administration of Missouri, who also assembled the lists and made new typewritten copies of them suitable for reproduction by photography. The work at Rolla was sponsored by the Missouri Geological Survey and Water Resources and was in charge of W. R. Broaddus, of the United States Geological Survey. The work in the Washington office was under the supervision of R. M. Wilson, chief of the section of comprating, under the general direction of J. G. Staack, chief topographic engineer.


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Mercer and Putnam Counties


1. IN SOUTHWEST CORNER OF QUADRANGLE (by Cornish Beck in 1936)
(Continued from Lucerne quadrangle; see line 5.)
T. 66 N., R. 23 W., quarter cor. between secs. 24 and $25,40 \mathrm{ft}$. . 4 and

30 ft . E. from T-rd. E., on high bank, inside fence, in concrete post; standard tablet stamped "Prim Trav Sta No 76 L S 1923 Mo

Feot
1,047.257
1,085.95
1,091.99

1,079.19
1,005.62
963.38
(Continued in Lineville quadrangle; see line 3.)
2. WEST ALONG WEST PART OF SOUTH BORDER OF QUADRANGLE (bY D. R. Stewart in 1936)
(Continued from Lucerne quadrangle; see line 2.)
T. $66 \mathrm{~N}_{.}, \mathrm{R}_{\mathrm{e}} 22 \mathrm{~W} .$, cor secs. $21,22,27$, and $28,22 \mathrm{ft}$. N. and 50 ft . W. from T-rd. W. , on Mercer-Putnam county line, in concrete post; standard tablet stamped "Prim Trav Sta No $77 \mathrm{~L} S 1923 \mathrm{Mo}$ "
995.204
T. $66 \mathrm{~N}_{0}, \mathrm{R}_{\mathrm{o}} 22 \mathrm{~W}_{0}$, cor. secs. $20,21,28$, and 29 , $25 \mathrm{ft}$. N. and 12 ft . E. from crossroads, on $N$. end of E. head wall of concrete culvert; chiseled square
$T_{0} 66 N_{0}, R_{\text {. }} 22$ W., W. sixteenth cor. between secs. 20 and 29, near crossroads, at SW. corner of farmhouse of F. A. Snyder, on SE. corner of concrete well platformy chiseled square
Bridge over West Medicine Creek, at SE. corner of; bolt head
T. $66 \mathrm{~N}_{0}$, Rs. 22 and $23 \mathrm{~W} .$, cor. secs. 19, 24,25 , and 30 , $12 \mathrm{ft} . \mathrm{S}_{0}$ and 25 ft . W. from T-rd. S., on $\mathrm{N}_{\text {. }}$ end of $\mathrm{W}_{\text {. head wall of concrete }}$ culvert; chiseled square

> 3. FROM POINT NEAR SOUTHEAST CORNER OF QUADRANGLE NORTH, THENCE WEST ALONG IOWA-MISSOURI STATE LINE TO WEST BORDER, INCLUDING THAT PART OF THE LINE IN SEYMOUR QUADRANGLE (by D. R. Stewart and J. J. Crane in 1936-37)
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Mount Hope Church, at crossroads, on NE. corner of concrete porch; chiseled square
T. 66 N., R. 21 W., quarter cor. between secs. 11 and $14,46 \mathrm{ft}$. S. and 24 ft . V. from crossroads, in concrete post; standard tablet stamped "T T 59 J J 1936"
Bridge, first one $S_{\text {. of }} T-r d . W_{0}$, on $E_{\text {. end }}$ of iron cross beam; painted square

[^2]T. 66 N., R. 21 W., quarter cor. between secs, 2 and 11,25 ft. S. and $35 \mathrm{ft}^{\prime}$.E. from T-rd. E., in root on NW. side of l2-in. maple tree; copper nail and washer
T-rd. W., 45 ft . N. and 20 ft . W. from, in root on SW . side of $12-\mathrm{in}$. hedge tree; bent nalls
T. 66 N., R. 21 W., quarter cor. between secs. 2 and $3,50 \mathrm{ft}$. S. of Trrd. N., in root on W. side of hedge stump; copper nail and washer
T. $67 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} ., \mathrm{S}$. quarter cor. sec. $35,95 \mathrm{ft}$. S. and 130 ft . E. from T-rd. N., at cellar, on W. side of top concrete step; chiseled square
T. 67 N., R. 21 W., quarter cor, between secs. 34 and $35,20 \mathrm{ft}$. N. of rd. corner S.-W., in concrete post; standard tablet stamped $\mathrm{T}_{\mathrm{T}} \mathrm{T} 58$ J J 1936"
T. 67 N., R. 21 W., W. sixteenth cor. sec. $34,20 \mathrm{ft}$. N. and 230 ft . E. from T-rd. N., in root on $N$. side of 15-in. Willow tree; copper nail and washer
T. 67 N .1 R . $21 \mathrm{~W} . \mathrm{N}^{\prime} \mathrm{E}$. (? W.) sixteenth cor. between secs. 27 and 34 , hedge treet copper nail and washer

Feet
$1,054.18$
1,074.25
$1,074.37$

1,082.55
$1,049.684$
$1,061.46$
. 67 N., R. 21 W., N. cor. secs. 27 and 28 , on Iowa-Mo. State ilne, 55 ft. S. and 205 ft . W. from T-rd. W., in root on NW. side of 28-in. maple tree copper nail and washer
$T-r^{\prime}$. S., 20 ft . N. and 85 ft . W. from, in root on $E$. side of small, twin hedge tree; copper nail and washer
T. 67 N., R. 21 W., N. quarter cor. sec. 28; on Iowa+Mo. State line, 20 ft . N. and 25 ft . W. from T-rd. S., in root on N. side of 14-in. cottonwood tree; copper nail and washer
T. 67 N., R. 21 W., S. cor. secs. 20 and 21 , on Iowawso. State line, 36 ft . N. and $28^{\prime} \mathrm{ft}$. W. from T-rd. N., in concrete post; standard tablet stamped "T T 57 J J 1936"
$1,091.18$

1,093.07
1,063.22
T. $67 \mathrm{~N} ., \mathrm{R}_{\text {. }} 21 \mathrm{~W}$. near $\mathrm{E}_{\mathrm{o}}$ sixteenth cor. on N . 1.1 ne sec. 30 , on Iowa-Mo. State line, 15 ft . N. and 70 ft . W. from T-rd. N., in root on E. side of small, twin oak trees copper nail and washer

1,056.97
$1,037.783$
T. 67 N. Rs. 21 and 22 W.. N. cor. secs. 25 and 30 , on Iowa-Mo. State ine, $450 \mathrm{ft} . \mathrm{S}$. and 30 ft . W. from T-rd. E., in root on N. side of 22-in. maple tree; copper nail and washer
crossroads, 100 ft . N. and 15 ft . W. from; in root on W. side of $14-\mathrm{in}$. elm tree; crossed nails
993.38

1,070.68
Tps. 66 and $67 \mathrm{~N} ., \mathrm{Rs} .21$ and 22 W ., approximate cor. of, 24 ft . S. and 25 ft . E. from crossroads, in concrete post; standare tablet stamped "T T 56 J J 1936"

1,041.70

Tps. 66 and 67 N., R. 22 W. , on line between sees, 2 and $35,10 \mathrm{ft}$. N. and 80 ft . E. from crossroads, in root on W. side of $20-\mathrm{in}$. elm tree;
copper nail and washer
T-rd. W., 100 ft . N. and 15 ft . E. from; in root on NW. side of 24-in.
992.394 twin maple trees crossed nails
T. 67 N. R. 22 W., N. quarter cor. sec. 26. 130 ft . S. of Iowa-Mo. State ilne, 60 ( $? 15$ ) ft. S. and $15(? 20) \mathrm{ft}$. E. from T-rd. S., in concrete post standard tablet designated "T T 52 J J 1936 " (stamped "T T 53 J J 1936")
T. 67 N., R. 22 W., near W. sixteenth cor. on N. line sec. 27, on IowaMo. State line, 25 ft . S. and 80 ft . E. from T-rd. N., in root on N. side of 24 in. elm tree; copper nail and washer

1,030.91
1,021.14
. $67 \mathrm{~N} ., \mathrm{R}$. 22 W ., N. cor. secs. 27 and 28 , on Iowa-Mo. State line, at cor. of Mercer and Putnam oounties, 18 ft . N. and 10 ft . W. from T-rd. S., in root on $N$. side of $16-1 n$. thom tree; copper nail and washer
$1,025.693$
amo triangulation sta., 6 mi . E. of Lineville, on Iowá-ito. State line, in SE $1 / 4 \mathrm{SE} 1 / 4$ sec. $20, \mathrm{~T} .67 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} ., 370 \mathrm{ft}$. W. of ste日l gate, 19 ft. N. of rd. in'concrete post (buried 22 in. below surface of ground); U.S.C. \& Gis. standard disk stamped "Iamo 1928 "

1,097.678
Reference mark $1,481 \mathrm{ft}$. $E$. of post, in concrete post; U.S.C. \& G.S. standard disk stamped "Ref Mark No 1 "

1,099.455
T-rd. S., 10 ft . N. and 60 ft . E. from, in fence line, in root on N . side of small mulberry trees crossed nails

2,092.91
T. $67 \mathrm{~N} . \mathrm{H}_{\mathrm{R}} 22 \mathrm{~W}$., in NE $1 / 4 \mathrm{SE} 1 / 4$ sec. 30 , on Iowa-Mo. State Ine. 18 ft. N. and 105 ft . E. from Turd. S., in root on N. side of 8-in. willow tree; copper nail and washer
$1,069,81$
T. 67 N., R. $23 \mathrm{~W} ., \mathrm{N}$. quarter cor. sec. 25, on Iowa-Mo. State line, 365 ft. S. and 23 ft . E. from $\mathrm{T}-\mathrm{rd}$. . S., in root on E. side of i6-in. wildcherry trees copper nail and washer

1,094,46
T-rd. W., 105 ft . N. and 18 ft . W. from, in root on E. aide of 24-1n. elm trees crossed nails
Lineville, 3.2 mi . E . of, in $\mathrm{SW} 1 / 4 \mathrm{SW} 1 / 4$ sec. 26 , T. $67 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, 440 ft . W. of Trra. S., 21 ft . N. and 24 ft . E. from Trra. N., in concrete posty standard tablet stamped "T T 50 J J 1936"

1,093.648
Lineville, 2.3 ml . E. of, quarter corr. between secs. 27 and 34, T. 67 N., R. 23 W ., 90 ft . S. and 200 ft . E. from T-rd. S., in root on N. side of $30-1 n$. bur $\rightarrow$ oak tree; copper nail and washer

1,004.48

LUCERNE QUADRANGLE
(Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime}$; longitude $93^{\circ} 15^{\prime}-93^{\circ} 30^{\prime}$ )
Grundy, Mercer, Putnam, and Sullivan Counties


1. SOUTH ALONG SOUTH PART OF EAST BORDER OF QUADRANGLE (by D. R. Stewart in 1936)
T. 64 N., R. 21 W., quarter cor. between secs. 15 and $16,130 \mathrm{ft}$. S. and

Feet
927.37

1,012.99
T-rd. E., on W. side of rd., in fence post; nail
T. 64 N .', R. 21 W., 185 ft . E. of E . sixteenth cor. between secs. 21 and 28, 30 ft . N. and 28 ft . W. from T-rd. N., in SE . corner of schoolyard, in concrete post; standard tablet staruped " ${ }^{\prime}$ T T 1563 E R A $1935^{\prime \prime}$
Bridge over creek, at SE. corner of, on iron sill; chiseled square
T-rd. W., $45 \mathrm{ft} . \mathrm{S}$. and 15 ft . E. from, in root on SW. side of $12-1 \mathrm{n}$. elm tree; crossed nalls
T. $64 \mathrm{~N}_{0} \mathrm{R}_{\mathrm{R}} 21 \mathrm{~W} .$, center of NE $1 / 4$ sec. 33 , 100 ft . N. (?) and 105 ft . S. (?) from T-rd. W., in root on NE. side of 12-in. walnut tree; copper nail and washer
Bridge over West Locust Creek, on first iron beam W. of NB. corner of chiseled square
T. 64 N., R. 21 W., quarter cor. between secs. 32 and $33,30 \mathrm{ft}$. N. and 10 ft . W. from Trd. S.rin base of telephone poles spike
T. 63 N., R. 21 W ., in $\mathrm{SE} 1 / 4 \mathrm{NB} 1 / 4 \mathrm{sec}$. 5 , on SW. wing wall of bridge over creek; chiseled square
T-rd. W., 15 ft . N. and 54 ft . E. from, in root on S . side of small, twin olm tree; crossed nails
T. 63 N., R. 21 W., quarter cor. between secs. 5 and $8,85 \mathrm{ft}$. S. and 5 ft. E. from rd. corner E.-S., on E. end of concrete culvert; chiseled square
877.15
890.90
886.50
963.03

Harris triangulation sta., 4 mi . E. and 2 mi . S. from Harris, in NE $1 / 4$ SW 1/4 sec. 8, T. $63 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} ., 125 \mathrm{ft}$. SE. of SE. corner of Grifflith School, 443 ft . W. of rd., $13 \mathrm{ft} . \mathrm{N}$. of fence, in concrete posti U.S.C. \& G.S. standard disk stampod "Harris $1928^{\circ}$

1,010.140
Reference mark, 175 ft . N. and 40 ft . E . from sta., in concrete post; D.S.C. \& G.S. standard disk stamped "Harris No 3 1934"

T-rd. N., 15 ft . N. and 25 ft . W. from, on concrete foundation of corner fence post; chiseled square

1,003.626
T. 63 N., R. 21 W., near cor, secs. 8, 9,16 , and 17, at T-rd. S., on SW. head wall of large, abandoned concrete culvert; chiseled square
T. 63 N., R. 21 W., cor. secs. $16,17,20$, and 21 , 15 ft . N. and 15 ft . W. from crossroads, in root on W. side of large, twin maple tree; copper nall and washer
926.81
T. $63 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} ., \ln \mathrm{Sii} 1 / 4 \mathrm{sw} 1 / 4 \mathrm{sec} .15,30 \mathrm{ft} . \mathrm{N}$. and 160 ft . W. from W. end of bridge over West Locust Creek, in root on SE. side of large, twin elm trees copper nail and washer

## 2. FROM POINT NEAR CENTER OF EAST BORDER OF QUADRANGLE NORTH TO NORTHEAST CORNER, THENOE WEST ALONG EAST HALP OF NORTH BORDER, INCLUDING THAT PART OF THE LINE IN BOYNTON QUADRANGLE

T. 64 N., R. 21 W., approximate quarter cor between secs. 10 and 11 , 36 ft . S. and 20 ft . E. from crossroads, in concrete post; standard tablet stamped "T T Sta No 1564 E F A $1935^{\prime \prime}$

1,021.582
Reference mark, 50 ft . N. and 110 ft . W. from tablet, in root on N . side of $16-1 n$. elm tree; copper nall and washer

1,017.47
T. 64 N., R. 21 W., N. cor. secs. 2 and $3,80 \mathrm{ft}$. S. and 35 ft . E. from croseroads, in root on SE. side of large elm tree; copper nail and washer
$1,027.32$
T. $65 \mathrm{~N}, \mathrm{~F} .21 \mathrm{~W} .$, cor. secs. $26,27,34$, and $35,10 \mathrm{ft}$. S. and 35 ft . W. from crossroads, in concrete post; standard tablet stamped " 7 S 1936"
T. 65 N., R. 21 W., cor. secs. $22,23,26$, and $27,150 \mathrm{ft}$. N. and 65 ft. W. from T-rd. E., in front of farmhouse, on SE. corner of concrete sidewalk; chiseled square

Feet
1,050.39
T. 65 N., R. 21 W., cor. secs. $14,15,22$, and $23,10 \mathrm{ft}$. S. and 120 ft . E. from crossroads, on $S W$. wing wall of concrete culvert; chiseled square
Fry triangulation sta., 4 mi . SE. of Lucerne, in abandoned village of Terre Haute, in NE $1 / 4 \mathrm{NE} 1 / 4$ sec. 15 , T. 65 N. , R. 21 W. , on property of Mrs. Fry, 82 ft . N. of rd., 26 ft . E. of E. fence, 62 ft . SE. of pine tree, in concrete post; U.S.C. \& G.S. standard disk stamped "Fry $1928^{\circ}$
Reference mark, 55 ft . S. and 25 ft . W. from sta., in concrete post; U.S.C. \& G.S. standard disk stamped "Fry No 2 1928"

T -rd. E., 125 ft . N. and 85 ft . W. from, at well, on SE. corner of concrete platform; chiseled square
T. 65 N., R. $21 \mathrm{~W} .$, cor. secs. $\mathrm{A} .3,10$, and $11,85 \mathrm{ft} . \mathrm{S}$. and $65 \mathrm{ft} . \mathrm{E}$. from crossroads, in root on NW. side of 20-in. elm tree; copper nail and washer
T. 66 N., R. 21 W., in SE $1 / 4$ SE $1 / 4 \mathrm{sec} .35,80 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from State Highway 4 at rd. N., in concrete post; standard tablet stamped "8 S 1936"
$1,006.94$
$1,061.524$
1,060.936
1,056.17

1,026.57
931.104
T. $66 \mathrm{~N} ., \mathrm{R}$. 21 W. , quarter cor. between secs. 26 and $35,40 \mathrm{ft}$. S. and 30 ft . E. from crossroads, In root on SE. side of $24-i n$. black-oak tree; copper nall and washer
T. 66 N., R. 21 W., cor. secs. 25, 26,35 , and $36,20 \mathrm{ft}$. N. and 75 ft . E. from T-rd. N., in root on SW. side of 8-in. wild-cherry tree; copper nail and washer
,022.20
$1,023.56$ W. from crossroads, in concrete post; standard tablet stamped " $\mathrm{T} T$ 60 J J 1936"
Reference mark, 200 ft . N. and 100 ft . W. from tablet, at cellar, on top of concrete doorway; chiseled square
T. 66 N. , R. 21 W., quarter cor. between secs. 23 and $26,10 \mathrm{ft}$. N. and 200 ft . E. from crossroads, on S. (? N.) side of rd., in root on N. side of 16-in. elm tree; copper nail and washer
T. 66.N., R. 21 W., in $\mathrm{NE} 1 / 4 \mathrm{NE} 1 / 4$ sec. 27 , at small bridge, on SE. wing wall; chiseled square
T. $66 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} .$, near cor secs. $21,22,27$, and $28,350 \mathrm{ft}$. S. and 40 ft . E. from Oounty Route A at E.-W. cross rd., in root on W. side of large elm tree; iron nail and washer
T. 66 N., R. 21 W., cor. secs. $27,28,33$, and $34,18 \mathrm{ft} . \mathrm{S}$. and 33 ft . W. from County Route $A$ at E.-W. cross rd., in concrete post; standard tablet stamped "9 S 1936"
T. $66 \mathrm{~N} ., \mathrm{R}$. 21 W ., in $\operatorname{SE} 1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .29,80 \mathrm{ft} . \mathrm{N}$. and 35 ft . W. from crossing of Chicago, M1lwaukee, St. Paul and Pacific R.R., on N. end of W. concrete head wall of culvert; chiseled square

1,059.158
1,067.53
986.98
965.92
$1,048.16$

1,040.636
908.69
T. 66 N., R. 21 W., quarter cor. between secs. 30 and $31,45 \mathrm{ft} . \mathrm{N}$. and 45 ft . E. from crossroads, at SW . corner of schoolhouse, in concrete post; standard tablet stamped "10 S 1936"

1,015,367
T. $66 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$. , near quarter cor between secs. 25 and $36,30 \mathrm{ft}$. N. of rd. at hedge fence $N$., in root on W. side of $24-1 n$. hedge tree; copper nail and washer
T-rd. E., 34 ft . N. and 20 ft . E. from, in telephone pole; spike
T. $66 \mathrm{~N}_{*}, \mathrm{R} .22 \mathrm{~W} ., \mathrm{S}$. sixteenth cor. between secs. 25 and $26,25 \mathrm{ft}$. S. and 25 ft . W. from T-rd. W., in telephone pole; spike
$1,054.67$
$1,046.42$ and $25^{\prime \prime} \mathrm{ft}$. W. from crossroads, in concrete post; standard tablet stamped "11 S $1937^{\prime \prime}$

1,052.79

1,019.661
66 N., R. 22 W., S. sixteenth cor. between secs. 27 and 28.-30 ft. S and 75 ft . E. from T-rd. E., In root on $S$. side of smail willow tree; copper nail and washer
$1,000.39$
(Continued in Allerton quadrangle; see line 2.)

## 3 WEST THROUGH MIDDLE OF QUADRANGLE (by D. R. Stewart and J. J. Crane in 19.36-37)

T. 64 N., R. 21 W., E. sixteenth cor. sec. 9, $102 \mathrm{ft}$. . N. and 30 ft . E. from crossroads, in root on S. side of $24-1 n$. pin-oak tree; copper nail and washer
T. 64 N., R. 21 W., near E. sixteenth cor. sec. $8,75 \mathrm{ft}$. N. and 35 ft . W. from W. end of bridge, in top of stump; crossed nails
969.72
911.33
T. 64 N., R. 21 W., N. sixteenth cor. between secs. 7 and 8,30 ft. N. and 80 ft . E. from junction of rds. N., W., and SE., on SE, corner of front walk to farmhouse; chiseled square
T. $64 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W}$. , quarter cor, between secs. 5 and $6,25 \mathrm{ft}$. E. of T-rd. W., in concrete post; standard tablet stamped ${ }^{\text {nt }} \mathrm{T} 51 \mathrm{~J} \mathrm{~J} 1936^{\mathrm{n}}$
T. $64 \mathrm{~N} ., \mathrm{R}$. 22 W ., center sec. $1,40 \mathrm{ft}$. S. and 320 ft . E. from T-rd. S., in root on N. side of 22-in. white-oak tree; copper nail and washer

Bridge over Medicine Creek, at E. end of, in upstream sides painted bolt head
Newtown, $20 \mathrm{ft} . \mathrm{S}$. and 20 ft . W. from crossroads, at Farmers Bank, cn concrete step; chiseled square

1,029.03
989.424
872.07
868.88

Newtown, about 1 mi . W. of, cor. secs. 2, 3, 10 , and 11, T. 64 N., R. $22 \mathrm{~W} ., 50 \mathrm{ft} . \mathrm{N}$. and 40 ft . W. from T-rd. W., in yard of W. D. Miller, in root on W. side of $30-1 n$. hedge tree; copper naiz and washer
993.94

Newtown, 1.5 ml . W. of, quarter cor. between secs. 3 and 10, T. 64 N., R. $22 \mathrm{~W} ., 20 \mathrm{ft}$. N. and 33 ft . E. from T-rd. S, and private entrance N., in concrete post; standard tablet stamped "T T $44 \mathrm{~J} \mathrm{~J} 1936^{\prime \prime}$

Rd. at curve, in front of dwelling of C. A. Scott, in root on E. side of 24-in. white-oak tree; crossed nails
T. 64 N., R. 22 W., in $N W 1 / 4$ sec. $9,15 \mathrm{ft} . \mathrm{N}$. and 200 ft . W. from T-rd.
S., in root on N. side of $24-1 \mathrm{n}$. white-oak tree; copper nail and washer
T. $64 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$, cor. sec|s. $5,6,7$, and $8,30 \mathrm{ft}$. N. and $60 \mathrm{ft} . \mathrm{W}$. from T-rd. S., in root on S. side of 14-in. hickory tree; copper nail and washer
T-rd. N., 25 ft . N. and 150 ft . E. from, in root on S. side of 35-in. elm tree; crossed nails
T. $64 \mathrm{~N} .$, Rs. 22 and 23 W ., cor. secs. $1,6,7$, and $12,10 \mathrm{ml}$. S. and E . of Princeton, $19 \mathrm{ft} . \mathrm{S}$. and 82 ft . E. from T-rd. S., in concrete post; standard tablet stamped "T T $43 \mathrm{~J} \mathrm{~J} 1936^{\circ}$
T-rd. N., 20 ft . N. and 100 ft . W. from, in root on S. side of $14-\mathrm{in}$. elm tree; crolsised nails
T. 64 N., R. 23 W. , quarter cor: between secs. 2 and $11,15 \mathrm{ft}$. N. and 180 ft . E. from County Route E at rd. E., in root on S. side of $20-1 \mathrm{n}$. maple tree; copper nail and washer
County Route E at rd. S., 75 ft : S. and 15 ft . E. from, in root on N . side of $8-1 n$. wild-cherry trees crossed nails

## 4. WEST ALONG SOUTH BORDER OF QUADRANGLE (by J. J. Crane in 1937)

T. 63 N., R. 21 W., near cor. secs. 17, 18, 19, and $20,20 \mathrm{ft}$. . and 350 ft. E. from crossroads, in root on W. side of $30-1 n$. cottonwood tree; copper nall and washer
T. $63 \mathrm{~N}, \mathrm{R}$. 21 W., cor. secs. $7,8,17$, and $18,115 \mathrm{ft} . \mathrm{N}$, and 50 ft . W. from T-rd. S., 30 ft . from dweiling of Wesley Baugher, in root on $W$. side of 17-in. locust tree; copper nail and washer
T. 63 N., R. 21 W., W. sixteenth cor. between secs. 7 and $18,20 \mathrm{ft} . \mathrm{S}$. and 50 ft . W. from crossroads, in root on $N$. side of $10-1 \mathrm{n}$. hickory tree; copper nail and washer
Crossroads, 15 ft . N. and 20 ft . W. from, in root on w. side of $30-\mathrm{in}$. elm tree; crossed nails
Wintersville Church, 50 ft . N. and 140 ft . W. from T-rd. W., on concrete step; chiseled square
949.93
975.09
922.99
938.39
940.12
T. $63 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} ., \mathrm{S}$. sixteenth cor . between secig. 10 and $11,40 \mathrm{ft} . \mathrm{S}$. and 150 ft . E. from County Route $B$ at E.-W. cross rd., in root on $E$. side of $16-1$ in. apple tree; copper nail and washer
T-rd. N., 30 ft . N. and 550 ft . W. from, in root on S. side of $30-\mathrm{in}$. cottonwood tree; crossed nails
T. $63 \mathrm{~N} . \mathrm{R}^{2} 22 \mathrm{~W}$., in $\mathrm{SW} 1 / 4 \mathrm{sec} .10,15 \mathrm{ft}$. W. of T-rd. E., iron post stamped "Prim Trav Sta No 151913 Mo"
T-rd. W., 100 ft . Ș. and 35 ft . E. from, in root on E . side of $12-1 \mathrm{n}$. elm tree; copper nail and washer
T. 63 N., R. 22 W., near quarter cor between secs, 16 and $17,30 \mathrm{ft}$. NW. of rd. corner, in front yard of H. C . Etherton, in root on E. side of 14-in. cedar tree; copper nail and washer
T. 63 N., R. 22 W., quarter cor. between secs. 17 and 18.50 ft . S , and 30 ft . E. from crossroads, in NW. corner of yard of Carl Wilford, in root on N. side of $24-1 n$. maple tree; copper nail and washer
T. 63 N. Rs. 22 and 23 W ., quarter cor. between secs. 13 and $18,20 \mathrm{ft}$. N. and 30 ft . F . from County Route J at rd. E., 3 ft . W. of fence corner, in concrete post; standard tablet stamped "2 C C 1937"
Highway at E.-W. cross rd., 75 ft . N. and 40 ft . W. from, in root on S . side of 20-in. maple tree; copper nail and washer
T. 63 N. , R. $23 \mathrm{~W} .$, cor. secs. $13,14,23$, and $24,10 \mathrm{ft}$. S. of dwelling of Walter Berrý, 100 ft . N. of rd., in root on E. side of $14-i n$. maple tree; copper nail and washer
883.78
949.90
946.669
966.58
936.13
990.08
981.563
972.81
945.20

## 5. NORTH ALONG WEST BORDER OF QUADRANGLE (by Cornish Beck in 1936) (Contínued from Galt quadrangle; soe line l.)

T. 63 N., R. 23 W., cor. secs. $14,15,22$, and $23,114 \mathrm{ft}$. N. and 24 ft . E. from County Route $C$ at rd. E., in root on $W$. side of $22-1 n$. cherry tree; copper nail and washer
969.16
T. 63 N., R. $23 \mathrm{~W} .$, cor secs. $10,11,14$, and 15 , on Grundy-Mercer county line, 51 ft , S : and 24 ft . E. from T-rd. S., in root on NW. side of twin box-elder tree; copper nall and washer
Crossroads, 23 ft . S. and 21 ft . W. from, in corner post; spike
957.34
T. 63 N. . R. 23 W. , near center sec. $10,21 \mathrm{ft}$. N. and 246 ft . W. from T-rd. N., in front of dwelling on N. side of rd., in concrete post; standard tablet stamped "1406 E R A 1935"
970.70
T. 63 N., R. 23 W., about 0.1 ml . N. of center sec. 9, 165 ft. N. and 25 ft . W. from T-rd. E., in root on NE. side of $20-1 \mathrm{n}$. maple tree; copper nail and washer
928.276
T. $63 \mathrm{~N} . \mathrm{R}$. 23 W , center sec. $4,4 \mathrm{ft}$. S . and 20 ft . N. from T-rd. E.
T. 63 N., R. 23 W., N. quarter cor. sec. $4,28 \mathrm{ft}$. S. and 20 ft . E. from rd. function, in W. side of telephene pole; nail
T-rd. S., $7 \mathrm{ft} . \mathrm{N}$. and 22 ft . E. from, on N. side of iron pipe culvert; chiseled cross
T. $64 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, cor. secs. $27,28,33$, and $34,0.2 \mathrm{mi}$. W. of crossroads, 31 ft . N. of rd., 1 n barnyard, in root on SW. side of $26-\mathrm{in}$. mulberry tree; copper naip and washer
T. 64 N., R. 23 W., cor secs. $21,22,27$, and $28,33 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from crossroads, 2 ft. E. of hedge fence, in concrete post; standard tablet stamped "1407 C W A 1934".
1017.73

T-rd. W., 6 ft . S. and 30 ft . E. from, in W. side of $16-1 \mathrm{n}$. walnut tree; nail
T. 64 N., R. 23 w., cor. secs. $15,16,21$, and 22,70 ft. N. and 39 ft . E. from TFrd. E., in root on SW. side of $32-1 n$. maple tree; copper nail and washer
T. 64 N., R. $23 \mathrm{~W} .$, cor secs. 9, 10,15 , and $16,25 \mathrm{ft}$. W. of rd. at

Feet E.-W. fences, in corner fence post; spike

1,054.29
Princeton, 5 mi . E. and 2 mi . S. from, approximate cor. secs. 3, 4, 9 , and $10, \mathrm{~T} .64 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}$. 32 ft . N. and 20 ft . W. from County Route E at rd. N., 32 ft . N. and il ft. W. from junction of rd. S., in concrete post; standard tablet stamped " $14081934^{\text {月 }}$

1,032.467
T-rd. W., $60 \mathrm{ft} . \mathrm{N}$. and 30 ft . E. from, in SW. side of $20-\mathrm{in}$. elm tree; crossed nails
Tps. 64 and 65 N., R. $23 \mathrm{~W} .$, cor: secs. $3,4,33$, and $34,270 \mathrm{ft} . \mathrm{N}$. and 30 ft . E. from rd. at fence W., 30 ft . W. of barn, in root on 8 . side of 20-1n. locust tree; copper nail and washer
T. 65 N., R. 23 W., E. sixteenth cor. between secs. 28 and $33,21 \mathrm{ft} . \mathrm{S}$. and 87 ft . E. from T-rd. N., in root on N . side of $10-1 \mathrm{n}$. elm tree; copper nall and washer
$1,048.67$
$1,013.82$

T-rd. E., 90 ft . N. and 25 ft . E. from, in W. side of $5-\mathrm{in}$, elm tree; crossed nails
$1,051.20$

Easter triangulation sta., 5 mi . E. and 1 mi . N. from Princeton, near S . sixteenth cor, between secs. 21 and $22, T .65 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} ., 21 \mathrm{ft} . \mathrm{E}$. of sec. line, $2 \mathrm{ft} . \mathrm{N}$. and 77 ft . W. from dwelling on property of J. H. Easter, in concrete post; U.S.C. \&'G.S. standard disk stamped "Easter 1928"

1,057.05
$1,076.335$
Reference mark l, 465 meters ( $1,526 \mathrm{ft}$. paced distance) from sta. in azimuth $65^{\circ} 14^{\prime} 01^{\prime \prime}$, in concrete posts U.S.C. \& G.S. standard disk stamped "R M No 1 Easter 1928"
$1,071 \cdot 667$
T. 65 N., R. 23 W., on line between secs. 16 and 21 , $111 \mathrm{ft} . \mathrm{S}$. and 21 ft. W. from State Highway 4 at rd. S., in E. side of concrete corner post; bolt

1,080.05
. 65 N., R. 23 W., on line between secs. 10 and $15,18 \mathrm{ft} . \mathrm{S}$. and 33 ft . W. from State Highway 4 at E.-W. cross rd., on head wall of culvert; chiseled square
Ravanna, at S. 11 mits of, In NE $1 / 4 \mathrm{sec} .10, \mathrm{~T} .65 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}, 150 \mathrm{ft}$. S. and 40 ft . W. from State Highway 4 at N.-S. cross rd., 52 ft . E. of highway at fence E., in concrete post; standard tablet stamped "1409 C W A $1934^{\prime \prime}$
Ravanna, at NE. edge of, 27 ft . N. and 18 ft . E. from rd. corner W.-N., in W. side of power-line poles spike

1,081.731
T. $65 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}$, , N. cor. secs. 2 and $3,17 \mathrm{ft}$. S. and 40 ft . W. from crossroads, in root on $5 W$. side of $12-1 n$. walnut tree; crossed nails
T-rd. W., $15 \mathrm{ft} . \mathrm{N}$. and 25 ft . E. from, in W. side of telephone pole; crossed nails
T. 66 N., R. 23 W., quarter cor. between secs. 26 and $35 ; 70$ ft. N. and 35 ft . E. from crossroads, in root on W. side of l4-in. walnut tree; copper nail and washer

1,056.22

1,079.32
1,085.48
$1,077.48$
$1,076.07$
. N., R. 23 W., center sec. $26,2.8 \mathrm{mi}$. N. of Ravanna, 36 ft . N. and 30 ft . E. from rd. corner S.-E.r 48 ft . S. and 57 ft . E. from dwelling of Charles Little, in concrete post; standard tablet stamped "1410 C W A $1934^{\prime \prime}$
$1,091.547$
(Continued in Allerton quadrangle; see line l.)
6. NEAR MIDDLE OF WEST BORDER OF QDADRANGLE (by Cornish Beck in 1937)

Princeton, about $2 \mathrm{mi} . \mathrm{S}$. and 3.8 mi . E. from, near E. sixteenth cor.
between secs. 5 and $8, \mathrm{~T} .64 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} ., 30 \mathrm{ft}$. S. and 16 ft . E.
from County Route E at rd. SW. , on top of right-of-way post; chiseled cross


1. IN NORTHWEST CORNER OF QUADRANGLE (by Cornish Beck in 1936)
(Continued from Trenton quadrangle; see line 4.)
T. 63 N., R. 23 W., near quarter cor. between secs. 20 and $21,10 \mathrm{ft}$. N. and 40 ft . E. from NE. corner of bridge, in root on S. side of $14-1 n$. oak tree; copper nail and washer
T. 63 N., R. 23 W., quarter cor. between secs; 21 and $22,300 \mathrm{ft} . \mathrm{N}$. and 7 ft'. W. from crossroads; on SW. corner of $S$. sill of bridge; painted square
T. 63 N., R. 23 W., near center sec. $22,900 \mathrm{ft}$. S. of crossroads, on E. side of $\dot{r} d$. In front of dwelling of James Batsońf iron post stamped "Prim Trav Sta No 141913 Mo"
T-rd. W.; 62 ft . N. and 25 ft . E. from, in SE. side of $14-\mathrm{in}$. elm tree; bent nall

## (Continued in Lucerne quadrangle; see line 5.)

2. SOUTH ALONG NORTH HALF OF EAST BORDER OF QUADRANGLE (by H. B. Pyle in 1936-37)
T. $63 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} .$, cor secs. $20,21,28$, and $29,210 \mathrm{ft}$. S. and 300 ft . E. from crossroads, in Yard of Prairie Dale School, in concrete post; standard tablet stamped "769, C W A 1934"
T. $63 \mathrm{~N} ., \mathrm{R}$. $21 \mathrm{~W} ., \mathrm{N} . \operatorname{sixteenth}$ cor. sec. $28,28 \mathrm{ft}$. W. of NW. corner of farmhouse of R. F. Scott, 30 ft . E. of ra., in root on SW. side of 20-in. pine tree; copper nall and washer
T-rd. E., 25 ft . N . and 15 ft . W. from, on top of concrete fence postg chiseled square
T. $63 \mathrm{~N} ., \mathrm{R}$. 21 W ., quarter cor . between secs. 28 and $33,10 \mathrm{ft}$. W. of N.-S. rd., 36 ft', E. of NE. corner of Caldwell farmhouse, in root on SE: side of $20-1 n$. elm tree; copper nail and washer
Steel bridge over drain, on NE. abutment; chiseled square
Tps, 62 and 63 N., R. 21 W., approximate quarter cor. between secs. 4 and 33 , 110 ft . N. and 15 ft . E . from T-rd. E., in root on W. side of $34-\mathrm{in}$. cottonwood tree; copper nail and washer
T. 62 N., R. 21 W., about 0.1 mi . E. of N. sixteenth cor. sec. $4,400 \mathrm{ft}$. NW. of dwelling of R. S. Bartimus, 5 ft . N. and 25 ft . W. from rd, at fences E. and W., in concrete post; standard tablet stamped "770 C W A 1934!"
T-rd. S., 225 ft . S. of, on NE. abutment of wooden bridge; chiseled square
T. 62 N., R. 21 W., quarter cor. between secs. 4 and $9,40 \mathrm{ft}$. N. and 30 ft. E. from rd: corner S.-E., in SW. corner of farmyard of H. Hatcher, in root on E. side of $30-1$ in. box-elder tree; copper nail and washer
Steel bridge over drain, on NW. abutment; chiseled square
$T-r d$. W., on SE. corner of concrete culvert; chiseled square
T. 62 N., R. 21 W., near E. sixteenth cor. between secs. 9 and $16,45 \mathrm{ft}$. E. of rd., 10 ft . E. of N.-S. fence, in root on S. side of $20-1 \mathrm{n}$. elm treet copper nail and washer
Çossroads, 10 ft . E. of, on NE. abutment of bridge over drain; chiseled square
T. 62 N., R. 21 W., quarter cor. between secs. 16 and $21,445 \mathrm{ft}$. S. and 23 ft . E. from' rd. at fences E. and W., 35 ft . E. of rd., in concrete post; standard tablet stamped "771 G'W A 1934"
. 62 N., R. 21 W., center seci $21,65 \mathrm{ft}$. S. and 25 ft . W. from T-rd.
N. in root on W. side of 24 -in. wainut tree; copper naij and washer
T. $62 \mathrm{~N} . \mathrm{R} .21 \mathrm{~W}$., center sec. $28,10 \mathrm{ft}$. N. and 125 ft . E. from T-rd. S., in middle pier ofic $N$. side of wooden bridge; copper náil and washer
951.446
873.43

## Feot

 854.01863.24
972.278
935.59


Abandoned T-rd. E., 180 ft . S. and 10 ft . E. from, in NE. corner of wooden
bridge over drain; copper nail
State Highway 6 at cross rd., 30 ft . S. and 10 ft . E. from, on E. head wall of concrete culvert; chiseled square
T. $62 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} ., 8 \mathrm{ft} . \mathrm{N}$. and 23 ft . E. from center sec. $33,250 \mathrm{ft}$. S. of State Highway 6 at cross rd., on'E. side of rd., in concrete
post; standard tabiet stamped " $772^{\text {C }}$ W A $1934^{"}$
Feot
833.72
904.86
918.171
903.63

Concrete culvert, on N. head wall; chiseled square
T. $62 \mathrm{~N} ., \mathrm{R}$. $21 \mathrm{~W} .$, center sec. $32,25 \mathrm{ft}$. S. of State Highway 6, on S . head wall of concrete culvert; chiseled square
State Highway 6 at cross rd., 35 ft . S. and 25 ft . E. from, on E. head wall of concrete culvert; chiseled square
894.11
945.48
T. 62 N., R. 21 W., in $S l / 2 \mathrm{sec}$. $31,35 \mathrm{ft}$. S. and 60 ft . E. from State Highway 6 at rd. S., on S. head wail of concrete culvert; chiseled square
878.92

State Highway 6 at cross rd. in Humphreys, 20 ft . S. and 15 ft . E. from, on E. head wall of concrete culvert; chiseled square
935.65

Humphreys, in SE $1 / 4 \mathrm{SW} 1 / 4$ sec. $36, \mathrm{~T} .62 \mathrm{~N} . \mathrm{R}$. $22 \mathrm{~W} ., 50$ ft. S. and 140 ft. W. from State Highway 6 at cross rd., in concrete post; standard tablét stamped "782 C W A 1934"
State Highway 6 at cross rd., 25 ft . N. and 20 ft . E. from, on E. head wall of concrete culvert; chiseled square
Junction of rd. N., 60 ft . N. and 15 ft . W. from, on W. head wall of concrete culvert; chiseled square
T. $62 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} ., 600 \mathrm{ft}$. E. of N . sixteenth cor. sec. $35,25 \mathrm{ft}$. S . of State Highway 6 , on S. head wall of concrete culvert; chiseledi square
U.S.C. \& G.S. standard disk stamped "N 17 1933"

Concrete culvert, on $S$. head wall; chiseled square
U.S.C. \& G.S. standard disk stamped "P 17 1933"

Concrete bridge over Chicago, Milwaukee, St. Paul and Pacific R.R., on NW. abutment; chiseled square
Galt, 0.8 mi . E. of, E. sixteenth cor. sec. 33, T. $62 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} .$, 1 ,igo ft. W. of state Highway 6 at cross rd., in concrete post; standard tablet stampea "783 C W A 1934"
Concrete bridge, on NE, wing wall; chiseled square
Galt, at N. edge of, 660 ft . E. of N. sixteenth cor. sec. 32, T. 62 N. , R. 22 W., 21 ft . S. and 25 ft . E. from State Highway 6 at rd. S., on S. head wall of concrete culvert; chiseled square

Concrete culvert, on N. head wall; chiseled square
T. 62 N. R. 22 W., 528 ft . W. of'S. sixteenth cor. between secs. 31 and $32,30 \mathrm{ft}$. N. of state Highway 6 , on N . head wall of concrete cuivert; chiseled square
Junction of rd. S., 20 ft . S. and 60 ft . E. from, on S. head wall of concrete culvert; chiseled square
Tps. 61 and $62 \mathrm{~N} ., \mathrm{Rs} .22$ and $23 \mathrm{~W} ., 740 \mathrm{ft}$. N . and 610 ft . E. from cor: , on State $\mathrm{Highway} 6,510 \mathrm{ft}$. W. of junction of rd. S., 38 ft . N. of
highway, in concrete post; standard tablet stamped "784 C W A 1934"
Junction of rd. E., 15 ft . N. and 65 ft . E. from, on front istep of concrete walk to farmhouse; chiseled square
T. 61 N. Rs. 22 and $23 \mathrm{~W} ., 220 \mathrm{ft}$. W. of N . sixteenth cor between secs. 1 and $6,25 \mathrm{ft}$. W. of id., in fence line, in root on N . side of $30-1 \mathrm{n}$. locust tree; copper nail and washer
T-rd. W., 70 ft . S. and 20 ft . W. from, in root on NE. side of $36-1 \mathrm{n}$. cottonwood trees crossed nalls
T. 61 N., R. 23 W., E. quarter cor. sec. $12,225 \mathrm{ft}$. W. of T-rd. W., 12 ft. S. of rd., on SE. abutment of bridge over drain; chiseled square
Iron pipe culvert, on $N$. end of: chiseled square
T. 61 N., R. 23 W., 2 ft. S. and 33 ft. W. from N. sixteenth cor. sec. 12 , 21 ft . S : of rd., in root on SW. side of $14-1 n$. hedge tree; copper nail and washer
Crossroads, 25 ft . N, and 30 ft . E. from, in root on N . side of $14-1 \mathrm{n}$. locust tree; crossed nails.
Dunlap triangulation sta., 0.5 mi . S. and 2 mi . E. from Dunlap, 40 ft . E. of N . sixteenth cor. between secs. 11 and 12. T. 61 N., R. 23 W., on land owned by Fisher and Callahan, 50 ft . E. of rdi, 143 ft . NW. of NW. corner of dwelling, $18 \mathrm{ft} . \mathrm{E}$. of fence, in concrete post; U.S.C. \& G.S. standard disk stamped "Dunlap 1928"
Reference mark 2, 20 meters ( $66 \mathrm{ft}$. ) from sta. in azimuth $113^{\circ} \mathrm{L}^{161}$, 18 ft . W. of rd., 3 ft . E. of fence, in concrete post; U.S.C. \& G.S. standard disk stamped "Dunlap R N No 2 1928"
State Highway 6 at cross rd. and rd. W., 30 ft . S. and 30 ft . W. from, on W. head wall of concrete culvert; chiseled square
T. 61 N., R. 23 W., W. sixteenth cor. betreen secs. 2 and $11,21 \mathrm{ft} . \mathrm{S}$. and 50 ft . E. from T-rd. N., in root on NW. side of $14-1 \mathrm{n}$. elm tree; copper nail and washer
T. 61 N., R. $23 \mathrm{~W} .$, near cor. secs. $3,4,9$, and $10,165 \mathrm{ft} . \mathrm{E}$. of T-rd. N., 75 ft . W. of Trad. S., 10 ft . N. of rd., on NW. corner of steel
bridge over drain; chiseled square
Dunlap, 475 ft . E. of Quincy, Omaha \& Kansas oity R.R. sta., $22 \mathrm{ft} . \mathrm{N}$. of track, 15 ft . E. of rd. 5 ft. from crossing signpost; iron posit stamped "Prim Trav Sta No $131913 \mathrm{Mo}^{\prime \prime}$
U.S.C. \& G.S. standard disk stamped "T 17 1933"
4. SOUTH ALONG SOUTH HALF OF EAST BORDER OF QUADRANGLE (by H. B. Pyle and F. Y. Brown in 1937)

T-rd. E., $15 \mathrm{ft} . \mathrm{S}$. and 18 ft . E. from, on S . head wall of concrete
Feet
861.76

61 N., R. 21 W., N. sixteenth cor. between secs. 3 and 4, 12 ft . S. and 85 ft. W. from T-rd. W., in root on $N$. side of 12-1n. wild-cherry tree; copper nall and washer
856.55
U.S.C. \& G.S. standard disk stamped "L 17 1933"
T. 61 N., R. 21 W., on line between secs. 3 and 4, 60 ft . S. and 570 ft . W. from T-rd. W., 35 ft . S. of fence, in root on N . side of 48-in. elm tree; copper nail and washer
851.93
T. $61 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} .$, near quarter cor between secs. 4 and $9,15 \mathrm{ft} . \mathrm{N}$. of rd., in root on SW. side of 40-in. elm tree; copper nail and washer
T. 61 N., R. 21 W., W. sixteenth cor. between secs. 5 and $8,30 \mathrm{ft}$. N. and 25 ft . W. from T-rd. N., in top of hedge stump; copper nail and washer
T-rd. E., $95 \mathrm{ft} . \mathrm{S}$. and 15 ft . E. from, on E . end of iron pipe culvert; chiseled square
Whaley triangulation sta., 2 mi . S. and 1.5 mi . E. from Humphreys, near quarter cor, between secs. 7 and 8, T. $61 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W}$. , on land belonging to Higgins-McDuff Land Company, 164 ft . NE. of NE. corner of Whaley School, 98 ft . E. of $\mathrm{N} .-\mathrm{S} . \mathrm{rd.} 14 \mathrm{ft} .$,S . of old rd., in concrete post: U.S.C. \& G.S. standard disk stamped "Whaley 1928"

Reference mark 3, $120 \mathrm{ft} . \mathrm{N}$. and 18 ft . E. from T-rd. W., in concrete post; U.S.C. \& G.S. standard disk stamped "Whaley Reference Mark No $3^{\prime \prime}$
T. 61 N., R. 21 W., N. sixteenth cor. between secs. 17 and $18,300 \mathrm{ft} . \mathrm{N}$. and 70 ft . W. from crossroads, 25 ft . S. of SE . corner of farmhouse, in root on $S$. side of 16 -in. maple tree; copper nail and washer
T. 61 N., R. 21 W., N. sixteenth cor. between secs. 16 and $17,60 \mathrm{ft}$. S. and 40 ft. W. from T-rd. W., in root on W. side of $30-1 n$. elm tree; copper nail and washer
T. 61 N., R. 21 W., cor. secs. $16,17,20$, and $21,130 \mathrm{ft}$. W. of crossroads, 40 ft . N. of rd., on SW . corner of concrete step in front of Hamilton Church; chiseled square
T. 61 N., R. 21 W., quarter cor. between secs. 20 and $21,290 \mathrm{ft}$. S . and 23 ft . E. from, 0.5 mi . S. of crossroads at Hamilton School, 23 ft . E. of rd., in concrete post; standard tablet stamped "773 C W A 1934"
T. $61 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} .$, cor. secs. $20,21,28$, and $29,15 \mathrm{ft} . \mathrm{N}$, and 15 ft . E. from crossroads, on E. end of iron pipe culvert; painted square
T. 61 N., R. 21 W., cor. secs. $28,29,32$, and $33,15 \mathrm{ft}$. N. and 15 ft . W. from crossroads, on $w$. end of iron pipe culvert; painted square
$\mathrm{T}-\mathrm{rd}$. S., $30 \mathrm{ft} . \mathrm{N}$. and 25 ft . E. from, on top of S . side of concrete well platform; chiseled square
T-rd. N., $25 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from, 1 ft . above ground in knot on E. side of corner fence post; crossed nails
T. 60 N., R. 21 W., N. quarter cor. sec. 9, 29 ft . S. and 18 ft . W. from T-rd. S., in concrete post; standard tablet stamped "774 C W A 1934"
T. 60 N., R. 21 W., near center sec. $16,700 \mathrm{ft}$. N. of T-rd. W., 530 ft . S. of T-rd. E., 20 ft . E. of rd., in root on $W$. side of 32-1n. olm
tree; copper nall and washer
T. 60 N. , R. $21 \mathrm{~W} ., \mathrm{S}$. sixteenth cor. sec. $21,140 \mathrm{ft} . \mathrm{N}$. and 60 ft . E. from T-rd. E., in root on S. side of $8-i n$. black-locust tree; copper nail and washer
$865 \cdot 95$
807.44
(Continued in Chula quadrangle; see line 6.)

## 5. NEAR MIDDLE OF EAST BORDER OF QUADRANGLE (by W. V. Kennedy in 1937)

T. 62 N., R. 21 W., quarter cor. between secs. 27 and $28,30 \mathrm{ft}$. S. and 175 ft . E. from T-rd. N., at farmhouse, on NE. ond of concrete walk; chiseled square
T-rd. N., about 540 ft . SW. of, in pier on NE. side of wooden bridge; crossed nails
T. 62 N., R. 21 W., W. sixteenth cor. sec. $22,12 \mathrm{ft}$. S. and 90 ft . E. from T-rd. S., in root on NW. side of twin black-locust tree; copper nail and washer
T. 62 N., R. 21 W., center sec. $21,65 \mathrm{ft}$. S. and 25 ft . W. from T-rd. N., in root on W. side of 24-in. wainut tree; copper nail and washer

## 6. SOUTH ALONG WEST BORDER OF QUADRANGLE (by Cornish Beck in 1937)

T-rd. E., $15 \mathrm{ft} . \mathrm{N}$. and 18 ft . E. from, in corner post; bent nail
965.38
T. $63 \mathrm{~N} . \mathrm{R} .23 \mathrm{~W} .$, about 0.2 mi . S. of center sec. $27,18 \mathrm{ft}$. S. and 18 ft . W. from T-rd. S., in corner post; spike
972.21

T-rd. E., $21 \mathrm{ft} . \mathrm{N}$. and 17 ft . E. from, in corner post; bent nail
960.04
T. 63 N., R. 23 W., S. quarter cor. sec. $34,100 \mathrm{ft} . \mathrm{N}$. and $16 \mathrm{ft} . \mathrm{W}$. from T-rd. N., in root on N. side of 26-1n. elm tree; copper nail and washer
940.89
T. 62 N., R. 23 W., N. cor. secs. 3 and 4, 22 ft. N. and 265 ft . E. from crossroads, in root on S. side of $30-1 n$. cottonwood tree; copper nail and washer
T. 62 N., R. 23 W., cor. secs. $3,4,9$, and $10,1 \mathrm{ft} . \mathrm{S}$. and $36 \mathrm{ft} . \mathrm{W}$. from rd, at fence W., 350 ft . SW. of farmhouse, in concrete post; standard tablet stamped "1 C B 1937"
T. $62 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}$, cor. secs. $9,10,15$, and $16,100 \mathrm{ft} . \mathrm{N}$. and 6 ft . W. from T-rd. W., on NW. wing wall of bridge; chiseled square
T-rd. E., 250 ft . N. and 8 ft . W. from, on head wall of culvert; chiseled square
T. 62 N., R. 23 W., N. sixteenth cor. between secs. 21 and $22,37 \mathrm{ft} . \mathrm{N}$. and 22 ft . E. from T-rd. N., in telephone pole; spike

Feet
T. 62 N., R. 23 W., center of $S W 1 / 4 \mathrm{sec} .21,3 \mathrm{ft} . \mathrm{S}$. and 13 ft . E. from rd. corner N.-W., in concrete post; standard tablet stamped "2 C B 1937"
T. 62 N., R. 23 W., quarter cor. between secs. 28 and $29,8 \mathrm{ft}$. N. and 25 ft. W. from crossroads, on head wall of culvert; chiseled square
911.923
893.80
T. 62 N., R. 23 W., near S . cor. secs. 32 and 33 , 1 ft . E. of NE. corner of Honey Creek Church, on concrete walk; chiseled square
902.20
T. 61 N., R. 23 W., N. cor. secs. 3 and $4,17 \mathrm{ft} . \mathrm{N}$. and 10 ft . E. from T-rd. S., in telephone pole; spike
886.48
T. 61 N., R. 23 W., about 0.1 ml . N. of cor. secs. $9,10,15$, and 16 , at NE. corner of wooren bridge, in top of piling; copper nail and washer
T-rd. S., 36 ft . S. and 20 ft . E. from, in corner post; crossed nails
T. 61 N., R. $23 \mathrm{~W} .$, center of $\mathrm{SW} 1 / 4 \mathrm{sec} .15,22 \mathrm{ft} . \mathrm{N}$. and 16 ft . W. from State Highway 6 at cross rd., on head wall of culvert; chiseled square
T. $61 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, center of $\mathrm{SW} 1 / 4 \mathrm{sec} .22,48 \mathrm{ft}$. S. and 38 ft . E. from County Route $M$ at rd. W., in concrete post; standard tablet stamped "3 C B 1937"
T. 61 N., R. 23 W., near center sec. $27,84 \mathrm{ft}$. S. and 50 ft . E. from County Route $M$ at cross rd., on top of right-of-way post; chiseled cross
County Route $M$ at cross rd., 25 ft . S. and 30 ft . E. from, on top of right-of-way post; chiseled cross
T. 61 N., R. 23 W., S. quarter cor. sec. $34,18 \mathrm{ft}$. N. and 30 ft . E. from County Routes $E$ and $M$ and rd. E., on top of right-of-way post; chiseled ćross
818.07
897.71
890.08
829.283
882.98
864.18
856.14

Junction of rd. S., 30 ft . S. and 67 ft . E. from, on top of right-of-way post; chiseled cross
822.18
808.493
756.37.
(Continued in Chula quadrangle; see line 1l.)
For an additional level line along Quincy, Omaha \& Kansas city R.R., refer to United States Coast and Geodetic Survey first-order ine, Milan, Mo., to Hamburg, Iowa.

OHULA QUADRANGLE
(Latitude $39^{\circ} 45^{\prime}-40^{\circ} .00^{\prime}$; longitude $93^{\circ} 15^{\prime}-93^{\circ} 30^{\circ}$ )
Grundy, Linn, and Livịngston Counties


1. EAST THROUGH SOBTH HALF OF QJADRANGLE, ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD (by S. R. Archer in 1920)
(contimued from Ohillicothe quadrengle; see line 1.)
T. 57 N., R. $23 \mathrm{~W} .$, in NE $1 / 4$ sec. $4,0.1 \mathrm{ml}$. W. of Chicago, Burlington \& Quincy R.R. at rd. crossing, on top of bottom step of $E$. Wing wall at $S$. end of culvert; chiseled square
738.71
T. 57 N., R. 23 W., near quarter cor. between secs. 2 and 3 , N. of Chicago, Burlington \& Quincy R.R. at rd. crossing W. of Cream Ridge sta., on W. side of rd., at tile drains under rd., on top of W. end of S . tile; chiseled square
Cream Ridge, in front of Chicago, Burlington \& Quincy R.R. sta.; top of N. rail
T. 57 N., R. $23 \mathrm{~W} .$, near quarter cor between secs. 1 and 2 , SE. of Chicago, Burlington \& Quincy R.R. at rd. crossing, in corner of fences; iron post stamped "1920 Mo 696"
T. 57 N., R. 23 W., in NW 1/4 sec. 1, at Chicago, Burlington \& Quincy
R.R. bridge 123.66 over Medicine Creek, on top of S. end of W. concrete pier; chiseled square
T. 57 N., R. 23 W., near E. quarter cor. sec. l, at Chicago, Burlington \& Quincy R.R. bridge 123.01, on top of $S$. end of parapet wall of $E$. abutment; chiseled square
T. 57 N., R. 22 W. , in $\mathrm{W} 1 / 2$ sec. 6, at Chicago, Burlington \& Quincy R.R. bridge 122.73 over Medicine Creek drainage ditch, on top of N . end of parapet wall of $E$. concrete abutment; chiseled square
T. $57 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} .$, near E. sixteenth cor. sec. 6, at Chicago, Burlington \& Quincy R.R. bridge 122.07 over dreinage ditch, on top of $E$. end of $S$. head wail; chiseled square
685.06
T. 57 N., R. 22 W., quarter cor. between secs. 5 and $6,110 \mathrm{ft}$. N. of Chicago, Burlington \& Quincy R.R. at rd. crossing, in fence line, in root on NW. side of twin 1i6-in. cottonwood tree; spike
704.14

Wheeling, at Chicago, Burlington \& Quincy R.R. sta., G. of operator's window, on top of SE. corner of concrete base of semaphore; chiseled square
742.14

Wheeling, N. of Chicago, Burlington \& Quincy R.R. at crossing of Main Street, on W. side of street, on top of $N$. side of concrete base of warning bell; chiseled square
743.09

Wheeling, 60 ft . W. of SE. corner of park, 6 ft . SW. of town pump and f1re-alarm tower; iron post stamped "Prim Trav Sta No 71921 Mo 1920 $750^{\circ \prime}$
T. 57 N., R. 22 W., near E. sixteenth cor. sec. 4, at Ohicago, Buring ton \& Quincy R.R. bridge 119.99 over Little Parson Creek, on top of S. end of parapet wall of E. abutment; chiseled square
Rd. crossing on Livingston-Linn county line; top of N . rail
T. 57 N., R. 22 W., near W. sixteenth cor. sec. 3, on top of E. end of S. head wall of Chiciago, Burlington \& Quincy R.R. bridge 119.49; chiseled square
T. 57 N., R. 22 W., near quarter cor. between secs. 2 and $3,53 \mathrm{ft} . \mathrm{N}$. of Chicago, Buriington \& Quincy R.R. at rd. crossing, 2 ft . N. of corner fence post; iron post stamped "1920 Mo 736"
T. $57 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$., near W. quarter cor. sec. 1, at Chicago, Burlington \& Quincy R.R. bridge 117.63, on top of $N$. end of parapet wall of $E$. concrete abutment; chiseled square
748.718
. 57 N., R. 22 W., near W. sixteenth cor. sec. 1, at Chicago, Burlington \& Quincy R.R. bridge 117.47 over Parson Creek, on top of S . end of W. abutment; chiseled square
698.73
708.6

Meadville, 200 ft . E. of Chicago, Burlington \& Quincy R.R. sta., $8 \mathrm{ft} . \mathrm{N}$. of N. rail of main track, on top of NW. corner of concrete base of electric warning bell; chiseled square
eadville, at NW. corner of Crandall and Macon Streets, in SE. corner of schoolyard; iron post stamped "1920 Mo 757"
T. 57 N., R. $21 \mathrm{~W}, 70 \mathrm{ft}$. E. of line between secs. 5 and 6 , on Chicago, Burlington \& Quincy R.R., at $N$. right-of-way fence line, in root on $E$. side of 24-1n. elm tree; copper nail and washer
T. $57 \mathrm{~N} ., \mathrm{R}$. $21 \mathrm{~W}, \mathrm{C}, 60 \mathrm{ft}$. W. of line between secs. 4 and 5 , on Chicago, Burlington \& Quincy R.R., 200 ft . W. of rd. crossing, on top of E. end of S . head wall of culvert over Hickory Creek; chiseled square
T. 57 N., R. 21 W., near S. sixteenth cor. between secs. 3 and 4, 70 ft . N. of Chicago, Burlington \& Quincy R.R. at rd. crossing, 20 ft . N. of fence corner, on W. side of rd., in root of $30-1 n$. oak tree; spike
T. 57 N., R. 21 W., near center sec. 3, at Chicago, Burlington \& Quincy R.R. bridge 112.99 , on top of $S$. end of parapet wall of E. concrete abutment; chiseled square

## 2. NEAR MIDDLE OF WEST BORDER OF QUADRANGLE

Sturges, 1 mi . E. of, N. cor, secs. 3 and 4, T. $58 \mathrm{~N}, \mathrm{R} .23 \mathrm{~W}, 25 \mathrm{ft}$. S . and 25 ft . E. from $\mathrm{T}-\mathrm{rd}$.S ., 3 ft . E. of fence corner; iron post stamped "Prim Trav Sta No 18 19́l3 Mo $769^{\circ}$
768.405

Reference mark, 48 ft . NE. of SE. corner of T-rd. S., 6 ft . N. of fence, In root on $S$. side of 29-1n. elm tree; copper nail and washer
Maple Grove School, 150 ft . NE. of, in NE. cor. sec. 33, T. 59 N., R. 23 W ., near crossroads, in NE. corner of schoolyard, in root on W. side of 17-in. elm tree; copper nail and washer
738.33

## 3. IN NORTHWEST CORNER OF QUADRANGLE

T. 60 N., R. 23 W., cor. secs. $21,22,27$, and $28,16 \mathrm{ft}$. S. of T-rd. N., 4 ft. from fence N., iron post stamped "Prim Trav Sta No 121913 Mo $785^{\prime \prime}$
T. 60 N., R. $23 \mathrm{~W} ., 510 \mathrm{ft}$. E. of cor. secs. $21,22,27$, and 28 , at
steel bridge over Crooked Creek, on top of $S$. end of E. concrete abutment; chiseled square
784.220
786.24
4. FROM MIDDLE OF WEST BORDER OF QUADRANGLE EAST TO POINT NEAR CENTER, THENOE SOUTH TO SOUTH BORDER (DY F. L. Whaley in 1921)
T. 58 N., R. 23 W. , near N. cor secs. 2 and 3 , about 2 mi . E, of Sturges, at SW. corner of steel bridge over drainage ditch, l ft. below floor; S. end of steel beam
706.02
T. 59 N., R. 23 W., near S. cor. secs. 35 and 36 , at SW . corner of jard of P' M. Sapp, in root of 18-1n. maple tree; copper nail and washar 710.30 Tps. 58 and 59 N, , Rs. 22 and 23 W , cor. of NW, of crossroads, 6 ft . W. of corner fence post; iron post stamped "1921 MO"
Reference mark, 690 ft . E. of post, in root of 18 -in. elm tree; copper nall and washer
T. 59 N., R. 22 W, near s . cor. secs. 31 and $32,50 \mathrm{ft}$. NE. of T-rd. N.,
T. 58 N., R. 22 W., N. cor. secs. 3 and 4, 100 ft . SW. of T-rd. S. on Linn-Livingston county line, in front yard of R. M. Stevenson, in root of 10-1n. elm tree; copper nail and washer
. $58 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} .$, cor. secs. $3,4,9$, and $10,18 \mathrm{ft} . \mathrm{S}$. and $20 \mathrm{ft} . \mathrm{W}$. from crosisroads on Linn-Livingston county line; iron post stamped "Prim Trav Sta No 5 W 1921 Mo
Reference mark, $37 \mathrm{ft} . \mathrm{N} .5^{\circ} \mathrm{W}$. of post, at NW. corner of crossroads, in root of 12-in. oak tree; copper nail and washer on Linn-Livingstion county line, in front of dwelling of F . T. Springer, in root of 14 -in. maple tree; copper nail and washer . 58 N., R. 22 W. , near S . sixteenth cor. between secs. 15 and 16,100 ft. S. of T-rd. E. on Linn-Livingston county line, in field, 4 ft . W.
of fence, in root of $24-1 n$. elm tree; copper nail and washer 4.
T. 58 N ., R. $22 \mathrm{~W} .$, cor secs. $21,22,27$, and $28,90 \mathrm{ft}$. S. and 20 ft . post stamped "Prim Trav Sta No 6 W 1921 Mo"
Reference mark, 321 ft . S. of post, in root of l2-in. elm tree near drain; copper nall and washer
T. $58 \mathrm{~N} ., \mathrm{R}, 22 \mathrm{~W} .$, cor secs. $27,28,33$, and $34,60 \mathrm{ft}$. NE. of T-rd. E. on Linn-Livingston county line, in corner of field, in root of i2-in. locust tree; copper nail and washer
. 58 N., R. $22 \mathrm{~W} .$, S. cor. secs. 33 and 34 , about. 220 ft . W. of r-rd. N. on Linn-Livingston county line, 6 ft . W. of entrance to yard of John Lalkup, in root of $36-4 n$. elm tree; copper nail and washer
740.34
. $57 \mathrm{~N} . \mathrm{R}^{\mathrm{R}}$. $22 \mathrm{~W} .$, near cor. secs. $3,4,9$, and 10 , 210 ft . NE. of T-rd. S. on Linn-Livingston county line, 35 ft . E. of fence, in root of $15-\mathrm{in}$. hickory tree; copper nall and washer
. $57 \mathrm{~N} ., \mathrm{R}$. 22 W, cor. secs. $9,10,15$, and $16,90 \mathrm{ft}$. S. and 15 ft . W. from Trrd. W. on Linn-Livingston county ilne, in front of dweling of W. M. Sutherland, on top of concrete stile block; chiseled square
(Continued in Hale quadrangle; see line 3.)

## 5. FROM CENTER OF QUADRANGLE NORTH TO POINT NEAR NORTH BORDER, THENCE WEST

T. 59 N., R. 22 W., cor. secs. $27,28,33$, and 34 , at NW. corner of T-rd. W. on Linn-Livingston county line, in root of $24-1 n$. elm tree; copper nail and washer
759.98
T. 59 N., R. 22 W., cor. secs. $21,22,27$, and 28 , at Eversonville, 50 ft. S. and 24 ft . E. from crossroads on Linn-Livingston county line; iron post stamped "Prim Trav Sta No 4 W 1921 Mo"
Reference mark, 61 ft . N. of post, on conorete sidewalk; chiseled square
T. 59 N., R. 22 W., 600 ft . S. of cor. secs. $15,16,21$, and 22 on LinnLivingston county line, in front yard of dwelining of Nora Edwin, 20 ft. W. of yard fence, in root of black-locust tree; copper nail and washer
. 59 N., R. 22 W., near cor. secs. 9, 10,15 , and $16,370 \mathrm{ft}$. S. of crossroads on Linn-Livingston county line, in front of dwelling of T. W. Transwe, on wide side of rd., in root of $20-1 n$. bur-oak tree; copper nall and washer
T. 59 N., R. $22 \mathrm{~W} .$, cor. secs. $3,4,9$, and $10,18 \mathrm{ft}$. S. and 15 ft . W. from T-rd. S. on Linn-Livingston county line; fron post stamped "Prim Trav Sta No $3 \mathrm{~W} 1921 \mathrm{MO}^{\circ}$
Reference mark, 371 ft . W. of post, in root of $20-1 \mathrm{n}$. bur-oak tree; copper nall and washer
T. 59 N., R. 22 W., near S. sixteenth cor. sec. 4, about 0.2 mi . N. of T-rd. N., on E. side of rd., in root of large triple 36-in. mapie tree; copper nail and washer
T. 59 N., R. 22 W., N. quarter cor. sec. 4, 100 ft . NE. of T-rd. S. on Grundy-Livingston county line, on N. side of rd., in field, in root of 12-in. bur-oak tree; copper nail and washer
T. 60 N., R. 22 W., near S. cor. secs. 33 and 34 on Grundy-Linn county line, 100 ft . N. and 30 ft . W. from T-rd. N., in yard of 0. O. Bunch, in root of large triple mulberry tree; copper nail and washer "Prim Trav Sta No $2 \mathrm{~W} 1921 \mathrm{Mo}^{\prime \prime}$
Reference mark, 190 ft . N. $70^{\circ} \mathrm{E}$. of post, in root of 24 -in. elm tree; copper nall and washer
T. 60 N., R. 22 W ., near W. sixteenth cor. between secs. 28 and 33,460 ft. E. of T-rd. N., 30 ft. SW. of $W$. end of bridge, on S. side of rd., in root of oak tree; copper nail and washer
811.70
761.334
753.38
803.12
800.83
808.49
834.318
838.28
758.65
T. 60 N .16 . 22 W. , about 720 ft . E. of cor. secs. $20,21,28$, and 29 , about $160 \mathrm{ft} . \mathrm{N}$. and 500 ft . W. from T-rd. S., at SW . corner of barn of J. W. Dudley, on top of doorsill; chiseled square
846.93
T. 60 N., R. 22 W ., cor. secs. $19,20,29$, and $30,30 \mathrm{ft}$. N. of T-rd. S., 15 ft . N. of fence, inside pasture, in root of $12-1 \mathrm{n}$. bur-oak tree; copper nail and washer
$797 \cdot 90$
T. $60 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} ., 0.8 \mathrm{mi}$. W. of cor. secs. $19,20,29$, and $30,400 \mathrm{ft}$. S. and'lo ft. E. from T-rd. E., on E. side of rd., in root of $24-1 n$. elm tree; copper nail and washer
835.54
T. $60 \mathrm{~N} ., \mathrm{R}$. 22 W. , in $\mathrm{SW} 1 / 4$ sec. 30 , at Alpha, about 700 ft . E. of Pearson's store, at T-rd. S., 20 ft . N. of fence, in yard, in root of oak tree; copper nail and washer
T. 60 N., R. 22 W., near S. sixteenth cor. on W. line sec. $30,0.2 \mathrm{mf}$.
W. of Alpha, at E. end of steel bridge over Medicine Creek, on top of seat of $S$. abutment; top of bolt head
T. 60 N., R. 23 W ., on line between secs. 24 and 25 , at rd. corner, near N . end on E. retaining wall; chiseled square
T. 60 N., R. 23 W., cor. secs. $23,24,25$, and 26,15 (? 18) ft. S. and 60 (? 75) ft. W. from T-rd. N.; iron post stamped "Prim Trav Stà No 1 W 1921 Mo"
835.281

Reference mark, 176 ft . N. $45^{\circ} \mathrm{E}$. of post, at T-rd. N., in root of $16-\mathrm{in}$. maplie tree; copper nail and washer
T. 60 N., R. 23 W., in NW $1 / 4$ sec. 26 , on top of guard wall on S. side of concrete bridge over small drain; chiseled square
T. 60 N., R. 23 W., quarter cor. between secs. 22 and $27,50 \mathrm{ft}$. N. and 78 ft . W, from T-rd. S., in front yard of A. M. Warren, in root of 24-in. bur-oak tree; copper nail and washer
860.52

## 6. FROM NORTHEAST CORNER OF QUADRANGLE WEST ALONG NORTH BORDER (by H. B. Pyle and F. Y. Brown in 1937) <br> (Continued from Gait quadrangle; see line 4.)

T-rd. W., 440 ft . S. of, 40 ft . W. of rd., in sW . corner of farmyard of H. L. Benskin, in root on W. side of $26-1$ n. cottonwood tree; crossed nalls
Rd, corner from N.-E., in root on E. side of $16-1 n$. maple tree; copper nail and washer
850.10
T. 60 N., R. 21 W., quarter cor. between secs. 27 and 28,20 ft. E. of T-rd. W., in root on S. side of l6-in. elm tree; copper nail and washer
T. 60 N., R. 21 W., cor. secs, $27,28,33$, and $34,30 \mathrm{ft} . \mathrm{s}$, and 35 ft . E. from crossroads; iron post stamped TPrim Trav Sta No $51 \mathrm{~S} 1921 \mathrm{Mo}{ }^{\prime \prime}$
T. 60 N., R. 21 W., near E. sixteenth cor: between secs. 29 and 32,25 ft. N. and 40 ft . W. from junction of private rd. S., in root on E. side of $12-1 n$. elm tree; copper nail and washer
824.08
T. 60 N., R. 21 W., cor. secs. 29, 30,31 , and $32,75 \mathrm{ft}$. S. and 50 ft . W. from crossroads, 10 ft . SE. of Jackson Center School, on SE. corner of concrete sidewaik; chiseled square
823.20
T. $60 \mathrm{~N} ., \mathrm{Rs} .21$ and $22 \mathrm{~W} .$, cor . secs. $25,30,31$, and $36,20 \mathrm{ft}$. S. and 50 ft . E. from T-rd. S.; iron post stamped "Prim Trav Sta No 50 S 1921 MO"
Reference mark, 50 ft . S. and 15 ft . W. from T-rd. S., in root on N . side of $40-1 n$. oak stump; copper nail and washer
838.015

T-rd. W., 15 ft . N. and 65 ft . W. from, on N . head wall of concrete culvert; chiseled square
835.53
821.33 W. from crossroads, in root on E. side of $20-1 n$. wild-cherry tree; copper nall and washer
860.59
T. 60 N., R. 22 W., cor. secs. $26,27,34$, and $35,21 \mathrm{ft} . \mathrm{S}$. and 25 ft . W. from crossroads, in root on $N$. side of $40-1 n$. locust tree; copper na11 and washer
T. 60 N., R. 22 W., W. sixteenth cor. between secs. 28 and $33,21 \mathrm{ft}$. N. and 15 ft . E. from T-rd. N., on E. end of iron pipe culvert; chiseled squaro
T. 60 N., R. 22 W., W. sixteenth cor between secs. 21 and $28,10 \mathrm{ft}$. N. and 80 ft . W. from T-rd. S., on NW. corner of concrete culvert; chiseled square
T. 60 N., R. 22 W., corv secs, $19,20,29$, and $30,30 \mathrm{ft}$. N. and 150 ft . E. from T-rd. S., in root on S. side of $30-1 n$. elm tree; copper nail and washer
$817 \cdot 75$
T. 60 N., R. 22 W., near quarter cor, between secs. 19 and $30,10 \mathrm{ft}$. N. and 175 ft . E. from T-rd. E., on N. head wall of concrete culvert; chiseled square
802.90
T. 60 N., R. 22 W., near center of $\mathrm{SW} .1 / 4 \mathrm{sec} .30,680 \mathrm{ft}$. E. of T-rd. S., 35 ft . N, and 55 ft . E. from another T-rd. S., in SW. corner of
yard of Charies Wood, in root on S. side of $30-1 \mathrm{n}$. maple tree; copper nail and washer
824.08
T. 60 N., R. 23 W., near, W. sixteenth cor sec. $25,640 \mathrm{ft}$. E. of T-rd. N., 60 ft . N. of rd., 4 ft . E. of E. rail of Chicago, M1lwaukee, St. Paul and Pacific R.R., in SE. end of bridge 1670; copper nail and washer

## 7. FROM MIDDLE OF EAST BORDER OF QUADRANGLE WEST TO POINT NEAR CENTER (by F. Y. Brown in 1937)

Tps. 58 and 59 N., R. 21 W., cor. secs. 4, 5,32 , and 33,100 ft. N. and 35 ft . W. from crossroads, in SE. corner of churchyard, in root on W. side of $22-1 \mathrm{n}$. elm tree; crossed nails
823.72

Tps. 58 and 59 N. R. 21 W., cor. secs. $5,6,31$, and $32,430 \mathrm{ft}$. W. of crossroads, 15 ft . N. of rd., on N . head wall of concrete culvert; chiseled square
Ths. 58 and 59 N., Rs. 21 and 22 W., cor. of, 30 ft . S. and 30 ft . E. from crossroads; iron post stamped "Prim Trav Sta No $48 \mathrm{~S} 1921 \mathrm{Mo"}$
Tps. 58 and 59 N., R. $22 \mathrm{~W} .$, quarter cor. between secs. 1 and $36,15 \mathrm{ft}$. S. and 12 ft . E. from Trd. S., on E. end of iron pipe culvert; painted square
762.105
T. 59 N., R. 22 W., S. cor. secs. 35 and 36,140 ft. E. of T-rd. N., 15 ft. N. of rd., in root on S. side of $14-1 n$. locust tree; copper nail and washer
T. 58 N., R. 22 W., N. quarter cor. sec. 2, 20 ft . S. and 15 ft . W. from T-rd. S., on W. end of iron pipe culvert; painted square
Tps. 58 and $59 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$., on ine between secs. 3 and $34,240 \mathrm{ft}$. E. of Tr-rd. N., 30 ft . S. of rd., in root on N. side of $12-1 \mathrm{n}$. twin elm tree; copper nail and washer
8. NORTH ALONG NORTH HALF OF EAST BORDER OF QUADRANGLE, INCLUDING THAT PART OF THE LINE IN LINNEUS QUADRANGLE
T. 59 N., R. 21 W., N. sixteenth cor, between secs. 32 and $33,300 \mathrm{ft}$. E. of $N$. end of loo-ft. N.-S. jog in crossroads, $20 \mathrm{ft} . \mathrm{N}$. of rd., in root Fe日t on E. side of $16-1 n$. elm tree; copper nail and washer
T. 59 N., R. 21 W., cor. secs. $27,28,33$, and $34,240 \mathrm{ft}$. W. of T-rd. N., 20 ft . S. of rd., in farmyard, in root on N. side of 20-in. twin black-locust tree; copper nall and washer
786.51
T. 59 N., R. 21 W., cor. secs. $21,22,27$, and $28,160 \mathrm{ft}$. N. of T-rd. W., 15 ft . W. of rd., on head wall of concrete culvert; chiseled square Church, on NW. corner of top concrete step; chiseled square
T. 59 N., R. ' 21 W., cor. secs. $15,16,21$, and $22,15 \mathrm{ft} . \mathrm{N}$. and 25 ft . E. from crossroads, in root on S. side of 16-in. elm tree; copper nail and washer
T. 59 N.,. R. 21 W., $380 \mathrm{ft} . \mathrm{N}$. of quarter cor. between secs. 15 and 16 , 25 ft . E. of rd. in line with S . side of dwelling; standard tablet stamped "T T I W 1936"
T. 59 N., R. 21 W., cor. secs. $9,10,15$; and $16,280 \mathrm{ft} . \mathrm{S}$. and 20 ft . W. from crossroads, in root on N. side of 20-in. maple tree; copper nail and washer
818.75
T. 59 N., R. $2 I$ W., cor. secs. $3,4,9$, and $10,25 \mathrm{ft} . \mathrm{N}$. and $45 \mathrm{ft} . \mathrm{E}$. from crossroads, in root on w. side of 22-1n. wainut tree; copper nail and washer
Tps. 59 and $60 \mathrm{~N} .$, R. $21 \mathrm{~W} .$, cor. secs. $3,4,33$, and $34,140 \mathrm{ft}$. S. and 60 ft . E. from crossroads, at SE. corner of school, on concrete doorstep; ch1seled square

## 9. LINE TO ESTABLISH ELEVATION OF MEADVILLE TRIANGULATION STATION

Junction of U.S. Highway 36 and County Route $D$, on concrete pavement; chiseled square
720.91

Meadville triangulation sta., 0.5 mi . S., thence 0.5 mi . E. along U.S. Highway 36 from Meadiville, in NE $1 / 4$ sec. 7 ;'T. $57 \mathrm{~N} .$, R. 21 W., on land owned by Lippippi brothers, 50 ft . S. of highway at telephone pole 6162, 24 ft . S. of S. fence line, 18 in . under surface of ground, in concrete post; U.S.C. \& G.S. standard disk stamped "Meadville"
775.085
10. SOUTH ALONG SOUTH HALF OF EAST BORDER OF QUADRANGLE, INCLUDING THAT PART OF THE LINE IN LINNEOS QUADRANGLE
T. 58 N., R. 21 W., N. sixteenth cor. sec. 3,40 ft. E. of T-rd. N., in corner of farmyard, in root on $N$. side of 20-in. locust tree; crossed na11s
$747 \cdot 74$
T. $58 \mathrm{~N} ., \mathrm{R}, 21 \mathrm{~W}$, cor. secs. $3,4,9$, and $10,20 \mathrm{ft} . \mathrm{N}$. and 25 ft . E. from T-rd. W., in root on $N$. side of $14-1 n$. cottonwood tree; copper nail and washer
725.23
T. 58 N., R. 21 W., near quarter cor, between secs; 9 and $10,60 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from T-rd. E., in root on $W$. side of $30-i n$. mulberry trees copper nail and washer
739.45

T-rd. S., 20 ft . S. and 20 ft . W. from, in corner fence post, at surface of ground; spike
T. $58 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W}$. , cor. secs. $15,16,21$, and $22,30 \mathrm{ft} . \mathrm{N}$. and 3 ft . E. from T-rd. S., in concrete post; standard tablet stamped "T T 2 W 1936"
T. 58 N., R. 21 W., near S. sixteenth cor. between secs. 21 and 22 , at SW. corner of bridge, on W. end of steel cross beam; painted square
T. 58 N., R. 21 W., cor. secs. $27,28,33$, and $34,20 \mathrm{ft}$. E. of rd. corner from N.-W., in root on W. side of I4-in. twin elm tree; copper na11 and washer
725.97
T. 58 N., R: 21 W., quarter cor. between secs. 28 and $33,15 \mathrm{ft}$. S. and 20 ft. W. from Trid. S., in root on N. side of $14-1 n$. hedge tree; copper nall and washer
T. 58 N., R. 21 W., S. quarter cor sec. $33,60 \mathrm{ft}$. E. of T-rd: N., on S. head wall of concrete culvert; chiseled square
T. 57 N., R. 21 W., N. cor. secs. 3 and 4,33 ft. S. and 48 ft. W. from T-rd. S., in concrete post; standard tablet stamped "T T 3 W 1936"
Chicago, Burlington \& Quincy R.R. at rd. crossing, in floor; top of spike
T. 57 N., R. 21 W., near center sec. 3, at Chicago, Burlington \& Quincy R.R. bridge 112.99, on top of S. end of parapet wall of E. concrete abutment; chiseled square
11. IN NORTHWEST CORNER OF QUADRANGLE (by Cornish Beck in 1937)
(Continued from Galt quadrangle; see line 6.)
T-rd. S., $6 \mathrm{ft} . \mathrm{S}$. and 170 ft . W. from, on head wall of culvert; chiseled square
T-rd. S., 50 ft . N. and 78 ft . W. from, in root on S . side of 24 - 1 n . bur-oak tree; nails

[^3]HALE QUADRANGLE
(Latitude $39^{\circ} 30^{\prime}-39^{\circ} 45^{\prime}$; longitude $93^{\circ} 15^{\prime}-93^{\circ} 30^{\prime}$ )


1. IN NORTHWEST CORNER OF QUADRANGLE (by S. L. Parker in 1920)
(Continued from Dawn quadrangle; see line 2.)

> T. 57 N., R. 23 W., 180 ft . W. of quarter cor. between secs. 16 and 21 , 300 ft . W. of T-rd. N., 5 ft . S. of fence line S. of rd., in field,
> in root on E. side of $24-1 n$. hackberry tree; copper nall and washer
> $717 \cdot 52$
> T. 57 N., R. 23 W., cor. secs. $15,16,21$, and $22,15 \mathrm{ft}$. S. and 25 ft .
> W. from crossroads, 2 ft . from fence corner; 1ron post stamped "Prim
> Trav Sta No 191913 Mo 697"
> 695.968
2. IN NORTHWEST CORNER OF QUADRANGLE (by S. R. Archer in 1920)
T. 57 N., R. 23 W., cor. secs. $15,16,21$, and $22,15 \mathrm{ft} . \mathrm{S}$. and 30 ft . E. from crossroads, 6 ft . E. of fence corner, in root on NE, side of 24-in. hackberry tree; copper nail and washer
695.26

## 3. WEST ALONG WEST HALF OF NORTH BORDER OF QUADRANGLE (by B. L. Whaley in 1921) <br> (Continued from Chula quadrangle; see line 4.)

T. 57 N., R. 22 W., cor. secs. $15,16,21$, and $22,17 \mathrm{ft}$. N. and 42 ft . W. from crossroads on Linn-Livingston county line, 18 ft . W. of fence corner; iron post stamped "Prim Trav Sta No $8 \mathrm{~W} 1921 \mathrm{Mo}^{\mathrm{C}}$
Reference mark, $65 \mathrm{ft} . \mathrm{S} .10^{\circ} \mathrm{W}$. of post, in front yard of H . B. Horton, in root of l4-in. elm tree; copper nail and washer
671.94
T. 57 N., R. 22 W. , cor. secs. $16,17,20$, and 21 , 110 ft . S. and 30 ft . W. from crossroads, opposite dwelling, in root of $24-1 \mathrm{n}$. cottonwood tree; copper nail and washer
668.64
T. 57 N., R. 22 W., cor. secs. $17,18,19$, and $20,150 \mathrm{ft} . \mathrm{sW}$. of T-rd.
S., in root of $24-1 \mathrm{n}$. black-oak trees copper nail and washer
T. 57 N., R. 23 W., E. cor. secs. 13 and $24,24 \mathrm{ft}$. S. and 18 ft . W. from T-rd. S., 5 ft . W. of fence corner; iron post stamped "Prim Trav Sta No 9 W lǵ21 Mo"
Reference mark, $86 \mathrm{ft} . \mathrm{N} .5^{\circ} \mathrm{W}$. of post, in root of $24-\mathrm{in}$. elm tree; copper nail and washer
673.090
of N. end of concrete culvert; chiseled square 23 , 35 . SW. of cross-
T. 57 N. , R. 23 W ., cor. secs. 14 , 15 , 22 , and 23 , 35 ft . SW. of cross
4. FROM POINT NEAR CENTER OF QUADRANGLE NORTH TO NORTH BORDER (leveled twice by E. B. Perry in 1921)
T. 56 N., R. 22 W., S. cor. secs. 32 , and 33,20 ft. N. and 20 ft. E. from T-rd. N. on Carroll-Livingston county line; iron post stamped "Prim Trav Sta No 14 W 1921 Mo"
811.877

Reference mark, $5 \mathrm{ft} . \mathrm{N} .88^{\circ} \mathrm{W}$. of post, on concrete ledge; chiseled square
. 56 N., R. 22 W., cor. secs. $28,29,32$, and $33,250 \mathrm{ft}$. S. of crossroads, in yard of S. N. Fish, in root of l4-in. wild-cherry tree; copper nall and washer
828.56
T. 56 N., R. 22 W., cor. secs. $20,21,28$, and $29,80 \mathrm{ft}$. S. and 25 ft . E. from crossroads, in root of twin 6-in. walnut tree; copper nail and washer
T. 56 N., R. 22 W., cor. secs. $16,17,20$, and $21,35 \mathrm{ft}$. S. and 30 ft . W. from T-rd. S., 15 ft. S. of corner fence post, in concrete post; standard tablet
Reference mark, 25 ft . N. and 70 ft . E. from T-rd. S., in root of $12-\mathrm{in}$. hickory tree; copper nail and washer
T. 56 N., R. 22 W., near quarter cor. between secs. 8 and $9,30 \mathrm{ft}$. W. of dwelling of E. E. Alexander, 40 ft . E. of rd., in root of $24-\mathrm{in}$. maple tree; copper nail and washer
T. 56 N., R. 22 W., cor. secs. 4, 5,8 , and 9 , at rd. corner from S.-E., on $E$. end of $N$. head wall of concrete culvert; chiseled square
T. 56 N., R. 22 W., near center sec. 4, at Bedford, at post office, in NE. corner of concrete porch; standard tablet
Reference mark, at Vagger Bros. Store, on SE. corner of concrete porch; chiseled square
T. 57 N. , R. 22 W. , near N . sixteenth cor. sec. $33,50 \mathrm{ft}$. SE. of dwelling of's. Scott, on W. side of rd., in root of $40-1 \mathrm{n}$. elm tree; copper nail and washer
T. 57 N., R. 22 W., near N. sixteenth cor. between secs. 28 and 29,200 ft. NE. of Wabesh Ry, 150 ft . NE. of ra. corner, in root of 24-in. oak tree; copper nail and washer (probably destroyed)
T. 57 N., R. 22 W. , cor. secs. $16,17,20$, and $21,100 \mathrm{ft}$. S. and 30 ft . W. from crossroads, in yard of Albert Shafer, in root of $30-i n$. poplar tree; copper nall and washer

## 5. SOUTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE, THENCE EAST TO CENTER (by E. B. Perry in 1921. Elevations are doubtful because of an excessive closure.) <br> (Continued from Dawn quadrangle; see line 3.)

T. 56 N., R. 23 W., N. cor. secs. 4 and $5,22 \mathrm{ft}$. S. and 18 ft . W. from T-rd. S.; iron post stamped "Prim Trav Sta No 10 W 1921 Mo "
Reference mark, 56 ft . N. $35^{\circ} \mathrm{E}$. of post, in root of $18-1 \mathrm{n}$. post-oak tree; copper nail and washer
T. $56 \mathrm{~N} . \mathrm{R} .23 \mathrm{~W} .$, cor. secs. 4, 5,8 , and $9,130 \mathrm{ft} . \mathrm{S}$. and 40 ft . W. from crossroads, at $E$. end of church, on NW. corner of concrete step; chiseled square
T. $56 \mathrm{~N} . \mathrm{R}$. 23 W ., cor. secs. $8,9,16$, and $17,25 \mathrm{ft}$. N . and $70 \mathrm{ft} . \mathrm{W}$.
from crossroads, in root of twin 6-in. elm trees copper nail and washer
P. $56 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, cor. secs. $16,17,20$, and $21,30 \mathrm{ft}$. N. and 15 ft . E. from crossroads; iron post stamped "Prim Trav sta No $11 \mathrm{~W} 1921 \mathrm{Mo}^{\prime \prime}$
Reference mark, 127 ft . S. $55^{\circ} \mathrm{E}$. of post, in root of 14 -in. elm tree; copper nail and washer
T. 56 N., R. 23 W., cor. secs. $15,16,21$, and 22 , at crossroads, on top of $S$. end of $E$ : head wall of concrete culvert; chiseled square
T. 56 N., R. 23 W., cor. secs. $21,22,27$, and 28 , at crossroads, 30 ft . E. of ra., in root of $18-1 n$. hedge tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, about 0.4 mi . N. of cor. secs. 27,28 , 33 , and 34 , 50 ft . E. of rd. in root of tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}$. cor. secs. $27,28,33$, and 34 , at crossroads, 80 ft . E. of rd., on SW. corner of concrete step of Asper School; chiseled square
T. 56 N., R. 23 W., S. cor. secs. 33 and 34,60 ft. N. and 25 ft . E. from T-rd. N. on Carroll-Livingston county line, 100 ft . W. of Blunt dwelling, in root of $30-1 \mathrm{n}$. black-oak trees copper nail and washer
T. 56 N., R. $23 \mathrm{~W} ., \mathrm{S}$. cor. secs. 34 and 35 , 70 ft . E. of crossroads on Carroli-Livingston county line, in root of $30-1 n$. maple tree; copper nail and washer
T. 56 N., R. 23 W., S. cor. secs. 35 and $36,15 \mathrm{ft}$. N. and 36 ft . W. from T-rd. N. on Carroll-Livingston county line; iron post stamped "Prim Trav Sta No $13 \mathrm{~W} 1921 \mathrm{Mo}^{17}$
Reference mark, 87 ft . N. $5^{\circ}$ E. of post, in root of $30-\mathrm{in}$. maple tree; copper nail and washer
T. 56 N., Rs. 22 and 23 W., S. cor. secs. 31 and 36,550 ft. E. of T-rd. N. on Carroll-Livingston county line, on $W$. end of S. head wall of concrete bridge; chiseled square
T. $56 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$. ., S . cor. secs. 31 and 32 , at crossroads on CarrollLivingston county line, on S. side of rd., on W. head wall of concrete culvert; chiseled square

## 6. EAST ALONG EAST HALF OF NORTH BORDER OF QUADRANGLE, THENOE SOUTH AND WEST TO POINT NEAR CENTER (Elevations are doubtful because of an excessive closure.)

T. 57 N., R. 22 W ., on line between secs. 15 and 22 , in SW . corner of steel bridge; top of bolt head
T. 57 N., R. 22 W., cor. secs. $13,14,23$, and $24,40 \mathrm{ft}$.N . and 90 ft . W. from T-rd. S., 160 ft. S. of Elk Grove School, in root of $24-1 \mathrm{n}$. maple tree; copper nail and washer
T. $57 \mathrm{~N} ., \mathrm{Rs}$. 21 and 22 W. cor. secs. $13,18,19$, and $24,18 \mathrm{ft} . \mathrm{N}$. and 36 ft . W. from crossroads; iron post stamped "Prim Trav Sta No 20 W $1921 \mathrm{MO}{ }^{\prime \prime}$
Reference mark, 70 ft . E. of post, in root of $12-1 \mathrm{n}$. maple tree; copper nail and washer
T. 57 N., R. 21 W., about 0.1 ml . E. of cor. secs. 17, 18, 19, and 20 , 40 ft . S. and 50 ft . E. from Trrd. S., at NW. corner of yard of W. E. Daniels, in root of $14-1 n$. maple tree; copper nall and washer
T. $57 \mathrm{~N} ., \mathrm{R}$. 21 W., cor. secs. $16,17,20$, and $21,40 \mathrm{ft} . \mathrm{N}$. and 15 ft . E. from crossroads; iron post stamped "Prim Trav Sta No 19 W 1921 Mon

Reference mark, 900 ft . E. of post, in beam at NW. corner of bridge; top of bolt
T. 57 N., R. 21 W., quarter cor, between secs. 28 and $29,140 \mathrm{ft}$. S. of T-rd. N., in root of 24 -in. elm tree; copper nail and washer
T. 57 N., R. 21 W. , near quarter cor. between secs. 27 and 28 , $30 \mathrm{ft} . \mathrm{s}$. and 40 ft . W. from rd. corner W.-S., in root of $30-1 \mathrm{n}$. black-oak tree; copper nail and washer

Feet
786.48
7.61 .40
701.638
705.98
669.78
667.29
668.64
748.726
750.48
785.47
833.05
789.034
797.37
856.00
857.96
864.35
$847 \cdot 53$
818.08
809.34
785.718
782.61
740.51
794.09
674.24
729.67
753.064
752.82
735.86
687.271
685.00
672.20
668.78
T. 56 N., R. 21 W., near N. sixteenth cor. between secs. 28 and 29 , on SE. comer of Chícago, Burlington \& Quincy R.R. bridge over Grand River; top of bolt head
T. 56 N., R. 21 W., in E $1 / 2$ sec. 29, on Chicago, Burlington \& Quincy R.R., 12 ft . E. of track, $15 \mathrm{ft} . \mathrm{N}$. of E.-W. rd.; iron post stamped "Prim Trav Sta No $16 \mathrm{~W} 1921 \mathrm{Mo}^{\prime}$
Reference mark, 200 ft . N. $70^{\circ} \mathrm{W}$. of post, in root of $30-\mathrm{in}$. bur-oak tree; copper nall and washer
. Chicago, Burlington \& Quincy R.R. at rd. crossing, in SW. corner of wooden R.R. bridge; top of bolt head
T. 56 N., Rs. 21 and 22 W., near S. sixteenth cor. between secs. 31 and $36,100 \mathrm{ft}$. S. and 30 ft . W. from Chicago, Burlington \& Quincy R.R. at rd. crossing, in yard of Mrs. W. E. Dougherty, in root of 18 in. elm tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$. , near S. quarter cor. sec. $36,18 \mathrm{ft} . \mathrm{S}$. and 135 ft . W. from Chicago, Burlington \& Quincy R.R. at rd. crossing on CarrollLivingston epunty line; iron post stamped "Prim Trav Sta No 15 W 1921 MO"
738.571
T. 56 N., R. 22 W ., near S. cor. secs. 35 and 36 , at SE. corner of crossroads on Carroll-Livingston county ine, on E. head wall of concrete culvert; chiseled square
T. 56 N., R. 22 W., S. cor. secs. 34 and 35 , near T-rd. N. on CarrollLivingston county line, at entrance to Hale Cemetery, at SE. corner of fence, on concrete ledge; chiseled square
739.99
T. $56 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W} ., \mathrm{S}$. cor. secs. 33 and 34 , at NE. corner of crosisroads on Carroll-Livingston county line, on SE. ond of E. head wall of concrete culvert; chiseled square

## 7. NEAR MIDDLE OF WEST BORDBR OF QUADRANGLE (Elevations are doubtful because: of on excessive closure.) (Continued from Dawn quadrangle; see line 4.)

T. 56 N., R. 23 W., S. cor. secs. 32 and 33 , 19 ft . N. and 17 ft . E.
from T-rd. N., 19 ft. N. and 210 ft . W. from T-rd. S. on Carroll-
Livingston county inneg iron post stamped "Prim Trav sta No 12 W 1921 Mol
Reference mark, 370 ft . E. of post, in root of $14-1 \mathrm{n}$. elm tree; copper nail and washer
8. NORTH ALONG SOUTH HALF OF WEST BORDER OF QUADRANGLE (by B. A. Bárnes in 1936)
T. 54 N., R. $23 \mathrm{~W} .$, cor. secs. $3,4,9$, and $10,18 \mathrm{ft}$. S. and 36 ft . W. from U.S. Highway 65 at cross rd., on center of S. head wall of concrete culvert; chiseled square
709.26
T. 55 N., R. 23 W., S. cor. secs. 33 and $34,52 \mathrm{ft} . \mathrm{N}$. and 31 ft . E. from U.S. Highway 65 at E.-W. cross rd.i 23 ft . N. and 2 ft. E. from fence corner, in concrete post; standard tablet stamped "1048 C W A 1934"
759.116

Junction of Tina rd., on E. head wall of concrete culvert; chiseled
square 55 . R. 23 W., cor. secs. $27,28,33$, and $34,21 \mathrm{ft} . \mathrm{N}$. and 21 ft . E. from U.S. Highway 65 at cross rd., on E. head wall of concrete culvert; chiseled square
T. 55 N., R. 23 W., cor. secs. $21,22,27$, and $28,21 \mathrm{ft} . \mathrm{N}$, and 21 ft . W. from U.S. Highway 65 at cross rd., on $W$. head wall of concrete culvert; chiseled square
T. 55 N., R. 23 W., cor. secs. 15, 16, 21 , and $22,20 \mathrm{ft}$. N. and 20 ft . W. from J.S. Highway 65 at cross rd.. on W. head wall of concrete culvert; chiseled square
T. 55 N., R. 23 W., in NW $1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .15,87 \mathrm{ft} . \mathrm{S}$. and 185 ft . W. from SW. corner of farmhouse of S. W. Scott, 38 ft . E. of U.S. Highway 65 , $10 \mathrm{ft} . \mathrm{S}$, and 3 ft . W. from fence corner, in concrete post; standard tablet stamped "1049 C W A 1934"
T. $55 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} ., \operatorname{cor}$. secs. $9,10,15$, and $16,21 \mathrm{ft} . \mathrm{N}$. and 20 ft . E. from U.S. Hlghway 65 at rd. E., on N. head wall of concrete culvert; chiseled square
806.50
T. 55 N., R. 23 W., approximate cor. secs. $3,4,9$, and $10,130 \mathrm{ft}$. N. and 21 ft . E. from U.S. Highway 65 at County Route $J$, on E. head wall of concrete culvert; chiseled square
T. 55 N., R. 23 W., N. cor. secs. 3 and $4,24 \mathrm{ft} . \mathrm{N}$. and 21 ft . E. from crossroads on Carroll-Livingston county line, on E. head wall of concrete culvert; chiseled square

## 9. NORTH THROUGH CENTER OF SOUTHEAST PART OF QUADRANGLE

T. 54 N., R. 22 W., E. cor. secs. 12 and $13,18 \mathrm{ft}$. S. and 19 ft . W. from T-rd. W., 356 ft . S , and 19 ft . W. from T-rd. E. at W. cor. secs. 7 and $18, \mathrm{~T} .54 \mathrm{~N}_{\mathrm{H}}, \mathrm{R} .21 \mathrm{~W}$. ; iron post stamped "Prim Trav Sta No 58 S 1921"
T. 54 N., R. 21 W., approximate cor. secs. 7, 8, 17, and 18, 90 ft . W.
T. 54 N., R. 21 W., approximate cor. secs. $5,6,7$, and $8,12 \mathrm{ft} . \mathrm{S}$. and 51 ft . E. from crossroads, in root on NW. side of 18-in. walnut tree; copper nail and washer
T-rd. E., 80 ft . S. and 10 ft . W. from, on W . head wall of concrete culvert; chiseled square
T. 55 N., R. 21 W., S. cor. secs. 31 and $32,20 \mathrm{ft}$. S. and 14 ft . E. from T-rd. N., 20 ft . S. and 102 ft . E. from T-rd. S. at N. cor. secs. 5 and 6,T. $54 \mathrm{~N}_{\mathrm{H}}, \mathrm{R}^{2} 21 \mathrm{~W} .$, in concrete post; standard tablet stamped "1058 CW A 1934"
T. 55 N., R. 21 W., in SE 1/4 SE $1 / 4$ sec. 30 , on N. rivet head of N. pier on upstream side of small bridge; chiseled crioss
707.790
646.51
T. 55 N., R. 21 W., cor. secs. $19,20,29$, and $30,70 \mathrm{ft} . \mathrm{N}$. and 10 ft .
W. from crossróads, on W. head wall of concrete culvert; chiseled square
T. $55 \mathrm{~N} ., \mathrm{R} .21 \mathrm{~W} .$, in $\mathrm{NW} 1 / 4 \mathrm{NW} 1 / 4 \mathrm{sec} .30 ; 28 \mathrm{ft}$. W. of W. corner of Hurricane Church, 34 ft . SE. of rd., in concrete posts standard tablet stamped "1059 C W A 1934"
T. 55 N., R. 22 W., E. cor. secs. 13 and $24,200 \mathrm{ft}$. N. of T-rd. W., 10 ft. N. and 15 ft . W. from T-rd. E, at $W$. cor. secs. 18 and 19, T. 55 N., R. 21 W., on W. head wall of concrete culvert; chiseled square
T. 55 N., R. 21 W., W. cor. secs. 7 and $18,18 \mathrm{ft} . \mathrm{S}$. and 140 ft . E. from T-rd. E., $100 \mathrm{ft} . \mathrm{N}$. of T-rd. W. at approximate E. cor. secs. 12 and 13 , T. 55 N., R. 22 W., in root on SW. side of $30-1 \mathrm{n}$. elm tree; copper nail and washer
Hale triangulation sta., about 1.5 mi . E. and 0.8 mi . S. from Hale, center sec. $12, T .55 \mathrm{~N} ., \mathrm{R}$. $22 \mathrm{~W} . ; 26.9$ meters ( 88 ft. ) W . and 5 meters ( 16 ft.) $S$. of hedge and wire cross fences, on land owned by W. C. Linton, on highest point, buried 20 in. below surface of ground, in concrete post; J.S.C. \& G.S. standard disk stamped "Hale 1928"
Reference mark $1, \dot{8} 6 \mathrm{ft}$. E. of sta., in concrete post; J.S.C. \& G.S. standard disk
Reference mark 2, about 0.2 mi . from sta. In azimuth $356^{\circ} 03^{\prime} 46^{\mathrm{K}}, 105$ meters ( 344 ft . paced distance) S. of large, dead tree in N.-S. fence line, 0.7 meter ( 2 ft. ) NW. of cormer post on S . side of driveway connecting two fields, in concrete post; JiS.C. \& G.S. standard disk
T. 55 N., R. 21 W., W. cor. secs. 6 and 7, $210 \mathrm{ft}$. . of T-rd. E., 30 ft. N. of T-rd. W. at approximate E. cor. secs. 1 and $12, \mathrm{~T} .55 \mathrm{~N}$. , R. 22 W., on wing wall at SW. corner of small concrete bridge; chiseled square

## 10. WEST ALONG SOUTH BORDER OF QUADRANGLE, INOLUDING THAT PART OF THE LINE IN MARSHALL NO. 2 QUADRANGLE

Concrete bridge, at SW. corner of, on wing wall; (mark not described)
T. 54 N., R. 22 W., cor. secs. $11,12,13$, and $1.4,40 \mathrm{ft}$. S. and 60 ft . E. from crossroads, on $S$. head wall of concrete culvert; chiseled square
716.21
T. 54 N., R. 22 W., cor. secs. $10,11,14$, and $15,15 \mathrm{ft}$. N. and 30 ft . W. from crossroads, in root on SE. side of 8-in. elm tree; copper nail and washer
$724 \cdot 75$
T. 54 N., R. 22 W., cor. secs. 9, 10,15 , and $16,21 \mathrm{ft}$. N. and 18 ft . E. from stone at crossroads; iron post stamped "Prim Trav sta No 57 S ig21 $\mathrm{Mo}^{\mathrm{II}}$
767.500
T. 54 N., R. 22 W., cor. secs. 8, 9, 16 , and $17,25 \mathrm{ft}$. S. and 25 ft . E. from crossroads, in root on NE. side of $10-1$. hedge tree; copper nail and washer
788.62

Concrete culvert, on E. head wall of ; chiseled square
T. 54 N., R. 22 W., near center sec. 8, in concrete well platform in yard of Linden School; standard tablet stamped "T T 51 C $1936{ }^{\circ}$
Reference mark l, 42 ft . W. of SW. corner of school, at well, on NW. corner of concrete block; chiseled square
Reference mark 2, at school, on NW. cormer of second row of concrete steps; chiseled square
T. 54 N., R. 22 W., cor: secs. 7. 8, 17 , and $18,20 \mathrm{ft}$. N. and 22 ft . E. from T-rd. W., in root on SE. side of $24-1 n$. whiteooak tree; copper nail and washer
T. 54 N., R. 23 W., E. cor. secs. 12 and $13,18 \mathrm{ft}$. N. and 27 ft . W. from T-rd. W., on $N$. head wall of concrete culybert; chiseled square
Bridge over creek, at NW. corner of, on concrete wing wall; chiseled square
T. 54 N., R. 23 W., cor. secs. $11,12,13$, and $14,15 \mathrm{ft} . \mathrm{S}$. and 30 ft . E. from crossroads; iron post stamped PPrim Trav Sta No 56 S 1921 MoH
T. 54 N., R. 23 W., cor. secs. $10,11,14$, and $15,18 \mathrm{ft}$. N. and 100 ft . E. from crossroads, in root on $N$. side of 8-in. hedge tree; copper nail and washer
T. 54 N., R. 23 W. , cor. secs. $9,10,15$, and $16,15 \mathrm{ft}$. N. and 18 ft . E. from U.S. Highway 65 at E.-W. cross rd., on E. head wall of concrete culvert; chiseled square
T. 54 N., R. 23 W., cor. secs. 8, 9, 16 , and $17,19 \mathrm{ft}$. N. and 25 ft . E. from crossroads, 4 ftt. S. and 5 ft. E. from fence corner; iron post stamped "Prim Trav Sta No $55 \mathrm{~S} 1921 \mathrm{Mo}^{\text {" }}$
802.591
T. 54 N., R. $23 \mathrm{~W} .$, cor. secs. $16,17,20$, and $21,40 \mathrm{ft} . \mathrm{N}$. and 33 ft . E. from crossroads, on $N$. head wall of concrete culvert; chiseled square
(Continued in Dawn quadrangle; see line 6.)
For an adaitional level line along Wabash Ry., refer to United States Coast and Geodetic Survey second-order line, Gallatin to Sumer.
(Lat1tude $39^{\circ} 30^{\prime}-39^{\circ} 45^{\prime}$; longitude $93^{\circ} 30^{\prime}-93^{\circ} 45^{\prime}$ )
Carroll and Livingston Counties


1. FROM NORTHWEST CORNER OF QUADRANGLE EAST ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD TO POINT NEAR MIDDLE OF NORTH BORDER (by'S. R. Archer' in 1920)
(Continued from Gallatin quadrangle; see line 1.)
T. 57 N., R. 25 W. , on line between secs. 17 and $18,70 \mathrm{ft}$. S. of Chicago,

Feet 904.79
894.764
908.62
919.915
907.32
868.13
846.466
804.30
743.45
747.857
732.97
(Continued in Chillicothe quadrangle; see line 2.)
2. IN NORTHEAST CORNER OF QUADRANGLE (by S. L. Parker in 1920)
(Continued from Chillicothe quadrangle; see ilne 2.)
Chillicothe, 3.6 mi . S. of Chicago, Milwaukee, St. Paul and Pacific R.R. sta., near W. sixteenth cor. between.secs. 18 and 19, T. 57 N.,
R. 23 W ., at T-rd. E., 4 ft . $N$, and l ft . W. from NE. fence corner; iron post stamped " 1920 Mo $685^{\circ}$
T. 57 N., R. 23 W. cor. secs. $17,18,19$, and 20 , NW. of crossroads, 7 ft . N. and 18 ft . W. from NW. fence corner, in root on E. side of 20~in. walnut tree; copper nail and washer
3. IN NORTHEAST PART OF QUADRANGLE, SOUTHEAST TO EAST BORDER (by E. B. Perry in 1921. Elevations are doubtful because of an excessive closure.)
T. 57 N., R. $23 \mathrm{~W} .$, in $\mathrm{S} 1 / 2 \mathrm{sec} .19,70 \mathrm{ft}$. SE. of dwelling of S. C. Israel, 3 ft . W. of yard fence, in root of $40-\mathrm{in}$. elm tree; copper nall and washer

Feet 683.75

McCleary School, 120 ft . W. of, on line between secs. 29 and $30, \mathrm{~T} .57 \mathrm{~N}$. , R. $23 \mathrm{~W} ., 25 \mathrm{ft}$. W. of rd., in root of twin 24 -in. walnut trees copper nall and washer
T. 57 N., R. 23 W., near cor. secs. 28, 29, 32, and 33, at T-rd. S., on W. end of concrete culvert; chiseled squere
677.31
679.17
(Continued in Hale quadrangle; see line 5.)
4. SOUTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE, THENCE
EAST THROUGH CENTER TT O EAST BORDER (Elevations are doubtful
because of an excessive closure.)
T. 57 N., R. 25 W., near cor. secs. 19, 20,29 , and $30,120 \mathrm{ft}$. W. of dwelling of E. S. Smith, in root of $30-1 n$. elm trees copper nail and washer
883.50
747.76
829.216
824.79
872.58
846.39
741.592
739.05
715.61
758.56
767.191
765.68
715.14
739.31
715.83
730.246
737.33
777.44
885.309
864.55
958.48
970.96
966.28
985.432
984.75
835.14
840.29
T. 55 N., R. 23 W., N. cor. secs, 5 and 6 , 30 ft . S. and 80 ft. W. from of $12-1 n$. mulberry tree; copper nail and washer

> 5. SOUTH ALONG SOUTH PART OF WEST BORDER OF QUADRANGLE, INCLUDING THAT PART OF THE LINE IN LEXINGTON NO. I QUADRANGLE (singlerun spú-1ine)
T. 55 N., R. 25 W., cor. secs. 5; 6, 7, and 8, 80 ft . E. of NE. corner of crossroads, 'In root of $10-i n$. elm tree; copper nail and washer
T. $55 \mathrm{~N} ., \mathrm{R}, 25 \mathrm{~W} . \mathrm{c}_{\mathrm{c}} 350 \mathrm{ft}$. S. of cor secs. $4,5,8$, and 9, E. of rd., in root of twin $24-1 n$. elm treer copper nail and washer
T. $55 \mathrm{~N} .$, R. $25 \mathrm{~W} .$, cor. secs. $8,9,16$, and $17,40 \mathrm{ft} . \mathrm{N}$, and 30 ft . E. from crossroads, in concrete post; standard tablet stamped MPrim Trav Sta No 45 S $1921 \mathrm{MO}^{\prime \prime}$
847.577

Reference mark, 87 ft . S. $10^{\circ} \mathrm{E}$. of tablet, in root of $24-1 \mathrm{n}$. hedge trees copper nall and washer
844.98
T. 55 N., R. 25 W., near N. sixteenth cor. between secs. 20 and 21 , on N. end of E. head wall of concrete culvert; chiseled square
T. $55 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W} .$, cor. secs. $20,21,28$, and $29,70 \mathrm{ft}$. N. and 25 ft . E. from crossroads, in root of $10+1 \mathrm{n}$. hedge tree; copper' nail and washer
843.80

T: 55 N., R. $25 \mathrm{~W} .$, cor. secs. $19,20,29$, and $30,70 \mathrm{ft}$ : S. and 20 ft . E. from crossroads, in root of $24-1 \mathrm{n}$. elm tree; nail and washer
925.17
T. 55 N., R. 25 W., quarter cor. between secs. 29 and $30,30 \mathrm{ft}$. S. and 20 ft . W. from T-rd. S. S in concrete post; standard tablet stamped "Prim Trav Sta No 44 S 1921 Mo"
918.365

Reference mark, 47 ft . E. of tablet, in root of 24 -in. cottonwood tree; copper nail and washer
T. $55 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W} .$, about 900 ft . W. of S . quarter cor. sec. 3 , , on W. end of $N$. head wall of concrete culvert; chiseled square
(For balance in Braymer quadrangle, see line 4.)
T. 54 N., R. 25 W., cor. secs. $5,6,7$, and $8,70 \mathrm{ft}$. S. and 20 ft . W. from crossroads, in root of 18 in. mulberry treej copper nail and washer (? 30 ) ft. W. from crossroads; iron post stamped "Prim Trav Sta No 43 S 1921 Mo"
812.210.

Reference mark, 50 ft . N. $45^{\circ} \mathrm{E}$. (? W) of post, at corner fence post, on concrete ledge; chiseled square
814.37

## 6. WEST ALONG SOUTH BORDER OF QUADRANGLE, INCLUDING THAT PART OF THE LINE IN LEXINGTON NO. 1 QUADRANGLE (by B. A, Barnes in 1936) <br> (Continued from Hale quadrangle; see line 10.)

T. 54 N., R. 23 W., cor. secs. $17,18,19$, and $20,18 \mathrm{ft}$. S. and 150 ft . W. from T-rd. W., in root on SW. side of 24-in. elm tree; copper nail and washer
T. 54 N., R. 23 W., W. sixteenth cor. between secs. 18 and $19,12 \mathrm{ft} . \mathrm{N}$. and 114 ft . E. from crossroads, in root on S . side of ly-in. elm tree; copper nail and washer
T. 54 N., R. 23 W., 0.2 ml . E. of W. cor. secs. 18 and $19,12 \mathrm{ft}$. S. and $20 \mathrm{ft}, \mathrm{E}$. from crossroads, 2 ft , S . and 3 ft . E. from fence corner, in concrete post; standard tablet stamped "T T 52.c 1936"
T. $54 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, near center of $\mathrm{NW} 1 / 4 \mathrm{sec} .18$; $15 \mathrm{ft} . \mathrm{s}$. and 60 ft . W. from T-rd. W.; in root dri NW. side of 12-in. hickory tree; copper nail and washeŕ
T-rd. N., 36 ft . N. and 30 ft . E. from. in root on SE. side of $14-\mathrm{in}$. white-oak trees: crossed nalls
T. 54 N., R. 24 W.r approximate N. sixteenth cor. between secs. 13 and $14,90 \mathrm{ft}$. S. and 120 ft . E. from T-rd. N., on $W$. side of concrete well block; chiseled square
T. 54 N., R. 24 W., S. sixteenth cor. between secs. 11 and $12,15 \mathrm{ft}$. S. and 230 (? 192) ft. E. from Trrd. N. 15 ft . S . and 15 ft . E. from rd. cornerg iron post stamped "Prim Trav Sta No 54 S 1921 Mo "
846.931
T. $54 \mathrm{~N} . \mathrm{F}_{\mathrm{R}} \cdot 24 \mathrm{~W}$. , cor secs. $10,11,14$ and $15,40 \mathrm{ft} . \mathrm{N}$. and 14 ft W. from T-rd. E., in root on SE. side of $24-1 n$. elm tree; copper nail and washer
T. 54 N., R. 24 W., quarter cor between secs. 14 and $15 ; 25$ ft. S. and 30 ft . E. from'Thrc. S., in root on SE. side of $14-1 n$. hickory tree; copper nail and washer
807.40

T-rd. No; 18 ft . N. and 100 ft . E. from, in root on S. side of $16-1 \mathrm{n}$. elm tree; crossed nails
Manderille, $1.5 \mathrm{mi} . \mathrm{E}$. and 10.5 mi . S. from, center sec. 16 , T. 54 N. , R. 24 W. 18 ft . S: and 21 ft. W. from T-rd. E., $2 \mathrm{ft} . \mathrm{S}$. and 2 ft . W. from fence corner, in concrete post; standard tablet stamped " 470 C W. A 1934 "
Mandeville, about 1.2 mi . E. of, approximate W. sixteenth cor between secs. 9 and $16, T .54 \mathrm{~N} ., \mathrm{R}$. 24 W., 30 ft . N. and 300 ft . E. from T-rd. N., 30 ft . SE. of SE. corner of small farmhouse, in root on NW. side of 36-in. maple tree; copper nail and washer
930.504

Mandeville, in NW $1 / 4$ sec. 17, T. 54 N., R. 24 W., in SW. corner of concrete porch' of Christian Church; standard tablet stamped "Prim. Tram Sta No 53. S 1921 Mo"
Mandeville, 1 mi . W. of approximate $W$. sixteenth cor. between secs. 7
 root on N. side of $36-1 \mathrm{n}$ : maple tree; copper nail and washer
973.704

T-rd. W., $20 \mathrm{ft} . \mathrm{S}$. and 210 ft . W. from, in root on S. side of $16-1 \mathrm{n}$. elm tree; crossed nalls

Feet

## 7. NORTH IN SOUTH HALF OF QJADRANGLE

T. 54 N., R. 24 W., probable center of NW $1 / 4 \mathrm{sec} .9,30 \mathrm{ft}$. N. and 120 $\mathrm{ft}^{\prime}$. W. from T-ri. E., 30 ft . S. of SW. corner of dwelling of J. H. Smith, on SE. corner of concrete well block; chiseled square
954.62
T. 54 N., R. 24 W., approximate center sec. $4,10 \mathrm{ft}$. N. of NW. corner of Isom School, 51 ft . E. of rd., on W. side of concrete well block; chiseled square
953.59
T. 54 N., R. 24 W., N. quarter cor. sec. 4 , 180 ft : S . and 48 ft . E . from crossroads, 51 ft . NW. of NW. corner of farmhouse, in root on N. side of 1 -in. walnut tree; copper nail and washer
964.34
T. 55 N., R. 24 W., N. sixteenth cor. sec. $33,6 \mathrm{ft}, \mathrm{N}$. and $20 \mathrm{ft} . \mathrm{W}$. from T-rd. E., 2 ft . from fence, in concrete post; standerd tablet stamped " 471 C W A 19347
T-rd. E., 40 ft . S. and 30 ft . W. from, in base of telephone poles iron nail
844.190
T. 55 N., R. 24 W., probable quarter cor, between secs. 27 and 28,390 ft. N. of T-rd. W., $26 \mathrm{ft} . \mathrm{W}_{\text {. }}$ of rd., in root on E. side of twin 16-in. black-oak tree; copper nail and washer
T. 55 N.,.R. $24 \mathrm{~W} ., \mathrm{S}$. sixteenth cor. between secs. 21 and $22,125 \mathrm{ft}, \mathrm{S}$. and 75 ft . W. from, 10 ft . E. of NE. corner of farmhouse of W . B. $0^{\prime} R$ roak, in root on NE. side of 12-in. maple tree; copper nail and washer
T. 55 N., R. 24 W., cor. secs. $15,16,21$, and $22,21 \mathrm{ft} . \mathrm{S}$. and 23 ft . E. from crossroads, 5 ft . S. and 2 ft . E. from triple elm troe in fence corner, in concrete post; standard tablet stamped " 4720 WA 1934"
T. $55 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} .$, approximate N . sixteenth cor. between secs. 15 and 16 , 12 ft . N. and 42 ft . E. from rd. corner S.-E., in root on W. side of 12-1n. white-oak tree; copper nail and washer
T-rd. N.; surface of rd.
T. $55 \mathrm{N}$. . R. R. 24 W. , quarter cor between secs. 10 and $15,33 \mathrm{ft}$. N. and 36 ft . E. from T-rd. E., in root on SE. side of 8-in. hickory trees copper nail and washer
T. 55 N., R. 24 W., probable quarter cor: between secs. 3 and $10,110 \mathrm{ft}$. S. of T-fence E., 60 ft . NW. of farmhouse, in root on W. side of 18-in. elm treeg copper nall and washer
918.59
976.42
934.071
955.52
$934 \cdot 9$
939.34
952.29
T. $55 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W}$, center sec. $3,8 \mathrm{ft}$. S , and 19 ft . W. from T-rd. E., 0.5 mi . S. of Carroll-Livingston county line, 2 ft . S , and $2 \mathrm{ft}, \mathrm{W}$. from fence corner, in concrete post; standard tablet stamped "473 C W A 1934"
976.194
T. 55 N., R. 24 W., in NE $1 / 4$ sec. 4 , $3 \mathrm{~S}_{\mathrm{O}} \mathrm{ft}$. N. of rd. corner from E. -N. , 40 ft . E. of rd., in root on NW. side of 8-in. cedar tree; copper nail and washer
T. 56 N., R. 24 W., S. cor. secs. 32 and $33,12 \mathrm{ft}$. N. and 12 ft . E. from T-rd: N. on Carroll-Livingaton county Iine, on concrete base of corner fence post; chiseled square
T. 56 N, . R. 24 W ., quarter cor. betwoen secs, 30 and 31,120 ft. E. of crossroads, on $S$. side of rd., in root of 24 -in: maple tree; copper nail and washer

## 8. NEAR CENTER OF EAST HALF OF QUADRANGLE

Tps. 55 and $56 \mathrm{~N} ., \mathrm{Rs} .23$ and 24 W ., cor. of, 30 ft . S. and 15 ft . W. from T-rd. E. on Carroll-Iivingstón county'line, in root on E. side of 8-1n. elm tree; copper nail and washer
Tps. 55 and $56 \mathrm{~N}, \mathrm{R}$. 24 W , on 1 ine between secs. 2 and $35,16 \mathrm{ft} . \mathrm{N}$. and 8 ft. W. from T-rd. S. on Carroll-Livingston county line, in root on N. side of 8 -in. hedge tree; copper nail and washer

[^4]
## CHILLICOTHE QUADRANGLE

(Lat1tude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; Iong1tude $93^{\circ} 30^{\prime}-93^{\circ} 45^{\prime}$ )
Grundy and Livingston Counties


1. FROM MIDDLE OF SOUTH BORDER OF QUADRANGLE NORTHEAST ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD TO EAST BORDER (by S. R. Archer in 1920)
(Continued from Dawn quadrangle; see line l.)
T. 57 N., R. 24 W., near E. sixteenth cor. sec. 17, at Cnicago, Buriington
\& Quincy R.R. bridge 134.06 , on top of $N$. end of parapet wall of E. concrete abutment; chiseled square
T. 57 N., R. 24 W., on line between secs. 9 and 16 , at Chicago, Burlington \& Quincy R.R. bridge over Grand River, on top of N. end of parapet wall of W. abutment; chiseled square
699.80 701.66 701.65 698.44 687.369 698.31
N.N., R. 24 W., in SE $1 / 4$ SW $1 / 4$ sec. 9, at E. end of approach to Chicago, Burlington \& Quincy R.R. bridge over Grand River, on top of N. end of parapet wall of E. abutment; chiseled square
T. 57 N., R. 24 W., in NW $1 / 4$ sec. 10 , at Chicago, Burlington \& Quincy R.P. bridge 132.20, on top of N. end of parapet wall of W. concrete abutment; ch1seled square
T. $57 \mathrm{~N} .$, R. 24 W ., on line betweon secs. 3 and 10 ; 30 ft . S. and 80 ft . W. from crossroads, N. of rd. SW., 25 ft . S. of small oak tree; iron post stamped "1920 Mo 688"
T. 57 N., R. 24 W., near center of $S E 1 / 4 \mathrm{sec} .3,675 \mathrm{ft}$. SW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, at concrete bridge 131.42, on top of $S$. end of parapet wall of E. abutment; chiseled square
$T .57$ N.,.R. 24 W., in NE $1 / 4 \mathrm{SW} 1 / 4$ sec. 2 , at SW . corner of Chicago, Burlington \& Quincy R.R. bridge 130.91, on base of square, concrete number post; chiseled square
Chillicothe, at Chicago, Burlington \& Quincy R.R. passenger sta., NW. of Elm Street crossing, on SW. corner of concrete base of watchman's tower; ch1seled square
765.80

Chipilicothe, $N$. of $N$. entrance on E. side of post office, in top of $S$. end of window' sill; standard tablet stamped "1920 Mo 793"
Chilifothe, W. of S. entrance to courthouse, on W. side of steps at base of electric-light pedestal, in top of S. end of stone baluster; standard tablet stamped "1920 Mo 799"
798.046

Chilifcothe, in SE. part of, at Chicago, Milwaukee, St. Paul and Pacific R.R. bridge over Chicago, Burlington \& Quincy R.R. and Wabash Ry., at base of sloping wing wall, on top of N. corner of W. end of S. concrete abutment; chiseled square
750.26
T. $57 \mathrm{~N} . \mathrm{R}$. $23 \mathrm{~W} .$, in NE $1 / 4$ sec. 6, at Chicago, Burlington \& Quincy R.R. bridge 128.46 over Blackwell Branch, on top of $N$. end of parapet wall of E. concrete abutment; chiseled square
T. $57 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} .$, on line between secs. 4 and $5,50 \mathrm{ft}$. S. and 25 ft . E. from Chicago, Burlington \& Quincy R.R. at rd. crossing, 5 ft . E. of fence corner; iron post stamped "1920 Mo $744^{\prime \prime}$
(Continued in Chula quadrangle; see line 1. !

## 2. FROM CHILLICOTHE SOUTH TO SOUTH BORDER OF QUADRANGLE (by S. L. Parker in 1920)

Chillicothe, 280 ft . S. of Chicago, Milwaukee, St. Paul and Pacific R.R. - sta., on top of SW. corner of concrete base of automatic bell signal at Jackson. Street crossing; chiseled square
Chililcothe, in front of Chicago, Milwaukee, St. Paul and Pacific R.R. sta; top of W. rail
sta., at $N$. end of R.R. bridge, on top of $W$. end of concrete abutment chiseled square

Chillicothe, 1.9 mf . S. of Chicago, Milwaukee, St. Paul and Pacific R.R. sta, quarter cor between secs. 7 and 12 , T. 57 N... Rs. 23 and 24 W., E. of T-rd. W., at entrance to old cemetery, on N. end of concrete

Feet culvert under ariveway; chiseled square
691.54
T. 57 N., R. 23 W., W. sixteenth cor. between secs. 7 and 18 , at rd. fork E., 5 ft . SW. of NE. corrier of fence, on top of parapet wall of concrete cuivert, chiseled square
691.00

## (Continued in Dewn quadrangleg see line 2.)

## 3. NORTH ALONG SOUTH HALF OF EAST BORDER OF QUADRANGLE, THENOE WEST TO MIDDIE OF EAST HALF, THENGE SOUTH TO CHILLICOTHE

T. 57 N., R. 23 W., cor. secs. 4. 5, 8, and 9, at SE, corner of T-rd. S... in root on E . sláe of 12-1n. elm tree; copper nail and washer
758.01 T. $58 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}$. , quarter cor. between secs. 32 and 33.35 ft . s. of SE. corner of crossroads, 1 ft . W. of fence, in root on N. side of honey-locust tälee; copper nall and washer
T. 58 N., R. $23 \mathrm{~W} .$, cor. secs. $28,29,32$, and 33 , at crossroads, 42 ft . S . of SE. corner of fence, 1 ft . W. of hedge fence, in root on N. side
of 58 N. N . R. 23 m W., near cor nall and washer 28 , and $29,3 \mathrm{ft}$. E. of front
779.81 entrance to Adams School, on top of NE. corner of concrete porch; chiseled square
T. 58 N., R. 23 W., quarter cor. between secs. 17 and 20 , at sW . corner of T-rd. W.; iron post stamped " 1920 Mo 841 "
803.37

Sturges, 0.3 mi . SW. of Chicago. Milwaukee, St . Paul and Pacific R.R. sta. on iline between secs. 4 and $5, T .58 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W}, 65 \mathrm{ft}$. NW. of rid. crossing, in field, in root on S. side of lone $24-1 n$. cottonwood tree; copper nail and wesher
840.234

Sturges, in NE, cor. sec. $5, \mathrm{~T}, 58 \mathrm{~N}, \mathrm{R}, 23 \mathrm{~W}$, , SW. of T-rd. S. 21 ft : SW. of SW. corner of fence, in fieldy in root on NE, side of $30-1 n$. cóttonwood tree; copper nail and washer
T. 58 N., R. 23 W . N. quarter cor. sec. 6 , at T-rd. s ., on top of S . end of W. concrete parapet wall; chiseled square
Tps. 58 and $59 \mathrm{N.}, \mathrm{Ra}$,23 and 24 W .; cor of at crosaroads, 4 ft . E. of SE. corner of fencer iron post stamped 12920 Mo $787^{\prime \prime}$
Chillicothe, 6 ms . N. of, N. cor secs. 1 and $2, \mathrm{~T} .58 \mathrm{~N} ., \mathrm{R}$. 24 W. , at T-rd. S., in SE. fence corner, in root on E. side of i2ing maple tree; copper nail and washer
Chillicothe, 5 mi . N. of; cor. secs. $1,2,11 ;$ and $12, \mathrm{~T}, 58 \mathrm{~N} \cdot \mathrm{~F}$ R. $24 \mathrm{~W} ., 140 \mathrm{ft} . \mathrm{S}$. of T-rd. W., in fence ine on E. side of rd., in root on W. side of 12-in. hickory tree copper nail and washer
Chillicothe, 4.2 mi . N. of near $S$. sixteenth cor. between secs. II and $12, T .58 \mathrm{~N}, \mathrm{R} .24 \mathrm{~W} .236 \mathrm{ft}$. S . of SW . corner of Linville School, in root on $W$. side of $16-1 n$. elm trees copper nail and washer
Chillicothe, 3 mi . N. of, cor secs, $13,14,23$, and 24 , at T-rd. N., 5 ft. N. and 1 ft. W. from NE. corner of fence; iron post stamped "1920 Mo 779"
Chillicothe, 2 mi . N. of, 600 ft . E. of cor secs: $23,24,25$, and 26 , T. 58 N., R. 24 W., at T-rd. N., 20 ft. N. and 10 ft. E. from NW. corner of fence, on top of N . end of 12-1n. tile drain; chiseled square
Chillicothe, 1.3 mi . N. of courthouser about 500 ft . W. of center sec. 25, T. 58 N., R. 24 W ., at NW. corner of T-rd. W. in corner of yard, in root on W. side of i2-in: elm treet copper nelil and washer

## 4. FROM MIDDLE OF SOUTH BORDER OF QUADRANGLE NORTH TO SPRINO HILL, THENCE EAST TO POINT 3 MILES WEST OF STURGES

Utica, 1.2 ml . N. of Chicago, Eurlington \& Quincy R.R. sta., E. or T-rd. W., in N.-S. fence line, in root of $12-1 n$. birch tree; copper nail and washer
Utica, $2.3 \mathrm{mi} . \mathrm{N}$. of, $50 \mathrm{ft} . \mathrm{N}$. of bridge over drainage ditch, at rd. corner from $\mathrm{S} .-\mathrm{W} ., 1 \mathrm{ft}$. S. and 6 ft . W. from NE. corner of fence; iron post stamped'"1920 Mo 690"
688.65
689.556

Jtics, $2.5 \mathrm{mi} . \mathrm{N}$. of, in sec. 6, T. $57 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} ., 45 \mathrm{ft}$. S. of SW . corner of T-rd. S., on W. side of rd., in root on N. side of 8-in. blackjack-oak tree; copper nail and washer
Sampsel, 3.1 mf . SE. of, along Wabash Ry, in $\mathrm{SE} 1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec}, 36$, T. $58 \mathrm{~N}, \mathrm{R}$. $25 \mathrm{~W} ., 50 \mathrm{ft}$. SW. of rd. crossing, 1 ft . E. of right-of-way line; iron post stamped " 1920 Mo $696^{"}$
Sampsel, 3 ml . E. of, W. quarter cor. sec. $30, \mathrm{~T} .58 \mathrm{~N} ., \mathrm{R} .24$ W., 28 ft . N. and 4 ft . E. from NE. corner of crossroads, in root on W. side of 25-1n. cottonwood tree; copper nall and washer
T. 58 N., Rs. 24 and 25 W., quarter cor. between secs. 19 and $24,215 \mathrm{ft}$. S. of crossroads, E. of rd., 1 ft . E. of fence, in root on N . side of 16-1n. wild-cherry tree; copper nall and washer
T. $58 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} .$, in SW . cor. NW $1 / 4 \mathrm{sec}$. 18 , at SE. corner of crossroads, in root on W. aide of walnut tree ; copper nail and washer
T. $58 \mathrm{~N} . \mathrm{Rs}^{2} 24$ and $25 \mathrm{~W} .$, cor secs. $7,12,13$, and 18 , SW. of T-rd.
W., 2 ft . E . of N.-S. fence, in field; iron post stamped "ig20 Mo $801^{11}$

Spring Hili, 0.3 mi . W. of, near. NE. cor. sec. $1, \mathrm{~T} .58 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W} .$,
80 ft . S. of SW . corner of T-rd. S., 3 ft . E. of fence, in root on $W$. side of twin $6-1 \mathrm{n}$. elm tree; copper nail and washer
Spring Hill, 0.2 mi . E. of, in $\mathrm{S} / 2 \mathrm{sec}$. $31, \mathrm{~T} .59 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} .$, at rd. forks, 45 ft . W. of NW. fence corner, in fence line N. of ra., in root on S. side of 12-in. locust trees copper nail and washer
T. 59 N., R. 24 W., S. quarter cor. sec. $32,20 \mathrm{ft}$. E. of NE. corner of T-rd. N., 1 ft. S. of fence, in root on S. side of 16-in. white-oak tree; copper nall and washer

Mooresvilie, 0.7 mi . NW. of, quarter cor. between secs. 8 and 17 , T. $57 \mathrm{~N} .$, R. $25 \mathrm{~W}, 20 \mathrm{ft}$. SW. of SW. corner of T-rd. W., in field, in root on N. side of $17-1 n$. white-oak tree; copper nail and washer
oak Ridge School, near W. sixteenth cor. between secs 4 and $98 T .57 \mathrm{~N}$. , R. 25 W. , in NE. corner of yard; iron post stamped " $1920 \mathrm{Mo} 834^{\circ}$ Sampsel, $2 \mathrm{mi} . \mathrm{S}$. of, on line between secs. 4 and 33 , Tps. 57 and 58 N ., R. $25 \mathrm{~W} ., 40 \mathrm{ft}$. E. of E. bank of Grand River, 30 ft . S. of SE. corner of T-rd. E., in fence line, in root on $N$. side of four-forked water-elm treé; copper nail and washer
Sampsel, $0.8 \mathrm{mi} . \mathrm{S}$. of, 100 ft . S . of cor. secs. $27,28,33$, and 34 , T. 58 N., R. $25^{\prime}$ W., 18 ft . E. of rd., in root on W. side of five-forked maple tree; copper bolt and washer stamped "B 7 Nó 37 " (set by Morgan Engineering Co.
sampsel, in NE $1 / 4$ sec. 28, T. 58 N, , R. $25 \mathrm{~W}, 80 \mathrm{ft}$. SE. of Wabash Ry. sta., 65 ft . N. of Farmers Bank, in line with telegraph poles; iron post stamped "1920 Mo 709"
6. FROM SAMPSEL NORTHWEST TO WEST BORDER OF QUADRANGLE, THENCE
NORTH AND EAST TO POINT NEAR SPRING HILL (leveled twice)

Sampsel, in front of Wabash Ry. sta.; top of S. rail
Sampsel, 2.8 mi . NW. of, about 0.1 mi . W. of E. quarter cor. sec. 18 , T. 58 N., R. $25 \mathrm{~W} \cdot$, at rd. corner from E. -11.6 ft . E . of corner of hedge fence N. of rd.s iron post stamped "1920 MO $732^{\prime \prime}$
T. 58 N., R. 25 W ., about 500 ft . W. of cor. secs. $7,8,17$, and 18 , 70 ft . S. of SW. corner of T-rd. S., in root on E. side of forked 36-in. cottonwood tree; copper nail and wesher
(For balance in Gallatin quadrangle, see line 7.)
T. $58 \mathrm{~N} .$, R. $25 \mathrm{~W} .$, about 0.3 mi . N. of cor. secs. $5,6,7$, and 8 ,
 9-1n. white-oak tree; copper nail and washer

Tps. 58 and 59 N., R. 25 W., W. sixteenth cor. between secs. 5 and 32 , 12 ft . N . and 75 ft . E. from NE, corner of T-rd. N., in root on S. side of twin honey-locust tree; copper nall and washer
Tps. 58 and $59 \mathrm{~N} ., \mathrm{R}$. $25 \mathrm{~W}, 300 \mathrm{ft}$. E. of cor secs. $4,5,32$, and 33 ,
80 ft . NE. Of NE. corner of Central Methodist Episcopal Chapel, 20 ft .
S. of ra., at end of N.-S. fence; iron post stamped "prim Trav Sta No 241913 Mo $925^{\circ}$
T. 58 N., R. 25 W. in $\mathrm{NE} 1 / 4 \mathrm{sec} .4,180 \mathrm{ft}$. E. of T-rd. S., 12 ft . N. of wagon track, in root on S. side of 18-in. oak tree; copper nail ana washer
Tps. 58 and $59 \mathrm{~N} \cdot, \mathrm{R}$. $25 \mathrm{w} .$, cor. secs. $2,3,34$, and 35 , about 500 ft .
S. of T-ra. E., in fence ine E. of rd., in root on Wide of lone

16-in. walnut trees copper nail and washer
T. 59 N. . R. $25 \mathrm{~W} .$, in $\mathrm{SE} 1 / 4$ sec. $35,40 \mathrm{ft}$. SE. of SE. corner of rd .
forks, in root on $W$, side of 28-1n. white-oak tree; Copper nail and washer
Spring Hill, 1 mi : W.: of, near S. sixteenth cor. sec. 36, T. 59 N., $2{ }^{\prime \prime}$

## 7. FROM SAMPSEL NORTH AND WEST ABOUT 2.8 MILES

T. 58 N., R. 25 W., in NW $1 / 4$ NW $1 / 4$ sec. 22 , at T-rd. W., in SW. corner of yard of A. Morgan, in root of 11-in. olm tree; copper nail and washer T. $58 \mathrm{~N}, \mathrm{R} .25 \mathrm{~W}, 6 \mathrm{ft}$. S , and 70 ft . E. from quarter cor. between secs. 16 and 17 , In root of 13 in. wainut tree; copper nail and washer

## 8. FROM NEAR STURGES NORTH ALONG NORTH PART OF EAST BORDER OF QUADRANGLE TO NORTHEAST CORNER; THENCE WEST 6 MILES, THENGE SOUTH TO POINT ABOUT 2.5 MILES EAST OF SPRING HILL

Sturges, $1 \mathrm{~ms} . \mathrm{N}$. of, cor. secs. $28,29,32$, and $33, \mathrm{~T} .59$ N., R. 23 W , at crossroads, 2 ft . N. and 8 ft . W. from NW. comer of fence, in corner of yard, in root on E. side of 25-1n. maple tree; copper nail and washer
785.24

Sturges, 2 mi. N. of, cor. secs, $20,21,28$, and $29, T .59 \mathrm{~N}, \mathrm{R}$, 23 W. , at SW'. corner of crossroads ; iron post stamped 19220 mo $788^{\text {®in }}$
786.910

Sturges, 3 ml . N. of, cor. secs. $16,17,20$, and 21, T. $59 \mathrm{N},. \mathrm{R} .23 \mathrm{~W}$. , at orossroads, 12 ft . S. of NW. corner of fences top of N . end of 1 ron pipe culvert

(For balance in Trenton quadrangle, see line 1.)
T. $60 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} ., 0.2 \mathrm{mi}$. N. of cor secs. $22,23,26$, and $27,400 \mathrm{ft}$. S. of T-rd. W., E. of rd., i ft. W. of fence, in root on N. side of 16-1n. elm tree; copper nail and washer
801.09

Pleasant Grove School, in NW. cor. sec. 35 , T. 60 N., R. 24 W., at N. entrance, in $N$. end of wooden doorsill; copper nall and washer
T. 59 N., R. 24 W., N. cor. secs. 2 and 3 , on Grundy-IIvingston county line, at NE. corner of Tird. E., 4 ft . E. of hedge-fence corner; iron post'stamped "1920 Mo 789"
T. 59 N., R. 24 W., quarter cor. between secs. 2 and 3, at crossroads, on top of $E$. end of W. wing wall of conorete culvert; chiseled square
T. 59 N., R. 24 W., cor secs. $10,11,14$, and 15 , at crossroans, 30 ft SE. of NW. corner of fence, on top of $W$. parapet wall of concrete culvert; chiseled square
T. 59 N., R. 24 W., cor. secs. $14,25,22$, and 23 , at crossroads, at NE. corner of fence; iron post stamped "1920 Mo 711
T. $59 N_{0}$, R. 24 W., S. sixteenth cor between secs. 15 and 16,20 fit. S. of T-rd. W., in fence line E. of rd., in root on W. side of 16-in. elm tree; copper nail and washer
T. $59 \mathrm{N.}, \mathrm{R} 24 W.$. , near center sec. $21,400 \mathrm{ft}$. E. of foot of long hill, 130 ft . W. of angle in rd., 8 ft . N. of rd., in root on W . side of 36-1n, elm tree; copper nail and washer
778.46
788.152
756.44
714.98
710.360
715.75
T. $59 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W}$., near quarter cor, between secs. 27 and $28,330 \mathrm{ft}$. S . of rd, corner, 2 ft . E, of fence, in field, in root on W. side of 19 in . walmut tree; copper nail and washer
717.23
771.18

## 9. WEST ALONG MIDDLE OF NORTH BORDER OF QUADRANGLE, THENCE SOUTH TO POINT NEAR SPRING HILL

T. 60 N., R. 24 W., in SE $1 / 4$ sec. 21 , S. of T-rd. N., 3 ft . W. of gatepost, 1 ft . from fence; iron post stamped "Prim Trav Sta No 111913 Mo $738^{\prime \prime}$
T. 60 N, , R. 24 K. , in NE. cor. $\mathrm{SE} 1 / 4 \mathrm{sec} .20,0.3 \mathrm{mi}$. NW. of bridge over Thompson River, 8 ft . N. and 30 ft . W. from SW. corner of fence, 6 ft . S. of wagon tracks, in root on W. side of twin $36-1 \mathrm{n}$. red $\rightarrow 0 \mathrm{ok}$ tree; copper nail and washer
Hickory Creek, $1.1 \mathrm{mi}: \mathrm{E} . \mathrm{of}^{2}$, along Chicago, Rock Island \& Pacific Ry., about 800 ft . SW. of center sec. 19, T. $60 \mathrm{~N} \cdot \mathrm{~s}, \mathrm{R} .24 \mathrm{~W} ., 45 \mathrm{ft}$. SE. of rd. crossing, 4 ft . N. and 1 ft . W. from fence corner; iron post stamped " 1920 MO $765^{\text {" }}$
T. 60 N., R. 24 W., conter sec. $30,14 \mathrm{ft}$. N , and 30 ft . W. from SW . corner of T-rd: W., in root on E. side of 37-in. elm tree; copper nall and washer
T. 60 N., R. 24 W., in SW $1 / 4$ sec. 31, at w. entrance to Shelburn Church, on top of $S$. end of top concrete step; chiseled square
T. 59 N., R. $25 \mathrm{~W} .$, N. cor. secs. 1 and 2 , on Grundy-Iivingston county line, at crossroads, 1 ft . N. and 4 ft . W. from SW . corner of fence; iron post stramped "1920 Mo 846"
T. 59 N., R. 25 W., N. sixteenth cor, between secs. 11 and 12 , NE, of ra. forks, at NE. corner fence post, in root on NE. side of 17-in. walnut tree; copper nail and washer
T. 59 N., R. $25 \mathrm{~W} .$, center of $\mathrm{NE} 1 / 4 \mathrm{sec} .24,240 \mathrm{ft}$. S. of T-rd. R., 10 ft . E. of ra., 8 ft . W. of fence, in root on W . side of 20-in. elm tree; copper nail and washer
736.774
728.32
763.701
745.40
788.46
844.779
773.89
923.15
947.755 School, at T-rd. N., $4 \mathrm{ft} . \mathrm{N}_{\mathrm{l}}$ and 1 ft . E. from NW. corner of fence; iron post stamped "íg20 М० $949^{4}$
T. 59 N., R. 25 W., near center sec. 24 , at W. entrance to Pinkley School, on top of NE. corner of concrete platform which forms bottom step; chiseled square
971.04

## 10. WEST ALONG WEST PART OF NORTH BORDER OF QOADRANGLE, THENCE SOUTH ABOUT 1.5 MILES

Hiokory Oreek, in front of Chicago, Rock Island \& Pacific Ry. sta.; top of rail
753.1
(For balance in Trenton quadrangle, see line 2.)
 460 ft . N . of center sec. 22. T. $60 \mathrm{~N} . \mathrm{r}$. $25 \mathrm{~W} ., 40 \mathrm{ft}$. SE. of rd. crossing, $2 \mathrm{ft} . \mathrm{N}$. and 4 ft . E. from fence corher; iron post stamped " 1920 Mo $803^{\text {" }}$

| Elckory Creek, 2.1 mi . W. of, along Chicago, Rock Island \& Pacific Ry., about 0.3 mi . W. of center sec. 22; T. 60 N., R. 25 W. , at bridge over Gees Creek, on top of $S$. end of $E$. concrete abutment; chiseled square | $\frac{\text { Peot }}{}$ |
| :---: | :---: |
| 60 N., R. 25 W., center sec. 21 , at pd. corner from N.-W., 16 ft . N. |  |
| of SE. corrier of fence, in fence line, in root on SW. side of 26-in. elm tree; copper nail and washer | 801.23 |
| T. 60 N., R. 25 W. , quarter cor. between secs. 19 and $20,15 \mathrm{ft} . \mathrm{N}$. of T-rd. S.: iron post stamped "Prim Trav Sta No 101913 Mo $943^{\prime \prime}$ |  |
| 60 N., R. $25 \mathrm{~W} .$, in NW $1 / 4 \mathrm{sec} .29$, at W. entrance to Gees Creek |  |
| Church (formerly Mounti Pleasant Church), on top of SW. corner of |  |
| fourth concrete step; chiseled square | 928.68 |
| T. 60 N., R. 25 W., cor. secs. $29,30,31$, and $32,45 \mathrm{ft} . \mathrm{S}$. and 120 ft . W. from crossroads, 30 ft . S. of fence, in field, in root on NW. side |  |
| of $30-1 \mathrm{n}$. locust tree; copper nail and washer | 903.43 |
| 11. NORTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE |  |
| T. 59 N., R. 25 W., about 0.2 ml . E. of cor. secs. 29, 30, 31, and 32 (?), at T-rd. E., E. of N.-S. rd., 30 ft . E. of fence, in field, in root on W. side of 17-1n. elm tree; copper' nail and washer |  |
| T. 59 N., R. 25 W. , cor. secs. $19,20,29$, and 30 , at T-rd. S., $4 \mathrm{ft}$. | 908.49 |
| S. of SW. corner of fence, $1 \mathrm{ft} . \mathrm{E}$. of fenceit. Iron post stamped "1920 Mo 931" | 930.281 |
| T. 59 N., R. 25 W., near W. sixteenth cor. between secs. 17 and 20, 120 |  |
| ft. S. of junction of lane W., W. of rd., l ft. E. of fence, in root on $E$. side of $24-i n$. cottonwood tree; copper nall and washer | 943.04 |
| (For balance in Gallatin quadrangle, see line 8.) |  |
| T. 59 N., R. 25 W., quarter cor. between secs. 5 and $8,35 \mathrm{ft}$. E. of |  |
| T-rd. S., N. of rd. at lane N.; top of W. end of 8-in. iron pipe culvert | 956.52 |
| 59 N., R. $25 \mathrm{~W} ., \mathrm{W}$. sixteenth cor. on N. line sec. 5, at T-rd. S. on |  |
| Grundy-Livingston county line, 1 ft . N. and 5 ft . W. from fence corner; iron post stamped " 1920 Mo $911 "$ |  |

Feet

For additional level lines along Wabash Ry. and Chicago, Milwaukee, St. Paul and Pacific R.R., refer to On1ted States Coast and Geodetic Survey second-order lines, Gallatin to Sumer and ghillicothe to Lawsion.

TRENTON QUADRANGLE
(Latitude $40^{\circ} 00^{\circ}-4^{\circ} 15^{\prime}$; longitude $93^{\circ} 30^{\prime}-93^{\circ} 45^{\prime}$ )
Grundy County


1. WEST ALONG EAST PART OF SOUTH BORDER OF QUADRANGLE (by S. L. Parker in 1920)
(Continued from Chillicothe quadrangle; see line 8.)
T. 60 N., R. 23 W., 4 ft. S. of quarter cor. between secs. 19 and 24 , 50 ft . $N$. of T-rd. W., in fence line E. of rd., in root on S. side of forked 18-1n. Wild-cherry tree; copper nail and washer
822.01
T. $60 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} .$, near E. sixteenth cor. sec. $23,175 \mathrm{ft}$. N. of fence comer at NW. corner of T-rd. N., 3 ft . W. of fence, in root on N. side of triple elm tree; copper nail and washer
749.98
T. 60 N., R. 24 W., cor secs. $14,15,22$, and $23,70 \mathrm{ft}$. SW. of fence corner at SW. corner of crossroads, in root on $N$. side of 40-in. cottomwood tree; copper nail and washer


Feet 808.021
(Oontinued in Chillicothe quadrangle; see line 8.)
2. WEST ALONG WEST PART OF SOUTH BORDER OF QUADRANGLE
(Continued from Chillicothe quadrangle; seé line 10.)
Hickory Creek, 0.2 mi . W. of, along Chicago, Rock Island \& Pacific Ry., at $W$. end of bridge over Hickory Creek, on top of $S$. end of concrete bridge seat; chiseled square
755.47
(Continued in Chillicothe quadrangle; see line 10.)

## 3. FROM BRIMSON SOUTH ALONG WEST BORDER OF QUADRANGLE (by G. R. Hamlin in 1936)

U.S.C. \& G.S. standard disk stamped "E 181933 "

Sugar Creek, S. of Brimson, dredged channel under County Route H bridge; surface of water at 1:45 p.m. Dec. 23; 1935
T-rd. W., in top of W. end of sill at SW. corner of bridge; copper nail and washer
Bridge, on top of NE. corner of concrete floor raily chiseled square
Brimson, 1.2 mi . SE: of, near quarter cor, between secs. 32 and 33 , T. 62 N., R. $25 \mathrm{~W} ., 40 \mathrm{ft}$. S. and 60 ft . E. from crossroads, in root on E. side of $36-1 n$. cottonwood trees copper nail and washer
Bridge 17, on top of NE. corner of concrete floor rail; chiseled square
Brimson, 2 mi . SE. of, along County Route $H$, on line between secs. 4 and 33, Tps. 61 and 62 N., R. 25 W., 66 fit. N. and about 190 ft. W. from junction of rd. N., in root on S. side of $30-1 n$. elm tree; copper nail and washer
Top of ridge, on $S$. end of curve, at telephone polet surface of ground
Crossroads, in NE. corner of, at telephone pole; surface of ground
776.278
750.4
770.22
773.31
800.03
787.70

Brimson, about 3.2 mi . SE. of, in sec. $4, \mathrm{~T} .61 \mathrm{~N} ., \mathrm{R} .25 \mathrm{w} ., \mathrm{c} 15 \mathrm{ft} . \mathrm{s}$. and about 105 ft . W. from entrance to Wittona Park, in root on E. side of 24-in. elm tree; copper nail and washer
Concrete culvert, on top of NW. cormer of $W$. head wall; chiseled square
Brimson, 4.7 ms . SE. of, along County Route $\mathrm{H}, 125 \mathrm{ft}$. N. and 15 ft . W. from cor. secs. 9, 10, 15 , and $16, \mathrm{~T} .61 \mathrm{~N} ., \mathrm{R}$. $25 \mathrm{~W} .$, in middle of W . head wall of concrete culvert; standard tabiet stamped ni H 1936!
870.54
$928.8^{4}$
922.8
922.90
914.28

Junction of State Highway 6 and County Route $H, 20 \mathrm{ft}$. N. and 30 ft . E. from, on top of NW. corner of E. head wall of concrete culvert; chiseled square
T. 61 N., R. 25 W., approximate center sec. $16,15 \mathrm{ft}$. S. and 210 ft . E . from, on top of SW. corner of $S$. head wall of concrete culvert; chiseled square
Crossroads, in SW. corner of, at telephone pole; surface of ground
T-fence S., at corner post; surface of ground
T. 61 N., R. 25 W., approximate center sec. $17,90 \mathrm{ft}$. S. and 75 ft . E. from, in root on E. side of $30-\mathrm{in}$. elm tree; copper nail and washer
T. 61 N., R. 25 W., quarter cor. between secs. 27 and $20,90 \mathrm{ft}$. N. and 15 ft . W. from State Highway 6 at rd. W., in middle of $W$. head wall of concrete culvert; standard tablet stamped "2 H 1936"
Corner of yard fence about 25 ft . N. and 70 ft . E. from, on top of NE. corner of $E$. head wall of concrete culvert; chiseled square
950.656
950.64
914.23
941.8
939.1
881.92
906.647
892.42
T. 61 N., R. 25 W., approximate quarter cor. between secs. 20 and 29, 330 ft . N. and 130 ft . W. from, in root on NE. side of 24 in. elm tree; copper nall and washer
Lawn fence W., at corner post; surface of ground
Trid. W., at center of; surface of rd.
$T$-fence W., 120 ft . S. and 50 ft . E. from, near entrance to farm, in root on N. side of $30-1 \mathrm{n}$. white-oak trees crossed nails
943.52
945.0
849.28
. N., R. 25 ., approximate center sec. 32 , 200 ft . S. and $15 \mathrm{ft} . \mathrm{E}$. from, in fence line S., in root on W. side of 20 -in. elm tree; copper nall and washer
801.16

Bridge, on top of SE. wing wall; chiseled square
Top of hill, $S$. of rd., in root on $W$. side of $12-1 n$. white-oak tree;
crossed nails
864.24

## 4. FROM SPICKARD EAST ALONG NORTTH BORDER OF QUADRANGLE (by Cornish Beck in 1936)



Spickard, 5 ml . E. of, in NE $1 / 4 \mathrm{NW} 1 / 4$ sec. 20, T. $63 \mathrm{~N} . \mathrm{r} \cdot \mathrm{R} .23 \mathrm{~W}, \mathrm{~g}$
21 ft . $\mathrm{N}_{\text {, }}$ and 10 ft . E. from T-rd. S., in front of farmhouse of
G1lbert Howe, in concrete post; standard tablet stamped "1405 1935"

## 5. FROM SPICKARD WEST ALONG NORTH BORDER OF QUADRANGLE

| Spickard, 0.6 mi . SW. of, along County Route $C_{\text {, about }} 130 \mathrm{ft} . \mathrm{N}$. of S . s,1xteenth cor. sec. 21, T. 63 N., R. 24 W., 60 ft . S. and 25 ft . W. | Feet |
| :---: | :---: |
| from cross rd., in concrete post; standard tablet stamped "1403 1935" | 5.980 |
| ickard, about 1.3 mi . W. of along County Route C , center of SE $1 / 4$ |  |
| sec. $20, \mathrm{~T} .63 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} ., 16 \mathrm{ft}$. S. and 13 ft . E. from cross rd., |  |
| on head wall of culvert; chiseled square | 797.59 |
| Spickard, about $2.4 \mathrm{mi} . \mathrm{W}$. of, along county Route C, S. sixteenth cor. sec: 19, T. $63 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} ., 12 \mathrm{ft}$. S. and 16 ft . E. from junction of | 856.74 |
| Spickard, 3.5 mi . W. of, along County Route C , about 310 ft . W. of center |  |
| sec. $24, \mathrm{~T} .63 \mathrm{~N}, \mathrm{R} .25 \mathrm{~W} .9 .60 \mathrm{ft}. \mathrm{N} .\mathrm{of} \mathrm{highway} ,30 \mathrm{ft}$. S. of rd. E. |  |
| about 150 ft . SW . of farmhouse owned by Wirt Welch, in concrete posty |  |
| T. 63 N., R. 25 W., E. sixteenth cor. between secs |  |
| and 30 ft . W. from County Route $C$ at cross rd., in telephone poles spike | 945.04 |
| T. $63 \mathrm{Ne}$. R. $25 \mathrm{~W} ., 250 \mathrm{ft}, \mathrm{W}$. of cor. secs. 14,$15 ; 22$, and 23 , on County |  |
| Route $C$, on SE: wing wall of bridge; chiseled square | 4 |
| T. $63 \mathrm{~N} ., \mathrm{R}$. $25 \mathrm{~W} ., \mathrm{cor}$, secs. $15,16,21$, and $22,27 \mathrm{ft}$. S. and 24 ft . W. |  |
| from County Route $C$ at cross rd., $2 \mathrm{ft} . \mathrm{N}$. of fence, in concrete post; standard tablet stamped "1401 1935" | 931.651 |
| . $63 \mathrm{N.,R}$ R. 25 W. , about $200 \mathrm{ft}$. S. of cor. secs. $16 ; 17,20$, and 21 , |  |
| 56 ft . N. and $20 \mathrm{ft.v}$ W. from W. end of County Route C at N.-S. rd. |  |
| in root on NE. side of 30-in. locust tree; copper nail and washer | 804.95 |
| Trrd. S., 38 ft . S. and 24 ft . E. from. in W. side of $22-1 \mathrm{n}$. post-oak | 820.32 |

## 6. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE I MILE SOUTH OF TRENTON

U.S.C. \& G.S. standard disk stamped "H 82 1935"
816.534

Trenton, 1 mi. S. of, in SE $1 / 4$ sec. 20, T. 61 N., R. 24 W., at bridge
over Thompson'River, at W. end of upstream truss, on upstream anchor-
bolt; chiseled oross (set by water-resources branah of J. S. Geol. Survey)
748.798

## 7. F'ROM BRIMSON NORTH ALONG WEST BORDER OF QOADRANGLE (by W. V. Kennedy in 1937)

Church at top of hill, in front of, on SW. corner of conorete step, chiseled square
Brimson; at NW. limits of; $150 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from T-rd. S., in root on E. side of l2-in. maple tree; copper nail and washer
Brimson, 1.2 mi : N , of, W. sixteenth cor. between secs. 17 and 20 , T. 62 N., R. 25 W. 33 ft . N. and 20 ft . W. from crossroads, in concrete post; standard tablet stamped n887 $1934^{n}$
$795 \cdot 771$
Reference mark, 225 ft . S . and 10 ft . W. from tablet; in root on E. side of 18-1n. white-oak tree; copper nail and washer
T. 62 N., R. 25 W., center of $\mathrm{SW} 2 / 4$ sec. 17 . in root on N . side of $20 \rightarrow$ in. hickory tree; copper nall and washer

Top of hill, 90 ft . $N$, and 110 ft . E. from rd, at $j 0 g$ E., in root on S . side of 20-in. elm tree; copper nail and washer
T-rd, W., $20 \mathrm{ft}$.S . and 110 ft . W. from, in root on S . side of $18-\mathrm{in}$. wild-cherry treef crossed nalls
787.70
. N., R. Sixteenth cor between secs. 7 and 8, $100 \mathrm{ft.E}$. of rd. at fence E., in root on W. side of $30-1 n$. white-oak trees copper nall and washer
771.25
r-fence W., 55 ft . N. of, in root on S. side of 20 -in. elm tree; crossed nails
Tps. 62 and $63 \mathrm{~N} ., \mathrm{R}$. 25 W. , cor secs. $5,6,31$, and $32,90 \mathrm{ft}$. E . of steel bridge over Cat Creek, 27 ft. N. of awelling of G. S. Whitt, 57 ft . W. of well, in concrete post, standard tablet stamped " $88819344^{\mathrm{n}}$
Gatepost, W. of rd. on E. side of concrete basez chiseled square
T. 63 N., R. $25 \mathrm{~W} .$, near cor secs. $29,30,31$, and 32 , in ste日l headplate on top of SE. pier of steel girder bridge over Thompson River; top of bolt
T-fence S., 5 ft . S . and 20 ft . W. from, in root on E . side of 2 L -in walnut tree; crossed nalls
T. 63 N., R. 25 W., cor ; seos. $28,29,32$, and $33,110 \mathrm{ft}$. S. and 70 ft. E. from T-rd. N., in root on NW. side of ilfin. hickory trees 0opper nail and washer
$T$-fence $E$. p $W$. side of concrete base of corner post; chiseled square
T. 63 N., R. $25 \mathrm{~W} .$, cor secs. $20,21,28$, and $29 ; 30 \mathrm{ft}$. S. and 18 ft . W. from crossroads, in concrete posty standard tablet stamped " 889 $1934^{\prime \prime}$
(Continued in Princeton quadrangle: see line 3.)
For additional level lines along Quincy, Omaha \& Kansas City R.R. and Chicago; Rock Island \& Pacific Ry., refer to United States Coast and ceodetic Survey first-aider inne, Milan, Mo., to Hamburg, Iowa; and second-order line; Chariton; Iowa to Trenton; Mo -

PRINCETON QUADRANGLE
(Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime}$; long1tude $93^{\circ} 30^{\prime}-93^{\circ} 45^{\prime}$ )
Grundy and Mercer Counties


1. SOUTH ALONG WEST BORDER OF QUADRANGLE (by F. C. Lentz in 1936) (Continued from Lineville quadrangle; see line l.)
T. 66 N., R. 25 W ., center of NE $1 / 4 \mathrm{sec} .28,27 \mathrm{ft} . \mathrm{s}$. and 42 ft . W. from oounty Route $B$ at rd. E., in concrete post; standard tablet stamped "871 1.934"

Feet 999.918
T. $66 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W}$. in SE 1/4 sec. $28,25 \mathrm{ft} . \mathrm{N}$. and 160 ft . W. from County Route B at cross ra., in root on $N$. side of $14-1 n$. elm tree; copper nall and washer
T. 66 N., R. $25 \mathrm{~W}, 0.2 \mathrm{mi}$. E. of cor. secs. $28,29,32$, and $33,200 \mathrm{ft}$. E. of Liberty Church, 40 ft . S. of rd., in root on NE. side of 48-in. silver-maple tree; copper nail and washer
T. 66 N., R. 25 W., S. sixteenth cor. between secs. 32 and $33,100 \mathrm{ft}$. S. of dwelling of Gien Dennis, 20 ft . E. of rd., in root of 16-in. maple tree; copper nall and washer
T. 66 N., R. 25 W., S. cor secs. 32 and $33,20 \mathrm{ft}$. S. and 150 ft . W. from Turd. N., 20 ft. S. and 45 ft. E. from T-rd. S., in root on E. side of l2-in. maple tree; copper nail and washer
T. 65 N., R. $25 \mathrm{~W} ., 0.8 \mathrm{ml}$. N. of quarter cor. between secs. 5 and 8 , 20 ft . E. of T-rd. W., 100 ft . SW. of farmhouse of Alfred Hardy, in concrete post; standard tablet stamped "870 1934"
(For balance in Blythedale quadrangle, see line 5.)
T. 65 N., R. 25 W., near cor. secs. 19, 20,29 , and $30,60 \mathrm{ft}$. S. and 40 ft. W. from T-rd. S., 0.5 ml . N. of Cain School, 200 ft . SE. of farmhouse, in root on SW. side of 18-1n. White-oak tree; copper nail and washer
T. 65 N., R. 25 W., cor. secs. 29, 30,31 , and $32,100 \mathrm{ft}$. S. and 90 ft . W. from T-rd. W., in root on E. side of 18-in. white-oak tree; copper nail and washer
Tps. 64 and $65 \mathrm{~N}, \mathrm{R}, 25 \mathrm{w} .$, cor. secs. $5,6,31$, and $32,27 \mathrm{ft} . \mathrm{S}$. and 33 ft . E. from crossroads, in concrete post; standard tablet stamped 4867 $1934{ }^{\circ}$
Reference mark, $15 \mathrm{ft} . \mathrm{S}$. and 5 ft . W. from tablet, in root on N . side of $15-1 n$. pecan tree; copper nall and washer
(For balance in Blythedale quadrangle, see line 5.)
T. 64 N., R. 25 W., in SW $1 / 4$ sec. $8,100 \mathrm{ft}$. S. and 150 ft . W. from State Highway 4 at rd. W., 40 ft . E. of High Point School, on NE. corner of concrete walk; chiseled square
Junction of rd. W., on top of $S$. head wall of concrete culvert; chiseled square
T. 64 N., R. $25 \mathrm{~W} .$, in SE $1 / 4$ sec. $18,2.5 \mathrm{ml}$. E. of Mount Moriah along State Highway $4,400 \mathrm{ft}$. N. of farmhouse, 60 ft . S . and 50 ft . W. from junction of rd. S., in conorete post; standard tablet stamped " 866. $1934{ }^{\prime \prime}$
T. $64 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W} ., 460 \mathrm{ft}$. N. of cor. secs. 19, 20,29 , and $30,85 \mathrm{ft}$. E. of rd., on SE. side of small pond, in root of $40-1 \mathrm{n}$. post-oak tree; copper nail and washer
T. $64 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W} .$, quarter cor. between secs. 29 and $30,25 \mathrm{ft}$. N. and 60 ft . E. from crossroads, in root on W. side of 14 -in. willow tree; oopper nail and washer
T. 64 N., R. 25 W., in NW $1 / 4 \mathrm{NW} 1 / 4$ sec. $32,106 \mathrm{ft}$. W. of Hamilton Sohool, 50 ft . E. of rd., in conorete post; standard tablet stamped " 865 1934"
T. 64 N., R. 25 W., quarter cor. between secs. 31 and $32,20 \mathrm{ft} . \mathrm{N}$. and 40 ft . E. from crossroads, 20 ft . SW . of front door of church, on NW . corner of concrete walk; chiseled square
$1,003.04$
971.91
954.89
945.61
932.821
826.58
$827 \cdot 32$
1,057.53
$1,072.12$

1,043.54

1,039.48
$1,031.139$

886.776
875.45

Tps. 63 and 64 N., R. $25 \mathrm{~W} .$, cor. secs. $5,6,31$, and $32,75 \mathrm{ft} . \mathrm{S}$. and

30 ft . W. from rd. corner, in root on E. side of 24 -in. white-oak tree; copper nail and washer
T. 53 N., R. 25 W., S. sixteenth cor. between secs. 5 and 6, 15 ft. N. and 20 ft . E. from T-rd. E., on concrete head wall of culvert; chiseled square
T. $63 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W}$, cor. secs. $7,8,17$, and 18 , 35 ft . N. and 25 ft . W. from T-rd. N., in concrete post; standard tablet stamped "864 1934"
Reference mark, 40 ft . S. and 375 ft . E. from tablet, in root on $W$. side of $14-1 \mathrm{n}$. elm tree; copper nail and washer

Feet
890.75
829.30
794.162
794.21
2. NEAR MIDDLE OF WEST BORDER OF QUADRANGLE
(Oontinued from Blythedale quadrangle; see line 3.)
Tps. 64 and $65 \mathrm{~N}, \mathrm{R} .25 \mathrm{~W} ., 0.1 \mathrm{mi}$. W. of cor. secs. $5,6,31$, and 32 , at bottom of hill, 15 ft . S . of abandoned rd., in root of triple elm tree; copper nail and washer
3. NEAR SOUTHWEST CORNER OF QUADRANGLE (by W. V. Kennedy in 1937)
(Continued from Trention quadrangle; see line 7.)
T-rd. S., 35 ft . S. and 25 ft . E. from, in root on $W$. side of $16-1 \mathrm{n}$. white-oak tree; crossed nails
T. 63 N., R. $25 \mathrm{~W} .$, near cor. secs. $8,9,16$, and 17 , at $S W$. corner of cemetery, in root on $S$. side of 15 -in. hickory tree; copper nail and washer
$T$-fence $S$., in root on S. side of $30-1 n$. elm tree; crossed nails
4. WEST THROUGH CENTER OF QUADRANGLE TO WEST BORDER (by Comish
Beck in 1937)
(Continued from Lucerne quadrangle; see line 6.)

Princeton, $2.3 \mathrm{mi} . \mathrm{S}$. of, along U.S. Highway 65 , thence about 2 mi . E. along County Route $E$, near $E$. sixteenth cor between secs. 6 and 7 , T. 64 N., R. $23 \mathrm{~W} ., 30 \mathrm{ft}$. W. of junction of rd. S., in telephone pole; spike
Princeton, 2.3 mi . S. of along $\mathrm{U} . \mathrm{S}$. Highway 65 thence 1.1 mi . E. along County Route E , in NE $1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .1$, T. $64 \mathrm{No}, \mathrm{R} .24 \mathrm{~W} ., 170 \mathrm{ft}$. N. and 100 ft . W. from highway at fences N . and $\mathrm{s} ., 50 \mathrm{ft}$. S. of farm house, 3 ft . S. of. 20-1n. sycamore tree, in concrete post; standard tablet stamped "1416 C W A 1934"
Princeton, about 2.3 mi. S. of, along $0 . S$. Highway 65 , in SE $1 / 4 \mathrm{sec} .2$, T. $64 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W} ., 75 \mathrm{ft} . \mathrm{N}$. and 30 ft . W. from junction of county Route $E$, in root on $E$. side of 16 -in. hickory tree; copper nail and washer
Princeton, about $1 . \pi \mathrm{mi}$. S. of, along U.S. Highway 65, in SE $1 / 4$ seo. 35, T. 65 N., R. $24 \mathrm{~W} ., 45 \mathrm{ft}$. N. and 55 ft . W. from junction of ra. E., on top of concrete right-of-way post; chiseled cross

Princeton, in SE. part of, 150 ft . S. and 35 ft . W. from intersection of U.S. Highwiay 65 and Main Street, 4 ft . E. of fence, in concrete post; standard tablet stamped "1lilf C.W A 1934 "
950.29
$884-79$
824.59
906.412
$1,039.52$
$1,003.78$
854.875
960.62
828.653
891.074
970.15

1,006.52
919.16
$1,010.566$

1,028.42
987.59
978.626
856.71
943.11
U.S.c. \& G.S. standard disk stamped "T $811935^{\circ}$

Princeton, 1 mi . W. of, aiong State Highway 4 , in $\mathrm{SW} 1 / 4$ sec. 28 , T. $65 \mathrm{~N} ., \mathrm{R}$. $24 \mathrm{~W} ., 50 \mathrm{ft}$. N. and 150 ft . E. from E.-W. cross. Id .

150 ft . SW. of dweiling in cedar grove, in concrete postí standerá tablet stamped "1414 C W A 1934"
Princeton, about 2.2 mi . W. of, along State Highway 4 , on line between secs. 29 and 30 , T. 65 N., R. 24 W., 27 ft . N. and 24 ft . W. from junction of rd.N., on head wall of culvert; chiseled square
Junction of rd. S., $30 \mathrm{ft} . \mathrm{N}$. and 80 ft . W. from; in telephone poles spike
Princeton, about 3.4 mi . W. of, along State Highway 4, in SE $1 / 4 \mathrm{sec}$. 25, T. 65 N., R. $25 \mathrm{~W} ., 10 \mathrm{ft}$. N. and 100 ft . E. from junetion of rd. N., on NW. wing wail of bridges chiseled square
Princeton, about 4.5 mi . W. of, along State Highway 4 , in $\mathrm{SW} 1 / 4 \mathrm{NW} 1 / 4$ sec. 36, T. $65 \mathrm{~N} .$, R. $25 \mathrm{~W} ., 87 \mathrm{ft}$. S. and 33 ft . W. fromeross rdo. in concrete post; standard tablet stamped "I4il 0 W A 1993"
T. 65 N., R. 25 W. , near S. sixteenth cor. sec. 35 , 145 ft . W. of junction of State Highway 4 and County Route B, on top of right-of-way posts chiseled cross
T. 65 N ., R. 25 W ., s. quarter cor. sec: $34,30 \mathrm{ft}$. N. and 24 ft . E. from State Highway 4 at rd. N., on head wall of culvert; chiselea square
T. $64 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W}$, center sec. $4,17 \mathrm{ft}$. S. and 307 ft , E. from cornerstone, 5 mi . NE. of Mount Morlah along State Highway $4,45 \mathrm{ft}$. S. of highway, in front yard of farmhouse of John Runyan, in concrete posts standard tablet stamped "l| 12 C W A 1934"
T. 64 N., R. 25 W., in NE $1 / 4$ sec. 8, on State Highway 4, on NE. wing wall of bridge J-639; chiseled square
Junction of rd. NW., 26 ft . W. of, on head wall of culvert; chiseled square

For an additional level Iine along Chicago, Rock Island \& Pacific Ry., refer to United States Coast and Geodetic Survey second-order line, Chariton, Iowa to Trenton, Mo.

# LINEVILLE QUADRANGLE <br> (Latitude $40^{\circ} 30^{\prime}-40^{\circ} 4^{\prime} 5^{\prime} ;$ long1tude $93^{\circ} 30^{\circ}-93^{\circ} 45^{\prime}$ ) 

Mercer County


1. IN SOUTHWEST CORNER OF QUADRANGLE (by F. C. Lentz in 1936)
(Continued from Lamoni quadrangle; see line 1.)
T. 66 N., R. 25 W., cor secs. $16,17,20$, and $21,15 \mathrm{ft}$. N. and 30 ft . E. from crossroads, in root on N. side of 20-in. elm tree; copper nail and washer

Feot
1,012.79
T. $66 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W} ., 100 \mathrm{ft}$. N. of line between secs. 16 and 21 , about 0.5 mi : S. of Saline, along Chicago, Burlington \& Quincy R.R., 45 ft . E. of track, in root on SW. side of l2-in. elm tree; copper nail and washer
950.83
T. 66 N., R. 25 W., 189 ft . E. of cor. secs. $15,16,21$, and $22,41 \mathrm{ft}$. W. of T-rd; E., in concrete post; standard tablet stamped "prim Trav Sta $\mathrm{No}^{7} 72 \mathrm{~J} \mathrm{~S} 1923 \mathrm{Mo}^{\text {I }}$
Reference mark, about 150 ft . SE. of tablet, on NW. cormer of top step of concrete walk to dwelling; chiseled square

1,056.226
1,054.95
T. 66 N., R. 25 W., quarter cor. between secs. 21 and $28,55 \mathrm{ft} . \mathrm{N}$. and 40 ft . W. from County Route B at rd. E., in root of 8 -in. elm tree; copper nail and washer
(Oontinued in Princeton quadrangle; see line 1.)

> 2. FROM POINT ABOUT I MILE SOUTH OF IOWA-MISSOURI STATE LINE SOUTH ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD TO SALINB. (by F. C. Lentz in 1936-37)
> (Continued from Lamoni quadrangle; see line 2.)
T. 67 N., R. $25 \mathrm{~W} .$, in SE $1 / 4 \mathrm{SE} 1 / 4$ sec. $32,32 \mathrm{ft}$. E. of T-rd. W., 10
ft. E. of Chicago, Burlington \& quincy R.R., in concrete post; stándard tablet stamped 872 1934"
Reference mark, 30 ft . S. and 50 ft . W. from tablet, in root on S. side of triple locust tree; copper nail ánd washer
T. 66 N .. R. 25 W ., approximate quarter cor. between secs. 4 and $5,60 \mathrm{ft}$.
E. of Chicago, Burlington \& Quincy R.R., io ft. S. of rdi, on W. end of head wall of concrete culvert; chiseled square
T. 66 N., R. $25 \mathrm{~W} .$, in $\mathrm{W} 1 / 2$ sec. 9 , $40 \mathrm{ft} . \mathrm{W}$. of Chicago, Burlington $\&$ Quincy R.R., 115 ft. S. of rid., in root on'S. side of l6-in. elm tree; copper na11 and washer
986.58
aline, in $\mathrm{N} 1 / 2 \mathrm{sec} .16$, T. $66 \mathrm{~N}, \mathrm{R} .25 \mathrm{~W} .$, about $700 \mathrm{ft} . \mathrm{S}$. of Chicago, Burlington \& Quincy R.R. sta 250 ft . E. of T-rd. W., 200 ft . E. of track, in root on W. side of 48-in. elm tree; copper nail and wesher
949.71
3. FROM POINT NEAR SOUTHEAST CORNER OF QUADRANGLE NORTH TO IOWAMISSOURI STATE LINE; THENOE WEST TO POINT NEAR WEST BORDER (by Cornish Beck añd J. J. Crañ in 1936-37)
(Continued from Allerton quadrangle; see line 1.)
Mercer, 1.2 mi . E. of , along County Route $\mathrm{M}, \mathrm{N}$. sixteenth cor. between secs. 20 and 21, T. $66 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} ., 28 \mathrm{ft} . \mathrm{N}$. and 18 ft . W. from old aposs ra, in concrete post; standard tablet stamped "prim Trav Sta No $75 \mathrm{~L} \mathrm{~S} 1923 \mathrm{Mo}^{\text {" }}$
U.S.C. \& G.S. standard disk stamped "P 81 1935"

[^5]T. 66 N., R. 23 W., near center of NE $1 / 4$ sec. $18,15 \mathrm{ft}$. S. and 18 ft . W. from U.S. Highway 65 at cross rd., on head wall of culvert; chiseled square
Linevilie, 3 mi . S. of, in SE $1 / 4 \mathrm{NE} 1 / 4$ sec. 7, T. $66 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} ., 11$ ft. S. and 16 ft . W. from rd. at gate to cemetery, in concrete post; standard tablet stamped "1411 1934"
T. 66 N., R. 23 W., in NE $1 / 4$ sec. 6, $16 \mathrm{ft} . \mathrm{N}$. and 21 ft . W. from J.S. Highway 65 at cross rd., in telephone pole; spike
Gross rd., 22 ft . N. and 25 ft . E. from, on head wall of culvert; chiseled square
U.S.C \& G.S. standard diskstamped "L 81 1935"

Lineville, in SW. corner of park, 37 ft . N. and 35 ft . E. from $\mathrm{f} . \mathrm{S}$. Highway 65 at state line rd., 65 ft . N. of Iowa-MO. State line, in concrete post; standard tablet stamped "T T 49 J J 1936"
$1,092.561$
Lineville, 1.1 mi . W. of, along Iowa-Mo. State line, $20 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from rd. corner $\mathrm{N} .-\mathrm{W}$. , in root ón S . side of pine tree; copper nail and washer
T-rd. S., 60 ft . S. and 20 ft . W. from, in E. side of l2-in: elm treeg crossed nails

1,073.00

In neville, about 2 mi . W. of, near NW. cor. sec. $25 ;$ T. 67 N., R. 24 W., on Iowa-Mo. State liné, on SE. comer of $W$. iron sili of bríge; chiséled square
Linevilies 3.1 mi . W. of, along Iowa-Mo. State line rd. in $\mathrm{SW} 1 / 4 \mathrm{sec}$. 26, T. $67 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W}, 25 \mathrm{ft} . \mathrm{S}$. and 13 ft . W. from junotion of private entrance S. . in concrete post; standard tablet stamped " $T T$ 48 J J 1936"

$$
\frac{\text { Fe日t }}{1,075.54}
$$

1,086.546
1,068.27
1,096.72
1,095.277

1,046.94

Lineville, about 4.2 mif. W. of, in NW $1 / 4$ sec. 34 , T. 67 N.; R. 24 W., about 0.3 mi . S. of crossroads, on Iowa-Mo. State Ine, in E. side of $S$. wooden sill of bridge; copper nail and washer
938.18

Lineville, about 5.3 mi . W. of center of $\mathrm{SW} 1 / 4 \mathrm{sec} .34, \mathrm{~T} .67 \mathrm{~N} .$, R. 24 W., 0.2 mf . W. of crossroads, 16 ft . S. of rd. at N.-S. fences, in telephone pole; spixe
Bridge over Weldon River, on top of SW. rivet in SW. pier; chiseled cross
Lineville, $6.4 \mathrm{mi} . \mathrm{W}$. of, in SE $1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .33, \mathrm{~T} .67 \mathrm{~N} \cdot \boldsymbol{\mathrm { r }}$ R. 24 W , , 0.5 mi . W. of Weldon River, 22 ft . N. of rd.r. 47 ft . $\$$, and 12 ft . W. from dwelling of Albert Cox, in concrete post; standard tablet stamped ${ }^{n}$ T T. 47 J J 1936"
T-rd. S., 12 ft. N. and $16 \mathrm{ft}$. . from. in fence post; crossed nails
T. $67 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W}$, in. $\mathrm{S} 1 / 2$ sec. $32 \mathrm{p} 70 \mathrm{ft} . \mathrm{S}$. and 70 ft . W. from SW. corner of New Zion School; 45 ft . N. of rdi, in root on S. side of 7-in. hickory treef copper nall and washer
T. 67 N., R. 24 W., near S. cor. seca: 31 and 32 , $115 \mathrm{ft}$. N. and 30 ft . W. from crossroads, in root on $N$. side of lifin. hickory tree; crossed nalls
T. $67 \mathrm{~N} ., \mathrm{R} .24 \mathrm{~W}$, in SE $1 / 4 \mathrm{sec} 30$, on Iowa- Mo. State linie, 130 ft . E . of T-rd. Nj, 22 ft . N. and 36 ft W. from rducorner W.-S., in concrete posty standard tablet stamped $\mathrm{T}_{\mathrm{T}} \mathrm{T} 4 \mathrm{~L}^{2} \mathrm{~J} \mathrm{~J} 1936 \%$
T-rd. S., 20 ft . N. and 50 ft . E. from in root on W. side of small, twin oak tree; crossed nalls
T. $67 \mathrm{~N} \cdot \mathrm{~F}$ R. 25 W, , in sec. $25,20 \mathrm{ft}$. N. and 60 ft . E. from T-rd. N., on top of Iowa-MO. State line markery painted squar'
968.606
898.80

Bridge over Little River, at $W$. end of; on Iowa-MO. State line, in N. wooden pier; copper nail and washer
904.97
879.33
900.692

1,021.67

1,008.94
$1,011.90$
T. 67 N. . R. 25 W., in NW $1 / 4 \mathrm{NW} 1 / 4$ sec. $35,20 \mathrm{ft}$. N. and 30 ft . W. from T-rd. N., on head wall of concrete culverts chiseled square

1,029.589
T. $67 \mathrm{~N}, \mathrm{R}, 25 \mathrm{~W} \cdot \mathrm{cor}$ secs, $26,27,34$ and $35,125 \mathrm{ft}, \mathrm{N}$. and 105 ft . W. from, 30 ft . S . and 105 ft . Wrom Tird. S. . in concrete post; standard tablet stamped "T T 45 J J 1936 "
918.887

Dwelling of George Griffin, 100 ft . NW. of, $30 . \mathrm{ft} . \mathrm{S}$. of ra., in NW. corner of yard, in root on E. side of 8-in. whitedoak tree; crossed naila

1,042.33
T. 67 N., R. 25 W., near cor. secs: $27,28,33$, and $34,90 \mathrm{ft}$. N. and 6 ft . W. from T-rd. S., in root on S. side of 22-in. walnut treet copper nail and washer
966.99
T. 67 N. R. 25 W . in $\mathrm{E} 1 / 2 \mathrm{sec}, 32,150 \mathrm{ft} . \mathrm{S}$. and 20 ft . W. from T-rdi. E., in root on E, alde of $16-1 \mathrm{n}$. ash tree; copper nail and washor
$1,088.67$
4. FROM MERGER WEST ALONG SOUTH BORDER OF QUADRANGLE (by J. J. Crane in 1937)
T. $66 \mathrm{~N} ., \mathrm{Rs} .23$ and 24 W. , cor. secs. $19,24,25 \mathrm{w}$ and $30,50 \mathrm{ft}$. S. and 25 ft . W. from T-rd. S., in fence line, in root on W. side of 12 in . elm trees copper nail and washer.
Center sec. 24 , 12 ft . N . of rd., in root on N . side of 20-in. elm trees crossed nails

1,085.71
T. 66 N, R. 24 W., quarter cor. between secs. 23 and $24,15 \mathrm{ft}$. N. and 30 ft . W. from Twd. N., in fence line, in root on NW. side of $16-1 n$. oak tree; copper nail and washer

1,038.77
T. 66 N., R. 24 W., cor, secs. $14,15,22$, and $23,22 \mathrm{ft}$. N. and 15 ft . E. firom T-rd. S., 36 ft . SE. of dweiling of J. D. McIntosh, in concrete post; standard tabiet stamped "Prim Trav Sta No 74 L S 1923 MoP

1,048.50

Bridge over Weldon River; at W. end of, on rivet head in S. guardrail; chiseled cross
989.569
T. 66 N.. R. 24 W., quarter cor between secs. 16 and $21,100 \mathrm{ft}$. S. and 100 ft . F. from $\mathrm{T}-\mathrm{rd}$. . B., in root on NG. side of 24 in. white-oak tree; copper nail and washer
864.08

Bridge over Little River, at H. end of, in upstrears side; on bolt head; chiseled ćross
T. 66 N., R. 24 W., W. sixteenth cor, between secs, 17 and $20,90 \mathrm{ft}$. S. and 30 ft . E. from crossroads, in root on E. side of $24-1 n$. cottonwood trees copper nail and washer
${ }_{930 \text { Fert }}^{\text {F }}$
1,007.856 dwelling of Charies Rank, 35 ft . S . of rd., in concrete post; standard tablet stamped 73 C $01937{ }^{k}$
T. $66 \mathrm{~N} .$, R. 25 W., E. cor. secs. 13 and $24,15 \mathrm{ft}$. N . and 12 ft . W. from T-rd. W., on N. head wall of concrete culvert; chiseled square
976.38
T. $66 \mathrm{~N} ., \mathrm{R}$. 25 W ., on line between secs. 14 and $23,400 \mathrm{ft}$. W. of T-rd. s., 400 ft . E. of T-ra. N., on S. head wall of concrete culvert; chiseled square
5. FROM EAST BORDER OF QUADRANGLE WEST TO LINEVILLE
(Continued from Allerton quadrangle; see line 3.)
Lineville, 0.9 ml. E. of fin $\mathrm{NW} 1 / 4 \mathrm{sec} .33$, T. $67 \mathrm{~N} ., \mathrm{R} .23 \mathrm{~W} ., 0.1 \mathrm{ml}$. E. of small steel bridge, 18 ft . N. of ra., in root on N . side of 32-in. white-oak tree; copper naill and washer
$\mathrm{T}-\mathrm{rd}$. N., 36 ft . N. and 21 ft . F. from, at small dwelling, on S . end of concrete step; chiseled square

For an additional level line along Chicago, Rock Island \& Pacific order Iine, Chariton, Iowa to Trenton, Mo.

LAMONI QUADRANGLE*<br>(Latitude $40^{\circ} 30^{\prime}-40^{\circ} 45^{\prime}$; longitude $93^{\circ} 45^{\prime}-94^{\circ} 00^{\prime}$ )

Harrison and Mercer Counties


1. EAST ALONG SOUTH BORDER OF QUADRANGLE (by F. C. Lentz in 1936) (Continued from Blythedale quadrangles see line 4.)
T. $66 \mathrm{~N} .$, R. 27 W. ; quarter cor, between secs. 19 and $30,32 \mathrm{ft}$. S. and 36 ft . E. from crossroads, in NW. corner of yard of Banner School (schoolhouse destroyed), in concrete post; standard tablet stamped "Prim Trav Sta No 67 J S $1923 \mathrm{Mo}^{\text {" }}$

1,099.203
Reference mark, 12 ft . NW. of tablet, in root on W. side of l2-in. oak tree; copper nall and washer

1,098.56
66 N., R. $27 \mathrm{~W} .$, cor. secs. 19, 20,29 , and $30,87 \mathrm{ft}$. S. and 0.8 ft . E. from rd. corner W.-S., in root on W. side of 2 linin. elm treef copper hail and washer
$1,088.72$
(For balance in Blythedale quadrangle, see line 6.)
T. 66 N., R. $27 \mathrm{~W}, \mathrm{E}$. sixteenth cor, between secs. 22 and 27 , 9 ft . s . of T-ra. N. in concrete post: standard tablet stamped "Prim Trav Sta
No 68 J S $1923 \mathrm{Mo}^{n}$
1,064.497
992.62
aquare
 from T-rd. N., on top of $S W$. Wing wall of bridges chiseled square
U.S.O. \& G.S. standard disk stamped "J 831935 "
T. $66 \mathrm{~N}, \mathrm{R}$. 27 W. . S. sixteenth cor. sec, 24 , 35 ft . S. and 25 ft . E.
from T-rd. S. in root of 12-in. maple trees, copper nail and washer
T. 66 N. , Rs. 26 and 27 W ., on ine between secs. 19 and $24,50 \mathrm{ft}$. N. of rd., 50 ft . W. of range line, in root on E. side of $14-1 \mathrm{n}$. thorn tree: copper nail and washer
$1,006.41$

[^6]T. 66 N., R. 26 W., 720 ft . W. of S. sixteenth cor. between secs. 19 and 20,80 (? 62 ) ft . NE. of NE. comer of porch to dwolling of E. T . Gusemplle, 20 ft . S . of rdi, in concrete post; standard tablet stamped "Prim Trav Sta No 69 J S 1923 Mo "
$1,043.568$
T. $66 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W} ., 0.2 \mathrm{mi}$. S. of cor. secs. $17,18,19$, and 20 , at bottom of drain, 15 ft .'w. of rd., in head wall of concrete culvert; chiseled square
Rd. at bottom of drain, 25 ft . S . of. in root on N . side of $38+1 \mathrm{n}$. poplar tree ; bent nall
976.42
T. 66 N. R. R. 26 W. , quarter cor. between secs, 17 and $20,200 \mathrm{ft}$. W. of small bridge, 25 ft. N. of ra, 15 ft . W. of well, in root on E. side of $30-1 \mathrm{n}$. maple trees copper nail and washer
953.52
T. $66 \mathrm{Nr}, \mathrm{R} .26 \mathrm{~W}$. , cor. secs. $16,17,20$, and $21,20 \mathrm{ft}$ : N . of rd., in root on S. side of $24-1 \mathrm{n}$. black-oak tree; copper nail and washer
Small steel bridge, on top of NW. steel beam; painted square
T. $66 \mathrm{~N} ., \mathrm{R}$. 26 wr on 11 ine between secs. 16 and 21 , at top of hill, 20 ft. N. of rd., in root on S. side of 20-in. locust tree; copper nail and washer
958.04

Akron, S . 11 mits of, in $\mathrm{SE} 1 / 4 \mathrm{sec} .15$, T. $66 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W} ., 390 \mathrm{ft}$. N. of T-rd. W. in concrete walk to door of Methodist Ohurch; standard tablet stamped ${ }^{\text {M }}$ Prim Trav Sta No $70 \mathrm{~J} \mathrm{~S} 1923 \mathrm{MO}^{\text {a }}$
873.783
feference mark, 190 ft . S . of tablet, in root on E. side of $16-\mathrm{in}$. maple trees copper nail and washer
T. 66 N. . R. 26 W. , on 1 ine between secs. 14 and $23,50 \mathrm{ft}$. W. of Thompson River, in root of triple $8-1 \mathrm{in}$. elm trees copper nail and washer
T. 66 N ., R. 26 W ., in $\mathrm{NE} 1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .14,500 \mathrm{ft} . \mathrm{N}$. and 70 ft . W. from thrd. E., in root of $12-1 n$. elm trees copper nail and washer
Fd. at foot of hill, 30 ft . E. of, in root on S. side of $40-\mathrm{in}$. locust tree: copper nail
T. 66 N., R. 26 W., E. sixteenth cor. between seas. 13 and $24,60 \mathrm{ft} . \mathrm{s}$. and 20 ft . E. from Thrd. E., 75 ft . W. of dwelling of John S. George, in conorete post; standard tablet stamped "Prim Trav Sta No 71 J S 1923 Mо"
Heference mark, 60 ft . E. of tablet, in root on W. side of 48 -in. maple tree; copper nail and washer
T. $66 \mathrm{~N} ., \mathrm{R}$. 25 Fr ., on line between secs. 18 and 19, $120 \mathrm{ft} . \mathrm{S}$. and 50 ft. E. from bridge over coal oreek, in root on $9 \%$. side of $58-1 \mathrm{n}$. elm tree; copper nall and washer
904.18
T. $66 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W}$. , cor. secs. $17,18,19$, and $20,50 \mathrm{ft}$, s . and 25 ft . E. from T-rd. S.; in root of 8-in. elm tree; copper nail and washer
(Continued in Lineville quadrangles see line 1.)

## 2. FROM SOUTHWEST CORNER OF QUADRANGLB NORTH TO IOWA-MISSOURI STATE LINE, THENOE EAST TO EAST BORDER (by F. C. Lentz in 1936-37)

T. 66 N., R. 27 W., quarter cor. between secs. 18 and 19, 30 ft . N. and 10 ft . E. from orossroads, 30 ft . N. and 120 ft . W. from $\mathrm{J} . \mathrm{s}$. H1ghway 69 at oross rd. on head wail of concrete culvert; chiseled square

1,093.18
T. 66 N., R. 27 W., quarter cor . between secs. 17 and $18,20 \mathrm{ft}$. N. and 15 ft . W. from J.s. Highway 69 at cross rd., on concrete pipe culvert; chiseled square

1,081.71
T. $66 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} .$, cor. secs. $8,9,16$, and $17,30 \mathrm{ft} . \mathrm{S}$. and 25 ft . E. from crossroads, 180 ft . E. of C . s. Highway 69 at cross $\mathrm{rd}$. ., in concrete post s standard tablet stamped ${ }^{1853} 1934^{\text {? }}$

1,110.436
T. $66 \mathrm{Nt}, \mathrm{R} .27 \mathrm{~W} .$, cor, secs $4,5,8$, and $9,20 \mathrm{ft}$. S , and 20 ft . E. from crossroads, on head wall of concrete culvert; chiseled square
Tps. 66 and $67 \mathrm{~N}, \mathrm{R} .27 \mathrm{~W}$, approximate cor. secs. $4 \mathrm{y}, 53$, and 33 , 36 ft . S. and 34 ft . E. from. U.S. Highway 69 at cross rd.' 125 ft .
S. of dwelling, in concrete post standard tablet stamped " 854 CTA 1934"

1,097.77

Referenoe mark, 50 ft . N. of tablet, on head wall of concrete culvert; chiseled aquars
Tps. 66 and 67 N., R. 27 W., approximate quarter cor. between secs. 4 and 33, at bottom of drain, at NE. corner of amall bridge, in root of $10-\mathrm{in}$. elm trees copper nail and washor

1,115.390
1,116.65
T. $67 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} ., \mathrm{S}$. cor. seos. 33 and $34,5 \mathrm{ft}$. N. and 30 ft . W. from T-rd. N., at N. end of small bridge, on concrete petaining waily chiseled square
Tps. 66 and 67 N., R. 27 W. , approximate quarter cor. between secs. 3 and $34,50 \mathrm{ft}$. N. and 175 ft . E. from orossroads, in root of $22-\mathrm{in}$. locust treeg copper nall and washer

1,046.79
1,058.75

Small wooden bridge, at SE. corner or, in top of wooden beam; copper nail and washer
T. 67 N. . R. 27 W., S. quarter cor. Rec. $35,25 \mathrm{ft}$. N. and 25 ft . F . from Tird. N., in ooncrete post; standard tablet stamped " 876 i934"
Reference marix, 25 ft . N. of rdy in, hedge stump; copper nall and washer
U.S.O. \& G.S. standara disk stamped "M $831935^{\circ}$

TPe 66 and $67 \mathrm{~N} . ; \mathrm{Re} .26$ and 27 W., 0.2 mi . E. of T-rd. S. at cor. of, at NB. corner of small bridge; on top of concrete abutment; chiseled square
Tps. 66 and 67 N., R. 26 W., on line between secs. 6 and 31, at bottom of drainy 35 ft . NE. of small bridge, 30 ft . N. of ra., in root on W. side of $14+1 \mathrm{n}$. Willow trees copper nail and washer

Tpos. 66 and 67 N. R. $26 \mathrm{~W} ., 0.2 \mathrm{mi}$. E. of cort seos. $5,6,31$, and 32 , 27 ft . N. and 18 . ft . W. from T-rd. W., in concrete post $;$ standard tablet stamped "875 1934"

1,104.50
1,021.69
1,072.847
$1,093.42$
1,071.622
985.49
962.86
T. 66 N., R. 26 W. near quarter cor. between secs. 4 and 5 , 150 ft . W. of crossroads, at SWF. corner of steel bridge over Indian Creek, on top of S. end of concrete abutment chiseled square
T. $66 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W}$. , near center sec. $4,60 \mathrm{ft}$. N . and 650 ft . E. from
crosiroads, 125 ft . SW. of Catholic Church, in root on S. side of $14-\mathrm{in}$. maple tree; copper nail and washer
. 66 N., R. $26 \mathrm{~W} .$, in $\mathrm{SW} 1 / 4$ seo. 3, 60 ft . SE. of dwelling on property of Frank Jones, 30 ft . W. of rd., 40 ft . E. of well, 10 ft . S. of $14-\mathrm{in}$. black-walnut tree, in concrete post; standard tablet stamped " 8741934 "
Tps. 66 and $67 \mathrm{~N} .$, R. 26 W. , on line between secs. 2 and 35 , about 25 ft . SE. of drainage channel, 15 ft . N. of rd., in root on S . side of 16-in. ash tree; copper nail and washer
. 67 N., R. 26 W., near center of $S W 1 / 4$ sec. $36,300 \mathrm{ft}$. N. and 40 ft . E. from rd. corner SW.-N., 150 ft . N. of dweling, in root on SW. side of 30-1n. white-oak tree; copper nail and washer
T. 67 N., R. $26 \mathrm{~W} .$, in $\mathrm{NE} 1 / 4 \mathrm{sec} .36,55 \mathrm{ft}$. S. of dwelling of J. H. Robbins, 36 ft . N. of rd., in concrete post; standard tablet stamped " $8731934^{4}$
T. 67 N., R. 25 W., in $\mathrm{SW} 1 / 4 \mathrm{NW} 1 / 4 \mathrm{sec} .32,30 \mathrm{ft}$. N. and 40 ft . E. from T-rd. W., in root on E. side of 14-in. walnut tree; copper nail and washer
(Continued in Lineville quadrangle; see line 2.)
3. NEAR WEST BORDER OF QUADRANGLE, ABOUT 1 MILE SOUTH OF IOWAMISSOURI STATE LINE (by F. C. Lentz in 1937)

Tps. 66 and 67 N., R. 27 W., Ilne between secs. 5 and $32,0.6$ mi. W. of U.S. H1ghway 69, 500 ft . W. of T-rd. N., 20 ft . N. of Fd., on SE. corner of concrete drop inlet; chiseled square

1,071.90
Tps. 66 and 67 N., R. 27 W., approximate quarter cor. between secs. 6 and $31,35 \mathrm{ft}$. S. of dwelling of J . E. Hart, 25 ft . N. of rd., in concrete hitching block; top of bolt
$1,123.52$
(Continued in Mount Ayr quadrangles see line 3.)
For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey second-order line, Darlington, Mo. to Osceola, Iowa.

BLYTHEDALE QUADRANGLE
(Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime}$; longitude $93^{\circ} 45^{\prime}-94^{\circ} 00^{\prime}$ )
Griundy, Harrison, and Mercer Counties


1. EAST ALONG SOUTH BORDER OF QJADRANGLE (by G. R. Hamlin in 1935-36)
(Continued from Gilman quadrangle; see line 4.)
Bethany, 3 mi. E., thence 1 mi . S. from, near cor. secs. 17, 18, 19, and 20, T. $63 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} ., 35 \mathrm{ft}$. S. and 50 ft . W. from school, in root on N. side of 12-1n. white-oak tree; copper nail and washer
Top of ridge, 200 ft . NW, of dwelling, in root on S . side of 14 in . bur oak tree; copper nall and washer
Bethany, 3 mi . E. of, along State Highway 4 , cor. secs. 7, 8, 1 i , and 18 , T. $63 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} ., 60 \mathrm{ft}$. N. and 15 ft . W. from junction of rd. S., in root on E. side of $36-1 n$. elm tree; copper nail and washer
Bethany, 3 ml . E. of, along State Highway 4 ; cor. secs. $7,8,17$, and 18 , T. $63 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} ., 10 \mathrm{ft} . \mathrm{N}$. and 285 ft . E. from junction of rd. S., on top of SE. corner of S . head wall of culvert; chiseled square
Junction of rd. S., about 27 ft . S. and 15 ft . W. from, on SE. corner of S. head wall of concrete culvert; chiseled square
T. 63 N., R. 27 W. , near cor secs. $8,9,16$, and 17 , about 20 ft . S . and 15 ft . W. from State Highway 4 at N.-S. fences, on top of SE. corner of S. head wall of concrete culvert; chiseled square

Junction of County Route K , about 50 ft . N. and 15 ft . E. from, at S . side of telephone pole; surface of ground
Junction of rd. N. to farm, about 20 ft . S. and 55 ft . W. from, on top of SE. corner of S . head wail of concrete culvert; chiseled square

Feet
987.31
$1,025.0$
989.56
T. $63 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} ., 0.2 \mathrm{mi}$. E. of cor. secs. 9, 10,15 , and $16,36 \mathrm{ft} . \mathrm{S}$. and 27 ft . W. from State Highway 4 at rd. S., in concrete post; standard tablet stamped " $860^{\circ} 1934^{\prime \prime}$
Concrete bridge, on S. end of E. abutment; chiseled square
T. 63 N., R. 27 W., cor. secs. $10,11,14$, and 15 ; about 30 ft . SE., thence 15 ft . E. from State Highway 4 at cross rd., on top of SE. corner of E . head wall of concrete culvert; chiseled square
T-fence N., at corner post; surface of ground
T. 63 N., R. 27 W., cor. secs. $11,12,13$, and 14 , about $20 \mathrm{ft} . \mathrm{N}$. and 20 ft . E. from State Highway 4 at rd. N., on top of NE. corner of N.

1,006.310
965.13
$1,997.144$
head wall of concrete culvert; chiseled square
Junction of rd. $\mathrm{S} .$, about 15 ft . S . and 20 ft . E. from, on top of NW .
corner of $E$. head wall of concrete culvert; chiseled square
T. 63 N., R. 27 W., center sec. 13, 25 ft . W. of Thrd. E., in root on NE. side of 18-in. hedge tree; copper nall and washer
T. 63 N., R. 26 W. , W. quarter cor. sec. 18 , 30 ft . N. and 23 ft . E. from T-rd. E., in ooncrete post; standard tablet stamped " 861 1934"
Wooden bridge over drain, about 18 ft . N. and 15 ft . W. from, in root on NW. side of 24-in. elm tree; crossed neils
T. 63 N., R. 26 W., quarter cor, between secs. 17 and 18 , about 110 ft . S. and 15 ft . E. from T-rd. N. and lane S., in root on SW. side of 16-in. elm tree; copper nail and washer
T-fence N., about 5 ft . E. of corner fence post, in hedge-post braces copper nail and washer
T -fence S., 20 ft. N. and about 170 ft . E. from, on top of NW. corner of SE. wing wall of concrete culvert; chiseled square
T. 63 N., R. $26 \mathrm{~W} .$, quarter cor. between secs. 16 and $17,30 \mathrm{ft}$. N. and 25 ft . W. from T $\rightarrow$ rd. N., in root on S. side of 14 -in. pine tree; copper nail and washer
T-rd. S., at SE. corner of, at N. side of corner post; surface of ground
T-fence S., at $N$. side of corner post; surface of ground
Rd, at farm entrance $S$., about 25 ft . E. of, on E . end of S . head wall of concrete culvert; chiseled square.
T. 63 N., R. 26 W., quarter cor. between secs. 15 and $16,24 \mathrm{ft}$. N. and 24 ft . W. from T-rd. N., on property of Frank Neff, 10 ft . NE. of 16-1n. water-oak tree, in concrete post; standard tablet stamped " 862 1934"
Farm entrance S., about 150 ft . E. of, at telephone pole; surface of ground
Rd. at N.-S. fences, at telephone pole; surface of ground
T -fence S ., about 45 ft . N. and 6 ft . W. from, on W . end of N . head wall of concrete culvert; chiseled square
T. 63 N., R. $26 \mathrm{~W} .$, quarter cor. between secs. 14 and $15,15 \mathrm{ft}$. S. and 80 ft . W. from crossroads, in root on NE. side of $30-\mathrm{in}$. elm tree; copper neil and washer
T. 63 N., R. 26 W. , cor. secs. $10,11,14$, and $15,20 \mathrm{ft} . \mathrm{N}$. and 10 ft . W. from T-rd. E., on $S$. end of $W$. head wall of concrete culvert; chiseled square
Quarter cor, between secs. 11 and 14 , about 175 ft . E. of, in root on S . side of 36-in. elm tree; copper nail and washer
Wooden bridge, 35 ft . S. and about 35 ft . E. from, in root on SE. side of 12-1n. elm tree; crossed nails
T. $63 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W} .$, cor. secs. $11,12,13$, and $14,36 \mathrm{ft} . \mathrm{S}$. and 18 ft. W. from crossroads, in concrete post; standard tablet stamped "863 1934"

T -fence S., 25 ft . N. and about 30 ft . E. from, in root on S. side of 6-1n. elm tree; copper nail and washer
Thompson River drainage channel; surface of water at 4:20 p.m. Dec. 13, 1935
T. 63 N, R. $26 \mathrm{~W} .$, near center of $\mathrm{SE} 1 / 4 \mathrm{sec} .12$, at steel girder bridge over Thompson River drainage channel, on top of NE. pier, in headplates top of bolt
r-rd. S., about 70 ft . N. and 15 ft . W. from, in root on S . side of twin white-oak tree; crossed nails
991.47
980.08
990.51
992.302
911.72
933.53
962.78
899.33
963.45
947.0
954.3
885.79
869.258
937.6
947.2
882.21
862.81
882.31
886.78
827.26
855.704
787.25
773.1
792.36
790.51

## 2. IN SOUTHFEST CORNER OF QUADRANGLE (by F. C. Lentz in 1936)

Bethany, 3 mi . E. of, along state Highway 4, in NE $1 / 4$ sec. 18, T. 63 N. , R. $27 \mathrm{~W} ., 40 \mathrm{ft}$. N. of dwelling of w . H. Rice, 42 ft . S. of highway, in concrete post; standard tablet stamped "859 1934"
Bethany, 2.6 mi . E. of, along State Highway 4, $30 \mathrm{ft} . \mathrm{S}$. and $20 \mathrm{ft} . \mathrm{W}$.
from junction of rd. S., oh head wall of concrete culvert; chiseled square
960.51
(Continued in Bethany quadrangle; see line 3.)

## 3. EAST THROUGH MIDDLE OF QUADRANGLE

(Continued from Bethany qưadrangle; see line 4.)
T. 65 N., R. 27 W., W. quarter cor. seo: $31,20 \mathrm{ft}$. N. and 20 ft . W.
from $T$ rd. N., in root on $S$. side of i4-1n. hedge tree; copper nail and washer
T. 65 N., R. 27 W., quarter cor, between secs. 31 and 32, 1,000 ft. W.
of bridge over East Fork of Big Creek, 200 ft . SE. of farmhouse, 20 ft. N. of rd., in root on NE. side of $14-1 n$. white-oak tree; copper nail and washer
$\frac{\text { Peet }}{3.65}$
933.65
976.963

1,034.26
1,057.183
980.17
$1,003.339$
1,005.27
885.55
870.60

27 W., at NE. corner of steel bridge over Panther Creek, on NW. corner of concrete base of NE. pier; chiseled square
Ridgeway, 3.8 ml . E. of, 0.2 mi . W. of S . cor. secs. 31 and $32, \mathrm{~T} .65 \mathrm{~N}$. , R. $26 \mathrm{~W} ., 15 \mathrm{ft}$. N. and 20 ft . W. from T-rd. S., on top of N. end of iron pipe culvert; painted square
905.44

Ridgeway, 4 mi. E. of, S. cor. secs. 31 and 32. T. 65 N., R. 26 W., 20 ft . N. and 40 ft . W. from T-rd. N., 160 ft . SE. of farmhouse, on head wall of concrete culvert; chiseled square
929.33

R1dgeway, 4.5 ml . E. of, in $\mathrm{SW} 1 / 4 \mathrm{SW} 1 / 4$ sec. 32, T. $65 \mathrm{~N} .$, R. $26 \mathrm{~W} ., 28$ ft . N. and 275 ft . E. from T-rd. S., 54 ft . S. and 15 ft . E. from dwelling of Eila Bridges, in concrete post; standard tablet stamped " 8981934 "
Steel bridge over creek, at NE. corner of, on concrete abutment; chiseled square
956.581
T. 64 N., R. 26 W., N. sixteenth cor. between secs. 4 and $5,60 \mathrm{ft} . \mathrm{N}$. and 35 ft . E. from T-rd. E., in root of $14-1 \mathrm{n}$. white-oak tree; copper na11 and washer
862.52
T. 64 N., R. 26 W., N. sixteenth cor between secs. 3 and $4,20 \mathrm{ft} . \mathrm{S}$. of rd., in root on NW. side of 14-in. locust stimp; copper nail and washer
920.98
T. 64 N., R. 26 W., N. sixteenth cor. sec. 3, $25 \mathrm{ft} . \mathrm{N}$. and 120 ft . E. from crossroads, in root on S. side of 38-in. maple tree; copper nail and washer
951.34
T. $64 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W} ., 0.2 \mathrm{ml}$. W. of N . cor. secs. 2 and 3, $100 \mathrm{ft} . \mathrm{s}$. and 80 ft . W. from rd. corner S.-E., in root on N . side of $18-\mathrm{in}$. walnut tree; copper nall and washer
928.25

Mount Moriah, 3.5 mi . N. of, along County Route B, S. quarter cor. sec. 35 , T. $65 \mathrm{~N} .$, R. $26 \mathrm{w} ., 27 \mathrm{ft}$. N. and 75 ft . W. from highway produced at E.-W. cross rd., 4 ft . N. and 2 ft . W. from fence corner, in concrete post; standard tablet stamped "899 1934"
Tps. 64 and 65 N., R. 26 W., E. sixteenth cor. between secs. 1 and 36, 1.2 mi . E. of County Route B, at top of pier on S. side of steel bridge over Thompson River, on top of boit; chiseled cross
858.90
840.095
824.18
('Continued in Princeton quadrangle; see line 2.)

## 4. NORTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE

(Continued from Bethany quadrangle; see line 7.)
T. 65 N., R. $28 \mathrm{~W} .$, about 460 ft . E. of center sec. $24,15 \mathrm{ft}$. N. and 21 ft. E. from U.S. Highway 69 at cross rd., on E. end of concrete culvert; chiseled square
T. $65 \mathrm{~N} ., \mathrm{R}, 28 \mathrm{~W}$., in $\mathrm{SE} 1 / 4 \mathrm{sec}$. $13,30 \mathrm{ft}$. E. of U.S. Highway 69, 75 ft. SW. of corner of dwelling of W. E. Hendren, in concrete post; standard tablet stamped "851 1934"
T. 65 N., R. 28 W., E. sixteenth cor, between secs. 12 and $13,11 \mathrm{ft}$. S. and 21 ft . E. from U.S. Highway 69 at rd. E., on top of concrete drop inlet; chiseled square
$1,074.279$
T. $65 \mathrm{~N}, \mathrm{R}, 28 \mathrm{~W}, \mathrm{~F}$ cor. secs. 1 and $12,60 \mathrm{ft} . \mathrm{S}$, and 70 ft . W. from o.S. Highway 69 at rd. W., in root on E. side of 18-in. pine tree; copper nail and washer
Eagleville, 0.6 mi . S. of, along U.S. Highway 69, in $\mathrm{SE} 1 / 4 \mathrm{sec} .1$, T. 65 N., R. 28 W. , at bottom of drain, 40 ft . NW. of highway, in root on E. side of $18-1 \mathrm{n}$. elm tree; copper nail and washer

1,049.74

1,066.12
$1,036.53$
Eagleville, $30 \mathrm{ft} . \mathrm{N}$. and 24 ft . W. from U.S. Highway 69 at cross street one block N. of business district, in concrete post; standard tablet stampéd " 852 1934"
$1,097.439$
Eagleville, 1 mi . N of, along U.S. Highway 69, in NE $1 / 4$ sec. 31 ,
T. 66 N., R. 27 W., 15 ft . S. and 17 ft . W. from E.-W. cross rd.,
on top of concrete culvert; chiseled square

## 5. SOUTH ALONG EAST BORDER OF QUADRANGLE

(Continued from Princeton quadrangle; see line 1.)
T. 65 N., R. 25 W., in SE $1 / 4 \mathrm{sec} .6,300 \mathrm{ft}$. S. and 20 ft . E. from

Feet Cainsville rd. at junction of rd. S., in root on $W$. side of 36-in.

1,000.61 elm tree; copper nail and washer
T. 65 N., R. 25 W., E. sixteenth cor. between secs. 6 and 7, 65 ft. S. and 30 ft . E. from T-rd. E., in root of $13-1 \mathrm{n}$. elm tree; copper nail and washer
999.19
T. $65 \mathrm{~N} ., \mathrm{R} .25 \mathrm{~W}$., in $\mathrm{NW} 1 / 4$ sec. 7, in front of farmhouse of Frank Stoklasa, $15 \mathrm{ft} . \mathrm{N}$. of rd., 5 ft . S. of iron fence, on SW. corner of bottom concrete step; chiseled square
965.22
T. 65 N., R. $26 \mathrm{~W} .$, center sec. $12,45 \mathrm{ft}$. N. and 30 ft . W. from iron pin, 30 ft . N. and 30 ft . W. from T-rd. W., 40 ft . S. of Chicago, Burilngton \& Quincy R.R., in concrete post; standard tablet stamped "869 1934"
876.075

Cainsville, 15 ft . N. of NE. corner of Chicago, Burlington \& Quincy R.R. sta., 24 ft . W. of track, 1 ft . above ground, in top of stub telegraph pole; copper nail and washer
845.67

Calnsville, 0.8 mi . S. of, on line between secs. 13 and $24, \mathrm{~T} .65 \mathrm{~N}$. , R. $26 \mathrm{~W} ., 25 \mathrm{ft} . \mathrm{W}$. of rd. corner, in root on N . side of 30.1 n . maple tree; copper nall and washer
Cainsville, about 1 mi . S. of, NE. cor. sec. 24 , T. 65 N., R. 26 W., 30 ft . S. and 25 ft . W. from $\mathrm{T}-\mathrm{rd}$. S., 120 ft . SE. of dweling of Melvin Groves, in fence corner, in root on $S$. side of 14 -in. maple tree; copper nall and washer
Steel bridge over Brush Creek, at SW. corner of, in plate on pier; top of bolt
846.12

Cainsville, l. $2 \mathrm{ml} . \mathrm{S}$. of, in SE $1 / 4$ sec. 19, T. $65 \mathrm{~N} ., \mathrm{R}, 25 \mathrm{~W} ., 120 \mathrm{ft}$. N. of dwelling of A. J. Graham, in front yard, in concrete post; standard tablet stamped "868 1934"
975.299
(For balance in Princeton quadrangle, see line 1.)
T. 64 N., R. 25 W., E. sixteenth cor between secs. 6 and 7, 150 ft . SE. of dwelling, 15 ft . W. of rd., in root of $14-\mathrm{in}$. elm tree; copper nail and washer

## 6. EAST IN NORTHWEST QUARTER OF QUADRANGLE (Continued from Lamoni quadrangle; see line 1.)

T. 66 N., R. 27 W., N. sixteenth cor. between secs. 28 and $29,20 \mathrm{ft} . \mathrm{N}$. and 80 ft . W. from T-rd. W., in root on E. side of l2-in. white-oak tree; copper nall and washer
$1,075.96$
T. 66 N., R. 27 W., N. sixteenth cor. sec. $28,135 \mathrm{ft} . \mathrm{N}$. and $25 \mathrm{ft} . \mathrm{W}$. from T-rd. E., in root on W. side of $12-1 \mathrm{n}$. elm tree; copper nail and washer

1,028.78
T. 66 N ., R. 27 W., center of NW $1 / 4 \mathrm{sec}, 27,115 \mathrm{ft}$. N. and 30 ft . E. from rd. corner W.-N., in root on W. side of 48-in. maple tree; copper na1l and washer
(Continued in Lamoni quadrangle; see line l.)
For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey second-order line, Darlington, Mo, to Osceola, Iowa.
$1075020-38-4$

# GILMAN QUADRANGLE <br> (Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime}$; longitude $93^{\circ} 45^{\prime}-94^{\circ} 00^{\prime}$ ) 

Daviess, Grundy, and Harrison Counties


1. FROM SOUTHWEST CORNER OF QUADRANGLE NORTHEAST TO POINT NEAR
CENTTER OF SOUTH HALF, THENCE EAST AND SODTH TO SOUTHEAST CORINER (by R. B. Steele in 1922)

Feet
Jameson, at Wabash Ry. sta., opposite operator's window; top of rail 805.9

Jameson, near NW. limits of, at SW. corner of street crossing highway,
8 ft . E. of E . edge of $\mathrm{N} .-\mathrm{S}$. sidewalk, on cross walk; chiseled square
843.97
T. 60 N. , Rs. 27 and 28 W , approximate cor. secs. $7,12,13$, and 18 , NE. of crossroads, 12 ft. E. of fence corner, ift. S. of wire fence, in concrete; ifon post stamped "24 R S 1922 Moll
851.250

Reference mark, 420 ft . W. of post, on top of N . head wall of concrete culvert; chiseled square
844.18

Quarter cor. between secs. 7 and 18; top of cornerstone
825.20

Bridge over Big Muddy Croek; center of
825.20
792.4
T. 61 N., R. 27 W., S. quarter cor. sec. 32, SE. of T-rd. at $j 0 \mathrm{~g}$ in N.-S. rd., in root on $E$. side of $12-1 n$. maple tree; copper nail
Center sec. 32, top of cornerstone
T. 61 N., R. 27 W., W. sixteenth cor. sec. 32 , at rd. corner from E.-N.; top of $S$. end of iron pipe culvert
866.37
854.63
T. 61 N., R. 27 W., W. sixteenth cor . between secs. 29 and $32,15 \mathrm{ft}$. N. 871.88 and 35 ft . E. from T-rd. E., 1 ft . S. of wire fence, in concrete; iron post stamped "25 R S iǵ22 Mo"
870.488

Reference mark; 40 ft . S. of post, on concrete foundation of fence post; chiseled square
868.99

Top of hill, at junction of private rd. N.; surface of rd.
891.8
T. 61 N., R. 27 W. 900 ft . E. of cor. sécs. $28,29,32$, and $33,100 \mathrm{ft}$. E. of bridge over Little Muddy Creek, N. of rd., in E.-W. fence line, in base of 18-in. elm trees copper nail
829.59
T. 61 N., R. 27 W., quarter cor. between secs: 28 and $33,120 \mathrm{ft}$. S. of T-rd. S., on top of W. head wall of concrete culvert; chiseled square
848.23
932.2

Top of ridge; surface of rd.
870.8

Concrete culvert; top at center of W. head wall
Top of hill; surface of rd.
934.3
T. 61 N., R. 27 W., cor. secs. $21,22,27$, and $28,75 \mathrm{ft}$ W. of T-rd. S., S. of rd., in root on E. side of 14-in. elm tree; copper nail

T-rd. N.; surface of rd.
T. 61 N., R. 27 W., cor. secs. $22,23,26$, and 27 . 30 ft . N. and 30 ft . E. from T $\rightarrow$ rd. W. 1 ft. W. of wire fence, in concrete; iron post stamped " 26 R S 1902 Mo"
Reference mark, 60 ft . S. $65^{\circ} \mathrm{W}$. of post, on top of W . end of concrete culvert; chiseled square
Mason Creek, 100 ft . W. of, in root of walnut tree; copper nail
903.10 947.0
931.984
832.04
T. 61 N., R. 27 W., in NE $1 / 4 \mathrm{NE} 1 / 4 \sec .26,90 \mathrm{ft}$. N. and $70 \mathrm{ft}$. . from T-rd. W., 30 ft . E. of entrance to farmhouse, in root on W. side of twin 8-in. maple tree; copper nail
923.51

T-rd.; top of W. end of concrete culvert
913.48

Rd. corner from W.-N.; surface of rd.
929.5
T. 61 N., Rs. 26 and 27 W., approximate cor. secs. $13,18,19$, and 24 , SE. of crossroads, in top of rock outcrop; standard tablet stamped " 27 R S 1922 Mo"
Reference mark, 50 ft . W. of tablet, on $N$. end of concrete cuivert; chiseled square
892.782
889.90
963.5

Rd. at fence N. at top of hill; surface of rd. 20 , NE. of crossroads,
T. 61 N., R. 26 W, cor. secs. $17,18,19$, and 20 , 35 ft . E. of fence corner, in concrete; iron post stamped " 28 R S 1922 MO"
Reference mark, 46 ft . S. $43^{\circ} \mathrm{W}$. of post, on top of S . end of concrete culvert; chiseled square
T. 61 N., R. 26 W., cor. secs. $16,17,20$, and 21 , at center of cross-

Feet 959.56
T. 61 N., R. 26 W., cor. secs. $15,16,21$, and 22 , SW. of T-rd. W., 5 ft. W. of fence corner, in concrete post; standard tablet (not stamped)
Reference mark, 0.2 ml . S. of tablet, on top of E . end of concrete culvert; chiseled square
Concrete culvert; top at center of W. end
T. 61 N., R. $26 \mathrm{~W} ., 230 \mathrm{ft}$. N. of cor. secs. $21,22,27$, and 28 , E. of rd.e in SW. corner of farnyard, in root on NW, side of $30-1 n$. maple tree; copper nail
T. 61 N., R. $26 \mathrm{~W} .$, cor secs. $27,28,33$, and 34 , E. of T-rd. N., 90 ft. N. of E.-W. rd., in concrete; iron post stamped "30 R S $1922 \mathrm{Mo}^{n}$
Reference mark, 150 ft . N. of post, in root on $S$. side of $16-1 \mathrm{n}$. maple tree; copper nail
T. 61 N., R. $26 \mathrm{~W} .$, cor. secs. $26,27,34$, and 35 , 110 ft . S. of crossroads, on top of $W$. head wall of concrete culvert; chiseled square
Concrete culvert; top at center of N . head wall
T-rd. S.; surface of rd.
T. 61 N., R. $26 \mathrm{~W} .$, about 0.2 mi . E. of cor. secs. $25,26,35$, and 36 , on top of N. head wall of concrete culvert; chiseled square
T. 61 N., R. 26 W., line between secs. 25 and 36 , at T-rd. S., on top of $N$. head wall of concrete culvert; chiseled square
Top of hill; surface of rd.
Bridge over Hickory Creek; center of
T. 61 N., R. 26 W., E. sixteenth cor. sec. 36, W. of N.-S. rd., in line with S. fence line of rd. E., on top of W. end of concrete culvert; chiseled square
Antioch Church, opposite; suriace of rd.
T. 61 N., R. 25 W., in E $1 / 2 \mathrm{sec} .31,19 \mathrm{ft}$. S. and 30 ft . E. from T-rd. S., 8 ft . W. of fence corner, l ft. N. of fence, in concrete; iron post stamped "31 R S $1922 \mathrm{MO} "$
Reference mark, 90 ft . N. $10^{\circ} \mathrm{W}$. of posc, on N . end of concrete culvert; chiseled square
T. $60 \mathrm{~N} ., \mathrm{R}$. $25 \mathrm{~W} .$, near N. quarter cor. sec. 7, 120 ft . S. of junction of rd. E., E. of rd., at base of telephone pole, on top of $6-$ by 30-in. stone; chiséled mark
T. 60 N., R. 25 W., quarter cor. between secs. 7 and $18,28 \mathrm{ft}$. N. and 37 ft. E. from crossroads, in concrete base of fence post; standard tablet stamped " 32 R S $1922 \mathrm{Mo}^{\prime \prime}$
Reference mark, 40 ft . S. $86^{\circ} \mathrm{E}$. of tablet, at church, on top of concrete step; chiseled square
T. 60 N., R. 25 W., quarter cor. between secs. 18 and 19, SW. of crossroads, on concrete base of corner fence post; chiseled square

## 2. FROM POINT NEAR CENTER OF SOUTH HALF OF QUADRANGLE, NORTH AND WEST' TO POINT NEAR MIDDLE OF WEST BORDER

Small bridge; center of
T. 61 N., Rs. 26 and 27 W., approximate cor. secs. $7,12,13$, and 18, NW. of crossroads, on top of $N$. head wall of concrete culvert; chiseled square
T. 61 N., Rs. 26 and 27 W., approximate cor. secs. $1,6,7$, and 12 , NE. of crossroads, on top of E. end of concrete culvert; chiseled square Culvert, at center of ; surface of rd.
Tps. 61 and 62 N ., Rs. 26 and 27 W ., cor. of, NW. of crossroads, 10 ft . W. of fence corner, in concrete post; standard tablet stamped "33 R S $1922 \mathrm{MO}^{\circ}$
Reference mark, $20 \mathrm{ft} . \mathrm{N} .84^{\circ} \mathrm{E}$. of tablet, on top of $W$. end of concrete culvert; chiseled square
T. 62 N., R. 27 W., S. quarter cor. sec: 35 , in NW. corner of T-rd., 6 ft. E. of front door of Land School, on concrete porch; chiseled square
Bridge over Big Muddy Creek; center of
Tps. 61 and 62 N., R. 27. W., approximate cor. secs. 2, 3, 34, and 35 , 50 ft . W. of T-rd. E., l ft. E. of fence, in concrete post; standard tablet stamped " 34 R S $1922 \mathrm{Món}$
Reference mark, 40 ft . E: of táblet, on top of N . end of concrete culvert; ch1seled square
T. 61. N., R. 27 W., 700 ft . S. of N. quarter cor. sec. 3, NE. of T-rd. E., 1 ft : NW, of fence corner; top of 1 ron pipe

Junction of private rd. N. In line with fence N.; surface of rd.
Tps. 61 and 62 N., R. 27 W., approximate cor. secs. $4,5,32$, and 33 , NE. of crossroads, 20 ft . E. of fence corner; iron post stamped " 35 R S 1922 Mo"
Reference mark, $50 \mathrm{ft} . \mathrm{W}$. of post, in root of 18-in. oak tree; copper na11
Junction of private rd. N. j. W. end of culvert
Small bridge ; center of
NE. of crossroads on top of SE. wing of concrete culvert; chiseled square
Quincy, Omaha \& Kansas City R.R. at private rd. crossing; top of N. rall
T. 61 N., R. 27 W., in N $1 / 2$ sec. 6, SW. of Quincy, Omaha \& Kansas City R.R. at rd. crossing, 20 ft . NW. of track, in root on N. side of 18-in. maple tree; copper nail
Coffey, 0.5 mi . N., thence 0.8 mi . E. from, in $\mathrm{E} 1 / 2 \mathrm{sec} .1, \mathrm{~T} .61 \mathrm{~N}$. ,
R. 28 W., 15 ft . W. of Quincy, Omaha \& Kansas City R.R. right-of-way
fence, s. of angle in ri in concrete post; standard tablet stamped "36 R S 1922 Mo"
917.4
893.48
894.3
933.82
983.16
970.2
984.657
984.12
911.031
906.98
855.0
$895 \cdot 5$
907.61
955.0
979.003
976.40
$975 \cdot 93$
978.61
939.821
937.33
955.74
957.35
959.2
945.33
881.10
813.6
858.8
893.70
893.450
932.85
956.783
958.43
976.37
$954 \cdot 41$
942.711
3. FROM POINT NEAR JAMESON NORTH AND WEST TO MIDDLE OF SOUTH HALF
OF WEST BORDER OF QUADRANGLE OF WEST BORDER OF QUADRANGLE
T. 61 N., R. 28 W., in NE $1 / 4$ SE $1 / 4$ sec. 25 , SE. of rd. forks, at front gate to farmhouse, on top of concrete hitching block; chiseled square

Feet
879.51
797.943
797.96
821.65
(Cnntinued in Pattonsburg quadrangle; see line 1.)
4. FROM POINT NEAR MIDDLE OF WEST BORDRK OF QUADRANGLE NORTH TO NORTHWEST CORNER (by G. R. Hamlin in 1936)
Uं.S.C. \& G.S. standard disk stamped "I 18 1933"
Reference mark, 425 ft . NW. of disk, on E. side of white dwelling, on SE. comer of concrete doorstep; chiseled aquare
Dweling, 125 ft . NW. of, S. of rd., in root on W. side of $15-1 \mathrm{r}$. elm tree; copper nail and washer
Coffey, 4 ml . NE. of, near cor. secs. 29, 30,31 , and 32 . T. 62 N. , R. 27 W., 50 ft . N. of Daviess-Harrison county line, N. of rd., in root on S. side of $30-1$ in. maple tree; copper nail and washer
Fence corner, 10 ft . NE. of, in root on S. side of $12-1 \mathrm{n}$. hickory tree; copper nail and washer
Coffey, 3.5 mi . NE. of, near quarter cor between secs. 30 and 31 , T. 62 N., R. 27 W., on E. end of S. head wall of concrete culvert; chiseled square
957.905
977.61
980.00
969.30
934.55
923.83

Fence corner, 130 ft . NE. of, in root on $S$. side of $36-\mathrm{in}$. cottonwood tree; copper nail and washer
891.42
T. 62 N., Rs. 27 and 28 W ., approximate cor. secs. $19,24,25$, and 30 , at jog in rd., $40 \mathrm{ft} . \mathrm{N}$. of rd. E., 7 ft . N. of rd. W. produced, 7 ft . E. of fence, in concrete post; standard tablet stamped "882 1934"

Reference mark, 150 ft . NW, of tablet, in root on E. side of $10-1 \mathrm{n}$. white-oak tree; copper nail and washer
Fence corner, 75 ft . N. of, in root on $W$. side of 14 -in. elm tree; copper nail and washer
T. 62 N., R. 27 W., near center of NE $1 / 4 \mathrm{sec} .19$, on top of ridge, 175 ft. SW. of dwelling, in root on E. side of 18-in. elm tree; copper nail and washer
crossroads, NE. of, in root on W. side of $30-1 n$. maple tree; copper nail and washer
938.011
$927 \cdot 34$
935.00
958.90
969.61
885.42
wall of bridge; chiseled square
Gilman, 7.5 ml . NW. of, $85 \mathrm{ft}$. . of cor. secs. 7, 8, 17, and 18 , T. $62 \mathrm{~N} ., \mathrm{R}$. $27 \mathrm{~W} ., 50 \mathrm{ft}$. W. of dweliling of T . B . Higgins, 30 ft . E : of rd., 5 ft . S and 15 ft . E. from mail box, in concrete post; standard tablet'stamped "891 1934"
950.469

Reference mark, 75 ft . NE. of tablet, in root on $W$. side of $24-\mathrm{in}$. elm tree; copper nail and washer
Fence corner, 90 ft . N. of, on top of NE. wing wall of culvert; chiseled square
Bridge, in SW. corner of; copper nail and washer
Blue Ridge, 2 ml . W. of, cor secs. 5, 6.7, and 8, T. 62 N., R. 27 W., $75 \mathrm{ft} . \mathrm{NE}$. of crossroads, in root on E. side of i4-in. bur-oak tree; copper nail and washer
Top of ridge, at farm entrance, E. of rd., in gatepost brace; copper nail and washer
Top of ridge, 25 ft . S. of entrance to farmhouse, in root on E. side of 10-1n, ash tree; copper nail and washer
Blue R1dge, 2 ml . W., thence 1 ml . N. from, approximate cor. secs. 5,6 , 31 , and 32 , Tps. 62 and 63 N. . R. $27 \mathrm{~W} ., 180 \mathrm{ft}$. SW . of crossroads, in root on N. side of $30-1 n$. cottonwood tree; copper nalil and washer
Top of ridge, 100 ft . W. of dwelling, in root on E. side of 8-in. hickory tree; copper nail and washer
Blue Ridge, $2 \mathrm{mi} . \mathrm{W}_{\text {. }}$, thence 2 mi . N. from, cor. secs. 29, 30,31 , and 32 , T. 63 N., R. 27 W., 30 ft . S. and 20 ft . E. from stone at crossroads, $90 \mathrm{ft} . \mathrm{N}$. of school, in concrete post; standard tablet stamped "890 1934"
Reference mark, 100 ft . N. $\theta$ rd, 100 ft . E. from tablet, in root on N . side of $8-1 n$. hickory tree; copper nail and washer
Hedge fence $W$. of rd., in root on E. side of $30-1 n$, maple tree; copper naill and wásher
951.53
905.42
898.76
936.01
971.42
985.31
959.19
960.15
974.343
966.25
989.61
999.97
990.54
(Continued in Blythedale quadrangle; see line 1.)

## 5. FROM POINT ABOUT 2.2 MILES WEST OF GILMAN SOUTH, WEST, AND NORTH' TÓ POINT ABOUT 2.5 MILES EAST OF MIDDLE ÖF WEST BORDER OF QUADRANGLE

U.S.C. \& G.S. standard disk stamped "K 18 1933"
970.953

G1lman, 2.5 ml . W. of, 234 ft . S. of quarter cor. between secs. 26 and $27, T .62 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} ., \mathrm{E}$. of rd., in root on S : side of $30-\mathrm{In}$. elm tree; copper nail and washer
949.11

T-rd. E., 30 ft . NW. of $\mathrm{g}^{\text {I }}$ in root on W. side of $30-\mathrm{in}$. cottonwood tree; copper nall and washer
T. 62 N., R. 27 W., 250 ft . SE. of quarter cor. between secs. 34 and 35 , in root on $N$. side of $8-1 n$. willow tree; copper nall and washer pps. 61 and 62 N., R. 27 W., approximate cor. secs. 2,3 , 34 , and 35,50 ft. W. of T-rd. E., 1 ft . E. of fence, in concrete post; standard tablet stamped "34.R S $1922^{2} \mathrm{Mo}$ "
Reference mark, 40 ft . N. and $70 \mathrm{ft} .-\mathrm{E}$. from tablet, on top of N . head wall of culvert; chiseled square
S. quarter cor. sec. $34,780 \mathrm{ft}$. W. of, S. of ra., in root on S . side of 30-1n. elm tree; copper nail and washer
943.78

Tps. 61 and $62 \mathrm{~N} ., R$. $27 \mathrm{~W} ., 255 \mathrm{ft}$. W. of approximate cor. secs. 3,4 , 33 , and $34,75 \mathrm{ft}$. N. of barn, S. of rd., in root on $N$. side of $30 \sim$ in. elm tree; copper nail and washer
W. sixteenth cor. on S. line sec. 33, 247 I't. E. of, in root on S. side
of $15-1 \mathrm{n}$. elm tree; copper nail and washer

Reference mark, 150 ft . NE. of post, in root on N. side of $15-1 \mathrm{n}$. whiteoak tree; copper nail. and washer
T. 62 N., R. 27 W., 25 ft . NW. of cor. secs. $28,29,32$, and 33, on Daviess-Harrison county line, in root on S. side of i2-in. elm tree; copper nail and washer
lman, 4.8 ml . W. of, along Quincy, Omaha \& Kansas City R.R., about 10 rails NE. of Daviess-Harrison county line, 50 ft . NE. of rd. crossing, 25 ft . N. of tracks, 32 ft . S. and 5 ft . E. from fence corner, at milepole 156.75 , in concrete post; U.S.C. \& G.S. standard disk stamped "L $181933^{\prime \prime}$
Reference mark, 25 ft . NW. of tablet, on $E$. head wall of concrete culvert; chiseled square

For additional level lines along quincy, Omaha \& Kansas city R.R. and Wabash Ry., refer to United States Coast and Geodetic Survey first-order ilne, Milan, Mo. to damburg'. Iowa; and second-order line, Pattonsburg to Gallatin.

GALIAATIN QUADRANGIR<br>(Latitude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; longitude $93^{\circ} 45^{\prime}-94^{\circ} 00^{\prime}$ )

Caldwell, Daviess, Grundy, and Livingston Counties


1. EAST ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD, NEAR SOUTTH BORDER OF QUADRANGLE (by S. R. Aircher in 1920) (Continued from Braymer quadrangle; see line 1.)
T. 57 N., R. 27 W., quarter cor, between secs. 15 and 16 , SW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, on top of W. end of tile pipe culvert; chiseled square
T. 57 N., R. 27 W., near quarter cor. between secs. 15 and $16,275 \mathrm{ft}$. E. of Chicago, Burlington \& Quincy R.R. at rd. crossing, S. of track, on top of $S$. end of concrete pipe; chiseled square
Nettleton, 0.2 mi . W. of Chicago, Burlington \& Quiney R.R. sta., W. sixteenth cor. between socs. 11 and 14 , T. $57 \mathrm{~N} ., \mathrm{R}$. $27 \mathrm{~W} ., 170 \mathrm{ft}$. W. of rd. crossing, $N$. of track, S. of rd. W., at produced corner of right-of-way fences; iron post'stamped "1920 Mo 962 "
961.287

Nettieton, at Chicago, Burlington \& Quincy R.R. sta., E. of operator's
window, on top of $N$. side of concrete base of semaphore; chiseled square
961.38 Burlingtion \& Quincy R.R. at id. crossing, on top of $N$. end of concrete overflow drain pipe; chiseled square
932.92
. 27 N., R. 27 W., E. cor. secs. 12 and $13,22 \mathrm{ft} . \mathrm{N}$. and 22 ft . W. from T-rd. W., ft. S. of fence corner; 1ron post stamped "Prim Trav Sta No 221913 Mo $921{ }^{1 \prime}$

[^7](Continued in Dawn quadrangle; see line 1.)

## 2. NORTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE, THENCE EAST ALONG NORTH' BORDER <br> (Continued from Winston quadrangle; see line 2.)

T. 59 N., R. $28 \mathrm{~W} .$, in $\mathrm{SE} 1 / 4 \mathrm{SW} 2 / 4 \mathrm{sec} .36,0.2 \mathrm{mi}$. N. of bridge over Honey Creek, at curve in rd. to E.'y on top of W. end of S. parapet wall of concrete bridge over fork of Honey Creeky chiseled square
T. $59 \mathrm{~N}_{\mathrm{w}}, \mathrm{R}$. $28 \mathrm{~W}_{\text {. }} 230 \mathrm{ft}$. W. of E . quarter cor. sec. $36,25 \mathrm{ft}$. N. of rd. ,W. of ra. leading to barn, W. of gate, in root on S. side of 30-in': elm tree (W. one of two elms 20 ft . apart); copper nail and washer
T. 59 N., R. 27 W., E. sixteenth cor. sec. $31,30 \mathrm{ft}$. SE. of T-rd. N., E. of gate to barnt iron poat stamped "1920 mo $823^{\circ}$

Reference mark, 35 ft . E. of T-rd. N., N. of rd., in root on NW. side of 12-1n. oak tree; copper nall and washer
T. 59 N., R. 27 W., E. sixteenth cor. sec. 30 , 35 ft . E. of rd., at NW. corner of yard of $L$. Place, in root on N. side of 24-in. oak trees. copper nall and washer
T. 59 N., R. 27 W., 0.1 mi . S. of E. sixteenth cor. between seds; 19 and $30, \mathrm{~W}$. of rd. r on top of N . end of N . wing wall of W . head wall of concrete culvert; chiseled square
Gallatin, in SW. part of, at NE. comer of Twenty-fourth and EfStreets, 7 ft . W. of line of telephone poles, on $\mathbb{N}$. edge of walk across E Street; chiseled square
Gallatin, in W. part of at intersection of Twenty-second and E Streats; top of rock
Gallatin, at NW, corner of Twenty-first and J Streets, in. SE. corner of schoolyard; iron post stamped h 1920 Mo $898^{\prime \prime}$
Reference mark, in SE. corner of schoolyard, on top of E. end of S. concrete retaining wall; chiseled square
Gallatin, 15 ft . E. of SW . corner of courthouse, 12 ft . W. of S. entrance, 3 ft . above ground, in face of 3-in. facing stone; standard tablet stamped "1920 Mo 932"
T. 59 N., R. 27 W., in SE $1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec}$. 18 , at T-rd. S ., N. of rd ., in SE. corner of yard; in root on N. side of $10-1 n$. mapie trees copper nail and washer
T. $59 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W}$, , in SE $1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec}$. 13 , on E. bank of creek, 50 ft . N . and 75 ft . E. from drain, 40 ft . N. of ra., in root on S . side of 24-in. locust tree; copper nall and washer
T. 59 N., R. 28 W... E. sixteenth cor. sec. 13 , at NE. corner of Tra. N., at base of corner fence post; top of rock
T. $59 \mathrm{~N}, \mathrm{r}$. 28 W . in NE $1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .12$; 200 ft . S . and about 200 ft. E. from dweliling W. of ra., 65 ft . N. of curve in rd. to NW. at E.-W. fence inne, in fence line E. of rd., in root on W. side of 36-in. oak tree; copper nall and washer
T. 59 N., R. 28 W., E. sixteenth cor. between secs. 1 and 12 , at NW, corner of crossroads, on top of W. head wall of concrete culvert; chiseled square
T. 59 N., R. 28 W., E. sixteenth cor. sec. l, at T-rd. S.; top of stone
 $f t . N$. of fence corner; iron post stamped "gino mo $908^{n}$
Reference mark, 50 ft . NW. of T-rd. N., in root on N. side of $10-1 \mathrm{n}$. elm tree; copper nefl and washer
773.60
809.61
821.962
821.75
$897 \cdot 54$
849.19
937.26
918.39
897.433
896.81
931.278
898.17
901.75
934.89
902.52
883.30
891.26
907.276
906.28
915.29
850.102
903.61
927.9
927.083

1
912.13
$887 \cdot 47$
900.28
896.910
$\dot{3}$

6
T. $60 \mathrm{~N} .$, R. $28 \mathrm{~W} .$, in SE $1 / 4 \mathrm{sec} .36,950 \mathrm{ft}$. SE. of mouth of Larry

Creek, on S. bank of Grand River, 400 ft . E. of old wagon ford, N. of abandoned rd., 6 in . under ground, in root on $W$. side of $24-1 \mathrm{n}$. cottonwood tree; copper nail and washer

Feet
733.12
T. 60 N., R. $28 \mathrm{~W} .$, in SE $1 / 4$ sec. $36,650 \mathrm{ft}$. below mouth of Larry Creek, 200 ft . below old wagon ford across Grand River, 25 ft . N. of river, W. of old rd. leading to ford, in trunk on NW. side of lone 30-in. cottonwood tree; copper nail and washer
T. 60 N., R. 27 W. , quarter cor. between secs. 30 and 31.40 ft . E . of rd. corner from W.-N., at fence S., S. of rd., in root on W. side of 42-in. walnut tree; copper nail and washer
T. $60 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} .$, in $\mathrm{N} 1 / 2 \mathrm{sec} \cdot 30,35 \mathrm{ft}$. S. of junction of rd. SE., 15 ft . E. of N.-S. rd., 2 ft . W. of fence; 1 iron post stamped "Prim Trav Sta No 81913 Mo $901^{\prime \prime}$
Reference mark, at SW: corner of T-rd. S., at fence corner, in root on N. side of $4-1 n$. élm tree; copper nail and washer
T. $60 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W}$., quarter cor between secs. 29 and $30,50 \mathrm{ft} . \mathrm{N}$. and 115 ft . E. from Thrd: E., in yard of small brick dwelling, in root on S. side of 24-in. elm treej copper nail and washer
T. 60 N. R. 27 W ., near center of $\mathrm{SE} 1 / 4 \mathrm{sec}$. 29 , about 75 ft . N. of T-rd. E., on top of W. head wall of concrete culvert; chiseled square
T. 60 N., R. 27 W., near center of $5 W 1 / 4$ sec. 28 , at rd. corner from W...S., on top of SW, end of concréte culvert; chiseled square
T. $60 \mathrm{~N}, \mathrm{R} .27 \mathrm{~W}_{\text {. }}$, in NE $1 / 4 \mathrm{NW} 1 / 4 \mathrm{sec} .33$, 40 ft . N. and 70 ft . W. from T-rd. W., in field, in root on E. side of 24-in. oak tree; copper nail and washer
T. 60 N., R. 27 W., about 0.1 mi. E. of quarter cor. between secs. 28 and 33, at NE. corner of Trid. N., 3 ft . N. of corner fence post; iron post stamped " 1920 Mo 762"
Reference mark, 25 ft . E: of Trrd. N., on top of E. end of S. head wall of concrete culvert; chiseled square
T. 60 N., R. 27 W., quarter cor, between secs. 27 and $34,130 \mathrm{ft}$. W. of T-rd. N., S. of rdy on top of $E$. end of $S$. head wall of concrete culvert; chiseled square
T. 60 N., R. 27 W., W. sixteenth cor. between secs. 26 and $35 \%$ at SW . corner of crossroads, on top of N . ond of W . head wail of concrete culvert; chiseled square
T. 60 N., R. 27 W., cor. secs. 25, $26 ; 35$, and 36 , at NW, corner of crossroads, on'top of $N$. end of $E$. wing wall of $N$. head wall of concrete culvert; chiseled square
T. 60 N., R. 26 W., 5 ft . N. and 15 ft . W . from w . cor. secs. 30 and 31 , W. of T-rd. S., 50 ft. S. of iron bridge, in line with rd. E. in fence corner; iron post' stamped "Prim Tray Sta No $91913 \mathrm{Mo} 780^{\prime \prime}$
Reference mark, on top of $N$. end of E . concrete abutment of bridge; chiseled square
T. 60 N., R. $26 \mathrm{~W} .$, cor secs. $29,30,31$, and $32,45 \mathrm{ft} . \mathrm{S}$ : of T-rd. S., in fence line W . of rd., in root on NW. side of 12-in. elm tree; copper nail and washor
T. 60 N., R. 26 W.. W. sixteenth cor. between secs. 29 and 32, at NW. corner of T-rd. N., in root on SE. side of $30-1 \mathrm{n}$. oak tree; copper. nail and washer
Jamesport, about 1.8 mi . W. of, cor. secs. $28,29,32$, and $33, \mathrm{~T}, 60 \mathrm{~N}$, , R. $26 \mathrm{~W} ., 30 \mathrm{ft}$. N. and $20 \mathrm{ft}$. . E . from T-rd. N., 15 ft . N. of fence. corner;iron post stamped " $8855^{\circ}$
Jamesport, about 1.2 mi . W. of, about 0.1 mi . N. of quarter cor. between secs. 28 and 33, T. $60 \mathrm{~N}:$, R. 26 W., at NE. corner of T-rd. E., in corner of field, in root on S. side of twin 48-in. elm tree; copper nail and washer
Jamesport, $60 \mathrm{ft} . \mathrm{S}$. of NW, corner of yard of high school, in root on N . side of 24 -in. maple tré; copper nail and washer
Jamesport, 8 ft . S, of E. entrance to Peoples Exchange Bank, 4 ft . N. of SE. corner of building, 4 ft , above sidewalk, at base of S , one of four columns, in face of water tableg standard tablet stamped " 1920 Mo 9901
Reference mark, 8 ft . N. of tablet, on top of N . end of top step; chiseled square
Jamesport, 1 mi. E. of, cor. secs. 25, 26,35 , and 36, T. 60 N., R. 26 W., 60 ft . W. of crossroads, in fence line $N$. of rd., in root on $W$. side of 6-in; box-elder tree (at W. end of row of trees); copper nail and washer
Jamesport, $2 \mathrm{mi} . \mathrm{E}$. of, cor. secs. $25,30,31$, and $36, \mathrm{~T}, 60 \mathrm{~N}$, . Ris. $25^{\circ}$ and $26 \mathrm{~W} ., 45 \mathrm{ft}$. W. of T-rd. S. on Daviess-Grundy county line, in fence line S . of rd., iron post stamped "1920 Mo 975"

## 3. FROM JAMESPORT SOUTH THROUGH NORTHEAST PART OF QUADRANGLE

T. 59 N., R. 26 W., N. cor. secs. 2 and 3, at SW. corner of T-rd. S., inside of fence corner, in root on E. side of $24-1 n$. box-elder tree; copper nail and washer
923.69
T. 59 N., R. $26 \mathrm{~W} .$, cor. secs. $2,3,10$, and 11 , at NW. comer of crossroads, 15 ft . W. of corner fence post, in fence line; iron post stamped "1920 Mo 9.39"
T. 59 N., R. 26 W. , near center sec: $11,50 \mathrm{ft}$. N : of jog in rd. to E., w. of rd. in front of dwelling, in root on NE. side of 24-in. maple tree; copper nail and washer
T. 59 N., R. 26 W., quarter cor. between secs. 11 and $14,60 \mathrm{ft}$. S. and 35 ft. W. from T-rd. W., in front yard of dwelling; in root on E. side of 12-1n. pine tree; copper nail and washer
T. $59 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W}$, in $\mathrm{SW} 1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec}, 14,90 \mathrm{ft} . \mathrm{S}$ of dwelling E . of rd.y 80 ft . N. of driveway to barn; 40 ft . E. of rd., in root on W . side of 24 -in. oak tree; copper nail and washer
T. 59 N., R. $26 \mathrm{~W} .$, center sec. 23 , at SW . corner of T-rd. W., $8 \mathrm{ft} . \mathrm{S}$. of fence corner; iron post stamped "1920 Mo 914"
T. 59 N., R. 26 W., near N. sixteenth cor. sec. $26,0.1 \mathrm{mi}$. S. of dwell-

Feet
888.42 E . side of $15-1 \mathrm{n}$. elm tree; copper nail and washer
793.46
769.60

## 4. SOUTH THROUGH CENTER OF NORTH HALF OF QUADRANGLE

Tps. 59 and $60 \mathrm{N}$. , Rs. 26 and $27 \mathrm{~W} .$, cor. of, 65 ft . E. of crossroads, N . of rd., on top of N . head wall of concrete culvert; chiseled square T. 59 N., R. 26 W. , W. cor. secs. 6 and 7 , 110 ft . E. of T-rd. E., at bridge over Thompson Creek, at foot of W. end of railing, on top of N . end of W. concrete abutment; chiseled square
T. 59 N., R. 27 W., E. cor, secs. 12 and $13,20 \mathrm{ft}$. S . and 40 ft . W. from T-rd. W. 15 ft . W. of corner fence post, in fence lines iron post stamped " 1920 Mo 769"
Reference mark, at NW. corner of T-rd. W., on top of N. head wall of concrete culvert; chiseled square
T. 59 N., R. 26 W. , in SW. cor. sec. $18,100 \mathrm{ft}$. S. and 50 ft . E. from S. end of bridge over fork of Big Muddy Creek, in field, in root on S. side of $30-1 \mathrm{n}$. elm tree; copper nail and washer
786.92
778.74
768.403
767.27
745.52
T. 59 N., R. 26 W ., in NW $1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec}$. 19, at SW . corner of T-rd. S.,
T. 59 N., R. 26 W., W. sixteenth cor che between secs. 19 and $30,120 \mathrm{ft}$. W. of rd. corner from N.-E., 160 ft . W. of bridge over creek, in field, in root on SE. side of 48-in. elm tree; copper nail and washer
T. 59 N., R. 26 W ., center sec. 30 , at SE. corner of crossroads, 10 ft . E. of fence cornér, 4 ft . E. of $24-1 \mathrm{n}$. elm tree; iron. post stamped "1920 Mo 789"
Reference mark, at SE . corner of crossroads, 4 ft . E. of fence corner, in root on E. side of $24-1 \mathrm{n}$. elm tree; copper nail and washer
T. $59 \mathrm{~N} ., \mathrm{R}$. 26 W ., near center sec. $31,250 \mathrm{ft}$. S. and 50 ft . E. from S. end of bridge over Big Muddy Creek, 160 ft . S. and 50 ft . E. from $\mathrm{T}-\mathrm{rd}$. W., 45 ft . S. and 50 ft . W. from dwelling E. of rd., in root on NW. side of southwesternmost one of three elm trées; copper nail and washer
727.04
5. FROM LOCK SPRINGS SOUTH TO BRECKENRIDGE (by S. L. Parker in 1920)

Lock Springs, in front of Wabash Ry. sta, ; top of N. rail
Lock Springs, 1.5 ml . S , of, cor. secs. $13,14,23$, and 24 , T. $58 \mathrm{~N} .$, R. 26 W ., at $S W$. corner of T-rd. W., 4 ft . S. and 1 ft . E. from fence corner; iron post stamped " 1920 Mo $713^{n}$
719.5
T. $58 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W}$., near center of $\mathrm{NW} 1 / 4 \mathrm{sec} .26,270 \mathrm{ft}$. E. of T-rd. S., about $0.2 \dot{\mathrm{~m} 1}$. SW. of ste日l bridge over Grand River, S . of rd., 15 ft. N. of fence, in root on $N$. side of 12-in. elm tree; copper nail and washer
$745 \cdot 94$
741.57
788.462
787.90
T. $58 \mathrm{~N} ., \mathrm{R}_{\mathrm{c}} 26 \mathrm{~W}$. , center of $\mathrm{NW} 1 / 4 \mathrm{sec} .35$. NE. of rd. corner from N.-E., 1 ft . S . and 4 ft . E. from fence corner; iron post. stamped "1920 Мо $787^{\prime \prime}$
Tps. 57 and $58 \mathrm{~N} ., \mathrm{R} .26 \mathrm{~W} ., 55 \mathrm{ft}$. SW. of quarter cor between secs. 2 and 35, on Oaldwell-Daviess county line, S. of rd. corner from N.-W., in E.-W. fence inne, in root on W. side of 13-1n. elm tree; copper nall and washer
T. $57 \mathrm{~N}_{\text {. , }}$ R. 26 W , quarter cor. between secs. 2 and 3, SE. of rd. corner from E.-S.'r 17 ft . S. and 1 ft . W. from 'fence corner, in root on W. side of $12-1 n$. hackberry tree; copper nall and washer
869.68

## 6. EAST THROUGH SOUTHWEST QUARTER OF QUADRANGLE

T. 58 N., Rs. 27 and $28 \mathrm{~W}, 120 \mathrm{ft}$. E. of approximate cor. secs: 19, 24 , 25 , and $30, \mathrm{~N}$. of rd., 1 ft. N. of fence line, in root of $22-\mathrm{in}$. redtoak tree; copper nail
863.40
T. 58 N. R. 27 W., 0.1 mi. E. of quarter cor. between secs. 19 and 30 , at NE. corner of crossroads, 11 ft . SW. of fence corner, on top of S . end of E. parapet wall of concrete culvert; chiseled square
944.30
T. 58 N., R. 27 W., quarter cor, between secs. 20 and 29 , NW. of rd. corner from W.-N., 1 ft. S. and 4 ft . W. from fence corner; iron post stamped "1920 Mo $945^{n}$
T. 58 N., R. 27 W., quarter cor. between secs. 21 and 28 , NW, of T-rd. N. r 14 ft . S. of fence cornery , on top of $W$. end of $N$. parapet wall of concrete culvert; chiseled square
943.957
834.67
27.90 and 2, 90 ft . E. of T-rd. N., on top of W . end of N . parapet wall of concrete culvert; chiseled square
872.46
T. 58 N., R. 27 W., near E. sixteenth cor. between secs. 22 and 27, NW. of rd. corner from W.-S. $\mathrm{m}^{1} \mathrm{ft}$. S . and 4 ft . W. from fence corner; iron post stamped "1920 Mo 866"
864.996
T. $58 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W}$., N. sixteenth cor. sec. 26 , SW . of crossroads, 25 ft . SW. of fence cormer, in field, in root on NW. side of 19-1n. eim tree; copper nall and washer
T. 58 N., R. 27 W., near N. sixteenth cor. between secs. 25 and 26 , at T-rd. S., 7 ft . S. of fence, on top of $N$. parapet wall of concrete culvert; chiseled square
7. NEAR MIDDLE OF EAST BORDER OF QUADRANGLE
(Continued from Chillicothe quadrangle; see line 6.)
T. $5^{8} \mathrm{~N}$. , R. 25 W. , about 0.2 mi . N. of quarter cor between secs. 7 and 18, at NW. corner of T-rd. W., 8 ft . N. of fence curner, in root on E. side of 14-1n. white-oak tree; copper nail and washer

Feet
854.59
(Continued in Chillicothe quarrangle; see line 6.)
8. NEAR MIDDLE OF NORTH HALF OF EAST BORDER OF QUADRANGLE (Continued from Chillicothe quadrangle; see line 11.)
T. 59 N., R. $25 \mathrm{~W} .$, about 0.2 mi . E. of center sec. 18 , $35 \mathrm{ft} . \mathrm{S}$. of rd. corner from E.-N., E. of driveway to barn, in root on $N$, side of lone 14-in. hickory tree; copper nail and washer
912.46
T. 59 N., R. 25 W. , about 550 ft . E. of center sec. $7,90 \mathrm{ft}$. W. of rd. forks, 30 ft . W. of W. bank of small ereek, N. of rd., $1 \mathrm{ft} . \mathrm{S}$. of fence; iron pośt stamped "1920 Mo 835"
834.376
(Continued in Chillicothe quadrangle; see line ll.)
9. NORTH THROUGH MIDDLE OF SOUTH HALF OF QUADRANGLE, THENCE EAST TO EAST BORDER (by J. M. Rawls in 1920)
T. 57 N., R. 26 W., near W. quarter cor. sec. 7, $190 \mathrm{ft} . \mathrm{N}$. of T-rd. E., E. of ra., in root of large cottonwood tree; copper bolt
874.00
T. 57 N., R. 27 W., E. querter cor. sec. 1, in T-rd. W., on top of cornerstone; chiseled mark
875.16
T. 58 N., R. 26 W ., in $\mathrm{SW} 1 / 4 \mathrm{SW} 1 / 4$ sec. $30,100 \mathrm{ft}$. $\mathrm{E} . \mathrm{N}_{\mathrm{N}}$ of T-rd. E., N. of rd.' in ledge; standard tablet stamped "1920 Mo 816"
T. $58 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W}$., center of $\mathrm{SE} 1 / 4 \mathrm{sec} .25$, 50 ft . SE. of T-rd. E., in root of 18-in. hickory treeg copper nail
T. $58 \mathrm{~N} .$, R. 27 W ., center of $\mathrm{NE} 1 / 4 \mathrm{sec} .25,15 \mathrm{ft}$, NW. of crossroads, on top of rock culvert; chiseled mark
876.46
on top of 27 W 13 and 24,15 of crossroads, on S. end of rock culvert; chiseled mark 24, 15 1.
883.69
T. 58 N., R. 27 W., near E. sixteenth cor. between secs. 12 and $13,30 \mathrm{ft}$.

SW. of T-rd. S., 2 ft . N. of fence Inne; iron post stamped "Mo $795^{\mathrm{H}}$
T. 58 N., R. 26 W., W. sixteenth cor. between secs. 7 and 18, in T-rd. N.; top of cornerstone
T. 58 N., R. 26 W ., near N. sixteenth cor. sec. 7, 120 ft . W. of T-rd. W., in fence line S. of ra., In root on N. side of large white-oak tree; copper nail
T. 58 N., R. 26 W., near N. sixteenth cor. sec. 6, in triangle formed by junction of rds.; iron post stamped "1920 Mo 732"
Carlow, Wabash Ry. at rd. crossing: top of $S$. rail stamped fig20 Mo 766"
T. 59 N., R. 26 W., E. sixteenth cor. sec. $34,50 \mathrm{ft}$. E. of crosaroads, S. of rd., in root on W. side of $24-1 \mathrm{n}$. eim tree; copper nail

Tps. 58 and 59 N., Rs. 25 and 26 W., near cor. of on Daviess-Livingston county line, $80^{\prime} \mathrm{ft}$. E . of T-rd. N., 5 ft . N. of fence line $\mathrm{S}_{\mathrm{i}}$ of rd., in rock out-crop flush with ground; standard tablet stamped " 1920 Mo $880^{\prime \prime}$
879.824
10. FROM CENTER OF QUADRANGLE WEST TO WEST BORDER
T. $58 \mathrm{~N} .$, R. 27 W., near center of $\mathrm{NE} 1 / 4 \mathrm{sec}$. 1 , in front of dwelling, N. of rd., in root of large elm tree; copper nail

Wabash Ry. at rd. crossing; top of S. rail
730.00

Kagill, 0.3 mi . W. of along Wabash Ry., in SE $1 / 4$ soc. 35 , T. $59 \mathrm{~N} .$, R. 27 W .55 ft . s. $47^{\circ} 50^{\prime} \mathrm{W}$. of rd. crossing, 1 ft . E. of fence corner; iron post stamped "Prim Trav Sta No 231913 Mo 734 "
Tps. 58 and 59 N., R. 27 W., cor. secs. $2,3,34$, and $35,35 \mathrm{ft}$. NE. of rd. corner from S.-E., in fence line E. of rd., in root of 36-1n. oak tree: crossed nails
T. 58 N., R. 27 W., near quarter cor between secs. 2 and 3, 30 ft . SW. of T-rd. W., on top of concrete oulvert; chiseled square
733.273
735.72
T. $58 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} .$, about 0.2 ml . E. of center sec. $4,50 \mathrm{ft}$. SW. of T-rd. S. in inclosure, in root of large maple tree; copper nail
T. 58 N., R. 27 W., in SW $1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .4,45 \mathrm{ft}$. NW. of T-rd. W., 2
ft. E. of fence; 1 ron post stamped " 1920 No $751^{n}$
738.82
750.761
T. $58 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W}$. cor secs. $5,6,7$, and $8,30 \mathrm{ft}$. SE. of crossroads, on top of concrete culvert; chíseled square

## 11. IN NORTHWEST CORNER OF QUADRANGLE (by R. B. Steele in 1922)

T-rd. W.; surface of rd.
856.2
. 60 N., Rs. 27 and 28 W ., 11 ne between secs. 19 and 24 , in SE. cormer of crossroads, at front gate to farmhouse, on top of concrete hitching block: chiseled square
Reference mark, 43 ft . S. $75^{\circ} \mathrm{E}$. , in root of 6 -in. oak tree; copper nail and washer
$845 \cdot 30$
Top of hill; surface of rd.
Cuivert; at center of; surface of rd.
12. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE 1 MILE

EAST OF GALLATIN (by F. C. Lentz in 1936)

Peot
833.634
818.722
750.27
755.320

For additional level lines along Chicago, Rock Island \& Pacific Ry. and Wabash Ry., refer to United States Coast and Geodetic Survey second-order línes, Plattsburg to Gallatin, Pattonsburg to Gallatin, and Gallatin to Sumner.
(Latitude $39^{\circ} 30^{\prime}-39^{\circ} 45^{\prime}$; Iongitude $93^{\circ} 45^{\prime}-94^{\circ} 00$ ) )
Caldwell, Carroll, Livingston, and Ray Counties


1. FROM HAMILTON NORTHEAST ALONG CHIOAGO, BURLINGTON \& QUINOY RAILROAD TO NORTE BORDER OF QUADRANGLE (by S. R. Archer in 1920)
(Continued from Polo quadrangle; see line 2.)
Hamilton, Chicagoy Burlington \& Quincy R.R. at Davis Street crossing, N. of main track, $E$. of street; top of $N W$. corner of concrete base of electric warning bell
Hamilton, 80 ft . S. of Chicago, Burlington \& Quincy R.R. at Davis Street crossing. W. of strieet, $N$; of front entrance to First National Bánk, 4 ft. above sidewalk, in face of rock between window and stone colum; standard tablet stamped "1920 MO 994"
Hamilton, about 0.5 mi . E. of E. 11 mite of, cor, secs, 13,18 , 19, and 24, T. 57 N, , Rs. 27 and $28 \mathrm{~W}, 30 \mathrm{ft}$. W. of T-rd. S.r. N. of rd., in root on NE. side of 36 -in. mapie treeg copper nail and washer
T. 57 N., R. 27 W., S. sixteenth cor. between secs. 17 and 18 , NW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, SW. of T-rd. W., 4 ft. S. of fence corner; iron post stamped "1920 Mo 964"
Coal mine, N. of Chioago; Burlington \& Quincy R.R.; top of shaft
T. $57 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W} .$, on líne between secs. 16 and 17 , at S . right-of-way fence of Chicago, Burlington \& Quincy R.R., 25 ft . E. of N.-S. fence, in root on $S$. side of one of three cottomwod trees's copper nail and washer
(Continued in Gallatin quadrangie; see line l:)

## 2. FROM POINT NEAR MIDDLE OF EAST BORDER OF QUADRANGLE WESTT TO

 WEST BORDER (by E. B. Perry in 1921)[^8]Braymer, 2 mi. N. of, cor, secs. 26, 27 , 34 , and 35, T. 56 N., R. 26 W.,
Feet at $S W$. corner of crossroads, in root of $12-1 n$. locust tree; copper nail and washer
Braymer, $2 \mathrm{ml} . \mathrm{N}$. , thence 1 mi . W. from, cor. secs. $27,28,33$, and 34 , T. 56 N., R. 26 W., 150 ft . E. of T-rd. N., on W. end of S. head wall of concrete culvert; chiseled square
Braymer, 2 ml . N., thence 2 mi . W. from, cor. secs. $28,29,32$, and 33 , at crossroads, in N. wing wall of concrete culvert; standard tablet stamped "Prim Trav'Sta No 28 S $1921 \mathrm{Mo}^{\prime \prime}$
Reference mark, 24 ft . S. of tablet, on W . end of S . head wall of concrete culvert; chiseled square
T. 56 N., R. 26 W., cor. secs. $29,30,31$, and $32,690 \mathrm{ft}$. E. of crossroads, $S$. of rd., on NE. corner of concrete watering trough; chiseled square
T. 56 N., R. 26 W., E. cor secs. 25 and $36,60 \mathrm{ft}$. S. and 30 ft . E. from T-rd: W., in Conner's yard, in root of i8-in. cottonwood treej copper nall and washer
T. 56 N., R. 27 W., quarter cor. between secs. 26 and $35,48 \mathrm{ft} . \mathrm{N}$. and 54 ft. W. from crossroads, in concrete porch of church; standard tablet stamped "Prim Trav Sta No 29 S 1921 Mo"
Reference mark, 88 ft . S. $85^{\circ}$ E. of tablet, in root of $24-1 \mathrm{n}$. maple tree; copper nall and washer
T. 56 N., R. 27 W., quarter cor. between secs. 23 and 26 , at SW. corner of crossroads, in root of 12-in. hedge tree; copper nail and washer
.56 N., R. 27. W., quarter cor. between secs. 22 and $27,40 \mathrm{ft} . \mathrm{N}$. . and 60 ft. E. from $T-r^{\prime}$. N., in SW. corner of churchyard. in root of $12-1 n$. elm tree; copper nail and washer
924.29
T. 56 N., R. 27 W., cor. secs. $21,22,27$, and 28 , at T-rd. E., on S. end of W. span of steel bridge over 'Crabapple Creek; top of seventh bolt head from bottom of span
T. 56 N., R. 27 W., cor. secs. $20,21,28$, and 29 , at T-rd. S., on top of cornerstone; chiseled square
T. 56 N., R. 27 W., in NE $1 / 4 \mathrm{NE} 1 / 4$ sec. $32,800 \mathrm{ft}$. W. of T-rd. W., N. of rd., in root of $14-1 n$, maple tree ; copper nail and washer
T. $56 \mathrm{~N} .$, R. $27 \mathrm{~W} .$, cor: secs. $29,30,31$, and $32,15 \mathrm{ft}$. W. of T-rd: E.; iron post stamped "Prim Trav sta No 30 S 1921 Mo"
iron post stamped prim Trav sta 89 ft. S. $75^{\circ} \mathrm{E}$. of post, in root of 8 -in. locust tree; copper nail and washer
882.025
T. 56 N., R. 27 W., 100 ft. N. of S. cor. secs; 31 and 32, W; of rd., in root of 24-1n. locust tree; copper aail and washer
. $56 \mathrm{~N} ., \mathrm{R}$. 28 W ., near S. quarter cor. sec. 36 . N. of rd., in root of 14-in. elm tree; copper nail and washer
(Continued in polo quadrangle; see line 3.)

## 3. FROM POINT NEAR MIDDLE OF WEST HALF OF NORTH BORDER OF QUADRANGLE SOUTH TO CENTER OF WEST HALF

T. $57 \mathrm{~N} .$, R. 27 W., cor. secs. $15,16,21$, and $22,80 \mathrm{ft}$. S. and 30 ft . E. from crossroads, in root of $14-1 n$. elm treef copper nall and washer
T. 57 N., R. 27 W., cor, secs. $21,22,27$, and 28,720 ft. N. of crossroads, in front of dwelling of Mrs. R. F. Jones, E. of rd., in root of 30-in. maple tree; copper nail and washer
T. 57 N., R. 27 W., cor. secs. $27,28,33$, and 34 , at crossroads, in SE. corner of porch of Excelsior School; standard tablet (not stamped)
Reference mark, $65 \mathrm{ft} . \mathrm{N} .45^{\circ} \mathrm{E}$. of tablet, on concrete base of fence post; chilseled square
T. 57 N., R. 27 W., S. cor. secs. 33 and $34,25 \mathrm{ft}$. N. and 30 ft . W. from T-rd. N., in root of 24 -in. elm trees copper nail and washer
. $56 \mathrm{~N} ., \mathrm{R} .27 \mathrm{~W}$. , cor secs: $3,4,9$, and 10 , in center of crossroads, on top of cornerstone; chiseled square
56 N of 27 W and $147 \mathrm{ft} . \mathrm{w}$ from crossroads, in concrete porch of Pleasant Ridge Church; standard tablet (not stamped)
copper nall and washer
T. 56 N. , R. 27 W., in SE $1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec}$. 17 , at T-rd. N. (? E.), on E. end of $N$. head wall of concrete culvert; chiseled square
P. 56 N. . R. 27 W. , quarter cor between secs. 17 and $20,60 \mathrm{ft}$. S. and and washer
N., R. $27 \mathrm{~W} .$, in NB $1 / 4 \mathrm{sec} .21$, in front of dwelling of $\mathrm{F} . \mathrm{C}$.

McBee, on conorete step of sidewalk; chiseled square
806.48

## 4. IN SOUTHEAST CORNER OF QJADRANGLE <br> (Oontimued from Davn quadrangle; see line 5.)

Tps. 54 and $55 \mathrm{~N} ., \mathrm{Rs}, 25$ and $26 \mathrm{~W} .$, cor of, 30 ft . S . and 25 ft . W. from crossroads at E. corner of Caldwell and Ray Counties; in root of 24 -in. maple tree; copper nail and washer

## 5. NEAR MIDDLE OF EAST HALF OF SOUTH BORDER OF QUADRANGLE

Tinney Grove, center sec. 10, T. 54 N., R. $26 \mathrm{~W} ., 20 \mathrm{ft}$. N. and 20 ft . W.
from T-rd. S. in concrete post; standard tablet stamped "Prim Trav Sta
Reference mark, 80 ft . S. $50^{\circ} \mathrm{W}$. of tablet, in root of $12-1 \mathrm{n}$. locust tree; copper nail and washer
T. 54 N., R. 26 W., in NE $1 / 4$ SE $1 / 4$ sec. 9, at NE. corner of T-rd. E., on concrete base of corner fence post; chiseled square
6. NEAR MIDDLE OF EAST BORDER OF QUADRANGLE (by F. L. Whaley in 1922)

Tps. 55 and 56 N., Rs. 25 and $26 \mathrm{~W} .$, cor of in SW . corner of T-rd. W. at W. cor. of Carroll and Livingston Counties, in concrete post; standard tablet stamped "W 1922 Mo"
Reference mark, $61 \mathrm{ft} . \mathrm{N}$. of tablet; in root of 20-in. elm tree; copper na1l and washer

## 7. NEAR CENTER OF QUADRANGLE

Tps. 55 and $56 \mathrm{~N} .$, Rs. 26 and $27 \mathrm{~W} .$, cor. of, $25 \mathrm{ft} . \mathrm{S}$. and 34 ft . W. from crossroads in concrete post; standard tablet stamped "W 1922 $\mathrm{Hon}^{n} \quad 805.777$ Reference mark, 187 ft . S. $35^{\circ} \mathrm{E}$. of tablet, in root of $36-1 \mathrm{n}$. locust tree; copper nail and washer

TIE BETWEEN UNITED STATES COAST AND GEODETIC SURVEY SECOND-ORDER
LINE AND UNITED STATES GEOLOGIOAL SURVEY THIRD-ORDER LINE AT LINE AND UNITED STATES GEOLOGIOAL
BRAYMER (by B. A. Barnes in 1936)

Braymer, 1 mi. N. of, N. cor. secs. 2 and 3, T. 55 N., R. 26 W., W. of T-rd. S., 15 ft . S : of Trd. N. at S . cor. secs. 34 and 35 T . 56 N. , R. $26 \mathrm{~W} . ;$ Iron post stamped " Prim Trav Sta No 27 S 1921 Mo

Reference mark, 100 ft . N. $40^{\circ} \mathrm{E}$. of post, on SW . corner of concrete step of sidewalk; chiseled square
U.S.C. \& G.S. standard disk stamped "J 79 1935"

For an additional level line along Chicago, Milwakee, St. Paul and Pacific R.R., refer to United States Coast and Geodetic Survey second-order line, Chillicothe to Lawson.

POLO QUADRANGLE
(Latitude $39^{\circ} 30^{\prime}-39^{\circ} 45^{\prime}$; longitude $94^{\circ} 00^{\prime}-94^{\circ} 15^{\prime}$ )
Caldwell, Clinton, DeKalb, and Ray Counties


1. IN NORTHWEȘT CORNER OF QUADRANGLE (by S. R. Archer in 1920)
(Continued from Plattsburg quadrangle; see line 1.)
Cameron. 650 ft . W. of Chicago, Rock Island \& Pacific Ry, and Chicago, Burlington \& Quincy R.R. sta. (Cameron Junction), N. of Chicago, Rock Island \& Pacific Ry, ste日l water tank, on top of NE. corner of square concrete platform; chiseled square
Cameron, at Chicago, Rock Island \& Pacific Ry. passenger sta., in front of operator's window top of E. rail

1,034.94

Cameron, opposite NW. corner of park, 25 ft . E. of Chicago, Rock Island \& Pacific Ry., 17 ft . E. of bell signal post, 3 ft . S. of sidewalk; iron post stamped. "Prim Trav Sta No $41913 \mathrm{Mo}^{n}$

Cameron, opposite $N$. side of park, at SW. corner of brick schoolhouse,
I ft. above sidewalk, in S. face of cornerstone; standard tablet stamped "1920 Mo 1039"
T. 57 N., R. 30 W., near W. sixteenth cor, between secs. 13 and 24 , NE. of Chicago, Burlington \& Quincy R.R. at rd. crossing on Clintion-DeKalb county line, on top of E. end of tile culvert; chiseled square
T. $57 \mathrm{~N} ., \mathrm{R}$. 30 W ., S. sixteenth cor. sec. 13 , ill ft. N. of Chicago, Burlington \& Quincy R.R. at rd. crossing, 40 ft . N. of junction of private rd. E., in fence line E. of rd., in root on NW. side of 14-1n. maple tree; copper nail and washer

Feet
1,038.548
983.43
972.11
(Continued in Winston quadrangle; see line l.)

## 2. IN NORTHEAST CORNER OF QUADRANGLE <br> (Continued from Winston quadrangle; see line 1.)

T. 57 N., R. 28 W., center sec. 14, 200 ft . E. of Chicago, Burlington \& Quincy R.R. at crossing of rd. N., S. of track; N. of rd., opposite E . end of triangular grass plot, in root on S. side of 12-in. maple tree; copper nail and washer
Hamilton, NW. of Chicago, Burlington \& Quincy R.R. at Galiatin Avenue crossing; top of NE. corner of concrete base of electric warning bell
Hamilton, in W. part of, on W. Mill Street, 2 ft . S. and 1 ft . W. from NW. corner of brick school building; iron post stamped "Prim Trav Sta No $61913 \mathrm{Mon}^{\text {n }}$
982.10
990.62
996.039
(Continued in Braymer quadrangle; see line l.)

> 3. FROM MIDDLE OF EAST BORDER OF QUADRANGLE WEST TO MIRABILE, THENCE NORTH TO MIDDLE' OF NORTH BORDER (by E. B. Perry and F. L. Whaley in l921)
> (Continued from Braymer quadrangle; see line 2.)

Tps. 55 and 56 N., R. $28 \mathrm{~W} .$, near cor. secs. $1,2,35$, and $36,10 \mathrm{ft} . \mathrm{N}$. and 25 ft . W. from T-rd. N., in concrete post; standard tablet stamped "Prim Trav Sta No 31 S 1921 Mo "
896.767

Reference mark, 69 ft . S. $6^{\circ} \mathrm{W}$. of tablet, on NE. corner of concrete step of school; chiseled square
Tps. 55 and $56 \mathrm{~N} ., \mathrm{R}$. 28 W. . near quarter cor between. secs. 2 and 35 , about 40 ft . W. of $\mathrm{T}-\mathrm{rd}$. W., on S. head wall of concrete culvert; chiseled square
Tps. 55 and $56 \mathrm{~N} .$, R. $28 \mathrm{w} .$, cor. secs. $2,3,34$, and $35,60 \mathrm{ft}$. S. and $15^{\mathrm{ft}}$. E. from T-rd. S., in root of $24-1 \mathrm{n}$. black-oak tree; copper nall and washer
TPs. 55 and $56 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W} .$, near cor. secs. $3,4,33$, and 34 , Kingstonpolo rd. at rd. E., on E. side of SW. corner of steel bridge; top of eighth bolt head from bottom
T. 55 N., R. 28 W., N. cor secs. 5 and $6,28 \mathrm{ft}$. N. of T-rd. S., (iron post stamped "Prim Trav Sta No 32 S 1921 Mo "
Reference mark, 60 ft . NE. of post, in root of $18-\mathrm{in}$. black-oak tree; copper nail and washer
Tps. 55 and 56 N ., Rs. 28 and $29 \mathrm{~W} ., 900 \mathrm{ft}$. W. of cor. of, 430 ft . E. of T-rd. S., W. of driveway to barnyard of G. W. Houghton, in root of $10-1 \mathrm{n}$. maple tree; copper nail and washer
T. 56 N., R. 29 W., about 500 ft . W. of S . cor. secs. 35 and 36 , in E. side of White's yard, in root of 2l-in. maple tree; copper nail and washer
Tps. 55 and 56 N, , R. $29 \mathrm{~W} .$, approximate cor secs. $2,3,34$, and 35 , $15 \mathrm{ft} . \mathrm{N}$. of ra.; iron post stamped "Prim Trav Sta No 33 S 1921 Mol
Reference mark, 230 ft . W. of N . cor. secs. 2 and 3, on top of N. guard wall of concrete culvert; chiseled square
M1rabile, about 600 ft . N. of S. quarter cor. sec. $34, \mathrm{~T} .56 \mathrm{~N} ., \mathrm{R} .29 \mathrm{~W}$. , at entrance to Presbyterion Churoh, on concrete walk at base of step; chiseled square
T. $56 \mathrm{~N} ., \mathrm{R} .29 \mathrm{~W} .$, about 200 ft . N. of approximate quarter cor between secs. 27. and 34, at entrance to barnyard of Sidney D. Frost, in root of 18-1n. black-locust tree; copper nail and washer
T. 56 N., R. 29 W., in NW $1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec}$. 27 , at E. entrance to dwelling of I. A. Frost, on NW. corner of concrete walk; chiseled square
T. 56 N., R. 29 W., in SE $1 / 4$ SE $1 / 4 \mathrm{sec} .22$, in front of dwelling of Ed Orr, in root of oak tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .29 \mathrm{~W} .$, quarter cor. between secs. 14 and $15,250 \mathrm{ft}$. S. of T-rd. W., opposite Far West Church; on SE. corner of E. side of concrete ćulvert; chiseled squaré
T. 56 N., R. 29 W., quarter cor. between secs. 10 and 11 , at NE. corner of crossroads at Kerr; in NE. comer of concrete well top; standard tablet stamped "1921 Mo"
Reference mark, 106 ft . NW. of tablet, about 150 ft . N. of crossroads, opposite store, in root of $E$. one of three maple trees; copper nail and washer
T. 56 N., R. 29 W., on line between secs. 2 and 3, at NW, end of Stoner Bridge over Shoal Creek, on top of NW. stone abutment; chiseled square
T. 56 N., R. 29 W., in NE. cor. sec. 3, in front yard of 0. E. Crouch, in root of l2-in. hifckory tree (E. one of group of small hickory trees); copper nail and washer
T. 57 N., R. 29 W., cor. secs. 26,27 , 34 , anu: 35 , 160 ft. SE. of T-ra.
S., in field, in root of $36-i n$. sycamore tree; copper nail and washer
T. 57 N., R. 29 W., center of NE $1 / 4 \mathrm{sec} .27$, in jard of J. R. Anderson, in SW. corner of concrete well top; standard tablet
Reference mark, 200 ft . W. of tablet, in root of $30-1 \mathrm{n}$. maple tree; copper nail and was*er 903.52
877.38
950.01
834.67
939.419
937.14
969.06

1,003.06
986.911
979.58

1,006.05
T. 57 N., R. 29 W., E. sixteenth cor. sec. $22,60 \mathrm{ft}$. SW. of T-rd. E.,

Feet
T. 57 N., R. 29 W., S. sixteenth cor. between secs. 14 and $15,200 \mathrm{ft}$. $N$. of culvert, W. of rd., in root of $36-1 n$. cottonwood tree; copper nail and washer
932.55
(Continued in Winston quadrangle; see line 3.)
4. Near center of quadrangle (by f. L. Whaley in 1921)
T. 56 N., R. 29 W., quarter cor. between secs. 27 and $28,720 \mathrm{ft}$. W. of T-ra. N., inside fence ine $S$. of rdi, in root of 24-in. elm tree; copper nall and washer
911.43
T. $56 \mathrm{~N} .$, R. $29 \mathrm{~W} ., \mathrm{E}$. sixteenth cor. sec. $29,33 \mathrm{ft} . \mathrm{S}$. and $26 \mathrm{ft} . \mathrm{W}$. from T-rd. S. (? crossroads); 11 ft : S. of fence corner, inside fence line; top of iron stake

## 5. NEAR MIDDLLE OF SOUTH BORDER OF QUADRANGLE (by E. B. Perry in 1921)

T. 54 N., R. 29 W., N. sixteenth cor. between secs. 10 and 11 , at crossroads, S. (? N.) of rd., in root of $18-1 \mathrm{n}$. elm tree; copper nail and washer

955.17

## 6. FROM POINT NEAR NIRABILE SOUTHWEST TO POINT NEAR MIDDLE OF SOUTH HALF OF WEST BORDER OF QUADRANGLE, THENCE SOUTH AND EAST TO POINT NEAR ELMIRA (by F. L. Whaley in 1922)

T: 55 N., R. 29 W., E. sixteenth cor. between secs. 3 and 10,130 ft. S. and 30 ft . E. from T-rd. E., 3 ft . E. of fence, in root of $36-1 \mathrm{n}$. white-oak tree; copper nail and washer
931.97
T. 55 N., R. 29 W., N. sixteenth cor. sec. 10, in NW. corner of yard of T. McCobeandale, in root of 18-1n. maple tree at $W$. end of row of trees; copper nail and washer
T. 55 N., R. 29 W., center of NE $1 / 4 \mathrm{sec} .9,130 \mathrm{ft}$. E. of T-rd. S., on
S.guard wall of concrete culvert; chiseled square

1,002.93
1,002.61
T-rd. W., in fence line W. of rd., in root of 24 -in. elm tree; copper nall and washer
T. 55 N., R. 29 W., near center sec. 8 , in SW. corner of concrete well top at Lafayette School; standard tablet stamped "1922 Mo"
987.36

Reference mark 1, on top of concrete well top; chiseled square
1,035.871
Reference mark 1, on top of concrete well tops chiseled square
Reference mark 2 , 60 . f . and 350 ft . W. from schoolhouse, S . of rd., at NE. corner of maple grove, in root of 18-1n. maple tree; copper na11 and washer

1,035.75
T. 55 N.,.R. 29 W., near E. sixteenth cor, between secs. 7 and 18, at SE. corner of jard of Ira C. Scott, in root of $36-1 n$. Ample tree; copper nail and washer

1,042.36
T. 55 N., R. 29 W., quarter cor. between secs. 18 and 19, near farmhouse of Joe Pollard, at NW. corner of crossroads, in concrete post; standard tablet stamped " 1922 Mo"
Reference mark $1,80 \mathrm{ft}$. NW, of farmhouse, E . of rd ., in root of maple tree; copper nail and washer
Reference mark 2, 70 ft . SW. of farmhouse, E. of rd., in root of $20-\mathrm{in}$. maple tree; copper nail and washer
$1,041.28$
T. 55 N., R. 30 W., on line between secs. 13 and 24 , at NE. corner of yard of Lee Conyer, in root of $24-1 n$. maple tree; copper nail and washer

1,003.739
1,011.18
1,011.04
T. $55 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} ., \mathrm{W} . \operatorname{sixteenth}$ cor, between secs. 13 and $24,40 \mathrm{ft}$. E.
975.88
of T-rd. N. , on N. guard wall of concrete culvert; chiseled square
T. $55 \mathrm{N.,R}$. 30 W., about 800 ft . E. of quarter cor. between secs. 14 and
T. 55 N., R. $30 \mathrm{~W} .$, cor. secs. $14,15,22$, and 23 , 20 ft. S. and 20 ft . W. from crossroads; iron post stamped "Prim Trav Sta No 35 S 1921 Mo $W$ 1922"
Reference mark, 0.2 mi . $\mathrm{S} .1^{\circ} \mathrm{E}$. of post, E . of $\mathrm{rd} ., 4 \mathrm{ft}$. E. of fence, in root of $36-1 n$. cottonwood tree; copper nall and washer

1,038.979
T. 55 N., R. 30 W., W. sixteenth cor. between secs. 23 and $26,60 \mathrm{ft}$. SE. of T-rd. W., 12 ft . E. of fence, in root of $14-1 \mathrm{n}$. white-oak tree; copper nail and washer

1,031.35
T. $55 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}$., near W. sixteenth cor. sec. 26 , at S . entrance to Brooking Church, in W. énd of top concrete step; standard tablet stamped "W 1922 mo" $^{\prime \prime}$
Reference mark $1,60 \mathrm{ft}$. NW, of tablet, in root of 24-in, maple tree; copper nall and washer
Reference mark $2,120 \mathrm{ft}$. SW , of tablet, on NW. corner of N . head wall of concrete culvert; chiseled cross
T. $55 \mathrm{~N} ., \mathrm{R}$. $30 \mathrm{~W} .$, in $\mathrm{SE} 1 / 4 \mathrm{NW} 1 / 4 \mathrm{sec} .35$, 100 ft . NW. of steel bridge over Crooked River, in fence line W. of rd., in root of $14-1 n$. walnut tree; copper nail and washer
T. $54 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}, 0.2 \mathrm{ml}$. W. of N . cor. secs. 1 and $2,20 \mathrm{ft}$. S. and 60 ft. W. from crossroads, in fence line; in root of ly-in. elm tree; copper nail and washer
991.34
. 54 N., R. 30 W., E. sixteenth cor, between secs. 2 and $11,25 \mathrm{ft} . \mathrm{N}$. and 25 ft . W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 36 s 1921 Mo "

1,033.009
1,032.88
1,026.57
eference mark, 80 ft . N. $88^{\circ} \mathrm{E}$. of tablet, in root of 20-1n. elm trees copper nail and washer

1,055.08
$1,010.766$
1,005.28
T. 54 N., R. 30 W., E. cor. secs. I and 12 , at SW. corner of T-rd. W. on Clinton-Ray county line, on W. end of stone culvert; chiseled square T. 54 N., R. 29 W., 500 ft. E. of W. quarter cor. sec. 7, at NW. corner of concrete bridge, on concrete abutment; chiseled square

Feet
1,019.75
958.56
T. 54 N., R. 29 W., quarter cor. between secs. 7 and 8 , at junction of private rd. N. to farmhouse, on top of N. guard wall of concrete culvert; chiseled square
T. 54 N., R. 29 W., E. sixteenth cor. sec. 8, SW. of Benton School, near NE. corner of yard of J. A. Green, in root of 18-in. locust tree; copper nall and washer
T. 54 N., R. 29 W., W. sixteenth cor. sec. $9,20 \mathrm{ft}$. N. and 15 ft . E. from crossroads; iron post stamped "Prim Trav Sta No $37 \mathrm{~S} 1921 \mathrm{Mo}^{\prime \prime}$
Reference mark, 155 ft . N. $89^{\circ} \mathrm{E}$. of post, in root of $30-\mathrm{in}$. black-dak tree; copper nail and washer
Elmira, opposite semaphore in front of Chicago, Milwaukee, St. Paul and Pacific R.R. sta.; top of $N$. rail of main track
Elmira, 0.5 mil . E. of, 0.2 mi . S. of quarter cor. between secs. 3 and 10 , T. 54 N., R. 29 W., N. of rd., in root of $12-1 \mathrm{n}$. black-oak tree; copper nail and washer

## 7. SOUTH ALONG NORTH HALF OF WEST BORDER OF QUADRANGLE (by F. L. Whaley and R. B. Steele in 1922)

Cameron, at S. limits of, in center of NW $1 / 4$ sec. 26, T. 57 N., R. 30 W., at T-rd. E., W. of Pat Kenney's place, in root of 18-1n. maple tree; copper nail and washer
$1,032.02$
T. 57 N., R. 30 W., center of NW $1 / 4 \mathrm{sec} .35$, at SW . corner of crosaroads, at front entrance to Park School, on E. side of doorway, on concrete walk; chiseled square
999.35

Concrete culvert, center of; surface of rd.
930.4
T. 56 N., R. 30 W., near W. sixteenth cor. on N. line sec. 2, 25 ft. S. and 25 ft . W. from T-rd. S., 2 ft . S, and 2 ft . E. from fence corner; iron post stamped "Prim Trav sta No 47 S 1921 Mo R S 20 1921"
978.795

Reference mark, 61 ft . S. $10^{\circ} \mathrm{W}$. of post, on concrete walk; chiseled square
Junction of private rd. E.; surface of rd.
T. 56 N., R. 30 W., 0.2 ml . E. of cor. secs. 2, 3, 10 , and $11, \mathrm{~W}$. of T-rd., on concrete base of highway signboard; chiseled square
T-r..; top of $S$. end of concrete culvert
Bridge over Shoal Creek; center of
Shoal Creek, under bridge; surface of water at 8 a.m. June 27, 1922
T. $56 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} .$, in center $\mathrm{SW} .1 / 4 \mathrm{sec} .14,70 \mathrm{ft} . \mathrm{S}$. and 10 ft . E. from T-rd. E., on top of E. end of concrete culvert; chiseled square
T. 56 N, R. $30 \mathrm{~W} ., 0.2 \mathrm{mi}$. E. of cor. secs. $\frac{14}{}, 15$, 22 , and $23,63 \mathrm{ft}$. ( 35 ft . by ievelman) N. and 20 ft . W. from T-rd. W., if ft. N. and 2 ft. E. from corner of hedge fence; iron post stamped "Prim Trav Sta No $46 \mathrm{~S} 1921 \mathrm{Mo}^{\prime \prime}$ (Reset 28 ft . N. of above described location by A. J. St. John, highway engineer, Sept. 13, 2928. Given elevation is for new location.)
Reference mark, 23 ft. S. $5^{\circ} \mathrm{E}$. of post, on S . end of concrete culvert; chiseled square
T-rd. ; center of concrete culvert
Top of hill: surface of rd.
T. $56 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}$., in center of $\mathrm{SW} 1 / 4 \mathrm{sec} .26,120 \mathrm{ft}$. S . of crossroads, on top of E. head wall of concrete culvert; chiseled square
Concrete culvert, center of; surface of ra.
980.08
880.0
868.57
802.90
869.5
847.1
930.34
8. NEAR MIDDLE OF EAST BORDER OF QUADRANGLE (by F. L. Whaley in
1922)
T. 56 N., R. 28 W., in SE. cor. sec. $34,20 \mathrm{ft}$. S. and 110 ft . E. from crossroads, 2 ft . S. of fence, in concrete post; standard tablet stamped
Ref'erence mark, 78 ft . S. and 5 ft . W. from tablet, in root of $20-1 \mathrm{n}$. walnut tree; copper nail and washer

## 9. IN SOUTHWEST CORNER OF QUADRANGLE (by W. R. Broadus in 1923) <br> (Continued from Plattsburg quadrangle; see line 4.)

T. $54 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} ., 50 \mathrm{ft}$. E. of cor. secs. 2, 3, 10 , and 11 , in fence line $N$. of rd., in root on s. side of 18-in. eim tree; copper nail and washer
TIE BETWEEN UNITED STATES COAST AND GEODETIC SURVEY SECOND-ORDER
LINE AND UNITED STATES GEOLOGICAL SURVEY THIRD-ORDER LINE AT
ELMIRA (by B. A. Barnes in 1936)
T. 54 N., R. 29 W., W. sixteenth cor. sec. 9, 20 ft . N. and 15 ft . E. from crossroads; iron post stamped "Prim Trav Sta No 37 S 1921 Mo"
Reference mark, l55 ft. N. $89^{\circ} \mathrm{E}$. of post, in root of $30-1 \mathrm{n}$. black-oak tree; copper nail and washer
U.S.C. \& G.S. standard disk stamped "W 79 1935"

WINSTON QUADRANGLE
(Latitude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; longitude $94^{\circ} 00^{\prime}-94^{\circ} 15^{\prime}$ )
Caldwell, Daviess, and DeKalb Counties


1. NEAR SOUTH BORDER OF QUADRANGLE, EAST ALONG GFICAGO, BURLINGTON \& QUINCY RAILROAD (by S. R. Archer in 1920)
(Continued from polo quadrangle; see line 1.)
T. 57 N., R. 29 W., in NW $1 / 4 \mathrm{sec} .18,0.2 \mathrm{mi}$. NE. of Caldwell-DeKalb county ilne, on Chicago, Burlington \& Quincy R.R., at $W$. end of first
cut $E$. of bridge over stream, 270 ft . E. of milepost $169,50 \mathrm{ft}$. N. and 30 ft . E. from handcar landing, at N . fence line, inside field, in root on $W$. side of $24-1 n$. oak tree; copper nail and washer

Feet 917.40 882.354
T. $57 \mathrm{~N} ., \mathrm{R}$. 29 W ., on line between secs. 7 and 8 , SW. of Chicago, iron post stamped ${ }^{\prime} 1920$ Mo $883^{\prime \prime}$
T. 57 N., R. 29 W., in SE $1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .8$, at Chicago, Burlington \& Quincy R.R. bridge 167:54 over Brushy Creek, on top of S. end of parapet wall of E. abutment; chiseled square
T. 57 N., R. 29 W ., near cor. secs. 8, 9,16 , and $17,170 \mathrm{ft}$. W. of Chicago, Burlington \& Quincy R.R. at rd. crossing, 10 ft . N. of N. right-of-way fence, in root on $S$. side of $30-1 n$. oak tree; copper nail and washer
893.73

St
T. 57 N., R. 29 W., near S. sixteenth cor. sec. 9, at Chicago, Burlington \& Quincy R.R. bríge 166.34 over Brushy Creek, on top of $S$. end of parapet wall of E. abutment; chiseled square
880.44
T. 57 N., R. 29 W., near E. quarter cor. sec. 9, NW. of Ch1cago, Burlington \& Quincy R.R. at rd. crossing, 2 ft . N. of fence corner; iron post stamped hig20 Mo 906"
905.619
T. $57 \mathrm{~N} .$, R. 29 W., in NW $1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec} .10$, W. of Chicago, Burlington
\& Quincy R.R., 65 ft . W. of fence corner, in fence line, in root on $N$. side of $36-i n$. cottonwood trees spike
954.71
T. 57 N., R. 29 W., on line between secs. 2 and $3,400 \mathrm{ft}$. S. of Ohicago, Burlington \& Quincy R.R. at rd. crossing, about 0.1 mi . N. of T-rd. E., at NW. corner of Kidder cemetery, E. of rd., inside of fence corner, in root on W. side of forked maple tree; copper nail and washer
998.13
T. 57 N., R. 29 W., quarter cor. between secs. 1 and $2,50 \mathrm{ft}$. S. and 35 ft . E. from Chicago, Burlington \& Quincy R.R. at rd. crossing, S. of T-rd. W., 4 ft . S. and 10 ft . E. from fence corner, in root on NW . side of 15 -in. maple tree; copper nail and washer
Kidder, at Chicago, Burlington \& Quincy R.R. sta., top of N. rail of main track
Kidder, 0.2 mi . E. of Chicago, Burlington \& Quincy R.R. sta., NE. of rd. crossing, at SE. corner of T-rd. S., at fence corner; iron post stamped "1920 Mo 1009"
Kidder, 0.7 ml . E. of Chicago, Burlington \& Quincy R.R. sta., on line between secs. 1 and 6, T. 57 N. , Rs. 28 and 29 W. , SW. of rd. crossing, on top of W. end of tile drain; chiseled square
T. 57 N., R. 28 W., near quarter cor between secs. 5 and 8 , 120 ft . SW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, in fence line.S. of rd., in root ( 4 in . under surface of ground) on w. side of 12-in. elm tree; copper nail and washer

1,005.19
1,018.5
$1,008.341$
$1,012.32$
990.23
T. 57 N., R. 28 W., in NW $1 / 4$ sec. 9, SW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, inside of fence corner; iron post stamped "1920 Mo 1010"
$1,009.478$
T. $57 \mathrm{~N} ., \mathrm{R}$. $28 \mathrm{~W} .$, line between secs. 9 and $10,80 \mathrm{ft}$. N. of Chicago, Burlington \& Quincy R.R. at rd. crossing, 15 ft . N. of rd. fork SE., $15 \mathrm{ft} . \mathrm{N}$, and 5 ft . W. from fence corner, inside field, in root on SE. side of maple tree (S. one of row of small maple trees); copper náil and washer

# T. 57 N., R. 28 W., in NE $1 / 4 \mathrm{NE} \mathrm{1/4} \mathrm{sec}. \mathrm{15}$,600 ft . W. of Chicago, <br> Burlington \& Quincy R.R. at rd. crossing, in fence line S. of rd. <br> in root on SE. side of $30-1 n$, cottonwood tree; copper nail and washer <br> 991.02 

(Continued in Polo quadrangle; see line 2.)

## 2. NORTH ALONG SOUTH HALF OF EAST BORDER OF QUADRANGLE

T. 57 N., R. 28 W. , on line between secs. 11 and 12 , on top of N . end of E. head wall of concrete culvert; chiseled square
T. 57 N., R. 28 W., cor. secs. l, 2,11 , and $12,85 \mathrm{ft}$. N. of rd. W., W. of N.-S. rd., opposite ra. E.; iron post stamped "1920 Mo 947"
942.89
940.495

Tps. 57 and $58 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W} ., 125 \mathrm{ft}$. E. of cor secs. $1,2,35$, and 36 , at SE. corner of crossroads on Caldwell-Daviess county line, in fence ilne, in root on SW . side of 10-in. elm tree; copper nail and washer
T. 58 N., R. 28 W., on line between secs. 35 and 36 , at SW. corner of bridge over Marrowbone Creek, on top of E. end of concrete retaining wall; chiseled square
929.05
859.69
T. $58 \mathrm{~N} ., \mathrm{R}$. 28 W ., cor secs. $25,26,35$, and $36,90 \mathrm{ft}$. E. of crossroads, $N$. of rd., in field, in root on SW. side of 24-in. box-elder tree; copper nall and washer
908.17
T. 58 N., R. 28 W. , near line between secs. 25 and 26 , at Nw . corner of bridge over creek, l ft. N. of N. post of iron railing, on top of S . end of concrete wing wall; chiseled square
860.77
T. 58 N., R. $28 \mathrm{~W} .$, cor. secs. $23,24,25$, and $26,55 \mathrm{ft}$. N. and 20 ft . W. from crossrods, in line with S. side of dweiling w. of rd.; iron post stamped " 1920 mo $908^{\text {n }}$
907.450
T. 58 N., R. 28 W., cor. secs. $13,14,23$, and 24 , at SW . corner of crossroads, in root on NW. side of $6-1 n$. elm tree; copper nail and washer
903.29
T. 58 N., R. $28 \mathrm{~W} .$, cor. secs. $11,12,13$, and $14,175 \mathrm{ft}$. SW. of T-rd. E., $75^{\prime} \mathrm{ft}$. SW. of S . end of bridge over Dog Creek, 20 ft . W. of rd., in root on S. side of $10-1 \mathrm{n}$. sycamore tree; copper nail and washer
Bridge over Dog Creek, at NW. corner of, on top of cylinder pier; top of bolt head
T. 58 N., R. 28 W., NE. cor. sec. $11,20 \mathrm{ft}$. S. of crossroads, 2 ft . W. of corner fence post; iron post stamped "Prim Trav Sta Mo 1913-912"
Reference mark, 20 ft. S. of crossroads, in root on NW . side of $6-\mathrm{in}$. elm tree; copper nall and washer
T. 58 N., R . $28 \mathrm{~W} . \mathrm{F}^{2}$ in $\mathrm{SW} .1 / 4 \mathrm{NW} 1 / 4 \mathrm{sec} .1,50 \mathrm{ft}$. W. of rd. at fence S . of rd., in root on E. side of forked hedge tree; copper nail and washer
(Continued in Gallatin quadrangle; see line 2.)
3. NEAR MIDDLE OF SOUTH BORDER OF QUADRANGLE (by F. L. Whaley in
T. 57 N., R. 29 W., cor. secs. $10,11,14$, and 15 , at SE. corner of crossroads, on E'. guard wall of concrete culvert; chiseled square
4. FROM MIDDLE OF NORTH BORDER OF QUADRANGLE SOUTH ABOUT 6 MILES (by R. B. Steele and J. M. Rawls in 1922)
T. 60 N., R. 29 W., E. sixteenth cor. sec. 23, NW. of crossroads, at SE. corner of yard of G. B. Schriver, in root on E. side of 16-in. locust tree; copper nail
T. 60 N., R. 29 W., E. sixteenth cor. between secs. 23 and $26,90 \mathrm{ft}$. N. and 20 ft . E. from crossroads, in yard of L . 0 : Schriver, in root on W. side of l6-in. maple tree; copper nail
T-rd. W.; surface of rd.
796.37
801.67
911.780
915.50
864.72

## - 1921) <br> (continued from Polo quadrangle; see line 3.)

T. 60 N., R. 29 W., E. sixteenth cor. between secs. 26 and $35,450 \mathrm{ft}$. $N$. of crossroads, on top of $E$. head wall of concrete culvert; chiseled square
T-rd. E.; surface of rd.
Top of hill; surface of rd.
Culvert, at center of ; surface of rd.
T. 59 N., R. 29 W., E. sixteenth cor. on N. line sec. 2, in SE. corner of crossroads, 7 ft . S. and 1 ft . W. from fence corner, in concrete; iron post stamped ${ }^{\mathrm{n}} 4 \mathrm{R} \mathrm{S} 1922 \mathrm{Mo}^{\mathrm{n}}$
Reference mark, 68 ft . N. $66^{\circ} \mathrm{E}$. of post, on S . end of concrete culvert; chiseled square
Concrete culvert; top of $N$. end of
938.38
T. 59 N., R. 29 W., E. sixteenth cor. between secs. 2 and ll. 30 ft. N. and 20 ft . E. from crossroads, 1 ft . W. of fence, on top of stone; chiseled square
T. 59 N., R. 29 W., E. sixteenth cor. between secs. 11 and 14 , NE. of crossroads; top of E. head wall of concrete culvert

1,025.12
T. 59 N., R. 29 W., in SE $1 / 4$ sec. 14 , SW. of crossroads, 5 ft . W. of fence corner, in concrete; iron post stamped "5 R S $1922 \mathrm{Mo}^{\prime \prime}$
Reference mark, 14 ft . N. $60^{\circ} \mathrm{E}$. of post, on top of s . end of concrete culvert; chiseled square
896.97
924.36
929.9
922.07
964.9
$964 \cdot 9$
986.7
952.6
941.899
991.77
988.48

1,012.293
1,011.80

## 5. FROM NORTHEAST CORNER OF QUADRANGLE WEST 3.5 MILES (leveled twice by R. B. Steele in 1922) <br> (Continued from Gallatin quadrangle; see line ll.)

T. 60 N., R. $28 \mathrm{~W} .$, in $\mathrm{W} 1 / 2 \mathrm{sec} .24$, at SE. corner of yard of J. R.

Searl, 1 ft . W. of E . fence, in concrete post; standard tablet stamped
"R S i 1922 мо"
T. 60 N., R. 28 W., in E $1 / 2$ sec. 23 , in center of rd., in line with W. fence of rd. S., on top of stone; chiseled square
Feet
813.29
Top of hill; surface of rd.
856.3
Top of hill; surface of rd.
869.0
Small iron bridge; center of
T. 60 N., R. 28 W., quarter cor. between secs. 22 and $23,30 \mathrm{ft}$. S. and 30 ft . W. from T-rd. N.; 8 ft . S. of fence, in root on E. side of twin maple tree; copper nail.
Grand River, under bridge; surface of water at 11 a.m. May 13, 1922
763.3
798.69
T. 60 N., R. 28 W., in $\mathrm{SW} 1 / 2 \mathrm{NE} 1 / 4 \mathrm{sec} .22$, at $W$. end of bridge over
Grand River, on top of $W$. end of $S$. concrete head wall of approach; chiseled square
731.0
766.95
T-rd. S.; top of E. end of galvanized iron pipe culvert
T. 60 N. R. 28 W. . E. sixteenth cor. sec. 21 , 21 ft. N. and $20 \mathrm{ft} . \mathrm{E}$.
from T-rd. N., in concrete post; standard tablet stamped "Prim Trav Sta No 73 S 1921 Mo 2 R S 1922"
Top of hill; surface of rd.
61.25
821.979
876.4
T. 60 N., R. 28 W., quarter cor. between secs. 20 and 21, SE. of T-rd.
S., 4 ft . E. of fence corner, on top of stone; chiseled square
897.37
(Continued in Pattonsburg quadrangle; see line 3.)

## 6. SOJTH THROUGH MIDDLE OF SOUTH HALF OF QUADRANGLE

T. 59 N., R. 29 W., E. sixteenth cor. sec. 23 , NE. of crossroads, on top of $E$. head wall of concrete culvert; chiseled square

1,006.09
T. 59 N., R. 29 W., in NW $1 / 4 \mathrm{NE} 1 / 4 \sec .26$, on top of $E$. end of NE. head wall of overhead bridge of Chicago, Rock Island \& Pacific Ry.; chiseled square
R.R. switch, at N. end of; top of N. rail

Altamont, 580 ft . W. of Chicago, Rock Island \& Pacific Ry. sta., NW. of rd. crossing, on top of SE. corner of concrete base of semaphore; chiseled square

1,020.01
1,009.8
$1,005.44$
Altamont, at Chicago, Rock Island \& Pacific Ry. sta.; top of near rail
Altamont, in SE. part of, 150 ft . E. of high school, $28 \mathrm{ft} . \mathrm{S}$. and 18 ft . E. from crossroads, in concrete; iron post stamped "6 R S 1922"

Reference mark, 56 ft . N. $80^{\circ} \mathrm{W}$. of post, in root on E. side of $6-\mathrm{in}$. box-elder tree; copper nail

1,005.0
1,003.905
Tps. 58 and 59 N., R. 28 W., on line between secs. 6 and 31, SE. of crossroads, in root on N. side of lo-in. twin maple tree; copper nail
Tps. 58 and 59 N., Rs. 28 and $29 \mathrm{~W} .$, cor. of, NE. of crossroads, on top of $E$. end of concrete culvert chiseled square

1,006.53
T. $58 \mathrm{~N} ., \mathrm{R} .29 \mathrm{~W} ., \mathrm{E}$. cor. secs. 1 and $12,30 \mathrm{ft}$. S . and 17 ft . W. from T-rd. W., 15 ft . S . and 1 ft . E. from fence corner, in concrete; iron post stamped "7 R S $1922 \mathrm{Mo}^{\mathrm{n}}$
Reference mark, $112 \mathrm{ft} . \mathrm{N} .5^{\circ} \mathrm{E}$. of post, on top of W . end of concrete culvert; chiseled square
Culvert, at center of surface of rd.
Bridge over Dog Creek; center of
T. 58 N., R. 29 W., cor secs. $1,2,11$, and 12 , N. of T-rd. S., in root on SE. side of $24-1 \mathrm{n}$. olm tree; copper nail
Top of hill; surface of rd.
T. 58 N., R. 29 W., cor. secs. $11,12,13$, and $14,40 \mathrm{ft} . \mathrm{S}$. and 60 ft . W. from crossroads, in NE . corner of concrete platform of castor School: standard tablet stamped ${ }^{n} 8 \mathrm{R}$ S $1922 \mathrm{mo}^{\mathrm{n}}$
Reference mark, $53^{\mathrm{ft} . \mathrm{N} .} 55^{\circ} \mathrm{E}$. of tablet, on top of cornerstone; chiseled square
T. 58 N., R. 29 W., 720 ft . S. of quarter cor. between secs. 13 and 14 , on SE. corner of steel bridge over Marrowbone Creek, top of bolt head
T-rd. E.; surface of rd.
Top of hill; surface of rd.
T. 58 N., R. 29 W., W. sixteenth cor. sec. 25, $60 \mathrm{ft}. \mathrm{S}$.and 115 ft E. from Lone Star School, $35 \mathrm{ft} . \mathbb{N}$. and 20 ft . E. from T-rc. E., 2 ft . W. of hedge fence, in concrete; iron post stamped "9R S 1922 Mo"
971.42
989.52
958.955
950.84
911.0
906.5
977.50

1,008.1
983.039
982.11
929.99
984.2
993.7
980.771

Reference mark, $29 \mathrm{ft} . \mathrm{S} .74^{\circ} \mathrm{W}$. of post, on top of W . head wall of concrete culvert; chiseled square
Crossroads; surface of rd.
Small bridge center of
982.54

1,006.3
964.3
R. 2 , W 50 ft . N ond 30 mi . E. of S . cor. secs. 35 and 36 , T. 58 N. , $R$. $29 \mathrm{~W}, 50 \mathrm{ft}$. N. and 30 ft . W. from crossroads, inside fence, in root on $E$. side of 18-in. locust tree; copper nall
987.31

## 7. NORTH ALONG WEST BORDER OF QUADRANGLE

Cameron, at N . limits of, quarter cor. between secs. 14 and $15, \mathrm{~T} .57 \mathrm{~N}$. , R. $30 \mathrm{~W} ., 20 \mathrm{ft}$. S. and 30 ft . W. from T-rd. E., 9 ft . W. of fence, in root ( 5 ft . from base) of $30-1 \mathrm{n}$. cottonwood tree; copper nail
Concrete culvert; top of E. end of
993.47
988.61
T. 57 N., R. 30 W., on line between secs. 10 and $11,530 \mathrm{ft}$. N. of T-rd. W., E. of rd., at group of four maple trees, in root on N. side of 36-1n. tree; copper nall

1,021.90
T. $57 \mathrm{~N} .$, R. $30 \mathrm{~W} .$, cor. secs. $2,3,10$, and $11,14 \mathrm{ft} . \mathrm{N}$. and $20 \mathrm{ft} . \mathrm{W}$. from crossroads, 13 ft . N. and 1 ft . E. from corner fence post, in concrete post; standard tablet stamped "ll R S 1922 Mo"
$1,025.574$
(For balance in Maysville quadrangle, see line 2.)
(For balance in Maysville quadrangle, see line 2.)
Weatherby, near W. limits of, 20 ft . S . and 108 ft . W. from Chicago,
Rock Island \& Pacific Ry. at rd. crossing, 3 ft . W: of fence corner, in concrete post; standard tablet stamped "14 R S $1922 \mathrm{mon}^{\prime \prime}$
Reference mark, $70^{\mathrm{ft}} \mathrm{f}$. N. $25^{\circ} \mathrm{E}$. of tablet, on concrete sidewalk; chiseled square
T. 59 N., R. 30 W., E. sixteenth cor between secs. 15 and 22, SE. of T-rd. E., on top of $S$. end of concrete culvert; chiseled square
(For balance in Maysville quadrangle, see line 2.)
T. 59 N., R. 30 W., cor. secs. $2,3,10$, and 11 , NW. of T-rd. N., 1 ft . S. and 16 ft . W. from fence corner, in concrete post; standard tablet stamped "15 R S 1922 Mo"
Reference mark, 80 ft . S. $85^{\circ} \mathrm{E}$. of tablet, on top of N . end of concrete culvert; chiseled square
Top of hill: surface of rd.
Tps. 59 and 60 N., R. 30 W., cor. secs. $2,3,34$, and 35 , NE. (? NW.) of crossroads, in root on W. side of $14-1 n$. box-elder tree; copper nail
Top of hill; surface of rd.
T. 60 N., R. $30 \mathrm{~W} .$, cor. secs. $22,23,26$, and 27 , NW. of crossroads, 15 ft. N. and 2 ft . E. from fence corner, in concrete post; standard tablet stamped ${ }^{\circ} 16 \mathrm{R} \mathrm{S} 1922 \mathrm{MO}^{\mathrm{n}}$
Reference mark, 72 ft . S. $35^{\circ} \mathrm{E}$. of tablet, in root of $24-1 \mathrm{n}$. locust tree; copper nall

For an additional level line along Chicago, Rock Island \& Pacific Ry., refer to United States coast and Geodetic Survey secondorder line, Plattsburg to Gallatin.

## PATTONSBURG QUADRANGLB

(Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime}$; Iongitude $94^{\circ} 00^{\prime}-94^{\circ} 15^{\prime}$ )
Daviess, Dekalb, Gentry, and Harrison Counties


1. FROM EAST BORDER OF QUADRANGLE WEST AND NORTH TO COFFEY, THENCE WEST TO McPa:ll (by R. B. Steele and J. M. Rawls ip 1922) (Contimued from ailman quadrangle; see line 3. )
 of rd. corner from E.-N., in root on N. side of ín-in. oak tree; copper nail
Coffey, at Quincy, Omaha \& Kansas city R.R. sta.; top of near rail
Coffey, 0.2 mi . N. of N. limits of, W. sixteenth cor. sec. l, T. 61 N. , R. 28 W . W. of T-rd. E., 5 ft . SW. of telephone pole, 1 ft . E. of fence, in top of iron pipes bolt
T. 61 N., R. 28 W., in NW. cor. sec. $1,100 \mathrm{ft}$. S. of T-rd. S., at NE. corner bridge over Little Cypress Creek, on top of E. end of concrete pierg oh1seled square
855.81
878.4
$\mathrm{T}-\mathrm{rd}$. W.; surface of rd.
. $62 \mathrm{~N} . \mathrm{F}^{\mathrm{R} .} 28 \mathrm{~W}$., center of $\mathrm{SW} 1 / 4 \mathrm{sec}$. 35, SE. of T-rd. E., 1 ft . N. stamped "37 R S 1922 Mo"
Reference mark, 360 ft . S. $4^{\circ} \mathrm{A}$. of tablet, on top of W . end of concrete culverti chiseled square


## 2. FROM McFALL SOUTH ALONG WEST BORDER OF QUADRANGLE (by R. B. Steele in 1922)

Wabash Ry. at ra. crossing; top of E. rail
McFall, at crossing of main streets, at well, on concrete platform; chiseled square
990.1
988.14
T. 61 N., R. 30 W., near E. sixteenth cor, sec. 12, at T-rd. N.', on top of boulder; chiseled square
Gulvert over drain; center of
914.8
926.75
950.3

## (For balance in Darlington quadrangle, see line l.)

T. 61 N., R. 30 W., E. sixteenth cor between secs. 26 and $35,27 \mathrm{ft} . \mathrm{N}$. and 21 ft. E. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 74 S 1921 Mo $45 \mathrm{RS} 1922^{n}$

## 3. FROM POINT NEAR CENTER OF EAST HALF OF SOUTH BORDER OF QUADRANGLE, WEST TO CENTER <br> (Continued from Winston quadrangle; see line 5.)

T. 60 N., R. 28 W., E. sixteenth cor. between secs. 17 and 20 , 139 ft . S. of T-rd. S., on top of E. head wall of concrete culvert; chiseled square

Feet

T-rd. N.; surface of rd.
T. 60 N., R. 28 W., about 0.1 mi . W. of cor. secs. $17,18,19$, and 20 , at steel bridge over branch, on top of $S$. concrete head wall of $E$. abutment; chiseled square
T-rd. S.;-surface of rd.
T. 60 N., R. 29 W., quarter cor. between secs. 13 and $24,15 \mathrm{ft}$. S. and 29 ft . E. from crossroads, 2 ft . N. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 72 S 1921 Mo 3 R S 1922"
Reference mark, 45 ft . S. $45^{\circ} \mathrm{W}$. of tablet, in root on E. side of $36-1 \mathrm{n}$. elm'tree; copper nail
Top of hill; surface of rd.
Bottom of drain; surface of rd.
T. 60 N., R. 29 W., 770 ft. E. of quarter cor. between secs. 14 and 23 , 75 ft . NW. of T-rd. S., in SE. corner of yard of John Sweeney, in root on E. side of 30-1n. black-locust tree; copper nail
862. 01 887.9
835.36
874.2
807.493
806.74
851.0
815.4
844.85
T. 60 N., R. 29 W.g quarter cor. between seècs. 14 and $23,160 \mathrm{ft}$. E. of

T-rd. N., on top of S . head wall of concrete culvert; chiseled square
4. EAST ALONG WEST HALF OF SOUTH BORDER OF QUADRANGLE

Top of hill; surface of rd .
935.0
T. 60 N., R. $30 \mathrm{~W} ., 15 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from cor. secs. $13,14,23$, and 24 , NW. of crossroads, on top of $N$. head wall of concrete culvert; chiseled square
882.44
T. 60 N., R. 30 W., E. sixteenth cor. between secs. 13 and 24 , at rd. corner from.W.-N., on top of W. head wall of concrete culvert; chiseled square
840.34
T. 60 N., Rs. 29 and 30 W., approximate $S$. sixteenth cor. between secs. 13 and 18, NE. of T-rd. S., in root of 8-in. walnut tree; copper nail
T. 60 N., R. 29 W., S. sixteenth cor. between secs. 17 and $18,20 \mathrm{ft}$. S. and 25 ft . W. from T-rd. S., 2 ft . N. and 5 ft . W. from corner of hedge fence, in concrete post; standard tablet stamped "Prim Trav Sta No 71 S 1921 Mo 18 R S 1922"
Reference mark, 55 f.t. E. of tablet, in root of 6-in. hedge tree; copper nail
Quincy, Omaha \& Kansas City R.R. at rd. crossing; top of E. rail
T. 60 N., R. 29 W., in $\mathrm{SW} 1 / 4$ sec. $16,0.3 \mathrm{mi}$. E. of Quincy, Omaha \& Kansas City R.R. at rd. crossing, at SE. corner of bridge over small creek, in root of $36-1 \mathrm{n}$. elm tree; copper nail
876.99
851.993
849.38
779.6
770.49
T. 60 N., R. 29 W., cor. secs. $15,16,21$, and $22,600 \mathrm{ft}$. W. of bridge over Grindstone Oreek, 35 ft . N. and 18 ft . W. from rd. corner N.-E., in concrete post; standard tablet stamped "19RS $1922 \mathrm{Mo"}$
777.546

Reference mark, 105 ft . N. $5^{\circ} \mathrm{W}$. of tablet, in root of $16-\mathrm{in}$. walnut tree; copper nail
Bridge over Grindstone Creek; center of
Grindstone Oreek, under bridge; surface of water at 10 a. m. June 30,1922
T. 60 N., R. 29 W., E. sixteenth cor. between secs. 15 and 22 , SE. of crossroads, on concrete base of corner fence post; chiseled square

## 5. NEAR CENTER OF WEST BORDER OF QUADRANGLE (by W. R. Broadaus in 1923) <br> (Continued from Darlington quadrangle; see line 4.)

T. 62 N., R. 30 W., quarter cor between secs. 26 and 35 , SW. of crossroads, in root on E. side of 24-in. walnut tree; copper nail and washer
T. 62 N., R. $30 \mathrm{~W} .$, cor. secs. $25,26,35$, and $36,35 \mathrm{ft}$. N. and 45 ft . E. from rd. junction, in root on $N$. side of $24-1 n$. maple tree; copper nail and washer
6. WEST ALONG EAST PART OF NORTH BORDER OF QUADRANGLE (by F. C. Lentz in 1936)
(Continued from Bethany quadrangle; see line 6.)
Bethany, 1.5 mi . SW. of, 50 ft . N. and 20 ft . W. from junction of $\mathrm{J} . \mathrm{S}$. Highway 69 and State Highway 4 , on head wall of concrete culvert; chiseled square
Bethany, 2 mi . SW. of, along State Highway 4, 0.5. mi. W. of junction of O.S. Highway 69, at SW. corner of steel bridge over Big Creek, on top of curb rail

851.44

(Continued in Bethany quadrangle; see line 6.)
For additional level lines along Wabash Ry, and quincy, Omaha \&
Kansas City R.R., refer to United States Coast and Geodetic
Survey first-order line, Milan, Mo. to Hamburg, Iowa; and
second-order line, Pattonsburg to Gallatin.

Gentry, Harrison, and Worth Counties


1. IN NORTHWEST CORNER OF QUADRANGLE (by Charles E. Hunter in 1936)

Allendale, about 2.2 mi . E. of, along State Highway 46 , about 200 ft . E. of junction of rd. N., on N. head wall of concrete culvert; chiseled square
$1,108.42$

1,152.35
ft. W. from junction of rd. N., on N. heiad wall of concrete culvert; chiseled square
(Continued in Mount Ayr quadrangle; see line 1.)
2. NEAR MIDDLE OF NORTH HALF OF WEST BORDER OF QUADRANGLE
(Continued from Gentry quadrangle; see line 2..)
T. 65 N., R. 30 W., in SW $1 / 4$ sec. 23 , on NE. corner of concrete step to school; chiseled square
(Continued in Gentry quadrangle; see line 2.).
3. FROM SOUTHEAST CORNER OF QUADRANGLE WEST TO BETHANY (DOY F. C. Lente in 1936)
(Continued from Blythedale quadrangle; see line 2.)
Bethany, 1.7 mi . E. of, along State Highway $4,500 \mathrm{ft}$. E. of rd. S., 20 ft. S. of highvay, on E. end of S. head wall of culvert; chiseled square
Junction of rd. N., on E. head wall of concrete culvert; chiseled square
Bethany, near E. Iimits of, on State Highway $4,25 \mathrm{ft}$. S. and 10 ft . W.
from junction of rd. S., on head wall of concrete culvert; chiseled square
U.S.C. \& G.S. standard disk stamped "W 82 1935"

Bethany, in SW. corner of courthouse yard, 6 ft . N. and 35 ft . E. from
property line, in concrete post; standard tablet stamped "847 1934"
4. FROM BETHANY NORTH TO POINT NEAR MIDDLE OF EAST BORDER OF QJADRANGLE

Bethany, SW. of U.S. Highway 69 at Twenty-fifth Street, 7 ft . N. and 2
ft. W. from fireplug, on top of concrete curb; chiseled square
942.51

Bethany, near N. IImits of, 60 ft . N. and 60 ft . E. from U.S. Highway 69
at rd. E., in root on SW. side of $28-1$. white-oak tree; copper nail and washer
868.48

Bethany, 1.3 mi . N. of, along U.S. Highway 69, in top of $E$. end of $N$. pier of concrete bridge over East Fork of Big Creek; standard tablet (set by water-resources branch of $\overline{\mathrm{U}} . \mathrm{s}^{2}$. Geol. Survey)
$879 \cdot 945$
Bethany, about 2 mi . N. of, along J.S. Highway 59 , 125 ft . SW. of farmhouse of Roy Bell 33 ft . NW. of highway, in concrete post; standard tablet stamped " $848^{\circ} \mathrm{C}$ W A 1934 "
Junction of rd. E., on top of N . end of concrete culvert; chiseled square
T. 64 N., R. $28 \mathrm{~W} .$, in NW $1 / 4$ sec. $26,250 \mathrm{ft}$. N. and 40 ft . W. from $\mathrm{N} . \mathrm{S}$.

Highway 69 at rd. E., in root on $N$. side of triple elm tree; copper nail and washer
979.292
$1,002.46$
T. 64 N., R. 28 W., near center sec. $23,20 \mathrm{ft}$. S. and 40 ft . W. from
U.S. Highway 69 at cross rd., in NE. corner of concrete porch of store
building; chiseled square
T. 64 N., R. 28 W., in SE $1 / 4$ sec. $14,55 \mathrm{ft} . \mathrm{SW}$. of SW . corner of Mccullum School, 30 ft . SE. of $\mathrm{J} . \mathrm{S}$. Highway 69 , in root on W. side of 36-in. sycamore tree; copper nail and washer

Feet
T. $64 \mathrm{~N} ., \mathrm{R}$. 28 W. , near line between secs. 11 and $14,25 \mathrm{ft}$. N. and 30
ft. W. from U.S. Highway 69 at rd. W., 150 ft . E. of dweling of $G$. $V$. Hiliyard, in concrete post; standard tablet stamped " 849 CW A $1934^{\circ}$
T. 64 N., R. 28 W., E $1 / 2 \mathrm{sec} .11,140 \mathrm{ft}$. S. and 20 ft . W. from U.S. Highway 69 at cross rd., on head wall of concrete culvert; chiseled square
Junction of rd. W., on S. head wall of culvert; chiseled square
Ridgeway, 4 mi . W. of, 35 ft . N. and 25 ft . E. from junction of $\mathrm{J} . \mathrm{s}$. Highway 69 and County Route $A_{r}$ on head wall of concrete culvert; chisoled square
Tps. 64 and 65 N, , R. 28 W ., cor secs. $1,2,35$, and $36,36 \mathrm{ft}$. N. and 42 ft . W. from U.S. Highway 69 at rd. W., K ft. E. of fence, in concrete poat; standard tablet stamped "850 CW A 1934"
T. 65 N, R. 28 W ., near quarter cor. between secs. 35 and $36,200 \mathrm{ft}$. S . and $15^{\mathrm{ft}} \mathrm{f}$. W. from T-rd. S., $100^{\circ} \mathrm{ft}$. NW. of $\mathrm{U} . \mathrm{S}$. Highway 69, on head wall of concrete culvert; chiseled square
$1,042.322$
$1,051.68$
(Continued in Blythedale quadrangle; see line 3.)

## 5. WEST THROUGH MIDDLE OF QUADRANGLE

T. $64 \mathrm{~N} . \mathrm{R}, 28 \mathrm{~W}$., near quarter cor. between seas. 10 and 11 , 23 ft . N. and 234 ft . E. from rd, at fence $S$, and hedge fence $N ., 63 \mathrm{ft}$. S . and 12 ft . E. from farmhouse of Eldon Landis, In concrete post; standard
tablet stamped ${ }^{1895} 1934$ "
Bridge over West Fork of Big Creek, 50 ft . E. of, in root of 14-in. elm trees bent nail
997.730
891.82
T. 64 N., R. 28 W ., near quarter cor, between secs: 9 and $10,20 \mathrm{ft}$. N. and 10 ft . E. from crossroads, on top of rock head wall of culvert; chiseled square
T. $64 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W}$., near quarter cor between secs. 8 and $9,20 \mathrm{ft} . \mathrm{S}$. and 200 ft . E. from T-rd. S., in root on SE. side of $40-1 \mathrm{n}$. elm tree; copper nail and washer
T. 64 N., R. 28 W., in sec. 8, 21 ft. S. and 85 ft. E. from T-rd. N., 69 ft. N. and 21 ft . E. from NE. cormer of Mahaska School, in concrete post; standard tablet stamped "894 1934"
Bottom of hill, 15 ft . N . of rd, at $\mathrm{N},-\mathrm{S}$. fences, on top of E . end of head wall of concrete culvert; chiseled square
T. $64 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W}$. in $\mathrm{NW} 1 / 4$ sec. $8,20 \mathrm{ft}$. N. and 75 ft . E. from T-rd. S., $50^{\prime} \mathrm{ft}$. SW, of SW. corner of farmhouse of R . L. Kinnison, in root of $8-1 \mathrm{n}$. white-oak treey copper nall and washer
T. 64 N. R. 28 W. , near center sec. $7,150 \mathrm{ft}$. SW. of farmhourse of Newt Rice, 60 ft . E. of rd., in root on W. side of 14 -in. walnut tree; copper nail and washer
Bridge over creek; at NW. corner of, on top of steel beam; painted square
T. 64 N., R. 29 M., in NW $1 / 4$ sec. $12,55 \mathrm{ft}$. S. of rd. at top of hill. 15 ft . NW. of NW. corner of old dwoiling, in root of $14-1 \mathrm{n}$. white-oak tree; copper nail and washer
909.68

1,002.46
T. 64 N., R. 29 W. in NW $1 / 4 \mathrm{sec}, 12,0.8 \mathrm{mi}$. N. of White Fawn School, at top of hill, 80 ft . NW. of rd. forks, 10 ft . NE. of rd., in root of twin white-oals stimp; copper nail and washer
$1,046.23$
T. 64 N., R. 29 W., near cor. secs. $1,2,11$, and $12,75 \mathrm{ft}$. S. and 40 ft. E. from rd. forks, 40 ft . SW. of E. end of plank bridge, in root of leaning ly-in. willow tree; copper nail and washer
931.16
T. 64 N., R. 29 W., near quarter cor between secs. 2 and $11,15 \mathrm{ft}$. N. and $31^{\prime} \mathrm{ft}$. W. from farmhouse of Sinmie Smith, 21 ft . S. and 330 ft . W. from rd. at fence $S$. in concrete post; standard tablet stamped " 893 $19344^{\prime \prime}$
T. 64 N., R. 29 W., near quarter cor. between secs. 3 and $10,125 \mathrm{ft}$. N. of dwelling, 25 ft . S. of rd., in root of $38-1 \mathrm{n}$. cottonwood tree; copper ne11 and washer
T. 64 N ., R. 29 田., oor. secs. $3,4,9$, and 10,15 ft. N. and 25 ft. E. from county Route $D$ at E.-W. cross rd., on top at N. end of iron pipe culvert; painted square
Bottom of hill, 100 ft . E. of small bridge over creek, in root of $16-1 \mathrm{n}$. box-elder trees: bent náil
976.310
T. 64 N., R. 29 W.,.cor. secs. 4,$5 ; 8$, and $9,20 \mathrm{ft}$. s. and 235 ft . W. from crossroade, in root of $16-1 n$. elm tree; copper nail and washer
T. 64 N., R. 29.W., core secs: $5,6,7$, and $8,30 \mathrm{ft}, \mathrm{N}$. and 30 ft . W. from crossroads 33 ft . S , and 5 ft . W. from windmill on property of G. W. Starmer, in concrete posty standard tablet stamped $98921934 \%$
T. 64 N. R. 29 W., near 1 ine between secs. 6 and 7.550 ft . W. of P .rd. $\mathrm{N} ., 100 \mathrm{ft}$. E. of wooden bridger 30 ft . S. of rd., in root of 15 in . willow tree copper nail and washer
941.35
T. $64 \mathrm{~N}, \mathrm{R} .30 \mathrm{~W}$, near quarter cor, between secs, 1 and $12,30 \mathrm{ft}$. N . and 350 ft . W. from T-rd. W., 30 ft . S. of SW. corner of farmhouse, in root of 14 in. maple treer copper nail ańa washer
T. 64 N, . R. 30 W. cor: secs. $1,2,11$, and $12,100 \mathrm{ft}$. N . and 15 ft . E. from crossroads, in root of $48-\mathrm{in}$. elm treet copper nail and washer
6. FROM BETBANY WEST ALONG SOUTH BORDER OF QDADRANGLE TO NEW HAMPTON

Bethany, in SW. part of, $18 \mathrm{ft} . \mathrm{S}$. and 18 ft . W. from intersection of
tangents of State Highway 4 at curve from S.-E., 18 ft . S. of street, on property of William Foster, in concrete post; standard tablet stamped "846 1934"

Feet 892.029
(For balance in Pattonsburg quadrangle, see line 6.)
Bethany, about 3.3 mi . SW . of, along State Highway $4,70 \mathrm{ft}$. SW . of dwelling, $15 \mathrm{ft} . \mathrm{N}$. of hightay, on head wall of concrete culvert; chiseled square
945.45

Bethany, about 4.3 mi . W. of, along State Highway $4,54 \mathrm{ft}$. N. and 27 ft . W. from farmhouse of George Jestis, 35 ft . S. of highway, in concrete post; standard tablet stamped " $8455^{\prime \prime} 1934$ "
961.933

Junction of rd. N., in top of $15-1 n$. corner fence post; bent nail $1,019.77$
T. 63 N., R. 29 W., near E. sixteenth cor. between secs. 13 and $24,30 \mathrm{ft}$. N. of State Highway 4, in root of 15-in. elm tree; copper nail and washer
975.37
T. 63 N., R. 29 W., in SW 1/4 sec. $13,30 \mathrm{ft}$. N. and 135 ft . E. from State. Highway 4 at rd. N., in root of 36 -in. elm treer copper nail and washer
New Hampton, 3 mi . E. of, along State Highway 4, $27 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from junction of fd, $N$. 141 ft . E. of bridge over White oak oreek, in concrete post; standard tablet stamped "844 1934"
$1,009.99$

New Hampton, about 2 mi . E. of, along State Highway $4 ; 15 \mathrm{ft}$. S. and 20 ft. W. from Junction of County Route $D$, on head wall of concrete culvert; chiseled square
902.317

1,010.18
U.S.C. \& G.S. standard disk stamped "S 82 1935"
938.837

## 7. NEAR MIDDLE OF EAST BORDER OF QUADRANGLE

T. $65 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W} .$, in $\mathrm{W} 1 / 2$ sec. $25,30 \mathrm{ft}$. S. and 20 ft . W. from $\mathrm{J} . \mathrm{S}$. Highway 69 at rd. W., on N. end of head wall of concrete culvert; chiseled square

1,022.11
(Continued in Blythedale quadrangleg see line 4.)
8. FROM POINT NEAR SOUTHWEST CORNER OF QUADRANGLE EAST TO NEW
HAMPTON (by J. EAT1 Brannan in 1936)
U.S.C. \& G.S. standard disk stamped "Q 82 1935" 1,039.968

New Hampton, $24 \mathrm{ft} . \mathrm{S}$. and 33 ft . E. from State Highway 4 at Vine Street,
14 ft . N. of sidewalk, in parkway, in concrete post; standard tablet stamped "843 1934?"
946.947
U.S.C. \& G.S. standard disk stamped "R 82 1935"
958.213

[^9]Harrison and Worth Oounties


1. FROM POINT IN SOUTHWEST CORNER OF QUADRANGLE NORTH TO IOWAMISSOURI STATE LINE, THENCE WEST TO WEST BORDER (by Charles E. Hünter in 1936)
(Oontinued from Bethany quadrangle; see line 1.)
T. 66 N., R. 30 W., near E. quarter cor. sec. $24,120 \mathrm{ft}$. N. and 15 ft . E. from T-rd. W. on Harrison-Worth county line, in root on NW. side of lotin. oak tree; copper nall and washer
T. $66 \mathrm{~N} ., \mathrm{Rs}$. 29 and $30 \mathrm{~W} ., 208 \mathrm{ft}$. E. of cor: secs. $13,18,19$, and 24 and Harrison-Worth county line, 21 ft . N. of E.WW. rd., in concrete post; standard táblet stamped "Prim Trav Sta No $63 \mathrm{~J} \mathrm{~S} 1923 \mathrm{Mo"}$
T. 66 N., R. 29 W., near cor. secs. $17,18,19$, and $20,20 \mathrm{ft}$. S. and 60 ft. W. from T-rd. N., in root on $N$. side of $10-1 n$. post-oak treet. copper nail and washer
T-rd. W., 195 ft . N, and 20 ft . E. from, in root on E. side of $12-\mathrm{in}$. oak treet crossed nails
T. 66 N., R. 29 W., near $S$. sixteenth cor. between secs: 7 and 8 , about 100 ft . SW. of small steel bridge, 15 ft . W. of rd., in root on S. side of 14 -in. black+walnut troes copper nail and washer
T. 66 N., R. 29 W., cor. secs. $5,6,7$, and $8,20 \mathrm{ft}$. N. and 15 ft . W. from stone at crossroads, 18 ft . S . and 24 ft . E. from Hermix Store, in concrete post; standard tablet stamped "BLL C W A 1934"

Fe日t $1,059.97$ 1,059.97

1,118.422
$1,11_{4} 3.04$
1,158.32
$1,008.30^{\circ}$
T. 67 N. R. 29 W. S. cor secs. 31 and $32,140 \mathrm{ft}$. N. and 45 ft . W. from Trrd. N., in root on E. side of tuin 10-1n. elm tree; copper nail and washer
T. 67 N... R. 29 W., N. cor, seca: 31 and $32,3 \mathrm{ft}$. S. and 17 (? 25) ft. E. from rd. at former fence line E: on Iowa-Mo. State line on top of prominent hill, in concrete post; standard tablet stamped $88420 \mathrm{~W} \dot{\mathrm{~A}}$ $19344^{\prime \prime}$
T. 66 N., R. 29 W., near NW, cor. sec $6,140 \mathrm{ft} . \mathrm{s}$. and 50 ft . E. from T-rd. E., in bamyerd, in root on W. side of 22-in. oak tree; copper nall and washer
T-rd: W., $30 \mathrm{ft}$. . and 18 ft . E. from, in root on W. side of $8-\mathrm{in}$. elm stump; crossed nails
997.779
T. 67 Ne , R. 30 W, , in sec, $36,35 \mathrm{ft}$; N. and 190 ft . E. from T $\rightarrow \mathrm{rd} . \mathrm{S} .$, . in barnyard, in root on S. side of twin 8-in. oak treeg copper nail and washer

1,040.36
$1,130.238$
1,048:89
$1,137.37$
$1,123.07$
(Oontinued in Blockton quadrangle; see ilne 1.)

## 2. WEST ALONG SOUTH BORDER OF QUADRANGLE (by F. C. Lentz in 1937)

T. $66 \mathrm{~N} .$, R. 28 . W. pear line between secs; 24 and $25,0.8 \mathrm{mi}$. W. of U.S. Eighway $69,160 \mathrm{ft}$. E. of small bridge, 16 ft . S. of ra., in root of 8-in. walmut tree; copper naill and washer

$$
998.80
$$

Top of hill, 30 ft . N. of rd., in fence line, in root on s. side of $12-\mathrm{in}$. ash trees bent nail
T. 66 N., R. 28 W., cor. secs. $23,24,25$, and $26,450 \mathrm{ft}$. S. of rd. corner E.-s., 20 ft . W. of rd. at top of hill. in root of $14-1 \mathrm{n}$. white-oak treet copper nail and washer

1,055.72
T. 66 Ni , R. 28 W ., near quarter cor. between seas, 23 and $26,65 \mathrm{ft}$. B. of rd., In root of lyin. hedge treeg copper nall and washer

[^10]T. $66 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W} ., \operatorname{in} \mathrm{N} / / 2 \mathrm{sec} .27,500 \mathrm{f}, \mathrm{t}$. N. of steel bridge, 600 ft . W. of old barn, 100 ft . W. of creek, 150 ft . E. of N.-S. fence, in root on SE. side of 38-in. elm tree; crossed nails
$96 \overline{3.93}$
T. $66 \mathrm{~N} ., \mathrm{R}, 28 \mathrm{~W} ., \operatorname{cor}$. secs. $21,22,27$, and $28,200 \mathrm{ft} . \mathrm{s}$, and 30 ft . W. from ra, corner S.-W., in root on E. side of $30-\mathrm{in}$. willow tree; copper nall and washer
999.52
T. $66 \mathrm{~N}_{-}, R_{.} 28 \mathrm{~W}_{-}, 155 \mathrm{ft}$. W. of E. sixteenth cor. between secs, 21 and 28, 30 ft . S. of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 66 J S 1923 Mol
T. $66 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W} .$, cor. secs, $20,21,28$, and $29,16 \mathrm{ft} . \mathrm{S}$. and 22 ft . E. from crossroads, on concrete head wail; chiseled square

1,094.595
1,073.88
T. 66 N., R. 28 W., cor secs. $19,20,29$, and $30,30 \mathrm{ft}$. N. and 600 ft . . E. from crossroads, in root on S. side of 40-in. cottonwood tree; copper nail and washer
T. 66 N., Rs. 28 and 29 W., cor. secs. 19, 24 , 25 ; and 30 , W. of T-rd. E., in concrete post; standard tablet stamped "Prim Trav Sta No 65 J S 1923' Mon

1,109.07

1,130.021
T. $66 \mathrm{~N} ., \mathrm{Rs} .28$ and $29 \mathrm{~W}, 0.3 \mathrm{mi}$. S. of cor. secs. $13,18,19$, and 24 . at bottom of drain, 45 ft . E. of rd., in root on SW. side of $16-1 \mathrm{n}$, willow tree; copper nail and washer
$1,084.30$
T. $66 \mathrm{~N} ., \mathrm{R}$. $29 \mathrm{~W}, 0.3 \mathrm{mi} . \mathrm{E}$. of cor. secs. $13,14,23$, and $24,200 \mathrm{ft}$. E. of small bridge, 30 ft . N. of rd., in root of $16-1 n$. elm treel copper nail and washer

1,036.39
Bottom of drain, at NE. corner of small bridge, in root on N. side of 18-1n. elm tree: crossed nails
T. $66 \mathrm{~N}, \mathrm{R} .29 \mathrm{~W} .$, near line between secs. 14 and 23 , 35 ft . N. of rd. at top of hill, 35 ft . S. and 12 ft . E. from SE. corner of dwelling, in root on S. side of $16-1 n$. pine tree; copper nail and washer
T. 66 N.,. R. 29 W., cor. secs. 14, 15,22 , and $23,495 \mathrm{ft}$. E. of crossroads, 20 ft . S. of rd., in root on SW. side of l2-in. eln treef copper nail and washer
Allendale, about 1.7 mi . N. of, along County Route $T$, cor. secs. 15, 16, 21 , and 22 , T. 66 N., R. 29 W., 36 ft. N. and 24 ft. W. from old crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 64 J S $1923 \mathrm{Mo}^{\circ}$

1,036.14

1,137.42

1,121.83
$1,119.448$
T. 66 N., R. 29 W., cor secs. $16,17,20$, and $21,70 \mathrm{ft}$. N. and 20 ft . E. from crossroads, in root on NW. side of $16-1 n$. elm tree; copper nail and washer
Top of hill, in front of dwelling, in root of 18 -in. maple treef crossed nails

## 3. FROM EAST BORDER OF QUADRANGLE, ABOUT 1 MILE SOUTH OF IOWAMISSOURI STATE LINE, WEST TO POINT NEAR WEST BORDER (Contimued from Lamoni quadrangieq see line 3.)

Tps. 66 and $67 \mathrm{Ne}$. Rs. 27 and 28 W ., cor. of, $25 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from crossrosds, on concrete head wall; chiseled square
$1,083.50$
T. 66 N., R. 28 W . near N. quarter cor. sec. $1,20 \mathrm{ft} . \mathrm{N}$. and 80 ft . E. from T-rd. S. is ft. $E$. of $T$-fence $N$., in root of 12 -in. hedge tree; copper nail and washer
T. 66 N., R. 28 W., near $N$, cor, secs. 1 and 2, 20 ft. N. of T+rdd S., 75 ft . SE. of SE. corner of dwelling owned by W. A. Gruenwolf, in concrete post; standard tablet stamped "855 1934"
Tps. 66 and 67 N., R. 28 W., approximate quarter cor. between seas. 2 and $35,60 \mathrm{ft}$. E. of E. end' of small steel bridge, 25 ft . N. of rd., in root of 14-in. elm trees copper nail and washer

1,115.15
1,191.71
T. 66 N, . R. $28 \mathrm{~W} .$, near $\mathrm{N}^{2}$ quarter cor. sec. 3 , 35 ft . N. and $250 \mathrm{ft}, \mathrm{W}$. from T-rd. S., 100 ft . SW , of dwelling, in root of 12 in. maple tree; copper nail and washer
T. 67 N., R. 28 W., near S. cor. secs: 33 and $34,185 \mathrm{ft}$. N, and 45 ft . W. from T-rd. N. $\%$ on SE. corner of conorete porch of High Point School; chiseled square
Tps. 66 and $67 \mathrm{~N}, \mathrm{R} .28 \mathrm{~W}$., approximate quarter cor. between secs. 4 and $33,120 \mathrm{ft} . \mathrm{N}$. of rd., on SE. corner of bottom step of churoh; chiseled square
T. 66 N., R. 28 w., about 400 ft. E. of N. cor. secs. 4 and 5; 35 ft . NE. of smail bridge, 25 ft . N. of rd., in root. of i4ing walnut trees copper na11
T. 66 N., R. 28 W., 0.2 mi. W. of N. cor. secs. 4 and 5; 60 ft. STr. of dwelling of P. J. Kinder 40 ft . N. of rd., in conerete post, standard tablet atamped " 856 1934."
T. $66 \mathrm{~N} ., \mathrm{R} .28 \mathrm{~W}$. near N, cor , secs. 5 and $6,15 \mathrm{ft}$. S. and 65 ft . W. from T-rd. S., in root of 24 in. eln treet copper nail and washer
Tps. 66 and $67 \mathrm{~N}, \mathrm{FR} .28$ and $29 \mathrm{~W}, \operatorname{cor}$ of 30 ft. No and 600 ft . W. from THA. S., in root on SW. side of $36-1 \mathrm{n}$. maple treef copper nail and washer
T. 66 N., R. 29 W., N. cor. secs. 1 and 2,33 ft. N. and $440 \mathrm{ft.E}$. from Thrd. S., 110 ft . S. of dwelling of F. Butler, 36 ft . S. of gate, in concrete post; standard tablet stamped " 8571934 "
T. $67 \mathrm{~N}, \mathrm{R} .29 \mathrm{~W}$., near S. quarter cor sec. 35 , 10 ft . S. and about 50 ft. W. from THrd. N., in root on N. side of 8 inn. osk tree; copper nall and washer
T. $66 \mathrm{~N} ., \mathrm{R} .29 \mathrm{~W} ., 0.2 \mathrm{ms}. \mathrm{S} .\mathrm{of} \mathrm{N} ,\mathrm{cor} \mathrm{secs}$,2 and $3,50 \mathrm{ft.N}$. of rd. comér S. NW ., 100 ft . NE. of dwelling of Waiter Mathis, in concrete posty stancard tablet stamped "858 1934"
iridge over Lost Creek, at SB. corner of, in girdery top of boit
 and 85 ft . E . from $\mathrm{T}-\mathrm{sd}$. N... in root on NW. side of 45-1n. maple. treet copper nail and washer
$1,095.51$

1,108.798
999.54

1,108.20
$1,124.57$

1,109.31
$1,006.21$

1,057.642
1,100.26
$1,154.94$
$1,162.979$

1,082.43
$1,141.264$
1,000.40
$1,041.27$

Tps. 66 and $67 \mathrm{~N} .$, R. 29 W., near line between secs. 4 and $33,0.2 \mathrm{mi}$. E. of T-rd. N., at top of hill, 30 ft . N. of rd., in root of $14-\mathrm{in}$. pine tree; copper nail and washer

Feet<br>1,123.49<br>1,108.51

(Lat1tude $40^{\circ} 30^{\left.\text {BLOCKTON }-40^{\circ} 45^{\prime} \text {; longitude } 94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime} \text { ) }\right) ~}$
WORTH COUNTY


1. FROM EAST BORDER OF QUADRANGLE WEST, NEAR IOWA-MISSOURI STATE
LINE; TO POINT NEAR WEST BORDER, THENCE SOUTH TO SOUTH BORDER
(by Charlea E. Hunter in l936)
(Continued from Mount Ayr quadrangle; see line 1.)
T. $67 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} .$, in sec. $35,15 \mathrm{ft}$. S. and 25 ft . E. from T-rd. S., in concrete post; standard tablet stamped "2 H 1936"
Reference mark 1, 20 ft . N. and 55 ft . E. from T-rd. S., in root on SW . side of 18-in. oak tree; copper nail and washer
eference mark $2,20 \mathrm{ft}$. N. and 15 ft . W. from T-rd. S., in root on N . side of 6-1n. elm tree; copper nail and washer
T. 67 N., R. $30 \mathrm{~W} .$, near quarter cor. between secs. 34 and $35,15 \mathrm{ft} . \mathrm{S}$. and 15 ft . W. from T-rd. N., on W. end of iron pipe culvert; painted square
. 67 N., R. 30 W., near quarter cor between secs. 33 and $34,15 \mathrm{ft}$. S. and 35 ft . E. from County Route $T$ at rd. E., in root on W. side of $7-1 \mathrm{n}$. elm tree; copper nail and washer
county Route $T$ at rd. W., on $E$. end of iron pipe culverty painted square
T. 67 N., R. 30 W., in $\mathrm{SW} 1 / 4$ sec. 33 , 15 ft . N. of rd., in root on SW . side of $10-i n$. walnut tree; copper nall and washer
Irena, 0.5 ml . N., thence 3.8 mi. E. from, near W. sixteenth cor. on N. line sec. $5, \mathrm{~T}: 66 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} ., 22 \mathrm{ft}$. S . and 580 ft . E. from T-rd. S., in concrete post; standard tablet stemped " 7680 W A I934"

1,062.193
Irena, 0.5 mi . N ., thence 3 mi . E. from, near N . quarter cor. sec. 6 , T. $66 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} ., 15 \mathrm{ft}$. N. and 5 ft . E. from T-rd. S., in root on W. side of $22-1 n$. maple tree; copper nail and washer
$1,024.21$
Iréns, 0.5 mi . N. . thence 2.2 ml . E. from, near E. sixteenth cor. on N . line sec. 1, T. $66 \mathrm{~N}, \mathrm{R}$. $31 \mathrm{~W} ., 15 \mathrm{ft}$. S. and about 300 ft . E. from
T-rd. S., in root on $W$. side of 16-1n. oak tree; copper nail and washer
$1,068.07$
Irens, 0.5 ml . N., thence 1.5 ml . E. from, near N . cor. secs. 1 and 2 , T. 66 N., R. 31 W., $25 \mathrm{ft} . \mathrm{S}$. and 15 ft . W. from T-rd. S., in root on E. side of twin 8-ín. elm tree; copper nail and washer

1,003.23
Irena, 0.5 ml . N., thence 1 ml . E. from, near S. quarter cor. sec. 35, T. 67 N., R. 31 W., 90 ft. S. and 285 ft. E. from T-rd. N., in root on W. side of 14 -in. oak tree; copper nail and washer

1,086.73
Irena, $0.5 \mathrm{mi} . \mathrm{N}$. of along U.S. Highway 169, near S . quarter cor. sec. 34 , T. $67 \mathrm{~N} ., \mathrm{R} .31 \mathrm{~W} ., 26 \mathrm{ft}$. N. and 36 ft . W. from cross rd., in concrete post; standard tablet stamped "767 C W Al 1934"

1,129.804
U.S.C. \& G.S. standard disk stamped "A $711935^{\circ}$
U.S.C. \& G.S. standard disk stamped "N 105 1935"

32 and $33, T .67 \mathrm{~N} ., \mathrm{R} .31 \mathrm{~W}, 18 \mathrm{ft}$. S . of rd. on Iowa-Mo. State
inne, in concrete post, standard tablet stamped "766 C W. A 1934"
-rd. N. $85 \mathrm{ft}$. . S. and 400 ft . E. from. in root on NE. side of $24-\mathrm{in}$
r-rd. N., 85 ft . S . and 400 ft . E. from, in root on NE. side of 24-in. oak tree; crogsed nalls
$1,162.553$
$1,171.166$
T. 67 N., R. 31 W., near N. cor. secs. 31 and 32 , about 300 ft. S. and 15 ft . W. from, near rd, corner on Iowa-Mo. State line, in fariryard, in root on N. side of twin 20-in. oak tree; copper nail and washer
$1,2314.352$
1,067.60

1,020.97

[^11]T. 67 N., R. 31 W., near N. quarter cor. sec. $31,50 \mathrm{ft}$. N. and 100 ft. E. from rd. corner on Iowa-Mo. State line, in root on SW. side of $18-1 \mathrm{n}$. oak tree; copper nall and washer

Feet 983.62
T. 67 N., R. 32 W., near N. quarter cor. sec. $36,40 \mathrm{ft}$. S. and 25 ft . E. from T-rd. S., on Iowa-Mo. State line, in root on NE. side of 20-in. maple tree; copper nail and washer
T-rd. S., 20 ft . S. and 15 ft . W. from, in root on NW. side of $20-\mathrm{in}$. oak tree; crossed nalls
T. $67 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, near N. quarter cor. sec. 35 ; $35 \mathrm{ft} . \mathrm{s}$. and 28 ft . W. from T-rd. S. on Iowa-Mo. State line, in concrete post; standard tablet stamped "761 CW A 1934"
T. 67 N., R. 32 W., near S. quarter cor. sec. $35,20 \mathrm{ft.S}$. and 55 ft . E. from T-rd. N., in base on N. side of corner fence post; spike
T. $67 \mathrm{~N} ., \mathrm{R}$. 32 W. , near S . cor. secs 35 and $36,105 \mathrm{ft}$. N. and 20 ft . W. from T-rd. N., in root on W. side of l2-1n. walnut tree; copper nail and washer
989.10
T. 66 N., R. 32 W., near quarter cor: between secs. 1 and 2, at W. end of N. seat of steel bridge over drainage ditch, on northwestermmost rivet;
chiseled cross
984.48
. 66 N. , R. $32 \mathrm{~W} .$, cor secs. $1,2,11$, and $12,525 \mathrm{ft}$. N. and 90 ft . E. from crossroads, in root on SW. side of $36-i n$. maple tree; copper nail and washer
973.74
T. 66 N., R. 32 W., in $S E 1 / 4$ sec. 11 , 19 ft . $N$. and 200 ft . E. from rd. corner E.-S., in concrete post; standard tablet stamped "760 C W A 1934"
T. $.66 \mathrm{~N} ., \mathrm{R}$. 32 W ., in $\mathrm{E} 1 / 2$ sec. 14 , 25 ft . E. of rd., in root on $W$. side of 28-in. maple tree; copper nail and washer
T-rd. N., 20 ft . N. and 60 ft . W. from, in root on S. side of 14 ln . elm tree; crossed nalls
T. 66 N., R. 32 W., near quarter cor. between secs. $l_{4}$ and $23,90 \mathrm{ft} . \mathrm{N}$. and 120 ft . E. from T-rd. S., in root on S. side of 16-in. elm tree; copper nail and washer

1,094.95
(Continued in Gentry quadrangle; see line 3.)
For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey second-order line, Merio, Iowa to Darlington, Mo:
(Latitude $40^{\circ} 15^{\prime}-44^{\circ} \cdot 30^{\prime}$; longitude $94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime}$ )
Gentry and Worth Counties


1. FROM ALBANY EAST ALONG SOUTH BORDER OF QUADRANGLE (by Charles E. Hunter in 1936)
(Continued from Darlington quadrangle; see line.6.)
Albany, 0.2 mi . N., thence 0.3 mi . E. from, along State Highway 4, 30 ft . S. and 240 ft . E. from junction of rd. S., in concrete post; standard tablet stamped "751 1934"
State Highway 4 at rd. S., 225.ft. E. of, on N. head wall of concrete culvert; chiseled square
927.102
973.06

Albany, about 1.6 mi . E. of, along State Highway $4,15 \mathrm{ft} . \mathrm{N}$. and 15 ft . E. from junction of rd. N., on N. head wall of concrete culvert; chiseled square
962.56

Albany, about 2.6 mi . E. of, along State Highway $4,30 \mathrm{ft} . \mathrm{N}$. and 15 ft . E. from junction of rd. N., on E. head wall of concrete culvert; chiseled square
909.70

State Highway 4 at rd. S., 30 ft . N. and 30 ft . W. from, on N. head wall of concrete culvert; chiseled square
T. 63 N., R. 30 W., near quarter cor. between secs. 15 and 16,40 ft. S.
and 27 ft . W. from State Highway 4 at rd. S., 33 ft . N. of Chicago. Burlington \& Quincy R.R., in concrete post; standard tablet stamped " 834 1934"

Feet
984.667

## 2. FROM GRANT CITY EAST ALONG NORTH BORDER OF QUADRANGLE TO NORTHEAST CORNER; THENCE SOUTH TO MIDDLE OF EAST BORDER

U.S.C. \& GdS. standard disk stamped "Grant City 1934"
$1,135.624$
Grant City, 100 ft . NE. of public school, $30 \mathrm{ft} . \mathrm{N}$. of N. rail of Chicago, Burlington \& Quincy R.R., in concrete post; standard tablet stamped "Prim Trav Sta No 60 J S 1923 Mol
U.S. Highway 169 at junction of State Highway 46, on S. head wall of concrete culvert; chiseled square
Grant City, about 1.5 mi . E. of, along State Highway 46, at bridge over Middie Fork of Grand River, on top of SW. concrete pier; chiseled cross
State Highway 46 at rd. S., $15 \mathrm{ft} . \mathrm{N}$. and 75 ft . W. from, on N. head wall of concrete culvert; chiseled square
Grant city, about 2.4 mi . E. of, along State Highway $46,25 \mathrm{ft}$. S. and 15 $f t$. E. from cross rdi, on head wall of concrete culvert; chiseled square
arant City, about 3.2 mi . E. of, along State Highway $46,30 \mathrm{ft}$. N. and 15 ft. E. from cross rd., in E. head wall of concrete culvert; standard tablet stamped "1 H 1936"
Grant City, about 4 mi . E. of, along State Highway 46 , on N. head wall of concrete culvert; chiseled square
Grant City, about 4.9 ml . E. of, along State R1ghway $46,25 \mathrm{ft}$. N, and 255 ft. W. from junction of rd. N., on E. end of N. head wall of concrete culvert; chiseled cross
Allendale, about 1.2 ml . W. of, along State Highway $46,20 \mathrm{ft}$. N. and 280 ft . E. from junction of ra. S., on N. head wall of concrete culvert; chiseled square
State Highway 46 at rd. N., $15 \mathrm{ft} . \mathrm{N}$. and 93 ft . W. from, on N. head wall of concrete culvert; chiseled square
Allendale, in SW . corner of, 15 ft . N. of State Highway 46 at rd. S., 20 ft. E. of driveway to garage, on concrete curb; chiseled square
Allendale, 0.5 ml . N. of, near cir. secs. $21,22,27$, and $28, \mathrm{~T} .66 \mathrm{~N}$. , R. $30 \mathrm{~W} ., 24 \mathrm{ft}$. N. and 32 ft . W. from T-rd. S., 60 ft . S. of dwelling of James Miller, in concrete post; standard tablet stamped "Prim Trav Sta 62 J S 1923 Mon
Allendale, at E. limits of, 50 ft . S , and 200 ft . W. from State Highway 46 at street W., on N. head wall of concrete culvert; chiseled square
State Highway 46 at rd: S., on E. head wall of concrete culvert; chiseled square
Allendale, about 1.5 mi . E. of, along State Highway $46,35 \mathrm{ft}$. S. and 20 ft. W. from cross rd., in concrete post; standard tablet stamped " 840 1934"
Reference mark, 15 fit. N. and 18 ft . W. from tablet, on S . head wall of concrete culvert; chiseled square
Allendale, about 0.5 mi . S . and 1.5 mi . E. from, in sec. 35 , T. 66 N. , R. 30 W., $10 \mathrm{ft} . \mathrm{N}$, and 60 ft . E. from T-rd. N., on N . end of iron pipe culvert; painted square

1,125.080
$1,114.34$
953.34

1,005.73
$1,081.58$

1,029.886
$945 \cdot 50$
94.00
965.25
986.94

1,063.39
$1,076.582$
1,008.00
1,023.144
$1,063.864$
1,064.20

1,064.15
Allendale, about 1 md . S. and 1.8 mi . E. from, near E. sixteenth cor on S. Ine sec. 35 , T. $66 \mathrm{~N} ., \mathrm{R}$. 30 W ., 20 ft . N. and 120 ft . W. from T-rd. N., in root on NE. side of twín 16-1n. oak tree; copper nail and washer
T-rd. E., 80 ft . N. and 15 ft . W. from, in root on E. side of $12-\mathrm{in}$. oak tree; crossed nails
T-rd. N., 20 ft . S. and 20 ft . W. from, in root on N . side of $14-\mathrm{in}$. oak trees crossed nails
T. 65 N., R. 30 W., cor. secs. $2,3,10$, and $11,40 \mathrm{ft} . \mathrm{S}$. and $25 \mathrm{ft} . \mathrm{W}$. from rd, at fence, in concrete post; standard tablet stamped 7839 1934"
T. 65 N., R. 30 W., near S. sixteenth cor. between secs. 10 and 11,340 ft. S. and 10 ft . W. from T-rd. W., on W. end of iron pipe culvert; painted square
T. 65 N., R. 30 W., near N. sixteenth cor. between secs. 14 and 15,100 ft. S. of T-rd. W., on W. end of N. cross beam of steel bridge; northwesternmost bolt head

1,078.46
1,071.47
1,137.88
1,094.655

1,064.20
988.58
T. 65 N., R. 30 W., cor. $\operatorname{secs} .14,15,22$, and $23,40 \mathrm{ft} . \mathrm{N}$. and 15 ft . E. from T $\sim$ rd. N., in fence ilne, in root on $W$. side of 18-1n. elm tree; copper nail and washer
(For balance in Bethany quadrangle, see line 2.)
T. $65 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}$. , cor. secs. $22,23,26$, and $27,25 \mathrm{ft}$. E. of fence corner, in concrete post; standard tablet stamped $18381934^{\prime \prime}$
Crossroads, 15 ft . N. and 15 ft . W. from, on N. end of iron pipe culvert; painted square
T. $65 \mathrm{N},. \mathrm{R} .30 \mathrm{~W}$. , cor. secs. $26,27,34$, and $35,35 \mathrm{ft} . \mathrm{N}$. and 12 ft . E. from crossroads, on $N$. end of concrete baffle wall; chiseled square

T-rd. E., 65 ft . N. and 20 ft . W. from, in root on E. side of $12-1 \mathrm{n}$. welnut tree; crossed nails
T. 65 N., R. 30 W. , near 9 . cor. secs. 34 and $35,10 \mathrm{ft}, \mathrm{N}$. and 70 ft . W. from T-rd. N., 10 ft . N. and 10 ft . E. from T-rd. S., on N. end of iron pipe culvert; painted square

1,026.21
$1,101.445$
1,104.48
1,054.19
1,093.30

1,017.67
T. $64 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}$, near E. sixteenth cor. between secs. 3 and $10,30 \mathrm{ft}$. S. and 100 ft . E. from rd. corner S.-E., in concrete post; standard tablet stamped "837 O W' A 1934"
978.000

Reference mark, 60 ft . S. and 150 ft . W. from tablet, in root on S . side of $30-1 n$. oak tree; copper nail and washer

## 3. FROM NORTHWEST CORNER OF QUADRANGLE EAST TO GRANT CITY (Oontinued from Blockton quadrangle; see line 1.)

Grant City, about 4.5 mi . W. of, along State Highway $46,15 \mathrm{ft}$. N. and 70 ft . E. from junction of rd. N., on N . end of tile culvert; painted square

1,103.738
1,092.50
$1,001.80$
copper nail and washer
Grant city about 1.5 mi W. of along State Highway $46,20 \mathrm{ft} . \mathrm{Na}$
25 ft . W. from cross rd; ; on N . head wall of concrete culvert; chiseled square
978.78
$1,102.849$

## 4. SOUTH ALONG NORTH HALE OF WEST BORDER OF QUADRANGLE

T. $66 \mathrm{~N} .$, R. $32 \mathrm{~W} .$, near S . cor. secs. 35 and 36 , 145 ft . N. and 15 ft . W. from T-rd. N., in root on SE. side of 6-in. locust tree; copper nail and washer
T-rd. W., $20 \mathrm{ft} . \mathrm{N}$. and 20 ft . E. from. in base of telephone poles spike
T. $65 \mathrm{Ne} \cdot \mathrm{R}$. $32 \mathrm{~W} .$, in $\mathrm{S} 1 / 2 \mathrm{sec} .3,25 \mathrm{ft}$. S . and 6 ft . W. from rd. at fences N.-S., in concrete post; standard tablet stamped" "759 C W A $1934^{\prime \prime}$
T. $65 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W}$., near S . sixteenth cor. between secs. 3 and $4,15 \mathrm{ft}$. N. and 625 ft . E. from T-rd. S., in root on S. side of 12-in. willow tree; copper nail and washer
T. 65 N., R. 32 W., near quarter cor: between secs. 9 and $10,190 \mathrm{ft}$. S. and 3 ft: E. from T-rd. N., in root on W. side of 20-in. oottonwood treeg copper nail and washer
T-rd. E., 10 ft . S. and 20 ft . W. from; in root on NW. side of $8-1 \mathrm{n}$. elm tree; crossed nails
(For balance in Parnell quadrangle, see line 8.)
T. $65 \mathrm{~N}, \mathrm{R}$. 32 W, cor, secs. $15,16,21$, and $22,4 \mathrm{ft}, \mathrm{S}$. and 33 ft . W. from T-rd. E., in concrete post standard tablet stamped "758 CW A $1934^{\prime \prime}$
T. $65 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, cor. secs. $14,15,22$; and $23,18 \mathrm{ft} . \mathrm{N}$. and 75 ft . W. from T-rd. S.g. in root on SW. side of $18-1 n$. walnut tree; copper nail and washer
T. $65 \mathrm{~N} ., \mathrm{R}: 32 \mathrm{~W} .$, cor. secs: $22,23,26$, and $27.50 \mathrm{ft} \cdot \mathrm{S}$. and 20 ft . W. from crossroads, in root on E. aide of 20-in. oak tree; copper nail and washer
T. 65 N., R. $32 \mathrm{~W} .$, cors secs. 26,27 . 34 , and $35,0.2 \mathrm{mi}$. W. of crossroads, 20 ft . $\mathrm{N}_{\dot{\prime}}$ of rd., in concrete post; standard tablet stamped "757 C W A 1934 "
T. $65 \mathrm{~N} ., \mathrm{R}$. 32 W. , cor. secs. $27,28,33$, and 34 r. 30 ft . NW. of rd. corner, in root on SE. side of 6-1n. cherry trees copper nail and washer
T-rd. W., 30 ft . N. and 12 ft . E . from. in top of telephone-pole stump; crossed nalls
T. 65 N., R. $32 \mathrm{~W} .$, near S. cor. secs. 33 and $34,40 \mathrm{ft}$. S. and 25 ft . E. from rd., in hedge stump; copper nail and washer
T. 64 N., R. 32 W., near S. sixteenth cor. between secs: 3 and 4 , 120 ft . N . and 180 ft . W. from T-rd. N., on W. leg of windmill; bolt head
(Continued in Parnell quadrangles see line 6.)

## 5. NORTH ALONG SOUTH HALF OF EAST BORDER OF QUADRANGLE, THENCE WEST THROUGH CENTER TO WEST BORDER (leveled once by J. Earl Brannan in 1935 and once by Charles E. Hunter in 1936) <br> (Continued from Darlington quadrangle; see line 7.)

T. 63 N., R. $30 \mathrm{~W} .$, cor. secs. $15,16,21$, and 22 , about 700 ft . N. of
 on E. side of 15-in. locust tree; copper nall and washer Culvert, on $N$. end of head wall; chiseled square
T. $63 \mathrm{~N}, \mathrm{R} .30 \mathrm{~W}$., near N. sixteenth cor. between secs. 14 and 15 , about 374 ft. N. and 20 ft . E. from State Highway 4 at rd. N., in root on $W$. side of 12-in. wild-cherry tree: copper nail and washer
Bridge, 40 ft . W. of, 10 ft . N. of branch, in root on E. side of 30-in. elm tree; copper nall and washer
T. 63 N. , R. 30 W ., near quarter cor. between secs. 10 and $11,60 \mathrm{ft}$. S . and 40 ft . W. from T-rd. W., in root on E. side of twin mapie tree; copper nail and washer
T-rd. E., 135 ft . N. and 100 ft . E. from, in root on N , side of $24-\mathrm{in}$. elm tree; copper nail and washer
T. 63 N., R. 30 W., in NE $1 / 4$ sec. $3,84 \mathrm{ft}$. N. and 20 ft . E. from rd.


1,129.211
983.23
983.37
$1,096.444$
$1,095.56$

1,088.104
$1,063.32$

1,083.54
1,103.12
$1,053.515$

1,024.45
1,050.94
1,038.30
1,022.58

1,013.01

1,052.42

1,021. 20
994.26

1,007.40
948.88
975.145

Tps. 63 and 64 N., R. 30 W., approximate cor. secs. 2, 3, 34 , and 35,300 ft. N. and 50 ft . W. from T-rd. W. (? E.), in root on S. side of $24-1 n$. elm tree; copper nail and washer
Rd. corner, 280 ft . N. and 20 ft . W. from, in root of $15-1 \mathrm{n}$. elm tree; copper nail and washer
T. 64 N., R. 30 W., in $N 1 / 2$ sec. $34,60 \mathrm{ft}$. W. of SE. corner of carter Cemetery, at rd: forks, in root on E. side of $20-1 n$. black-oak tree; copper nall and washer
Bridge, at SE corner of, in bridge cap; copper nail and washer
T. 64 N., R. 30 W , in sec. $27,90 \mathrm{ft}$. N . and 50 ft . E. from T-rd. S., in root on N. side of $10+1 \mathrm{n}$. hickory tree; copper nail and washer
T. $64 \mathrm{~N}, \mathrm{R} .30 \mathrm{~W} .$, in $\mathrm{SW} 1 / 4 \mathrm{sec} .26,75 \mathrm{ft}$. S. of dwelling of James Stinemany 30 ft . N. of rd. 430 ft . E. of fence, in concrete post; standard tablet stamped, "T T 836 CW A $1934^{\text {" }}$
T. $64 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} .$, in $\mathrm{SE} 1 / 4 \mathrm{sec} .22,70 \mathrm{ft}$. N. and 100 ft . E. from rd. corner S.-W. (? E.), in root on Ș. side of walnut tree; copper nail and washer
Rd. corner from W. $-\mathrm{N} ., 30 \mathrm{ft}$. N , and 90 ft . W. from, in root on N . side of $30-1 n$. elm tree; copper nail and washer
T. 64 N., R. 30 W., cor. secs. 14 , 15,22 , and $23,125 \mathrm{ft}$. N. and 500 ft . E. from crossroacs, at Lone star, 15 ft . S . of SW . corner of church, in root on W. side of 36-in. elm tree; copper nail and washer
Rd. corner from E. -N ., 15 ft . N. and 40 ft . E. from, in top of $30-\mathrm{in}$. elm stump; crossed nails

1,013.86

1,056.52
915.83
945.90
934.306

1,001.66
1,017.26

1,065.47
1,058.04
T. 64 N., R. 30 W., near E. sixteenth cor. sec. $15,130 \mathrm{ft}$. N. and 15 ft . W. from T-rd. W., in root on E. side of $24-1 n$. oak tree; copper nail and washer
T-rd. E., about 150 ft . N. and 15 ft . E. from, in root on E. side of 10-1n. walnut tree; crossed nails
T-rd. E., about 180 ft . S. and 15 ft . W. from, in root on E. side of 24-in. elm tree; crossed nails
T-rd. N., 25 ft . S, and 30 ft . W. from, in root on N . side of $30-\mathrm{in}$. maple tree ${ }^{2}$ crossed nails

1,071.04
954.73
956.85
T. 64 N., R. 30 W., near cor. secs. $3,4,9$, and 10 , about 180 ft . S. and 20 f't. E. from crossroads; in root on W. side of 18-in. elm tree; copper nail and washer
Wooden bridge over drain, about 20 ft . N. and 70 ft . E. from, in root on SW. side of 10-1n. elm trees crossed nails
924.33
936.92
T. $64 \mathrm{N.,R}$. $30 \mathrm{~W} .$, cor. secs. $4,5,8$, and $9,33 \mathrm{ft}$. S. and 36 ft . W. from crossroads; in concrete post; standard tablet stamped "T T 756 C WA $1934^{\prime \prime}$
Wooden bridge over drain, about 20 ft . N. and 210 ft . E. from, in root on S. side of $30-1 \mathrm{n}$. elm tree; crossed nails

Rd. at $\mathrm{N} .-\mathrm{S}$. fences, 15 ft . N. and 60 ft . E. from, in root on SE. side of 6-1n. elm tree; copper nail and washer
T-rd. N., 20 ft . S. of, at corner post of $\mathrm{T}-\mathrm{fence} \mathrm{S}$. ; surface of ground
T. 64 N., R. 30 W., near W. sixteenth cor. between secs. 6 and 7 , about 160 ft . S, and 50 ft . W. from Tard. E., in root on $W$. side of i2-in. elm tree; copper nail and washer
T. 64 N. , R. 30 W. in NW $1 / 4$ sec. $7,20 \mathrm{ft} . \mathrm{S}$. of rd., in concrete post; standard tablet stamped "T T $755^{\circ} 0^{\prime \prime}$ A $1934^{\prime \prime}$
Rd. at W. edge of creek, 220 ft . S. of fence, in stump; crossed nails
T. 64 N., R. 31 W., 0.3 mi . W. of E. cor. secs. 12 and $13,15 \mathrm{ft}$. S. of rd., in root on $N$. side of twin walnut trees copper nail and washer
Dwelling, 30 ft . S . of, about 30 ft . N. of rd., in root on S . side of 24-in. maple tree; crossed nails
T. $64 \mathrm{~N} ., \mathrm{R}$. 31 W ., near E. sixteenth cor. between secs. 11 and $14,15 \mathrm{ft}$. S. and 40 ft . W. from crossrosds, in root on N . side of 12-in. cherry tree; copper nail and washer
Rd., about 20 ft . N. of, in root on S. side of $14-1 \mathrm{n}$. locust tree; crossed .nails
$\mathrm{T}: 64 \mathrm{~N}, \mathrm{R} .31 \mathrm{~W}$, cor secs. $10,11,14$, and $15,22 \mathrm{ft} . \mathrm{s}$, and $70 \mathrm{ft} . \mathrm{W}$. from T -rd. N., in concrete post; standard tablet stamped "T T 154 C W A 1934"
T-rd. S., about 30 ft . S . and 900 ft . E. from, in root on N . side of
30-1n. maple trees crossed nails
T .64 N , R. $31 \mathrm{~W}, 35 \mathrm{ft}$. S. and 50 ft . E. from cor. secs. $9,10,15$,
923.10
984.248
910.67
923.01
892.4
892.33
885.275
880.18
879.99
880.60
891.54
953.56

1,005.209
and 16 , in root on $N$. side of $18-1 \mathrm{n}$. oak treef copper nail and washer
1,025.55
old dwelifing, 60 ft . SE . of, about 50 ft . N. of rd. F in root on S. side of 15-in. ash tree; crossed nails
990.02
T. $64 \mathrm{~N} ., \mathrm{R}$. 31 W. near S . sixteenth cor between secs. 8 and 9, 90 ft . W. of rd., in root on E. side of $12-1 n$. locust tree; copper nail and wesher
Schoolyard, in SE. corner of, about 35 ft . W. of rd., in root on E . side of 24-1n. silver-maple treet crossed nails
960.80
T. 64 N, , R. 31 W, cor. secs. $4 ; 5,8$, and $9,30 \mathrm{ft}$. s . and 30 ft . W.
from crossroads, in concrete post; standard tablet stamped "T T $753 \mathrm{CWA} 1,016.118$
Wooden bridge, about 200 ft . W. of, 25 ft . S. of rd., in root on W. side of $12-1 n$. walnut tree; crosised nails 8 end 8 en
T. 64 N., R. 31 W., cor secs, $5,6,7$, and 8 , about 100 ft , S , and 832
ft. E. from, in root on N. side of 14 in. oek tree; copper nail and washer
T. 64 N., R. 31 W., near 11 ne between secs. 6 and $7,20 \mathrm{ft}$. N. and 25 ft . E. from J.S. H1ghway 169 at cross rd., on S. end of E. head wall of culvert; chiseled square
U.S.C. \& G.S. standard disk stamped "L 71 1935"

T-rd. E., about 50 ft . W. of, in root on E . side of $16-1 \mathrm{n}$. black-oak treef crossed nalls

# T. 64 N., R. 32 W., about 0.2 mi . N. of E. cor. secs. 1 and 12 , about 30 ft. N. and 85 ft . W. from $\mathrm{T}-\mathrm{rd}$. S. (? W.), in root on W. side of oak tree; copper nail and washer <br> T. 64 N., R. 32 W., 385 ft . W. of S. sixteenth cor. sec. $1,24 \mathrm{ft} . \mathrm{N}$. of rd., in concrete post; standard tablet stamped "T T 7526 W A 1934" <br> T-rd. N., about 25 ft . S. of, at T-fence S.; surface of ground <br> T. 64 N., R. $32 \mathrm{~W} .$, in $\mathrm{SE} 1 / 4 \mathrm{sec} .2$, 50 ft . W. of private garage, 30 ft . N. of rd., in root of $30-1 \mathrm{n}$. maple tree; copper nail and washer <br> T-rd. N., about 15 ft . N. and 450 ft . W. from, in root on s . side of 24-in. cottonwood tree; crossed nails <br> T. 64 N., R. 32 W., in $S E 1 / 4$ sec. $3,15 \mathrm{ft}$. S. of rd., in root on W. side of 15-in. walnut tree; copper nail and washer <br> $\begin{array}{r}\text { Feet } \\ \hline 2.56\end{array}$ <br> 942.56 <br> 987.652 <br> 962.4 <br> 925.29 <br> 942.10 <br> 1,036.14 

(Continued in Parnell quadrangle; see line 9.)
6. SOUTH ALONG SOUTH HALF OF WEST BORDER OF QUADRANGLE
(Continued from Parnell quadrangle; see line 9.)
Diwelling, about 90 ft . N. and 50 ft . E. from, 25 ft . W. of rd., in root on N. side of 15-1n. cherry tree; crossed nails
$1,043.03$
T. $64 \mathrm{~N} .$, R. $32 \mathrm{~W} .$, quarter cor. between secs. 21 and $22,90 \mathrm{ft}$. S. and 30 ft . W. from, in root on $N$. side of $18-1 \mathrm{n}$. maple tree; copper nail. and washer

1,020.70
$1,025.470$
W. from T-rd: $N$. ., in concrete post; standard tablet stamped "T $T 736$ C Ni A $1934^{\prime \prime}$
T. $64 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, near quarter cor. between secs. 22 and 27 , about 50 ft. S. and 45 ft . E. from $10-1 \mathrm{n}$. pipe culvert, in root on W . side of 18-in. walnut tree; copper nail and washer
981.80

Farmhouse, about 25 ft . N. and 20 ft . E. from entrance to, in root on E. side of $15-1 n$. maple tree; crossed nails
T. 64 N., R. 32 W., near quarter cor between secs. 23 and 26 , about 25 ft. N. and 85 ft . W. from crossroads, in root on W. side of $30-\mathrm{in}$. maple tree; copper nail and washer
Schoolhouse, about 250 ft . S . of, 25 ft . W. of rd., in root on E. side of $30-1 \mathrm{n}$. maple tree; (mark not described)
T-rd. W., about 25 ft . E. of, at W. side of brace post; surface of ground
T. 64 Nं., R. 32 W., near quarter cor. between secs. 26 and 35 , about 60 ft . S. and 25 ft . W. from T-rd. E., in top of hedge stump; copper nail and washer
T. $64 \mathrm{~N} ., \mathrm{R}$. 32 W. , near center sec. $35,80 \mathrm{ft}$. S. and 25 ft . W. from rd. at fence W., in concrete post; standard tablet stamped."TT $737^{\circ} 0^{W} W^{193} 4^{\prime \prime}$
Tps .63 and 64 N. . R. 32 W ., approximate quarter cor. between secs: 2 and 35 , about $50 \mathrm{ft} . \mathrm{N}$. and 20 ft . E. from T-rd. E., in root on W. side of oak tree; copper nail and washer
T-rd. W., about 30 ft . E. of, in root on W. side of lo-in. elm tree.; crossed nails
T. $63 \mathrm{~N} ., \mathrm{R}$. 32 W ., near center sec. 2 , about 50 ft . W. of rd., at s . fence iline of yard, in root on E. side of 12-in. walnut tree copper nall and washer
T-rd. N., about 580 ft . N. and 20 ft . W. from, in root on E. side of 15-1n. walnut trees crossed nails
T. $63 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, cor. secs. $2,3,10$, and $11,20 \mathrm{ft} . \mathrm{S}$. and 150 ft . E. from T-ra. S., in root on $N$. side of $40-1 \mathrm{n}$. cottonwood treej copper nall and washer

1,056.06

1,067.43
1,057.13
1,042.3

1,031.48
1,029.274
1,012.00
992.63

1,042. 51
$1,021.24$
960.14

T-rd. E., about 15 ft . S. and 30 ft . E. from, in root on W. side of $30-1 \mathrm{n}$. oak tree; crossed nails
T. $63 \mathrm{~N}, \mathrm{R}$. $32 \mathrm{~W} .$, cor. secs. $10,11,14$, and $15,910 \mathrm{ft}$. S. of rd at fence E., $25 \mathrm{f}^{\prime} \mathrm{t}$. E , of rd., in concrete post; standard tablet stamped "T T $738^{\circ} \mathrm{C}$ W A $1934^{\circ}$
T-rd. E., about $40 \mathrm{f}^{\prime} \mathrm{t}$ : S. and 18 ft . E. from, on E. head wall of culvert; chiseled square
Barn, about 85 ft . S , of 20 ft . W. of rd., in root on S . side of $4-\mathrm{in}$. hedge tree; crossed nails
997.69
971.762
959.54
971.28
T. 63 N., R. $32 \mathrm{~W} .$, cor. secs. $14,15,22$, and 23 , about 25 ft . N. and 100 ft . E. from crossroads, in root on N: side of $30-1 \mathrm{in}$. elm trees. copper nall and washer
Wooden bridge, about 20 ft . S. and 20 ft . E. from, in root on E . side of 12-1n. elm tree; crossed nails
945.44
874.89
(Continued in Darlington quadrangle; see line 8.)
For additional level lines along Ohicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey second-order ilnes, Darlington, Mo. to Osceola, Iowa and Menlo, Iowa to Darlington, MO.

## DARLINGTON QUADRANGLE <br> (Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime}$; Iongitude $94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime}$ )

DeKalb and Gentry Oounties


## 1. NBAR MIDDLE OF SOUTH HALF OF EAST BORDER OF QUADRANGLE (leveled twice by R. B. Steele in 1922) <br> (Continued from fattonsburg quadrangle; see line 2.)

T. 61 N., R. 30 W., in $\mathrm{SW} 1 / 4$ sec. $\mathrm{I}_{4}$, 15 ft . S. of T-rd. N., in concrete post; standard tablet stamped "Prim Trav Sta No 75 S 1921 Mo 44 R S 192
Reference mark, 30 ft : NE. of tablet; top of cornerstone
Bridge over Grand River; center of
Grand River, under bridge; surface of water at 8 a. m. Aug. 5, 1922
T. 61 N., R. 30 W., in $N W 1 / 4$ sec. $23,830 \mathrm{ft}$. SE. of bridge over Grand

River, S. of rd., in root of 12-1n, elm tree; copper nail
Feot
844.297
843.79
799.5
733.8
792.17
976.10
W. from crossroads, 50 ft . SE. of Mount Tabor Church, in root on N . side of 16-1n. pine tree; copper nail
(Continued in Pattonsburg quadrangle; see line 2.)

## 2. WEST ALONG EAST HALF OF SOUTH BORDER OF QUADRANGLE (by I. F. Hazelwood in 1923)

T. 60 N., R. 30 W., cor. secs, $15 ; 16,21$, and $22,160 \mathrm{ft}$, S. and 60 ft . W. from crossroads, in root on $N$. side of 18-in. maple tree; copper nail and washer
T. 60 N., R. $30 \mathrm{~W} ., 280 \mathrm{ft}$. E. of quarter cor. between seas. 16 and 21 , on N. side of concrete culverty chiseled square

50 ft . w. 50 ft . W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 69 S 1921 Mog
T. 60 N., R. 30 W., quarter cor, between secsj 18 and 19, 30 ft. Ne. of crossroads, in root of 18-in. elm tree; copper nall and washer
T. 60 N., R. $31 \mathrm{~W} ., \mathrm{E}$. cor. secs. 13 and $2 \mathrm{~L}_{\mathrm{t}} .10 \mathrm{ft}$. N. and 25 ft . W. from, $10 \mathrm{ft} . \mathrm{N}$ : of rd, in root of 8-in. elm trees copper nail and washer
T. 60 N., R. 31 W., cor: secs. $13,14,23$, and $24,30 \mathrm{ft}$. NW. of crossroads, on top of culvert; chiseled square
T: 60 N., R. 31 W., quarter cor: between secs. I4 and 23,40 ft. NW. of crossroads, in root of 18-in. maple tree; copper nali and washor
T. 60 N., R. 31 W., cor secs. $14,15,22$, and $23,20 \mathrm{ft}$.s . and 25 ft . W. from crossroads, in concrete post; standard tablet stamped Prim Trav Sta No 68 S 1921 Mon
Reference mark, 52 ft . NE. of tablet, on F . end of concrete culvert; chiseled square
T. 60 N., R. 31 W., near E. sixteenth cor, between secs. 16 and 21,15 ft . S. and 35 ft . E. from lord. S., 3 ft . S. of hedge fence, in root on $W$. side of $12-1 n$. hedge tree copper nail and washer
T. 60 N., R. 31 W., cor: secs. $16,17,20$, and $21,20 \mathrm{ft}$. SE. of T-rd. E., 5 ft . NW. of fence corner, on top of large rock, 18 in . above surface of ground; chiseled square
T. 60 N., R. $31 \mathrm{~W} ., \mathrm{N}_{\mathrm{N}}$ sixteenth cor. sec. 20 , 30 ft . SW. of T+rd. S., 8 ft . S . and 7 ft . W. from fence corner, in concrete post; atandard. tablet
Reference mark, $5 \mathrm{ft} . \mathrm{N}$. and 10 ft . W. from tablet, in root on E. side of $30-\mathrm{In}$. maple trees copper nall and washer
T. 60 N., R. 31 W., N. sixteenth cor. between secs. 19 and 20,27 ft. SE. of T-rd. E., in root on W. side of catalpa tree; copper nail and washer

1,033.678
1,016.45
(Continued in Maysrille quadrangle; see line 3.)

## 3. EAST ALONG WEST PART OF SOUTH BORDER OF QUADRANGLE (by W. R.

 Eroaddus in 1923)T. 60 N., R. 32 W. , cor. secs. $15,16,21$, and $22,18 \mathrm{ft}$. N. and 36 ft . W. from T-rd. S., 1 ft . S. of fence, in root on $N$. side of 10-1n. hedge trees copper nail and washer
T. 60 N., R. 32 W., cor. secs. $14,15,22$, and 23 , NE. of crossroads, 9 ft. NE. of fence corner, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\text {" }}$
Reference mark, 63 ft . N. $55^{\circ} \mathrm{W}$. of tablet, in root on SW . side of $30-\mathrm{in}$. cottonwood tree; copper nall and washer
T. $60 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W}$. , quarter cor. between secs. 14 and $23,27 \mathrm{ft} . \mathrm{N}$. and 12 ft . E. from T-rd. S., in root on N. side of 8-in. hickory tree; copper nail and washer
T. 60 N., R. 32 W., quarter cor. between secs. 13 and 24 , SW. of crossroads, on top of $S$. head wall of concrete ciflvert; chiseled square

Feet
1,065.44

1,008.525
1,010.25

1,004.94
948.77
985.494
984.37
4. NORTH THROUGH SOUTH HALF OF QUADRANGLE TO CENTER, THENCE EAST TO EAST BORDER
T. 60 N., R. 31 W., W. cor. secs. 7 and 18, SE. of T-rd. E., at corner of hedge fence, in root on $N$. side of l2-in. hedge tree; copper nail and washer
956.40
$60 \mathrm{N}$.Rs . 31 and 32 ., N. cor. secs. 7 and $12,820 \mathrm{ft}$. E. of T-rd of yard, in root on S. side of $24-1 n$. pine tree; copper nail and washer
T. 61 N., R. 31 W., S. quarter cor. sec. 32 , NE. of T-rd. N.; top of E. end of iron pipe culvert

1,039.10
$1,034.87$
T. 61 N., R. 31 W., quarter cor. between secs. 29 and 32,20 ft. S. and 20 ft . E. from crossroads, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{10}$
Reference mark, 57 ft . S. $10^{\circ} \mathrm{E}$. of tablet top of E . end of iron pipe culvert
965.913
967.02
T. 61 N., R. 31 W., quarter con. between secs. 28 and 33.45 ft . N. and 15 ft . W. from rd. at fence $\mathrm{N} ., 160 \mathrm{ft}$. W. of dwelling of F. M. Lykins, 30 ft . N. of fence, in root on S. side of $12-1 \mathrm{n}$. locust tree; copper nail and washer
T. 61 N., R. 31 W., cor. secs. $27,28,33$; and 34 , at T-rd. N.; top of $N_{\text {. end }}$ of concrete culvert
970.26
T. 61 N., R. 31 W., cor, secs. $26,27,34$, and 35 , NE. of crossroads, in root on NW. side of $30-1 n$. maple trees copper nail and washer
919.74
T. 61 N., R. 31 W., cor. secs. $22,23,26$, and $27,20 \mathrm{ft}$. N. and 15 ft . E. from T-rd. E., in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\mathrm{n}}$

Reference mark, 86 ft. $N .50^{\circ} \mathrm{E}$. of tablet, in root on sw. side of $18-1 \mathrm{n}$. elm tree copper nail and washer
T. 6I N., R. 31 W., quarter cor. between secs. 22 and 23. SW. of crossroads top of W. end of iron pipe culvert
T. 61 N., R. 31 W., S. sixteenth cor. between secs. 14 and 15 , SE. of T-rd. E. (? crossroads), on top of $S$. head wall of concrete culvert; chiseled square
T. $61 \mathrm{~N}, \mathrm{R} .31 \mathrm{~W}$, near cor. secs. $10,11,14$, and $15,380 \mathrm{ft}$. S. of crossroads, on top of W. head wail of concrete culvert; chiseled square
T. $61 \mathrm{~N} ., \mathrm{R}, 31 \mathrm{~W} \cdot$, cor. secs. $2,3,10$, and 11 , about $875 \mathrm{ft} . \mathrm{W}$. of T-rd. N., $50 \mathrm{ft} . \mathrm{S}$. and 50 ft . W. from dwelling of E. N. Clark, 20 ft. N. of rd., 3 ft . from fence, in concrete post standard tablet stamped "Prim Trav Sta No 16 Mac 1923 "
Reference mark, $290 \mathrm{ft} . \mathrm{S} .70^{\circ} \mathrm{E}$. of tablet, on NE. corner of concrete porch of school; chiseled squáre
T. 61 N., R. 31 W., E. sixteenth cor. between secs. 2 and 11 , NE. of crossroads; top of E . end of iron pipe culvert
T-rd. E.; surface of rd.
Tps. 61 and 62 N., R. $31 \mathrm{~W} .$, E. sixteenth cor. between secs. 2 and 35 , 260 ft . N. of old rd. fork down hill, 30 ft . W. of rd.. in root on N. side of 18-in, elf tree; copper nali and washer 968.70
896.283
900.45
959.56
840.97
823.79
entryville, in E $1 / 2$ sec. $35 . \mathrm{T} .62 \mathrm{~N} . \mathrm{R}$ : $31 \mathrm{~W} .$, about 750 ft . W. of bridge over Grand River, $55 \mathrm{ft} . \mathrm{S}$. and 40 ft . E. from T-rd. N. (?), in root on S. side of 40-in. elm trees copper nail and washer
Bridge over Grand River; floor
Grand River, under bridges: surface of water at 4 p. m. Aug. 25, 1923
Gentryville, in sec. 36 , T. $62 \mathrm{~N} . \mathrm{F}$. 31 W. . S. of main street, in top of $N$. end of second step to general store of J. W. McVay; standard tablet
Reference mark, 62 ft . W. of tablet, on top of NE. corner of concrete porch of restaurant, chiseled square
965.615
955.07
924.90
893.2
906.87
913.46
826.9
790.4
828.833
827.80
T. 62 N., Rs. 30 and 31 W., near quarter cor. between secs. 31 and 36 , 5 ft . N. and 10 ft . E. from T-rd. S., in S. side of 36-in. locust tree; copper nall and washer
927.05
T. 62 N., R. 30 W., near quarter cor. between secs. 31 and 32,27 ft. N. and 33 ft . E. from crossroads, in root on $S$. side of 36-1n. cottonwood trees copper nall and washer
936.98
T. 62 N., R. 30 W . near center sec. $32,40 \mathrm{ft}$. S. and 20 ft . W. from T-rd. S., in fleid, 5 ft . from fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 15 Mac 1923"
Reference mark, $64 \mathrm{ft} . \mathrm{N} .3^{\circ} \mathrm{W}$. of tablet, in root on N . side of $8-1 \mathrm{n}$. wild-cherry tree; copper nall and washer
893.308
893.48
T. 62 N., R. 30 W., near center sec. 33,25 ft. S. and 245 ft. W. from T-rd. W., in root on $W$. side of 20-in. maple tree; copper nail and washer
T-rd. E.; surface of rd.
Feet
871.02
898.5
934.424
930.17
(Continued in Pattonsburg quadrangle; see line 5.)

## 5. FROM POINT NEAR CENTER OF QUADRANGLE WEST TO WEST BORDER

T. 61 N., R. 31 W., cor. secs. 3. 4, 9, and $10,12 \mathrm{ft}$. N. and 20 ft . W. from T-rd. S.; top of $N$. end of iron pipe culvert
$1,006.27$
T. 61 N., R. 31 W., W. sixteenth cor. between secs. 4 and $9,125 \mathrm{ft}$. E. of T-rd. S., on top of S. end of concrete culvert; chiseled square
Rd. corner from E.-N.; surface of rd.
999.56
T. 61 N., R. 31 W., S. sixteenth cor, between secs. 4 and $5,60 \mathrm{ft}$. N. and 75 ft . W. from $T$-rd. W., on top of bottom step of Maple Grove Churich; chiseled square
Trrd. S.; surface of rd.
T. $61 \mathrm{~N} ., \mathrm{R}$. 31 W., in $\mathrm{SE} 1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .5,55 \mathrm{ft}$. N. and 40 ft . E. from dwelling of C. M. Evans, 27 ft . S. of rd., $4 \mathrm{ft} . \mathrm{N}$. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 17 Mac $1923^{\prime \prime}$
Reference mark, $10 \mathrm{ft} . \mathrm{S}, 5^{\circ} \mathrm{W}$ : of tablet, in root on N . side of $18-1 \mathrm{n}$. walnut tree; copper nail and washer
T. 61 N., R. 31 W., center of SE $1 / 4$ sec. $6,255 \mathrm{ft}$. E. of T-rd. N., on top of N . head wall of concrete culvert; chiseled square
T. 61 N., R. 31 W., W. cor. secs. 6 and $7,110 \mathrm{ft}$. S. of rd. corner from E. $-\mathrm{S} ., 25 \mathrm{ft}$. E. of T-rd. W., in concrete post; standard tablet stamped "B 19233 Mo "
Reference mark, 18 ft . S. $5^{\circ} \mathrm{E}$. of tablet, in root on S . side of 8-in. hedge-tree; copper nail and washer
Ford Gity, in front of Chicago, Burlington \& Quincy R.R. sta.; top of rail
Ford City, $180 \mathrm{ft} . \mathrm{N}$. of cor. secs. $1,2,11$, and $12, \mathrm{~T} .61 \mathrm{~N} .$, R. 32 W. , on main street, 3 ft . SW. of SW. corner of lumberyard of Miner and Fraes, on top of sidewalk; chiseled square
T. 61 N., R. 32 W., cor. secs. $2,3,10$, and $11,13 \mathrm{ft}$. S. and 28 ft . E. from crossroads, 12 ft . E. of fence corner, 3 ft . N. of fence, in concrete post; standard tablet stamped "Prím Trav Sta No 18 Mac 1923"
$1,078.447$
(Continued in Stanberry quadrangle; see line 3.)

## 6. EAST ALONG NORTH BORDER OF QUADRANGLE TO ALBANY (by Charles E. Hunter in 1936)

Çarmack, $3.9 \mathrm{mi} . W$. of, along U.S. Highway $169,42 \mathrm{ft} . \mathrm{S}$. and 100 ft . E. from cross rd., in concrete post; standard tablet stamped "T T 739 C W A 1934"
Carmack, about 2.9 ms . W. of, along J.S. Highway 169 , about $200 \mathrm{ft} . \mathrm{N}$. and 100 ft . E. from junction of rd. N., in root on w. side of 24-in. oak tree; copper nail and washer
882.594

Carmack, about 2.1 ml . W. of, along J.S. Highway $169,30 \mathrm{ft} . \mathrm{N}$. and 20 ft. W. from cross rd., on W. head wall of concrete culvert; chiseled square
858.30
944.20

Carmack, about 1.4 mi . W. of, along U.S. Highway $169,70 \mathrm{ft}$. N. and 35 ft. W. from cross rd., on SE. corner of concrete porch of church; chiseled square
Carmack, about 0.6 mi . W. of, along $0 . S$ E. from junction of rd. S., on $S$. concrete curb; chiseled square

Carmack, 22 ft . S . and 105 ft . W. from junction of $\mathrm{U} . \mathrm{S}$. Highway 169 ,
State Highway 4 and rd. S., in concrete post; standard tablet stamped ${ }^{7} 749$ C W A $1934^{\circ}$
Top of hill, S. of State Highway 4, in root on N. side of 30-in. elm tree; crossed nails
Carmack, 1.2 mi . E. of, along State Highway 4, on S. end of W. concrete abutment of bridge over Middle Fork of Grand Rivers chiseled square
U.S.C. \& G.S. standard disk stamped "R 71 1935" (Moved; new elev. 843.202)

Albany, about 2.8 mi . W. of, along State H1 ghway $4,290 \mathrm{ft}$. SW. of cross rd., on NW. head wall of concrete culvert; chiseled square
Albany, about 2 mi . W. of, along State Highway $4,35 \mathrm{ft}$. S. and 40 ft . W. from junction of rd. S., in concrete post; standard tablet stamped "750 C W A 1934"
856.389
of r . W. of, along State Highway $4,875 \mathrm{ft}$. W. of Junction
of rd. N., on $S$, end of W. abutment of bridge $F-333$; chiseled square
T-rd. N., on E. end of iron pipe culvert; painted square
U.S.C. \& G.S. standard disk stamped "Albany 1934"

State Highway 4 at cross street, 40 ft . S. and 20 ft . E. from, on NW . corner of sidewalk; chiseled square

## 7. FROM WHITTEN NORTH TO NORTH BORDER OF QUADRANGLE (by J. Earl Brannan in 1936)

Feet
U.S.C. \& G.S. standard disk stamped "Z $181933^{\prime \prime}$
985.372

T-rd. E., 70 ft . N. and 25 ft . E. from, in root on W . side of 24 -in. elm tree; bent nail
T-fence S ., 120 ft . N. and 300 ft . E. from, in root on W. side of $30-\mathrm{in}$. cottonwood tree; copper nall and washer
979.96
974.70
T. $62 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}$. , in sec. 10 , about 207 ft . N . and 20 ft . E. from crossroads, in root on $W$. side of $8-1 n$, ash tree; copper nail and washer
T. $62 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} .$, near quarter cor. between secs. 3 and $10,10 \mathrm{ft}$. S . and 25 ft . E. from rd. at fence E., in concrete post; standard tablet stamped "T T 832 C WA $1934^{\circ}$
966.71

T-rd. E., 50 ft . S. and 20 ft . W. from, on $N$. end of $W$. head wall of culvert; chiseled square
943.503
980.09
T. 63 N., R. 30 W., $S$ 1/2 sec. $34,20 \mathrm{ft}$. N. and 40 ft . E. from T-rd. S., in root on NW. side of $30-1 n$. biack-locust tree; copper nail and washer
T-rd. N., about 100 ft . N. and 120 ft . W. from, in root on E. side of $24-1 \mathrm{n}$. elm tree; copper nail and washer
T. 63 N., R. 30 W., cor. secs. $27,28,33$, and 34 , 145 ft . S. and 25 ft . W. from, at fence E., in root on E. side of 24-in. maple tree; copper nail and washer
967.97
T. $63 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} .$, near quarter cor . between secs. 27 and $28,105 \mathrm{ft}$. S. and 19 (? 25) ft. E. from T-rd. W., 2 ft . N. of NW. corner of private garage on property of Nr . J. W. Chenoweth, in concrete post; standard tablet stamped "T T 833 C W A 1934"
T-rd. S., about 50 ft . S. and 20 ft . E. from, in root on w . side of $12-\mathrm{in}$. hedge tree; copper nail and washer

1,031.302
1,005.16
T. 63 N., R. 30 W., near W. sixteenth cor. between secs. 22 and $27,90 \mathrm{ft}$.
 copper nail and washer
Rd. at fence E., 15 ft . N. and 20 ft . E. from, in root on $W$. side of hedge tree; copper nail and washer

1,027.75
T -rd. S., about 20 ft . N . and 87 ft . E. from, in root on S . side of $10-\mathrm{in}$. hedge tree; copper nail and washer

1,050.56
(Continued in Gentry quadrangle; see line 5.)
8. IN NORTHWEST CORNER OF QUADRANGLE
(Continued from Gentry quadrangle; see line 6.)
West Fork of Grand River; surface of water at 1:35 p. m: Dec. 23, 1935
844.4
(Continued in Stanberry quadrangle; see line 10.)
9. FROM MIDDLE OF WEST BORDER OF QUADRANGLE EAST TO FORD CITY (by J. Earl Brannan in 1935 and Charles E: Hunter in 1936) (Continued from Stanberry quadrangle; see line 10.)

Wooden box culvert, on SE. corner of $S$. end of; painted square प.S.C. \& G.S. standard disk stamped "X 711935 "

[^12]
## MAYSVILIE QUADRANGLE <br> (Latitude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; 1ongitude $94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime}$ )

DeKalb County


1. NEAR SOUTH BORDER OF QDADRANGLR EAST ALONG CHICAGO, BURLINGTON
\& QOINCY RAILROAD (by S. R. Archer in 1920)
(Continued from Gower quadrangle; see line l.)

Stewartsville, in front of Chicago, Burlington \& Quincy R.R. sta.; top of rail

Feot
Stemartsville, 0.4 ml . E. of, at Chicago, Burlington \& Quincy R.R. bridge
184.77, on top of $S$. end of parapet wall af E. abutment; chiseled square
T. 57 N., R. 32 W., in NW $1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .14$, 140 ft . S. and $60 \mathrm{ft} . \mathrm{W}$. from Chicago Burlington \& Quincy R.R. milepost marked "183 sections 49 and 507 , 80 ft . S. of fence, in field, in root on N . side of $36-1 \mathrm{n}$. cottonwood tree; copper nail and washer

1,018.42
T. $5^{\prime} 7 \mathrm{~N} .$, Ris. 31 and $32 \mathrm{~W} .$, line between secs. 13 and $18,50 \mathrm{ft}$. N. of Chicago, Burlington \& Quincy R.R. at rd. crossing. W. of rd., at fence corner; iron post stamped n $1920^{\circ}$ Mo $1058^{\circ}$
T. $57 \mathrm{~N} ., \mathrm{R}$. 31 W ., in NW $1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .17,850 \mathrm{ft}$. E. of Chicago, Burlington \& Quincy R.R. at rd. crossing, S. of track, on top of E. end of $S$. head wall of concrete bridge 180.42; chiseled square
(Continued in Plattsburg quadrangle; see line l.)
2. NORTH ALONG EAST BORDER OF QUADRANGLE (by R. B. Steele in 1922)
(Continued from Winston quadrangle; see line 7.)
T. 57 N., R. 30 W., N. quarter cor. sec. 3, SE. of T-rd. S., on top of S. end of stone culvert; chiseled square
T. 58 N., R. 30 W., N. sixteenth cor. sec. 34 , NE. of T-rd. S., in root on $S$. side of 12-in. hackberry tree; copper nail
T. $58 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} .$, center of $\mathrm{S} 1 / 2 \mathrm{sec} .27,75 \mathrm{ft}$. W. of.T-rd. S., N. of rd., l ft. S. and 6 ft . W. from fence corner, in concrete post; standard tablet stamped "11 R S $1922 \mathrm{Mo}^{\prime \prime}$
Reference mark, 35 ft . S. of tablet, in root of $10-1 \mathrm{n}$. hackberry tree; copper nail
T-rd. surface of ra.
T. 58 N., R. 30 W., N. sixteenth cor, between secs: 27 and 28 , NE. of rd. comer from E.-N., at gate to barnyard, on top of $E$. end of pipe culvert; chiseled mark.
T-rd.; surface of rd.
T. $58 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W}$. , quarter cor . between secs. 21 and $28,120 \mathrm{ft}$. S. of rd; corner from E.-N., on SW. steel pier of Owens Bridge over Grindstone Creek; top of bolt head
848.06

Quincy, Omaha \& Kansas City R.R. at rd. crossing; top of E. rail and 90 ft . E. from rd. crossing, 3 ft . $S$. of fence corner, in concrete post; standerd tablet stamped "i2 R S $1922 \mathrm{Mo}^{\prime \prime}$
Reference mark, $64 \mathrm{ft} . \mathrm{N} .22^{\circ} \mathrm{W}$. of tablet, on concrete base of fence posty chiseled square
quincy, Omaha \& Kansas Gity R.R. at private rd. crossing; top of W. rail
T. 58 N., R. 30 W., near E. sixteenth cor. between secs. 9 and $16,55 \mathrm{ft}$. S. and 95 ft . E. from Quincy, Omaha \& Kansas City R.R. at rd. crossing, in root on $N$. side of $36-1 n$. oak tree; copper nail
(For balance in Winston quadrangle, see line 7.)
T. $58 \mathrm{~N}, \mathrm{R}, 30 \mathrm{~W} ., \mathrm{N}$, sixteenth cor. sec. 3 , NW. of T-rd. N., $24 \mathrm{ft} . \mathrm{N}$. and 16 ft . W. from ferice corner, in concrete posti standard tablet. stamped "13 R S 1922 Mo" (Moved; new elev. 853.328)

| Reference mark, NE. of tablet, on top of $E$. head wall of concrete culvert; chiseled square | Feet |
| :---: | :---: |
| T-rd.; surface of rd. | 851.39 827.6 |
| Bridge over Lost Creek; center of | 818.4 |
| Lost Creek, under bridge; surface of water at 9 a. m. June 21, 1922 | 796.8 |
| Top of hill; S. end of box culvert | 888.5 |
| T. 59 N., R. $30 \mathrm{~W} .$, in $\mathrm{SW} 1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .27$, SW. of rd. fork. SW., in root |  |
| on E: side of 42-in. elm tree; copper nail | 892.83 |
| T-rd. W.; surface of rd. | 880.6 |
| T. 59 N., R. 30 W., near quarter cor between secs. 22 and 27.20 ft . N. |  |
| and 50 ft . E. from Chicago, Rock Island \& Pacific Ry. at razorossing, on top of N. end of $36-1 \mathrm{n}$. iron pipe culvert; chiseled mark.: |  |
| (For balance in Winston quadrangle, see line 7. ) | 901.20 |
| Rd. corner from E.-N.; surface of rd. | 920.2 |
| Top of hill, opposite cemetery; surface of rd. | 910.0 |
| T. 59 N., R. 30 W., near quarter cor. between secs. 10 and 15, SE. of |  |
| T-rd. E., on top of E. head wall of concrete culvert; chiseled square | 827.24 |
| Top of hill; surface of rd. | 901.1 |
| Top of hill; surface of rd. | 911.6 |
| T. 59 N., R. 30 W., quarter cor. between secs. 3 and 10 , N. of T-rd. S., |  |
| E. of gate, at fence corner, in root on S. side of 6-in. hedge tree; copper nall | 887.46 |

(Continued in Winston quadrangle; see line 7.)

> 3. FROM NORTH BORDER OF QUADRANGLE SOUTHEAST TO MAYSVILLE, THENCE SOUTH AND WEST TO WEST BORDER (by I. F. Ha telwood in 1923) (Continued from Darlington quadrangle; see line 2.)
T. 60 N., R. 31 W., quarter cor. between seca. 29 and $30,28 \mathrm{ft}$. NW. of crossroads, on top of iron pipe culvert; chiseled cross
T. 59 N., R. 31 W., N. cor. secs. 5 and $6,28 \mathrm{ft}$. SE. of T-rd. S., 6 ft . SE. of corner of hedge fence; in enclosure, in concrete post; standard tablet

1,010.207
T. 59 N., R. 31 W., cor secs. $5,6,7$, and $8,75 \mathrm{ft}$. SE. of crossroads, on NW. corner oof concrete porch of Mount Hope School; chiseled square T. 59 N., R. 31 W., S. sixteenth cor. between secs. 7 and 8, 25 ft . NE. of crossroads, on W. side of concrete base of corner fence post; chiseled square
985.10
T. $59 \mathrm{~N}_{\mathrm{m}}, \mathrm{R}$. 31 W, cor secs. $8,9,16$, and $17,15 \mathrm{ft}, \mathrm{S}$. and 50 ft . W. from T-rd. N., in concrete post; standard tablet.
T. $59 \mathrm{~N} ., \mathrm{R}$. $31^{\prime} \mathrm{W} .$, cor. secs. 9,10 , 15 , and $16,13 \mathrm{ft} . \mathrm{S}$. and 70 ft . E. from crossroads, in root on $N$. side of $20-1 n$. oak tree; copper nail and washer
924.03
891.029
T. 59 N., R. 31 W., cor. secs. $10,11,14$, and $15,20 \mathrm{ft} . \mathrm{S}$. and 15 ft . E. from crossroais, on top of E. side of concrete culvert; chiseled square
895.61
T. 59 N., R. 31 W., cor. secs. $14,15,22$, and $23,17 \mathrm{ft}$. N. and 52 ft . E. from T-rd. E., in concrete post; standard tablet

Reference mark, 14 ft . E. of tablet, in root on W. side of 18-in. maple tree; copper nail and washer
T. 59 N., R. 31 W., 200 ft . W. of cor secs. $22,23,26$, and 27 , on top of $S$. wing wall of concrete culvert; chiseled square
866.62
863.866
863.83
T. 59 N., R. 31 W., quarter cor between secs. 26 and 27, 30 ft . SE. of T-rd. E. (? S.), on concrete base of corner fence post; chiseled square
897.07
T. 59 N., R. 31 W., 350 ft. N. of cor. secs. $26,27,34$, and 35 , on top of E.wing wall of concrete culvert; chiseled square
931.06

Maysville, in SE, corner of courthouse yard, 25 ft . N. and 26 ft . W. from SE. corner of border curbing, 3 ft . S. of flagpole, in concrete post; standard tablet
Reference mark, 4 ft . N. of tablet, in concrete base of flagpole; chiseled square
Maysville, 160 ft . N. and 70 ft . E. from Chicago, Rock Island \& Pacific Ry. sta., at SE. corner of street intersection, on top of S. end of concrete culvert; chiseled/square
Maysville, in front of Ohicago, Rock Island \& Pacific Ry, sta. f: top of N. rail of main track
T. 58 N., R. 31 W., in NW $1 / 4 \mathrm{NE} 1 / 4$ sec. 10 , 30 ft . SW . of T-rd. W., on concrete base of corner fence post; chiseled square
879.89
974.268
974.69
T. 58 N., R. 31 W., E. sixteenth cor. between secs. 10 and $15,15 \mathrm{ft} . \mathrm{S}$. and 30 ft . W. from T-rd. W., on top of $S$. end of concrete culvert; chiseled square
901.75
899.6
950.90
T. $58 \mathrm{~N} ., \mathrm{R} .31 \mathrm{~W} ., 0.2 \mathrm{mi}$. W. of cor. secs. $14,15,22$ and 23 , 50 ft .

SW. of junction of T-rd. W., in tiop of concrete post; standard tablet
T. 58 N., R. 31 W., cor, secs, $16,17,20$, and $21,27 \mathrm{ft}$. NW. of crossroads, on top of $E$. wing wall at $N$. end of concrete culvert; chiseled square
T. 58 N., R. 31 W., cor. secs. $20,21,28$, and $29,27 \mathrm{ft}$. NW. of crossroads, in concrete post; standard tablet

1,002.21
T. 58 N., R. 31 W., cor . secs. $19,20,29$, and $30,27 \mathrm{ft}$. NE. of crossroads, in root on $S$. side of 22-in. cottonwood tree; copper nail and washer
T. 58 N., R. 32 W., E. cor. secs. 24 and $25,40 \mathrm{ft}$. SW. of Thrd. W. at crossroads, on top of concrete sewer; chiseled square
T. 58 N., R. 32 W., cor. secs. 23 , 24,25 , and $26,200 \mathrm{ft}$. W. of T-rd. S., on top of $N$. wing wall of concrete culvert; chiseled square
T. 58 N., R. 32 W., quarter cor. between secs. 23 and $26,20 \mathrm{ft}$. W. of T-rd. N., N. of rd., in root on S. side of $36-1 \mathrm{n}$. maple tree; copper nail and washer
T. 58 N., ${ }^{\circ}$ R. 32 W., cor. secs. $22,23,26$, and. $27,40 \mathrm{ft}$. NW. of crossroads, 3 ft . N. of fence, in concrete post; standard tablet

Feet
985.34

1,035.763
1,005.12
. $58 \mathrm{~N} ., \mathrm{R}_{\mathrm{o}} 32 \mathrm{~W} ., \mathrm{W}$. sixteenth cor. between secs. 22 and $27,18 \mathrm{ft}$. NW of T-rd. N.; top of $W$. end of iron pipe culvert;
4. NORTH NEAR MIDDLE OF WEST BORDER OF QUADRANGLE (by W. R. Broaddus 17: 1923)
(Continued from Clarksdale quadrangle; see line 1.)
T. 58 N., R. 32 W., quarter cor. between secs. 16 and 21 , opposite T-rd. S., in fence line, in root on S. side of $30-1 n$. cottonwood tree; copper naíl and washer
979.42

1,004.00
988.869
985.04
$1,012.25$
954.19
(Continued in Clarksdele quadrangle; see line l.)

## PLATISBURG QUADRANGLE <br> (Latitude $39^{\circ} 30^{\prime}-39^{\circ} 45^{\prime}$; longitude $94^{\circ} 15^{\prime}-94^{\circ} 30^{\prime}$ )

Clinton and DeKalb Counties


1. NEAR NORTH BORDER OF QUADRANGLE EAST ALONG CHIGAGO, BURLINGTON \& QUINCY RAILROAD (by S. R. Archer in 1920)
(Continued from Maysville quadrangle; see line 1.)
T. 57 N., R. 31 W., in $S 1 / 2$ sec. 16 , at Chicago, Burlington \& Quincy R.R. bridge 179.10 over Little Platte River, on top step of wing wall at $S$. end of E. abutment; chiseled square

1,009.77
T. 57 N., R. 31 W., about 0.1 mi. N. of cor. secs. $15,16,21$, and 22 , 75 ft . S. of Chicago, Burlington \& Quincy R.R. at rd. crossing, W. of rd., 25 ft . S. of fence corner, in root on NE. side of 6-in. eim treeg copper nail and washer

1,040.79
0 sborn, $1,000 \mathrm{ft}$. W. of Chicago, Burlington \& Quincy R.R. sta., 60 ft . S. and 25 ft . E. from rd. crossing, 5 ft . S. and 2 ft . W. from fence corner; iron post stamped "Prim Trav Sta No 31913 Mo 1035 "
$1,034.527$
Osborn, at Chicago, Burlington \& Quincy R.R. sta., N. of track, in front of operator's window, on top of N . side of concrete base of semaphore; chiseled square
T. $57 \mathrm{~N} ., \mathrm{R} .31 \mathrm{~W} .$, in $\mathrm{NW} 1 / 4$ sec. 24 , 150 ft . SE., thence 60 ft . N. from signboard marked "Osborn", N. of track, 8 ft . N. and 5 ft . W. from fence corner, 12 ft . NW. of SW . corner of jard, in root on S . side of 12-1n. pine tree (tenth one from W. end of row of pine trees); copper nail and washer
T. 57 N., R. $30 \mathrm{~W} .$, in $\mathrm{W} 1 / 2 \mathrm{sec} .19$, at Chicago, Burlington \& Quincy R.R. bridge 175.37 over Grindstone Creek, on top of $S$. end of parapet wall of $E$. concrete abutment; chiseled square
T. 57 N., R. 30 W. , near quarter cor. between secs. 19 and 20 , NW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, at fence corner; 1ron post stamped "1920 Mo 991"

### 962.03

990.561
T. 57 N., R. 30 W., on line between secs. 20 and $21,200 \mathrm{ft}$. W. of Chicago, Burlington \& Quincy R.R. at rd. crossing, S. of track, on top of NE. corner of concrete base of semaphore; chiseled square
T. 57 N., R. 30 W , near center sec. 21 , NW. of crossing of Chicago, Burlington \& Quincy R.R. and Chicago, Rock Island \& Pacific Ry., in front of interlocking booth, 2 ft . E of center of octagon concrete base of interlocking elbow; chiseled square
(Continued in Polo quadrangle; see line 1.)

## 2. SOUTH NEAR MIDDLE OF EAST BORDER OF QUADRANGLE (by R. B. Steele and J. M. Rawls in 1922)

T. 56 N., R. 30 W., center sec. $34,20 \mathrm{ft}$. N. and 30 ft . W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 34 S 1921 Mo 22 R S 1922"
Reference mark, 50 ft . N. $85^{\circ}$ E. of tablet, on concrete base of highway signpost; chiseled square
$1,033.785$

Tps. 55 and $56 \mathrm{~N} ., \mathrm{R} .30 \mathrm{~W} ., \mathrm{N}$. quarter cor. sec. $3,16 \mathrm{ft} . \mathrm{N}$. and 2 ft . W. from T-rd. S., 10 ft . E. of telephone pole, on top of stone; chiseled square

1,034.69
T. 55 N., R. 30 W., quarter cor. between secs. 3 and 10 , E. of T-rd. W., on concrete base of highway signpost; chiseled square
Top of hill; surface of rd.
$1,031.32$
1,030.92
1,059.7
1,015.80

## 3. FROM MIDDLE OF EAST BORDER OF QUADRANGLE WEST AND SOUTHWEST TO PLATTSBURG, THENCE SOUTHEAST TO SOUTH BORDER (by W. R. Broaddus in 1923)

T. 56 N., R. 30 W., in W $1 / 2$ sec. 33 , near farmhouses on opposite sides of rd., 45 ft . S. of rd., 80 ft . NE. of farmhouse, in root on w. side of 18-in. pine tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R}$. 30 W ., near E. sixteenth cor. sec. $32,130 \mathrm{ft}$. W. of rd. forks, in top of SE. pier of bridge over Shoal Creek; boit head
T. 56 N ., R. $30 \mathrm{~W} .$, querter cor. between secs. 31 and 32 , N. of rd., 17 ft . SE. of corner post, in fence line in front of farmhouse, 6 ft . W. of telephone pole, in concrete post; standard tablet stamped "B 1923 Mo ${ }^{n}$
Reference mark, 50 ft . N. of tablet, in root on SE. side of $30-1 \mathrm{n}$. boxelder tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{Rs}$. 30 and 31 W. , quarter cor. between secs. 31 and $36,20 \mathrm{ft}$. S. and 75 ft . E. from T-rd. E., in fence line in front of farmhouse, in root on E. side of $24-1 n$. ash tree; copper nail and washer
Turney, at S. Iimits of, 150 ft . N. of S. end of Main Street, W. of street, on NW. corner of sidewalk at dwelling of A. D. Todd; chiseled square
T. 56 N. , R. $31 \mathrm{~W} .$, cor. secs. $25,26,35$, and $36,12 \mathrm{ft}$. N. and 40 ft . E. from rd. corner E.-S. 3 ft . E. of telephone pole, in concrete post; standard tablet stamped "B 1923 Mo "
Reference mark, 28 ft . N. $50^{\circ} \mathrm{E}$. of tablet, in root on NW. side of $30-\mathrm{in}$. elm tree; copper nail and washer

1,004.679
1,005.08

1,036.45
$1,034 \cdot 56$
998.361
995.00

Tps. 55 and $56 \mathrm{~N} ., \mathrm{R}$. 31 W. , cor. secs. $1,2,35$, and $36,20 \mathrm{ft}$. N. and 15 ft . E. from T-rd. W., in root on W. side of $24-1 \mathrm{n}$. maple tree; copper nail and washer

1,037.02
T. $56 \mathrm{~N} ., \mathrm{R}$. $31 \mathrm{~W} ., \mathrm{S}$. quarter cor. sec. $34,125 \mathrm{ft} . \mathrm{N}$. and 25 ft . W. from T-rd. N., 6 ft . W. of fence, in root on E. side of $36-1 \mathrm{n}$. black-oak tree; copper nail and washer
969.72

Tps. 55 and $56 \mathrm{~N} ., \mathrm{R}$. 31 W ., approximate cor, secs. 3, 4, 33, and 34, 25 ft. S. and 55 ft . W. from T-rd. S., 4 ft . S. of wire fence, in concrete post; standard tablet stamped "B iǵ $23 \mathrm{Mo}^{4}$
Reference mark, 45 ft . W. of tablet, in root on S . side of $24-1 \mathrm{n}$. cottonwood tree; copper nall and washer
Little Platte River, under bridge; surface of water at 9 a. m. June 22, 1923
Tps. 55 and $56 \mathrm{~N} ., \mathrm{R}$. $31 \mathrm{~W} ., 270 \mathrm{ft}$. E. of approximate cor. secs. 4,5 , 32, and 33, at dwelling of T. S. Newby, on N. end of concrete walk; chiseled square
974.900
973.39
914.4
987.62

Tps. 55 and 56 N., R. 31 W., approximate quarter cor between secs. 5 and 32, W. of Jefferson Highway at rd. E., on top near S. end of W. head wall of concrete culvert; chiseled square
997.42
T. 55 N., R. 31 W., approximate E. sixteenth cor. between secs. 6 and 7 , W. of Jefferson Highway at rd. E., 7 ft . SW. of corner post, in concrete post; standard tablet stamped "B 1923 Mo "
Reference mark, 307 ft . S. $3^{\circ} \mathrm{E}$. of tablet, on top near s . end of W . head wall of concrete culvert; chiseled square
967.075
T. $55 \mathrm{~N} .$, Rs. 31 and 32 W. , on line between secs. 7 and 12 , W. of Jefferson Highway at curve from NE.-S., 35 ft . S. of fence line, in S. side of 18-in. box-elder tree; spike
T. $55 \mathrm{~N} .$, R. $32 \mathrm{~W} ., \mathrm{N}$. sixteenth cor. sec. 13 , 180 ft . E. of curve in Jefferson Highway at rd. N., N. of highway, on N. head wall of small culvert; chiseled square

Plattsburg, at W. side of courthouse, 10 ft . N. of front entrance, 3 ft .
above sidewalk, in side of stone base of pillar; standard tablet stamped "В 1923 Mo"
Reference mark, $18 \mathrm{ft} . \mathrm{S}$. of tablet, on top of curb; chiseled square
plattsburg, at SE. Ilmits of, near N, edge of Green Lawn Cemetery, at SE. corner of T-rd. S.; top of $E$. end of iron pipe culvert
Little Platte River, under bridge; surface of water at $3 \mathrm{p} . \mathrm{m}$. June 26, 1923

Feet
952.436
950.11
915.99
852.7
911.838
911.31

1,022.15
1,006.12
$1,046.187$
1,042.87

## 4. IN SOUTHEAST CORNER OF QUADRANGLE

T. 54 N., R. 30 W., E. sixteenth cor. between secs. 5 and 8, $15 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from rd. corner E. $-\mathrm{N} ., 35 \mathrm{ft}$. N. of Atchison, Topeka \& Santa Fe Ry.; iron post stamped "Prim Trav Sta No 59 S 1921"
$1,020.815$
Reference mark, 268 ft . E. of post, in root on NW. side of 24-in. maple tree; copper nall and washer
. 54 N., R. 30 W., W. sixteenth cor. between secs. 4 and 9 , about 25 ft . S. and 190 ft . E. from T-rd. S., in root on S. side of $18-1 \mathrm{n}$. walnut tree; copper nail and washer

1,049.79
T. 54 N., R. 30 W., cor. secs. 3, 4, 9, and 10 , SW. of T-rd. S; top of W. end of iron pipe culvert
(Continued in Polo quadrangle; see line 9.)

## 5. SOUTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE <br> (Oontinued from Gower quadrangle; see line 3.)

T. 56 N., R. 32 W., 600 ft . W. of N. sixteenth cor. between secs. 3 and 4, at SE. corner' of T-rd. S., 10 ft . S. and 3 ft . E. from fence corner, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{1}$
Reference mark, l22 ft. S. of tablet, in root on E. side of $6-1 \mathrm{n}$. elm tree; copper nall and washer
T. 56 N., R. 32 W., cor. secs. 3, 4, 9, and $10,80 \mathrm{ft.S}$. of T-rd. E. and private lane W., W. of rd., at NE. corner of farmyard, in root on SE. side of 12-1n. box-elder tree; copper nail and washer
T. 56 N., R. 32 W., quarter cor. between secs. 9 and $10,160 \mathrm{ft}$. N. of crossroads, W. of rd., 8 ft . W. of fence, in SE. side of $36-1 \mathrm{n}$. elm tree; spike
T. 56 N., R. $32 . W ., 80 \mathrm{ft}$. N. of N. sixteenth cor. between secs. 15 and $16,15 \mathrm{ft}$. E. of rd., in root on W. side of $30-\mathrm{in}$. locust tree; copper nail and washer
T. 56 N., R. 32 W., cor. secs. $15,16,21$, and $22,45 \mathrm{ft}$. NW. of crossroads, 2 ft . SW . of $8-1 \mathrm{n}$. elm tree, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\text {" }}$
Reference mark, 119 ft . S. $25^{\circ} \mathrm{E}$. of tablet, in root on NE. side of $16-1 \mathrm{n}$. maple tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W}$. , quarter cor. between secs. 21 and $22,155 \mathrm{ft}$. E. of crossroads, in fence line $N$. of rd., in SW. side of 27-in. elm tree; spike
T. 56 N., R. 32 W., cor. secs. $21,22,27$, and $28,45 \mathrm{ft}$. W. of T-rd. E., in line with fence $N$. of rd., in root on E. side of 30-in. blackoak tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R}$. 32 W. , quarter cor. between secs. 27 and $28,240 \mathrm{ft}$. W. of T-rd. N., N. of rd., on E. end of $N$. wing wall of concrete culvert; chiseled square
T. $56 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, near center sec. $28,450 \mathrm{ft} . \mathrm{W}$. of rd. at private lane $S$., at $W$. end of small curve in $r d_{.}$, on $E$. end of $N$. wing wall of concrete culvert; chiseled square
(Continued in Gower quadrangle; see line 4.)

[^13]Buchanan, Clinton, DeKalb, and Platte Counties


## 1. NEAR NORTH BORDER OF QUADRANGLE EAST ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD (by S. R. Archer in 1920) <br> (Continued from Dearborn quadrangle; see line 2.)

T. 57 N., R. 34 W., near center sec. $29,300 \mathrm{ft}$. W. of T-rd. S., N. of
rd., on top of $E$. end of $N$. head wall of concrete bridge over creek; chiseled square

Feet 859.48
T. 57 N., R. 34 W., near center sec. 28 , NE. of rd. corner from W.-S., on top near $S$. end of K . head wall of concrete culvert; chiseled square
T. 57 N., R. 34 W., in $\mathrm{W} 1 / 2$ sec. 27 , at W. abutment of Chicago, Burlington \& Quincy R.R. bridge over Platte River, 8 ft . below track in top of N. end of bridge seat; standard tablet stamped "1920 Mo 835"
T. 57 N., R. 34 W., on line between secs. 26 and $27,200 \mathrm{ft}$. W. of Chicago, Burlington \& Quincy R.R. at rd. crossing; in s. fence ine, in root on W. side of 24 -in. locust tree; copper nail and washer
T. 57 N., R. 34 W. , near center of $\mathrm{SE} 1 / 4 \mathrm{sec} .26$, at Ohicago, Burlingiton \& Quincy R.R. bridge over Third Fork of Platte River, on top of E. end of $S$. wing wall of E. stone abutment; chiseled square
838.51
834.193
. $57 \mathrm{~N} ., \mathrm{R}$. 34 W ., near center of $\mathrm{SW} 1 / 4 \mathrm{sec}$. $25,50 \mathrm{ft}$. NB. of Chicago, Burlingtion \& Quincy R.R. at rd. crossing, at concrete bridge 195.29 over James Branch, on top of 3 . end of parapet wall of $W$, abutment; chiseled square
Easton, 0.5 mi. W. of, near center of SW $1 / 4$ sec. 30 , T. 57 N., R. 33 W., NW. of Chicago, Buringgton \& Quincy R.R. at rd. crossing, W. of fence cormer, in fence line; iron post stamped " 1920 Mo 903 "
$835 \cdot 72$
839.55

Easton, at Chicago, Burlington \& Quincy R.R. sta., in front of operator's window, $N$. of track, on top of SW. corner of concrete base of semaphores chiseled square
T. $57 \mathrm{~N} ., \mathrm{R}$. 33 W ., in NE $1 / 4 \mathrm{sec}$. 32 , at Ohicago, Burlington \& Quincy R.R. stone culvert, on top of B . ond of N. head wall; chiseled square
T. 57 N., R. $33 \mathrm{~W} .$, in $\mathrm{SW} 1 / 4 \mathrm{NE} 1 / 4$ sec. 33, SE. of Chicago, Burlington \& Quincy R.R. at rd. crossing, inside of fence corner; iron post stamped "1920 Mo 1006"
T. 57 N., R. $33 \mathrm{~W} .$, in N $1 / 2 \mathrm{sec} .34$, 150 ft . N. and 150 ft . W. from Chicago, Buriington \& Quincy R.R. at rd. crossing, 110 ft . N. of fence, in root on W. side of $24-\mathrm{in}$. cottonwood tree; copper nail and washer

1,027.19
T. 57 N., R. 33 W., near S. sixteenth cor. sec. $26,300 \mathrm{ft}$. SW. of Chicago, Buriington \& Quincy R.R. at rd. crossing, 350 ft . SW. of $T-r d$. W., on top of $E$. end of $N$. head wall of stone cuivert; chiseled square
Hemple, in front of Chicago, Burlington \& Quincy R.R. sta.; top of rail
Hemple, 160 ft. E. of Chicago, Burlington \& Quincy R.R. sta., SW. of N.-S. rd. crossing, in ine with rd. E., in fence corner; iron post stamped "1920 Mo 1035"
$1,040.6$
$1,034.299$
T. $57 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W}$. , in $\mathrm{NE} 1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .24,0.1 \mathrm{mi}$. SW. of Ohicago, Burlington \& Quincy R.R. at ra. crossing, 30 ft . N. of fence, in field, in root on NW. side of 24-in. cottonwood tree; copper nail and washer
T. 57 N., R. 32 W., near line between secs. 19 and $20,120 \mathrm{ft}$. N. and 100
$1,034.28$
ft. E. from Chicago, Burlington \& Quincy R.R. at rd. crossing, on N.
bank of drain, 20 ft . N. of fence, in root on NW. side of 24 -in. oak treeg copper nall and washer
989.74
T. $57 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W}$. , about 650 ft . E. of Chicago, Burlington \& Quincy R.R. at line between secs. 20 and 21 , on top of F . end of N . head wall of concrete bridge over draing chiseled square

Stewartsville, 0.2 mi. W. of Chicago, Burlington \& Quincy R.R. sta., 65
ft. SW. of rd. crossing, 45 ft. S. of track. 2 ft. from fence corner
ft. $S W$. of rd.crossing, 45 ft. S. of track, 2 ft. from fence corner;
Feet
iron post stamped "Prim Trav Sta No 21913 No 958"
(Continued in Maysville quadrangle; see line 1.)

> 2. SOUTH ALONG WEST BORDER OF QUADRANGLE (by M. J. Harden and W. R. Broadaus in 192j)
> (Continued from Dearborn quadrangle; see line 4.)
T. $56 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W}$, , near cor. secs. $17,18,19$, and $20,150 \mathrm{ft}$. NE. of St. Joseph Highway at ra. NE., on top of E. guard wail of concrete culvert $\%$ chiseled square
Agency, at. NW. Iimits of, 350 ft . S. of Atchison, Topeka \& Santa Fe Ry. at crossing of St. Joseph H1ghway, NW. of junction of rd. W., 18 ft . N. of SE. corner of yard of L: M. Farris, in concrete post; standard tablet stamped "H 1923"
Reference mark 1 , ábout 350 ft . S , of rd. crossing, at SE, corner of yard of L. M. Farris, in root of $18-1 n$. hard-maple trees copper nail and washer
Reference mark 2, 350 ft . S . of rd. crossing, NW. of junction of rd. W.; N. end of iron pipe culvert

Agency, at $S$, limits of, near N. sixteenth cor, sec. $29, \mathrm{~T}, 56 \mathrm{~N}$. , R. 34 W., NW. of T-rd. W., in Ratliff's yard; top of S. ond of retaining wail
Agency, $0.8 \mathrm{ml} \cdot \mathrm{S}$. of, near quarter cor: between secs. 29 and 32 , T. 56 N. . R. $34 \mathrm{~W} . \mathrm{SE}$. of T-rd. W.; S. end of tile oulvert

Agency, 1.2 mi . S. of, near center sec. $32, \mathrm{~T} .56 \mathrm{~N} \cdot, \mathrm{R} .34 \mathrm{~W} .$, at T-rd. E. 56 N. end of concrete culvert
T. $56 \mathrm{~N} ., \mathrm{R}$. 34 W. . S. quarter cor. sec. 32 , NE. of T-rd. N., $12 \mathrm{ft} . \mathrm{N}$. of fence corner, inside of fence, in concrete post; standard tablet stamped "H 1923 "
Reference mark, 19 ft . N. of tablet, in root of 20-1n. walnut tree; copper nail and washer
T. 55 N., R. 34 W., center sec. 5 , NW. of T-rd. W., 4 ft . W. of fence corner, in root of 4-in. olm trees copper nail and washer
T. 55 N., R. 34 W., S. sixteenth cor. sec. 5 , NE. of T-rd. E., on N. head wall of concrete culvert; ch1seled square
T. 55 N., R. 34 W. , near center sec. 8, SE. of crossroads; top of $E$. end of iron pipe culvert
T. 55 N., R. 34 W., near quarter cor between secs. 8 and $17,60 \mathrm{ft}$, SE . of rd. forks, in root of $36-1 n$. white-oak trees copper nail and washer
T. 55 N., R. 34 W., near center sec. 17 , in NE. corner of steel bridge over small creek; copper nail and washer
T. $55 \mathrm{~N} \cdot \mathrm{R}$. 34 W ., approximate quarter cor. between secs. 17 and 20 , 250 ft . W. of Sherwood School, 25 ft . E. of rd., 34 ft . N, of corner fence post, in concrete post; standard tablet stamped "H i923"
Reference mark, 34 ft . S. and 39 ft . E. from tablet, in root of $6-\mathrm{in}$. walmut treef copper nail and washer
T. 55 N, , R. $34 \mathrm{~W} .$, center sec .20 , NW. of $\mathrm{T}-\mathrm{rd} . \mathrm{N}$. ; top of W . end of concrete culvert
(For balance in Dearborn quadrangle, see line 4.)
T. 55 N., R. 34 W., in $N W 1 / 4$ sec. $32,150 \mathrm{ft}$. S. of crossroads, E. of ra., at $S W$. corner of yard of 0 . W. Stafford, about 4 ft . inside of fence, in concrete post; standard tablet stamped "H 1923"
Reference mark, 100 ft . S. of crossroads, E. of rd., in l2-in. locust tree, copper nail and washer
Tps. 53 and $54 \mathrm{~N} . \mathrm{N}^{2} \mathrm{R} .34 \mathrm{~W}$., on line between secs. 5 and $32, \mathrm{SW}$. of T-rd. N.: top of vertical rock
$1,053.164$
1,052.87
1,043.13

## 3. FROM NORTHEAST CORNER OF QUADRANGLE SOUTH ABOUT 3 MILES (by W. R. Broaddus in 1923)

T. 57 N., R. 32 W., center of SW $1 / 4$ sec. $21,610 \mathrm{ft}$. S. of T-rd. W., 60 ft. N. of private lane SE., E: of rd., 15 ft . E. of fence, in root on W. side of $12-1 n$. maple trees copper nail and washer

1,023.30
T. $57 \mathrm{~N}_{\text {. }}$ R. 32 W ., near W. sixteenth cor. se0. 28 , 100 ft . N. of T-rd.
E., SW. of T-rd. W.f top of S. end of iron plpe culvent

1,018.14
T. 57 N., R. $32 \mathrm{~W} .$, cor. secs. $28,29,32$, and 33 , SW. of T-rd. S., in inne with $S$. fénce line of rd. E. 5 ft. W. of fence, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\prime \prime}$
983.941

Reference mark, 316 ft . W. of tablet, in root on SE. side of 30-in. elm tree; copper nail and washer
989.35
T. 57 N., R. $32 \mathrm{~W} .$, S. cor. secs. 32 and $33,220 \mathrm{ft}$. N. of T-rd. N., E. of ra., at SW. corner of farmyard, in root on W. side of 24-in. mapie tree; copper nail and washer
997.70
(Continued in Plattaburg quadrangle; see line 5.)
4. FROM POINT NEAR MIDDLE OF EAST BORDER OF QUADRANGLE WEST AND SOUTH BY WAY OF GOWER AND GRAYSON TO SOUTH BORDER
(Contimued from Plattsburg quadrangle; see line 5.)
T. 56 N., R. 32 W., quarter cor. between secs. 28 and 29, 70 ft . NE. of T-rd. S., 8 ft . S. of yard fence, in root on SE. side of $30-1 \mathrm{n}$. ilm tree; copper nall and washer
949.44
T. 56 N., R. 32 W., cor. seas. $28,29,32$, and $33,27 \mathrm{ft}$. W. of T-rd. W., N. of rd., near fence cornery Iron post stamped" "Prim Trav Sta No 1 $1913 \mathrm{Mo}{ }^{7}$
Reference mark, 20 ft . W. of post, in root on S . side of $18-1 \mathrm{n}$. maple tree; copper nail and washer
Peet
928.638
929.08
897.77
876.83
857.1
941.25
915.710
919.14
874.46
904.10
939.749
939.17
929.36
958.80
903.245
804.44
835.75
933.98
896.319
896.46
819.44
797.2
$877 \cdot 34$
887.029
887.51
931.39
930.62
956.62
992.365
993.07
946.98
$1,009.45$
and 100 ft . W. from T-rd. W., in root on E. side of 24-in. elm tree
copper nail and washer
rayson, near S. sixteent
rayson, near S. sixteenth cor. between secs, 35 and $36, \mathrm{~T} .55 \mathrm{~N}$. ,
R. 33 W., at store of Freeman and Stuart, in SE. cormer of concrete porohr standard tablet stamped "B 1923 MO "
Reference mark, 32 ft . S. $5^{\circ} \mathrm{W}$. of tablet, on S . head wall of concrete culvert; chiseled square
976.521
971.58
T. 54 N., R. 33 W., $180 \mathrm{ft} . \mathrm{N}$. and 50 ft . W. from cor. secs. $1,2,11$, and 12, on top of W. head wall of concrete culvert; chiseled square T. $54 \mathrm{~N} ., \mathrm{R}$. 33 W ., near center of $\mathrm{NE} 1 / 4 \mathrm{sec} .11,850 \mathrm{ft}$. S . of private lane E. to farmhouse, 75 ft . N. of fence, on top of W . head wall of concrete culvert; chiseled square

## 5. FROM GOWER NORTH TO EASTON

Gower, 0.5 mi . N. of N .11 mits of, quarter cor . between secs. 33 and 34 , T. $56 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W} ., 350 \mathrm{ft}$. W. of NW. corner of Antioch Oemetery, 260 ft. E. of crossroads, on SE. corner (17 in. above floor) of concrete bridge over Jenkins Branch; chiseled square
T. 56 N., R. 33 W., near center of NE $1 / 4 \mathrm{sec} .32$, 350 ft . NW. of rd. fork NE. 50 ft . SW. of rd., 30 ft . E. of farmhouse, in yard, in root on NE. side of 24-in. box $\rightarrow$ eider tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W} ., 150 \mathrm{ft}$. N. of cor. secs. $29,30,31$, and $32,550 \mathrm{ft}$. SE, of bridge over Malden Creek, SW. of junction of private lane S., 4 ft . SW. of fence corner, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\prime}$
Reference mark, $226 \mathrm{ft}: \mathrm{s} .80^{\circ} \mathrm{W}$. of tablet, in root on N . side of $36-\mathrm{in}$. locust tree; copper nall and washer
T. $56 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W} .$, center sec. $30,420 \mathrm{ft} . \mathrm{W}$. of rd. corner from S.-W., 400 ft . E. of T-rd. N., on top of S. head wall of concrete culverty chiseled square
T. $56 \mathrm{~N} ., \mathrm{R}$. 33 W ., quarter cor. between secs. 19 and 30 , about 290 ft . W. of rd. cormer from W.-N., on top of $N$. head wall of concrete culvert; chiseled square
T. 56 N., R. 33 W., quarter cor. between secs. 18 and 19. SW. of crossroads, 5 ft . SW . of fence comer, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\prime \prime}$
Reference mark, 113 ft . S. $30^{\circ} \mathrm{E}$. of tablet, in root on W. side of $20-1 \mathrm{n}$. locust tree; copper nail and washer
T. $56 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W} .$, near center sec. $18,100 \mathrm{ft}$. S. of crossroads, on E. wing wall of concrete culvert; chiseled square
T. $56 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W} .$, center sec. 7, NW. of T-rd. W., in E. side of l2-in. walnut tree; spike
T. 56 N., R. 33 W., near center sec. 6 , SW. of T-rd. W., 7 ft. SW. of fence corner, in concrete post; standard tablet stamped "B 1923 Mol
Reference mark, 384 ft . S . uf tablet, in root on N . side of $30-1 \mathrm{n}$. cottonwood tree; copper nall and washer
T. 57 N., R. 33 W., near center sec. 31 , halfway between Th-rd. E. and T-rd. W., on $N$ : end of $E$. wing wall of concrete culvert; chiseled square
Easton, 0.5 ml . W. of, near center of $\mathrm{SW} 1 / 4 \mathrm{sec} \cdot 30$. T. $57 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W} .$, NW. of Chicago, Burlington \& Quincy R.R. at rd. crossing, W. of fence córner, in fence line; iron post stamped "1920 Mo 903"
Reference mark, 32 ft . N. $80^{\circ}$ E. of post, in root on NW. side of $24-1 \mathrm{n}$. elm tree; copper nall and washer

## 6. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE 3.5 MILES NORTHEAST OF AGENCY (by T. G. Drummond in 1936)

U.S.C. \& G.S. standard disk stamped "G 73 1935"

Agency, 3.5 mi . NE. of, in $\mathrm{NW} 1 / 4 \mathrm{sec} .10, \mathrm{~T} .56 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} .$, about 20 ft. W. of E. abutment of present bridge cerrying $\mathrm{U} . \mathrm{S}$. Highway 169 over Platte River, in top of right corner of upstream end of E. abutment of former bridge; standard tablet (set by water-resources branch of $0 . S$. Geol. Survey)

[^14]
# CLARKSDALE QUADRANGLE <br> (Latitude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; long1tude $94^{\circ} 30^{\prime}-94^{\circ} 45^{\prime}$ ) <br> Andrew, Buchanan, and DeKalb Counties 



1. NORTH ALONG EAST BORDER OF QUADRANGLE (first 5 mi . leveled twice by W. R. Broaddus and I. F. Hazelwood in 1923, remainder leveled once by W. R. Broaddus in 192j.)
T. 57 N., R. $32 \mathrm{~W} .$, cor. secs. $8,9,16$, and $17,65 \mathrm{ft} . \mathrm{S}$. and $20 \mathrm{ft} . \mathrm{W}$ : from T-rd. W., in root on $E$. side of i8-in. wíld-cheriy tree; copper nail and washer
T. 57 N., R. 32 W., W. sixteenth cor, on N. 1 inge sec. 4. S. of T-rd. N.; iron post stamped "Prim Trav Sta No 62 S 1921 Mo"

Feet
1,018.83
T. $58 \mathrm{~N}, \mathrm{R}$. $32 \mathrm{~W} . \mathrm{W} . \mathrm{sixteenth}$ cor. between secs. 28 and $33,100 \mathrm{ft}: \mathrm{s}$. and 15 ft. W. from Thrd. E., 470 ft . N. of T-rd. W., in root on N. side of 18+1n. cottomwood tree; copper nall and washer.
T. 58 N., R. 32 W., near quarter cor, between secs: 21 and 28, about 225 ft . N. and 30 ft . W. Prom T-rd. N. 30 ft . SE. of Pleasant Grove Church, in concrete post: standard tablet stamped "B 1923 Mo "

1,035.607
1,030.04

1,005.274
Reference mark, 20 ft. NE. of tablet; F . end of concrete walk
$1,005.85$

## (For balanee in Maysville quadrangle, see line 4.)

Tps. 58 and $59 \mathrm{~N}, \mathrm{R}, 32 \mathrm{~W}$, cor. secs. $4,5,32$, and 33 , SW. of crossroads, 60 ft . s . and 60 ft . W. from corner post, in root on N. side of 18-in. black-oak tree; copper nail and washer
T. 59 N., R. 32 W ., cor. secs. $28,29,32$, and $33,50 \mathrm{ft} . \mathrm{s}$. and 25 ft : E. from crossroads, in concrete post; standard tablet stamped "Prim trav Sta No 643 1921 Mol'
Reference mark, 9 ft . S. $5^{\circ} \mathrm{W}$. of tablet, in root on NE. side of 12 in . locust tree; copper nali and washer
T. 59 N., R. 32 W., quarter cor. between secs. 28 and 29, SE. of T-rd. E., on NW, corner of concrete porch of schoolhouse; chiseled square
T. 59 N., R. 32 W , cor, secs. $20,21,28$, and 29 , NW. of T-rd. W., 25 ft. E. of farminouse, in root on E. side of $24-1 n$. maple trees copper nail and washer
944.88
966.473
967.05

1,002.65
T. 59 N., R. 32 W., W. sixteenth cor. between secs. 16 and 21 , NW. of THrd. N. 5 ft . NW, of fence corner, in concrete post; standard tablet stampea "B 1923 Mon
995.76

Reference mark, 93 ft. S. $60^{\circ}$ E. of tablet, in root on N. side of 24-in. elm trees copper nail and washer
T. $59 \mathrm{~N}, \mathrm{R}$. $32 \mathrm{~W} . \mathrm{W}^{2}$ sixteenth cor between secs. 9 and $16,45 \mathrm{ft} \cdot \mathrm{N}$. and 10 ft . W. from Thrd. S., In root on S. side of $24-1 n$. maple treet copper nall and washer
T. 59 N., R. $32 \mathrm{~W} .$, cor. secs. $4,5,8$, and $9,30 \mathrm{ft}$. N. and 30 ft . E. from crosaroads 6 ft . NE. of fence corner, in concrete post; standard tablet stamped "Prim Trat Sta No $65 \mathrm{~S} 1921 \mathrm{Mo}^{\prime \prime}$
Reference mark, 139 ft . N. $5^{\circ}$ W. of tablet, in root on E. side of 12-in. hedge treer copper nail and washer
Tps. 59 and $60 \mathrm{No}, \mathrm{R}$. 32 W, cor, secs. $4,5,32$, and $33,80 \mathrm{ft}$. S , of crossroids, 4 ft . W. of fonce F : of $\mathrm{rd}$. . in root on W . side of 42-in. cottomwood treet copper nail and washer
952.333
951.95
$1,037.75$
998.506

1,004.55
T. $60 \mathrm{~N}, \mathrm{R}^{2} 32 \mathrm{~W}$. cor secs. $28,29,32$, and $33,18 \mathrm{ft} . \mathrm{S}$. and 21 ft . E, from crossroads, in concrete post; atandard tablet stamped "B $1923^{\circ}$ Mo"
Reference mark, 40 ft . S. $15^{\circ} \mathrm{W}$. of tablet, in root on $N$. side of $18-\mathrm{in}$. maple tree; copper nail and washer
T. $60 \mathrm{~N} . \mathrm{R}$. 32 W . , near cor, secs. $20,21,28$, and $29,460 \mathrm{ft}$, S . of T-rd. E., on NE. wing wall of small concrete bridges chiseled square

## 2. NORTH ALONG WEST BORDER OF QUADRANGLE (by M. J. Harden in 2923) ( Continued from St. Joseph quádrangle; see line 1.)

T. 58 N. . R. 34 W. . W. sixteenth cor, between secs. 29 and 32,160 ft: NE. of arossroads, in front of schoolhouse in conorete poroh, chiseled square
T. 58 N., R. 34 W., W. sixteenth cor: between secs. 20 and 29, NE. of crossroads; top of E. end of iron pipe culvert
T. 58 N., R. 34 W., near W. sixteenth cor, between secs. 17 and 20,32 ft. N, and 69 ft . E. from Oak Ridge School, 120. ft. NW. of Reformed Church, in concrete post; standard tablet
Reference mark, 52 ft . STW. of tablet, on top of walk to school; chiseled square
T. $58 \mathrm{~N} ., \mathrm{R}$. $34 \mathrm{~W} .$, in NE $1 / 4 \mathrm{SW} 1 / 4 \mathrm{sec} .8$, SW. of T-rd. S. S top of W. end of iron pipe culvert
T. 58 N., R. 34 W., E. sixteenth cor: sec. 8; NE. of crossroads y top of E. end of iron pipe culvert
T. $58 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} ., \mathrm{E}$. sixteenth cor. sec. $5,23 \mathrm{ft}. \mathrm{N}$.and 49 ft . E. from crossroads, at top of embankment, inside fence, in concrete posty stendard tablet
Reference mark. NW. of crossroads, top of E. end of iron pipe culvert
T. 59 N., R. 34 W.; near quarter cor. between secs. 32 and 33 , SE. of T-rd. S., in root of 18-in. elm treef copper nail and washer
T. 59 N., R. 34 W., center sec. 33 , about 60 ft. SW. of Tird. N. near NW. corner of farmyard, in root of $10-1 n$. elm tree; copper nail and wásher
T. 59 N., R. 34 W. center sec. 28, SW. of crossroads; top of W. end of iron pipe culvert
T. 59 N., R. 34 W., center sec. 29 , on SW. corner of concrete steps of Long Branch Church; chiseled square
T. $59 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} .$, cor secs. $19,20,29$, and 30 , NW. of crossroads, 8 ft. W. of fence corner, in concrete post; standard tablet
Reference mark 1 , SW. of crossroads; top of W. end of iron pipe culvert Reference mark 2y NW. of crossrosds; top of W. end of iron pipe culvert T. 59 N., R. 34 W., cor. secs. $17,18,19$, and $20,135 \mathrm{ft} . \mathrm{E}$. of T-rd. S., on top of $N$. guardrail of concrete culvert; chiseled square
(filor balance in St. Joseph quadrangle, see line 1.)
T. 59 N., R. 34 W., in NE. cor. sec. 6, at bridge over small stream, on

1,002.58 top of $W$. end of S. guard wall; chiseled square
T. 60 N., R. 34 W., quarter cor. between secs: 31 and 32 , NW. of crossroads; top of $W$. end of iron pipe culvert

1,042.61
T. 60 N., R. 34 W., quarter cor. between secs. 29 and 30 , NW. of T-rd. W., at SE. corner of yard of Bedford Chapel, in concrete post; standard tablet
T. 60 N., R. $34 \mathrm{~W}, 0.0 .3 \mathrm{mi}$. E. of cor. secs. $19,20,29$, and 30 , on top of $N$. guard wall of concrete culvert; chiseled square

1,056.746
1,053.67
(Continued in Stanberry quadrangle; see line l.)

## 3. SOUTH THROUGH CENTER OF NORTH HALF OF QJADRANGLE, THENOE EAST TO EAST BORDER <br> (ćontinued from Stanberry quadrangle; see line 1.)

T. 60 N., R. 33 W., near cor. secs. $28,29,32$, and 33, j0 ft. NW. of crossroads; top of limestone boulder

1,030.59
Tps , 59 and $60 \mathrm{~N}, \mathrm{R}$. 33 W ., cor. secs. $4,5,32$ and $33,20 \mathrm{ft}$. N. and 11 ft. E. from crossroads, in concrete post; standard tablet
Reference mark, 270 ft . N. of crossroads, on top of W . guard wall of concrete culvert; chiseled square
T. 59 N., R. 33 W., cor. secs. $4,5,8$, and 9, NE. of crossroads, on cop of limestone boulder used as N. guard wall of small culvert; chiseled square

1,003.49
T. 59 N., R. 33 W., cor. secs. $16,17,20$, and $21,24 \mathrm{ft}$. s . and 27 ft . W. from crossroads, inside fence, in concrete post; standard tablet

Reference mark, SE. of crossroads; at NW, corner of farmyard, in root of 12-1n. maple tree; copper nail and washer
T. 59 N., R. 33 W., N. sixteenth cor between secs. 28 and $29,60 \mathrm{ft}$. NW. of T-rd. N. in root of 12-in. wild-cherry trees copper nail and washer
T. 59 N., R. 33 W., quarter cor between secs. 29 and 32 , NE. of crossroads, at $S W$. corner of yard of Franklin School, in concrete post, standard tablet

1,051.904
1,052.22
1,001.67

Reference mark, 46 ft . N. of tablet, in root of $16-\mathrm{in}$. black-oak tree;
copper nail and washer 11 ., approximate quarter cor, between secs. 5 and
978.965 977.87 32. 10 ft . W. of S . end of wooden bridge over small stream; in root of 30-1n. white-oak tree; copper nail and washer
960.04
T. 58 N. R. 33 W., quarter cor. between secs. 5 and 8 , NW. of T-rd. N., about $800 \mathrm{ft}^{\prime}$. SW. of Bethel Churoh; top of $w$. end of iron pipe culvert
T. 58 N., R. 33 W., near E. sixteenth cor. between secs. 8 and 17. SW. of crossroads, inside fencé, in concrete post; standard tablet
Reference mark, 63 ft . NE. of tablet, on top of SW . side of concrete base of corner post; chiseled square
T. 58 N., R. $33 \mathrm{~W} .$, approximate cor. secs. 9, 10 , 15 , and 16 , at N.-S. jog in E. W. rd., in root of 10 -in. elm tree; copper nail and washer
T. $58 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W}$., on 1 ine between secs. 11 and 14 , about 50 ft . S. of T-rd. S., W. of rd., in root of 24-in. white-oak trees copper nail and washer
T. 58 N., R. 33 W., W. sixteenth cor. between secs. 12 and 13, N. of T-rd. S., in concrete post; standard tablet
967.04

1,023.978
1,020.26
894.66

1,003.69
1,002.295

Reference mark, 16 ft . W. of tablet, in root of 24 -in. maple tree; copper nail and washer
T. $58 \mathrm{~N} ., \mathrm{Rs}, 32$ and 33 W. , approximate cor, secs. $7,12,13$, and 18 , SE. of crossroads, on top of concrete base of corner fence post; chlseled square
T. 58 N., R. 32 W., near W. sixteenth cor. between secs. 8 and 17 , SW. of T-rd. S., on top of $S$. end of concrete culvert; chiseled square N., R. 32 W., near W. sixteenth cor. between secs. 9 and 16 ,

For an additional level Iine along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey secondorder line, Darlington to St. Joseph.

STANBERRY QUADRANGLE
(Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime} ;$ Iongitude $94^{\circ} 30^{\prime}-94^{\circ} 45^{\prime}$ ) Andrew, DeKalb, Gentry, and Nodaway Counties


1. EAST ALONG WEST PART OF SOUTH BORDER OF QUADRANGLE (by M. J. Harden in 1923)
(Oontlnued from Clarksdale quadrangle; see line 2.)
T. 60 N., R. 34 W., cor. secs. $16,17,20$, and $21,20 \mathrm{ft}$. W. of T-rd. E., 3 ft : from fence, in concrete post; standard tablet stamped nPrim Trav Sta No 6 Mac 1923"
T. 60 N., R. 34 W., near cor. secs. $15,16,21$, and $22,30 \mathrm{ft}$. N. of T-rd. S., in root of 8-in. box-elder tree; copper nail and washer
T. 60 N., R. 34 W., in SE. cor. sec. 15 , at SE. corner of bridge over Platte River, on top of rock pier; chiseled square

1,016.450
T. 60 N., R. 34 W., S. sixteenth cor. between secs. 13 and $14,26 \mathrm{ft}$. $N$. and 25 ft . W. from $T \rightarrow r d$. W., in top of $N$. head wall of concrete culvert; standard tablét stamped "Rrimi Trav sta No 5 Mac 1923".
Reference mark, 60 ft . S. of $T+\mathrm{rd}$. W., on top of $W$. end of concrete culvert; chiseled square
T. 60 N., R. 34 W., quarter cor. between secs. 13 and 24 , NW. of T-rd. N., near T-rd. S.; top of N . end of iron pipe culvert
T. 60 N., R. $33 \mathrm{~W} .$, quarter cor. between secs. 18 and 19 , about 100 ft . W. of crossroads, S. of rd., in root of 10 in. elm tree; copper nail and washer
T. $60 \mathrm{~N}, \mathrm{~g}$. $33 \mathrm{~W} .$, cor secs. $16,17,20$, and 21 , SE. of crossroads; top of E. end of iron pipe culvert
T. $60 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W}$, cor, secs. $16,17,20$, and $21,870 \mathrm{ft}$. E. of crossroads, 15 ft . S . of $\mathrm{rd}$. in conorete post: standard tablet stamped "Prim Trav Sta No 4 Mac 1923"
Reference mark, about 300 ft . W. of tablet, in root of $30-1 \mathrm{n}$. ash trees copper nall and washer
(Contimued in Clarksdale quadrangles see line 3.)
2. WEST ALONG EAST HALF OF SOJTH BORDER OF QUADRANGLE (by W. K. Broaddus in 1923)
T. 60 N., R. $32 \mathrm{~W} .$, cor secs. $16,17,20$, and 21, NE. of crossroads, 47 ft. N. $70^{\circ} \mathrm{E}$. from $\mathrm{N}_{\text {. end }}$ of tile culvert. In concrete post; standard tablet stamped "Prim Trav Sta No 66 S 1921 Mo "
Reference mark, 47 ft . $\mathrm{S} .70^{\circ} \mathrm{W}$. of tablet, on top of N , end of tile; chiseled square

1,026.43
929.54

Feet
1,003.20
938.7
T. 60 N., R. 32 W., cor. secs. $17,18,19$, and $20,175 \mathrm{ft}$. W. of cross-' roads, $N$. of rd., 2 ft . N. of fence, in root on $N$. side of l2-in. elm tree; copper nail and washer
T. $60 \mathrm{~N} . \mathrm{Rs}$. 32 and 33 W ., cor secs. $13,18,19$, and $24,145 \mathrm{ft}$. W. of dim T-rd. N., S. of rd., in hedge fence ine, in root on N. side of 30-1n. elm tree; copper nail and washer

Feot
1,066.38
$1,014,82$
T. 60 N., R. 33 W ., quarter cor. between secs. 13 and 24 , NW. of crossroads, 5 ft . NW. of fence corner, in root on SE. side of 18-in. maple tree; copper nall and washer

1,024.80
T. 60 N., R. 33 W., cor. secs. $13,14,23$, and $24,20 \mathrm{ft}$. W. of rd. corner from F.-S., in line with rd. E., in concrete post; standard tablet stamped "Prim Trav Sta No 3 Mac 1923"
Reference mark, $84 \mathrm{ft} . \mathrm{S} .2^{\circ} \mathrm{W}$. of tablet, in root on N . side of $8-1 \mathrm{n}$. elm tree; copper nail and whsher
T. $60 \mathrm{~N} ., \mathrm{R}, 33 \mathrm{~W}, 510 \mathrm{ft}$. E. of cor. secs. $24,15,22$, and $23,120 \mathrm{ft}$. E. of rd. at private lane N., in front of dwelling of A. P. Clancy, S. of rd., in root on NE. side of 24-in. wild-cherry tree; copper nail and washer
T. $60 \mathrm{~N} ., \mathrm{R}$. 33 W ., 340 ft . E. of cor secs. $15,16,21$, and $22,980 \mathrm{ft}$. W. of crossroads, on top of $E$. end of $S$. head wall of concrete culvert; chiseled square
, 022.230
1,016.85
$1,000.84$
988.19

## 3. FROM MIDDLE OF EAST BORDER OF QUADRANGLE WEST AND SOUTH TO MIDDLE OF SOUTH BORDER <br> (Continued from Darlington quadrangle; see line 5.)

T. 61 N., R. 32 W., 160 ft . W. of cor. secs. 3, 4, 9, and 10 , at E.-W. jog in N.-S. rd., on top of $S$. head wall of concrete culvert chiseled square
Top of hill
T. 61 N., R. 32 W., cor. secs. 4, 5, 8, and 9, 20 ft. W. of Tـrd. E., 10 ft. N. of fence corner, $3 \mathrm{ft} . \mathrm{W}$. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 19 Mac 1923"
Reference mark, 53 ft . SE . of tablet, on top of S . head wall of concrete culvert; ch1seled square
T. 61 N., R. 32 W., N. sixteenth cor, between secs. 8 and 9, at T-rd. W. : top of $S$. head wall of concrete culvert
T-rd. E.; surface of rd.
T. 61 N., R. 32 W., W. sixteenth cor, sec. 8, $20 \mathrm{ft} . \mathrm{S}$. and 20 ft . W. from crossroads; top of S . end of iron pipe culvert
T. 61 N., R. 32 W., E. sixteenth cor. sec. 7 ; top of $N$. head wall of concrete culvert
T. 61 N., R. 32 W., W. sixteenth cor. sec. 7, 70 ft. S. and 10 ft. W. from crossroads, on E. end of concrete walk to dwelling of I. V. Robertson: chiseled square
Drein: surface of rd.
Top of hill; surface of rd.
T. 61 N., R. 32 W., W. sixteenth cor. sec. $6,10 \mathrm{ft}$. S. and 60 ft . E. from T-rd. S., in root on SW. side of $30-1 \mathrm{n}$. elm tree; copper nail and washer Bridge; center of
T. $61 \mathrm{~N} ., \mathrm{R}$. 33 W. , center sec. 1 , SE. of crossroads, at fence corner, in
root on W. side of 18-in. hedge tree; copper nelil and washer
1,033.00
1,064.5

1,061.463
1,060.03
1,062.82
1,038.0
1,018.96
$1,004 \cdot 90$

1,023.84
973.0
983.0
983.0
935.24
998.37
. 61 N., R. 33 W., E. sixteenth cor. sec. 2, 56 ft . W. of T-rd. E., 4 ft . from fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 20 Mac 1923"
Reference mark, 62 ft . NE. of tablet; top. of $W$. end of iron pipe culvert
T-rd, W.; surface of rd.
1,008.251
1,005.29
1,036.0
T. 61 N., R. 33 W., E. sixteenth cor. sec. $11,20 \mathrm{ft}$. S. and 40 ft . E. from crossroads, in root on $N$. side of 6 -in. hedge tree; copper nail and washer
T. 61 N., R. 33 W., center of NE $1 / 4 \mathrm{sec}$. $14,18 \mathrm{ft}$. W. of rd., at SE. corner of farmyard, in root on E. side of $30-1 n$ : maple tree; copper nail and washer
T-rd. E. : surface of rd.
T. 61 N., R. 33 W., near center of $S E 1 / 4$ seo. 14, SW. of T-rd. W., in root on N . side of 18-in. walnut tree; copper nail and washer
T. 61 N., R. 33 W., near N. sixteenth cor. sec. 23 , 21 ft. W. of rd., 4 ft. NE. of fence corner, in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{n}$
Reference mark, 273 ft . N. $5^{\circ} \mathrm{E}$. of tablet, on top or E. head wall of concrete culvert; chiseled square
T. 61 N., R. 33 W., quarter cor. between secs. 23 and $26,20 \mathrm{ft}$. N. and 10 ft . W . from crossroads; top of $W$. end of iron pipe culvert
Top of hill: surface of rd .
T-rd. E.; surface of rd.
T. 61 N., R. 33 W., quarter cor. between secs. 26 and $35,110 \mathrm{ft}$. . N. and 25 ft . W. from crossroads; in root on S. side of 8-in. walnut tree; copper nall and washer

1,026.81

1,062.82
1,039.1
1,013.26
$1,034.835$
1,019.52
1,040.10
1,066.5
1,044.1

1,033.61
T. 61 N., $R_{\text {. }} 33 \mathrm{~W}, 220 \mathrm{ft}$. E. of cor. secs. $26,27,34$, and 35 , at bridge over Elm Grove Branch, on top of SE. wing wally chiseled square
991.31
T. 61 N., R. 33 W., E. sixteenth cor. between secs. 27 and 34, 30 ft . S. and 40 ft . W. from T-rd. N., in root on NE. side of $24-1 \mathrm{n}$. maple tree; copper nail and washer
$1,051.92$
T. 61 N., R. 33 W, cor, secs. $27,28,33$, and $34,27 \mathrm{ft} . \mathrm{N}$. and 45 ft . E. from crossroads, in conerete posts standard tabiet stamped "B 1923 MOn
Reference mark, 29. ft. N. $75^{\circ}$ E. of tablet, in root on E. side of $42-\mathrm{in}$. maple tree; copper nail and washer
1075020-38-7

1,054.119
$1,055.38$

## Bridge; center of

T. 60 N., R. 33 W., N. cor. secs. 8 and 9, 27 ft. S. and 10 ft . E. from T-rd. S.; top of B . end of iron pipe culvert
T. 60 N., R. $33 \mathrm{~W} .$, cor. secs. $8,9,16$, and $17,320 \mathrm{ft}$. S. of crossroads, E . of rd., in root on NW. side of 12-in. wild-cherry tree; copper nall and washer
$1,02 \frac{\text { Feet }}{5.8}$
1,062.63
$1,041.82$

## 4. FROM POINT NEAR GENTER OF QUADRANGLE WEST AND SOUTH TO POINT NEAR SOUTHWEST CORNER

T. 61 N., R. 33 W., S. sixteenth cor. between secs. 2 and 3,15 fl. S. and 20 ft . E. from crossroads top of S . end of iron pipe culvert
T. 61 N. R. 33 W., S. sixteenth cor. sec. 3. NE. of T-rd. N.; top of N. end of fron pipe culvert
T. 61 N., R. 33 W., S. sixteenth cor. between secs. 3 and 4, 35 ft . S. and 30 ft . W. from rdu corner E.-S., in root on SB. side of $24-1 \mathrm{n}$. maple tree copper nail and washer
Bridge; center of
T. 61 N., R. 33 W., quarter cor. between secs. 9 and $10,210 \mathrm{ft}$. W. of coossroads, in fence line S. of rd., in root on $N$. eide of 18-in. maple tree; copper nail and washer
Drain; surface of rd.
Drain: surface of rd.
T. 61 N., R. 33 W., E. sixteenth cor. sec. $8,25 \mathrm{ft} . \mathrm{W}$. of T-rd. E., in concrete post; standard tablet stamped ${ }^{6}$ Prim Trav Sta No 21 Hac 1923"
Reference mark, 185 ft . N. $88^{\circ}$ E. of tablet, on top of N. head wall of concrete culvert; chiseled square
T. 61 N., R. 33 W, quarter cor. between secs. 5 and 8 , in center of rd.; top of cornerstone
Top of hill: surface of rd.
T: 61 N., Rs, 33 and 34 'W., cor. secs. $1,6,7$, and $12,30 \mathrm{ft}$. S, and 150 ft. E. from crossroads, in root on $N$. side of 18inin. ash tree; copper nail and washer
Top of hilly surface of ra.
T. 61 N., R. 34 W., cor. secs: 1,$2 ; 11$, and $12,30 \mathrm{ft}$. S. and $10 \mathrm{ft} . \mathrm{E}$. from Tr-ra. S., in root on N. side of i6-in: black-oak tree; copper nail and washer
Top of hills surface of rd.
T. 61 N., R. 34 W., cor secs. $2,3,10$, and 11 , about 290 ft . E. of crossroads, 20 ft . N. of rd., 3 ft . S . of hedge fence; in concrete post: standard tablet stamped "Prim Trav Sta- No 22 Mac 1923"
Reference mark, 330 ft . W. of tablet, in root on E. side of $10-\mathrm{in}$, eim tree; copper nail and washer
Bridge over Hickory Creek; 5 ft . E. of center
T-rd. W.: surface of rd.
T. $61 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} ., 0.2 \mathrm{mi}$. S. of oor. secs. $10,11,14$, and $15,35 \mathrm{ft}$. S. and $36 \mathrm{ft}$. . from $T \rightarrow \mathrm{ra}_{\text {. }} \mathrm{B}$., in root on $W$. side of $14-1 \mathrm{n}$. mapie tree; copper nall and washer
Top of hills surface of rd.
T. 61 N., R. 34 W., cor. secs. 14,$15 ; 22$, and $23,30 \mathrm{ft}$. s. and 15 ft . W. from T-rd. E., in concrete post; standard tablet stamped "B 1923 Mo"
Reference mark, 78 ft . N. $8^{\circ} \mathrm{W}$. of tablet, in root on S. side of $18-1 \mathrm{~m}$. sycamore tree; copper nail and washer
T. 61 N., R. 34 W., 120 ft . S. of quarter cor. between secs. 22 and 23 . on top of $W$. head wall of concrete culvert; chiseled square
Junction of private lane W. $\}$ surface of rd:
Whitesville, about 0.8 mi . E. of, quarter cor between secs. 26 and 27 , T. 61 N., R. 34 W., at ST. corner of crossroads, on concrete base of corner fence post; chiseled square
T. 61 N., R. 34 W. , quarter cor. between secs. 34 and $35,20 \mathrm{ft}$. N. and 30 ft . W. from T-rd. N., in root on W. side of 18-in. elm tree; copper nail and washer
T. 61 N., R. 34 W., near center sec. $34,33 \mathrm{ft}$. N. and 13 ft . W. from T-rd. N., in concrete post; standard tablet stamped "B $1923 \mathrm{Mo}^{\text {" }}$
Reference mark, 13 ft. S . $30^{\circ} \mathrm{W}$. of tablet, in root on N . side of elm treef copper nail and washer
T. 61 N. R. $34 \mathrm{~W}_{\mathrm{F}}$ about 0.1 mi . F. of quarter cor. between seca. 33 and $34,85^{\prime} \mathrm{ft}$. S. of rd. corner from E.-S., on top of E . head wall of concrete culvert; chiseled square
$1,045.99$
1,060.11

1,057.25
1,041.7
1,076.93
1,064.1
1,062.0

1,076.237
1,067.61
1,089.03
1,058.0

1,067.94
1,067.0

1,017.52

1,012.146
1,025.09
931.27
937.7
999.10

1,019.0
1,019.401
1,023.93
968.17
984.0
989.79
981.34
980.363
979.95
935.08
T. 60 N., R. 34 W., in NW $1 / 4 \mathrm{NW} 1 / 4$ sec. 9, about 400 ft . NE. of bridge over platte River, 10 ft . S. and 50 ft . E. from T-rd. E., in root on N. side of 12-in. ash trees copper nail and washer

Platte River, under bridge surface of water at $2 ; 30 \mathrm{p} . \mathrm{m}$. sept. 4,1923
T. 60 N ., R. $34 \mathrm{~W} ., \mathrm{S}$. sixteenth cor. between secs. 8 and 9.210 ft . N. and 15 ft . W. from T-rd. W., in root on N . side of 24 -in; walmut trees copper nail and washer
T. 60 N. $\mathrm{N}_{\mathrm{R}} 34 \mathrm{~W}$, about 200 ft . S. of cor. secs. $8,9,16$ and 17 . opposite farmouse, in root on W. side. of 18-1n. white-oak trees opposite farmouser in
800.72
890.0
922.53
$1,001.04$

## 5. NEAR MIDDLE OF WEST BORDER OF QUADRANGLB

T. 61 N., R. 34 W., B. sixteenth cor. between secs. 3 and 10 , SW. of Trad. S., in root on NW. side of $30-i n$. white-oak trees copper nail and washer T. 61 N., R. 34 W., quarter cor. between secs. 3 and $10,25 \mathrm{ft}$. S. and 30 ft. W. from T-rd. N., in root ( 4 in . under ground) on S. side of 18in. elm tree; copper nail and washer
954.56
919.04
T. 61 N., R. 34 W., about 0.2 mi . E. of cor. secs. $4,5,8$, and $9,5 \mathrm{ft}$. E. of front gate to farmhouse, 35 ft . S. of rd., in root on N . side of 30-1n. maple tree; copper nail and washer
Cawood, Chicago Great Western R.R. at rd. crossing; top of W. rail
(Continued in Bolckow quadrangle; see ine 1.)

## 6. IN SOUTHNEST CORNER OF QUADRANGLE

T. 60 N., R. 34 W ., quarter cor. between secs. 19 and 20 , 540 ft . E. of T-rd. S., 18 ft . W. of junction of private lane N., 15 ft . N. of rd., in root on S. side of l2-in. wild-cherry tree; copper nail and wesher
(Continued in Bolckow quadrangle; see line 2.)
7. FROM NORTHWEST CORNER OF QUADRANGLE SOUTH ABOUT 3 MILES (by E. J. Noonan in 1935)
(Continued from Parnell quadrangle; see line 3.)
Secs. 20 and 21 , approximate quarter cor, between, 70 ft . N. and 70 ft . E. from, in root on NW. side of l2-in. locust tree; crossed nails

1,052.71
T. 63 N., R. 34 W., cor. secs. $20,21,28$, and 29,40 ft. S. and 25 ft . E. from crossroads, in concrete post; standard tablet stamped "T T 74山 C W A 1934"
Reference mark, about 400 ft . E. of tablet, on top at E . end of S . head wall of concrete culvert; chiseled square
Dwelling, $80 \mathrm{ft}, \mathrm{N}$, and 60 ft . W. from $N W$. corner of, 20 ft . from rd. at fences N.-S., in root on N. side of 10-1n. walnut tree; crossed nalls
T-rC. W., 65 ft . S. of, at E . end of S . abutment of steel bridge, in top of center of wooden piling ; crossed nails

1,028.709
$1,019.54$
$1,034.63$
971.30
. 63 N., R. 34 W., 250 ft . S. of approximate N. sixteenth cor. between secs. 32 and 33 , on top of $W$. head wall of concrete culvert; chiseled square
Dwelling, 150 ft . N. and 50 ft . W. from NW. corner of, on top of E . head wall of concrete culvert; chiseled square
Tps. 62 and $63 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} .$, cor. secs. $4,5,32$, and $33,30 \mathrm{ft}$. S. and 130 ft . E. from T-rd. N., in root on N . side of $36-\mathrm{in}$. cottonwood tree; copper nail and washer
T-rd. S., 535 ft . W. of, 20 ft . N. of rd., in fence line, in root on $S$. side of $30-1 n$. cottonwood tree; crossed nails
(Continued in Bolckow quadrangle; see line 7.)
8. FROM STANBERRY NORTHWEST ALONG STATE HIGHWAY 4 TO NORTH BORDER - OF QUADRANGLE (by Charles E. Hunter in 1936)
U.S.C. \& G.S. standard disk stamped "J 19 1933"

Wabash Ry. at wooden bridge, in NW. corner of top of S . bolt
Stanberry, about 0.8 ml . W. of, along State Highway $4,20 \mathrm{ft} . \mathrm{S}$, and 20 ft. W. from cross rd., on S. head wail of concrete culvert; chiseled square
Junction of rd. N., $20 \mathrm{ft} . \mathrm{N}$. and 15 ft . W. from, on iv. head wall of concrete culvert; chiseled square
Stanberry, about 1.7 mi . W. of, along State Highway 4 , on $N$. end of $W$. abutment of concrete bridge; chiseled square
Stanberry, 2.6 mi . NW. of, along State Highway 4 , near center of $\mathrm{N} 1 / 2$ sec. $35, \mathrm{~T} .63 \mathrm{~N} .$, R. $33 \mathrm{~W} ., 35 \mathrm{ft}$. S. and $370^{\prime} \mathrm{ft}$. W. from junction of rd. N., in concrete post; standard tablet stamped "TT $740 \mathrm{C} \mathrm{W} \mathrm{A} \mathrm{1934"}$
U.S.C. \& G.S. standard disk stamped "K 19 1933"

Junction of rd. W., 30 ft . E. of, on $N$. end of tile culvert; painted square
Stanberry, about 3.3 mi . W. of, along State Highway $4,250 \mathrm{ft}$. S. and 15 ft. E. from junction of rd. E., on E. head wall of concrete culvert; chiseled square
Stanberry, about 4.2 mi . W. of, along State Highway 4, $75 \mathrm{ft} . \mathrm{E}$. of junction of rd. E., on SE. head wall of concrete culvert; chiseled square
Junction of rdi N. on Gentry-Nodaway county line, on W. head wall of concrete culvert; chiseled square.
Stanberry, about 5.2 mi . NW. of, along State Highway $4,20 \mathrm{ft}$. N. and 225 ft. E. from junction of rd. N., on N. head wall of concrete culvert; chiseled square
886.353
892.34
894.34
899.40
905.10
914.278
908.696
955.81
979.8 .1

1,004.99
978.98
962.64

Concrete bridge J-794, on. N. end. of W. abutment; chiseled square 936.09.

Conception, about 3.4 mi . E. of, along State Highway $4,5.8 \mathrm{ml}$. NW, of Stanberry, 35 ft . S. and 570 ft . W. from junction of rd. S., in concrete post; standard tablet stamped "741 C W A 1934"

1,005:031
Conception, about $3 \mathrm{mf}: \mathrm{E}$. of, along State Highway $4,20 \mathrm{ft}$. N. and 15 ft . E. from cross rd., on E. head wall of concrete culvert; chiseled square

Junction of rd. N., 30 ft. S. and 180 ft . W. from, on W. end of iron pipe culvert; painted square
966.59

1,003.16
Conception, about 2 mi . E. of, along State Highway $4,30 \mathrm{ft}$. S. and 20 ft . E. from junction of rd. S., on E. head wall of concrete culvert; chiseled square
concrete culvert, on s . heäd wall of; chiseled square
1,019.44
conception, about 1.2 mi . E. of, along State Highway $4,45 \mathrm{ft} . \mathrm{N}$, and 25 ft. W. from junction of $r d . N$. , on $W$. head wall of concrete culvert; chiseled square

Conception, about 0.2 mi . E. of, along State Highway $4,360 \mathrm{ft}$. N. and 410 ft . E. from cross rd., 45 ft . S. of highway at curve from E. -N. , in concrete post; standard tablet stamped $74 \mathrm{I}^{2}$ C W A $1934^{\circ}$

Feet
1,105.905
(Continued in Parnell quadrangle; see line 4.)

## 9. LINE TO DETERMINE ELEVATION OF WIEDERHOLT TRIANGULATION STATION

Conception, 3 mi. E., thence 1 mi . S. from, cor. secs. 28, 29, 32 , and 33 , T. $63 \mathrm{~N} .$, R. $33 \mathrm{~W} ., 3 \mathrm{ft}$. S. and 35 ft . E. from T-rd. W., in root on SW. side of $10-1 \mathrm{n}$. elm tree; copper nail and washer
Wiederholt triangulation sta., 3 mi . E., thence 1 mi . S. from Conception, in NW 1/4 sec. $33, \mathrm{~T} .63 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W}$., on land owned by Mr. Wiederholt, on knoll in pasture, 75 paces N . of fence, 45 paces $W$. of wire fence on E. side of pasture, in concrete post; U.S.C. \& G.S. standard disk stamped "Wiederholt"
Reference mark l, $102 \mathrm{ft} . \mathrm{N} .50^{\circ} \mathrm{E}$. of sta., in concrete post; U.S.C. \& G.S. standard disk stamped "Wiederholt No 1 1934"

Reference mark 2, $118 \mathrm{ft} . \mathrm{S} .30^{\circ} \mathrm{E}$. of sta., in concrete post; U.S.C. \& G.S. standard disk stamped "Wiederholt No 2 1934"
10. FROM NORTHEAST CORNER OF QUADRANGLE SOUTHWEST TO STANBERRY, THENCE SOUTH AND EAST TO CENTER OF EAST BORDER (by J. Earl Brannan in 1936 )
(Continued from Darlington quadrangle; see line 8;)

Junction of rd. N., 25 ft . N. and 15 ft . W. from, on W. head wall of concrete culvert; chiseled square
T. 63 N., R. 32 W., approximate cor. secs. $20,21,28$, and 29, on U.S.

Highway $169,60 \mathrm{ft}$. N. and 20 ft . W. from cross rd., in top of $3-\mathrm{in}$. hedge stump; copper nail and washer
987.89

1,001.59 E. side of spillway; chiseled cross
T. $63 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W}$. , about 650 ft . S. of cor. secs. $29,20,29$, and 30,20 ft. E. of junction of U.S. Highway 169 and County Route B, on E. head wall of concrete culvert; chiseled square
Concrete culvert, on W. head wall of ; chiseled square
928.92
T. 63 N., R. $32 \mathrm{~W} .$, approximate cor. seics. 29, 30,31 , and 32 , on U.S. Highway 169 , about $25 \mathrm{ft} . \mathrm{N}$. and 70 ft . W. from cross rd., in root on E. side of 18-1n. oak tree; copper nail and washer
U.S.C. \& G.S. standard disk stamped "J 19 1933"
94.4 .69
886.353

Tps. 62 and 63 N., R. 32 V., approximate quarter cor. between secs. 5 and 32, 150 ft . S. of U.S. Highway 169 at rd. junction, in root on N. side of $40-1 n$. oak tree; copper nail and washer
T. 62 N., R. 32 W., near center sec. 5 , about 300 ft . S. of Wabash Ry, at crossing of U.S. Highway 169 , 50 ft . W. of highway, in root on E. side of $18-1 \mathrm{n}$. elm tree; copper nail and washer
Wildcat Creek, under bridge; surface of water at 11:45 a.m. Dec. 30, 1935
Dwelling, 35 ft . W. of SW . corner of, about 30 ft . E. of rd., in root on W. side of $15-1 \mathrm{n}$. maple tree; crossed nails
930.93
875.41
852.3
883.22
T. $62 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, near center sec. $8,30 \mathrm{ft} . \mathrm{N}$. and 60 ft . W. from U.S. Highway 169 at. cross rd., on $N$. head wall of concrete culvert; chiseled square
921.59

Top of hill, about 500 ft . NW. of highway at cross rd., 16 ft . NE. of pavement, on top of $N$. side of spillway; chiseled square
T. $62 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W}$, , secs. 8, 9, 16 , and $17,650 \mathrm{ft}$. S. and 150 ft . W. from approximate cor. of, 52 ft . NE. of $\mathrm{J} . \mathrm{S}$. Highway 169 at curve from NW.-S., in concrete post; standard tablet stamped "T T 747 CWA 1934"
Highway at E. -W . fence line, about $60 \mathrm{ft} . \mathrm{N}$. of, $16 \mathrm{ft} . \mathrm{W}$. of pavement, on top of S. side of spiliway; chiseled square
T. 62 N., R. 32 W., approximate cor. secs. $16,17,20$, and 21 , about 50 ft. E. of U.S. Highway 169 at rd. W., in root on S. side of $12-1 \mathrm{n}$. oak tree; copper nall and washer
Junction of rd. E., about 15 ft . N. and 20 ft . E. from, on N . head wall of concrete culvert; chiseled square
T. 62 N., R. 32 W., approximate cor. secs. $20,21,28$, and 29 , about 85 ft. S. and 30 ft . E. from, in root on S. side of $36-\mathrm{in}$. elm tree; copper nall and washer
Junction of private drive, 75 ft . N , and 20 ft . W. from, in root on N . side of $12-1 n$. cottonwood tree; crossed nails
T. 62 N., R. 32 W., N. sixteenth cor. between secs. 32 and 33,35 ft. N. and 30 ft . W. from, in concrete post; standard tablet stamped ${ }^{\prime} T T T M 8$ C W A 1934"
Junction of ra. W., about 100 ft . N, and 60 ft . W. from, in root on $E$. side of $36-i n$. maple tree; crossed nails
Ford city, 2 mi . W. of, near cor. secs. 3, 4, 9, and $10, \mathrm{~T} .61 \mathrm{~N}$. R. $32 \mathrm{~W} ., 15 \mathrm{ft}$. S. and 120 ft . W. from $\mathrm{T}-\mathrm{rd}$. S., 15 ft . S. and 75 ft. E. from T-rd. N., on $S$, end of iron pipe culvert; painted square
996.859
943.25

1,003.73.

1,055.585
972.76
927.40
987.08

1,041.18

1,055.38
$1,029.91$
(Continued in Darlington quadrangle; see line 9.)
For additional level lines along Wabash Ry, and Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order líne, Milan, Mo. to Hamburg. Iowa; and second-order ine, Darlington to St. Joseph.


1. SOUTH ALONG SOUTH PART OF WEST BORDER OF QUADRANGLE (by H. W. Gross in 1936)
T. 65 N., R. 34 W., S. cor. secs. 32 and $33,32 \cdot(? 28) \mathrm{ft} . \mathrm{N}$. and 26 (? 24) ft. W. from T-rd. N., 7 ft . N. and 4 ft . W. from corner fence post, in concrete post; standard tablet stamped "720 C W A 1934"
Reference mark, 43 ft . S. and 225 ft . W. from tablet, in root on N . side of 12-1n. elm tree; copper nail and washer
T. 64 N., R. 34 W., cor. secs. $4,5,8$, and $9,50 \mathrm{ft} . \mathrm{N}$. and $10 \mathrm{ft} . \mathrm{W}$. from crossroads, at $S W$. corner of bridge, in top of cap; copper nail and washer

Feet 1,105.450 1,088.30<br>1,077.24<br>1,132.76<br>1,064.089<br>$1,058.85$<br>1,085.62<br>2,091.09<br>1,073.200<br>1,123.74<br>$1,114.96$<br>1,035.68

T. 64 N., R. 34 W., cor. secs. $8,9,16$, and $17,190 \mathrm{ft} . \mathrm{N}$. and 25 ft . W. from T-rd. E., in root on SE. side of $24-1 n$. maple tree; copper nail and washer
Maryville, 6 mi . E. of, along State Highway 4, 35 ft . N. and 68 ft . W. from junction of rd. N., in concrete post; standard tablet stamped "721 C W A 1934"
Reference mark, 100 ft . E. of tablet, on NE. corner of concrete head wall of culvert; chiseled square
R. 34 ., cor. secs. $15,16,21$, and $22,20 \mathrm{ft} . \mathrm{N}$. and 350 ft . W. from State Highway 4 at cross rd., on top of $N$. head wall of culvert chiseled square
T. 64 N., R. 34 W., cor.secs. $21,22,27$, and $28,50 \mathrm{ft}$. S. and 15 ft . W. from T-rd. W., on top of concrete head wall of culvert; chiseled square
W. from T-rd. N. in concrete post; standard tablet stamped n722 GW A 1934"
T-rd. S., $20 \mathrm{ft} . \mathrm{N}$. of, in top of corner post; crossed nails
( tree; copper nail and washer
Bridge, $25 \mathrm{ft} . \mathrm{N}$. and 15 ft . E. from W . end of, in root on W . side of 15-in. hackberry tree; crossed nails
(Continued in Pickering quadrangle; see line 8.)

## 2. SOUTH ALONG NORTH PART OF WEST BORDER OF QUADRANGLE <br> (Continued from Pickering quadrangle; see line 6.)

T. 65 N., R. 34 W., cor. secs. $4,5,8$, and $9,50 \mathrm{ft}$. S. and 25 ft . E. from crossroads, in root on N. side of 10-in. crabapple tree; copper nail and washer
T. 65 N., R. 34 W., cor. secs. $8,9,16$, and 17 , $180 \mathrm{ft} . \mathrm{S}$. and $25 \mathrm{ft} . \mathrm{W}$. from crossroads, in root on E. side of $24-1 n$. elm tree; copper nail and washer
$1,184.85$
T. 65 N., R. $34 \mathrm{~W} .$, cor. secs. $16,17,20$, and $21,33 \mathrm{ft} . \mathrm{N}$. and 33 ft . W. from crossroads, in concrete post; standard tablet stamped "719 C W A 1934!
Culvert, on top of W. head wall; chiseled square
T. $65 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W}$. , cor. secs. $20,21,28$, and $29,25 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from crossroads, in root on $N$. side of $24-1 n$. mulberry tree; copper nail and washer

1,169.727
$1,126.43$

1,135.07
T. 65 N., R. 34 W., cor. secs. $28,29,32$, and $33,280 \mathrm{ft}$. S. and 30 ft . E. from crossroads, in root on SW. side of 28-in. maple tree; copper nail and washer

Feet
1,097.50
(Continued in Pickering quadrangle; see line 6.)

## 3. IN SOUTHWEST CORNER OF QUADRANGLE (by E. J. Noonan in 1936)

T. 63 N., R. 34 W., cor. secs. $16,17,20$, and $21,20 \mathrm{ft} . \mathrm{N}$. and 45 ft . E. from T-rd. S., in root on E. side of $10-1 \mathrm{in}$. mulberry tree; copper na11 and washer

1,106.51
(Continued in Stanberry quadrangle; see line 7.)
4. FROM SOUTH BORDER OF QUADRANGLE NORTḦ TO CONCEPTION JUNCTION (by Charles E. Hunter in 1936)
(Continued from Stanberry quadrangle; see line 8.).
Conception, about 1 mi . N. of, along State Highway 4, 25.ft. N. and 45 $f t$. E. from cross rd., in base of telephone pole; spike
$1,097.10$
Conception, about 1 mi . N., thence 0.7 mi . W. from, near W. sixteenth cor. between secs. 14 and 23 , T. $63 \mathrm{~N} ., \mathrm{R} .34$. W., $10 \mathrm{ft} . \mathrm{N}$. and 50 ft . E. from. Chicago Great western R.R. at rd: crossing, on NE. comer of S. wing wall of concrete culvert; chiseled square
969.99

Conception Junction, about 0.8 ms . S . of, at E . end of bridge over drainage ditch, $30 \mathrm{ft} . \mathrm{S}$. of rd., in concrete block; standard tablet (set by water-resources branch of U.S. Geol. Survey)
965.420

Conception Junction, about 0.8 mi . W. of, cor. secs. 10,11 , 14 , and 15 ,
T. 63 N.,.R. 34 W., $24 \mathrm{ft} . \mathrm{S}$. and 15 ft . W. from rd. at fences N.-S.,
in concrete post standard tablet stamped "743 C W A 1934"
U.S.C. \& G.S. standard disk stamped "Q $191933^{\prime \prime}$

## 5. WEST ALONG NORTH BORDER OF QUADRANGLE

T. 66 N., R. 32 W., E. sixteenth cor. between secs. 27 and $34,25 \mathrm{ft}$. N. and 30 ft . W. from T-rd. N., in root on NE. side of $10-1 \mathrm{n}$. hickory tree; copper nall and washer

1,102.11
T. 66 N., R. 32 W., cor. secs. 27,28 , 33 , and $34,15 \mathrm{ft}$. N. and 180 ft . E. from T-rd. S.' in base of crooked b-ín. elm tree; copper nail and washer
T-rd. N., 25 ft . S. and 30 ft . W. from, in root on N . side of 20-in. oak tree; crossed nails
T. 66 N., R. 32 . W., near. E. sixteenth cor. between secs. 29 and 32,15 ft. N. and 300 ft. W. from T-rd. N., in root on S. side of 12-in. hickory tree; copper nail and washer
T. 66 N., R. 32 W., quarter cor between secs. 29 and $32,24 \mathrm{ft}$. S. and 18 ft . E. from T-rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 58 J S $1923 \mathrm{Mo"}$
T. $66 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} .$, cor. secs. $29,30,31$, and $32,15 \mathrm{ft} . \mathrm{N}$. and 30 ft . W. from T-rd. S., in root on N. side of $36-1 n$. cottonwood tree; copper nail and washer
T. 66 N., R. 32 W., 15 ft . S. and 50 ft . W. from W. cor. secs. 30 and 31 , in root on NW. side of twin 10-1n. maple tree; copper nail and washer
T. 66 N., R. 33 W., near W. sixteenth cor. between secs. 25 and 36,15 . ft. S. and 30 ft . W. from State Highway 46 at cross rd., on $S$. head. wall of concrete culvert; chiseled square

1,012.48
947.71
977.50

1,064.106

1,106.61
$1,123.87$
T. 66 N., R. 33 W., near quarter cor between secs. 26 and 35 , on SE. corner of steel bridge over Platte River, on southeasternmost rivet of rocker plate; chiseled cross
$1,153.17$
i: 66 N., R. 33 W., E. sixteenth cor. between secs. 27 and $34,442 \mathrm{ft}$. W. of Chicago, Burlington \& Quincy R.R., 15 ft . S. and 37 ft . W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 57 J S $1923 \mathrm{Mo} "$

1,030.40
T. 66 N., R. $33 \mathrm{~W} .$, cor. secs. $27,28,33$, and $34,15 \mathrm{ft}$. N. and 930 ft . W. from Th-rd. N., in root on S. side of 7 -in. hedge tree; copper nail and washer
T. 66 N., R. 33 W., cor. secs. $28,29,32$, and $33,15 \mathrm{ft} . \mathrm{S}$. and 170 ft . E. from crossroads, in root on $N$. side of 6-in. oak tree; copper nail and washer
T. 66 N. . R. 33 W. , cor. secs. 29, 30,31 , and 32,21 ( 331 ft. S. and 27 ft . W. from T-rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 56 J S 1923 Mo "
$1,036.400$
1,159.95
$1,139.58$
1,081.952
T. $66 \mathrm{~N}, \mathrm{R}$. 33 W , W. cor. secs. 30 and $31,20 \mathrm{ft}$. S. and 140 ft . E. from T-rd. E., 40 ft . N. and 140 ft . E. from T-rd. W., in root on W . side of 8-in. hedge tree; copper nail and washer
Gaynor, 30 ft . E. of NE . corner of general store, in root on NW. side of 30-1n. maple tree; copper nail and washer
T. 66 N., R. 34 W., cor. secs. $26,27,34$, and $35,18 \mathrm{ft} . \mathrm{N}$. and 195 ft . W. from crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No $55 . \mathrm{J} \mathrm{S} 1923 \mathrm{Mo}^{\mathrm{n}}$

1,166.74
1,218.78
$1,215.609$
T. $66 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} .$, cor. secs. $27,28,33$, and $34,20 \mathrm{ft} . \mathrm{S}$. and 25 ft. E. from crossroads, in root on N . side of 24 -in. maple tree; copper nall and washer
T. 64 N., R. 32 W., in NE $1 / 4$ sec. 9, 27 ft . N. and 25 ft . W. from T-rd.
W., in concrete post; standard tablet stamped "735 C W A 1934"
T. 64 N., R. 32 W. , about 660 ft . S. of N . cor. secs. 8 and $9,40 \mathrm{ft} . \mathrm{S}$. and 135 ft . W. from T-rd. E., in root on SE. side of $16-1 \mathrm{n}$, oak tree; copper nail and washer
T-rd. W., $40 \mathrm{ft} . \mathrm{N}$. and 10 ft . W. from, in base of telephone pole; spike
T. 64 N., R. 32 W., quarter cor. between secs. 7 and $8,25 \mathrm{ft}$. N. and 410 ft. E. from crossroads, in root on SE. side of 24-in. oak tree; copper nail and washer
Crossroads, $10 \mathrm{ft} . \mathrm{S}$. and 65 ft . E. from, in base of telephone pole; spike
Enyart, in center $\mathrm{SW} 1 / 4 \mathrm{sec} .7, \mathrm{~T} .64 \mathrm{~N} ., \mathrm{R} .32 \mathrm{~W} ., 20 \mathrm{ft} . \mathrm{S}$. and 110 ft . W. from T-rd. N., in concrete post; standard tabiet stamped "734 C W A 1934"

Feet
1,048.206
979.88

1,004.95
994.14
959.47
909.786

West Fork of Grand River, 0.2 mi . W. of Enyart, under bridge; surface of water at $4 \mathrm{p} . \mathrm{m}$. Nov. 5, 1936
T. 64 N., R. 33 W., in $S W 1 / 4$ sec. 12 , 340 ft . N. and 20 ft . E. from T-rd. E., in root on E. side of $10-1 \mathrm{n}$. hedge tree; copper nail and washer
939.10
T. $64 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W}$. , near center sec. $11,50 \mathrm{ft}$. N. and 190 ft . W. from T-rd. S., in root on S. side of l8-in. oak tree; copper nail and washer
$\mathrm{T}-\mathrm{rd} . \mathrm{N} ., 15 \mathrm{ft} . \mathrm{N}$, and 195 ft . E. from, in root on S. side of 6-in. oak tree: crossed nails
T. 64 N., R. 33 W. , near center sec. 10 , 30 ft . N. and 660 ft . W. from T-rd. S., in concrete post; standard tablet stamped "733 C W A 1934"
T. 64 N., R. 33 W., near center sec. $9,25 \mathrm{ft}$. N. and 130 ft . E. from T-rd. S., in root on SE. side of 24 -in. elm tree; copper nail and washer
978.76

1,028.674
$1,013.76$
T. 64 N., R. 33 W., near quarter cor, between secs. 8 and $9,15 \mathrm{ft} . \mathrm{S}$. and $85^{\prime} \mathrm{ft}$. W. from crossroads, in root on W. side of $14-1 \mathrm{n}$. oak tree; copper nail and washer

2,090.24
T. 64 N., R. 33 W., near S. sixteenth cor. between secs. 7 and $8,20 \mathrm{ft}$. S. and 75 ft . E. from T-rd. E., in root on NE. side of $6-1 \mathrm{n}$. hedge tree; copper nail and washer
T. 64 N., R. 33 W., N. sixteenth cor between secs. 7 and $8,90 \mathrm{ft}$. N. and 46 ft . E. from, in concrete post; standard tablet stamped "732 C W A 1934"
T. 64 N., R. 33 W., near quarter cor between secs. 5 and $6,15 \mathrm{ft}$. N. and 25 ft . E. from State Highway 46 at rd. E., on E. end of N. head wall of concrete culvert; chiseled square
T. 64 N., R. 33 W., N. cor. secs. 5 and $6,15 \mathrm{ft}$. S. and 20 ft. W. from State Highway $46^{\circ}$ at cross rd., on W. end of $S$. head wall of concrete culvert; chiseled square
T. 64 N., R. 33 W., near NW. cor. sec. $6,65 \mathrm{ft}$. S. and 405 ft . E. from rd. forks, in root on S. side of 20-in. elm tree; copper nail and washer
Platte River; surface of water at $1 \mathrm{p} . \mathrm{m}$. Nov. 11,1936
$1,105.50$
$1,134.651$

1,122.97

1,125.40
999.73
983.0

Tps. 64 and 65 N., R. 34 W. , cor. secs. $1,2,35$, and $36,22 \mathrm{ft} . \mathrm{S}$. and 48 ft . E. from crossroads, in concrete post; standard tablet stamped "731 C W A 1934"
T. 64 N., R. 34 W., N. cor. secs. 2 and $3,20 \mathrm{ft}$. S. and 30 ft . E. from T-rd. S., in root on SE. side of 10-1n. wild-cherry tree; copper nail and washer

1,022.370
$1,107.14$
T. $64 \mathrm{~N} ., \mathrm{R}$. $34 \mathrm{~W} ., \mathrm{N}$. cor. secs. 3 and $4,30 \mathrm{ft}$. S. and 145 ft . W. from T-rd. S., $30 \mathrm{ft} . \mathrm{S}$. of T-ra. N., in yard of Harmony church, in root on N. side of $18-1 \mathrm{n}$. elm tree; copper nail and washer

1,166.17
7. LINE TO DETRERMINE ELEVATION OF RAVENWOOD TRIANGULATION STATION
T. 64 N., R. 33 W., quarter cor. between secs. 17 and $18,20 \mathrm{ft}$. E. of T-rd. W., in root on SW. side of $7-1 \mathrm{n}$. hedge tree; copper nall and washer
Ravenwood triangulation sta., about 0.8 mi . S. and 1.8 mi . E. from Ravenwood, in NW $1 / 4$ sec. 20, T. $64 \mathrm{~N} ., \mathrm{R} .33 \mathrm{~W}$. , on land owned by J. McMullen, in pasture, on top of hili, about góo ft. S. of rd., W. of fence, in concrete post; U.S.C. \& G.S. standard disk stamped "Ravenwood 1934 "
Reference mark 1 , $71 \mathrm{ft} . \mathrm{N}$. of sta., in concrete post; U.S.C. \& G.S. standard disk stamped "Ravenwood No 1"
eference mark 2, 83 ft . S. of sta., in concrete post; J.S.C. \& G.S. standard disk stamped "Ravenwood No 2 "

## 8. NEAR MIDDLE OF NORTH BALF OF EAST BORDER OF QUADRANGLE <br> (Continued from Gentry quadrangle; see line 4.)

T. 65 N., R. 32 W., near E. sixteenth cor. sec. $16,15 \mathrm{ft}$. S. and 5 ft . W. from T-rd. N., in root on W. side of $14-1 n$. cherry tree; copper nail and washer
$1,1.41 .346$
$1,145.50$
$1,142.020$
1,139.216
教

## 9. SOUTH NEAR MIDDLE OF EAST BORDER OF QUADRANGLE (leveled once by J. Earl Brannan in 1935 and once by Charles E. Hunter in 1936) (Continued from Gentry quadrangle; see line 5.)

T. 64 N., R. $32 \mathrm{~W} .$, in NE $1 / 4$ sec. $9,27 \mathrm{ft}$. N. and 25 ft . W. from T-rd. W., in concrete post; standard tablet stamped "735 C W A 1934"

Reference mark, 790 ft . S. of tablet, in root on N . side of $40-\mathrm{in}$. elm tree; copper nail and washer
Junction of lane to barn, 25 ft . E. of, in root on W. side of $15-\mathrm{in}$. elm tree; crossed na1ls
T. 64 N., R. 32 W., near E. sixteenth cor. between secs. 9 and $16,85 \mathrm{ft}$. $S$. and 25 ft . E. from crossroads, in root on $W$. side of twin 40-in. maple tree; copper nall and washer
Wooden culvert, about 15 ft . S. and 30 ft . E. from, in root on S. side of 30-1n. elm tree; crossed nails
T. 64 N., R. 32 W., near E. sixteenth cor. between secs. 16 and 21,30 ft. N. and 100 ft . E. from T-rd. N., in root on W. side of $15-1 \mathrm{n}$. elm tree; copper nail and washer

Feet
1,048.206
1,049.31
1,045.81

1,077.17
1,048.90
$1,051.60$
(Continued in Gentry quadrangle; see line 6.)
For an additional level line along Wabash Ry., refer to United States Coast and Geodetic Survey first-order line, Milan, Mo. to Hamburg, Iowa.

BEDFORD QUADRANGLE *
(Lat1tude $40^{\circ} 30^{\prime}-40^{\circ} 45^{\prime}$; long1tude $94^{\circ} 30^{\prime}-94^{\circ} 45^{\prime}$ )
Nodaway and Worth Counties


1. FROM EAST BORDER OF QUADRANGLE WEST ALONG IOWA-MISSOURI STATB LINE TO WEST BORDER (by Charles E. Hunter in 1936)

T-rd. S., $15 \mathrm{ft} . \mathrm{S}$. and 95 ft . E. from, in W. side of $12-1 \mathrm{n}$. locust stump; crossed nails

1,137.05
T. 67 N., R. 32 W., near N. quarter cor. sec. 34 , 15 ft . S. and 515 ft . E. from T-rd. N. on Iowa-Mo. State line, in root on N. side of 24-1n. cottonwood tree; copper nail and washer
T-rd. S., $15 \mathrm{ft} . \mathrm{N}$. and 160 ft . W. from, in root on E. side of 14-1n. box-elder tree; crossed nails
T. 67 N., R. 32 W., near N. quarter cor. sec. $33,50 \mathrm{ft}$. N. and 35 ft . E. from T-rd. N. on Iowa-Mo. State line, in root on S. side of 8-in. cedar tree; copper nail and washer
Athelstan, $33 \mathrm{ft} . \mathrm{S}$. and 10 ft . W. from T-rd. N., on Iowa-Mo. State line, in concrete post; standard tablet stamped 762 C W A 1934
Athelstan, about 0.6 mi . W. of, along Iowa-Mo. State line, 55 ft . S. and 340 ft . W. from rd. corner; (mark not described)
T. 67 N., R. 32 W. , near W. sixteenth cor. on N. iine sec. $31,15 \mathrm{ft} . \mathrm{N}$. and 35 ft . W. from rd. corner on Iowa-mo. State line, in W. side of 8-in. elm tree; spike
Rd. fork SW., 20 ft . N. and 65 ft . E. from, in root on SE. side of 8-1n. oak tree; crossed nalls
T. 67 N., R. 33 W., near W. sixteenth cor. on N. line sec. $36,15 \mathrm{ft}$. N. and 10 ft . E. from center of rd. on Iowa-Mo. State line, in root on SE. side of 5-in. elm tree; copper nail and washer

1, 250.00
1,094.92

1,070.69
1,092.554
1,073.74

1,054.40
1,067.74

1,171.95

1,201.662 E. from T-rd. S. on Iowa-Mo. State line, in concrete post; standard tablet stamped "763 C W A 1934"

[^15]T. 67 N., R. 33 W., near N. quarter cor. sec. $35,120 \mathrm{ft}$. S , and 65 ft . W. from T-rd. S. on Iowa-Mo. State line, in root on N. side of l4-in. Feet oak tree; copper nail and washer

1,128.69
T. 67 N., R. 33 W., near N. quarter cor. sec. $34,15 \mathrm{ft}$. N. and 280 ft . E. from T-rd. S. on Iowa-Mo. State line, on NW. side of 8-in. walnut tree; spike

1,297.25
T. 67 N., R. 33 W., near N. quarter cor. sec. $33,20 \mathrm{ft}$. N. and 15 ft . W. from T-rd. N. on Iowa-Mo. State line, on W. end of concrete culvert; (mark not described)

1,187.10
Rowe triangulation sta., about 3.8 mi . N. and 1.5 mi . W. from Sheridan, in NW 1/4 NW 1/4 sec. $33, \mathrm{~T} .67 \mathrm{~N}$. . R. $33 \mathrm{~W} ., 25 \mathrm{ft} . \mathrm{s}$. of rd., on Iowa-Mo. State ilne, on property of E. S. Rowe, in concrete post; U.S.C. \& G.S. standard disk stamped "Rowe $1934^{\prime \prime}$

1,223.400
Reference mark, $1,77 \mathrm{ft} . \mathrm{NE}$. of sta., in concrete post; U.S.C. \& G.S. standard disk stamped "Rowe No 1 1934"
Reference mark 2, 78 ft . NW. of sta., in concrete post; U.S.C. \& G.S. standard disk stamped "Rowe No 2 193 34 "

1,224.815
T. 67 N., R. 33 W., near N. cor. secs. 32 and $33,880 \mathrm{ft}$. E. of T-rd. S., 18 ft . S. of rd. on Iowa-Mo. State line, in concrete post; standard tablet stamped "764 C W A 1934"

1,223.708
T. 67 N., R. 33 W., near N. quarter cor. sec. $32,50 \mathrm{ft}$. S . and 195 ft . E. from T-rd. N. on Iowa-Mo. State line, in root on SE. side of 14-in. elm tree; copper nail and washer
$1,223.636$
T. 67 N., R. 33 W., near E. sixteenth cor. on N. Ilne sec. 31, on IowaMo. State line, at SW. corner of steel bridge over Honey Creek, on southwesternmost rivet of rocker plate; chiseled cross
$1,260.82$
T. 67 N., Rs. 33 and $34 \mathrm{~W} ., \mathrm{N}$. cor . secs. 31 and $36,25 \mathrm{ft} . \mathrm{N}$. and 200 ft. W. from T-rd. S. on Iowa-Mo. State line, in root on N. side of 24-in. maple tree; copper nail and washer

1,091.44

1,165.04
T-rd. N., 15 ft . S. and 10 ft . E. from, in base of telephone pole; spike 1,212.85
from T-rd. S. on Iowa-Mo. State ilne, in concrete post; standard tablet stamped $" 765^{\circ}$ C W A $1934^{\text {" }}$

1,189.659
T-rd. N., $10 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from, on S . end of concrete culvert; (mark not described)
T. 67 N., R. 34 W., 20 ft. N. and 620 ft. E. from N. cor. secs. 34 and 35 , on Iowa-Mo. State line, in root on N. side of $28-1 n$. box-elder tree; copper nail and washer
$1,174.04$
. 67 N., R. 34 W., near N. cor. secs. 33 and $34,25 \mathrm{ft}$. N. of rd. on Iowa-MO. State line, in fork of twin 12-1n. willow tree; copper nail and washer

## NEW MARKET QUADRANGLE <br> (Latitude $40^{\circ} 30^{\prime}-40^{\circ} 45^{\prime}$; longitude $94^{\circ} 45^{\prime}-95^{\circ} 00^{\prime}$ )

Nodeway County


1. IN SOUTHWEST CORNER OF QUADRANGLE (by H. W. Gross in 1936) (Continued from Pickering quadrangle; see line 5.)
T. 66 N. , R: $36 \mathrm{w} ., \mathrm{N}$. sixteenth cor. sec. $28,25 \mathrm{ft}$. S. and 30 ft . E. from T-rd. E., in root on S. side of $10-1 n$. wild-cherry tree; copper nail and washer
Bridge over $N$. fork of Clear Creek, at $S W$. corner of, on top of rivet in bearing plate; chiseled cross

[^16]T. 66 N., R. 36 W., in NE $1 / 4$ sec. $29,18 \mathrm{ft}, \mathrm{N}$. and 50 ft . W. from dwelling of C. T. McDermott, 25 ft . from rd., in root on w. side of $14-1 n$. walnut tree; copper nail and washer

Feet
1,04 $\overline{6.15}$
(Continued in coin quadrangle; see line l.)

## 2. FROM WEST BORDER OF QUADRANGLE EAST ALONG IOWA-MISSOURI STATE LINE TO EAST BORDER, THENCE SOUTH TO SOUTHEAST CORNER <br> (Continued from Coin quadrangle; see line 1.)

T. 67 N., R. $36 \mathrm{~W} .$, NE $1 / 4 \mathrm{sec} .32,30 \mathrm{ft}$. N. of rd. at top of hill, 100 ft . S. and 20 ft . W. from SW. corner of farmhouse, in root on's. side of 20-in. maple tree; copper nail and washer

1,110.31
$R d$. at fence $S$., 20 ft . S . and 10 ft . W. from, on top of concrete base of brace post; painted square

1,129.89
T. 67 N., R. 36 W., quarter cor. between secs. 33 and $34,35 \mathrm{ft}$. S. and 45 ft . E. from crossroads, in root on NW. side of l8-in. maple tree; copper nail and washer
Farmhouse, 50 ft . N. and 6 ft . W. from, 35 ft . S. of rd., in root on NW. side of $38-i n$. maple tree; crossed nails

1,276.66
T. 67 N., R. 36 W., quarter cor. between secs. 34 and 35 , 35 (? 25) ft. S. and 380 ft . E. from rd. at fences N.-S., in concrete post; standard tablet stamped "711 C W A 1934"
T-rd. N., 20 ft . S . and 75 ft . W. from, in root on NW. side of twin 6-in. locust tree; crossed nails
T-rd. S., $30 \mathrm{ft} . \mathrm{S}$. and 35 ft . E. from, in. root on NE. side of ll-in. elm tree; crossed nails
T. $67 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W} .$, about 400 ft . W. of quarter cor. between secs. 35 and $36,50 \mathrm{ft}$. S. and 30 ft . E. from farmhouse, 35 ft . N. of rd., in root on SW. side of l8-in. maple tree; copper nail and washer
Bridge, 40 ft . N. and 80 ft . E. from, in root on E. side of $18-\mathrm{in}$. postoak tree; crossed nalls
Top of hill, 15 ft . N. of rd., about 400 ft . W. of dim T-rd. S., in root on $S$. side of 14 -in. walnut tree; crossed nails
T. $67 \mathrm{~N} .$, Rs. 35 and 36 W. , quarter cor. between secs. 31 and $36,60 \mathrm{ft}$. S. and 5 ft . W. from rd. at fence $\mathrm{N}_{\mathrm{L}}$, 200 ft . W. of fence S., at head of wooded ravine, in root on NW. side of 25-in. elm tree; copper nail and washer
Bridge, at SE. corner of, in top of cap; crossed nails
T. $67 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W}$., quarter cor. between secs. 31 and $32,30 \mathrm{ft}$. S. and 35 ft . W. from crossroads, in concrete post; standard tablet stamped "712 C W A $1934^{\prime \prime}$
T-rd. W., at SE. corner of bridge, in top of cap; crossed nails
T. 67 N., R. 35 W., S. quarter cor. sec. $32,310 \mathrm{ft}$. N. and 20 ft . W. from T-rd. N., in root on NE. side of $20-1 n$. elm tree; copper nail and washer
Prairie Star School, 1 ft . N. and 6 ft . W. from NE. corner of, on concrete step; chiseled square
T. 67 N., R. 35 W., in $S W 1 / 4 \mathrm{sec} .33$, at $N W$. corner of bridge, in top of cap; copper nail and washer
Tps. 66 and 67 N., R. 35 W ., on line between secs. 3 and $34,25 \mathrm{ft} . \mathrm{S}$. and $15 \mathrm{ft} . \mathrm{W}$. from T -rd. W., on top of concrete head wall of culvert; chiseled square
Hopkins, 2 mi. W. of, in $\mathrm{W} 1 / 2$ sec. $3, \mathrm{~T} .66 \mathrm{~N} .$, R. $35 \mathrm{~W} ., 45 \mathrm{ft} . \mathrm{N}$. and 33 ft . E. from T-rd. N., in concrete post; standard tablet stamped "713 C W A 1934"
Bridge over West Fork of One Hundred and Two River, at NE. corner of, on top of rivet in bearing plate; chiseled cross
Hopkins, about $1.2 \mathrm{mi} . \mathrm{W}$. of, quarter cor. between secs. 2 and 3 , T. 66. N., R. 35 W., 25 ft . N. and 8 ft . E. from T-rd. W., on top of concrete head wall of culvert; chiseled square
Hopkins, about 0.3 mi . W. of in $\mathrm{SE} 1 / 4 \mathrm{sec} .2$, T. $66 \mathrm{~N} ., \mathrm{R}$. 35 W. , at SW. corner of bridge over East Fork of One Hundred and Two River, in bearing plate, on top of rivet; chiseled cross
Hopkins, 45 ft . S. and 55 ft . E. from State Highway 27 at Barnard Street, 45 ft . S. and 55 ft . W. from Chicago, Burlington \& Quincy R.R. at crossing of Barnard Street, in concrete post; standard tablet stamped "714 C W A 1934"
U.S.C. \& G.S. standard disk stampea "C 81. 1935"

UT.S.C. \& G.S. standard disk stamped "D 81 1935"
T-rd. S., SE. of, in top of corner post; crossed nails
Hopkins, about 0.7 mi . E. of, in $\mathrm{NW} 1 / 4 \mathrm{sec} .6$, T. $66 \mathrm{N},$. R. $34 \mathrm{~W} ., 50$ ft. S. of SE. corner of farmhouse, 40 ft . N. of rd., in root on SW. side of $16-1 \mathrm{n}$. pine tree; copper nail and washer
T-rd. E., 55 ft . N. and 20 ft . W. from, in top of fence post; crossed nails
Hopkins, about 1 mi . E. and 0.8 mi . N. from, S. sixteenth cor. sec. 31, T. $67 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} ., 18 \mathrm{ft}$. W. of T-rd. E., in top of oak fence post; copper nall and washer
Hopkins, 0.8 mi . N. and 2 mi . E. from, 25 ft . s . and 360 ft . W. from center of $\mathrm{SW} i / 4 \mathrm{sec} .32$, T. 67 N. . R. $34 \mathrm{~W} ., 5 \mathrm{ft}$. S. and 30 ft . E. from gatepost, in concrete post; standard tablet stamped "715 C W A 1934"
T-rd. W., SW. of, in root on W. side of 14 -in. maple tree; crossed nails
T. $67 \mathrm{~N} ., \mathrm{R}$. $34 \mathrm{~W} ., \mathrm{N}$. quarter cor. sec. 32 , 15 ft . S. and 80 ft . E. from T-rd. E. on Iowa-Mo. State line, in root on $N$. side of twin li-in. post-oak tree; copper nall and washer

1,179.59

1,i66.746
1,159.87
1,118.30

1,135.68
1,064.06
1,148.65

1,141.78
1,219.24
1,143.962
1,127.41

1,192.15
1,180.10
1,100.28
$1,047.32$

1,033.257
1,035.62
$1,044.07$
$1,041.41$

1,047.770
$1,047 \cdot 475$
1,044.693
1,121.63
1,158.58
1,150.65
$1,126.80$
$1,188.624_{4}$
1,150.33
1,155.40
T. 67 N., R. 34 W., N. quarter cor. sec. 33,28 (? 20) ft. S. and 28 (? 20) 'ft. W. from Trd. S. on Iowa-Mo. State ine, in concrete post; standard tablet stamped "716 C W A 1934",

Feet
. $67 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} ., \mathrm{S}$. quarter cor. sec. $33,20 \mathrm{ft}$. S. and 20 ft . E. from T-rd. N., 110 ft . W. of T-rd. S., in root on W. side of $10-\mathrm{in}$. mulberry tree: copper nail and washer

1,208.65
T. 66 N. $\therefore$ R. 34 W., quarter cor. between secs. 4 and $9,50 \mathrm{ft}$. S. and 10
ft. E. from crossroads, in root on NW. side of 24-in. maple tree; copper nail and washer

1,197.76
T. $66 \mathrm{~N}_{\text {. }}$, R. 34 W., quarter cor. between secs. 9 and 16 , SW. of T-rd. N., in root on N. side of ll-in. elm tree; copper nall and washer

1;097.24
T. 66 N., R. $34 \mathrm{~W} .$, cor. secs. $8,9,16$, and $17,35 \mathrm{ft} . \mathrm{N}$. and 12 ft . E. from T-rd. S., in concrete post; standard tablet stamped 7717 CW A 1934"
T. $66 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} .$, cor. secs. $16,17,20$, and $21,180 \mathrm{ft} . \mathrm{S}$. and 15 ft . W. from T-rd. E., 15 ft . N. and 8 ft . W. from center of bridge, in top of cap; copper nail and washer
T-rd. V., NW. of, in root on S. side of 8 -in. elm trees crossed nails
T. 66 N., R. 34 W., cor. secs. $20,21,28$, and $29,70 \mathrm{ft}$. N. and 20 f.t. W. from crossroads, in root on S. side of $10-1 n$. post-oak tree; copper nail and washer

1,138.045

1,063.87
1,128.39
(Continued in Pickering quadrangle; see line 5.)

## 3. NEAR EAST BORDER OF QUADRANGLE AT IOWA-MISSCURI•STATE LINE

Ditto triangulation sta., in NE $1 / 4 \mathrm{sec} .33, T .67 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} ., 50 \mathrm{ft}$. S. end 102 ft . E. from E.-W. rd. on Iowa-Mo. State ilne at yard fence, 100 ft . N . and 140 ft . E. from farmhouse, in barn lot, in concrete post; U.S.C, \& G.S. standard disk stamped "Ditto 1934

1,221.369
Reference mark $1,55 \mathrm{ft}$. S . and 100 ft . W. from sta. in concrete post;
U.S.C. \& G.S. standard disk stamped "Ditto No 1 1934"

1,220.925
解 U.S.C. \& G,S, standard disk stamped "Ditto No 2 1934"

1,221.590
For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United Ștates Coast and Geodetic Survey secondorder line, Maryville, Mo. to Merle Jct., Iowa.

PICKERING QUADRANGLE
(Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime}$; Iongitude $94^{\circ} 45^{\prime}-95^{\circ} 00^{\prime}$ ) $)$
Nodaway County


1. SOUTY NEAR MIDDLE OF WEST BORDER OF QUADRANGLE (by E. J. Noonan in 1935)
(Continued from Skidmore quadrangle; see line 2.)
T-rd. S., about 600 ft . W. of, at E. end of steel bridge, in S. pier, on top of $S$. bolt head; chiseled cross
$\mathrm{T}-\mathrm{rd} . \mathrm{N}$. , about $0.4 \mathrm{mi} . \mathrm{N}$. of, 20 ft . W. of rd., in $\mathrm{N} .-\mathrm{S}$. fence ine, in root on E. side of 24-in. elm tree; crossed nails
T. $6 l_{+} \mathrm{N}_{\text {. }} \mathrm{R} .36 \mathrm{~W} .$, near quarter cor. between secs. 18 and $19,32 \mathrm{ft} . \mathrm{N}$. and 35 ft . W. from frrd. N., in concrete post; standard tablet stamped "703 C W A 1934"
Reference mark, 425 ft . E. of tablet, in root on W. side of 18-1n. oak tree; copper nail and washer

1,041.49
1,042.633
$1,014.66$

T-rd. S., about 600 ft . W. of, on top of S . head wall of concrete culvert; chiseled square

Feet
991.31

1,001.89
1,093.48

1,105.88

1,056.97
1,087.54
1,217.02

1,106.780

1,112.85
1,111.99
1,056.96
(Continued in Skidmore quadrangle; see line 2.)

## 2. WEST ALONG SOUTH BORDER OF QUADRANGLE

U.S.C. \& G.S. standard disk stamped "T 19 1933"

Wooden bridge over creek, $25 \mathrm{ft} . \mathrm{N}$, and 12 ft . E. from, in root on $W$. side of 20-1n. willow tree; crossed nails
T. $63 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W}$. , near cor. secs. $7,8,17$, and $18,35 \mathrm{ft}$. N. and 32 ft. E. from T-rd'. N., in concrete post; standard tabiet stamped "T T 724 C W A $1934^{\circ}$
T-rd. S., 250 ft . S. and 15 ft . W. from, in root on E. side of 20-1n. elm tree; crossed nails
Rd. corner from N. - W., 20 ft . N. and 8 ft . E. from, in W. side of telephone pole; spike
Wooden bridge over drain, 50 ft . S. and 20 ft . E. from, in root on $W$. side of 24-1n. elm tree; crossed nails
Swinford School, 153 ft . S. and 12 ft . W. from SE. corner of, in root on S. side of 12-in. post-oak tree; copper nail and washer
T. $63 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W}$. , near $\mathrm{W}_{\mathrm{i}}$ sixteenth cor. between secs. 17 and 20,150 ft. E. of T-rd. N., 30 ft . N. and 100 ft . W. from NW. corner of Long Branch Church, in root on E. side of 14-in. hickory tree; copper nail and washer
T. 63 N., R. 34 W., near W. sixteenth cor. between secs. 17 and 20,350 ft. E. of T-rd. N., 30 ft . N. and 100 ft . E. from NW. corner of Long Branch Church, in root on S. side of $18-1 n$. post-oak tree; copper nail and washer
T-rd. N., about 0.5 ml . W. of, at $W$. end of steel bridge, in S. pier, on top of W. bolt head; chiseled cross
T. 63 N. Rs. 34 and $35 \mathrm{~W} .$, cor secs. $13,18,19$, and $24,40 \mathrm{ft}$. N. and 105 ft . E. from crossroads, 30 ft . N. and 35 ft . E. from SW . corner of dwelling, in root on S. side of $36-1 \mathrm{n}$. maple tree; copper nail and washer
Crossroads, about 0.3 ml . W. of, on top of N . head wall of concrete culvert; ch1seled square
Crossroads, about 0.6 ml . W. of, 30 ft . S . of rd., in root on W . side of 18-in. maple tree; crossed nails
Wooden bridge over drain, on W. end of $N$. wing wall of W. abutment; chiseled square
T. 63 N., R. 35 W., cor. secs. $13,14,23$, and 24,30 (? 35) ft. S. and 35 ft . E. from crossroads, in concrete post; standard tablet stamped "725.C W A 1934"
Reference mark, 60 ft . S. of tablet, in root on $W$. sice of 12-1n. hedge tree; copper nall and washer
Crossroads, 20 ft . S. and 45 ft . E. from, in root on S. side of $15-\mathrm{in}$. poplar tree crossed nails
One Hundred and Two River, in N. pier at W. end of steel bridge over, on top of N. bolt head; chiseled cross
$1,049.447$
1,023.08

1,017.045
1,093.81
1,080.30
1,078.42
1,092.85
$1,113.17$

1,112.73
$1,006.07$

1,125.49
1,065.67
1,107.05
1,028.34

1,084.204
1,082.37
$1,048.83$
961.12

Arkoe, in front of feed stiore, on top of concrete foundation of gasoline pumps; chiseled square
Arkoe. W. of Chicago, Burlington \& Quincy R.R. at rd. crossing, at W.
door on N. side of school, on top of NW. corner of step; chiseled square
978.20
996.01
T. $63 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} .$, cor. secs. $15,16,21$, and $22,70 \mathrm{ft}$. N. and 20 ft . E. from crossroads, on top of $S$. ond of concrete base of transmissionline pole; chiseled square
Crossroads, about 0.3 mi . W. of, in N . side of transmission-ine pole; spike
Crosisroads, about 0.6 mi . W. of, 40 ft . S. of rd., in root on N . side of 30-in. maple tree; crossed nails
T. 63 N., R. 35 W, cor. secs. $16,17,20$, and $21,30 \mathrm{ft}$. S. and 195 ft . W. from, in concrete post; standard tablet stamped "726 C W A 1934 ".

Reference mark, 535 ft . W. of tablet, on top of S. hsad wall of concrete culvert; chiseled squere

1,011.26
$1,032.04$
1,089.26
1,075.362
1,048.36
T. 63 N., R. 35 W ., quarter cor. between secs. 17 and $20,28 \mathrm{ft}$. N. and 8 ft . W. from U.S. Highway 71 at cross rd., on top of $W$. edge of pavement; chiseled square
T. 63 N., R. $35 \mathrm{~W} .$, cor. secs. $17,18,19$, and $20,25 \mathrm{ft} . \mathrm{S}$. and 180 ft . W. from crossroads, in root on N. side of twin 20-in. cottonwood tree; copper nall and washer
Crossroads, about 0.4 mi . W. of, on top of $S$. head wall of concrete culvert; ch1seled square
T. 63 N . Rs. 35 and 36 W ., about 0.1 mi . E. of cor. secs. $13,18,19$, and $24,20 \mathrm{ft}$. N. and $60^{\prime} \mathrm{ft}$. E. from T-rd. S., in root on N. side of 20-1n. oak tree; copper nail and washer
Rd. corner from N.-W., about 250 ft . N. and 80 ft . E. from, in root on W. side of l8-in. mulberry tree; crossed nails
(Continued in Bolckow quadrangle; see line 6.)

## 3. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE ABOUT 2.3 MILES EAST OF MARYVILLE

U.S.G. \& G.S. standard disk stamped "Y 19 1933"

1,048.686
Maryville, in front of Chicago, Burlington \& Quincy R.R. sta., on foundation of semaphore; top of NE. bolt
Maryville, 1.4 mi . E. of courthouse, along State Highway 4, at underpass crossing of Wabash Ry., about 30 ft . N. of highway, on W . head wall of pipe culvert under track; chiseled square

1,038.77

Maryville, 2.3 mi . E. of courthouse, along State Highway 4, about 150 ft . $N$. of $W$. end of bridge over One Hundred and Two River at Maryville softening and purification plant, in SW, corner of concrete intake along W. bank of river; standard tablet (set by water-resources branch of U.S.Geol. Survey)
981.224
4. IN NORTHWEST CORNER OF QUADRANGLE (by H. W. Gross in 1936)
(Continued from Șidmore quadrangle; see line 6.)
T. $65 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W} .$, near E. sixteenth cor. between secs. 6 and 7, 30 ft . $N$. and 25 ft . E. from T-rd. N., in root on SW . side of $11-1 \mathrm{n}$. elm tree; copper nall and washer
$1,128.08$
T. 66 N., R. 36 W., S. cor. secs. 32 and $33,35 \mathrm{ft}$. N. and 20 ft . W. from T-rd. N., 120 ft . W. of T-rd. S., in root on NE. side of 16-in. wildcherry tree; copper nall and washer
Top of hill, near farmhouse, 25 ft . W. of rd., in root on SE. side of 20-in. locust tree; crossed nails
997.31
T. 66 N., R. $36 \mathrm{~W} .$, cor. secs. $28,29,32$, and $33,20 \mathrm{ft}$. S. and 40 ft . W. from T-rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 50 L S 1923 Mo"
Reference mark, 40 ft . N, and 12 ft . W. from tablet, in root on SW . side of $20-1 n$. elm tree; copper nail and washer
Bridge over Clear Creak, at NE. corner of, on top of rivet on bearing plate; chiseled cross

1,121.78
1,093.04

1,066.298
1,060.39
968.45
5. WEST ALONG NORTH BORDER OF QUADRANGLE
(Continued from New Market quadrangle; see line 2.)
T. 66 N., R. 34 W., cor. secs. $28,29,32$, and $33,60 \mathrm{ft}$. S. and 35 ft . E. from crossroads, in root on $W$, side of ll-in. maple tree; copper na11 and washer

1,158.39
T. $66 \mathrm{~N} ., \mathrm{R}, 34 \mathrm{~W}$, cor secs. $29,30,31$, and $32,25 \mathrm{ft} . \mathrm{S}$, and 65 ft . E. from rd. at fences $\mathrm{N} .-\mathrm{S}$., at deep cut on top of hill, in concrete post; standard tablet stamped "Prim Trav Sta No 54 L S $1923 \mathrm{Mo}^{\text {" }}$

1,116.312
T. $66 \mathrm{N}$. . R. $34 \mathrm{~W} .$, near W. cor. secs. 30 and $31,35 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from T-rd. E., in root on N. side of 26-in. elm tree; copper nail and washer
T. 66 N., R. $35 \mathrm{~W} .$, in E $1 / 2 \mathrm{sec} .36 ; 230 \mathrm{ft}$. S. and 20 ft . E. from T-rd. W. in root on $W$. side of 18-1n. maple tree; copper nail and washer T. $66 \mathrm{~N} ., \mathrm{R}$. 35 W. , in $\mathrm{El} / 2 \mathrm{sec} .35,125 \mathrm{ft}$. N. and 20 ft . E. from T-rd. E., on S. end of E. head wail of culvert; chiseled square
U.S.C. \& G.S. standard disk stamped "Z 80 1935"

1,158.98
$1,171.48$
1,054.98
T. $66 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} \cdot \mathrm{y}$ in $\mathrm{NW} 1 / 4 \mathrm{sec} .35$, about 0.1 mi . S. of state Highway 27 at rd. W., 14 ft . N. and 7 ft . W. from S . end of Chicago, Burlington \& Quincy R.R. bridge 49.89, in top of cap; copper nail and washer.
U.S.C. \& G.S. standard disk stamped "A 81 1935"
T. $66 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} .$, in $\mathrm{NW} 1 / 4 \mathrm{sec} .35,300 \mathrm{ft}$. N . and 10 ft . W. from State Highway 27 at rd. W., 3 ft . S . of expansion joint, on W. edge of pavement; chiseled square
$1,024.263$
T. 66 N., R. 35 W., in NE $1 / 4$ sec. $34,10 \mathrm{ft}$. N. and 205 ft . W. from steel bridge over One Hundred and Two River, 30 ft . N. of rd. forks, in concrete post; standard tablet stamped "Prim Trav Sta No. 53 L S $1923 \mathrm{MO}^{\circ}$
Reference mark, at SW . corner of bridge, on top of boit in bearing plate; chiseled cross
Rd. forks, about 200 ft . NW. of, on top of N . head wall of culvert chiseled square
T. $66 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} .$, cor secs. $27,28,33$, and $34,165 \mathrm{ft} . \mathrm{S}$. and 20 ft . W. from $T \rightarrow r d$. W., $45 \mathrm{ft} . \mathrm{NE}$. of rd., in root on $W$. side of $10-1 \mathrm{n}$. box-elder trees copper nail and washer

1,017.49
1,028.902
$1,018.47$

1,017.553
1,021. 13
T. 66 N., R. 35 W., cor. secs. $28,29,32$, and $33,90 \mathrm{ft}$. S. and 20 ft . E. from crossroads, in root on N. side of 11-in. hackberry tree; copper nail and washer

Bridge, at SE. corner of, in top of cap; crossed nails
Feet
T. 66 N., R. 35 W., cor. secs. $29,30,31$, and $32,30 \mathrm{ft}$. S. and 30 ft . E. from crossroads, 55 ft . N. and 200 ft . W. from Clyde School, in NW. corner of schoolyard, in concrete post; standard tablet stamped "Prim Trav Sta No 52 L S $1923 \mathrm{Mo}^{\prime \prime}$
$1,11 \overline{0.24}$
T. $66 \mathrm{~N} ., \mathrm{Rs}$. 35 and $36 \mathrm{~W} .$, cor. secs. $25,30,31$, and $36,100 \mathrm{ft}$. S. and 20 ft . E. from crossroads, in root on E. side of 12-in. hedge tree; copper nail and washer
Bridge, at NE. corner of, on top of concrete wing wall; chiseled square T. 66 N., R. 36 W., cor. secs. $25,26,35$, and $36,35 \mathrm{ft} . \mathrm{S}$. and 50 ft . E. from crossroads, in root on NW. side of l2-in. catalpa tree; copper nail and washer
T-rd. E., 300 ft . S. and 20 ft . W. from, in root on SE. side of 21-1n. maple tree; crossed nails
T. $66 \mathrm{N.}, \mathrm{R} 36 W.$. , quarter cor. between secs. 26 and $27,35 \mathrm{ft} . \mathrm{N}$. and about 240 ft . E. from crossroads, in root on S . side of maple tree; copper nail and washer
T. 66 N., R. $36 \mathrm{~W} .$, in $\mathrm{E} 1 / 2 \mathrm{sec} .27,55 \mathrm{ft}$. S. of front door of dwelling of C. L. Clouse, 20 ft . N. of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 51 L S $1923 \mathrm{Mo}^{\circ}$
$1,141.221$

66 N., R. 36 W., quarter cor. between secs. 27 and 28 , about 300 ft . N. of T-rd. E., 15 ft . E. of rd., on top of concrete head wall of culvert; chiseled square

1,183.98
1,116.26
$1,187.56$
1,171.85
$1,105.67$
$1,139.300$

1,057.29
(Continued in New Market quadrangle; see line l.)
6. FROM NORTHEAST CORNER OF QUADRANGLE SOUTH TO POINT NEAR MIDDLE OF EAST BORDER, THENCE WEST TO POINT NEAR CENTER
T. 66 N., R. 34 W., S. cor. secs. 32 and $33,15 \mathrm{ft}$. N. and $235 \mathrm{ft} . \mathrm{W}$. from T-rd. N., on top of concrete head wall of culvert; chiseled square
T-rd. S., $35 \mathrm{ft} . \mathrm{N}$. and 120 ft . W. from, in root on SE. side of 20-1n. maple tree; crossed nails

1,149.41
1,179.63
$1,100.396$
(For balance in Parnell quadrangle, see line 2.)
T. 64 N., R. 34 W., N. cor. secs. 5 and $6,85 \mathrm{ft}$. S. and 25 ft . E. from T-rd. S., in root on $W$. side of 11-1n. elm tree; copper nail and washer

1,135.71
Tps. 64 and $65 \mathrm{~N} ., \mathrm{Rs} .34$ and $35 \mathrm{~W} .$, cor. of, 30 ft . S. and 40 ft . W. from T-rd. S., in root on N. side of l6-in. hickory tree; copper nail and washer
Bridge, at $S W$. corner of, in top of cap; crossed nalls
T. 65 N., R. $35 \mathrm{~W} ., \mathrm{S}$. quarter cor. sec. $36,30 \mathrm{ft}$. W. of rd. forks, on top of wing wall at NE. corner of concrete culvert; chiseled square
T-rd. S., SW. of, on top of concrete head wall of culvert; chiseled square
T. $65 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} ., \mathrm{S}$. cor. secs. 35 and $36,20 \mathrm{ft}$. N. and 60 ft . E. from T-rd. N., in root on SW . side of $36-1 \mathrm{n}$. cottonwood tree; copper nail and washer
T-rd. S., NE. of, in root on S. side of twin 14 -in. locust tree; crossed nails
Tps. 64 and $65 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} ., 25 \mathrm{ft}$. S. and 380 ft . E. from cor. secs. 2, 3. 34 , and 35 , in concrete post; standard tablet stamped "730 C WA 1934
(N., R. 35 W., near N. quarter cor. sec. 3, at NE. corner of steel bridge over One Hundred and Tro River, on top of anchorbolt; chiseled cross (set by water-resources branch of J.S. Geol. Survey)

1,091:36
1,01+3.31
1,082.00
1,155.38
$1,125.24$
1,140.70
$1,029.000$
993.50
990.55
997.38

1,007.751
1,006,806
1,006.484
7. FROM MARYVILLE NORTH ABOUT 2 MILES ALONG CHICAGO, BURLINGTON \& QUINCY RAILROAD

Chicago, Burlington \& Quincy R.R. bridge 58.87, at NE. corner of, on top of wing wall; chiseled square
$1,017.76$
1,017.80
1,002.557

## 8. SOUTH NEAR BEDISON, IN SOUTHEAST QUARTER OF QUADRANGLE <br> (Continued from Parnell quadrangle; see line 1.)

T. 64 N., R. 34 W., cor. secs. $29,30,31$, and $32,195 \mathrm{ft} . \mathrm{S}$. and 35 ft . W. from crossroads, in root on NE. side of 24-1n. maple tree; copper nail and washer
T. $64 \mathrm{~N}, \mathrm{R}$. 34 W ., center of $\mathrm{SE} 1 / 4$ sec. $31,42 \mathrm{ft}$. S . and 25 ft . E. from rd. at fences E.-W., 3 ft. W. of hedge fence, in concrete post; standard tablet stamped "723 C W A 1934"
T-rd. N., 165 ft . W. of, on top of N . head wall of concrete culvert; chiseled square
T. 63 N., R. $34 \mathrm{~W} ., \mathrm{N}$. quarter cor. sec. $6,40 \mathrm{ft}$. S. and 35 ft . W. from T-rd. S., in root on NE. side of 22-1n. mulberry tree; copper nail and washer.
T. 63 N., R. 34 W. , near center sec. $6,20 \mathrm{ft}$. S. and 80 ft . E. from T-rd. N., in root on N. side of 24-in. mulberry tree; copper nail and washer

Wabash Ry. at rd. crossing, 25 ft . S. and 30 ft . W. from, in N . side of telegraph pole; spike
$1,140.703$
1,109.18
$1,131.50$
1,108.36
1,076.41

## 9. FROM PICKERING WEST TO WEST BORDER OF QUADRANGLE

U.S.C. \& G.S, standard disk stamped "Y 80 1935"

1,022.377
Pickering, 15 ft . N. and 40 ft . E. from State Highway 27 at Main Street, on top of concrete head wall of culvert; chiseled square
Pickering, at NW. limits of, near center sec. 9, T. 65 N., R. 35 W., 12 ft. S. and 45 ft : E. from State Highway 27 at cross rd., on top of s . head wall of culvert; chiseled square
T. $65 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W}$., in $\mathrm{E} 1 / 2$ sec. $8,35 \mathrm{ft}$. S , and 30 ft . E. from crossroads, in root on E. side of lyin. elm tree; copper nail and washer
Crossroads, NE. of, in W. side of telephone pole; spike
T. 65 N., R. 35 W., in E $1 / 2$ sec. 7, 12 ft . N. of rd., on top of head wall of culvert; chiseled square
T. 65 N., R. 35 W., W. quarter cor, sec. $7,12 \mathrm{ft}$. N. and 500 ft . E. from T-rd. E. in top of concrete head wall of culvert; standard tablet stamped ${ }^{18} \mathrm{G}_{\mathrm{G}} 1936{ }^{\prime \prime}$
T. 65 N., R. 36 W., quarter cor. between secs. 11 and 12 , about 600 ft . E. of crossroads, 15 ft . N. and 35 ft . E. from rd. at drain, in root on S. side of 10-in. black-locust tree; copper nail and wesher
T. $65 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W} .$, in $\mathrm{W} 1 / 2 \mathrm{sec}$. 11 , at SW. corner of steel bridge, on top of corner rivet in bearing plate; chiseled cross
T. 65 N., R. 36 W. , center sec. $10,650 \mathrm{ft}$. N. of rd. corner from E.-N., $12 \mathrm{ft} . \mathrm{W}$. of rd., in top of concrete head wall of culvert; standard tablet stamped "' G $1936^{\circ}$.
T-rd. W., on S . head wall of culvert; chiseled square
T. $65 \mathrm{~N} .$, R. 36 W. , N. sixteenth cor, between secs. 9 and 10 , 525 ft . E. of T-rd. S., on top of concrete head wall of culvert; chiseled square
Bridge, $8 \mathrm{ft} . \mathrm{S}$. and 10 ft . E. from center of $\mathrm{f}_{\mathrm{f}}$ in top of cap; crossed nails
T. $65 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W} .$, in NW $1 / 4$ se0.4 9 , 125 ft . W. of T-rd. E., in fence line, in root on E. side of $14-1 n$. oak tree; copper nail and washer
T-rd. W., 50 ft . S. and 60 ft . W. from, in root on N . side of $16-\mathrm{in}$. black-locust tree; crossed nails
Steel bridge, at SE. corner of, on top of bolt in pier; chiseled cross 1,072.97
$1,01+2.83$
$1,087 \cdot 78$
$1,156.22$
$1,154.24$

1,165.995

1,122.43
1,054.21
$1,149.174$
1,150.34
1,127.64
1,035.83
2,106.92
1,050.70
993.18
T. 65 N., R. 36 W., quarter cor. between secs. 5 and $8,30 \mathrm{ft}$. N. and 165 ft . E. from T-rd. S., in root on NW. side of l2-in. hickory tree; copper nail and washer
$1,029.14$
T-rd., $20 \mathrm{ft} . \mathrm{N}$. and 75 ft . W. from, in root on S. side of 8-1n. oak tree; crossed nalls

1,138.46
For additional level lines along Wabash Ry, and Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order line, Milan, Mo. to Hamburg, Iowa; and second-order ilne, Maryvilie to Merle Jct., Iowa.

BOLCKOW QUADRANGLE
(Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime}$; longitude $94^{\circ} 45^{\prime}-95^{\circ} 00^{\prime}$ )
Andrew and Nodaway Counties


1. FROM MIDDLE OF EAST BORDER OF QUADRANGLE WEST THROUGH CENTER TO POINT NEAR WEST BORDER, THENCE SOUTH TO FILLMORE (by W. R. Broaddus in 1923-24)
(Continued from Stanberry quadrangle; see line 5.)
Cawood, about 0.4 ml . W. of, quarter cor between secs. 5 and 8 ,
T. 61 N., R. $34 \mathrm{~W} ., 20 \mathrm{ft}$. S. and 45 ft . W. from crossroads, in root on E. side of $30-1 \mathrm{n}$. mulberry tree; copper nail and washer

Feet
Bolckow, 0.5 mi . N. of N. limits of, N. cor. secs. 2 and $3, \mathrm{~T} .61 \mathrm{~N}$. R. $35^{\circ}$ W. $15 \mathrm{ft} . \mathrm{N}$. of T-rd. S . on Andrew-Nodaway county 11 ne , 310 ft . E. of Chicago, Burilington \& Quincy R.R. at rd. crossingy in concrete post; standard tablet stamped "Prim Trav sta No 24 Mac $1923 \mathrm{Mo}^{\text {" }}$
Reference mark, 192 ft . S. $18^{\circ} \mathrm{W}$. of tablet, in root on W. side of 8-in. ash tree; copper nail and washer
Chicago, Burlington \& Quincy R.R. at rd. crossing; top of rail
T. $61 \mathrm{~N} ., \mathrm{R}$. $35 \mathrm{~W} .$, about 0.2 mi . W. of N . quarter cor. sec. 3 , 18 ft . S. and 15 ft . W. from junction of private lane N , on Andrew-Nodaway county line, on E. bank of old bed of One Hundred and Two River, in root on W. side of $30-1 \mathrm{n}$. black-oak tree; copper nail and washer
T. 61 N., R. 35 W., about 0.3 mi . W. of N. cor. secs. 3 and 4 , 15 ft . N . and 47 ft . W. from State Highway 27 at cross rd. on Andrew-Nodaway county ine, in root on SW. side of 14-in. maple tree; copper nail and washer
972.84
929.577
928.78
928.7
923.70
T. 61 N., R. $35 \mathrm{~W} ., 0.2 \mathrm{mi}$. W. of N. cor. secs. 4 and $5,25 \mathrm{ft} . \mathrm{N}$. and 110 ft . W. from T-rd. S. on Andrew-Nodaway county line, in fence line. in root on $N$. side of $6-1 n$. locust tree; copper nail and washer
933.77
972.47

1,045.39
on Andrew-Nodaway county line; top of cornerstone
974.66

1,030.129
1,027.97
949.52
991.80

1,012.42
$987 \cdot 356$
from T - rd. S, on Andrew-Nodaway county line, in root on NE. side of 24-in. elm tree; copper nail and washer
Tps. 61 and 62 N ., Rs. 35 and $36 \mathrm{~W} .$, cor. of, $20 \mathrm{ft} . \mathrm{S}$. and 40 ft . W. from T-rd. N. on Andrew-Nodaway county line, 70 ft . NE. of dweliing, 3 ft . from fence, in concrete post; standard tablet stamped "Prim Trav Sta No 25 Mac $1923 \mathrm{Mo}^{n}$
Reference mark, 170 ft . S. $35^{\circ} \mathrm{W}$. of tablet, in root on W. side of $20-\mathrm{in}$. maple tree; copper nail and washer
T. 61 N., R. $36 \mathrm{~W} ., \mathrm{N}$. quarter cor. sec. 1 , 150 ft . E. of T-rd. S. on Andrew-Nodaway county line, 5 ft . N. of rd., on top of concrete culvert 18 in . S. of N . head wall; chiseled square
Tps. 61 and $62 \mathrm{~N} ., \mathrm{R}$. 36 W ., cor. secs. $1,2,35$, and $36,25 \mathrm{ft}$. NE. of T-rd. N. on Andrew-Nodaway county line, in root on 3 . side of $30-1 \mathrm{n}$. maple tree copper nail and washer
Tps. 61 and $62 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W}$. , cor. secs. $2,3,34$, and $35,40 \mathrm{ft}$. SW . of crossroads on Andrew-Nodaway county ine, in root on NW. side of $30-1 \mathrm{n}$. maple tree; copper nall and washer
T. 61 N., R. 36 W., N. cor. secs. 3 and $4,24 \mathrm{ft}$. NE. of Trd. S., 42 ft. NE. of T-rd. N. on Andrew-Nodaway county 1 ine, 36 ft . SW . of SW ; corner of church, in concrete post; standard tablet stamped "Prim Trav Sta No 26 Mac 1923 Mon

Tps. 61 and $62 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W} .$, cor, secs. $4,5,32$, and $33,150 \mathrm{ft} . \mathrm{N}$. and 15 ft . E. from T-rd. E. on Andrew-Nodaway county line, in root on SE. side of $24-1 n$. elm tree, copper nail and washer
911.59
T. $61 \mathrm{~N}, \mathrm{R}$. $36 \mathrm{~W} .$, E. sixteenth cor. sec. 5.20 ft . S. and 15 ft . W. from rd. corner E.-S., in root on NW. side of l6-in. ash tree; copper nall and washer
T. 61 N., R. 36 W. , center of $\mathrm{SE} 1 / 4 \mathrm{sec} .5,55 \mathrm{ft}$. E. of T-rd. W., in

Feet 987.37 926.45 871.001 871.71
T. 60 N., R. 34 W ., about 430 ft . W. W center sec. $19,20 \mathrm{ft}$. N. and 75
ft. W. from T-rd. N., in root on NE side of $18-\mathrm{in}$. iocust tree; copper nail and washer
T. 60 N., R. 35 W., quarter cor. between secs. 13 and 24,15 ft. N. and 95 ft . E. from T-rd. S., opposite cemetery, in root on S. side of 10-in.
elm tree; copper nail and washer
1,053.06
T. $60 \mathrm{~N} .$, R. $35 \mathrm{~W} .$, E. sixteenth cor. between secs. 14 and $23,35 \mathrm{ft}$. NE. of T-rd. NE., in concrete post; standard tablet stamped "Prim Trav Sta No $7 \mathrm{Mac} 2923 \mathrm{Mo"}$
968.676

Reference mark, 48 ft . S. $15^{\circ} \mathrm{E}$. of tablet, in root on N . side of $16-1 \mathrm{n}$. white-oak tree; copper nail and washer
One Fundred and Two River, under bridge; surface of water at 9:30 a.m. Sept. 28, 1923
T. $60 \mathrm{~N} ., \mathrm{R} .35 \mathrm{~W} ., 200 \mathrm{ft}$. S. of cor. secs. $14,15,22$, and $23,30 \mathrm{ft}$. NW. of ra. corner from E.-S., in root on S. side of l2́in. elm tree; copper nail and washer
T. $60 \mathrm{~N} ., \mathrm{R}$. 35 W. , quarter cor. between secs. 22 and $23,220 \mathrm{ft} . \mathrm{N}$. of T-rd. W., 25 ft . E. of rd., in root on SW. side of $48-\mathrm{in}$. elm tree; copper nail and washer
T. 60 N., R. 35 W., on line between secs. 15 and 22 , on $W$. bank of one Hundred and Two River, 520 ft . E. of Chicago Great Western R.R. at rd. crossing, 10 ft . E. of T-rd. W., in root on SW. side of $30-1 \mathrm{n}$. bur-oak tree; copper nall and washer
T. $60 \mathrm{~N} ., \mathrm{R}$. 35 W ., on line between secs. 15 and $22,520 \mathrm{ft}$. E. of Chicago Great Western R.R. at rd. crossing, 30 ft . N. of T-rd. W., on top of E. head wall of concrete culvert; chiseled square

## 3. FROM SOUTH BORDER OF QUADRANGLE NORTH TO FILLMORE

(Continued from St. Joseph quadrangle; see line 4.)
T. 60 N., R. 36 W., quarter cor. between secs. 19 and $20,120 \mathrm{ft}$. SE. of T-rd. E., in top of E. end of second concrete step in front of Stone Church School; standard tablet stamped "B 1924 Mo"
906.950

Reference mark, 39 ft . S . $85^{\circ} \mathrm{W}$. of tablet, in root on N . side of 24-1n. tree; copper nail and washer
T. $60 \mathrm{~N} ., \mathrm{R}^{2} 36 \mathrm{~W} .$, cor. secs. $17,18,19$, and $20,35 \mathrm{ft} . \mathrm{N}$. and 20 ft . E. from T-rc. W., in root on S. side of $24-1 n$. maple tree; copper nail and washer
902.63
928.03

## 4. FROM FILLMORE EAST NEAR SOUTH BORDER OF QUADRANGLE TO POINT ABOUT 2 MILES SOUTH OF ROSENDALE

T. 60 N., R. $36 \mathrm{~W} ., 290 \mathrm{ft}$. W. of cor. secs. 8, 9, 16 , and 17 , opposite farmhouse at top of hill, 30 ft . N. of rd., in concrete post; standard tablet stamped "prim Trav Sta No 10 Mac 1923 Mo !
Reference mark, 97 ft . S. $20^{\circ} \mathrm{E}$. of tablet, in root on NE. side of $30-\mathrm{in}$. locust tree; nall and washer

1,014.970
T. $60 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W}$. , cor. secs. $9,10,15$, and $16,50 \mathrm{ft} . \mathrm{N}$. and 130 ft . W. from T-rd. W., in root on SW. side of $30-1 n$. cottonwood tree; nail and washer
T. $60 \mathrm{~N} .$, R. $36 \mathrm{~W} .$, E. sixteenth cor. between secs. 10 and $15,30 \mathrm{ft} . \mathrm{N}$. and 20 ft. E. from T-rd. N., in root on W. side of $7-1 n$. hickory tree; nail and washer
F. 60 N., R. 36 W. , quarter cor. between secs. 11 and $14,40 \mathrm{ft}$. N. and 20 ft . E. from crossroads, in root on W. side of 8-1n. hedge tree; nall and washer

1,016.24

1,078.57
$1,047.38$

107502 O-38-8

T: 60 N., R. 36 W., center sec. 14, 12 ft . W. of T-rd. E., in W. wall of concrete culvert; standard tablet stamped "Prim Trav Sta No 9 Mac 1923 MO"
Reference mark, 124 ft . N. $20^{\circ}$ E. of tablet, in root on $W$. side of $12-\mathrm{in}$. walnut tree; nall and washer
T. 60 N., R. 36 W., E. quarter cor. sec. $13,70 \mathrm{ft}$. S. and 25 ft . W. from T-rd. W., in root on S. side of $5-1 n$. locust tree; nail and washer
T. 60 N., R. 36 W., E. cor. secs. 13 and $24,25 \mathrm{ft}$. E. of T-rd. W., at crossroads, in root. on $N$. side of.l8-in. locust tree; nail and washer
T. 60 N., R. 35 W., approximate cor. secs. $17,18,19$ and $20,10 \mathrm{ft}$. N. and 60 ft . E. from.T-rd. S., in root on W. side of 8 -in. locust tree; copper nail and washer
T. 60 N., R. $35 \mathrm{~W} .$, quarter cor. between secs: 17 and $20,30 \mathrm{ft}$. SW. of crossroads, in concrete post; standard tablet stamped MPrim Trav Sta No 8 Mac 1923 Mol
Reference mark; 47 ft. E. of tablet, in root on S . side of.10-1n. elm tree; copper nail and washer
T. 60 N., R. $35 \mathrm{~W}_{.}$, in NE $1 / 4 \mathrm{sec} .21$, 350 ft . from Fairview Church, 120 ft. N. and 40 ft. E. from T-rd. E., in root on SW. side of 20-in. white-oak tree; copper nail and washer
$1,045.05$
1,055.73
$1,044.25$

1,040.693
1,037.41
976.05

## 5. FROM FILLMORE WEST TO WEST BORDER OF QUADRANGLE

T. 60 N., Rs. 36 and $37 \mathrm{~W} .$, cor. secs. $7 ; 12,13$, and $18,300 \mathrm{ft}$. E. of T-rd. S., in bench on N. side of 42-1n. elm tree; copper nail and washer
895.31
(Continued in Maitland quadrangle; see line 3.)

## 6. WEST ALONG WEST HALF OF NORTH BORDER OF QUADRANGLE (by E. J. Noonan in 1935) <br> (Continued from Pickering quadrangle; see line 2.)

T. 63 N., Fla. 35 and 36 .W., cor. secs. 19, 24,25 , and $30,25 \mathrm{ft}$. S. of T-rd. N., in concrete post; standard tablet stamped "727 C W A 1934"
Reference mark, 405 ft . W. of tablet, in root on, E. side of $40-\mathrm{in}$. elm tree; copper nall and washer
Bridge over White Cloud Creek, at top of $S$. post under W. end of bridge seat, on top of.W. rivet; chiseled cross
$1,051.472$
1,068.28
998.78
. 63 N.,.,R. $36 \mathrm{~W} .$, near cor secs. $23,24,25$, and 26 , about $400 \mathrm{ft} . \mathrm{W}$ of crossroads, 25 ft. S. of rd., in root on S. side of l2-in. hickory trees copper, nail and washer
$1,081.34$
Dweling about $9 \dot{\prime} \mathrm{ft}$. N. and 75 ft . W: from NW. corner of, in root on S . side of $20,1 n$. wild-cherry tree; crossed nalls
T. $65 \cdot$ N. , R. 36 W. , cor secs. $22,23,26$, and $27,45 \mathrm{ft}$. N. of crossroads, on top of, E. head wall of concrete culvert; chiseled square
Swan Chapel Church, in.front of, on top of SE. corner of concrete platform; chiseled. square
Wooden bridge over drain, at NE corner of; top of floor
T. 63 N., R. 36 W., secs. $21,22,27$, and $28,33 \mathrm{ft}$. N. and 643 ft . W. from cor:of in concrote post; standard tablet stamped "728 C W A $1934{ }^{4}$
Barn, 45.ft. N. and. 10 ft. E' from SE. corner, of. in root on S. side of 30-1n. 'maple'tree; crossed nails
T. $63 \mathrm{~N}, \mathrm{R}$. $36 \mathrm{~W} \cdot \mathrm{cor}$ cocs. $20,21,28$, and $29,35 \mathrm{ft} . \mathrm{N}$. and 30 ft W from crossroads, in root on $W$. side of $24-1 \mathrm{n}$. maple tree; copper nail and washer
Rd. corner from, N., W., 90 ft. E. of, in root on $N$. side of 18-in. elm tree; crossed nalls
T. 63 N., R. 36 W., N. sixteenth cor between secs. 29 and 30 , about 200 ft. E. of crossroads, on top of S . head wall of iron pipe culvert; chiseled square
Steel bridge over, Arain; 60 ft . N. and 40 ft . E. from E. end of, in root on NE: side of 24-1n: wilnut tree; crossed nails

## 7: SOUTH ALONG NORTH HALF OF EAST BORDER OF QUADRANGLE, THENCE WEST TO POINT ABOUT 1 MILE NORTH OF BOLCKOW (by E. J. Noonan $\ldots$ and H..W. Grose in 1935-36) $\therefore$ (Ćontinued from Stanberry quadrangle; see line 7.)

Tps. 62 and $63 \mathrm{~N}, \mathrm{R}, 34 \mathrm{~W}, \mathrm{cor}$ secs. $5,6,31$, and $32,480 \mathrm{ft}$. S. and 18 ft . E. from crossroads, in concrete post; standard tablet stamped $\therefore 745=$ C. W.A. 1934
Reference mark, $125 \mathrm{ft} . \mathrm{S}$. of tablet, in root on NW. side of lo-in. maple tree $\ddagger$ copper nail and washer
T-rd: Et 300 .ft. S. of 20 ft. W. of rd., in root. on E. side of $36-1 \mathrm{n}$. máple treejncrossed nalls
T. 62 N:, R. 34 W., cor. secs. $5 ; 6,7$, and $8,725 \mathrm{ft} . \mathrm{S}$. and 85 ft . E. from crossroads, in root on S. side of 12-in. oak tree; copper nail and washer
Ra. at fences E. - W., 20 ft . S. and 30 ft . W. from, in root on E. side of 12-1n. elm tree; crossed na11s
T. 62 N. R. 34 W, cor. secs. $7,8,17$, and $18,45 \mathrm{ft} . \mathrm{N}$. and 30 ft . W. from T-rd. W., in root on SE. side of $15-1 n$. oak tree; copper nail and washer
Dwelling, 210 ft . N, and 35 ft . E. from NE. corner of, in root on E . side of $18-1 n$. hackberry tree; crossed nails

1,095.336
$1,096.48$
$1,042.14$
998.52

1,038.92

1,018.78
1,008.10
T. 62 N., R. 34 W., cor. secs. $17,18,19$, and $20,35 \mathrm{ft}$. N. and 25 ft . W. from County Route $M$ at cross rd., in concrete post; standard tablet stamped " 746 . C.W.A. 1934"

Feot
991.954
987.63
949.04
955.00
938.99
961.34
963.11
961.760

1,021.49

1,031.63
965.44
$1,014.83$
970.42

# ST. JOSEPH QUADRANGLE* <br> (Latitude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; Iongitude $94^{\circ} 45^{\prime}-95^{\circ} 00^{\prime}$ ) <br> <br> Andrew and Buchaman Counties 

 <br> <br> Andrew and Buchaman Counties}


1. NORTH ALONG EAST BORDER OF QUADRANGLE (by M. J. Harden in 1923)
(Continued from Dearborn quadrangle; see line 3.)
T. 57 N., R. 35 W. E. quarter. cor sec 13, NW. of T-rd. W. at cpossroads, about 15 ft . W. of fence corner, in concrete post; standard tablet stamped."H 1923"
Reference mark, NW: ơf çrossroads, in root of. 10-in. elm tree; copper nail and washer
Chicago, Burlington \& Quincy.R.R. at rd. crossing; top of rail
T. 57 N. R. 35 .W., $E$. quarter cor. sec. 12 , near T-rd. W.; top of $W$. end of iron:pipe culvert.
948.353
246.95
870.7
898.88
T. 57 N., Ris. 34 , and 35 W.g on line between secs. 1 . and 6, near State Highway: (now. U.S. Highway 36) at rd. S.; top of W. end of tile culvert
872.73

Tps - 57 and 58 N., Rs. 34 and 35 W , cor of SW . of T-rd. W:; top of S. end of cioncrete tile culvert (destrojed)
T. 58 N., R. $35 \cdot \mathrm{~W}, \mathrm{NE}$, cor. secs. 25 and 36 , 32 ft . S., and 22 ft . W. from T-rd. W. at crossroads. inside:.of fence, in concrete post; standard tablet stamped "H l923":
Reference mark, $i 0^{f t}$. W. of T-rd. E.; $\dot{W}$. end of iron pipe culvert
851.00
(For balance in Clarksdale quadrangle, see line 2.)

[^17]T. 59 N., R. 34 W., near quarter cor. between secs. 18 and 19 , NW. of crossroads; top of $N$. end of iron pipe culvert

> Feot
> $1,051.20$
> $1,011.92$
> 995.899
> 983.93
(Continued in Clarksdale quadrangle; see line 2.)
2. FROM AMAZONIA NORTH AND EAST BY WAY OF SAVANNAH, TO POINT NEAR EAST BORDER OF QUADRANGLE (by W. R. Broaddus in 1924)
Amazonia, 0.2 mi . W. of Chicago, Burlington \& Quincy R.R. sta., 46 ft. M. of track, 10 ft . W. of W. fence; 1ron post (U.S.C.E. B.M. designated " 293 ") Top of cap
Reference mark, $41 \mathrm{ft} . \mathrm{S}, 20^{\circ} \mathrm{E}$. of post, on top of N . end of concrete tile under switch track; chiseled square
Amazonia, near N. limits of, 1 biock $W$. of Main street, in front of Methodist Church, at edge of rd., on SW. corner of concrete block; chiseled square
amazoria, 1.3 ml . NW. of, in E $1 / 2 \mathrm{sec}, 26, \mathrm{~T} .59 \mathrm{N}, \mathrm{R},. 36 \mathrm{~W} ., 500 \mathrm{ft}$. S. of dwelíng of Joe Śayle, 25 ft . E. of rd., in root on w. side of 15-in. tree; copper nail and washer
T. 59 N., R. 36 W. , on line between secs. 14 . and 23 , 140 ft . SE. of crossroads, 65 ft . SW. of Liggett School, in root on SW. side of $16-1 \mathrm{n}$. locust tree; copper nail and washer
T. 59 N., R. 36 W ., near E. sixteenth cor, between secs. 11 and 14, 50 ft. S. and 18 ft . E. from T-rd. S. inside of fence, in concrete post; standard tablet stamped "B $1924 \mathrm{Mo}^{\circ}$
Reference mark, $575 \mathrm{ft} . \mathrm{N} .80^{\circ} \mathrm{E}$. of tablet, in root on S . side of $30-\mathrm{in}$. white-oak tree; copper nail and washer
826.176
830.195
829.56
869.17

1,065.96

1,103.84

1,125.415
1,104.33
T. 59 N., R. 36 W., E. cor. secs. 12 and $13,60 \mathrm{ft}$. NW. of T-rd. W., inside of old Union Cemetery, in root on NE. side of $30-1 n$. pine tree; copper nail and washer
Savannah, 1.8 ml . W. of, on line between secs. 17 and 18, T. 59 N., R. $35 \mathrm{~W} ., 70 \mathrm{ft}$. E. of rd. forks, 10 ft . N. of rd., in root on S. side of 18-1n. walnut tree; copper nail and washer
Savannah, at $S W$. 11 mlts of, 40 ft . S. and 20 ft . E. from T-rd. E.. in root on $W$. side of 20-1n. elm tree; copper nail and washer
Savannah, at W. side of $S$. entrance to courthouse, in first course of stone; standard tablet stamped. "B 1924 Mo "
Reference mark, $10 \mathrm{f}^{\prime} \mathrm{t}$. S. and $55 \mathrm{ft}^{\prime}$. E. from E. entrance to courthouse, in root on $N$. side of $30-1 n$. elm tree; copper nall and washer
Savannah, 0.9 mi . E. of courthouse, in $\mathrm{S} 1 / 2 \mathrm{sec} .10$. T. $59 \mathrm{~N} ., \mathrm{R}$. 35 W. , 25 ft . N. and 60 ft . W. from T-rd. N., in root on NW. side of 14-in. maple tree; copper nail and washer
T. 59 N., R. 35 W., quarter cor. between secs. 11 and $14,30 \mathrm{ft}$. S. and 15 ft . E. from T-rd. W., in root on SW. side of 24-in. wild-cherry tree; cópper nail and washer
T. 59 N., R. $35 \mathrm{~W} .$, in $\mathrm{SE} 1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec}$. 14 , at bridge over One Hundred and Two River, on top of NW. pier; chiseled square
T. 59 N., R. 35 W., E. quarter cor. sec. 13 , 50 ft . E. of rd. forks, in root on SW. side of $42-1 n$. elm tree; copper nail and washer

1,031.20
$1,059.14$
1,123.70
1,114.317
1,110.25
1,067.26
1,026.73
887.99
925.53
3. FROM ST. JOSEPH WATERWORKS SOUTHEAST TO EAST BORDER OF QUADRANGLE
U.S.C.E. B.M. designated "289"
822.416

St. Joseph, 3.5 mi . N. of post office, 180 ft . S. of E. end of filtering room of city waterworks, 100 ft . W. of Chicago, Burlington \& Quincy R.R. at rd. crossing, in root on w. side of $18-1 \mathrm{n}$. elm tree; copper nail and wesher
822.37

St. Joseph; about 3.5 ml . N. of post office, in $\mathrm{N} 1 / 2 \mathrm{sec} .31, \mathrm{~T} .58 \mathrm{~N}$. , R. 35 W ., on Waterworks Hill, 60 ft . S. of water tank, in root on S. side of $36-1 \mathrm{n}$. trees copper nail and washer

1,114.06
St. Joe triangulation sta:, about 3.5 mi . N. of st. Joseph post office, in $S 1 / 2$ sec. 30 , T. 58 N., R. 35 W., about 0.2 mi . N. of St. Joseph waterworks reservoir, on cultivated bluff; (mark not described)
$1,140.573$
St. Joseph, 0.2 mi . N. of N. Iimits of, on line between secs. 29 and 32, T. 58 N., R. 35 W., on Amazonia-St. Joseph rock rd. at cross rd., S. of rd., on first step in front of Maxwell School; chiseled square
St. Joseph, near N. IImits of, at junction of Karnes Road and St. Joseph Avenue, on bottom step of front entrance to Baptist Church; chiseled square
St. Joseph, at'N, limits of, 30 ft . N. and 25 ft . E. from crossroads, in root on NW. side of 24-in. cottonwood tree; copper nail and washer
$1,054.51$

St. Joseph, 33 ft. E of intersection of Twenty-second Street and Lovers Lane sw. 5 ft . inside of walk, in concrete post; standerd tablet stamped ${ }^{\circ} \mathrm{B} 1924 \mathrm{Mo}^{\text {" }}$
Reference mark, $19 \mathrm{ft} . \mathrm{N} .80^{\circ} \mathrm{W}$. of tablet, on top of curbing; chiseled square
St. Joseph, NW. of intersection of Twenty-second and Jones Streets, on top of curb; chiseled square
St. Joseph, S. of intersection of Ashland and Frederick Avenues, in ine with Ashland Avenue, on S. curb; ehiseled square
909.16

1,029.99
1,034.771
1,034.40
944.34

St. Joseph, 25 ft . N. and 30 ft . W. from intersection of Thirty-sixth Street and Frederick Avenue, in root on S. side of $30-1 n$. cottonwood tree; copper nail and washer

| St. Joseph, 30 ft . N. and 55 ft . E. from intersection of Fortieth Street and Frederick Avenue, on second concrete step in front of Woodbine Church; chiseled square | Feet |
| :---: | :---: |
| St. Joseph, 0.5 ml . N. of intersection of Fortieth Street and Frederick Avenue, on $E$. outskirts of town, in top of $W$. head wall of concrete culvert; standard tablet stamped "Prim Trav Sta No l Mac 1923" |  |
| T. 57 N., R. 34 W., in NW $1 / 4$ SW $1 / 4 \mathrm{sec} .6$, about 250 ft . W. of State Highway 8 (now U.S. Highway 36) bridge over One Hundred and Two River, 80 ft . N. of junction of rd. N, on S. edge of small concrete bridge; chiseled square | 850.18 |

4. IN NORTHWEST PART OF QUADRANGLE
T. 59 N., R. $36 \mathrm{~W} .$, in $\mathrm{NW} 1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .11,40 \mathrm{ft}$. N. and 90 ft . E. from rd. forks, in root on SE. side of 24 -in. pin-oak tree; copper nail and washer
T. 59 N., R. 36 W., near quarter cor, between secs. 2 and $11,30 \mathrm{ft} . \mathrm{N}$. and 120 ft . W. from crossroads, on first concrete step in front of Brand School; chiseled square
T. 59 N., R. $36 \mathrm{~W} .$, center sec. $2,35 \mathrm{ft}$. N. and 30 ft . W. from T-rd. W., in root on NE. side of $36-1 n$. elm tree; copper nail and washer

Tps. 59 and $60 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W}$. , querter cor. between secs. 2 and $35,22 \mathrm{ft}$. S. and 55 ft . E. from State H1ghway 1 at rd. S., in concrete post; standard tablet stamped "B 1924 Mo'
Reference mark, 107 ft . N. $60^{\circ} \mathrm{W}$. of tablet, in root on E. side of 12-1n. box-elder tree; copper nail and washer
T. 59 N., R. 36 W., N. cor. secs. 3 and $4,70 \mathrm{ft}$. E. of State Highway 1 at rd. S., in root on $N$. side of $12-1 n$. walnut tree; copper nail and washer

1,087.54
1,126.77
1,157.97

1,109. 880
1,116.77
T. 59 N., R. 36 W., in NE. cor. sec. 5 , about 240 ft . W. of State Highway 1 at drain, S. of highway, in root on E. side of $24-1 n$. post-oak tree; copper nall and washer
T. $60 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W}$. , near S. quarter cor. sec. $32,25 \mathrm{ft}$. S. of State Highway 1 at rd.N., in concrete post; standard tablet stamped "B 1924 Mo "
$1,105.77$

Reference mark, $65 \mathrm{ft} . \mathrm{N} .50^{\circ} \mathrm{W}$. of tablet, on top of N . head wall of concrete culvert; chiseled.square
T. 60 N., R. 36 W., quarter cor. between secs. 29 and 32 , near crossroads, on top of $W$. head wall of concrete culvert; chiseled square
T. $60 \mathrm{~N} .$, R. 36 W. , center 90 c . $29,20 \mathrm{ft}$. N. and 15 ft . E. from T-rd. S., in root on $W$. side of 16 -in. hackberry tree; copper nail and washer T. 60 N., R. 36 W., near N. sixtoenth cor. between secs. 29 and 30,30 ft . E. of rd. forks, in root on N . side of $24-\mathrm{in}$. hackberry tree; copper nall and washer
(Continued in Bolckow quadrangleg see line 3.).

[^18]Buchanan and Platte Counties


1. ISOLATED BENCHMARK (not shown on diagram) (by S. K. Atkinson in 1906)

New Market, 75 ft . S. of Chicago Great Western R.R. sta., 30 ft . W. of track; iron post stamped "869"

Feet 869.476
2. FROM ST. JOSEPH SOUTH AND EAST ALONG CHICAGO, BURLINGTON \& 'QUINCY RAILROAD TO EAST BORDER OF QUADRANGLE (by S. R. Archer in 1920)

St. Joseph, intersection of Eleventh and Atchison Streets, E. of Eleventh Street, in line with Atchison Street W., at NW. corner of property owned-by Aunt Jemima Mills Company, inside of fence, on top of SE. corrier 'of concrete foundation of electric-light pedestal; chiseled square
St. Joseph, intersection of Twenty-second Street and Garfield Avenue, (junction of U.S. Highways 71 and 169) about 1 ft . E. of E. side of storm-sewer opening, on top of concrete curbing; chiseled square
St. Joseph, $0: 5: \mathrm{mi} \therefore \mathrm{E}$. of limits of, along Chicago, Burlington \& Quincy R:R., in'N $1 / 2$ sêc. $27, T .57$ N., R. 35 W., 110 ft . S. and 70 ft . E. from crossroads; 50 ft . S. and 70 ft . E. from rd. crossing, in fence inve; iron post stamped "i920 Mo 907."
T. 57 'N., R." 35 'W. near center of sec. $27,550 \mathrm{ft}$. S. of Chicago, Burlington \& Quincy R.R., on top of wing wall of highway bridge; standard tablet. stamped "Prime'Trav Sta No 2 Mac 1923"
888.433
 40 ft . B . of gunction of private rd. S. across Chicago, Burlington \& Quincy R.R., N. of rdi; l2 ft. $E$. of fence corner, in root on's. side of $24-1 n$. cottónwood tré; copper nail and wesher
T. 57 N., R. 35 W., in $N W 1 / 4 \mathrm{SB} 1 / 4$ sec. $25,0.2 \mathrm{mi}$. E. of T-rd. S., at con-
crete bridge over creek, S . of rd., on top of S . end of E . abutment; chiseled crete bridge over creek, $S$. of rd., on top of S . end of E . abutment; chiseled square
Saxton, near' S. sixteenth cor. sec. 30, T. 57 N., R. 34 W., SE. of crossroads, 5 ft . $\mathrm{B}_{\mathrm{o}}$ of fence corner; iron post stamped " $1920 \mathrm{Mo} 890^{\circ}$
Saxton; 0.5 mi . NE. of, along Chicago, Burlington \& Quincy R.R., near E. quarter cor. sec. 30, T. 57 N. R. 34 W. at concrete bridge íg. 62 over
creek, S. of track, on top of E . end of S. head wall; chiseled square (Continued in Gower quadrangle; see line 1.)
3. IN NORTHEAST CORNER OF QUADRANGLE (by M. J. Harden in 1923)
T. 57 N., R. 34 W., near center sec. 19 , about 30 ft . N of T-rd. S., in root of $12-i n$. locust tree; copper nail and washen 921.49
T. $57 \mathrm{lH}$. , Rs. 34 and 35 W. , approximate quarter cor. between secs. 19 and $24,{ }^{\prime}, 40 \mathrm{ft}$. SW. of T-rd. N. ; top of S . end of tile culvert
(Continued in St. Joseph quadrangle; see line 1.)

## 4. FROM SAXTON SOUTH ALONG EAST BORDER OF QUADRANGLE

Saxton, near S. sixteenth cor. sec. $30, \mathrm{~T} .57 \mathrm{~N} ., \mathrm{R}$. 34 W., SE. of crossroads, 5 ft . E. of fence corner; 1ron post stamped " 1920 Mo 890 " Reference mark, 135 ft . SW . of post, in root of forked white-oak tree; copper nail and washer

[^19]Saxton, 0.6 ml . S. of, in $\mathrm{N} 2 / 2$ sec. $31, \mathrm{~T} .57 \mathrm{~N} ., \mathrm{R} .34 \mathrm{~W} ., \mathrm{SE}$. of rd forks, 20 ft . N. of NW. corner of church, in root of ash tree; copper nail and washer

Feet
970.06

Saxton, $1.3 \mathrm{ml} . \mathrm{S}$. of, about 200 ft . S. of N . quarter cor. sec. 6, T. 56 N., R. 34 W., 60 ft . SW. of farmhouse, in root of $24-1 \mathrm{n}$. walnut tree; copper nail and washer
992.02
T. 56 N., R. 34 W., N. sixteenth cor. sec. 7, NE. of rd. forks, about 40 ft. E. of rd., on top of embankment, in concrete post; standard tablet stamped "H 192́3"
Reference mark $1,21 \mathrm{ft}$. SW. of tablet, on S . end of concrete culvert; chiseled square
Reference mark 2, about 80 ft . E. of rd. forks, in root of 18-1n. elm tree; copper nail and washer
T. 56 N., R. 34 W., in E $1 / 2$ sec. 7 , NE. of St. Joseph highway at cross rd., on $N$. end of concrete culvert chiseled square
T. 56 N., R. 34 W., in SE $1 / 4$ sec. 18 , on St. Joseph highway; top of E . guard wall of concreté culvert
(For balance in Gowier quadrangle, see line 2.)
T. 55 N., R. 34 W., near E. quarter cor. sec. 19, SE. of crossroads; top
$1,009.69$
of E . end of $18-1 \mathrm{n}$. tile culvert
(Continued in Gower quadrangle; see line 2.)

## 5. FROM POINT NEAR MIDDLE OF SOUTH HALF OF WEST BORDER OF QUADRANGLE EAST TO WALLACE, THENCE NORTH AND NORTHVEST TO POINT NEAR CENTER OF NORTHWEST QUARTER (by W. R. Broaddus in 1924) <br> (Continued from Sugar Lake quadrangle; see line 1.)

T. 55 N., R. 36 W., cor. 'secs. 19, 20,29 , and 30 , NW. of T-rd. N., on top of $N$. head wall of concrete culvert; chiseled square
T. 55 N., R. 36 W., approximate cor. secs. $20,21,28$, and 29, NE. of T-rd. N.; top of E. end of iron pipe culvert
866.17
T. $55 \mathrm{~N} .$, R. $36 \mathrm{~W} .$, cor. secs. $21,22,27$, and $28,19 \mathrm{ft} . \mathrm{E}$. of T-rd. W., 4 ft . inside of fence corner, in concrete post; standard tablet stamped "B 1924 Mo"

1,006.20

Reference mark, lil ft. SS. of tablet, $\because$ in root on SW. side of 16-1n. cottonwood tree;-copper nàl and washer
929.553
T. $55 \mathrm{~N} ., \mathrm{R}$. 36 W ., about 0.1 ml . W. of quarter cor. between secs. 33 and $34,20 \mathrm{ft}$. N. and 10 ft . E. from rd. forks, in root on w. side of 6-1n. elm tree; copper nail and washer
928.08
T. 55 N., R. 36 W., E. sixteenth cor. sec. $34,155 \mathrm{ft}$. N. of junction of private rd.S., In root on S. side of 24 -in. hilckory tree; copper nail and washer

1,076.80
T. $55 \mathrm{~N}, \mathrm{R}, 36 \mathrm{~W}$, center sëc. 35 , 21 ft . N, and. 21 ft. E. from. T-rd. N., in concrete post; standard tablet stamped "B 1924 Mo"

Reference mark, $82 \mathrm{ft} . \cdot \mathrm{S} \cdot 60^{\circ}$ E. of tablet, $\because$ on top of S . and of concrete tile culvert; chiseled.square:
T. 55 N., R. 36 W., center 'sec: ' 36 ', SW. of. T-rd.'W., in root on N. side of $42-1 n$. elm tree; copper nail and washer
T. 55 N. R. $36 \cdot \mathrm{~W}$. , about $0.1 \mathrm{ml} . \mathrm{N}$. of quarter cor. between secs. 25 and 36, 10 ft . N : and 160 ft. E. from T-rd. E., on top of bank, in root on S. side of $12-1 n^{\prime \prime}$ walnut tree; copper nail and washer

1,118.609
1,115.03
1,136.73
. $55 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W}$. , in SE $1 / 4 \mathrm{SE} 1 / 4 \mathrm{sec} .25,20 \mathrm{ft} . \mathrm{N}$. and $180 \mathrm{ft} . \mathrm{W}$. from T-rd; W., in root on E: side of $30-1 n$.- walnut tree; copper $\cdot$ nail and washer
$1,104.85$

1,103.11
T. 55 N., R. 35 W., W. quarter cor. sec: $30,12 \mathrm{ft} . \mathrm{N}$. and 100 ft . E. from T-rd. E., ig-ft. S. of 30-in. hackberry tree; lif. inside of fence, in concrete post; standard tablet stamped "B 1924 MO
$1,109.404$
Reference mark, 19.ft. N: of tablet, in root on S. iside of 30-in. hackberry tree; copper nail and washer
T. 55 N., R. 35 W:, quarter cor. between secs. 29 and 30 , NW. of crossroads, on top of'w. end of concrete tile culvert;-chiseled square

1,105.58
T. 55 N., R. 35 W., E. sixteenth cor. sec. 29, 55 ft. N. and 150 ft. W. from T-rd. N., in ŕroot on SE. side of 36-1n. elm tree; copper nail and washer
Wallace, $80 \mathrm{ft} . \mathrm{S}$. of "Chlcago, Rock. Island \& Pacific Ry. sta., at rd. crossing; top of E. rail.

1,043.74
Wallace, 0.8 mi. 'E. of, quarter cor between secs. 21 and 28, T. 55 N. , R. $35 \mathrm{~W} ., 20 \mathrm{ft}$. S. and. $20^{\circ} \mathrm{ft}$. W. from crossroads, 5 ft . SW. of fence corner, in concrete post; standard tablet stamped "B $1924 \mathrm{Mo}^{\prime \prime}$
Reference mark, 520 ft . N. $88^{\circ} \mathrm{W}$. of tablet, on top of E . end of N. head wall of concrete culvert; chiseled square
T. $55 \mathrm{~N} ., \mathrm{R}$. 35 W ., center sec. $21,65 \mathrm{ft}$. N. and 15 ft . W. from T-rd. W., on top of $W$. end of concrete tile culvert; chiseled square
T. 55 N., R. $35 \mathrm{~W} .$, center sec. 16 , at Taos, $15 \mathrm{ft} . \mathrm{S}$. and 15 ft . W. from crossroads, in root on N. side of 14-in. locust tree; copper nall and washer

1,091.9

1,049.760
1,017.62
1,055.79
T. $55 \mathrm{~N} ., \mathrm{R}$. 35 W ., center sec. 9 , 150 ft . N. and 20 ft . E. from T-rd. E., in front of old Hallock School, at edge of rd., on first concrete step; chiseled square
T. 55 N., R. 35 W., near center sec. $4,35 \mathrm{ft}$. N. and 23 ft . W. from T-rd. E., 4 ft. E. of fence; in concrete post; standard tablet stamped "B 1924 MO"
983.596

Reference mark, 240 fit. N. of tablet, on top of S. end of W. guardrail of concrete bridge; chiseled square
T. 55 N., R. 35 W., near quarter cor. between secs. 5 and $6,120 \mathrm{ft}$. N. and 75 ft . E. from T-rd. E., in root on S . side of $30-\mathrm{in}$. hackberry

Feet tree; copper nail and washer
T. $55 \mathrm{~N} .$, R. $35 \mathrm{~W} .$, about 0.3 mi . S. of N . cor. secs. 5 and $6,40 \mathrm{ft}$. S. and 25 ft . W. from T-rd. W., in root of $12-1 \mathrm{n}$. elm tree (E. one of group of 5 trees) ; copper nail and washer
T. 55 N., R. $36 \mathrm{~W} .$, about 0.3 ml . S. of NE. cor. sec. $1,25 \mathrm{ft}$. S. and 8 ft . W. from rd. corner N.-W. at dim rd. S. 4 ft . SW. of corner fence, in concrete post; standard tablet stamped "B 1924 Mo"

1,094.83
$1,093.69$
1,04ل. 373
1,043.59
Tps. 55 and $56 \mathrm{~N} ., \mathrm{R}$. 36 W ., on line between secs. 1 and $36,140 \mathrm{ft}$. N. and 25 ft . W. from T-rd. W., in root on SW. side of $4-1 \mathrm{n}$. sycamore tree; copper nall and washer
Contrary Creek, under bridge; surface of water at 9 a. m. July 15, 1924
T. 56 N., R. 35 W., about 0.1 mi . W. of E. cor. secs. 25 and $36,25 \mathrm{ft}$. E. of rd. forks, in root on NW, side of 5-1n. black-oak tree; copper nail and washer
960.72
915.0
947.19
963.738
S. and'12 ft. E. from T-rd. W., in concrete post; standard tabiet stamped "B 1924 Mo"
Reference mark, 136 ft . N. $15^{\circ} \mathrm{W}$. of tablet, on top of N . end of concrete tile culvert; chiseled square
968.29
T. 56 N., R. 36 W., in E $1 / 2$ sec. $25,15 \mathrm{ft} . \mathrm{N}$. and 170 ft . E. from rd. forks, in root on S. side of large forked wild-cherry tree; copper nail and washer
$1,050.40$
T. 56 N., R. 36 W., about 0.1 mi . E. of center sec. $26,25 \mathrm{ft}$. W. .of DeKalb-St. Joseph rd. at junction of rd. E., on top of W. end of concrete tile culvert; chiseled square
T. $56 \mathrm{~N} ., \mathrm{R}$. 36 W ., in ṢE $1 / 4 \mathrm{sec} .22,25 \mathrm{ft}$. N . of rd. forks in hollow, in root on W. side of 60-1n. elm tree; copper nail and washer
T. 56 N., R. 36 W., near N. sixteenth cor. sec. $22,20 \mathrm{ft}$. S. of Chicago, Rock Island \& Pacific Ry, at crossing of Memorial Highway (now U.S. H1ghway 59), on top of W. end of concrete tile culvert; chiseled square
810.54

For additional level lines along Chicago, Burlington \& Quincy R.R.
and Atchison, Topeka \& Santa Fe Ry., refer to United States Coast
and Geodetic Survey first-order-ine, Sioux City, Iowa to Kansas
City, Mo.; and second-order line, St. Joseph to Lexington. SUGAR LAKE QUADRANGLE*
(Latitude $39^{\circ} 30^{\prime}-39^{\circ} 45^{\prime}$; longitude $95^{\circ} 00^{\prime}-95^{\circ} 15^{\prime}$ )

Buchanan and Platte Counties


1. FROM POINT 1 MILE SOUTH OF RUSHVILLE SOUTH AND EAST ALONG HIGHWAY AND ROADS INTO DEARBORN QUADRANGLE (by W. R. Broaddu's in 1924)

Rushville, 1 mi . SW. of, along Chicago, Rock Island \& Pacific Ry., on
line between secs. 15 and $16, \mathrm{~T} .55 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} ., 250 \mathrm{ft}$. E. of rd. crossing, in front of dwelling of Harry McQueen, $S$. of track, on SW. corner of concrete base of semaphore; chiseled square
quarter, 1 and 50 ft . W. from rd. junction, in root on S . side of 48 -in. bur-oak tree; copper nail and washer
Armour, 0.5 mi . N. of, near $W$. sixteenth cor. between secs. 22 and 27 , T. $55 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} ., 25 \mathrm{ft} . \mathrm{N}$. and 13 ft . E. from junction of Memorial Highway (now U.S. Highway 59) and paved rd. S., in top of E. head wall of concrete culvert; standard tablet stamped "B 1924 Mo"

| Reference mark, 41 ft . S. of tablet, on top of E . head wall of concrete culvert; chiseled square | $\frac{\text { Feet }}{797.96}$ |
| :---: | :---: |
| T. 55 N., R. 37 W., quarter cor. between secs. 23 and $26,30 \mathrm{ft}$. N. and 160 ft . W. from T-rd. N., in root on S. side of $30-1 \mathrm{n}$. eelm tree; copper nall and washer |  |
|  |  |
| T. 55 N., R. 37 W., quarter cor. between secs. 24 and $25,27 \mathrm{ft}$. N. and |  |
| 57 ft . E. from crossroads, at SW . corner of cemetery, $3 \mathrm{ft.N}$. of line |  |
| of catalpa trees, between second and third trees, in concrete post; |  |
| standard tablet stamped "B 1924 Mo" | 881.227 |
| Reference mark, 8 ft. S. $80^{\circ} \mathrm{W}$. of tablet, in root on W. side of l2-1n. catalpa tree; copper nail and washer | 881.50 |
| (Continued in Dearborn quadrangle; see line 5.) |  |

For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey firstorder line, Sioux City, Iowa to Kanses City, Mo.

OREGON QUADRANGLE*
(Latitude $39^{\circ} 45^{\prime}-40^{\circ} 00^{\prime}$; longitude $95^{\circ} 00^{\prime}-95^{\circ} 25^{\prime}$ )
Andrew and Holt Counties


1. WEST ALONG NORTH BORDER OF QUADRANGLE (by W. R. Broaddus in 1924)

## (Continued from Maitland quadrangle; see line 3.)

T. 60 N., R. 37 W., quarter cor. between secs. 28 and $29,60 \mathrm{ft}$. N. and 20 ft . E. from crossroads, in root on $S$. side of l2-1n. elm tree; copper nail and washer
T. $60 \mathrm{~N} .$, R. $37 \mathrm{~W} .$, quarter cor. between secs. 29 and $30,40 \mathrm{ft}$. N. and 55 ft . W. from crossroads, 90 ft . S. of Wood School, in root on E. side of 14 -in. maple tree; copper nail and washer
$1,114.02$
Oregon, 2 ml . E. of, 0.2 ml . E. of W. quarter cor. sec. 30, T. $60 \mathrm{~N} .$, R. $37 \mathrm{~W} ., 20 \mathrm{ft}$. N. of rd. at top of hill, in concrete post; standard tablet stamped "Prim Trav Sta No 13 Mac 1923"

1,113.273
Reference mark, 673 ft . E. of tablet, 30 ft . N. of rd., in root on SE. side of 20-in. maple tree; copper nail and washer

1,104.75
oregon, about 0.6 ml . E. of, near E. sixteenth cor, sec. 26, T. 60 N. . R. $38 \mathrm{~W} ., 40 \mathrm{ft}$. N. and 20 ft . E. from T-rd. N., in root on E. side of $20-1 \mathrm{n}$. black-oak tree; copper nail and washer
999.55

Oregon, at Zook and Roecker Bank, 3 ft . N. of entrance, 8 in. above walk; standard tablet

1,093.200
Reference mark, S. $30^{\circ} \mathrm{E}$. of tablet, in root on N. side of 36-in. locust tree; copper nail and washer
Oregon, at SW. limits of, 90 ft . S. and 10 ft . W. from rd. corner N.-W., in root on N. side of $42-1 n$. maple tree; copper nall and washer
Oregon, about 0.5 mi . W. of, near cor. secs. $27,28,33$, and 34 , T. $60 \mathrm{~N} .$, R. $38 \mathrm{~W} ., 25 \mathrm{ft}$. N. and 70 ft . W. from T-rd. S., in root on S. side of 12-1n. hickory tree; copper nail and washer
Oregon, 1.5 mi . W. of, on line between secs. 28 and. 33 , T. 60 N. , R. $38 \mathrm{~W} ., 25 \mathrm{ft}$. E. of entrance to Hinatt dwelling, $40 \mathrm{ft} . \mathrm{N}$. of ra., in concrete post; standard tablet stamped "Prim Trav Sta No 14 Mac 1923"
Reference mark, 149 ft . S. $30^{\circ} \mathrm{W}$. of tablet, in root on N . side of 6-1n. walnut tree; copper nail and washer
walnut tree; copper nail and
U.S.C.E. B.M. designated "302"

[^20][^21]
## MAITLAND QUADRANGLE

(Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime}$; longitude $95^{\circ} 00^{\prime}-95^{\circ} 15^{\prime}$ )
Andrew, Holt, and Nodaway Counties


1. EAST THROUGH MIDDLE OF QUADRANGLE (by W. R. Broaddus in 1924) (Continued from Craig quadrangle; see line 4.)

Mound City, 1 mi W. of, along Bligelow-Mound, City rd. (? State Highway $1 \mathrm{C})$, in $\mathrm{N} 1 / 2$ sec. $1, \mathrm{~T} .61 \mathrm{~N} ., \mathrm{R}$. $39 \mathrm{~W} ., 40 \mathrm{ft}$. N . of junction of rd. S.; iron post stamped "Prim Trav. Sta No 3 1916"
Reference:mark; 397 ft. N. $55^{\circ}$ E. of post, in root on $N$. side of $16-i n$. elm'tree; copper nall and washer

Feet<br>865.787

863.33

Mound City at intersection of Fifth and State. Streets; on top of concrete base of flower urn; chiseled. square
884.16

Mound City, about $0: 2, \mathrm{ml}, \dot{E}$. of E..limits of, along State Highway 1 D (now U. S , Highway. 275); 4 ft. .S.. and 120 ft . W. from highway at top of hill, in root on N. side of 24 -in. elm tree; copper nall and washer
Mound City, about. $0.8 \cdot \mathrm{mi} . \mathrm{E}$. of, along Stato Highway I D (now U.S. Highway 275), 40 ft. S. and í30-ft. W. from crossing of small creek, in root on N. side of 18-1n oak tree; copper nall and washer
920.66

Mound city, 1:9:mi..E. of, along State.Highway 1 D (now J.S. Highway 275) 1.5 ft. N. and i8 ftt. W. from junction of rd. N., in N. wing wall of concrete culvert; standard tablet.stamped "Prim Trav Sta No 30 Mac 1923 Mo".
947.211

Reference mark, ịz ft.-S. $60^{\circ}$ w. of tablet, in root on N. side of 24-in. locust tree; copper nail and washer
945.18

Mound.city, about 3.2.mi. E. of, along State Highway 1 D (now U.S. Highway 27.5.), SE. of cross rd., on top of $E$. head wall of concrete culvert; chiseled square
Mound City, about 4.2 mi . E: of; along State Highway 1 D (now U.S. Highway 275), $20 \mathrm{ft} . \mathrm{S}$. and 480 ft . W. from cross rd., in root on N. side of 24-1n. cottonwood tree; copper nail and washer
986.27

Mound City, 4.8 mi . E. of, along State Highway 1 D (now State Highway 113), near dwelling at top of hill, $20 \mathrm{ft} . \mathrm{N}$. of highway, in concrete post; standard tablet stamped "Prim Trav Sta No 29 Mac 1923 Mo"
Reference mark, 28 ft . W. of tablet, in root on S. side of $14-1 \mathrm{n}$. maple tree; copper nail and washer

1,049.91
s. 61 and $62 \mathrm{~N} .$, R. $37 \mathrm{~W} ., 870 \mathrm{ft}$. W. of approximate cor. secs. 5,6 31 , and $32,50 \mathrm{ft}$. N. of State Highway 1 D (now State Highway 113), 90 ft . S. and 60 ft . E. from dwelling, in root on S . side. of 18-1n. mapie tree; copper nail and washer
T. 61 N., R. 37 W., N. cor. secs. 4 and $5 ; 25 \mathrm{ft}$. S. of State Highway 1 D (now State Highway 113), 58 ft . E. of rd. S., in root on N. side of 16-in. maple-tree; copper nail and washer
T. 61 N., R. 37 W. . N. quarter cor. sec. $4,20 \mathrm{ft}$. S. and 90 ft . E. from T-rd. S., in root of $30-1 n$. cottonwood tree; copper nail and washer
T. $62 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W}, \mathrm{~S}$. cor. secs. 33 and 34 , 15 ft . S. and 90 ft . Wiem from T-rd. N., 115 ft. N. of dwelling of R. G. Cowan. in concrete post; standard țablet stamped "Prim Trav Sta No 28 Mac $1923 \mathrm{Mo}^{"}$
968.399

Reference mark, $10 \mathrm{ft} . \mathrm{S}, 5^{\circ} \mathrm{E}$. of tablet, in root on N . side of $16-1 \mathrm{n}$. maple tree;icopper nail and washer
T. 61 N., R.i 37 W , approximate $N$. cor. secs. 2 and 3, at bridge over Nodaway River ditoh, in top of SE. pier; top of boit
968.48

Tps. 61 and $62 \cdot \mathrm{~N} ., \mathrm{R} .37$ W., quarter cor. between secs. 1 and 36,150 ft. S...and. 20 ft . E. from T-rd. W., in root on N. side of 14-in. elm tree; copper nall and washer
873.14
T. $61 \mathrm{~N}:, \mathrm{R}: 37 \mathrm{~W}$., quarter cor: between secs. 1 and $12,120 \mathrm{ft}$. N. and 20 ft. E. from T-rd. E., in root on NW. side of 12-1n. locust tree; copper nall and washer
880.00
T. 61 N., R. 36 W ., approximate quarter cor. between secs. 6 and 7, 20 ft. N. and 180 ft. W. from crossroads, 200 ft . W. of Parkes Store, 2 ft. from fence, in concrete post; standard tablet stamped "Prim Trav Sta No $27 \mathrm{Mac} 1923 \mathrm{Mo}^{"}$
924.905

Reference mark, 10 ft . E. of tablet, in root on S . side of $24-\mathrm{in}$. maple tree; copper nail and washer

## 2. FRON MIDDLE OF EAST BORDER OF QU̇ADRANGLE NOṘTH TO NORTHEAST CORNER, THENCE WEST ALONG NORTH BORDER

T. 62 N., R. 37 W., N. sixteenth cor. sec. 36,180 ft. S. of T-rd. E. at bridge over small stream, on top of NW. concrete wing wall; chiseled square

Feet
Graham, 2.8 ml . S., thence $0.5 \mathrm{ml} . \mathrm{E}$. from, quarter cor. between secs. 24 and $25, \mathrm{~T}, 62 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} ., 56 \mathrm{ft}$. SW. of T-rd. S., in concrete post; standard tablét. stamped" "Prim Trav Sta No 31 Mac 1923. Mo".
Reference mark, $550 \mathrm{ft} . \mathrm{E}$. of tablet, on top of S. head wall of concrete culvert; chiseled square
Graham, 2.8 mi. S., thence 1 mi . E. from, cor . secs. $19,24,25$, and 30 , T. $62 \mathrm{~N} ., \mathrm{Rs} .36$ and 37 W ., SW. of T-rd. S., on top of W. end of concrete cuivert; chiseled square
Graham, $2.1 \mathrm{mi} . \mathrm{S} .$, thence 1 mi . E. from, N. sixteenth cor. between secs. 19 and 24, T. 62 N. , Rs. 36 and $37 \mathrm{~W} ., 10 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from T-rd. W., in root on N. side of $24-1 \mathrm{n}$. elm tree; copper nail and washer
Graham, $1.5 \mathrm{mi} . \mathrm{S}_{\mathrm{p}}$, thence 1 ml . E. from, near approximate quarter cor between secs. 13 and 18, T. $62 \mathrm{~N} .$, Rs. 36 and $37 \mathrm{~W} ., 25 \mathrm{ft} . \mathrm{N}$. and 25. ft. W. from T-rd. W., in root of small locust tree; copper nail and. washer
Graham, $0.3 \mathrm{mi} . \mathrm{S} .$, thence 1.2 mi . E. from, near E. quarter cor. sec. 12 , T. $62 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} ., 15 \mathrm{ft}$. S. and 20 ft . E. from T-rd: W. at crossroads, in root on N. side of $6-i n$. catalpa tree; copper nail. and washer
Graham, 1.2 mi . E. of, E. cor secs. 1 and 12, T. 62 N, , R, $37 \mathrm{~W}, \mathrm{f} 30 \mathrm{ft}$. E. of T-rd. W. 62 N .40 ft . SE. of T-rd. E. at W . cor. secs. 6 and $\mathrm{F}_{\mathrm{W}} \mathrm{F}$. in concrete post; standard tablet stamped Prim Trav Sta 32 Mac 1923 Mo "
Reference mark, 760 ft . N. of tablet, on top of E . head wall of concrete culvert; chiseled square
Grahame. 1.2 mi. E., thence $1 \cdot \mathrm{mf}$. N. from, cor. Tps. 62 and 63 N.,. Rs. 36 and $37 \mathrm{~W} ., 115 \mathrm{ft}$. N. of crossroads, on top of E . head wall of concrete culvert; chiseled square
Graham, 1.2 mi . E., thence 2.3 mi . N. from, S. sixteenth cor. between secs. 25 and $30, \mathrm{~T} .63 \mathrm{~N}$. , Rs. 36 and $37 \mathrm{~W} ., 150 \mathrm{ft} . \mathrm{N}$. of crossroads, on top of W. head wall of concrete culvert; chiseled square
Graham, 1.2 mi . E., thence 2.8 ml . N. from, 170 ft . W. of N. sixteenth cor. between secs. 25 and $30, \mathrm{~T} .63 \mathrm{~N} .$, Rs. 36 and $37 \mathrm{~W}, 24 \mathrm{ft}$. N. of T-rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 33 Mac 1923 Mol

1,026.950
Reference mark, 350 ft . S. $5^{\circ}$ E. of tablet, in root on W. side of $36-\mathrm{in}$. elm tree; nail and washer
Grahem, $2.8 \mathrm{mi} . \mathrm{N} .$, thence 0.5 ml . E. from, N. sixteenth cor. between secs. 25 and 26 , T. $63 \mathrm{N.}, \mathrm{R} .37 \mathrm{~W} ., 25 \mathrm{ft}$. S. and 70 ft . E. from crossroads, 18 ft . N. of NW. corner of church, in root on $N$. side of 16-1n. mapie tree; nail
991.84

Graham, $2.8 \mathrm{mi} . \mathrm{N}$. of, N. sixteenth cor. sec. $26, \mathrm{~T} .63 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} ., 13$ ft . N. and 85 ft . E. from T-rd. E., in root on S. side of 24 -in. bur-oak tree; nall
$1,019.40$
Graham, 2.4 mi . N., thence 1 mi . NW, from, about 600 ft . S . of cor. secs. $22,23,26$, and $27, T .63 \mathrm{~N} .$, R. $37 \mathrm{~W} ., 300 \mathrm{ft}$. S. of old dwelling W. of ra., on top of NE. concrete wing wail of small bridge; chiseled square
897.83

Maitland, 2.5 mi . N: of, near E. sixteenth cor. sec. $28, \mathrm{~T}, 63 \mathrm{~N}$. , R. 37 W., 780 ft . SE. of Chicago, Burlington \& Quincy R.R. at private rd. crossing, 43 ft . W. of dwelling of E . S. Hester, 20 ft . N. of private lane, in root on SW. side of 14-in. maple tree; nail
943.84

Maitland, 0.5 ml . W., thence 3 ml . N. from, along State Highway 1 D (now State Highway 113), cor. secs. 20, 21, 28, and 29, T. 63 N., R. $37 \mathrm{~W} ., 48 \mathrm{ft} . \mathrm{N}$. and 18 ft. E. from junction of $\mathrm{rd.W.}$, post; standard tablet stamped "Prim Trav Șta No $34 \mathrm{Mac} 1923 \mathrm{Mo} \mathrm{\eta}$
928.754

Reference mark, 163 ft . S. $70^{\circ} \mathrm{W}$. of tablet, in root on NB. side of 36-1n. cottonwood tree; na11 and washer
929.80
, T. 63 N., R. 37 W., 15 ft . N. and 65 ft . W. from crossroads, in root on E. side of 8-1n. walnut tree; nail and washer

1,007.50
Maitland, 3 mi . N., thence 2 mi . W. from, W. cor. secs. 19 and 30 , T. 63 N., R. 37 W., 30 ft . N. of T-rd. E., 20 ft . S. of T-rd. W. at E. cor. secs. 24 and 25, T. $63 \mathrm{~N} ., \mathrm{R}$. 38 W ., E. of N.-S. rd., in concrete post; standard tablet stamped "Prim Trav sta 35 Mac 1923 mol
Reference mark, 99 f 't. W. of tablet, in root on E. side of 15-in. wainut
tree; copper nail and washer
992.552
1.000 .20
E. fro E. from crossroads, in root on $W$. side of $15-i n$. maple tree; copper and washer
. $63 \mathrm{~N}_{\text {, }}$ Rs. 38 and 39 W , approximate cor. secs. 19, 24,25 , and 30 , at crossroads, 175 ft . W. of rd. N., 20 ft . S. of rd. W., in root on E. side of $24-1 \mathrm{n}$. maple treeg copper nail and washer
T. $63 \mathrm{~N} .$, Rs. 38 and 39 W ., approximate cor. secs. 19, 24, 25, and 30 , E. side of 24-in. maple tree; copper nail and washor
933.93
T. 63 N., Rs. 38 and 39 W. , cor. secs. $25,30,31$, and 36 , SE. of cross-
929.32
roads, in root on N. side of $24-i n$, box-elder tree; copper nail and washer

> 3. IN SOUTHEAST CORNER OF QDADRANGLE
> (Continued from Bolckow quadrangle; see line 5.)
T. $60 \mathrm{~N} . \mathrm{A}^{\text {, }} \mathrm{R} .37 \mathrm{~W} .$, near line between secs. 11 and 12 , at bridge over Nodaway River, on top of SW. concrete pier; chiseled square

Feet
843.56
853.968
850.23

1,006.11
$1,067.63$
$1,064.78$

1,049.064
1,034.58
(Oontinued in Oregon quadrangle; see line l.)
4. IN NORTHEAST CORNER OF QUADRANGLE (by E. J. Noonan in 1935)
(Contimued from Skidmore quadrangle; see line 2.)
Concrete culvert, about 0.5 mi . N. of T-rd. N., on top of S . end of E . head wall; chiseled square
T-rd. N., about 180 ft . N. of , on top of W . head wall of concrete culvert; chiseled square
986.78

1,013.96
$937 \cdot 72$
886.035
879.27
980.29
990.89
921.86
954.96
974.05

1,091.585
1,094.20

1,027.13
1,095.69

[^22]
# SKIDMORE QUADRANGLR <br> (Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime}$; longitude $95^{\circ} 00^{\prime}-95^{\circ} 15^{\prime}$ ) <br> Atchison, Holt, and Nodaway Counties 



1. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE ABOUT 1.6

MILES WEST OF BURLINGTON JUNCTION (by E. J. Noonan in 1935)

Feet 919.109
U.S.C. \& G.S. standard disk stamped "J $201933^{\prime \prime}$

Burlington Junction, about 1.5 mi . W. of, along State Highway 4, at bridge over Nodaway River, in N. end of $W$. concrete abutment; standard tablet (set by water-resources branch of U.S. Geol. Survey)
916.757

## 2. FROM WABASH RAILWAY SOUTH ALONG EAST BORDER OF QUADRANGLE

U.S.C. \& G.S. standard disk stamped "F 20 1933"

Concrete culvert, on $S$. end of W. head wall; chiseled square
1,048.574
T. 65 N., R. 37 W., E. cor. secs. 25 and 36 , about $650 \mathrm{ft} . \mathrm{N}$. of ${ }^{\circ} \mathrm{T}-\mathrm{rd}$.

1,045.65 W., llo ft . S. of T-rd. E., on top of E . head wall of concrete culvert; chíseled square
Dwelling of W. F. Meyer, about 225 ft . S. of, on top of W. concrete culvert; chiseled square

1,063.22
$64 \mathrm{~N} . \mathrm{R} .37 \mathrm{~W}$. in NE $1 / 4 \mathrm{sec} .1$, sbout 0.2 mi . S. of T-rd s about 75 ft . S . and 50 ft . E. from SE. corner of dwelling of George W. Meyer, about 20 ft . W, of rd., in root on S . side of $12-1 \mathrm{n}$. elm tree: copper nall and washer
Entrance to Winglow farm, about 300 ft . S. of, on top of W. concrete head wall of iron pipe culvert; chiseled square
T. 64 N. . Ra. 36 and 37 W ., cor. secs. $1,6,7$, and $12,50 \mathrm{ft}$. S. and 30 ft. W. from crossroads, in concrete post; standard tablet stamped "704 C W A 1934"
Reference mark, 150 ft . S. of tablet, in root on $E$. side of $30-1 \mathrm{n}$. maple tree: crossed nails
Dwelling of Irwin Haines, about 60 ft . S. and 35 ft . E. from SE. corner of, in root on $W$. side of $30-1 \mathrm{n}$. maple tree; crossed nalls
T-rd. N., about 0.4 mi . N. of, 30 ft . E. of rd., in N.-S. fence line, in root on $N$. side of l2-1n. cherry treé; crossed nails
. 64 N., Rs. 36 and 37 W., cor. secs. $7,12,13$, and $18,120 \mathrm{ft}$. S. and 60 ft. W. from $T$-rd. N., in root on $W$. side of $30-1 \mathrm{n}$. maple tree; copper nail and washer

1,128.65
1,071.96
$1,084 \cdot 592$
1,081.94
1,026.81
1,022.28
$1,033.67$
(For balance in Pickering quadrangle, see line 1.)
T. 64 N., Rs. 36 and 37 W., cor. secs. $25,30,31$, and $36,235 \mathrm{ft}$. E. of crossroads, at steel bridge, on top of S . wing wall of E. abutment; ch1seled square
Crossroads, ebout 0.5 mi . s , of, 20 ft . E. of rd., in N.-S. fence inner in root on E. side of $30-1 \mathrm{n}$. elm tree; crossed nails
Tps. 63 and 64 N ., Rs. 36 and $37 \mathrm{~W} .$, cor, of, about 150 ft . N. of crossroads, 30 ft . W. of rd., in fence line, in root on E. side of $30-\mathrm{in}$. box-elder treej copper nail and washer
Crossroads, 0.5 mi . N. of, 50 ft . from rd., in E.W. fence ilne, in root on N. side of 20-1n, maple tree; crossed nails

1,014.30
1,062.06
T. 63 N. , Rs. 36 and 37 W ., cor. secs. $1,6,7$, and $12,36 \mathrm{ft}$. S. and 36 ft. E. from crossroads, in concrete post; standard tablet stamped "701 C W A 1934"
Reference mark, 95 ft . S. of tablet, in N.-S. fence line, in root on E. side of $30-1 n$. maple tree; copper nail and washer

1,031.82
1,050.50
steel bridge, about 0.3 mi . S. of crossroads, in top of $6-\mathrm{in}$. wooden piling brace at $E$. end of $N$. abutment; crossed nails
Crossroads, about 0.5 mi . S. of, about 40 ft . E. of rd., in root on W . side of 12-in. locust tree; crossed nails

1,026.360
1,022.70
1,000.87
1,019.51
T. $63 \mathrm{~N} ., \mathrm{Rs} .36$ and 37 W. , about 50 ft . S. of cor. secs. 7, 12, 13, and
Feet
18, about 20 ft: E of rd., in fence line, in root on $N$. side of 18-in. elm trée copper nail and washer
Steel bridge, aboutt 50 ft . S. of S . And of, in root on s . side of $15-1 \mathrm{n}$. oak. tree; crôssed nails
T. $63 \mathrm{N:}$ : Rs. 36 and 37 W ., about 10 ft . S. and 130 ft . W. from cor. secs. 13. 18, 19, and 24, in root on N. side of twin $30-1 n$. elm.tree; copper nail and wásher
Concrete culvert, about 0.5 mi . S. of cor. secs. $13,18,19$, and 24 , on top of.W. head wall; chiseled square
(Continued in Maitland quadrangle; see line 4.)

## 3. FROM POINT NEAR MIDDLE OF EAST BORDER OF QUADRANGLE WEST TO

 QUITMAN (by E. J. Noonan and H. W. Gross in $1935-36$ ) $=$Dwelling, 80 ft . s , and 10 ft . W. from, 70 ft. N . of rid., in root on SW . side of $28-i n$. maple tree; crossed nalis
$1,109.33$
T. 64 N., R. 37. W., cor. secs. $1,2,11$ and $12,20 \mathrm{ft}$. N. and 90 ft . E. from T-rd. S.; in root on $N$. side of $8-1 n$. wainut tree; copper nail and washer
Sand Creek, at W. end of steel bridge over, in S. side of bridge seat on S. pier; top of rivet
$1,026.84$
T. $64 \mathrm{~N} ., \mathrm{R}$. $37 \mathrm{~W} .$, cor. secs. $2,3,10$ and $11,20 \mathrm{ft} . \mathrm{N}$, and 340 ft . E. from T-rd. N., in root on w. side of 48 -in. cottonwood tree; copper nall and washer
Dwelling, 130 ft . S. and 95 ft . E. from, 20 ft . S. of rd., in root on w .

i, 028.23
from Turd. N., 21 ft. N. and 6 ft: W. from $W$. head wall of concrete culvert, in concrete post; standerd tablet stamped "826 C W A 1934"
Reference mark, 20 ft . N. and 20 ft . E. from T-rd. N., on top of E. head wall of culvert; chiseled square
Quitman, $45 \mathrm{ft} . \mathrm{s}$. and 18 ft . E. from SE . corner of Methodist Church, in root on E. side of $24-i n$. maple tree; crossed nails
U.S.C. \& G.S. standard disk stamped "\$ $80.1935^{\text {" }}$

1,052.02
$969: 024$
968.99

1,001.13
913.062

## 4. SOUTH ALONG SOUTH HALF OF WEST BORDER OF QUADRANGLE (by S. T. Tudor and T. G. Drummond in 1935-36) <br> (continued from Tarkio quadrangle; see innel.)

Tps. 64 and $65 \mathrm{~N} ., \mathrm{Rs} .38$ and $39 \mathrm{~W} ., 20 \mathrm{ft}$. S. and 20 ft . W. from cor. of, at NE. corner of yard of J. W. Hannon, in concrete post; standard tablet stamped "Prim Trav Sta No $39 \mathrm{~J} \mathrm{~S} \mathrm{1923"}$
Reference mark, 70 ft . S. and 70 ft . W. from tablet, on top of SE. corner of bottom concrete step: (mark not described).
Top of hill, 20 ft . W. of rd., in $\dot{W}$. side of $15-1 \mathrm{n}$. elm tree crossed nails

1,117:945
i,116.32
1,084.32
T. 64 N. , Rs. 38 and 39 W. ; quarter cor between secs. 1 and 6 , about 70 ft. S. and 10 ft . E. from T-rd. E., at steel bridge, on top of S. end of E. handrail; painted square
Bridge, in NE. corner of floors copper nail and washer
T. 64 N.; Rs. 38 and 39 W., near cor. secs. $1,6,7$, and 12 , about 260 ft . S. and 25 ft . W. from crossroads, in root on E. side of $15-1 \mathrm{n}$. boxelder tree; copper nail and washer
. 991.11
Top of hill, 25 ft . E . of $r^{2} \mathrm{~d}:$ at entrance to farmy in W. side of N . gatepost; crossed nails

1,067.17
. 64 N., Rs. 38 and. $39 \mathrm{~W}_{\mathrm{C}}$, cor. secs. $13,18,19$, and $24,40 \mathrm{ft}$. N. and 20 ft . W. from crossroads; in concrete post; standard tablet stamped "Prim Trav Sta No 38. J L 1923"
Rd. at E. W. fence, 15 ft . S : and 25 ft . W. from; in E: side of gatepost; nail

1;035.389
T. 64 N. Rs. 38 and $39^{\circ}$ W., near cor. secs. $19,24,25$, and 30 , 110 ft . s. $1,016.89$ and 30 ft . W. from crossroads, in root on E. side of $36-1 \mathrm{n}$. maple treje; copper nail and washer
Top of hill, 22 ft . W. of rd.; in root on E . side of l2-in. hedge tree; crossed nails
958.78
T. $64 \mathrm{~N} ., \mathrm{Rs} .38$ and $39^{\circ} \mathrm{W} . \mathrm{near}$ cor secs, $25,30,31$, and $36,300 \mathrm{ft}$. N. and 25 ft . W. from crossroads, in root on E. side of twin $12 \dot{-1 n}$. hedge tree; copper nail and washer
Rd. at fence W., $20 \mathrm{ft}:$ W. of, in root on W. side of 12-1n. walnut tree; crossed nails
Tps. 63 and 64 N. Rs. 38 and 39 W , cor. of, 20 ft . s . and 20 ft . W. from crossroads, in concrete post standard tablet stamped "Prim Trav Sta No 37 L S 1923"
Dwelling, 30 ft . N. and $60 \mathrm{ft}, \mathrm{W}$ : from, $20 \mathrm{ft}, \mathrm{W}$. of rd., in E: side of telephone pole; crosied-nails
T. $63 \mathrm{~N}, \mathrm{Rs}, 38$ and 39 W, cor secs, $1,6,7$, and $12,130 \mathrm{ft}$, S , and 25 ft . E. from crossroads, in root on W. side of i2-in. elm trees copper nail and washer.
Top of hill, 20 ft. W. of rd:; in w. side of teiephone pole; crossed nails
T. 63 N. , Rs. 38 and $39 \mathrm{w} .$, cor. secs. $7,12,13$, and $18,75 \mathrm{ft}$. N. and 60 ft . E. from T-rd. W., in root on $N$. side of $15-1 \mathrm{n}$ : box-èlder trees copper nail and washer

1,040.84
996.86

1,057.01.
i,017.775
1,010.49
1;013.28
1,053.86

1;068:13
Rd. at fence E., $4 \mathrm{ft} . \mathrm{N}$. and 30 ft . E. from, in root on N . side of 12-in. wild-cherry tree; crossed nails

1,033.98
T. 63 N., R. 39 W., 45 ft . N. and 18 ft . E. from E. cor. secs. 13 and 24, 15 ft . N. and 18 ft . E. from W. cor. secs. 18 and 19 , T. 63 N .,
R. $38 \mathrm{~W} . \mathrm{NE}$. of crossroads on Atchison-Holt county ine; iron post stamped ${ }^{\text {fprim Trav Sta No } 4.1916^{\prime \prime}}$
Top of hill, 40 ft . W. of rd., in fence line W. . in root on N . side of 12-1n. hedge tree; crossed nails

Feet
1,016.089
1,023.95
(Continued in Maitland quadrangle; see line 5.)

## 5. FROM POINT EAST OF CENTER OF NORTH BORDER OF QUADRANGLE WEST TO WEST' BORDER (by H. W. Gross in 1936) (Continued from coin quadrangle; see ine 3.)

T. 66 N., R. 37 W., in $S W 1 / 4$ sec. 27 , 45 ft . S. and 30 ft . E. from rd. fork W., in root on N. side of i8-in. elm tree; copper nail and washer Possum Waik School, at E. side of, on S. end of top step; chiseled square T. 66 N., R. 37 W., near quarter cor. between secs. 28 and $33,30 \mathrm{ft} . \mathrm{N}$. and 130 ft. W. from T-rd. S., in root on S. side of 14-in. mulberry tree: copper nall and washer
T. 66 N., R. 37 W., near S. sixteenth cor. sec. $33,300 \mathrm{ft}$. W. of rd. corner from N.-W., 50 ft . S. and 20 ft . E. from T-rd. S., in root on N. side of 16-in. walnut tree; copper nail and washer
U.S.C. \& G.S. `standard disk stamped "K $201933^{\prime \prime}$

Wabash Ry. at rd. crossing, 40 ft . S. and 25 ft . W. from, in N. side of telegraph pole; spike

1,203.30
1,035.07
$1,089.48$

1,055.84
943.233
949.38

66 N., R. 37 W., $0,2 \mathrm{mi}$. E, of cor. secs. 29, 30,31 , and 32,50
(? 30) ft. E. of Trid. S., $20 \mathrm{ft} . \mathrm{N}$. of E.-W. rd., about 235 ft . W.
of iron bridge, lift. $S$. of fence, in cońcrete post; standard tablet stamped "Prim Trav Sta No 48 L S $1923 \mathrm{Mo}^{\circ}$
Reference mark, $51 \mathrm{ft} . \mathrm{S}$. and 40 ft . W. from tablet, on top of w. head wall of culvert; chiseled square
T-rd. N., NW. of, on top of wing wall of culvert; chiseled square
943.534
946.44
974.53

1,036.18
1,081.96
1,032.88
$1,004.80$

1,116.353
1,120.00

1,151.56
1,076.52
Bridge, at SW. corner of, in top of cap; crossed nails
T. 65 N., R. 38 W., N. cor. secs. 4 and 5 , 20 ft . N. and 500 ft . W. from T-rd. S., 20 ft . $N$. and 130 ft . W. from rd. at drain, in root on E. side of twin 10-in. box-elder tree; copper nail and washer
T-rd. N., 65 ft . N. and 18 ft . E. from, on W. side of $10-1 \mathrm{n}$. walnut tree;
T. $\frac{\text { spike }}{} 65 \mathrm{~N}, \mathrm{R}, 38 \mathrm{~W} ., \mathrm{N} . \operatorname{cor}$. secs. 5 and $6,20 \mathrm{ft}$. N. and $45 \mathrm{ft.E}$. from T-rd. S., in root on SW. side of $12-1 n$. hedge tree; copper nail and washer
T-rd. N., $20 \mathrm{ft} . \mathrm{S}$. and 10 ft . E. from, in root on N . side of i8-in: mulberry tree; crossed nalls
T-rd. S., 20 ft . S. and 35 ft . E. from, in N . side of hedge fence post; spike
T. $65 \mathrm{~N} .$, Rs. 38 and $39 \mathrm{~W} ., 615 \mathrm{ft}$. W. of N . cor. secs. 1 and $6,100 \mathrm{ft}$.
 post; standard tablet stamped "Prim Trav Sta No 46 z s 1923"
Reference mark, 37 ft . S. and 4 ft . E. from tablet, in root on SE . side of $10-1 n$. walnut tree; spike

1,090.77
1,097.40

1,138.07
1,118.98
1,073.11

1,102.786
1,100.01

## 6. FROM WABASH RAILWAY NORTH ALONG EAST BORDER OF QUADRANGIE

T. $65 \mathrm{~N} .$, Rs. 36 and $37 \mathrm{~W} .$, cor. secs. 19, 24,25 , and $30,55 \mathrm{ft} . \mathrm{S}$. and 35 ft . W. from U.S. Highway 71 at cross rdi, in concrete post; standard tablet stamped "707 C W A 1934 "
Farmhouse, 30 ft . E of rd., in root on W. side of l4-in. maple tree; crossed nalls

1,075.669
1,085.05
T. 65 N., R. 36 W., W. cor. secs. 18 and $19,72 \mathrm{ft}$. N. and 20 ft . W. from T-rd. E., 85 ft . S. and 20 ft . W. from T-rd. W., in root on E. side of 18-1n. walnut tree; copper nail and washer

1,127.21
T. 65 N., R. 37 W., E. cor. secs. 12 and $13,20 \mathrm{ft}$. S. and $110 \mathrm{ft} . \mathrm{W}$. from T-rd. W. produced, on top of concrete head wall of culvert; ch1seled square
Top of hill, at farmhouse, 33 ft . E. of ra., in root on w. side of 14-1n. maple tree; crossed nails

1,009.02
T. $65 \mathrm{~N} ., \mathrm{R} .36 \mathrm{~W}$. , W. cor. secs. 6 and $7,30 \mathrm{ft}$. S. and 27 ft . E. from T-rd. E., 220 ft . S. of T-rd. W., $6 \mathrm{ft} . \mathrm{S}$. and 4 ft . E. from fence corner; in concrete post; standard tablet stamped "708 C W A 1934"

Top of hill, $S$, of rd., in root on $N$. side of $14-1 n$. wild-cherry tree; $\quad$ Feet $\quad 1,118.96$
crossed nails
(Continued in Pickering quadrangle; see line 4.)

## 7. FROM POINT NEAR MIDDLE OF. WEST BORDER OF QUADRANGLE EAST TO QUITMAN

Rd. at N. -S . fence, $15 \mathrm{ft} . \mathrm{N}$. and 15 ft . W. from; top of boulder
T. 64 N., R. 38 W., cor. secs. 7, 8,17 , and $18,30 \mathrm{ft} . \mathrm{N}$. and 360 ft . W. from T-rd. S., 75 ft . SE. of corner of dweiling of Orel Raines, in concrete post; standard tablet stamped "823 C W A 1934"
Wooden bridge, at SE: corner of in top of piling; crossed nails
T. $64 \mathrm{~N} ., \mathrm{R} .38 \mathrm{~W} .$, cor $\operatorname{secs} .8,9,16$, and $17,40 \mathrm{ft}$. N. and 50 ft . E. from crossroads, in root on $S$. side of 8-in. elm tree; copper nail and washer
T. $64 \mathrm{~N} ., \mathrm{R} .38 \mathrm{~W} .$, cor. secs. $9,10,15$, and $16,70 \mathrm{ft}$. N. and 500 ft . E. from crossroads on Atchison-Nodaway county inne, 50 ft . SW. of SW . corner of dwelling, in root on S . side of $15-1 \mathrm{n}$. hackberry trees copper nail and washer

1,091.22
T. $64 \mathrm{~N} . \mathrm{E}^{\mathrm{R} .} 38 \mathrm{~W}$. , about 650 ft . W. of cor. secs. $10,11,14$, and 15 , about $60 \mathrm{ft} . \mathrm{S}$. of dwelling of $\mathrm{D} . \mathrm{C}$. Lundeen, 30 ft . (? 22 ft .) N . of ra. in yard, in concrete post; standard tabiet stamped $\quad 4824 \mathrm{C}$ W A 1934"
Reference mark, 43 ft . W. of tablet, in root on S . side of 24-1n. elm tree; copper neil and washer
Huff Creek, at SE. corner of bridge over, on top of bolt; chiseled cross
T. $64 \mathrm{~N} ., \mathrm{R}$. $38 \mathrm{~W} ., 0.2 \mathrm{mi}$. E. of quarter cor. between secs. 11 and 14 , on $S$. head wall of concrete culvert; chiseled square
T-rd. S., SE. of, in corner fence post; crossed nails
T. 64 N., R. 38 W., about 0.1 mf . E. of quarter cor. between secs. 12 and 13, $10 \mathrm{ft} . \mathrm{S}$. of rd., on top of concrete head wall of culvert; chiseled square
T. 64 N., R. 37 W., about 0.1 mi . W. of quarter cor. between secs. 7 and 18, 72 ft . S. and 20 ft . E. from junction of private rd. S., in root on N. side of $30-1 n$. catalpa tree; copper nail and washer
$1,028.31$
. 64 N., R. 37 W., cor. secs. 7, 8,17 , and $18,3 \mathrm{ft}$. N. and 24 ft . E. from N.-S. Td. at rd. W. 21 ft . N. of rd. E., in concrete post; standard tablet stamped " 825 C W A $1934^{"}$
T. 64 N., R. 37 W., quarter cor. between secs. 7 and 8, 105 ft . N. and 40 ft . W. from T-rd. E., in yard of Dale Ashford, in root on E: side of 30-in. maple tree; copper nail and washer
T-rd. S., SE. of, in N. side of corner post; crossed nails
T. 64 N., R. 37 W., near quarter cor between secs. 8 and 9 , at $S W$. corner of bridge over Nodaway River, on top of rivet at ond of truss; chiseled cross
$1,065.841$
1,064.37
1,009.94
995.72

1,045.61
1,040.71
999.12

1,050.355
1,035.20
1,068.72
8. SOUTH ALONG NORTH HALF OF WEST BORDER OF QUADRANGLE (by T. G. Drummond in 1936)
(Continued from coin quadrangle; see line 5.)
T. 66 N., R. $38 \mathrm{~W} .$, cor. secs. $29,30,31$; and $32,145 \mathrm{ft} . \mathrm{s}$. and 90 ft . E. from crossroads, at North Star School, on NW. corner of bottom concrete step; chiseled square

1,103.80
T-rd. N., 14 ft . N. and 24 ft . E. from, in wooden box culvert; crossed na118
$1,069.54$
T. $65 \mathrm{~N} ., \mathrm{Rs} .38$ and $39 \mathrm{~W} ., 615 \mathrm{ft}$. W. of N. cor. secs. 1 and $6,100 \mathrm{ft}$. SE. of'SE. corner of farmhouse, 25 ft . N. of B.-W. rd., in concrete post; standard tablet stamped "Prim Trav Sta No 46 L s 1923"

1,102.786
Reference mark, 36 ft . S. of tablet; in SE. side of $6-1 \mathrm{n}$. wainut tree; spike

1,100.02
 W. from rde fork $N W ., 27 \mathrm{ft}$. S. of rde, in SE. corner of wooden bridges copper nall and washer
Steel bridge, at $3 W$. corner of, on rivet head chiseled crobs
T. 65 N., R. 38 W., W. cor. secs. 7 and $18,8 \mathrm{ft}$. N. and 24 ft . E. from T-rd. E., 210 ft . S. of T-rd. W., on top of concrete pipe culvert; chisoled square
T. 65 N., R. 39 W., near $E$. cor. secs. 13 and 24 r .45 ft . N. and 29 ft . E. from State Highway 4 at cross rd., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 40 L S 1923"
Wooden bridge, in $S W$. corner of ; crossed nails
t. $65 \mathrm{~N} ., \mathrm{R}$. 38 W., W. cor. secs. 19 and 30 , 24 ft . S . and 12 ft . E. from T-rd. E., on iron pipe culvert! chiseled square
T. 65 N., R. $38^{\circ}$ W., cor. secs. 30 and $31,60 \mathrm{ft}$. S. and 20 ft . W. from T-rd. E., in root on E. side of i2-in. box-elder tree; copper nail and washer

1,033.12
1,023.59
1,044.88

1,106.973
1,016.73
1,055.29
1,096.28

For additional level lines along Wabash Ry, and Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order line, Milan, Mo. to Hamburg, Iowa; and second-order
inne, Bigelow to Burlington Jct.

COIN QUADRANGLE*
(Latitude $40^{\circ} 30^{\prime}-40^{\circ} 45^{\prime}$; longitude $95^{\circ} 00^{\prime}-95^{\circ} 15^{\prime}$ )
Atchison and Nodaway Counties


1. FROM SOUTHEAST CORNER OF QUADRANGLE NORTH ALONG EAST BORDER TO IOWA-MISSOURI STATE LINE (by H. W. Gross in 1936)
(Continued from Net Market quadrangle; see inne 1.)
Feet
T-rd. E., 20 ft . W. of, in top of 8 in , brace post; crossed nails $1,038.92$
T. 66 N., R. 36 W., near S. sixteenth cor. between secs. 19 and 20,12
ft. E. of rd., on top of concrete head wall; chiseled square
T-rd. W., 50 ft . F . and $12 \mathrm{ft} . \mathrm{E}$. from, on top of concrete head wall; chiseled square
994.32

1,041.61
clearmont, 0.7 mi . H. and 1 mi . E. from, cor. secs. 17, 18, 19, and 20, T. 66 N., R. $36 \mathrm{~W} ., 60$ ( 9 65) ft. N. and 25 ft . E. from T-rd. E., in concrete post; standard tablet stamped "709 C W A 1934"

1,071.356
Small bridge, 40 ft . S . and 18 ft . E. from, in root on W . side of triple 10-in. cherry tree; crossed nails
991.16
T. 66 N., R. 36 W., cor. secs. $7,8,17$, and $18,200 \mathrm{ft} . \mathrm{S}$. and 20 ft . E. from crossroads, in root on N. side of 10-ín. box-elder tree; copper nail and washer
985.26

Steel bridge, at NE. corner of on top of wing wall; chiseled square 975.06
T. 66 N., R. 36 W ., near S. sixteenth cor. between secs. 5 and 6, 135 ft. S. and 20 ft . E. from T-rd. W., in root on W. side of $30-1 \mathrm{n}$. elm tree; copper nail and washer
976.74
T. 66 N., R. 36 W., near N. sixteenth cor between secs. 5 and 6 , at center of E. side of White Lily School, on step; chiseled cross
957.92

Farmhouse; 35 ft . W. of rde. in root on SE. side of $30-1 \mathrm{n}$. elm tree; crossed nalls
962.41
T. $67 \mathrm{~N} . \mathrm{N}_{\mathrm{R}} 36 \mathrm{~W} .$, near quarter cor, between secs. 31 and 32 , 15 ft . S. and 33 ft . W. from T-rd. E., 3 ft . S. and 6 ft . W. from corner fence post, in'concrete post; standard tablet stamped "710 C W A 1934"
957.240
orossrosds, 33 ft . N , and 25 ft . W. from, on top of $4-\mathrm{in}$. iron pipe set in conorete; chiseled cross

1,039.62
(Continued in New Market quadrangle; see ine 2.)

## 2. FROM EAST BORDER OF QUADRANGLE WEST ALONG IOWA-MISSOURI STATE LINE TO WEST BORDER

Ohicago, Burlington \& Quincy R.R. at rd. crossing; $20 \mathrm{ft} . \mathrm{S}$. and 75 ft . E. from, In root on S. side of 24 -in. maple tree; crossed nailssecs. 1 and $6,500 \mathrm{ft} . \mathrm{N}$. of $\mathrm{U} . \mathrm{S}$. . Highway 71 at rd. E., at SE. cornerof main span of bridge over Nodaway River, on top of anchorbolt;chiseled cross
941.78

01earmont, 3.8 mi . N. of, along U.S. Highway 71, cor. Tps. 66 and 67 N ., Rs. 36 and $37 \mathrm{~W} ., 33 \mathrm{ft} . \mathrm{E}$. of junction of rd. W., in concrete post; standard tablet stamped "831 1934"
941.061

T-rd. S., SW. of, in N. side of telegraph polet spike
954.31

Tps. 66 and $67 \mathrm{~N}, \mathrm{R}$. 37 W . about 0.1 ml . W. of cor. secs. 1, 2, 35 , and 36. at SW. coimer of bridge, on top of wing wall; chiseled square
972.81

Tps: 66 and $67 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} .$, cor. secs. $2,3,34$, and $35,30 \mathrm{ft}$. S. and 33 (? 30 ) ft. W. from crossroads, 85 ft . N . and 60 ft . E. from NE. corner of farmhouse, in concrete post; standard tablet stamped "830 $1934^{\prime \prime}$

1,117.807
1,071.15
1,033.21
T-rd. S., SE. of, In SW. side of telephone pole; spike

The greater part of this quadrangle lies in Iowa.
$1075020-38-9$

Tps. 66 and $67 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} .$, cor. secs. $3,4,33$, and $34,12 \mathrm{ft} . \mathrm{N}$. and 40 ft . E. from crossroads, on top of concrete head wall; chiseled square
Crossroads, NW. of, in root on S. side of $24-1 \mathrm{n}$. box-elder tree; crossed nails
Bridge, at $S W$. corner of, in top of cap; crossed nails
Tps. 66 and $67^{\circ} \mathrm{N} ., \mathrm{R}, 3 \mathrm{~m}^{\prime} \mathrm{W}$., about 0.2 ml . W. of cor. secs. $4,5,32$, and 33 , 60 ft . S. and 60 ft . W. from SW . corner of farmhouse, 35 ft . N. of rd. in root on $S$. side of 26 -in. maple tree; copper nail and washer
Tps. 66 and 67 N., R. 37 W., near W. sixteenth cor. between secs. 5 and 32, 35 ft . N. and 36 ft . E. from' crossroads, in yard of Mount Tabor School, in concrete post; standard tablet stamped "829 1934"
Tps. 66 and $67 \mathrm{N.}, \mathrm{R} 37 W.$. , quarter cor. between secs. 6 and $31,20 \mathrm{ft}$. N. and 140 ft . W. from crossroads, in root on NE. side of 16-in. boxelder tree; copper nail and washer
Bridge over Mill Oreek, at SW. corner of; in top of cap; crossed nails
Tps. 66 and 67 N., R. 38 W., quarter cor. between secs. 1 and $36,25 \mathrm{ft}$. S. and 100 ft . E. from junction of abandoned rd. N., in root on NW. side of $24-1 n$. maple tree; copper nail and washer
Tps. 66 and $67 \mathrm{~N} .$, R. 38 W. , cor. secs. $1,2,35$, and $36,45 \mathrm{ft} . \mathrm{S}$. and 105 ft . E. from crossroads, in root on NW. side of l2-in. maple tree; crossed nalls
Drain, 20 ft . S. and 70 ft . E. from, in $\mathrm{N} . \operatorname{side}$ of 24 -in. willow tree; spike
Tps. 66 and $67 \mathrm{~N} ., \mathrm{R}, 38 \mathrm{~W} .$, cor. secs. $2,3,34$, and $35,25 \mathrm{ft}$. N. of T-rd. S., on property of Chester Honen, in concrete post; standard tablet stamped " 828 1934"
Reference mark, 110 ft . W. of tablet, in root on SW . sife of 28-1n. maple tree; copper nall and washer
Wabash Ry. at rd. crossing, 30 ft . S . and 55 ft . E. from, in root on E. side of 10-in. mulberry tree; crossed nails
T. $67 \mathrm{~N} .$, R. 38 W. , in $\mathrm{SW} 1 / 4 \mathrm{sec} .34$, 12 ft . E. of rd., on top of concrete head wall; chiseled square
T. $67 \mathrm{~N} ., \mathrm{R} .38 \mathrm{~W} ., \mathrm{N} . \operatorname{cor}$. secs. 33 and $34,42 \mathrm{ft} . \mathrm{N}$. and 35 ft . W. from crosiroads on Iowa-Ko. State line, in SE. corner of Blanchard Cemetery, in root on S. side óf 14-in. box-elder tree; copper nail and washer
Blanchard, Iowa, in SE. part of, 40 ft . S. and 30 ft . W. from rd. corner N.-E. and alley W. on Iowa-Mo. State líne, in root on N. side of 10-in. walnut tree; copper nail and washer
Water tower at Blanchard, Iowa, in SE. foundation.block, on top of SW. anchorbolt; chiseled cross
T. 67 N., R. $38 \mathrm{~W} .$, on line between secs. 32 and $33,0.2 \mathrm{mi}$. S. of IowaMo. State line, 7 ft . N . and 20 ft . E. from Wabash Ry. ot rd. crossing, 14 ft . N. of track, in concrete post; standard tablet stamped 7827 $19344^{\prime \prime}$
U.S.C. \& G.Ș. standerd disk stamped "R 8 1933"

Wabash Ry. at rd. crossing, 0.2 ml . N. of sta.; top of rail
Blanchard, Iowa, 0.5 mi . W, of Wabash Ry, sta., 12 ft . S. and 70 ft . W. from T-rd. SW., at $S$. end of E. pier of steel bridge over East Tarkio creek, on top of concrete; chiseled square
$1,055.54$
$1,138.04$
$1,079.34$
$1,143.00$
$1,107.024$
1,035.62
988.53
$1,042.72$

1,120.98
$1,056.89$
1,132.851
1,138.82
1,042.602
1,029.15
$1,078.02$
1,064.26
1,067.09
982.339
984.375
979.6
963.72

Tps. 66 and 67 N., R. 38 W. , near W. sixteenth cor. between secs. 5 and $32,30 \mathrm{ft}$. S . and 75 ft . W. from T-rd. W., 30 ft . W. of bridge, in root on NW. side of 30-in. maple trees copper nail and washer
Steel bridge over East Tarkio Creek, at SE. corner of, on top of rivet in bearing plate; chiseled cross
957.14
958.44
(Continued in Farragut quadrangle; see line 2.)

## 3. WEST ALONG EAST PART OF SOUTH BORDER OF QUALRANGLE

T. 66 N., R. $36 \mathrm{~W} ., 0.1 \mathrm{mi}$. S. of T-rd. E. at cor. secs. 19, 20, 29, and $30,25 \mathrm{ft}$. S, and 25 ft . E. from crossroads, in root on W. side of 12-1n. box-elder tree; copper nail and washer
Bridge, at SE, corner of, on top of wing wall; chiseled square
Clearmont, at S . IImits of, N . sixteenth cor. between secs. 25 and 30 , T. 66 N ., Rs. 36 and 37 W ., 18 ft . N. and 25 ft . E. from U.S. H1 Ehray 71 at rd. E., on top of N. head wall of concrete culvert; chiseled mark

1,046.01
958.05
962.97

Clearmont, S.sixteenth cor. between secs. 19 and $24, T \cdot 66 \mathrm{~N} ., \mathrm{Rs}, \mathrm{j} 36$ and $37 \mathrm{~W} ., 18 \mathrm{ft}$. S. and 25 ft . W. from junction of $0 . \mathrm{s}$. Highway 71 and - County Route $C$, on top of $S$. head wall; chiseled square

Chicago, Burlingtion \& Quincy R.R. at crossing of County Route c, 25 ft . N. and 80 ft . E. from, in N. side of $26-1 \mathrm{n}$. box-elder tree; spike
T. $66 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W} .$, center of $\mathrm{SE} 1 / 4 \mathrm{sec} .23,42 \mathrm{ft} . \mathrm{N}$. and 48 ft . F. from County Route $C$ at rd. $S$, and lane $N$., 5 ft . N. and 3 ft . E. from corner fence post, in concrete posts standard tablet stamped "Prim Trav Sta No $49 \mathrm{~L} S 1923 \mathrm{Mon}$
Reference mark, 35 ft . N. and 3 ft . W. from tablet, in root on SE. side of $18-1 n$. black-locust tree; copper nall and washer
T. $66 \mathrm{~N} ., \mathrm{R} .37 \mathrm{~W}$. in $S W \mathrm{I} / 4 \mathrm{sec}$. 23 , at NE. corner of County Route $C$ bridge over Nodaway River, on top of rivet in bearing plate; chiseled cross
,
T. 66 N ., R. 37 W ., about 0.3 ml . S . of center sec. $22,180 \mathrm{ft}$. S. and 15 ft . W. from County Route C at rd. $\$$., 10 ft . N. and 40 ft . E. from farmhouse, in root on E. side of 28+in. tree; copper nail and washer
T. 66 N., R. 37 . W., cor. secs. $21,22,27$, and $28,12 \mathrm{ft}$. s. and 150 ft . W. from $T-r d . S$. , on top of $S$. concrete head wall; chiseled square
944.11

1,105.54

## 4. NEAR MIDDLE OF SOUTH BORDER OF QUADRANGLE

T. 66 N., R. 37 W., about 0.2 mi . W. of quarter cor. between secs. 21 and 28, at SE. corner of bridge over drain, on top of concrete wing wall; chiseled square
Turd. S., $12 \mathrm{ft} . \mathrm{N}$, and 300 ft . E. from, on top of concrete head wall; chiseled square
U.S.C. \& G.S. standard disk stamped "L 201933 "

Feet
987.16

1,018.06 949.752

1,026.00
$1,080.116$
971.05
(Continued in Skidmore quadrangle; see line 8.)

TIE NEAR IOWA-MISSOURI STATE LINE BETWEEN UNITED STATES COAST AND GEODETIC SURVEY FIRST-ORDER LINE AND UNITED STATES GEOLOGICAL SURVEY THIRD-ORDER LINE

Wabash Ry, at rd. crossing, 30 ft . S . and 55 ft . E. from, in root on E. side of $10-1 n$. mulberry tree; crossed nails
U.S.C. \& G.S. standard disk stamped "B $191933{ }^{n}$

For an additional level line along Wabash Ry., refer to United States Coast and Geodetic Survey first-order line, Milan, Mo. to Hamburg, Iowa.

FARRAGUT QUADRANGLE*
(Latitude $40^{\circ} 30^{\prime}-40^{\circ} 45^{\prime}$; longitude $95^{\circ} 15^{\prime}-95^{\circ} 30^{\prime}$ )
Atchison County


## 1. FROM WEST BORDER OF QUADRANGLE EAST ALONG IOWA-MISSOURI STATE LINE (by T. G. Drummond in 1936) <br> (Continued from Hamburg quadrangle; see line 2.)

T. 67 N., Rs. 40 and 41 W., N. cor secs. 31 and 36 , on Iowa-Mo. State line, $20 \mathrm{ft} . \mathrm{N}$. of T-rd. W., 6 ft . W. of T-rd. E., on head wall of concrete culvert; chiseled square
T. 67 N., R. 40 W., N. cor. secs. 31 and 32,5 ft. S. and 30 ft . W. from rd. at fences $E$. and W. on Iowa-Mo. State line, 25 ft . S. and 30 ft . W. from T-rd. W., in concrete post; standard tablet stamped 1804 C W A 1934"
Tps. 66 and 67 N., R. 40 W., approximate cor. secs. $5,6,31$, and 32,18 ft. N. and 12 ft . W. from crossroads, on concrete head wall of iron pipe culvert; chiseled square
Steel bridge, at SE. corner of, on rivet head; chiseled cross
T. $66 \mathrm{~N} ., \mathrm{R} .40 \mathrm{~W} .$, cor. secs. $5,6,7$, and $8,18 \mathrm{ft} . \mathrm{s}$. and $18 \mathrm{ft} . \mathrm{W}$ from crossroads, on iron pipe culvert; painted square
Concrete culvert, on $S$. head wall; chiseled square
Feet $1,073.25$
1,081.53 , cor. secs. 4 . and 17 . E. from crossroads, 117 ft . N. and 39 ft . W. from NW C W A 1934"
T. 66 N., R. $40 \mathrm{~W} ., \operatorname{cor}$. secs. $3,4,9$, and $10,30 \mathrm{ft}$. N. and 90 ft . E. from crossroads, in yard of South Dale School, at well, on SW. corner of concrete foundation; chiseled square

1,118.801

1,065.23
T. 66 N., R. 40 W. , cor. secs. $2,3,10$, and $11,66 \mathrm{ft} . \mathrm{N}$. and 245 ft . E. from crossroads, in root on E. side of $24-1 n$. box-elder tree; copper na11 and washer
T. $66 \mathrm{~N}_{\mathrm{L}}, \mathrm{R}^{2} 40 \mathrm{~W} .$, cor. secs. $1,2,11$, and $12,30 \mathrm{ft} . \mathrm{N}$. and $21 \mathrm{ft} . \mathrm{W}$. from U.S. Highway 59 at E.-W. cross rd., 10 ft . N. and 6 ft . E. from N. end of pipe culvert, in concrete post; standard tablet stamped "806 C W A 1934"
Steel bridge over West Tarkio Creek, at SW. corner of, on rivet headz chiseled cross
996.673
957.06
ft. Rs. 39 and 40 W ., cor. secs. $1,6,7$, and $12,33 \mathrm{ft}$. S. and 55 ft. E. from T-rd. S., in root on E. side of twin mapie tree; copper nail and washer
T-rd. N., $18 \mathrm{ft} . \mathrm{N}$. and 18 ft . W. from, on top of iron pipe culvert; painted square
T. $66 \mathrm{~N}, \mathrm{R}$. $39 \mathrm{~W} .$, cor. secs. $5,6,7$, and $8,5 \mathrm{ft} . \mathrm{S}$. and 27 ft . E. from T-rd. W., in root on S. side of twin mapie tree; copper nail and washer
T-rd. E., $15 \mathrm{ft}, \mathrm{N}$. and 16 ft . W. from, at group of mail boxes; in top of 10-1n. stump; crossed nalls
Tps. 66 and 67 N., R. 39 W., cor. secs. $5,6,31$, and $32,27 \mathrm{ft}$. E. of T-rd. W., $7 \mathrm{ft} . \mathrm{S}$. snd 13 ft . W. from ib-in. pine tree, in concrete post; standard tablet stamped "807 0 W A $1934^{*}$
T. $67 \mathrm{~N} ., \mathrm{R} .39 \mathrm{~W} ., \mathrm{N} . \operatorname{cor}$. secs. 31 and $32,18 \mathrm{ft} . \mathrm{S}$. and $30 \mathrm{ft}, \mathrm{E}$. from crossroads on Iowa-MO. State line, in root on N. side of 14-in. oak tree: copper nail and washer
997.70

1,030.28

1,052.39
1,096.54

1,046.528
 T-rd. W. and hedge row E. on Iowe-Mo. State 11 ne, 17 ft . S . and 2 ft . E. from fence corner, in concrete post; standard tablet stamped " 808 C W A $19.34^{\prime \prime}$
T. 67 N., R. 39 W., cor. secs. $27,28,33$, and 34 , about 880 ft . N. of Iowa-Mo. State line, 27 ft . S. and 21 ft . E. from crossroads, on top of iron pipe culvert; painted square
Tps. 66 and $67 \mathrm{~N} .$, R. 39 W. , cor. eecs. $3,4,33$, and $34,27 \mathrm{ft}$. S. and 24 ft . E. from crossroads; on top of iron pipe culvert; painted square
Steel bridge, at SW . corner of, 300 ft . W. of Chicego, Burlington \& Quincy R.R., on bolt head; chiseled cross
Tps. 66 and 67 N., R. 39 W., cor. secs. $2,3,34$, and $35,21 \mathrm{ft}$. S. and 298 ft . E. from crossroads, $2 \mathrm{ft} . \mathrm{s}$, of fence, in concrete post; standard tablet stamped " 809 C W A $1934^{n}$
Wooden bridge, in NW. corner of $t$ crossed nails
Tps. 66 and 67 N. , R. $39 \mathrm{~W} .$, cor. secs. $1,2,35$, and $36,16 \mathrm{ft}$. S. and 18 ft . E. from crossroadsy on iron pipe culvert; painted square
Tps. 66 and $67 \mathrm{~N} .$, Rs. 38 and $39 \mathrm{~W} .$, cor. of, $37 \mathrm{ft} . \mathrm{S}$. and $37 \mathrm{ft}, \mathrm{E}$. from, 10 ft . S . and 2 ft . E . from fence corner, in concrete post; standard tablet stamped $0810 . \mathrm{C}$ W A 1934"
T. 66 N., R. 39 W., E. cor. secs. 1 and $12,150 \mathrm{ft}$. N. and 21 ft . W. from T-rd. W., $80 \mathrm{ft} . \mathrm{N}$. of T-rd. E., opposite farmhouse, in root on E. side of 18-in. walnut trees. copper nail and washer
T-rd., 24 ft . N. and 30 ft . W. fromg surface of ground
T. $66 \mathrm{~N} ., \mathrm{R}$. 38 W ., in $\mathrm{SW} 1 / 4 \mathrm{SW} 1 / 4$ s\&c. 7 , about 800 ft . E. of T-rd. N., at sw. corner of steel bridge over East Tarkio Creek, on rivet head; chiseled cross

1,025.20

1,093.819

1,080.56
1,026.56
1,007.10

1,121.503
1,037.68
1,093.05
1,021.177
$1,041.74$
948.5
949.64
(Continued in Coin quadrangle; see line 5.)

## 2. NEAR EAST BORDER OF QUADRANGLE AT IOWA-MISSOURI STATE LINE (by H. W. Gross in 1936) <br> (Continued from coin quadrangle; see line 2.)

Tps. 66 and $67 \mathrm{~N} ., \mathrm{Rs}$. 38 and $39 \mathrm{~W} .$, cor. of, $37 \mathrm{ft} . \mathrm{S}$. and 37 ft . E. from, 10 ft . S . and 2 ft . E . from fence corner, in concrete post; standard tablet stamped "810 C W A 1934"
Reference mark, 50 ft . N. and 70 ft . W. from tablet, on top of head wall of concrete culvert; chiseled cross

1,021.177
$1,021.84$

## 3. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE 3.5 MILES WEST OF WESTBORO (by Charles E. Hunter in 1936)

T. 66 N., R. 40 T., cor. secs. $11,12,13$, and $14,35 \mathrm{ft}$. S. and 20 ft . W. from junction of state Highway 59 and County Route $C$, on W. head wall of concrete culvert; chiseled square
Westboro, 3.5 mf . W. of, along Oounty Route C , in $\mathrm{NW} 1 / 4 \mathrm{sec} .13$. T. 66 N., R. 40 W., in bridge over west Tarkio Creek, in S. row in right bearing plate of $S$. truss; top of left rivet (set by waterresources branch of 0.8 . Geol. Survey)
Westboro, 3.5 ml . W. of, along County Route C , in $\mathrm{NW} 1 / 4 \mathrm{sec} .13$,
T. 66 N., R. 40 W., in bridge over West Tarkio Greek, in S. row in left bearing plate of $S$. truss; top of right rivet (set by waterresources brench of U.S. Geol. Survey
Steel bridge over West Tarkio creek, at SW. corner of, on rivet head; chiseled cross

# TARKIO QUADRANGLE* <br> (Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime}$; longitude $95^{\circ} 15^{\prime}-95^{\circ} 30^{\prime}$ ) <br> Atchison and Holt Counties 



1. EAST THROUGH CENTER OF QUADRANGLE (by S. T. Tudor in 1936)
(Continued from Nemaha quadrangle; see line l.)

Dip in rd., 25 ft . N. and 200 ft . W. from, in S. side of telephone pole; wire nails

Feet
1,041.50
T. 64 N., R. 41 W., about 800 ft . N. of center sec. $11,90 \mathrm{ft}$. W. of dwelling, 25 ft . E. of rd., in root on N . side of l2-in. maple tree; nail and washer
Mount Pleasant School, at entrance to, on top of SE. corner of bottom concrete step; painted square
Crossroads, 20 ft . N. and 165 ft . E. from, in root on S . side of $12-1 \mathrm{n}$. cherry tree; crossed nalis
T. 64 N., R. 41 W., near center sec. $12,25 \mathrm{ft} . \mathrm{S}$. and 190 ft . E. from T-rd. N., 75 ft . NE. of dwelling owned by W. G. Oswald, in concrete post; standard tablet stamped "818 C W A $1934^{\circ}$

1,109.59
1,095.14
$1,147.20$

1,126.376
T-rd. S., 10 ft . S. and 20 ft . E. from, in root on S . side of $12-1 \mathrm{n}$. elm tree; crossed nails
T. $64 \mathrm{~N} ., \mathrm{R} .40 \mathrm{~W}$., center sec. 7, about 800 ft . E. of T-rd. S., at entrance to Methodist Church, on top of N. end of bottom step; painted square
T. $64 \mathrm{~N} ., \mathrm{R}$. 40 W ., about 20 ft . S. and 250 ft . E. from cor. secs. 7, 8, 17, and 18, in root on $N$. side of 24-1n. elm trees copper nail and washer
Rd. at fence S., 20 ft . N. and 130 ft . E. from, in S. side of telephone pole; crossed nails
T. $64 \mathrm{~N} ., \mathrm{R} .40 \mathrm{~W} .$, cor. secs. $8,9,16$, and 17 , $30 \mathrm{ft} . \mathrm{S}$. and $30 \mathrm{ft} . \mathrm{W}$. from crossroads, in concrete post; standard tablet stamped "819 C W A $1934{ }^{\prime \prime}$
Bend in creek, 75 ft . S. of, 20 ft . S. of rdey in N . side of telephone pole; crossed naila

1,086.67
$1,131.91$

1,099.30
1,008.84

1,013.057
T. 64 N., R. 40 W. , near cor. secs. $9,10,15$, and 16 , at SE. corner of steel bridge over Tarkio River, on top of concrete piling; chiseled square
920.62
895.88

Fairfax, 1.4 mi . N. of, along U.S. Highways 59 and 275 , quarter cor. between secs, 10 and 15, T. $64 \mathrm{~N} ., \mathrm{R} .40 \mathrm{~W}, 460 \mathrm{ft}$. S. of junction of rd. E., 18 ft . S . and 27 ft . W. from junction of rd. W., in front of dwelling of Albert Volger, in concrete posti standard tablet stamped 7820 C W A 1934"

Rd, at fence E., $10 \mathrm{ft} . \mathrm{S}$. and 30 ft . W. from, in root on $W$. side of 12-in. Walnut trees. crossed nails
T. 64 N., R. 40 W., near cor. secs. $2,3,10$, and 11 , about 25 ft . N. and 100 ft . E. from T-rd. S., in root on S. side of $15-1 \mathrm{n}$. box-elder tree; copper nail and washer
Oak Grove School, on top of NW. corner of concrete porchy painted square
T. 64 N. . R. 40 W., cor. secs. 1,2 , 11 , and 12 , about 25 ft . N. and 150 ft. W. from crossroads, in root on NS. side of $30-1 n$. cottonwood trees copper nall and washer
Rd. at N. -S . fences, 15 ft . S. and 10 ft . E. from, in root on N . side of 10-1n. cherry treet crossed nails
T. 64 N ., Rs. 39 and 40 W ., cor. secs. $1,6,7$, and $12,775 \mathrm{ft}$. W. of crossroads, 200 ft . S. of dweliling owned by w. N. Martin, 20 ft . S. of rd., in concrete post; standard tablet stamped 18210 W A $1934^{\circ}$ Top of hill, 10 ft . S . and 50 ft . W. from dwelling 15 ft . N. of rd., in root on W. side of $10-1 n$. elm trees crossed nails
947.96
983.75
969.72
$1,001.68$

1,064.46
1,061.64
1,061.268
$1,067.46$

[^23]T. 64 N., R. 39 W., about 700 ft . W. of quarter cor. between secs. 6 and 7 , 25 ft . N. and 60 ft . W. from wooden bridge, in root on N. side of

Feet
30-in. willow tree; copper nail and washer
970.44

Crossroads, 20 ft . N. and 65 ft . E. from, in S . side of telephone pole; crossed nails
Top of hill, 20 ft . N. of rd., in S. side of telephone pole; crossed na11s
T. 64 N., R. 39 W., cor. secs. $4,5,8$, and $9,50 \mathrm{ft}$. N. and 140 ft . W. from crossroads, in root on $S$. side of $36-1 \mathrm{in}$. cottonwood tree; copper nail and washer
Bridge, in top of NE. corner of floor; copper nail and washer
T. 64 N., R. 39 W ., about 0.3 ml . E. of cor. secs. 3,4 , 9 , and $10,75 \mathrm{ft}$. S. of dwelling owned by E. V. Roberts, $25 \mathrm{ft} . \mathrm{N}$. of rd., in concrete post; standard tablet stamped "822 C W A 1934"
Dwelling, 80 ft . N. and 35 ft . W. from, $25 \mathrm{ft} . \mathrm{S}$. of rd., in N . side of telephone pole; crossed nails
T. 64 N., R. 39 W., cor. secs. $2,3,10$, and $11,30 \mathrm{ft} . \mathrm{S}$. and 135 ft . W. from crossroads, in root on W. side of l2-in. elm tree; copper nail and washer
Bridge, in NE. corner of wooden floor; copper nail and washer
T. 64 N., R. 39 W., cor. secs. $1,2,11$, and 12 , about 800 ft . W. of crossroads, at NE. corner of steel bridge, on top of E. rivet head in bearing plate; painted rivet head
Wooden bridge, 550 ft . N. of, 10 ft . E. of rd., in W. side of $24-\mathrm{in}$. willow tree; crossed nails,
Tps. 64 and $65 \mathrm{~N} ., \mathrm{R}$. 39 W ., cor secs. $1,2,35$, and $36,40 \mathrm{ft}$. S. and 25 ft . E. from T-rd. W., in root on W. side of 24 -in. maple tree; copper nall and washer

1,051.05
1,046.50
988.47
982.20

1,067.006
1,042.90
$1,077.33$
$1,018.86$
996.29

1,025.40

1,094.28
Cross fences, in top of corner post; copper nall and washer
$1,074.55$
(Continued in Skidmore quadrangle; see line 4.)

## 2. EAST ALONG NORTH BORDER OF QUADRANGLE (by S. T. Tudor and T. G. Druminond in 1936) <br> (Continued from Nemaha quadrangle; see line 3.)

T. 66 N., Rs. 40 and 41 W., S. cor. secs. 31 and 36 , near T-rd. N., at SE. corner of wooden briáge, in top of wooden piling; copper nail and washer
Steel bridge over Rock Creek, in NW. corner of floor; copper nail and washer

1,002.60
980.60
T. $66 \mathrm{~N} .$, R. $40 \mathrm{~W} ., 300 \mathrm{ft}$. N. and 500 ft . E. from S. cor. secs. 31 and 32, 120 ft . N. of center of bridge, 12 ft . N. of E.-W. rd., in concrete post; standard tablet stamped "Prim Trav Sta No 42 L S $1923 \mathrm{Mo}{ }^{\circ}$
Dwelling, 150 ft . S. and 200 ft . W. from, in root on S . side of 18-1n. sycamore tree; crossed nails
T. $66 \mathrm{~N} ., \mathrm{R} .40 \mathrm{~W} ., 0.2 \mathrm{mi}$. E. of S . cor. secs. 32 and $33,50 \mathrm{ft}$. N. and 60 ft . W. from T-rd. N., in root on S. side of $18-\mathrm{in}$. walnut tree; copper nall and washer
T. $66 \mathrm{~N} ., \mathrm{R} .40 \mathrm{~W}$. , about 200 ft . W. of S . cor. secs. 33 and 34 , at SW . corner of steel bridge, in bearing plate; top of SE. bolt
T. 66 N. , R. $40 \mathrm{~W} ., 500 \mathrm{ft}$. E. of S . quarter cor. sec. $34, \mathrm{I} \mathrm{ft}$. S . of E.-W. rd., in concrete post; standard tablet stamped MPrim Trav Sta No 43 J S'1923 Mon
Crossroads, 20 ft , N . and 140 ft . E. from, 3 ft . above ground in S. side of 18-1n. locust tree; copper nail
Tps. 65 and $66 \mathrm{~N} ., \mathrm{R}$. 40 W , on 11 ne between secs. 3 and $35,20 \mathrm{ft} . \mathrm{S}$. and 20 ft . W. from U.S. Híghway 59 at rd. W., on top of head wall of concrete culvert; chiseled square
T-rd. S., $18 \mathrm{ft} . \mathrm{S}$, and 30 ft . W. from, on N . side of 8 -in. fence post; surface of ground
T. $66 \mathrm{N.}$,Rs . 39 and $40 \mathrm{~W} . \mathrm{S}$. cor. secs. 31 and $36,20 \mathrm{ft} . \mathrm{S}$. and 70 ft . W. from T-rd. N., in root of one of group of box-elder trees; copper nail and washer
Steel bridge, at NW. corner of, 230 ft . E. of Chicago, Burlington \& Quincy R.R. at rd. crossing, 8 ft . N. of rd., on rivet head; chiseled cross
$1,014.412$
1,091.96

1,139.98
1,014.75
1,091.739
999.99
936.72

1,000.. 8
1,006.09
935.06 square
T. 66 N., R. 39 W., near W. sixteenth cor on S. Iine sec. 32, 20 ft . N . and 105 ft . E. from T-rd. N., in inne with T-rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 44 J S 1923 Mo "
T. $66 \mathrm{~N} ., \mathrm{R}$. 39 W ., S , cor. secs, 32 and 33 r 12 ft . S , and 100 ft . E. from T-rd. N. on iron pipe culvert! chíseled square
T. $66 \mathrm{~N} ., \mathrm{R} .39 \mathrm{~W} ., \mathrm{S}$. quarter cor. sec. $33,21 \mathrm{ft}$. N. and 60 ft . W. from T-ra. N., in troot on E. side of lo-in. wild-cherry tree; copper nail and washer
T. 66 N., R. 39 W., near S. quarter cor. sec. 34 , at SE. corner of bridge over East Tarkio Creek, on rivet head; chiseled square
T. 65 N., R. 39 W., 660 ft . W. of N. cor. secs. 3 and 4 , 12 ft . N. of E.-W. rd., 260 ft . E. of dwelling of Mrs. Elizabeth Gienn, in concrete post; standard tablet stamped "Prim Trav Sta No 45 J S 1923 Mo "
Bridge, in sw. corner of crossed nails
T. 66 N., R. 39 W., S. cor secs. 35 and $36,10 \mathrm{ft}$. N. and 60 ft . E. from T-rd. N., on iron pipe culvert; chiseled square
T-rd. S., 12 ft . N. and 450 ft . E. from, on iron pipe culvert; chiseled
T. 66 N. , Rs. 38 and $39 \mathrm{~W} ., \mathrm{S}$. cor. secs. 31 and $36,10 \mathrm{ft}$. N. and 230 ft. E. from Twrd. N., in wooden box culvert; copper nail and washer
T-rd. S., 140 ft . W. of, on SE. ving wall of bridges chiseled square

1,050.604
.991 .06
$1,003.14$
928.58
967.898
968.69

1,003.16
1,039.56
1,053.06
1,009.91
3. LINE TO DETERMINE ELEVATION OF WATER-RESOURCES GAGE ABOUT 0.6 MILE WEST OF FAIRFAX (by Charles E. Hunter in 1936)
Fairfax, about 1.2 mi . N. of Chicago, Burlington \& Quincy R.R. sta., in W. end of N. wooden abutment of R.R. trestle; copper nail and washer Fairfax, 30.ft. N. and 20 ft . W. from curve in U.S. Highway 275, on W. head wall of concrete culvert; chiseled square
Fairfax, about 0.6 mi . W. of, at E. end of downstream truss of steel
bridge over Tarkio River, on southeasternmost rivet of anchorplate;
chiseled cross (set by water-resources branch of U.S. Geol. Survey)
For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order line, Sioux City, Iowa to Kansas City, Mo.

CRaIG QUADRANGLE*<br>(Latitude $40^{\circ} 00^{\prime}-40^{\circ} 15^{\prime}$; longitude $95^{\circ} 15^{\prime}-95^{\circ} 301$ )<br>Holt County



1. FROM POINT ABOUT 3 MILES WEST OF FORTESCUE EAST ALONG CHICAGO, BURLINGTON \& QUINCY'RAILROAD' TO NAPIER (by C. P. McKinley in 1911)

Fortescue, about $3 \mathrm{mi} . \mathrm{w}_{\text {. }}$ of, along Chicago, Burlington \& Quincy R.R., on line between secs. 35 and 36 , T. 61 N., R. $40 \mathrm{~W} ., 500 \mathrm{ft}$. NW: of ' rd. forks, 200 ft . N. of dweliing, 75 ft . N. of rd. crossing, 20 ft . W. of rd.; iron post stamped " $857^{\prime \prime}$
855.766

Fortescue, 500 ft . W. of Chicago, Burlington \& Quincy R.R. sta., 400 ft . W. of elevator at'W. end of switch, 60 ft . SE. of ra. crossing; iron post stamped "861"
Fortescue, 2 mi . E. of, along Chicago, Burlington \& Quincy R.R., 75 ft . N. of bridge 2.5 ; 300 ft . W . of dwelling, 100 ft . N. of rd. crossing, in root of large maple tree; copper nail
U.S.C.E. B.M. designated "304"

Top of cap

## 2. FROM BIGELOW NORTH ALONG EAST BORDER OF QUADRANGLE TO NORTHEAST CORNER, THENCE WEST AND SOUTH TO ORAIG (by H. S. Senseney in 1916)

U.S.C.E. B.M. designated "306"

Copper bolt
853.775

Top of cap
857.800

Bigelow, about 0.7 mi . E. of, near quarter cor. between secs. 10 and 11 , T. $61 \mathrm{~N} ., \mathrm{R}, 39 \mathrm{~W} ., \mathrm{NE}$. of rd. forks, in root of tree; copper nail
T. 61 N., R. 39 W., in NE. cor. sec. 3 , 18 ft . S. of fence corner, W. of rd., in root of tree; copper nail
T. 62 N., R. 39 W., near N. cor. secs. 26 and $27,25 \mathrm{ft}$. S. and 20 ft .
W. from crossroads; iron post stamped "912"

Reference mark, SW . of crossroads, in root of tree; copper nail
T. 62 N., R. 39 W., center sec. 14, E. of T-rd. W., in root of tree;
copper nail
T. $62 \mathrm{~N} ., \mathrm{R}$. 39 W. , quarter cor , between secs. 14 and 15 , NE. of rd. corner from E.-N., in root of tree; copper nail and washer
T. $62 \mathrm{~N} ., \mathrm{R}$. 39 W, cor secs. $10,11,14$ and $15,35 \mathrm{ft}$. N. and 20 ft .
W. from T-rd. W.; iron post stamped "926"

Reference mark, E. of T-rd. W., in root of tree; copper nail

[^24]
3. IN NORTHEAST CORNER OF QUADRANGLE (by W. R. Broaddus in 1924)
(Continued fromi Maitland quadrangle; see line 2.)
T. $63 \mathrm{~N} ., \mathrm{R} .39 \mathrm{~W} .$, cor. secs. $25,26,35$, and $36,15 \mathrm{ft} . \mathrm{N}$. and 105 ft . E. from crossroads, in root on NW. side of 18-in. box-elder tree; copper na11 and washer
4. FROM POINT NEAR BIGELOW NORTHEAST TO EAST BORDER OF QUADRANGLE
T. 61 N., R. 39 W., near quarter cor between secs. 10 and $11,150 \mathrm{ft}$. N. and 35 ft . E. from rd. forks, in root on S . side of $15-1 \mathrm{n}$. elm tree; copper nall and washer
(Continued in Maitland quadrangle; see ine 1.)
For additional level lines along Chicago, Burlington \& Quincy R. $\dot{R}$., refer to United States Coast and Geodetic Survey first-order line, Sioux City, Iowa to Kansas City, Mo. 3 and second-order line, Bigelow to Burlington Jct.
(Latitude $40^{\circ} 15^{\prime}-40^{\circ} 30^{\prime} ;$ longitude $95^{\circ} 30^{\circ}-95^{\circ} 45^{\prime}$ )
Atchison County


1. FROM NISHNABOTNA NORTH TO POINT NEAR MIDDLE OF EAST BORDER OF QUADRANGLE (by S. T. Tudor in 1935)

Nishnabotna, $810 \mathrm{ft} . \mathrm{S}$. of Ohioago, Burlington \& Quincy R.R. sta., 52 ft . E. of track, in NW. corner of orchard of R. E. Christian, in benchmark stone; U.S.C.E. B.M. designated "314"

Copper bolt
872.068

Reference mark, 220 ft . N. and 30 ft . W. from post, in E. side of telephone pole; nail and washer
$\mathrm{T} \rightarrow \mathrm{rd}$. E., $20 \mathrm{ft} . \mathrm{N}$. and 50 ft . E. from, in S. aide of telephone pole; nall and washer
T. $63 \mathrm{~N} ., \mathrm{R}$. $41 \mathrm{~W} ., 8 \mathrm{ft} . \mathrm{S}$. and 8 ft . W. from N . quarter cor. sec. 3 , 75 ft. NE. of dwelling, in concrete post; standard tablet stamped "816 C W A 1934"

Reference mark, 90 ft . W. of tablet, in root on N . side of $30-1 \mathrm{n}$. maple tree; nail and washer
Rd. corner from S.-W., 25 ft . E. of, in W. side of gatepost; nail and washer

Feet
878.44
T. 64 N., R. 41 W., approximate quarter cor. between secs. 33 and 34 , 20 ft . S . and 10 ft . W. Prom rd. corner E:-N., in N. side of gatepost; nail and washer
Crossroads, 20 ft . N. and 30 ft . E. from, in NW. corner of floor of wooden bridge; (mark not described)
881.80
885.66
T. 64 N., R. $\mu \mathrm{w} ., 10 \mathrm{ft}$. N. and 8 ft . W. from approximate quarter cor. between secs. 27 and 28, in SW. corner of wooden floor of bridge; nail and washer
Crossroads, $8 \mathrm{ft} . \mathrm{N}$. and 20 ft . W. from, in NE. corner of floor of bridge; nail and washer
T. 64 N., R. 41 W., $0 . \pi \mathrm{mi}$. S. of cor. secs. $15,16,21$, and 22 , in front yard of dwelling of William A. Luhr, 20 ft . W. of rd., in concrete post; standard tablet stamped "815 C W A 1934"
Reference mark, 20 ft . S. and 50 ft . W. from tablet, in root on NE. side of 20-in. cedar tree; nail
Steel bridge, in SW. corner of floori; nail and washer
T. $64 \mathrm{N},. \mathrm{R} .41 \mathrm{~W}$.; on line between secs. 15 and $16,40 \mathrm{ft}$. s . of rd. forks, in N. side of telephone pole; nail and washer
Bridge over Rock Creek, in NW. corner of floor; (mark not described)
Rock Creek, under bridge; surface of water
T. 64 N., R. 41 W., near E. sixteenth cor. sec. 9, 25 ft . S. and 100 f E. from T-rd. E., 20 ft . E. of Rockport, Langdon \& Northern Ry., in W. side of telegraph pole; nail and washer
R.R. bridge, at $S$. end of; top of rail

Rockport, l. 4 ml . S. of, along Rockport, Langdon \& Northern Ry., in W $1 / 2$ sec. 3. T. 64 N., R. 41 W., 135 ft . S. and 32 ft . E. from crossroads, 25 ft . W. of track, in concrete post; standard tablet stamped " 814 C W A 1934 "
882.2
884.42
884.20
885.813
886.09
905.98
930.65

Reference mark $1,130 \mathrm{ft}$. N. and 60 ft . E. from tablet, in $W$. side of telegraph poles nail and washer
932.987

Reference mark $2,240 \mathrm{ft}$. N. of tablet, on SW . corner of lower head wall of culvert; chiseled square
928.88

Bridge over Rock Creek, in NE. corner of floor; nail and washer
.T. 64 N., R. 41 W., near cor. secs. 2, 3, 10 , and $11,100 \mathrm{ft} . \mathrm{N}$. and 20 ft. W. from dweling, in root on N. side of l0-in. walnut tree; nail and washer

## (Continued in Tarkio quadrangle; see line 1.)

2. FROM POINT 2 MILES SOUTE OF PHELPS CITY NORTHEAST TO JUNCTION OF UNITED STATES HIGHWAY 275 AND STATE HIGHWAY 4 NORTHWEST OF ROCKPORT
U.S.C.E. B.M. designated " 317 "

Copper bolt
$883.804_{4}$
U.S.C.F. B.M. designated " $318=106 / 3$ "

Copper bolt
886.790

Phelps City, approximate quarter cor between secs. 35 and 36 ,
T. 65 N., R. 42 W.. 40 ft. S. and 36 ft . E. from State Highway 4 at rd. N., in N. side of telephone pole; nail and washer
Bridge; W. end of S . curb
Phelps City, 1 mi . E. of, along State Highway 4, approximate quarter cor. between secs. 31 and $36, T .65 \mathrm{~N}, \mathrm{Rs}$. 41 and $42, \mathrm{H}_{0}, 50 \mathrm{ft}$. S. of highway at fence N., in N. side of telephone pole; nail and washer
Bridge over Mishnabotna River; W. end of S. curb
T. 65 N., R. 41 W., on line between secs. 31 and 32 , at State Highway 4 bridge; W. end of Ni. curb
Culvert; top of $W$. end of lower head wall
T. $65 \mathrm{~N} .$, R. 4 W. , near center sec. 29 , on State Highway 4, on top of W. end of lower head wall of culvert; chiséled square
T. $65 \mathrm{~N} .$, R. 41 W., in sec. $28,80 \mathrm{ft}$. N. of junction of U.S. Highway 275 and State Highway 4 , in $W$. side of telephone pole; nail and washer
891.06
894.0
893.40
894.2
904.2

1,011.66
$1,068.14$
1,135.21

## 3. NORTH ALONG NORTH PART OF EAST BORDER OF QUADRANGLE

County Route E at rd . E. to farm entrance, 120 ft . N. and 70 ft . E. from, in W. side of telephone pole; crossed nails
930.22

Rockport, 8 ft . E. of NE. corner of Rockport, Langdon \& Northern Ry. sta., on top of concrete wall; chiseled square
South Methodist Church, at entrance to, on top of SW. corner of bottom step; painted square
Rockport, about 1.5 mi . NW. of, along U.S. Highway 275, in E $1 / 2 \mathrm{sec}$, 20, T. $65 \mathrm{~N} ., \mathrm{R} .4 \mathrm{l}$ W., 21 ft . N. and 39 ft . E. from E. -W. cross rd. $150^{\circ}$ $f t$. NE, of dwelling, in concrete post; standard tablet stamped "T $T 812$ C W A $1934^{\prime \prime}$
U.S. Highway 275 at E. - W. cross rd., 60 ft . N . and 80 ft . E. from, in W. side of telephone pole; crossed nails

1,142.38
T. $65 \mathrm{~N} .$, R. 41 W., in see. $16,30 \mathrm{ft}$. W. of U.S. Highway $275,180 \mathrm{ft}$. $N_{0}$ of $E$. W. fence, on $S W$. corner of upper head wall of concrete culvert; chiseled square

1,148.66
U.S. Highway 275 at rd. W. at top of hill, 140 ft . N. and 40 ft . E. from, in w. side of telephone poles crossed nails
T. 65 N., R. 41 W., in sec. 2 , 20 ft. N. and 40 ft. E. from U.S. Highway 275 at E.-W. cross rd., in W. side of telephone pole; crossed nails

| S. Highway 275 at E. W. cross rd., 20 ft . S. and 20 ft . W. from, on top of SW. corner of lower head wall of culveri; chiseled square | $1,159.93$ |
| :---: | :---: |
| inden, about 0.7 ml . S. of, along U.S. Highway 275, center sec. 4, |  |
| T. 65 N., R. 41 W., 25 ft . S. and 33 ft . E. from. E.-W. cross rd., in concrete post; standard tablet stamped "T T 801 C W A 1934" | 1,167.496 |
| Reference mark, 70 ft . W. of tablet, on © corner of upper head wall of concrete culvert; chiseled square | 1,165.12 |
| Linden, about 1 mi . SE. of, near quarter cor. between secs. 3 and 4, 25 ft. N. and 30 ft . W. from rd. corner N.-W., in concrete post; standard tablet stamped "Prim Trav Sta No 41 J S 1923 Mo" | 1 |
| . corner from S.-E., 20 ft . S. and 40 ft . E. from, in root on E. side of $8-1 n$. locust tree; crossed nalls | 1,129.92 |
| 66 N., R. $41 \mathrm{~W} ., 20 \mathrm{ft}$. S. and about 300 ft . W. from S. cor. secs. 35 and $36,20 \mathrm{ft}$. N . and 60 ft . E. from steel bridge, in root on S. side of $15-1$. walnut tree; copper nall and washer |  |
| rd. S., 20 ft . N. and 450 ft . E. from, in root 3 ft . E. of box-elder tree; crossed nails | 1,045.86 |

(Continued in Tarkio quadrangle; see line 2.)
4. IN NORTHEAST CORNER OF QUADRANGLE (by T. G. Drummond in 1936)
T. $66 \mathrm{~N} .$, R. 4 l ., quarter cor. between secs. 34 and $35,40 \mathrm{ft} . \mathrm{N}$. and 30 ft . E. from U.S. Highway 275 at E. -W . cross rd., 200 ft . S. of filling sta., in root on $S$. side of $10-1 n$. cedar tree; copper nail and washer
$1,137.44$
T. 66 N., R. 41 W., cor. secs. $26,27,34$, and $35,18 \mathrm{ft} . \mathrm{S}$. and 30 ft . E. from U.S. Highway 275 at County Route $A$ to W. and rd. E., opposite Lone Cedar School, on S. head wall of concrete culvert; chiseled square
(Continued in Hamburg quadrangle; see line 1.)

## 5. NEAR MIDDLE OF NORTH BORDER OF QUADRANGLE <br> (Continued from Hamburg quadrangle; see line 1.)

T. 66 N., R. 42 W ., quarter cor between secs. 25 and $36,24 \mathrm{ft}$. N. and 50 ft . E. from T-rd. N. and private rd. S., in root on E. side of 36-1n. maple tree; copper nail and washer
T. $66 \mathrm{~N} ., \mathrm{R}$. 42 W ., quarter cor, between secs. 30 and $31,24 \mathrm{ft}$. E. of County Route $A$ at rd. W., in front of dwelling on Ohrt farm, in concrete post; standard tablet stamped "1 D 1936"
Reference mark $1,90 \mathrm{ft}$. N. of tablet, in root on $W$. side of $10-1 \mathrm{n}$. maple tree; copper nail and washer
900.97
916.145

Reference mark 2 , 130 ft . N. and 6 ft . E. from tablet, in root on w. side of 10-1n. maple tree; copper nail and washer
(Continued in Hamburg quadrangle; see line 1.)
For an additional level line along Chicago, Burlington \& Quincy
R.R., refer to United States Coast and Geodetic Survey first-order
line, Sioux City, Iowa to Kansas City, Mo.

Atchison County


1. FROM SOUTHEAST CORNER OF QUADRANGLE NORTH TO IOWA-MISSOURI

STATE LINE, THENCE WEST TO POINT ABOUT 1 MILE EAST O HAMBURG, THENCE SOUTHRAST TO SOUTH BORDER; THENCE NORTHEAST ABOUT 3 MILES (by T. G. Drummond in 1936)
(Continued from Nemaha quadrangle; see line 4.)
T. 66 N., R. 41 W., cor. secs. $22,23,26$, and $27,20 \mathrm{ft}$, S. and 24 ft . W. from U.S. Highway 275 at cross rd., on head wall of concrete culvert; chiseled square

Peet
990.92
. 66 N., R. 41 W., quarter cor. between secs. 22 and $23,30 \mathrm{ft}$. s . and
948.437
from bridge, in concrete post; standard tablet stamped " 802 C W A 1934 "
Reference mark, 12 ft . N. of tablet, on E . end of head wall of concrete
culvert; chiseled square
951.30

Crossroads, 24 ft . N. and 20 ft . W. from, on top of head wall of culvert; chiseled square

1,028.10
T. $66 \mathrm{~N} ., \mathrm{R}$. 41 W., cor. secs. $10,12,14$ and $15,18 \mathrm{ft}$. N. and 15 ft . E. from crossroads, on top of head wall of concrete culvert; chiseled square

1,050.36
T. 66 N., R. 41 W., cor, secs. 2, 3, 10 , and $11,100 \mathrm{ft}$. E. of T-rd. E., at SW. corner of W. abutment of steel bridge over West High Creek, on rivet head: chiseled cross
966.18

Tps. 66 and $67 \mathrm{~N} .$, R. $41 \mathrm{~W} .$, cor. secs. $2,3,34$, and $35,30 \mathrm{ft}$. N. and 12 ft . W. from crossroads, on head wall of concrete cuivert; chliseled square
T. 67 N., R. 41 W., cor. on line betweon secs. 34 and $35,25 \mathrm{ft}$. S. and 27 ft . W. from crossroads on Iowa-Missouri State line, in concrete post; standard tablet stamped "803' C W A $1934^{\circ}$
$1,051.96$

Reference mark, 40 ft . N. and 30 ft . W. from tablet, in root on S . side of 30-in. maple tree; copper nail and washer
T. 67 N., R. 41 W., in NE $1 / 4$ sec. $33,5 \mathrm{ft}$. S. of rd., in W. pile cap of wooden bridge; copper nall and washer
T-rd. S., 21 ft . S. and 10 ft . E. from, on top of E . end of $24-1 \mathrm{n}$. iron pipe culvert; painted square
T. 67 N., R. 41 W., N. cor. secs. 32 and $33,20 \mathrm{ft}$. N. and 260 ft . W. from T-rd. S. on Iowa-Mo. State ine, in stump on S. side of 30-in. cottonwood tree; copper nall and washer

1,092.61
 $S$. and 3 ft . W. from rd. fork SW, at fence $S$. on Iowa-Missouri State line, 7 ft . S. and 10 ft . W. from fence corner, in concrete post; standard tablet stamped "1483 E R A 1935"
$1,077.845$
Tps. 66 and 67 N., R. 41 W., near quarter cor between secs. 5 and 32, 75 ft . S. and 90 ft . E. from Trad. N., 65 ft . N. and 30 ft . W. from schoolhouse, in root on E. side of l8-in. elm tree; copper nail and washer
T-rd. S., 30 ft . S. and 25 ft . W. from, on N . side of $10-1 \mathrm{n}$. corner fence post; surface of ground
Rd. Junction, 18 ft . S. and 12 ft . W. from, on N . side of $10-1 \mathrm{n}$. corner fence post surface of ground

1,080.67
T. $67 \mathrm{~N} . \mathrm{Rs} .42$ and 42 W. , about $1,000 \mathrm{ft}$. S. of N. cor. secs. 31 and $36,298 \mathrm{ft}$. S. of Iowe-Missouri State line, 16 ft . S. and 19 ft . W. from Junction of lane W., on property of Andrew Speigel, in concrete post; standard tablet stamped "1484 E R A 1935 "
$1,066.567$
T. 67 N., R. $42 \mathrm{~W} .$, near S. sixteenth cor. sec. $25,24 \mathrm{ft}$. S. and 12 ft. E. from T-rd. E., in top of $12-1 n$. corner fence post; copper nail and washer

[^25]| 67 N., R. $42 \mathrm{W}$. . near N. quarter cor. sec. $36,60 \mathrm{ft}$. W. from T-rd. S. and abandoned rd. N., in root on NE. side of twin elm tree; copper nail and washer | [ Feet |
| :---: | :---: |
| W. from junction of Iowa State Highway known as Golden Rod, on top of head wall of culvert; chiseled square |  |
|  |  |
|  |  |
| Bennett triangulation sta., 2.9 mi . SE. of Hamburg, Iowa, along J.S. Highway 275 , in NE $1 / 4 \mathrm{NW} 1 / 4$ sec. 35 , T. $67 \mathrm{~N} ., \mathrm{R} .42 \mathrm{~W} ., 2 \mathrm{ft} . \mathrm{S}$. and 263 ft . E. from highway at Ia.-Mo. State line, in concrete post; |  |
|  |  |
|  |  |
| U.S.C. \& G.S. standard disk stamped "Bennett |  |
| Iowa-ho. State line, 100 ft . S. of, on E. bank of Nishnabotna River, in root 6 ft . N. of $16-1 \mathrm{n}$. cottonwood tree; copper nail and washer <br> 901.75 |  |
|  |  |
| Burlington \& Quincy R.R. at Iowa-Mo. State line, on top of concrete culvert; chiseled square |  |
| . 66 and $67 \mathrm{~N} ., \mathrm{R} .42 \mathrm{~W} ., \mathrm{e}$ a bout 0.2 md . S. of quarter cor. between |  |
| secs. 3 and $34,15 \mathrm{ft} . \mathrm{N}$, and 11 ft . F. from Chicago, Burlington \& |  |
| Quincy R.R. at rd. crossing, on top of iron pipe culvert; peinted square 909.54 |  |
| $66 \mathrm{~N} ., \mathrm{R} .42 \mathrm{~W} .$, in NE $1 / 4 \mathrm{sec} .15,225 \mathrm{ft}$. N. of Chicago, Burlington |  |
| \& Quincy R.R. at rd, crossing, 36 ft . E. of ra., in front yard of dwelling on Gray farm, in root on W. side of $40-1 \mathrm{n}$. maple tree; copper |  |
| $66 \mathrm{N.}, \mathrm{R} 42 \mathrm{~W} .,$. in NW $1 / 4 \mathrm{sec} .23,12 \mathrm{ft} . \mathrm{N}$. and 45 ft . W. from 901.03 |  |
| Chicago, Eurlington \& Quincy R.R. at rd. crossing, about 300 ft . S. |  |
| of milepost 137, on top of iron pipe culvert; painted square |  |
| U.S.C.E. B.M. designated "322" |  |
| Copper bolt |  |
| Top of cap |  |
| Steel bridge over drainage ditch, at $N$. end of, 10 ft . W. of rd., on top of bolt head; chiseled cross |  |
|  |  |
| In SW. corrier of yard of Bethany School, in root on N. sid |  |
| $48-1 \mathrm{n}$. maple tree; copper nail and washer 902.04 |  |
| $66 \mathrm{~N} ., \mathrm{R} .42 \mathrm{~W} ., \mathrm{center} \mathrm{sec} .25,15 \mathrm{ft}$. N. and 20 ft . W. fro |  |
| top of irori pipe | 88.77 |
| (For balance in Nemaha quadrangle, see line 5.) |  |
| Rd. fork NW., $15 \mathrm{ft} . \mathrm{S}$. and 12 ft . E. from, on top of iron pipe culvert painted square |  |
| T. $66 \mathrm{~N} ., \mathrm{R} .41 \mathrm{~W}$. , in $\mathrm{NE} 1 / 4 \mathrm{sec} .29,110 \mathrm{ft}$. N. of T-rd. N., 8 ft . W. |  |
| of rd., in SW. corner of steel bridge over High Creek; copper nail |  |
| T. 66 N., R. $41 \mathrm{~W} .$, in $\mathrm{NE} 1 / 4 \mathrm{sec} .20$, about 900 ft . E. of T-rd. S., at |  |
| NW, corner of steel bridge over Macroy Creek, on bolt head; chiseled |  |
| rd. N., 9 ft. N. and 100 ft . E. from, in top of piling over concrete |  |
| rossed nalls | 1,043.02 |
| . 66 N., R. 41 W., cor. secs. $15,16,21$, and $22,15 \mathrm{ft}$. S. and 42 ft . |  |
| roads, on S . head wall of concrete culvert, chlseled square |  |

## 2. NEAR EAST BORDER OF QUADRANGLE AT IOWA-MISSOURI STATE LINE

T. $67 \mathrm{~N} ., \mathrm{R} .41 \mathrm{~W} .$, on line between secs. 35 and $36,15 \mathrm{ft}$. S. and 75 ft W. from crossroads on Iowa-Mo. State ine, 3 ft . S. of fence, in root on E. side of 10-1n. box-elder treet copper nail and washer
Wooden bridge, in SE. corner of crossed nails
(Continued in Farragut quadrangle; see line 1.)
For an additional level line along Chicago, Burlington \& Quincy
R.R., refer to United States Coast and Geodetic Survey first-order
line, Sioux City, Iowa to Kansas City, Mo.


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[^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-Illinois: U. S. Geol. Survey 20th Ann. Rept., pt. 1, pp. 412-413, 1899; Triangulation, primary traverse and spirit leveling-missouri: N. S. Geol. Survey 2lst Ann. Rept., pt. 1, pp. 474-475, 1900; Results of spirit leveling, f1scal year 1900-1901-Missouri, Missouri-Kansas: U. S. Geol. Survey Bull. 185, pp. 107-113, 1901; Results of spirit leveling in Missourl, 1896 to 1919, inclusive: U. S. Geol. Survey Buil. 459 , $48 \mathrm{pp} ., 191$; Resuits of spirit leveling in Missouri, 1896 to 1914, inclusive: $\mathrm{J}_{\text {. S. Geol. Survey Bull. 568, } 219 \text { pp., }, ~(1)}$ 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 Geodetic Survey Special Pub. 41, 1917. Manual of tide observations: J. S. Coast and Geodetic Survey Special Pub. 196, 1935.

[^2]:    *The greater part of this quadrangle lies in Iowa.

[^3]:    For an additional level ine along Wabash Ry., refer to United States Coast and Geodetic Survey second-order line, Gallatin to Sumner.

[^4]:    For an additional level line along Chicago, Milwaukee, St. Paul and Pacific R.R., refer to thited States Coast and Geodetic Survey second-order ilne, Chilifcothe to Lawson.

[^5]:    *The greater part of this quadrangle lies in Iowa.

[^6]:    *The greater part of this quadrangle 1iea in Iowa.

[^7]:    T. 57 N., R. $26 \mathrm{~W} ., 80 \mathrm{ft}$. N. of S . sixteenth cor: between secs. 7 and 8, 460 ft . S. of Chicago, Burlingtion \& Quincy R.R. at ra. crossing, in fence line E. of rd., in root on N. side of l8-in. elm treeg copper nail and washer
    T. $57 \mathrm{~N} ., \mathrm{R}$. 26 W ., near cor. secs. 4, 5,8 , and 9 , at NE. corner of Chicago, Burlington \& Quincy R.R. at rd, crossing; 4 ft . S. of fence corner; iron post stamped "1920 Mo 851"
    Breckenridge, about 0.5 milof . W . of NW. ilmits of $;$ in $\mathrm{SE} 1 / 4 \mathrm{NE} 1 / 4 \mathrm{sec} .9$, T. 57 N., R. 26 W .', SE. of Chicago, Burlington \& Quincy R.R. at rd. crossing, on top of NW. corner of concrete base of electric warning bell; chíseled square.
    Breckenridge, in front of Chicago, Burlington \& Quincy R.R. sta.; top of rail
    Breckenridge, at NW. corner of public park, 12 fit. E. of drain crossing, 3 ft. N. of first tree from w. end of row of maple trees, l ft. S. of sidewalk; iron post stamped " 1920 Mo 928 p
    Breckenridge, at E. Iimits of, 250 ft . W. of line between secs. 10 and 11, T. 57 N., R. 26 W., 30 ft. E. of turn in U.S. Highway 36 from S.-E., S. of highway, in NW. corner of yard, in root on W. side of 24-in. maple tree; copper nail and washer
    T. $57 \mathrm{~N} ., \mathrm{R}$. 26 W ., in $\mathrm{SW} 1 / 4 \mathrm{SW} 1 / 4$ sec. 12 , at SE. corner of U.S. Highway 36 at rd. s., 3 in. below surface of groind, in root on W. side of 12-in. ash tree; spike
    T. 57 N., R. 26 W., about 0.1 mi . N. of quarter cor. between secs. 12 and 13, NW, of Chicago, Burlington \& Quincy R.R. at rd. crossing, on top of W. end of tile plpe culvert; chiseled square
    T. $57 \mathrm{N}$. . Rs. 25 and 26 W. , line between secs. 12 and 18 (jog in range líne), NW. of Chicago; Burlington \& Quincy R.R. at rd. crossing on Caldwell-Livingston county line, 1 ft . S. and 3 ft . W. from fence corner; iron post stamped " 1920 Mo 898"

    Feet

[^8]:    T: 56 N. . Rs. 25 and 26 W. quarter cor between secs. 31 and $36,70 \mathrm{ft}$. S. and $20 \mathrm{ft}+\mathrm{E}$. from T-rd. E , on Caldwell-Livingston county line, in root of 14-in. wainut tree; copper nail and washer
    Tps. 55 and 56 N., Rs. 25 and 26 W.r. at cor, or, at T-rd. W., at W. corner of Carroll and Iivingston Counties, on $N$. end of $W$. head wall of concreté culvert; chiseled square
    Braymer, 1 mi: N. of, N. cor. secs. 2 and 3, T. 55 N., R. 26 W., W. of T-rd. S., 15 ft . S. of T-rd. N. at S. cor. secs. 34 and 35 . T. $56 \mathrm{~N} \cdot \mathrm{~F}$ R. $26 \mathrm{~W} \cdot \frac{2}{2}$ iron post stamped "Prim Trav Sta No 27 S 1921 mof

    Reference mark, 100 ft . N. $40^{\circ} \mathrm{E}$. of post, on SW . corner of concrete step of sidewalk: chiseled square

[^9]:    For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey second-order line, Darlington, Mo. to Osceola, Iowa.

[^10]:    The groater part of this quadrangle lies in Iowa.

[^11]:    The greater part of this quadrangle lies in Iowa.

[^12]:    For additional level lines along Wabash Ry, and Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order line, Milan, Mo. to Hamburg, Iowa; and second-order lines, Darlington to St. Joseph, Menlo, Iowa to Darlington, Mo., and Darlington, Mo. to Osceola, Iowa.

[^13]:    For additional level lines along Atchison, Topeka \& Santa Fe Ry., Quincy, Owaha \& Kansas City R.R., and Chicago, Rock Island \& Pacific Ry., refer to Unlted States Coast and Geodetic' Survey second-order lines, St. Joseph to Lexington, Kansas city to Plattsburg, and Plattsburg to Gallatin.

[^14]:    For additional level lines along Atchison, Topeka \& Santa Fe Ry.
    and Quincy, Omaha \& Kansas Oity R.R., refer to United States
    Coast and Geodetic Survey second-order lines, St. Joseph to
    L'exington and Kansas City to Plattsburg.

[^15]:    *The greater part of this quadrangle Iles in Iowa.

[^16]:    *The greater part of this quadrangle lies in Iowa.

[^17]:    *Part of this quadrangle lies in Kansas.

[^18]:    For additional level lines along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order line, Sloux City, Iowa to Kansas City, Mo.; and second-order line, Darlington to St. Joseph.

[^19]:    *A small part of this quadrangle lies in Kansas.

[^20]:    For an additional level line along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey firstorder line, Sioux City, Iowa to Kansas City, Mo.

[^21]:    *The greater part of this quadrangle lies in Kansas.

[^22]:    For additional level lines along Chicago, Burlington \& Quincy R.R., refer to United States Coast and Geodetic Survey first-order line, Sioux City, Iowa to Kansas City, Mo.; and second-order line, Bigelow to Burlington, Jct.

[^23]:    *A small part of this quadrangle lies in Nebraska.

[^24]:    *Part of this quadrangle $11 e s$ in Nebraska.

[^25]:    "The greater part of this quadrangle lies in Iows and Nebraska.

